

## **Appendix F**

### **Laboratory Analytical Reports**

February 24, 2017

Ms. Tara Lamond  
EA Engineering-MD  
225 Schilling Circle  
Hunt Valley, MD 21031

## Certificate of Analysis

|                                            |                                           |
|--------------------------------------------|-------------------------------------------|
| Project Name: <b>2017-REV2-MDE SOIL/GW</b> | Workorder: <b>2207592</b>                 |
| Purchase Order:                            | Workorder ID: <b>Chase Lands Phase II</b> |

Dear Ms. Lamond:

Enclosed are the analytical results for samples received by the laboratory on Thursday, February 9, 2017.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

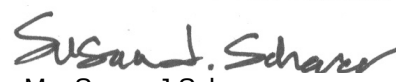
Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at [www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads](http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads).

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ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Michael Thornton , Mr. Hugh Murphy , Mr. Nelson Brooks , Ms. Niti Blackwell

*This page is included as part of the Analytical Report and must be retained as a permanent record thereof.*

  
Ms. Susan J Scherer  
Project Coordinator

**SAMPLE SUMMARY**

Workorder: 2207592 Chase Lands Phase II

| Lab ID     | Sample ID  | Matrix | Date Collected | Date Received  | Collected By |
|------------|------------|--------|----------------|----------------|--------------|
| 2207592001 | TB-01      | Water  | 2/9/2017 21:20 | 2/9/2017 21:20 | Mr. Michael  |
| 2207592002 | CL-SE-S-01 | Solid  | 2/9/2017 08:50 | 2/9/2017 21:20 | Mr. Michael  |
| 2207592003 | CL-SE-S-02 | Solid  | 2/9/2017 09:40 | 2/9/2017 21:20 | Mr. Michael  |
| 2207592004 | CL-SE-S-03 | Solid  | 2/9/2017 10:30 | 2/9/2017 21:20 | Mr. Michael  |
| 2207592005 | CL-SE-S-04 | Solid  | 2/9/2017 11:30 | 2/9/2017 21:20 | Mr. Michael  |
| 2207592006 | CL-SE-S-05 | Solid  | 2/9/2017 11:50 | 2/9/2017 21:20 | Mr. Michael  |
| 2207592007 | CL-SE-S-06 | Solid  | 2/9/2017 12:15 | 2/9/2017 21:20 | Mr. Michael  |
| 2207592008 | CL-SE-S-07 | Solid  | 2/9/2017 12:50 | 2/9/2017 21:20 | Mr. Michael  |
| 2207592009 | CL-SE-S-08 | Solid  | 2/9/2017 13:10 | 2/9/2017 21:20 | Mr. Michael  |
| 2207592010 | CL-SE-S-09 | Solid  | 2/9/2017 13:25 | 2/9/2017 21:20 | Mr. Michael  |
| 2207592011 | CL-SE-S-10 | Solid  | 2/9/2017 13:45 | 2/9/2017 21:20 | Mr. Michael  |

## SAMPLE SUMMARY

Workorder: 2207592 Chase Lands Phase II

### Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.

### Standard Acronyms/Flags

|        |                                                                                                                                      |
|--------|--------------------------------------------------------------------------------------------------------------------------------------|
| J      | Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte     |
| U      | Indicates that the analyte was Not Detected (ND)                                                                                     |
| N      | Indicates presumptive evidence of the presence of a compound                                                                         |
| MDL    | Method Detection Limit                                                                                                               |
| PQL    | Practical Quantitation Limit                                                                                                         |
| RDL    | Reporting Detection Limit                                                                                                            |
| ND     | Not Detected - indicates that the analyte was Not Detected at the RDL                                                                |
| Cntr   | Analysis was performed using this container                                                                                          |
| RegLmt | Regulatory Limit                                                                                                                     |
| LCS    | Laboratory Control Sample                                                                                                            |
| MS     | Matrix Spike                                                                                                                         |
| MSD    | Matrix Spike Duplicate                                                                                                               |
| DUP    | Sample Duplicate                                                                                                                     |
| %Rec   | Percent Recovery                                                                                                                     |
| RPD    | Relative Percent Difference                                                                                                          |
| LOD    | DoD Limit of Detection                                                                                                               |
| LOQ    | DoD Limit of Quantitation                                                                                                            |
| DL     | DoD Detection Limit                                                                                                                  |
| I      | Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL) |
| (S)    | Surrogate Compound                                                                                                                   |
| NC     | Not Calculated                                                                                                                       |
| *      | Result outside of QC limits                                                                                                          |

## PROJECT SUMMARY

Workorder: 2207592 Chase Lands Phase II

### Workorder Comments

The pre-preserved vials containing methanol and deionized water provided in the Terra Core kits were not filled during field collection of these samples per Michael Thornton of EA on 02/10/17. The 5035 extraction for Volatile Organics 8260B was performed from the soil jar within the method specific holding time of 48 hours collection. SJS 02/14/17  
Hexavalent chromium analysis was performed on samples with a total chromium result greater than 30 mg/kg based on instructions from Hugh Murphy. SJS 02/22/17

### Sample Comments

**Lab ID:** 2207592002**Sample ID:** CL-SE-S-01**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2207592003**Sample ID:** CL-SE-S-02**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2207592004**Sample ID:** CL-SE-S-03**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8015 diesel range organics analysis due to the level of analyte detected. Reporting limits were adjusted accordingly. Surrogate recovery could not be evaluated as a result of the dilution.  
This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2207592005**Sample ID:** CL-SE-S-04**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2207592006**Sample ID:** CL-SE-S-05**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2207592007**Sample ID:** CL-SE-S-06**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2207592008**Sample ID:** CL-SE-S-07**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2207592009**Sample ID:** CL-SE-S-08**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2207592010**Sample ID:** CL-SE-S-09**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8015 diesel range organics analysis due to the level of analyte detected. Reporting limits were adjusted accordingly.

## PROJECT SUMMARY

Workorder: 2207592 Chase Lands Phase II

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**Lab ID:** 2207592010

**Sample ID:** CL-SE-S-09

**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2207592011

**Sample ID:** CL-SE-S-10

**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592001**

Date Collected: 2/9/2017 21:20

Matrix: Water

Sample ID: **TB-01**

Date Received: 2/9/2017 21:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------|---------------|-----|------|
| <b>VOLATILE ORGANICS</b>    |         |      |       |      |      |             |             |               |     |      |
| Acetone                     | 4.0J    | J    | ug/L  | 10.0 | 3.1  | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| tert-Amyl methyl ether      | ND      |      | ug/L  | 1.0  | 0.20 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| tert-Amyl Alcohol           | ND      |      | ug/L  | 10.0 | 6.6  | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| tert-Amyl Ethylether        | ND      |      | ug/L  | 1.0  | 0.29 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| Benzene                     | ND      |      | ug/L  | 1.0  | 0.23 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| Bromochloromethane          | ND      |      | ug/L  | 1.0  | 0.32 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| Bromodichloromethane        | ND      |      | ug/L  | 1.0  | 0.27 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| Bromoform                   | ND      |      | ug/L  | 1.0  | 0.40 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| Bromomethane                | ND      |      | ug/L  | 1.0  | 0.39 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| 2-Butanone                  | ND      |      | ug/L  | 10.0 | 1.8  | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| tert-Butyl Alcohol          | ND      |      | ug/L  | 10.0 | 2.2  | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| Carbon Disulfide            | ND      |      | ug/L  | 1.0  | 0.23 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| Carbon Tetrachloride        | ND      |      | ug/L  | 1.0  | 0.31 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| Chlorobenzene               | ND      |      | ug/L  | 1.0  | 0.19 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| Chlorodibromomethane        | ND      |      | ug/L  | 1.0  | 0.45 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| Chloroethane                | ND      |      | ug/L  | 1.0  | 0.33 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| Chloroform                  | ND      |      | ug/L  | 1.0  | 0.21 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| Chloromethane               | ND      |      | ug/L  | 1.0  | 0.31 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| 1,2-Dibromo-3-chloropropane | ND      |      | ug/L  | 7.0  | 1.5  | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| 1,2-Dibromoethane           | ND      |      | ug/L  | 1.0  | 0.28 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| 1,1-Dichloroethane          | ND      |      | ug/L  | 1.0  | 0.28 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| 1,2-Dichloroethane          | ND      |      | ug/L  | 1.0  | 0.32 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| 1,1-Dichloroethene          | ND      |      | ug/L  | 1.0  | 0.29 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| cis-1,2-Dichloroethene      | ND      |      | ug/L  | 1.0  | 0.32 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| trans-1,2-Dichloroethene    | ND      |      | ug/L  | 1.0  | 0.26 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| 1,2-Dichloropropane         | ND      |      | ug/L  | 1.0  | 0.24 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| cis-1,3-Dichloropropene     | ND      |      | ug/L  | 1.0  | 0.31 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| trans-1,3-Dichloropropene   | ND      |      | ug/L  | 1.0  | 0.29 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| Diisopropyl ether           | ND      |      | ug/L  | 1.0  | 0.25 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| Ethyl tert-butyl ether      | ND      |      | ug/L  | 1.0  | 0.19 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| Ethylbenzene                | ND      |      | ug/L  | 1.0  | 0.34 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| 2-Hexanone                  | ND      |      | ug/L  | 5.0  | 1.3  | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| Methyl t-Butyl Ether        | ND      |      | ug/L  | 1.0  | 0.33 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| 4-Methyl-2-Pentanone(MIBK)  | ND      |      | ug/L  | 5.0  | 1.5  | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| Methylene Chloride          | ND      |      | ug/L  | 1.0  | 0.45 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |
| Styrene                     | ND      |      | ug/L  | 1.0  | 0.24 | SW846 8260B |             | 2/14/17 15:16 | TMP | A    |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592001**

Date Collected: 2/9/2017 21:20

Matrix: Water

Sample ID: **TB-01**

Date Received: 2/9/2017 21:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By     | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-----------------|---------------|-----------------|-----------------------|
| 1,1,1,2-Tetrachloroethane   | ND             |             | ug/L         | 1.0           | 0.35 | SW846 8260B   |                 | 2/14/17 15:16 | TMP             | A                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/L         | 1.0           | 0.34 | SW846 8260B   |                 | 2/14/17 15:16 | TMP             | A                     |
| Tetrachloroethene           | ND             |             | ug/L         | 1.0           | 0.35 | SW846 8260B   |                 | 2/14/17 15:16 | TMP             | A                     |
| Toluene                     | ND             |             | ug/L         | 1.0           | 0.23 | SW846 8260B   |                 | 2/14/17 15:16 | TMP             | A                     |
| Total Xylenes               | ND             |             | ug/L         | 3.0           | 0.66 | SW846 8260B   |                 | 2/14/17 15:16 | TMP             | A                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/L         | 1.0           | 0.22 | SW846 8260B   |                 | 2/14/17 15:16 | TMP             | A                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/14/17 15:16 | TMP             | A                     |
| Trichloroethene             | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/14/17 15:16 | TMP             | A                     |
| Vinyl Chloride              | ND             |             | ug/L         | 1.0           | 0.30 | SW846 8260B   |                 | 2/14/17 15:16 | TMP             | A                     |
| o-Xylene                    | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/14/17 15:16 | TMP             | A                     |
| mp-Xylene                   | ND             |             | ug/L         | 2.0           | 0.52 | SW846 8260B   |                 | 2/14/17 15:16 | TMP             | A                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 102            |             | %            | 62 - 133      |      | SW846 8260B   |                 | 2/14/17 15:16 | TMP             | A                     |
| 4-Bromofluorobenzene (S)    | 102            |             | %            | 79 - 114      |      | SW846 8260B   |                 | 2/14/17 15:16 | TMP             | A                     |
| Dibromofluoromethane (S)    | 100            |             | %            | 78 - 116      |      | SW846 8260B   |                 | 2/14/17 15:16 | TMP             | A                     |
| Toluene-d8 (S)              | 104            |             | %            | 76 - 127      |      | SW846 8260B   |                 | 2/14/17 15:16 | TMP             | A                     |

  
Ms. Susan J Scherer  
Project Coordinator



## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592002**

Date Collected: 2/9/2017 08:50

Matrix: Solid

Sample ID: **CL-SE-S-01**

Date Received: 2/9/2017 21:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| <b>VOLATILE ORGANICS</b>    |         |      |       |      |      |             |                   |               |     |      |
| Acetone                     | ND      |      | ug/kg | 11.9 | 5.5  | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| tert-Amyl methyl ether      | ND      |      | ug/kg | 2.4  | 0.70 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| tert-Amyl Alcohol           | ND      |      | ug/kg | 11.9 | 4.2  | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| tert-Amyl Ethylether        | ND      |      | ug/kg | 2.4  | 0.60 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| Benzene                     | ND      |      | ug/kg | 2.4  | 0.60 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| Bromochloromethane          | ND      |      | ug/kg | 2.4  | 0.60 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| Bromodichloromethane        | ND      |      | ug/kg | 2.4  | 0.85 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| Bromoform                   | ND      |      | ug/kg | 2.4  | 0.62 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| Bromomethane                | ND      |      | ug/kg | 2.4  | 0.62 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| 2-Butanone                  | ND      |      | ug/kg | 11.9 | 3.8  | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| tert-Butyl Alcohol          | ND      |      | ug/kg | 11.9 | 4.2  | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| Carbon Disulfide            | ND      |      | ug/kg | 2.4  | 0.75 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| Carbon Tetrachloride        | ND      |      | ug/kg | 2.4  | 0.61 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| Chlorobenzene               | ND      |      | ug/kg | 2.4  | 0.61 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| Chlorodibromomethane        | ND      |      | ug/kg | 2.4  | 0.81 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| Chloroethane                | ND      |      | ug/kg | 6.0  | 1.0  | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| Chloroform                  | ND      |      | ug/kg | 2.4  | 0.63 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| Chloromethane               | ND      |      | ug/kg | 2.4  | 0.66 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| 1,2-Dibromo-3-chloropropane | ND      |      | ug/kg | 6.0  | 3.5  | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| 1,2-Dibromoethane           | ND      |      | ug/kg | 2.4  | 0.64 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| 1,1-Dichloroethane          | ND      |      | ug/kg | 2.4  | 0.60 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| 1,2-Dichloroethane          | ND      |      | ug/kg | 2.4  | 0.60 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| 1,1-Dichloroethene          | ND      |      | ug/kg | 2.4  | 0.62 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| cis-1,2-Dichloroethene      | ND      |      | ug/kg | 2.4  | 0.60 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| trans-1,2-Dichloroethene    | ND      |      | ug/kg | 2.4  | 0.62 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| 1,2-Dichloropropane         | ND      |      | ug/kg | 2.4  | 0.72 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| cis-1,3-Dichloropropene     | ND      |      | ug/kg | 2.4  | 0.66 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| trans-1,3-Dichloropropene   | ND      |      | ug/kg | 2.4  | 0.69 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| Diisopropyl ether           | ND      |      | ug/kg | 2.4  | 0.60 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| Ethyl tert-butyl ether      | ND      |      | ug/kg | 2.4  | 0.62 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| Ethylbenzene                | ND      |      | ug/kg | 2.4  | 0.81 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| 2-Hexanone                  | ND      |      | ug/kg | 11.9 | 3.3  | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| Methyl t-Butyl Ether        | 0.79J   | J    | ug/kg | 2.4  | 0.60 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| 4-Methyl-2-Pentanone(MIBK)  | ND      |      | ug/kg | 11.9 | 4.5  | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| Methylene Chloride          | 20.4    | 1,2  | ug/kg | 2.4  | 0.93 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |
| Naphthalene                 | ND      |      | ug/kg | 2.4  | 0.60 | SW846 8260B | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP | B1   |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592002**

Date Collected: 2/9/2017 08:50

Matrix: Solid

Sample ID: **CL-SE-S-01**

Date Received: 2/9/2017 21:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| Styrene                     | ND             |             | ug/kg        | 2.4           | 0.60 | SW846 8260B   | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP             | B1                    |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.4           | 0.67 | SW846 8260B   | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP             | B1                    |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.4           | 0.72 | SW846 8260B   | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP             | B1                    |
| Toluene                     | ND             |             | ug/kg        | 2.4           | 0.80 | SW846 8260B   | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP             | B1                    |
| Total Xylenes               | ND             |             | ug/kg        | 7.2           | 1.7  | SW846 8260B   | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP             | B1                    |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.4           | 0.74 | SW846 8260B   | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP             | B1                    |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.4           | 0.67 | SW846 8260B   | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP             | B1                    |
| Trichloroethene             | ND             |             | ug/kg        | 2.4           | 0.60 | SW846 8260B   | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP             | B1                    |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.4           | 0.60 | SW846 8260B   | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP             | B1                    |
| o-Xylene                    | ND             |             | ug/kg        | 2.4           | 0.69 | SW846 8260B   | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP             | B1                    |
| mp-Xylene                   | ND             |             | ug/kg        | 4.8           | 0.99 | SW846 8260B   | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP             | B1                    |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 76.1           |             | %            | 56 - 124      |      | SW846 8260B   | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP             | B1                    |
| 4-Bromofluorobenzene (S)    | 88.8           |             | %            | 51 - 128      |      | SW846 8260B   | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP             | B1                    |
| Dibromofluoromethane (S)    | 86.7           |             | %            | 62 - 123      |      | SW846 8260B   | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP             | B1                    |
| Toluene-d8 (S)              | 86.3           |             | %            | 59 - 131      |      | SW846 8260B   | 2/10/17 07:24 TMP | 2/10/17 18:28 | TMP             | B1                    |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 63.5          | 7.6  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| Acenaphthylene              | ND             |             | ug/kg        | 63.5          | 8.9  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| Acetophenone                | ND             |             | ug/kg        | 127           | 10.2 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| Anthracene                  | ND             |             | ug/kg        | 63.5          | 10.2 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| Atrazine                    | ND             |             | ug/kg        | 127           | 14.0 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| Benzaldehyde                | 26.1J          | J           | ug/kg        | 254           | 21.6 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| Benzo(a)anthracene          | 16.0J          | J           | ug/kg        | 63.5          | 6.3  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| Benzo(a)pyrene              | 14.8J          | J           | ug/kg        | 63.5          | 5.1  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| Benzo(b)fluoranthene        | 12.4J          | J           | ug/kg        | 63.5          | 6.3  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| Benzo(g,h,i)perylene        | 9.4J           | J           | ug/kg        | 63.5          | 6.3  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| Benzo(k)fluoranthene        | ND             |             | ug/kg        | 63.5          | 6.3  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| Biphenyl                    | ND             |             | ug/kg        | 127           | 8.9  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| 4-Bromophenyl-phenylether   | ND             |             | ug/kg        | 127           | 11.4 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| Butylbenzylphthalate        | 12.8J          | J           | ug/kg        | 127           | 8.9  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| Caprolactam                 | ND             |             | ug/kg        | 254           | 22.9 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| Carbazole                   | ND             |             | ug/kg        | 127           | 8.9  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| 4-Chloro-3-methylphenol     | ND             |             | ug/kg        | 254           | 12.7 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| 4-Chloroaniline             | ND             |             | ug/kg        | 254           | 15.2 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| bis(2-Chloroethoxy)methane  | ND             |             | ug/kg        | 127           | 11.4 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| bis(2-Chloroethyl)ether     | ND             |             | ug/kg        | 127           | 16.5 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592002**

Date Collected: 2/9/2017 08:50

Matrix: Solid

Sample ID: **CL-SE-S-01**

Date Received: 2/9/2017 21:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 127  | 19.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 127  | 7.6  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| 2-Chlorophenol              | ND      |      | ug/kg | 254  | 10.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 127  | 10.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| Chrysene                    | 10J     | J    | ug/kg | 63.5 | 6.3  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| mp-Cresol                   | ND      |      | ug/kg | 254  | 10.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| o-Cresol                    | ND      |      | ug/kg | 254  | 14.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 127  | 10.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 127  | 8.9  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 63.5 | 7.6  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| Dibenzofuran                | ND      |      | ug/kg | 127  | 10.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 254  | 48.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 254  | 10.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| Diethylphthalate            | ND      |      | ug/kg | 127  | 10.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 254  | 19.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| Dimethylphthalate           | ND      |      | ug/kg | 127  | 8.9  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 254  | 50.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 127  | 11.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 127  | 15.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 127  | 62.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| bis(2-Ethylhexyl)phthalate  | 42.6J   | J    | ug/kg | 127  | 8.9  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| Fluoranthene                | 15.9J   | J    | ug/kg | 63.5 | 6.3  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| Fluorene                    | ND      |      | ug/kg | 63.5 | 7.6  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| Hexachlorobenzene           | ND      |      | ug/kg | 127  | 14.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 127  | 12.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 254  | 14.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| Hexachloroethane            | ND      |      | ug/kg | 127  | 11.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| Indeno(1,2,3-cd)pyrene      | 10.7J   | J    | ug/kg | 63.5 | 8.9  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| Isophorone                  | ND      |      | ug/kg | 127  | 7.6  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| 2-Methyl-4,6-dinitrophenol  | ND      |      | ug/kg | 254  | 33.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| 2-Methylnaphthalene         | ND      |      | ug/kg | 127  | 6.3  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| Naphthalene                 | ND      |      | ug/kg | 63.5 | 7.6  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| 2-Nitroaniline              | ND      |      | ug/kg | 254  | 15.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| 3-Nitroaniline              | ND      |      | ug/kg | 254  | 25.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| 4-Nitroaniline              | ND      |      | ug/kg | 254  | 10.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| Nitrobenzene                | ND      |      | ug/kg | 127  | 15.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| 2-Nitrophenol               | ND      |      | ug/kg | 254  | 14.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |
| 4-Nitrophenol               | ND      |      | ug/kg | 254  | 17.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS | B    |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592002**

Date Collected: 2/9/2017 08:50

Matrix: Solid

Sample ID: **CL-SE-S-01**

Date Received: 2/9/2017 21:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 127           | 10.2   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 127           | 10.2   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 254           | 33.0   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| Phenanthrene                   | 8.1J           | J           | ug/kg        | 63.5          | 6.3    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| Phenol                         | ND             |             | ug/kg        | 254           | 12.7   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| Pyrene                         | 11.8J          | J           | ug/kg        | 63.5          | 6.3    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 127           | 8.9    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 254           | 15.2   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 254           | 15.2   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 254           | 15.2   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 79.4           |             | %            | 19 - 132      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| 2-Fluorobiphenyl (S)           | 73.5           |             | %            | 40 - 110      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| 2-Fluorophenol (S)             | 76.4           |             | %            | 26 - 116      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| Nitrobenzene-d5 (S)            | 76.5           |             | %            | 38 - 112      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| Phenol-d5 (S)                  | 79.8           |             | %            | 35 - 111      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| Terphenyl-d14 (S)              | 70.4           |             | %            | 45 - 126      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:29 | CGS             | B                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.041         | 0.0038 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 08:34 | EGO             | B                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.041         | 0.0075 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 08:34 | EGO             | B                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.041         | 0.0038 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 08:34 | EGO             | B                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.041         | 0.0075 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 08:34 | EGO             | B                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.041         | 0.011  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 08:34 | EGO             | B                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.041         | 0.0075 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 08:34 | EGO             | B                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.041         | 0.0075 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 08:34 | EGO             | B                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.041         | 0.0075 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 08:34 | EGO             | B                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.041         | 0.0088 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 08:34 | EGO             | B                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.041         | 0.011  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 08:34 | EGO             | B                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)        | 76.3           |             | %            | 49 - 115      |        | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 08:34 | EGO             | B                     |
| Tetrachloro-m-xylene (S)       | 85.9           |             | %            | 27 - 137      |        | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 08:34 | EGO             | B                     |
| <b>PESTICIDES</b>              |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                         | ND             |             | ug/kg        | 10.7          | 3.4    | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:59 | RWS             | B                     |
| alpha-BHC                      | ND             |             | ug/kg        | 10.7          | 0.94   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:59 | RWS             | B                     |
| beta-BHC                       | ND             |             | ug/kg        | 10.7          | 1.1    | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:59 | RWS             | B                     |
| delta-BHC                      | ND             |             | ug/kg        | 10.7          | 0.81   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:59 | RWS             | B                     |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592002**  
Sample ID: **CL-SE-S-01**

Date Collected: 2/9/2017 08:50 Matrix: Solid  
Date Received: 2/9/2017 21:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| gamma-BHC                     | ND             |             | ug/kg        | 10.7          | 0.88 | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:59 | RWS             | B                     |
| alpha-Chlordane               | ND             |             | ug/kg        | 10.7          | 1.1  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:59 | RWS             | B                     |
| gamma-Chlordane               | ND             |             | ug/kg        | 10.7          | 1.8  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:59 | RWS             | B                     |
| 4,4'-DDD                      | ND             |             | ug/kg        | 20.7          | 1.7  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:59 | RWS             | B                     |
| 4,4'-DDE                      | ND             |             | ug/kg        | 20.7          | 2.8  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:59 | RWS             | B                     |
| 4,4'-DDT                      | ND             |             | ug/kg        | 20.7          | 2.4  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:59 | RWS             | B                     |
| Dieldrin                      | ND             |             | ug/kg        | 20.7          | 2.4  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:59 | RWS             | B                     |
| Endosulfan I                  | ND             |             | ug/kg        | 10.7          | 1.3  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:59 | RWS             | B                     |
| Endosulfan II                 | ND             |             | ug/kg        | 20.7          | 4.3  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:59 | RWS             | B                     |
| Endosulfan Sulfate            | ND             |             | ug/kg        | 20.7          | 1.4  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:59 | RWS             | B                     |
| Endrin                        | ND             |             | ug/kg        | 20.7          | 1.5  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:59 | RWS             | B                     |
| Endrin Aldehyde               | ND             |             | ug/kg        | 20.7          | 2.3  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:59 | RWS             | B                     |
| Endrin Ketone                 | ND             |             | ug/kg        | 20.7          | 2.9  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:59 | RWS             | B                     |
| Heptachlor                    | ND             |             | ug/kg        | 10.7          | 1.1  | SW846 8081B   | 2/15/17 00:50 CMA | 2/18/17 20:02 | RWS             | B                     |
| Heptachlor Epoxide            | ND             |             | ug/kg        | 10.7          | 1.1  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:59 | RWS             | B                     |
| Methoxychlor                  | ND             |             | ug/kg        | 20.7          | 2.8  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:59 | RWS             | B                     |
| Toxaphene                     | ND             |             | ug/kg        | 219           | 36.3 | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:59 | RWS             | B                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)       | 69.8           |             | %            | 30 - 135      |      | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:59 | RWS             | B                     |
| Decachlorobiphenyls (S)       | 68.9           |             | %            | 30 - 135      |      | SW846 8081B   | 2/15/17 00:50 CMA | 2/18/17 20:02 | RWS             | B                     |
| Tetrachloro-m-xylene (S)      | 52.5           |             | %            | 30 - 111      |      | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:59 | RWS             | B                     |
| Tetrachloro-m-xylene (S)      | 54.2           |             | %            | 30 - 111      |      | SW846 8081B   | 2/15/17 00:50 CMA | 2/18/17 20:02 | RWS             | B                     |
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 63.3           |             | mg/kg        | 13.5          | 3.2  | SW846 8015D   | 2/13/17 02:00 VLM | 2/14/17 15:09 | BS              | B                     |
| Gasoline Range Organics       | 1520J          | J           | ug/kg        | 5360          | 745  | SW846 8015D   | 2/9/17 08:50 DD   | 2/15/17 03:45 | DD              | A                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 83.4           |             | %            | 38 - 118      |      | SW846 8015D   | 2/13/17 02:00 VLM | 2/14/17 15:09 | BS              | B                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 119            |             | %            | 72 - 134      |      | SW846 8015D   | 2/9/17 08:50 DD   | 2/15/17 03:45 | DD              | A                     |
| <b>WET CHEMISTRY</b>          |                |             |              |               |      |               |                   |               |                 |                       |
| Moisture                      | 22.3           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/13/17 11:13 | VKB             | B                     |
| Total Solids                  | 77.7           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/13/17 11:13 | VKB             | B                     |
| <b>METALS</b>                 |                |             |              |               |      |               |                   |               |                 |                       |
| Antimony, Total               | ND             |             | mg/kg        | 1.2           | 0.40 | SW846 6020A   | 2/15/17 10:25 TRR | 2/15/17 17:47 | MO              | B2                    |
| Arsenic, Total                | 3.2            |             | mg/kg        | 1.8           | 0.61 | SW846 6020A   | 2/15/17 10:25 TRR | 2/15/17 17:47 | MO              | B2                    |



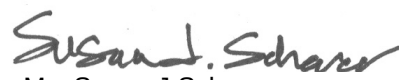
## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592002**  
Sample ID: **CL-SE-S-01**

Date Collected: 2/9/2017 08:50 Matrix: Solid  
Date Received: 2/9/2017 21:20

| Parameters       | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|------------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Beryllium, Total | ND      |      | mg/kg | 0.61  | 0.20  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 17:47 | MO  | B2   |
| Cadmium, Total   | ND      |      | mg/kg | 0.61  | 0.20  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 17:47 | MO  | B2   |
| Chromium, Total  | 8.9     |      | mg/kg | 1.2   | 0.40  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 17:47 | MO  | B2   |
| Copper, Total    | 5.2     |      | mg/kg | 3.0   | 0.97  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 17:47 | MO  | B2   |
| Lead, Total      | 25.4    |      | mg/kg | 1.2   | 0.40  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 17:47 | MO  | B2   |
| Mercury, Total   | 0.021J  | J    | mg/kg | 0.055 | 0.017 | SW846 7471B | 2/13/17 09:30 MNP | 2/13/17 12:17 | MNP | B1   |
| Nickel, Total    | 2.4J    | J    | mg/kg | 3.0   | 0.97  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 17:47 | MO  | B2   |
| Selenium, Total  | ND      |      | mg/kg | 3.0   | 0.97  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 17:47 | MO  | B2   |
| Silver, Total    | ND      |      | mg/kg | 1.2   | 0.40  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 17:47 | MO  | B2   |
| Thallium, Total  | ND      |      | mg/kg | 0.61  | 0.20  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 17:47 | MO  | B2   |
| Zinc, Total      | 8.5     |      | mg/kg | 3.0   | 0.97  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 17:47 | MO  | B2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592003**

Date Collected: 2/9/2017 09:40

Matrix: Solid

Sample ID: **CL-SE-S-02**

Date Received: 2/9/2017 21:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 48.4           |             | mg/kg        | 12.8          | 3.0  | SW846 8015D   | 2/15/17 05:45 VLM | 2/16/17 20:07 | BS              | B                     |
| Gasoline Range Organics       | 2010J          | J           | ug/kg        | 6380          | 887  | SW846 8015D   | 2/9/17 09:40 DD   | 2/15/17 04:21 | DD              | A                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 82             |             | %            | 38 - 118      |      | SW846 8015D   | 2/15/17 05:45 VLM | 2/16/17 20:07 | BS              | B                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 126            |             | %            | 72 - 134      |      | SW846 8015D   | 2/9/17 09:40 DD   | 2/15/17 04:21 | DD              | A                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | ND             |             | ug/kg        | 11.9          | 5.5  | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.4           | 0.70 | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 11.9          | 4.1  | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| Benzene                       | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| Bromochloromethane            | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.4           | 0.84 | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| Bromoform                     | ND             |             | ug/kg        | 2.4           | 0.62 | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| Bromomethane                  | ND             |             | ug/kg        | 2.4           | 0.62 | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| 2-Butanone                    | ND             |             | ug/kg        | 11.9          | 3.8  | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 11.9          | 4.1  | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.4           | 0.75 | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.4           | 0.60 | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.4           | 0.60 | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.4           | 0.81 | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| Chloroethane                  | ND             |             | ug/kg        | 5.9           | 1.0  | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| Chloroform                    | ND             |             | ug/kg        | 2.4           | 0.63 | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| Chloromethane                 | ND             |             | ug/kg        | 2.4           | 0.65 | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 5.9           | 3.4  | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.4           | 0.64 | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.4           | 0.62 | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.4           | 0.62 | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.4           | 0.71 | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.4           | 0.65 | SW846 8260B   | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP             | B1                    |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592003**

Date Collected: 2/9/2017 09:40

Matrix: Solid

Sample ID: **CL-SE-S-02**

Date Received: 2/9/2017 21:20

| Parameters                 | Results | Flag | Units | RDL      | MDL  | Method      | Prepared By       | Analyzed      | By       | Cntr    |
|----------------------------|---------|------|-------|----------|------|-------------|-------------------|---------------|----------|---------|
| trans-1,3-Dichloropropene  | ND      |      | ug/kg | 2.4      | 0.69 | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| Diisopropyl ether          | ND      |      | ug/kg | 2.4      | 0.59 | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| Ethyl tert-butyl ether     | ND      |      | ug/kg | 2.4      | 0.62 | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| Ethylbenzene               | ND      |      | ug/kg | 2.4      | 0.81 | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| 2-Hexanone                 | ND      |      | ug/kg | 11.9     | 3.3  | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| Methyl t-Butyl Ether       | 0.79J   | J    | ug/kg | 2.4      | 0.59 | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| 4-Methyl-2-Pentanone(MIBK) | ND      |      | ug/kg | 11.9     | 4.5  | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| Methylene Chloride         | 22.1    | 1,2  | ug/kg | 2.4      | 0.92 | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| Naphthalene                | ND      |      | ug/kg | 2.4      | 0.59 | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| Styrene                    | ND      |      | ug/kg | 2.4      | 0.59 | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| 1,1,2,2-Tetrachloroethane  | ND      |      | ug/kg | 2.4      | 0.66 | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| Tetrachloroethene          | ND      |      | ug/kg | 2.4      | 0.71 | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| Toluene                    | ND      |      | ug/kg | 2.4      | 0.79 | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| Total Xylenes              | ND      |      | ug/kg | 7.1      | 1.7  | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| 1,1,1-Trichloroethane      | ND      |      | ug/kg | 2.4      | 0.74 | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| 1,1,2-Trichloroethane      | ND      |      | ug/kg | 2.4      | 0.66 | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| Trichloroethene            | ND      |      | ug/kg | 2.4      | 0.59 | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| Vinyl Chloride             | ND      |      | ug/kg | 2.4      | 0.59 | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| o-Xylene                   | ND      |      | ug/kg | 2.4      | 0.69 | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| mp-Xylene                  | ND      |      | ug/kg | 4.7      | 0.98 | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| Surrogate Recoveries       | Results | Flag | Units | Limits   |      | Method      | Prepared          | By            | Analyzed | By Cntr |
| 1,2-Dichloroethane-d4 (S)  | 75.2    |      | %     | 56 - 124 |      | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| 4-Bromofluorobenzene (S)   | 85.2    |      | %     | 51 - 128 |      | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| Dibromofluoromethane (S)   | 85.2    |      | %     | 62 - 123 |      | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| Toluene-d8 (S)             | 85.9    |      | %     | 59 - 131 |      | SW846 8260B | 2/10/17 07:25 TMP | 2/10/17 18:51 | TMP      | B1      |
| SEMIVOLATILES              |         |      |       |          |      |             |                   |               |          |         |
| Acenaphthene               | ND      |      | ug/kg | 58.3     | 7.0  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS      | B       |
| Acenaphthylene             | ND      |      | ug/kg | 58.3     | 8.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS      | B       |
| Acetophenone               | ND      |      | ug/kg | 117      | 9.3  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS      | B       |
| Anthracene                 | ND      |      | ug/kg | 58.3     | 9.3  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS      | B       |
| Atrazine                   | ND      |      | ug/kg | 117      | 12.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS      | B       |
| Benzaldehyde               | ND      |      | ug/kg | 233      | 19.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS      | B       |
| Benzo(a)anthracene         | 14.4J   | J    | ug/kg | 58.3     | 5.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS      | B       |
| Benzo(a)pyrene             | 11.7J   | J    | ug/kg | 58.3     | 4.7  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS      | B       |
| Benzo(b)fluoranthene       | 10.7J   | J    | ug/kg | 58.3     | 5.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS      | B       |
| Benzo(g,h,i)perylene       | ND      |      | ug/kg | 58.3     | 5.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS      | B       |
| Benzo(k)fluoranthene       | ND      |      | ug/kg | 58.3     | 5.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS      | B       |



## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592003**

Date Collected: 2/9/2017 09:40

Matrix: Solid

Sample ID: **CL-SE-S-02**

Date Received: 2/9/2017 21:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Biphenyl                    | ND      |      | ug/kg | 117  | 8.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 117  | 10.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| Butylbenzylphthalate        | 22.6J   | J    | ug/kg | 117  | 8.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| Caprolactam                 | ND      |      | ug/kg | 233  | 21.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| Carbazole                   | ND      |      | ug/kg | 117  | 8.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 233  | 11.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| 4-Chloroaniline             | ND      |      | ug/kg | 233  | 14.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 117  | 10.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 117  | 15.1 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 117  | 17.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 117  | 7.0  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| 2-Chlorophenol              | ND      |      | ug/kg | 233  | 9.3  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 117  | 9.3  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| Chrysene                    | 9.3J    | J    | ug/kg | 58.3 | 5.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| mp-Cresol                   | ND      |      | ug/kg | 233  | 9.3  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| o-Cresol                    | ND      |      | ug/kg | 233  | 12.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 117  | 9.3  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 117  | 8.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 58.3 | 7.0  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| Dibenzofuran                | ND      |      | ug/kg | 117  | 9.3  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 233  | 44.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 233  | 9.3  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| Diethylphthalate            | ND      |      | ug/kg | 117  | 9.3  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 233  | 17.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| Dimethylphthalate           | ND      |      | ug/kg | 117  | 8.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 233  | 46.6 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 117  | 10.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 117  | 14.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 117  | 57.1 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| bis(2-Ethylhexyl)phthalate  | 159     |      | ug/kg | 117  | 8.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| Fluoranthene                | 11.9J   | J    | ug/kg | 58.3 | 5.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| Fluorene                    | ND      |      | ug/kg | 58.3 | 7.0  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| Hexachlorobenzene           | ND      |      | ug/kg | 117  | 12.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 117  | 11.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 233  | 12.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| Hexachloroethane            | ND      |      | ug/kg | 117  | 10.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| Indeno(1,2,3-cd)pyrene      | 10.6J   | J    | ug/kg | 58.3 | 8.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |
| Isophorone                  | ND      |      | ug/kg | 117  | 7.0  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS | B    |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592003**

Date Collected: 2/9/2017 09:40

Matrix: Solid

Sample ID: **CL-SE-S-02**

Date Received: 2/9/2017 21:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 233           | 30.3   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 117           | 5.8    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| Naphthalene                    | ND             |             | ug/kg        | 58.3          | 7.0    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 233           | 14.0   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 233           | 23.3   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 233           | 9.3    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 117           | 14.0   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 233           | 12.8   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 233           | 16.3   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 117           | 9.3    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 117           | 9.3    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 233           | 30.3   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| Phenanthrene                   | 6.1J           | J           | ug/kg        | 58.3          | 5.8    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| Phenol                         | ND             |             | ug/kg        | 233           | 11.7   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| Pyrene                         | 9.0J           | J           | ug/kg        | 58.3          | 5.8    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 117           | 8.2    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 233           | 14.0   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 233           | 14.0   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 233           | 14.0   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 78.8           |             | %            | 19 - 132      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| 2-Fluorobiphenyl (S)           | 67.2           |             | %            | 40 - 110      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| 2-Fluorophenol (S)             | 71             |             | %            | 26 - 116      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| Nitrobenzene-d5 (S)            | 70.3           |             | %            | 38 - 112      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| Phenol-d5 (S)                  | 74.5           |             | %            | 35 - 111      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| Terphenyl-d14 (S)              | 66.8           |             | %            | 45 - 126      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 14:55 | CGS             | B                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.039         | 0.0036 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 08:45 | EGO             | B                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.039         | 0.0071 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 08:45 | EGO             | B                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.039         | 0.0036 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 08:45 | EGO             | B                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.039         | 0.0071 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 08:45 | EGO             | B                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.039         | 0.011  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 08:45 | EGO             | B                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.039         | 0.0071 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 08:45 | EGO             | B                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.039         | 0.0071 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 08:45 | EGO             | B                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.039         | 0.0071 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 08:45 | EGO             | B                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.039         | 0.0083 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 08:45 | EGO             | B                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.039         | 0.011  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 08:45 | EGO             | B                     |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592003**

Date Collected: 2/9/2017 09:40

Matrix: Solid

Sample ID: **CL-SE-S-02**

Date Received: 2/9/2017 21:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By     | Analyzed  | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-----------------|-----------|-----------------|-----------------------|
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 89             |             | %            | 49 - 115      |      | SW846 8082A   | 2/15/17 00:50   | CMA       | 2/15/17 08:45   | EGO B                 |
| Tetrachloro-m-xylene (S)    | 96.4           |             | %            | 27 - 137      |      | SW846 8082A   | 2/15/17 00:50   | CMA       | 2/15/17 08:45   | EGO B                 |
| <b>PESTICIDES</b>           |                |             |              |               |      |               |                 |           |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 10.1          | 3.3  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 02:15   | RWS B                 |
| alpha-BHC                   | ND             |             | ug/kg        | 10.1          | 0.89 | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 02:15   | RWS B                 |
| beta-BHC                    | ND             |             | ug/kg        | 10.1          | 1.1  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 02:15   | RWS B                 |
| delta-BHC                   | ND             |             | ug/kg        | 10.1          | 0.77 | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 02:15   | RWS B                 |
| gamma-BHC                   | ND             |             | ug/kg        | 10.1          | 0.83 | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 02:15   | RWS B                 |
| alpha-Chlordane             | ND             |             | ug/kg        | 10.1          | 1.1  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 02:15   | RWS B                 |
| gamma-Chlordane             | ND             |             | ug/kg        | 10.1          | 1.7  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 02:15   | RWS B                 |
| 4,4'-DDD                    | ND             |             | ug/kg        | 19.6          | 1.6  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 02:15   | RWS B                 |
| 4,4'-DDE                    | ND             |             | ug/kg        | 19.6          | 2.7  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 02:15   | RWS B                 |
| 4,4'-DDT                    | 3.2J           | J           | ug/kg        | 19.6          | 2.3  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 02:15   | RWS B                 |
| Dieldrin                    | ND             |             | ug/kg        | 19.6          | 2.3  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 02:15   | RWS B                 |
| Endosulfan I                | ND             |             | ug/kg        | 10.1          | 1.2  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 02:15   | RWS B                 |
| Endosulfan II               | ND             |             | ug/kg        | 19.6          | 4.1  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 02:15   | RWS B                 |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 19.6          | 1.3  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 02:15   | RWS B                 |
| Endrin                      | ND             |             | ug/kg        | 19.6          | 1.4  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 02:15   | RWS B                 |
| Endrin Aldehyde             | ND             |             | ug/kg        | 19.6          | 2.1  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 02:15   | RWS B                 |
| Endrin Ketone               | ND             |             | ug/kg        | 19.6          | 2.7  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 02:15   | RWS B                 |
| Heptachlor                  | ND             |             | ug/kg        | 10.1          | 1.0  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/18/17 20:17   | RWS B                 |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 10.1          | 1.0  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 02:15   | RWS B                 |
| Methoxychlor                | ND             |             | ug/kg        | 19.6          | 2.6  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 02:15   | RWS B                 |
| Toxaphene                   | ND             |             | ug/kg        | 208           | 34.5 | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 02:15   | RWS B                 |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 84.7           |             | %            | 30 - 135      |      | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/18/17 20:17   | RWS B                 |
| Decachlorobiphenyls (S)     | 75.4           |             | %            | 30 - 135      |      | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 02:15   | RWS B                 |
| Tetrachloro-m-xylene (S)    | 57.4           |             | %            | 30 - 111      |      | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 02:15   | RWS B                 |
| Tetrachloro-m-xylene (S)    | 63.4           |             | %            | 30 - 111      |      | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/18/17 20:17   | RWS B                 |
| <b>WET CHEMISTRY</b>        |                |             |              |               |      |               |                 |           |                 |                       |
| Moisture                    | 17.5           |             | %            | 0.1           | 0.01 | S2540G-11     |                 |           | 2/13/17 11:13   | VKB B                 |
| Total Solids                | 82.5           |             | %            | 0.1           | 0.01 | S2540G-11     |                 |           | 2/13/17 11:13   | VKB B                 |
| <b>METALS</b>               |                |             |              |               |      |               |                 |           |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.1           | 0.36 | SW846 6020A   | 2/15/17 10:25   | TRR       | 2/15/17 18:06   | MO B2                 |
| Arsenic, Total              | 2.5            |             | mg/kg        | 1.6           | 0.54 | SW846 6020A   | 2/15/17 10:25   | TRR       | 2/15/17 18:06   | MO B2                 |

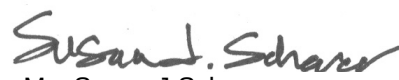
## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592003**  
Sample ID: **CL-SE-S-02**

Date Collected: 2/9/2017 09:40 Matrix: Solid  
Date Received: 2/9/2017 21:20

| Parameters       | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|------------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Beryllium, Total | ND      |      | mg/kg | 0.54  | 0.18  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:06 | MO  | B2   |
| Cadmium, Total   | ND      |      | mg/kg | 0.54  | 0.18  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:06 | MO  | B2   |
| Chromium, Total  | 7.7     |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:06 | MO  | B2   |
| Copper, Total    | 6.8     |      | mg/kg | 2.7   | 0.87  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:06 | MO  | B2   |
| Lead, Total      | 13.5    |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:06 | MO  | B2   |
| Mercury, Total   | 0.035J  | J    | mg/kg | 0.055 | 0.018 | SW846 7471B | 2/13/17 09:30 MNP | 2/13/17 12:18 | MNP | B1   |
| Nickel, Total    | 2.4J    | J    | mg/kg | 2.7   | 0.87  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:06 | MO  | B2   |
| Selenium, Total  | ND      |      | mg/kg | 2.7   | 0.87  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:06 | MO  | B2   |
| Silver, Total    | ND      |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:06 | MO  | B2   |
| Thallium, Total  | ND      |      | mg/kg | 0.54  | 0.18  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:06 | MO  | B2   |
| Zinc, Total      | 7.6     |      | mg/kg | 2.7   | 0.87  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:06 | MO  | B2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592004**

Date Collected: 2/9/2017 10:30

Matrix: Solid

Sample ID: **CL-SE-S-03**

Date Received: 2/9/2017 21:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 707            |             | mg/kg        | 14.2          | 3.4  | SW846 8015D   | 2/15/17 05:45 VLM | 2/17/17 10:23 | BS              | B                     |
| Gasoline Range Organics       | 3290J          | J           | ug/kg        | 9680          | 1350 | SW846 8015D   | 2/9/17 10:30 DD   | 2/15/17 04:58 | DD              | A                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 118            |             | %            | 72 - 134      |      | SW846 8015D   | 2/9/17 10:30 DD   | 2/15/17 04:58 | DD              | A                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | ND             |             | ug/kg        | 20.0          | 9.2  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 4.0           | 1.2  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 20.0          | 7.0  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Benzene                       | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Bromochloromethane            | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Bromodichloromethane          | ND             |             | ug/kg        | 4.0           | 1.4  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Bromoform                     | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Bromomethane                  | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| 2-Butanone                    | ND             |             | ug/kg        | 20.0          | 6.4  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 20.0          | 7.0  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Carbon Disulfide              | ND             |             | ug/kg        | 4.0           | 1.3  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Chlorobenzene                 | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Chlorodibromomethane          | ND             |             | ug/kg        | 4.0           | 1.4  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Chloroethane                  | ND             |             | ug/kg        | 10.0          | 1.7  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Chloroform                    | 1.2J           | J           | ug/kg        | 4.0           | 1.1  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Chloromethane                 | ND             |             | ug/kg        | 4.0           | 1.1  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 10.0          | 5.8  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 4.0           | 1.1  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 4.0           | 1.2  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 4.0           | 1.1  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| trans-1,3-Dichloropropene     | ND             |             | ug/kg        | 4.0           | 1.2  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Diisopropyl ether             | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Ethyl tert-butyl ether        | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |



## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592004**

Date Collected: 2/9/2017 10:30

Matrix: Solid

Sample ID: **CL-SE-S-03**

Date Received: 2/9/2017 21:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| Ethylbenzene                | ND             |             | ug/kg        | 4.0           | 1.4  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| 2-Hexanone                  | ND             |             | ug/kg        | 20.0          | 5.6  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Methyl t-Butyl Ether        | 1.2J           | J           | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 20.0          | 7.6  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Methylene Chloride          | 27.4           | 1,2         | ug/kg        | 4.0           | 1.6  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Naphthalene                 | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Styrene                     | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 4.0           | 1.1  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Tetrachloroethene           | ND             |             | ug/kg        | 4.0           | 1.2  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Toluene                     | ND             |             | ug/kg        | 4.0           | 1.3  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Total Xylenes               | ND             |             | ug/kg        | 12.0          | 2.8  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 4.0           | 1.2  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 4.0           | 1.1  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Trichloroethene             | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Vinyl Chloride              | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| o-Xylene                    | ND             |             | ug/kg        | 4.0           | 1.2  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| mp-Xylene                   | ND             |             | ug/kg        | 8.0           | 1.7  | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 70.8           |             | %            | 56 - 124      |      | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| 4-Bromofluorobenzene (S)    | 85.8           |             | %            | 51 - 128      |      | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Dibromofluoromethane (S)    | 83.7           |             | %            | 62 - 123      |      | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| Toluene-d8 (S)              | 89.1           |             | %            | 59 - 131      |      | SW846 8260B   | 2/10/17 07:26 TMP | 2/10/17 19:14 | TMP             | B1                    |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 103           | 12.3 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| Acenaphthylene              | ND             |             | ug/kg        | 103           | 14.4 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| Acetophenone                | ND             |             | ug/kg        | 205           | 16.4 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| Anthracene                  | ND             |             | ug/kg        | 103           | 16.4 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| Atrazine                    | ND             |             | ug/kg        | 205           | 22.6 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| Benzaldehyde                | 133J           | J           | ug/kg        | 411           | 34.9 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| Benzo(a)anthracene          | 39.6J          | J           | ug/kg        | 103           | 10.3 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| Benzo(a)pyrene              | 38.5J          | J           | ug/kg        | 103           | 8.2  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| Benzo(b)fluoranthene        | 60.1J          | J           | ug/kg        | 103           | 10.3 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| Benzo(g,h,i)perylene        | 31.1J          | J           | ug/kg        | 103           | 10.3 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| Benzo(k)fluoranthene        | 23.0J          | J           | ug/kg        | 103           | 10.3 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| Biphenyl                    | ND             |             | ug/kg        | 205           | 14.4 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| 4-Bromophenyl-phenylether   | ND             |             | ug/kg        | 205           | 18.5 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| Butylbenzylphthalate        | ND             |             | ug/kg        | 205           | 14.4 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592004**

Date Collected: 2/9/2017 10:30

Matrix: Solid

Sample ID: **CL-SE-S-03**

Date Received: 2/9/2017 21:20

| Parameters                  | Results | Flag | Units | RDL | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|-----|------|-------------|-------------------|---------------|-----|------|
| Caprolactam                 | ND      |      | ug/kg | 411 | 37.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| Carbazole                   | 14.8J   | J    | ug/kg | 205 | 14.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 411 | 20.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| 4-Chloroaniline             | ND      |      | ug/kg | 411 | 24.6 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 205 | 18.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 205 | 26.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 205 | 30.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 205 | 12.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| 2-Chlorophenol              | ND      |      | ug/kg | 411 | 16.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 205 | 16.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| Chrysene                    | 43.6J   | J    | ug/kg | 103 | 10.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| mp-Cresol                   | ND      |      | ug/kg | 411 | 16.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| o-Cresol                    | ND      |      | ug/kg | 411 | 22.6 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| Di-n-Butylphthalate         | 18.7J   | J    | ug/kg | 205 | 16.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| Di-n-Octylphthalate         | 44.8J   | J    | ug/kg | 205 | 14.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| Dibenzo(a,h)anthracene      | 14.5J   | J    | ug/kg | 103 | 12.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| Dibenzofuran                | ND      |      | ug/kg | 205 | 16.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 411 | 78.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 411 | 16.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| Diethylphthalate            | ND      |      | ug/kg | 205 | 16.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 411 | 30.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| Dimethylphthalate           | ND      |      | ug/kg | 205 | 14.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 411 | 82.1 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 205 | 18.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 205 | 24.6 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 205 | 101  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| bis(2-Ethylhexyl)phthalate  | 93.8J   | J    | ug/kg | 205 | 14.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| Fluoranthene                | 67.1J   | J    | ug/kg | 103 | 10.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| Fluorene                    | 17.4J   | J    | ug/kg | 103 | 12.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| Hexachlorobenzene           | ND      |      | ug/kg | 205 | 22.6 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 205 | 20.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 411 | 22.6 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| Hexachloroethane            | ND      |      | ug/kg | 205 | 18.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| Indeno(1,2,3-cd)pyrene      | 35.2J   | J    | ug/kg | 103 | 14.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| Isophorone                  | ND      |      | ug/kg | 205 | 12.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| 2-Methyl-4,6-dinitrophenol  | ND      |      | ug/kg | 411 | 53.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| 2-Methylnaphthalene         | ND      |      | ug/kg | 205 | 10.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |
| Naphthalene                 | ND      |      | ug/kg | 103 | 12.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS | B    |



## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592004**  
Sample ID: **CL-SE-S-03**

Date Collected: 2/9/2017 10:30 Matrix: Solid  
Date Received: 2/9/2017 21:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| 2-Nitroaniline                 | ND             |             | ug/kg        | 411           | 24.6   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 411           | 41.1   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 411           | 16.4   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 205           | 24.6   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 411           | 22.6   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 411           | 28.7   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 205           | 16.4   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 205           | 16.4   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 411           | 53.4   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| Phenanthrene                   | 22.3J          | J           | ug/kg        | 103           | 10.3   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| Phenol                         | ND             |             | ug/kg        | 411           | 20.5   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| Pyrene                         | 45.9J          | J           | ug/kg        | 103           | 10.3   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 205           | 14.4   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 411           | 24.6   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 411           | 24.6   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 411           | 24.6   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 85.4           |             | %            | 19 - 132      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| 2-Fluorobiphenyl (S)           | 77.5           |             | %            | 40 - 110      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| 2-Fluorophenol (S)             | 77             |             | %            | 26 - 116      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| Nitrobenzene-d5 (S)            | 80.9           |             | %            | 38 - 112      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| Phenol-d5 (S)                  | 80.6           |             | %            | 35 - 111      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| Terphenyl-d14 (S)              | 71.3           |             | %            | 45 - 126      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:22 | CGS             | B                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.080         | 0.0072 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:09 | EGO             | B                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.080         | 0.014  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:09 | EGO             | B                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.080         | 0.0072 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:09 | EGO             | B                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.080         | 0.014  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:09 | EGO             | B                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.080         | 0.022  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:09 | EGO             | B                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.080         | 0.014  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:09 | EGO             | B                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.080         | 0.014  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:09 | EGO             | B                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.080         | 0.014  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:09 | EGO             | B                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.080         | 0.017  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:09 | EGO             | B                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.080         | 0.022  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:09 | EGO             | B                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)        | 83.8           |             | %            | 49 - 115      |        | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:09 | EGO             | B                     |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592004**

Date Collected: 2/9/2017 10:30

Matrix: Solid

Sample ID: **CL-SE-S-03**

Date Received: 2/9/2017 21:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr           |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|----------------|
| Tetrachloro-m-xylene (S)    | 88.7           |             | %            | 27 - 137      |      | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:09 | EGO             | B              |
| <b>PESTICIDES</b>           |                |             |              |               |      |               |                   |               |                 |                |
| Aldrin                      | ND             |             | ug/kg        | 20.5          | 6.6  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 02:30 | RWS             | B              |
| alpha-BHC                   | ND             |             | ug/kg        | 20.5          | 1.8  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 02:30 | RWS             | B              |
| beta-BHC                    | ND             |             | ug/kg        | 20.5          | 2.2  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 02:30 | RWS             | B              |
| delta-BHC                   | ND             |             | ug/kg        | 20.5          | 1.6  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 02:30 | RWS             | B              |
| gamma-BHC                   | ND             |             | ug/kg        | 20.5          | 1.7  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 02:30 | RWS             | B              |
| alpha-Chlordane             | ND             |             | ug/kg        | 20.5          | 2.2  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 02:30 | RWS             | B              |
| gamma-Chlordane             | ND             |             | ug/kg        | 20.5          | 3.5  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 02:30 | RWS             | B              |
| 4,4'-DDD                    | ND             |             | ug/kg        | 39.9          | 3.3  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 02:30 | RWS             | B              |
| 4,4'-DDE                    | ND             |             | ug/kg        | 39.9          | 5.4  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 02:30 | RWS             | B              |
| 4,4'-DDT                    | 7.2J           | J           | ug/kg        | 39.9          | 4.6  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 02:30 | RWS             | B              |
| Dieldrin                    | ND             |             | ug/kg        | 39.9          | 4.6  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 02:30 | RWS             | B              |
| Endosulfan I                | ND             |             | ug/kg        | 20.5          | 2.5  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 02:30 | RWS             | B              |
| Endosulfan II               | ND             |             | ug/kg        | 39.9          | 8.3  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 02:30 | RWS             | B              |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 39.9          | 2.7  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 02:30 | RWS             | B              |
| Endrin                      | ND             |             | ug/kg        | 39.9          | 2.9  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 02:30 | RWS             | B              |
| Endrin Aldehyde             | ND             |             | ug/kg        | 39.9          | 4.3  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 02:30 | RWS             | B              |
| Endrin Ketone               | ND             |             | ug/kg        | 39.9          | 5.6  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 02:30 | RWS             | B              |
| Heptachlor                  | ND             |             | ug/kg        | 20.5          | 2.1  | SW846 8081B   | 2/15/17 00:50 CMA | 2/18/17 20:33 | RWS             | B              |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 20.5          | 2.1  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 02:30 | RWS             | B              |
| Methoxychlor                | ND             |             | ug/kg        | 39.9          | 5.3  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 02:30 | RWS             | B              |
| Toxaphene                   | ND             |             | ug/kg        | 423           | 70.1 | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 02:30 | RWS             | B              |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By Cntr</i> |
| Decachlorobiphenyls (S)     | 72.6           |             | %            | 30 - 135      |      | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 02:30 | RWS             | B              |
| Decachlorobiphenyls (S)     | 75.6           |             | %            | 30 - 135      |      | SW846 8081B   | 2/15/17 00:50 CMA | 2/18/17 20:33 | RWS             | B              |
| Tetrachloro-m-xylene (S)    | 56.4           |             | %            | 30 - 111      |      | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 02:30 | RWS             | B              |
| Tetrachloro-m-xylene (S)    | 58.6           |             | %            | 30 - 111      |      | SW846 8081B   | 2/15/17 00:50 CMA | 2/18/17 20:33 | RWS             | B              |
| <b>WET CHEMISTRY</b>        |                |             |              |               |      |               |                   |               |                 |                |
| Moisture                    | 26.9           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/13/17 11:13 | VKB             | B              |
| Total Solids                | 73.1           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/13/17 11:13 | VKB             | B              |
| <b>METALS</b>               |                |             |              |               |      |               |                   |               |                 |                |
| Antimony, Total             | ND             |             | mg/kg        | 1.4           | 0.45 | SW846 6020A   | 2/15/17 10:25 TRR | 2/15/17 18:10 | MO              | B2             |
| Arsenic, Total              | ND             |             | mg/kg        | 2.1           | 0.68 | SW846 6020A   | 2/15/17 10:25 TRR | 2/15/17 18:10 | MO              | B2             |
| Beryllium, Total            | ND             |             | mg/kg        | 0.68          | 0.23 | SW846 6020A   | 2/15/17 10:25 TRR | 2/15/17 18:10 | MO              | B2             |
| Cadmium, Total              | ND             |             | mg/kg        | 0.68          | 0.23 | SW846 6020A   | 2/15/17 10:25 TRR | 2/15/17 18:10 | MO              | B2             |
| Chromium, Total             | 1.8            |             | mg/kg        | 1.4           | 0.45 | SW846 6020A   | 2/15/17 10:25 TRR | 2/15/17 18:10 | MO              | B2             |

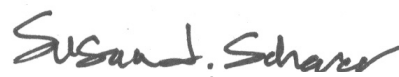
## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592004**  
Sample ID: **CL-SE-S-03**

Date Collected: 2/9/2017 10:30 Matrix: Solid  
Date Received: 2/9/2017 21:20

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Copper, Total   | 2.3J    | J    | mg/kg | 3.4   | 1.1   | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:10 | MO  | B2   |
| Lead, Total     | 3.3     |      | mg/kg | 1.4   | 0.45  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:10 | MO  | B2   |
| Mercury, Total  | 0.040J  | J    | mg/kg | 0.067 | 0.021 | SW846 7471B | 2/13/17 09:30 MNP | 2/13/17 12:19 | MNP | B1   |
| Nickel, Total   | ND      |      | mg/kg | 3.4   | 1.1   | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:10 | MO  | B2   |
| Selenium, Total | ND      |      | mg/kg | 3.4   | 1.1   | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:10 | MO  | B2   |
| Silver, Total   | ND      |      | mg/kg | 1.4   | 0.45  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:10 | MO  | B2   |
| Thallium, Total | ND      |      | mg/kg | 0.68  | 0.23  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:10 | MO  | B2   |
| Zinc, Total     | 3.0J    | J    | mg/kg | 3.4   | 1.1   | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:10 | MO  | B2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592005**

Date Collected: 2/9/2017 11:30

Matrix: Solid

Sample ID: **CL-SE-S-04**

Date Received: 2/9/2017 21:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 28.7           |             | mg/kg        | 12.8          | 3.0  | SW846 8015D   | 2/17/17 02:40 VLM | 2/17/17 11:00 | BS              | B                     |
| Gasoline Range Organics       | 6270J          | J           | ug/kg        | 19300         | 2680 | SW846 8015D   | 2/9/17 11:30 DD   | 2/15/17 05:34 | DD              | A                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 80.7           |             | %            | 38 - 118      |      | SW846 8015D   | 2/17/17 02:40 VLM | 2/17/17 11:00 | BS              | B                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 122            |             | %            | 72 - 134      |      | SW846 8015D   | 2/9/17 11:30 DD   | 2/15/17 05:34 | DD              | A                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | ND             |             | ug/kg        | 13.4          | 6.2  | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| tert-Amyl methyl ether        | ND             | 3           | ug/kg        | 2.7           | 0.79 | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| tert-Amyl Alcohol             | ND             | 20          | ug/kg        | 13.4          | 4.7  | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| tert-Amyl Ethylether          | ND             | 19          | ug/kg        | 2.7           | 0.67 | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| Benzene                       | ND             |             | ug/kg        | 2.7           | 0.67 | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| Bromochloromethane            | ND             |             | ug/kg        | 2.7           | 0.67 | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| Bromodichloromethane          | ND             | 5           | ug/kg        | 2.7           | 0.95 | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| Bromoform                     | ND             | 14          | ug/kg        | 2.7           | 0.70 | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| Bromomethane                  | ND             |             | ug/kg        | 2.7           | 0.70 | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| 2-Butanone                    | ND             | 24          | ug/kg        | 13.4          | 4.3  | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 13.4          | 4.7  | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.7           | 0.84 | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.7           | 0.68 | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| Chlorobenzene                 | ND             | 13          | ug/kg        | 2.7           | 0.68 | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| Chlorodibromomethane          | ND             | 11          | ug/kg        | 2.7           | 0.91 | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| Chloroethane                  | ND             |             | ug/kg        | 6.7           | 1.1  | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| Chloroform                    | ND             |             | ug/kg        | 2.7           | 0.71 | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| Chloromethane                 | ND             |             | ug/kg        | 2.7           | 0.74 | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| 1,2-Dibromo-3-chloropropane   | ND             | 17          | ug/kg        | 6.7           | 3.9  | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| 1,2-Dibromoethane             | ND             | 12          | ug/kg        | 2.7           | 0.72 | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.7           | 0.67 | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| 1,2-Dichloroethane            | ND             | 2           | ug/kg        | 2.7           | 0.67 | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.7           | 0.70 | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.7           | 0.67 | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.7           | 0.70 | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| 1,2-Dichloropropane           | ND             | 4           | ug/kg        | 2.7           | 0.80 | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |
| cis-1,3-Dichloropropene       | ND             | 6           | ug/kg        | 2.7           | 0.74 | SW846 8260B   | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP             | B1                    |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592005**

Date Collected: 2/9/2017 11:30

Matrix: Solid

Sample ID: **CL-SE-S-04**

Date Received: 2/9/2017 21:20

| Parameters                 | Results | Flag      | Units | RDL      | MDL  | Method      | Prepared By       | Analyzed      | By       | Cntr |      |
|----------------------------|---------|-----------|-------|----------|------|-------------|-------------------|---------------|----------|------|------|
| trans-1,3-Dichloropropene  | ND      | 8         | ug/kg | 2.7      | 0.78 | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| Diisopropyl ether          | ND      |           | ug/kg | 2.7      | 0.67 | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| Ethyl tert-butyl ether     | ND      | 1         | ug/kg | 2.7      | 0.70 | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| Ethylbenzene               | ND      |           | ug/kg | 2.7      | 0.91 | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| 2-Hexanone                 | ND      | 10        | ug/kg | 13.4     | 3.7  | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| Methyl t-Butyl Ether       | 0.89J   | J,23      | ug/kg | 2.7      | 0.67 | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| 4-Methyl-2-Pentanone(MIBK) | ND      | 7         | ug/kg | 13.4     | 5.1  | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| Methylene Chloride         | 25.4    | 21,2<br>2 | ug/kg | 2.7      | 1.0  | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| Naphthalene                | ND      | 18        | ug/kg | 2.7      | 0.67 | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| Styrene                    | ND      |           | ug/kg | 2.7      | 0.67 | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| 1,1,2,2-Tetrachloroethane  | ND      | 15        | ug/kg | 2.7      | 0.75 | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| Tetrachloroethene          | ND      |           | ug/kg | 2.7      | 0.80 | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| Toluene                    | ND      |           | ug/kg | 2.7      | 0.90 | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| Total Xylenes              | ND      |           | ug/kg | 8.0      | 1.9  | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| 1,1,1-Trichloroethane      | ND      |           | ug/kg | 2.7      | 0.83 | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| 1,1,2-Trichloroethane      | ND      | 9         | ug/kg | 2.7      | 0.75 | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| Trichloroethene            | ND      |           | ug/kg | 2.7      | 0.67 | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| Vinyl Chloride             | ND      |           | ug/kg | 2.7      | 0.67 | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| o-Xylene                   | ND      | 16        | ug/kg | 2.7      | 0.78 | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| mp-Xylene                  | ND      |           | ug/kg | 5.4      | 1.1  | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| Surrogate Recoveries       | Results | Flag      | Units | Limits   |      | Method      | Prepared          | By            | Analyzed | By   | Cntr |
| 1,2-Dichloroethane-d4 (S)  | 75.9    |           | %     | 56 - 124 |      | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| 4-Bromofluorobenzene (S)   | 85.2    |           | %     | 51 - 128 |      | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| Dibromofluoromethane (S)   | 85.5    |           | %     | 62 - 123 |      | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| Toluene-d8 (S)             | 84.4    |           | %     | 59 - 131 |      | SW846 8260B | 2/10/17 07:27 TMP | 2/10/17 19:38 | TMP      | B1   |      |
| SEMIVOLATILES              |         |           |       |          |      |             |                   |               |          |      |      |
| Acenaphthene               | ND      |           | ug/kg | 61.0     | 7.3  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS      | B    |      |
| Acenaphthylene             | ND      |           | ug/kg | 61.0     | 8.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS      | B    |      |
| Acetophenone               | ND      |           | ug/kg | 122      | 9.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS      | B    |      |
| Anthracene                 | ND      |           | ug/kg | 61.0     | 9.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS      | B    |      |
| Atrazine                   | ND      |           | ug/kg | 122      | 13.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS      | B    |      |
| Benzaldehyde               | ND      |           | ug/kg | 244      | 20.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS      | B    |      |
| Benzo(a)anthracene         | 15.6J   | J         | ug/kg | 61.0     | 6.1  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS      | B    |      |
| Benzo(a)pyrene             | 8.3J    | J         | ug/kg | 61.0     | 4.9  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS      | B    |      |
| Benzo(b)fluoranthene       | 25.0J   | J         | ug/kg | 61.0     | 6.1  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS      | B    |      |
| Benzo(g,h,i)perylene       | 24.4J   | J         | ug/kg | 61.0     | 6.1  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS      | B    |      |



## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592005**

Date Collected: 2/9/2017 11:30

Matrix: Solid

Sample ID: **CL-SE-S-04**

Date Received: 2/9/2017 21:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 61.0 | 6.1  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| Biphenyl                    | ND      |      | ug/kg | 122  | 8.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 122  | 11.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| Butylbenzylphthalate        | 11.4J   | J    | ug/kg | 122  | 8.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| Caprolactam                 | ND      |      | ug/kg | 244  | 22.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| Carbazole                   | ND      |      | ug/kg | 122  | 8.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 244  | 12.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| 4-Chloroaniline             | ND      |      | ug/kg | 244  | 14.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 122  | 11.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 122  | 15.9 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 122  | 18.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 122  | 7.3  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| 2-Chlorophenol              | ND      |      | ug/kg | 244  | 9.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 122  | 9.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| Chrysene                    | 11.1J   | J    | ug/kg | 61.0 | 6.1  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| mp-Cresol                   | ND      |      | ug/kg | 244  | 9.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| o-Cresol                    | ND      |      | ug/kg | 244  | 13.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 122  | 9.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| Di-n-Octylphthalate         | 74.5J   | J    | ug/kg | 122  | 8.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 61.0 | 7.3  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| Dibenzofuran                | ND      |      | ug/kg | 122  | 9.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 244  | 46.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 244  | 9.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| Diethylphthalate            | ND      |      | ug/kg | 122  | 9.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 244  | 18.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| Dimethylphthalate           | ND      |      | ug/kg | 122  | 8.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 244  | 48.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 122  | 11.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 122  | 14.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 122  | 59.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| bis(2-Ethylhexyl)phthalate  | 115J    | J    | ug/kg | 122  | 8.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| Fluoranthene                | 8.1J    | J    | ug/kg | 61.0 | 6.1  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| Fluorene                    | ND      |      | ug/kg | 61.0 | 7.3  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| Hexachlorobenzene           | ND      |      | ug/kg | 122  | 13.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 122  | 12.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 244  | 13.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| Hexachloroethane            | ND      |      | ug/kg | 122  | 11.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |
| Indeno(1,2,3-cd)pyrene      | 24.0J   | J    | ug/kg | 61.0 | 8.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS | B    |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592005**

Date Collected: 2/9/2017 11:30

Matrix: Solid

Sample ID: **CL-SE-S-04**

Date Received: 2/9/2017 21:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 122           | 7.3    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 244           | 31.7   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 122           | 6.1    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| Naphthalene                    | ND             |             | ug/kg        | 61.0          | 7.3    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 244           | 14.7   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 244           | 24.4   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 244           | 9.8    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 122           | 14.7   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 244           | 13.4   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 244           | 17.1   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 122           | 9.8    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 122           | 9.8    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 244           | 31.7   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| Phenanthrene                   | 6.8J           | J           | ug/kg        | 61.0          | 6.1    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| Phenol                         | ND             |             | ug/kg        | 244           | 12.2   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| Pyrene                         | ND             |             | ug/kg        | 61.0          | 6.1    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 122           | 8.5    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 244           | 14.7   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 244           | 14.7   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 244           | 14.7   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 90.8           |             | %            | 19 - 132      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| 2-Fluorobiphenyl (S)           | 89.7           |             | %            | 40 - 110      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| 2-Fluorophenol (S)             | 87.7           |             | %            | 26 - 116      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| Nitrobenzene-d5 (S)            | 92.1           |             | %            | 38 - 112      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| Phenol-d5 (S)                  | 88.6           |             | %            | 35 - 111      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| Terphenyl-d14 (S)              | 78.9           |             | %            | 45 - 126      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 15:48 | CGS             | B                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.040         | 0.0036 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:32 | EGO             | B                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.040         | 0.0072 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:32 | EGO             | B                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.040         | 0.0036 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:32 | EGO             | B                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.040         | 0.0072 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:32 | EGO             | B                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.040         | 0.011  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:32 | EGO             | B                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.040         | 0.0072 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:32 | EGO             | B                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.040         | 0.0072 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:32 | EGO             | B                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.040         | 0.0072 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:32 | EGO             | B                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.040         | 0.0084 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:32 | EGO             | B                     |



## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592005**

Date Collected: 2/9/2017 11:30

Matrix: Solid

Sample ID: **CL-SE-S-04**

Date Received: 2/9/2017 21:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.040         | 0.011 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:32 | EGO             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 88.3           |             | %            | 49 - 115      |       | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:32 | EGO             | B                     |
| Tetrachloro-m-xylene (S)    | 94             |             | %            | 27 - 137      |       | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:32 | EGO             | B                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 10.2          | 3.3   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 03:01 | RWS             | B                     |
| alpha-BHC                   | ND             |             | ug/kg        | 10.2          | 0.90  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 03:01 | RWS             | B                     |
| beta-BHC                    | ND             |             | ug/kg        | 10.2          | 1.1   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 03:01 | RWS             | B                     |
| delta-BHC                   | ND             |             | ug/kg        | 10.2          | 0.78  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 03:01 | RWS             | B                     |
| gamma-BHC                   | ND             |             | ug/kg        | 10.2          | 0.84  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 03:01 | RWS             | B                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 10.2          | 1.1   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 03:01 | RWS             | B                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 10.2          | 1.7   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 03:01 | RWS             | B                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 19.9          | 1.6   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 03:01 | RWS             | B                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 19.9          | 2.7   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 03:01 | RWS             | B                     |
| 4,4'-DDT                    | 3.7J           | J           | ug/kg        | 19.9          | 2.3   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 03:01 | RWS             | B                     |
| Dieldrin                    | ND             |             | ug/kg        | 19.9          | 2.3   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 03:01 | RWS             | B                     |
| Endosulfan I                | ND             |             | ug/kg        | 10.2          | 1.3   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 03:01 | RWS             | B                     |
| Endosulfan II               | ND             |             | ug/kg        | 19.9          | 4.2   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 03:01 | RWS             | B                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 19.9          | 1.3   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 03:01 | RWS             | B                     |
| Endrin                      | ND             |             | ug/kg        | 19.9          | 1.4   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 03:01 | RWS             | B                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 19.9          | 2.2   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 03:01 | RWS             | B                     |
| Endrin Ketone               | ND             |             | ug/kg        | 19.9          | 2.8   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 03:01 | RWS             | B                     |
| Heptachlor                  | ND             |             | ug/kg        | 10.2          | 1.0   | SW846 8081B   | 2/15/17 00:50 CMA | 2/18/17 21:04 | RWS             | B                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 10.2          | 1.0   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 03:01 | RWS             | B                     |
| Methoxychlor                | ND             |             | ug/kg        | 19.9          | 2.7   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 03:01 | RWS             | B                     |
| Toxaphene                   | ND             |             | ug/kg        | 211           | 35.0  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 03:01 | RWS             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 84.8           |             | %            | 30 - 135      |       | SW846 8081B   | 2/15/17 00:50 CMA | 2/18/17 21:04 | RWS             | B                     |
| Decachlorobiphenyls (S)     | 83.4           |             | %            | 30 - 135      |       | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 03:01 | RWS             | B                     |
| Tetrachloro-m-xylene (S)    | 61.1           |             | %            | 30 - 111      |       | SW846 8081B   | 2/15/17 00:50 CMA | 2/18/17 21:04 | RWS             | B                     |
| Tetrachloro-m-xylene (S)    | 58.3           |             | %            | 30 - 111      |       | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 03:01 | RWS             | B                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Hexavalent Chromium         | 0.52J          | J           | mg/kg        | 2.5           | 0.49  | SW846 7196A   | 2/23/17 12:00 AHI | 2/23/17 18:45 | AHI             | B                     |
| Moisture                    | 20.7           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/13/17 11:13 | VKB             | B                     |
| Total Solids                | 79.3           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/13/17 11:13 | VKB             | B                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |

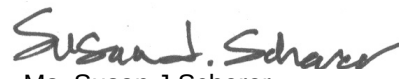
## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592005**  
Sample ID: **CL-SE-S-04**

Date Collected: 2/9/2017 11:30 Matrix: Solid  
Date Received: 2/9/2017 21:20

| Parameters       | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|------------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Antimony, Total  | 0.79J   | J    | mg/kg | 1.3   | 0.42  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:14 | MO  | B2   |
| Arsenic, Total   | 5.2     |      | mg/kg | 1.9   | 0.63  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:14 | MO  | B2   |
| Beryllium, Total | 0.21J   | J    | mg/kg | 0.63  | 0.21  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:14 | MO  | B2   |
| Cadmium, Total   | ND      |      | mg/kg | 0.63  | 0.21  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:14 | MO  | B2   |
| Chromium, Total  | 32.5    |      | mg/kg | 1.3   | 0.42  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:14 | MO  | B2   |
| Copper, Total    | 18.4    |      | mg/kg | 3.2   | 1.0   | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:14 | MO  | B2   |
| Lead, Total      | 54.6    |      | mg/kg | 1.3   | 0.42  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:14 | MO  | B2   |
| Mercury, Total   | 0.38    |      | mg/kg | 0.062 | 0.020 | SW846 7471B | 2/13/17 09:30 MNP | 2/13/17 12:20 | MNP | B1   |
| Nickel, Total    | 11.5    |      | mg/kg | 3.2   | 1.0   | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:14 | MO  | B2   |
| Selenium, Total  | ND      |      | mg/kg | 3.2   | 1.0   | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:14 | MO  | B2   |
| Silver, Total    | ND      |      | mg/kg | 1.3   | 0.42  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:14 | MO  | B2   |
| Thallium, Total  | ND      |      | mg/kg | 0.63  | 0.21  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:14 | MO  | B2   |
| Zinc, Total      | 42.7    |      | mg/kg | 3.2   | 1.0   | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:14 | MO  | B2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592006**  
Sample ID: **CL-SE-S-05**

Date Collected: 2/9/2017 11:50 Matrix: Solid  
Date Received: 2/9/2017 21:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 69.3           |             | mg/kg        | 12.3          | 2.9  | SW846 8015D   | 2/17/17 02:40 VLM | 2/17/17 11:36 | BS              | B                     |
| Gasoline Range Organics       | 1780J          | J           | ug/kg        | 7280          | 1010 | SW846 8015D   | 2/9/17 11:50 DD   | 2/15/17 06:10 | DD              | A                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 70.7           |             | %            | 38 - 118      |      | SW846 8015D   | 2/17/17 02:40 VLM | 2/17/17 11:36 | BS              | B                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 131            |             | %            | 72 - 134      |      | SW846 8015D   | 2/9/17 11:50 DD   | 2/15/17 06:10 | DD              | A                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | ND             |             | ug/kg        | 12.7          | 5.8  | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.5           | 0.75 | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 12.7          | 4.4  | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.5           | 0.63 | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| Benzene                       | ND             |             | ug/kg        | 2.5           | 0.63 | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| Bromochloromethane            | ND             |             | ug/kg        | 2.5           | 0.63 | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.5           | 0.90 | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| Bromoform                     | ND             |             | ug/kg        | 2.5           | 0.66 | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| Bromomethane                  | ND             |             | ug/kg        | 2.5           | 0.66 | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| 2-Butanone                    | ND             |             | ug/kg        | 12.7          | 4.1  | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 12.7          | 4.4  | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.5           | 0.80 | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.5           | 0.65 | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.5           | 0.65 | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.5           | 0.86 | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| Chloroethane                  | ND             |             | ug/kg        | 6.3           | 1.1  | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| Chloroform                    | ND             |             | ug/kg        | 2.5           | 0.67 | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| Chloromethane                 | ND             |             | ug/kg        | 2.5           | 0.70 | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 6.3           | 3.7  | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.5           | 0.68 | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.5           | 0.63 | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.5           | 0.63 | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.5           | 0.66 | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.5           | 0.63 | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.5           | 0.66 | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.5           | 0.76 | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.5           | 0.70 | SW846 8260B   | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP             | B1                    |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592006**

Date Collected: 2/9/2017 11:50

Matrix: Solid

Sample ID: **CL-SE-S-05**

Date Received: 2/9/2017 21:20

| Parameters                 | Results | Flag | Units | RDL      | MDL  | Method      | Prepared By       | Analyzed      | By       | Cntr    |
|----------------------------|---------|------|-------|----------|------|-------------|-------------------|---------------|----------|---------|
| trans-1,3-Dichloropropene  | ND      |      | ug/kg | 2.5      | 0.74 | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| Diisopropyl ether          | ND      |      | ug/kg | 2.5      | 0.63 | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| Ethyl tert-butyl ether     | ND      |      | ug/kg | 2.5      | 0.66 | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| Ethylbenzene               | ND      |      | ug/kg | 2.5      | 0.86 | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| 2-Hexanone                 | ND      |      | ug/kg | 12.7     | 3.6  | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| Methyl t-Butyl Ether       | 0.76J   | J    | ug/kg | 2.5      | 0.63 | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| 4-Methyl-2-Pentanone(MIBK) | ND      |      | ug/kg | 12.7     | 4.8  | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| Methylene Chloride         | 22.1    | 1,2  | ug/kg | 2.5      | 0.99 | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| Naphthalene                | ND      |      | ug/kg | 2.5      | 0.63 | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| Styrene                    | ND      |      | ug/kg | 2.5      | 0.63 | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| 1,1,2,2-Tetrachloroethane  | ND      |      | ug/kg | 2.5      | 0.71 | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| Tetrachloroethene          | ND      |      | ug/kg | 2.5      | 0.76 | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| Toluene                    | ND      |      | ug/kg | 2.5      | 0.85 | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| Total Xylenes              | ND      |      | ug/kg | 7.6      | 1.8  | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| 1,1,1-Trichloroethane      | ND      |      | ug/kg | 2.5      | 0.79 | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| 1,1,2-Trichloroethane      | ND      |      | ug/kg | 2.5      | 0.71 | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| Trichloroethene            | ND      |      | ug/kg | 2.5      | 0.63 | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| Vinyl Chloride             | ND      |      | ug/kg | 2.5      | 0.63 | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| o-Xylene                   | ND      |      | ug/kg | 2.5      | 0.74 | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| mp-Xylene                  | ND      |      | ug/kg | 5.1      | 1.1  | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| Surrogate Recoveries       | Results | Flag | Units | Limits   |      | Method      | Prepared          | By            | Analyzed | By Cntr |
| 1,2-Dichloroethane-d4 (S)  | 75.3    |      | %     | 56 - 124 |      | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| 4-Bromofluorobenzene (S)   | 86.6    |      | %     | 51 - 128 |      | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| Dibromofluoromethane (S)   | 85.7    |      | %     | 62 - 123 |      | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| Toluene-d8 (S)             | 85.9    |      | %     | 59 - 131 |      | SW846 8260B | 2/10/17 07:28 TMP | 2/10/17 20:01 | TMP      | B1      |
| SEMIVOLATILES              |         |      |       |          |      |             |                   |               |          |         |
| Acenaphthene               | ND      |      | ug/kg | 59.7     | 7.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS      | B       |
| Acenaphthylene             | ND      |      | ug/kg | 59.7     | 8.4  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS      | B       |
| Acetophenone               | 10.2J   | J    | ug/kg | 119      | 9.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS      | B       |
| Anthracene                 | ND      |      | ug/kg | 59.7     | 9.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS      | B       |
| Atrazine                   | ND      |      | ug/kg | 119      | 13.1 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS      | B       |
| Benzaldehyde               | 34.6J   | J    | ug/kg | 239      | 20.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS      | B       |
| Benzo(a)anthracene         | 12.6J   | J    | ug/kg | 59.7     | 6.0  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS      | B       |
| Benzo(a)pyrene             | 10.9J   | J    | ug/kg | 59.7     | 4.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS      | B       |
| Benzo(b)fluoranthene       | 12.3J   | J    | ug/kg | 59.7     | 6.0  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS      | B       |
| Benzo(g,h,i)perylene       | 7.9J    | J    | ug/kg | 59.7     | 6.0  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS      | B       |
| Benzo(k)fluoranthene       | ND      |      | ug/kg | 59.7     | 6.0  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS      | B       |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592006**

Date Collected: 2/9/2017 11:50

Matrix: Solid

Sample ID: **CL-SE-S-05**

Date Received: 2/9/2017 21:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Biphenyl                    | ND      |      | ug/kg | 119  | 8.4  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 119  | 10.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| Butylbenzylphthalate        | 29.5J   | J    | ug/kg | 119  | 8.4  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| Caprolactam                 | ND      |      | ug/kg | 239  | 21.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| Carbazole                   | ND      |      | ug/kg | 119  | 8.4  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 239  | 11.9 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| 4-Chloroaniline             | ND      |      | ug/kg | 239  | 14.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 119  | 10.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 119  | 15.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 119  | 17.9 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 119  | 7.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| 2-Chlorophenol              | ND      |      | ug/kg | 239  | 9.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 119  | 9.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| Chrysene                    | 8.4J    | J    | ug/kg | 59.7 | 6.0  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| mp-Cresol                   | ND      |      | ug/kg | 239  | 9.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| o-Cresol                    | ND      |      | ug/kg | 239  | 13.1 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 119  | 9.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 119  | 8.4  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 59.7 | 7.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| Dibenzofuran                | ND      |      | ug/kg | 119  | 9.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 239  | 45.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 239  | 9.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| Diethylphthalate            | ND      |      | ug/kg | 119  | 9.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 239  | 17.9 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| Dimethylphthalate           | ND      |      | ug/kg | 119  | 8.4  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 239  | 47.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 119  | 10.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 119  | 14.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 119  | 58.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 119  | 8.4  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| Fluoranthene                | 13.6J   | J    | ug/kg | 59.7 | 6.0  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| Fluorene                    | ND      |      | ug/kg | 59.7 | 7.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| Hexachlorobenzene           | ND      |      | ug/kg | 119  | 13.1 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 119  | 11.9 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 239  | 13.1 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| Hexachloroethane            | ND      |      | ug/kg | 119  | 10.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| Indeno(1,2,3-cd)pyrene      | 8.8J    | J    | ug/kg | 59.7 | 8.4  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |
| Isophorone                  | ND      |      | ug/kg | 119  | 7.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS | B    |



## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592006**

Date Collected: 2/9/2017 11:50

Matrix: Solid

Sample ID: **CL-SE-S-05**

Date Received: 2/9/2017 21:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 239           | 31.0   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 119           | 6.0    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| Naphthalene                    | ND             |             | ug/kg        | 59.7          | 7.2    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 239           | 14.3   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 239           | 23.9   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 239           | 9.5    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 119           | 14.3   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 239           | 13.1   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 239           | 16.7   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 119           | 9.5    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 119           | 9.5    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 239           | 31.0   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| Phenanthrene                   | 8.2J           | J           | ug/kg        | 59.7          | 6.0    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| Phenol                         | ND             |             | ug/kg        | 239           | 11.9   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| Pyrene                         | 10.3J          | J           | ug/kg        | 59.7          | 6.0    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 119           | 8.4    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 239           | 14.3   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 239           | 14.3   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 239           | 14.3   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 81.7           |             | %            | 19 - 132      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| 2-Fluorobiphenyl (S)           | 76.8           |             | %            | 40 - 110      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| 2-Fluorophenol (S)             | 82.3           |             | %            | 26 - 116      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| Nitrobenzene-d5 (S)            | 87.1           |             | %            | 38 - 112      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| Phenol-d5 (S)                  | 83.6           |             | %            | 35 - 111      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| Terphenyl-d14 (S)              | 72.6           |             | %            | 45 - 126      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:14 | CGS             | B                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.039         | 0.0036 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:43 | EGO             | B                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.039         | 0.0071 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:43 | EGO             | B                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.039         | 0.0036 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:43 | EGO             | B                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.039         | 0.0071 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:43 | EGO             | B                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.039         | 0.011  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:43 | EGO             | B                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.039         | 0.0071 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:43 | EGO             | B                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.039         | 0.0071 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:43 | EGO             | B                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.039         | 0.0071 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:43 | EGO             | B                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.039         | 0.0083 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:43 | EGO             | B                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.039         | 0.011  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:43 | EGO             | B                     |



## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592006**

Date Collected: 2/9/2017 11:50

Matrix: Solid

Sample ID: **CL-SE-S-05**

Date Received: 2/9/2017 21:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By     | Analyzed  | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-----------------|-----------|-----------------|-----------------------|
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 70.9           |             | %            | 49 - 115      |      | SW846 8082A   | 2/15/17 00:50   | CMA       | 2/15/17 09:43   | EGO B                 |
| Tetrachloro-m-xylene (S)    | 80.3           |             | %            | 27 - 137      |      | SW846 8082A   | 2/15/17 00:50   | CMA       | 2/15/17 09:43   | EGO B                 |
| <b>PESTICIDES</b>           |                |             |              |               |      |               |                 |           |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 10.1          | 3.3  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:17   | RWS B                 |
| alpha-BHC                   | ND             |             | ug/kg        | 10.1          | 0.89 | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:17   | RWS B                 |
| beta-BHC                    | ND             |             | ug/kg        | 10.1          | 1.1  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:17   | RWS B                 |
| delta-BHC                   | ND             |             | ug/kg        | 10.1          | 0.77 | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:17   | RWS B                 |
| gamma-BHC                   | ND             |             | ug/kg        | 10.1          | 0.83 | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:17   | RWS B                 |
| alpha-Chlordane             | 6.2J           | J           | ug/kg        | 10.1          | 1.1  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:17   | RWS B                 |
| gamma-Chlordane             | 10.4           |             | ug/kg        | 10.1          | 1.7  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:17   | RWS B                 |
| 4,4'-DDD                    | ND             |             | ug/kg        | 19.6          | 1.6  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:17   | RWS B                 |
| 4,4'-DDE                    | ND             |             | ug/kg        | 19.6          | 2.7  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:17   | RWS B                 |
| 4,4'-DDT                    | ND             |             | ug/kg        | 19.6          | 2.3  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:17   | RWS B                 |
| Dieldrin                    | ND             |             | ug/kg        | 19.6          | 2.3  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:17   | RWS B                 |
| Endosulfan I                | ND             |             | ug/kg        | 10.1          | 1.2  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:17   | RWS B                 |
| Endosulfan II               | ND             |             | ug/kg        | 19.6          | 4.1  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:17   | RWS B                 |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 19.6          | 1.3  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:17   | RWS B                 |
| Endrin                      | ND             |             | ug/kg        | 19.6          | 1.4  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:17   | RWS B                 |
| Endrin Aldehyde             | ND             |             | ug/kg        | 19.6          | 2.1  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:17   | RWS B                 |
| Endrin Ketone               | ND             |             | ug/kg        | 19.6          | 2.7  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:17   | RWS B                 |
| Heptachlor                  | 1.7J           | J           | ug/kg        | 10.1          | 1.0  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/18/17 21:20   | RWS B                 |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 10.1          | 1.0  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:17   | RWS B                 |
| Methoxychlor                | ND             |             | ug/kg        | 19.6          | 2.6  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:17   | RWS B                 |
| Toxaphene                   | ND             |             | ug/kg        | 207           | 34.4 | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:17   | RWS B                 |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 67.7           |             | %            | 30 - 135      |      | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:17   | RWS B                 |
| Decachlorobiphenyls (S)     | 73.5           |             | %            | 30 - 135      |      | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/18/17 21:20   | RWS B                 |
| Tetrachloro-m-xylene (S)    | 55.4           |             | %            | 30 - 111      |      | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/18/17 21:20   | RWS B                 |
| Tetrachloro-m-xylene (S)    | 53.4           |             | %            | 30 - 111      |      | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:17   | RWS B                 |
| <b>WET CHEMISTRY</b>        |                |             |              |               |      |               |                 |           |                 |                       |
| Moisture                    | 18.4           |             | %            | 0.1           | 0.01 | S2540G-11     |                 |           | 2/13/17 11:13   | VKB B                 |
| Total Solids                | 81.6           |             | %            | 0.1           | 0.01 | S2540G-11     |                 |           | 2/13/17 11:13   | VKB B                 |
| <b>METALS</b>               |                |             |              |               |      |               |                 |           |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.2           | 0.40 | SW846 6020A   | 2/15/17 10:25   | TRR       | 2/15/17 18:18   | MO B2                 |
| Arsenic, Total              | 3.1            |             | mg/kg        | 1.8           | 0.61 | SW846 6020A   | 2/15/17 10:25   | TRR       | 2/15/17 18:18   | MO B2                 |

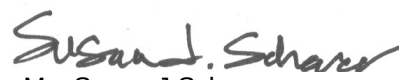
## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592006**  
Sample ID: **CL-SE-S-05**

Date Collected: 2/9/2017 11:50 Matrix: Solid  
Date Received: 2/9/2017 21:20

| Parameters       | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|------------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Beryllium, Total | ND      |      | mg/kg | 0.61  | 0.20  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:18 | MO  | B2   |
| Cadmium, Total   | ND      |      | mg/kg | 0.61  | 0.20  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:18 | MO  | B2   |
| Chromium, Total  | 8.5     |      | mg/kg | 1.2   | 0.40  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:18 | MO  | B2   |
| Copper, Total    | 9.6     |      | mg/kg | 3.1   | 0.98  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:18 | MO  | B2   |
| Lead, Total      | 21.7    |      | mg/kg | 1.2   | 0.40  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:18 | MO  | B2   |
| Mercury, Total   | 0.030J  | J    | mg/kg | 0.059 | 0.019 | SW846 7471B | 2/13/17 09:30 MNP | 2/13/17 12:21 | MNP | B1   |
| Nickel, Total    | 2.6J    | J    | mg/kg | 3.1   | 0.98  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:18 | MO  | B2   |
| Selenium, Total  | ND      |      | mg/kg | 3.1   | 0.98  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:18 | MO  | B2   |
| Silver, Total    | ND      |      | mg/kg | 1.2   | 0.40  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:18 | MO  | B2   |
| Thallium, Total  | ND      |      | mg/kg | 0.61  | 0.20  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:18 | MO  | B2   |
| Zinc, Total      | 14.9    |      | mg/kg | 3.1   | 0.98  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:18 | MO  | B2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592007**  
Sample ID: **CL-SE-S-06**

Date Collected: 2/9/2017 12:15 Matrix: Solid  
Date Received: 2/9/2017 21:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 61.6           |             | mg/kg        | 14.2          | 3.4  | SW846 8015D   | 2/17/17 02:40 VLM | 2/17/17 12:13 | BS              | B                     |
| Gasoline Range Organics       | 1010J          | J           | ug/kg        | 6520          | 906  | SW846 8015D   | 2/9/17 12:15 DD   | 2/15/17 06:46 | DD              | A                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 73.6           |             | %            | 38 - 118      |      | SW846 8015D   | 2/17/17 02:40 VLM | 2/17/17 12:13 | BS              | B                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 125            |             | %            | 72 - 134      |      | SW846 8015D   | 2/9/17 12:15 DD   | 2/15/17 06:46 | DD              | A                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | ND             |             | ug/kg        | 12.4          | 5.7  | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.5           | 0.73 | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 12.4          | 4.3  | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| Benzene                       | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| Bromochloromethane            | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.5           | 0.88 | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| Bromoform                     | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| Bromomethane                  | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| 2-Butanone                    | ND             |             | ug/kg        | 12.4          | 4.0  | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 12.4          | 4.3  | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.5           | 0.78 | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.5           | 0.63 | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.5           | 0.63 | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.5           | 0.84 | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| Chloroethane                  | ND             |             | ug/kg        | 6.2           | 1.1  | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| Chloroform                    | ND             |             | ug/kg        | 2.5           | 0.65 | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| Chloromethane                 | ND             |             | ug/kg        | 2.5           | 0.68 | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 6.2           | 3.6  | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.5           | 0.67 | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.5           | 0.74 | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.5           | 0.68 | SW846 8260B   | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP             | B1                    |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592007**

Date Collected: 2/9/2017 12:15

Matrix: Solid

Sample ID: **CL-SE-S-06**

Date Received: 2/9/2017 21:20

| Parameters                 | Results | Flag | Units | RDL      | MDL  | Method      | Prepared By       | Analyzed      | By       | Cntr    |
|----------------------------|---------|------|-------|----------|------|-------------|-------------------|---------------|----------|---------|
| trans-1,3-Dichloropropene  | ND      |      | ug/kg | 2.5      | 0.72 | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| Diisopropyl ether          | ND      |      | ug/kg | 2.5      | 0.62 | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| Ethyl tert-butyl ether     | ND      |      | ug/kg | 2.5      | 0.64 | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| Ethylbenzene               | ND      |      | ug/kg | 2.5      | 0.84 | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| 2-Hexanone                 | ND      |      | ug/kg | 12.4     | 3.5  | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| Methyl t-Butyl Ether       | 0.82J   | J    | ug/kg | 2.5      | 0.62 | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| 4-Methyl-2-Pentanone(MIBK) | ND      |      | ug/kg | 12.4     | 4.7  | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| Methylene Chloride         | 23.7    | 1,2  | ug/kg | 2.5      | 0.96 | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| Naphthalene                | ND      |      | ug/kg | 2.5      | 0.62 | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| Styrene                    | ND      |      | ug/kg | 2.5      | 0.62 | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| 1,1,2,2-Tetrachloroethane  | ND      |      | ug/kg | 2.5      | 0.69 | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| Tetrachloroethene          | ND      |      | ug/kg | 2.5      | 0.74 | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| Toluene                    | ND      |      | ug/kg | 2.5      | 0.83 | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| Total Xylenes              | ND      |      | ug/kg | 7.4      | 1.7  | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| 1,1,1-Trichloroethane      | ND      |      | ug/kg | 2.5      | 0.77 | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| 1,1,2-Trichloroethane      | ND      |      | ug/kg | 2.5      | 0.69 | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| Trichloroethene            | ND      |      | ug/kg | 2.5      | 0.62 | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| Vinyl Chloride             | ND      |      | ug/kg | 2.5      | 0.62 | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| o-Xylene                   | ND      |      | ug/kg | 2.5      | 0.72 | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| mp-Xylene                  | ND      |      | ug/kg | 4.9      | 1.0  | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| Surrogate Recoveries       | Results | Flag | Units | Limits   |      | Method      | Prepared          | By            | Analyzed | By Cntr |
| 1,2-Dichloroethane-d4 (S)  | 87.9    |      | %     | 56 - 124 |      | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| 4-Bromofluorobenzene (S)   | 82.9    |      | %     | 51 - 128 |      | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| Dibromofluoromethane (S)   | 89.6    |      | %     | 62 - 123 |      | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| Toluene-d8 (S)             | 83.4    |      | %     | 59 - 131 |      | SW846 8260B | 2/10/17 07:29 TMP | 2/10/17 20:24 | TMP      | B1      |
| SEMIVOLATILES              |         |      |       |          |      |             |                   |               |          |         |
| Acenaphthene               | ND      |      | ug/kg | 68.1     | 8.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS      | B       |
| Acenaphthylene             | ND      |      | ug/kg | 68.1     | 9.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS      | B       |
| Acetophenone               | ND      |      | ug/kg | 136      | 10.9 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS      | B       |
| Anthracene                 | ND      |      | ug/kg | 68.1     | 10.9 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS      | B       |
| Atrazine                   | ND      |      | ug/kg | 136      | 15.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS      | B       |
| Benzaldehyde               | 33.4J   | J    | ug/kg | 272      | 23.1 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS      | B       |
| Benzo(a)anthracene         | 17.1J   | J    | ug/kg | 68.1     | 6.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS      | B       |
| Benzo(a)pyrene             | 8.1J    | J    | ug/kg | 68.1     | 5.4  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS      | B       |
| Benzo(b)fluoranthene       | 9.9J    | J    | ug/kg | 68.1     | 6.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS      | B       |
| Benzo(g,h,i)perylene       | 9.2J    | J    | ug/kg | 68.1     | 6.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS      | B       |
| Benzo(k)fluoranthene       | ND      |      | ug/kg | 68.1     | 6.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS      | B       |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592007**

Date Collected: 2/9/2017 12:15

Matrix: Solid

Sample ID: **CL-SE-S-06**

Date Received: 2/9/2017 21:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Biphenyl                    | ND      |      | ug/kg | 136  | 9.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 136  | 12.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| Butylbenzylphthalate        | 13.5J   | J    | ug/kg | 136  | 9.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| Caprolactam                 | ND      |      | ug/kg | 272  | 24.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| Carbazole                   | ND      |      | ug/kg | 136  | 9.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 272  | 13.6 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| 4-Chloroaniline             | ND      |      | ug/kg | 272  | 16.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 136  | 12.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 136  | 17.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 136  | 20.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 136  | 8.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| 2-Chlorophenol              | ND      |      | ug/kg | 272  | 10.9 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 136  | 10.9 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| Chrysene                    | ND      |      | ug/kg | 68.1 | 6.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| mp-Cresol                   | ND      |      | ug/kg | 272  | 10.9 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| o-Cresol                    | ND      |      | ug/kg | 272  | 15.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 136  | 10.9 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 136  | 9.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 68.1 | 8.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| Dibenzofuran                | ND      |      | ug/kg | 136  | 10.9 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 272  | 51.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 272  | 10.9 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| Diethylphthalate            | ND      |      | ug/kg | 136  | 10.9 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 272  | 20.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| Dimethylphthalate           | ND      |      | ug/kg | 136  | 9.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 272  | 54.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 136  | 12.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 136  | 16.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 136  | 66.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| bis(2-Ethylhexyl)phthalate  | 3290    |      | ug/kg | 136  | 9.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| Fluoranthene                | 14.4J   | J    | ug/kg | 68.1 | 6.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| Fluorene                    | ND      |      | ug/kg | 68.1 | 8.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| Hexachlorobenzene           | ND      |      | ug/kg | 136  | 15.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 136  | 13.6 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 272  | 15.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| Hexachloroethane            | ND      |      | ug/kg | 136  | 12.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 68.1 | 9.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |
| Isophorone                  | ND      |      | ug/kg | 136  | 8.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS | B    |



## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592007**

Date Collected: 2/9/2017 12:15

Matrix: Solid

Sample ID: **CL-SE-S-06**

Date Received: 2/9/2017 21:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 272           | 35.4   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 136           | 6.8    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| Naphthalene                    | ND             |             | ug/kg        | 68.1          | 8.2    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 272           | 16.3   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 272           | 27.2   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 272           | 10.9   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 136           | 16.3   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 272           | 15.0   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 272           | 19.1   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 136           | 10.9   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 136           | 10.9   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 272           | 35.4   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| Phenanthrene                   | ND             |             | ug/kg        | 68.1          | 6.8    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| Phenol                         | ND             |             | ug/kg        | 272           | 13.6   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| Pyrene                         | 9.2J           | J           | ug/kg        | 68.1          | 6.8    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 136           | 9.5    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 272           | 16.3   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 272           | 16.3   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 272           | 16.3   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 82.5           |             | %            | 19 - 132      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| 2-Fluorobiphenyl (S)           | 77             |             | %            | 40 - 110      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| 2-Fluorophenol (S)             | 87.4           |             | %            | 26 - 116      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| Nitrobenzene-d5 (S)            | 87.5           |             | %            | 38 - 112      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| Phenol-d5 (S)                  | 90.6           |             | %            | 35 - 111      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| Terphenyl-d14 (S)              | 68.7           |             | %            | 45 - 126      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 16:40 | CGS             | B                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.045         | 0.0041 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:55 | EGO             | B                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.045         | 0.0081 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:55 | EGO             | B                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.045         | 0.0041 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:55 | EGO             | B                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.045         | 0.0081 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:55 | EGO             | B                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.045         | 0.012  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:55 | EGO             | B                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.045         | 0.0081 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:55 | EGO             | B                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.045         | 0.0081 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:55 | EGO             | B                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.045         | 0.0081 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:55 | EGO             | B                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.045         | 0.0095 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:55 | EGO             | B                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.045         | 0.012  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 09:55 | EGO             | B                     |



## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592007**

Date Collected: 2/9/2017 12:15

Matrix: Solid

Sample ID: **CL-SE-S-06**

Date Received: 2/9/2017 21:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By     | Analyzed  | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-----------------|-----------|-----------------|-----------------------|
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 81.7           |             | %            | 49 - 115      |      | SW846 8082A   | 2/15/17 00:50   | CMA       | 2/15/17 09:55   | EGO B                 |
| Tetrachloro-m-xylene (S)    | 86.9           |             | %            | 27 - 137      |      | SW846 8082A   | 2/15/17 00:50   | CMA       | 2/15/17 09:55   | EGO B                 |
| <b>PESTICIDES</b>           |                |             |              |               |      |               |                 |           |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 11.5          | 3.7  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:32   | RWS B                 |
| alpha-BHC                   | ND             |             | ug/kg        | 11.5          | 1.0  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:32   | RWS B                 |
| beta-BHC                    | ND             |             | ug/kg        | 11.5          | 1.2  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:32   | RWS B                 |
| delta-BHC                   | ND             |             | ug/kg        | 11.5          | 0.88 | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:32   | RWS B                 |
| gamma-BHC                   | ND             |             | ug/kg        | 11.5          | 0.95 | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:32   | RWS B                 |
| alpha-Chlordane             | ND             |             | ug/kg        | 11.5          | 1.2  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:32   | RWS B                 |
| gamma-Chlordane             | ND             |             | ug/kg        | 11.5          | 2.0  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:32   | RWS B                 |
| 4,4'-DDD                    | ND             |             | ug/kg        | 22.3          | 1.8  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:32   | RWS B                 |
| 4,4'-DDE                    | ND             |             | ug/kg        | 22.3          | 3.0  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:32   | RWS B                 |
| 4,4'-DDT                    | ND             |             | ug/kg        | 22.3          | 2.6  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:32   | RWS B                 |
| Dieldrin                    | ND             |             | ug/kg        | 22.3          | 2.6  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:32   | RWS B                 |
| Endosulfan I                | ND             |             | ug/kg        | 11.5          | 1.4  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:32   | RWS B                 |
| Endosulfan II               | ND             |             | ug/kg        | 22.3          | 4.7  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:32   | RWS B                 |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 22.3          | 1.5  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:32   | RWS B                 |
| Endrin                      | ND             |             | ug/kg        | 22.3          | 1.6  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:32   | RWS B                 |
| Endrin Aldehyde             | ND             |             | ug/kg        | 22.3          | 2.4  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:32   | RWS B                 |
| Endrin Ketone               | ND             |             | ug/kg        | 22.3          | 3.1  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:32   | RWS B                 |
| Heptachlor                  | ND             |             | ug/kg        | 11.5          | 1.1  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/18/17 21:35   | RWS B                 |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 11.5          | 1.1  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:32   | RWS B                 |
| Methoxychlor                | ND             |             | ug/kg        | 22.3          | 3.0  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:32   | RWS B                 |
| Toxaphene                   | ND             |             | ug/kg        | 237           | 39.2 | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:32   | RWS B                 |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 73.8           |             | %            | 30 - 135      |      | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:32   | RWS B                 |
| Decachlorobiphenyls (S)     | 64.2           |             | %            | 30 - 135      |      | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/18/17 21:35   | RWS B                 |
| Tetrachloro-m-xylene (S)    | 55.6           |             | %            | 30 - 111      |      | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:32   | RWS B                 |
| Tetrachloro-m-xylene (S)    | 56.4           |             | %            | 30 - 111      |      | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/18/17 21:35   | RWS B                 |
| <b>WET CHEMISTRY</b>        |                |             |              |               |      |               |                 |           |                 |                       |
| Moisture                    | 26.5           |             | %            | 0.1           | 0.01 | S2540G-11     |                 |           | 2/13/17 11:13   | VKB B                 |
| Total Solids                | 73.5           |             | %            | 0.1           | 0.01 | S2540G-11     |                 |           | 2/13/17 11:13   | VKB B                 |
| <b>METALS</b>               |                |             |              |               |      |               |                 |           |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.4           | 0.45 | SW846 6020A   | 2/15/17 10:25   | TRR       | 2/15/17 18:22   | MO B2                 |
| Arsenic, Total              | 2.3            |             | mg/kg        | 2.0           | 0.68 | SW846 6020A   | 2/15/17 10:25   | TRR       | 2/15/17 18:22   | MO B2                 |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592007**

Date Collected: 2/9/2017 12:15

Matrix: Solid

Sample ID: **CL-SE-S-06**

Date Received: 2/9/2017 21:20

| Parameters       | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|------------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Beryllium, Total | ND      |      | mg/kg | 0.68  | 0.22  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:22 | MO  | B2   |
| Cadmium, Total   | ND      |      | mg/kg | 0.68  | 0.22  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:22 | MO  | B2   |
| Chromium, Total  | 9.2     |      | mg/kg | 1.4   | 0.45  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:22 | MO  | B2   |
| Copper, Total    | 13.3    |      | mg/kg | 3.4   | 1.1   | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:22 | MO  | B2   |
| Lead, Total      | 13.4    |      | mg/kg | 1.4   | 0.45  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:22 | MO  | B2   |
| Mercury, Total   | 0.027J  | J    | mg/kg | 0.065 | 0.021 | SW846 7471B | 2/13/17 09:30 MNP | 2/13/17 12:22 | MNP | B1   |
| Nickel, Total    | 2.1J    | J    | mg/kg | 3.4   | 1.1   | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:22 | MO  | B2   |
| Selenium, Total  | ND      |      | mg/kg | 3.4   | 1.1   | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:22 | MO  | B2   |
| Silver, Total    | ND      |      | mg/kg | 1.4   | 0.45  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:22 | MO  | B2   |
| Thallium, Total  | ND      |      | mg/kg | 0.68  | 0.22  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:22 | MO  | B2   |
| Zinc, Total      | 9.7     |      | mg/kg | 3.4   | 1.1   | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:22 | MO  | B2   |



Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592008**

Date Collected: 2/9/2017 12:50

Matrix: Solid

Sample ID: **CL-SE-S-07**

Date Received: 2/9/2017 21:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 43.5           |             | mg/kg        | 12.3          | 2.9  | SW846 8015D   | 2/17/17 02:40 VLM | 2/17/17 12:49 | BS              | B                     |
| Gasoline Range Organics       | 5430J          | J           | ug/kg        | 10500         | 1450 | SW846 8015D   | 2/9/17 12:50 DD   | 2/15/17 07:22 | DD              | A                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 90.2           |             | %            | 38 - 118      |      | SW846 8015D   | 2/17/17 02:40 VLM | 2/17/17 12:49 | BS              | B                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 124            |             | %            | 72 - 134      |      | SW846 8015D   | 2/9/17 12:50 DD   | 2/15/17 07:22 | DD              | A                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | ND             |             | ug/kg        | 11.8          | 5.4  | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.4           | 0.70 | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 11.8          | 4.1  | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| Benzene                       | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| Bromochloromethane            | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.4           | 0.84 | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| Bromoform                     | ND             |             | ug/kg        | 2.4           | 0.62 | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| Bromomethane                  | ND             |             | ug/kg        | 2.4           | 0.62 | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| 2-Butanone                    | ND             |             | ug/kg        | 11.8          | 3.8  | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 11.8          | 4.1  | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.4           | 0.75 | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.4           | 0.60 | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.4           | 0.60 | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.4           | 0.81 | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| Chloroethane                  | ND             |             | ug/kg        | 5.9           | 1.0  | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| Chloroform                    | ND             |             | ug/kg        | 2.4           | 0.63 | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| Chloromethane                 | ND             |             | ug/kg        | 2.4           | 0.65 | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 5.9           | 3.4  | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.4           | 0.64 | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.4           | 0.62 | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.4           | 0.62 | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.4           | 0.71 | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.4           | 0.65 | SW846 8260B   | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP             | B1                    |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592008**

Date Collected: 2/9/2017 12:50

Matrix: Solid

Sample ID: **CL-SE-S-07**

Date Received: 2/9/2017 21:20

| Parameters                 | Results | Flag | Units | RDL      | MDL  | Method      | Prepared By       | Analyzed      | By       | Cntr    |
|----------------------------|---------|------|-------|----------|------|-------------|-------------------|---------------|----------|---------|
| trans-1,3-Dichloropropene  | ND      |      | ug/kg | 2.4      | 0.69 | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| Diisopropyl ether          | ND      |      | ug/kg | 2.4      | 0.59 | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| Ethyl tert-butyl ether     | ND      |      | ug/kg | 2.4      | 0.62 | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| Ethylbenzene               | ND      |      | ug/kg | 2.4      | 0.81 | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| 2-Hexanone                 | ND      |      | ug/kg | 11.8     | 3.3  | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| Methyl t-Butyl Ether       | 0.65J   | J    | ug/kg | 2.4      | 0.59 | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| 4-Methyl-2-Pentanone(MIBK) | ND      |      | ug/kg | 11.8     | 4.5  | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| Methylene Chloride         | 10.1    | 1,2  | ug/kg | 2.4      | 0.92 | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| Naphthalene                | ND      |      | ug/kg | 2.4      | 0.59 | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| Styrene                    | ND      |      | ug/kg | 2.4      | 0.59 | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| 1,1,2,2-Tetrachloroethane  | ND      |      | ug/kg | 2.4      | 0.66 | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| Tetrachloroethene          | ND      |      | ug/kg | 2.4      | 0.71 | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| Toluene                    | ND      |      | ug/kg | 2.4      | 0.79 | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| Total Xylenes              | ND      |      | ug/kg | 7.1      | 1.7  | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| 1,1,1-Trichloroethane      | ND      |      | ug/kg | 2.4      | 0.73 | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| 1,1,2-Trichloroethane      | ND      |      | ug/kg | 2.4      | 0.66 | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| Trichloroethene            | ND      |      | ug/kg | 2.4      | 0.59 | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| Vinyl Chloride             | ND      |      | ug/kg | 2.4      | 0.59 | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| o-Xylene                   | ND      |      | ug/kg | 2.4      | 0.69 | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| mp-Xylene                  | ND      |      | ug/kg | 4.7      | 0.98 | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| Surrogate Recoveries       | Results | Flag | Units | Limits   |      | Method      | Prepared          | By            | Analyzed | By Cntr |
| 1,2-Dichloroethane-d4 (S)  | 78.3    |      | %     | 56 - 124 |      | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| 4-Bromofluorobenzene (S)   | 82.8    |      | %     | 51 - 128 |      | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| Dibromofluoromethane (S)   | 86.1    |      | %     | 62 - 123 |      | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| Toluene-d8 (S)             | 86.3    |      | %     | 59 - 131 |      | SW846 8260B | 2/10/17 07:30 TMP | 2/10/17 20:47 | TMP      | B1      |
| SEMIVOLATILES              |         |      |       |          |      |             |                   |               |          |         |
| Acenaphthene               | ND      |      | ug/kg | 60.0     | 7.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS      | B       |
| Acenaphthylene             | ND      |      | ug/kg | 60.0     | 8.4  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS      | B       |
| Acetophenone               | ND      |      | ug/kg | 120      | 9.6  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS      | B       |
| Anthracene                 | ND      |      | ug/kg | 60.0     | 9.6  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS      | B       |
| Atrazine                   | ND      |      | ug/kg | 120      | 13.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS      | B       |
| Benzaldehyde               | ND      |      | ug/kg | 240      | 20.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS      | B       |
| Benzo(a)anthracene         | 18.5J   | J    | ug/kg | 60.0     | 6.0  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS      | B       |
| Benzo(a)pyrene             | 14.2J   | J    | ug/kg | 60.0     | 4.8  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS      | B       |
| Benzo(b)fluoranthene       | 19.0J   | J    | ug/kg | 60.0     | 6.0  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS      | B       |
| Benzo(g,h,i)perylene       | 14.7J   | J    | ug/kg | 60.0     | 6.0  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS      | B       |
| Benzo(k)fluoranthene       | 6.5J    | J    | ug/kg | 60.0     | 6.0  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS      | B       |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592008**

Date Collected: 2/9/2017 12:50

Matrix: Solid

Sample ID: **CL-SE-S-07**

Date Received: 2/9/2017 21:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Biphenyl                    | ND      |      | ug/kg | 120  | 8.4  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 120  | 10.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| Butylbenzylphthalate        | 16.0J   | J    | ug/kg | 120  | 8.4  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| Caprolactam                 | ND      |      | ug/kg | 240  | 21.6 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| Carbazole                   | ND      |      | ug/kg | 120  | 8.4  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 240  | 12.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| 4-Chloroaniline             | ND      |      | ug/kg | 240  | 14.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 120  | 10.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 120  | 15.6 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 120  | 18.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 120  | 7.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| 2-Chlorophenol              | ND      |      | ug/kg | 240  | 9.6  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 120  | 9.6  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| Chrysene                    | 15.0J   | J    | ug/kg | 60.0 | 6.0  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| mp-Cresol                   | ND      |      | ug/kg | 240  | 9.6  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| o-Cresol                    | ND      |      | ug/kg | 240  | 13.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| Di-n-Butylphthalate         | 107J    | J    | ug/kg | 120  | 9.6  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 120  | 8.4  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 60.0 | 7.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| Dibenzofuran                | ND      |      | ug/kg | 120  | 9.6  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 240  | 45.6 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 240  | 9.6  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| Diethylphthalate            | ND      |      | ug/kg | 120  | 9.6  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 240  | 18.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| Dimethylphthalate           | ND      |      | ug/kg | 120  | 8.4  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 240  | 48.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 120  | 10.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 120  | 14.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 120  | 58.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| bis(2-Ethylhexyl)phthalate  | 270     |      | ug/kg | 120  | 8.4  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| Fluoranthene                | 23.3J   | J    | ug/kg | 60.0 | 6.0  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| Fluorene                    | ND      |      | ug/kg | 60.0 | 7.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| Hexachlorobenzene           | ND      |      | ug/kg | 120  | 13.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 120  | 12.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| Hexachlorocyclopentadiene   | ND      | 3    | ug/kg | 240  | 13.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| Hexachloroethane            | ND      |      | ug/kg | 120  | 10.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| Indeno(1,2,3-cd)pyrene      | 9.8J    | J    | ug/kg | 60.0 | 8.4  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |
| Isophorone                  | ND      |      | ug/kg | 120  | 7.2  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS | B    |



## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592008**

Date Collected: 2/9/2017 12:50

Matrix: Solid

Sample ID: **CL-SE-S-07**

Date Received: 2/9/2017 21:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 240           | 31.2   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 120           | 6.0    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| Naphthalene                    | ND             |             | ug/kg        | 60.0          | 7.2    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 240           | 14.4   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 240           | 24.0   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 240           | 9.6    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 120           | 14.4   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 240           | 13.2   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 240           | 16.8   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 120           | 9.6    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 120           | 9.6    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 240           | 31.2   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| Phenanthrene                   | 9.2J           | J           | ug/kg        | 60.0          | 6.0    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| Phenol                         | ND             |             | ug/kg        | 240           | 12.0   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| Pyrene                         | 18.7J          | J           | ug/kg        | 60.0          | 6.0    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 120           | 8.4    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 240           | 14.4   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 240           | 14.4   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 240           | 14.4   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 82.3           |             | %            | 19 - 132      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| 2-Fluorobiphenyl (S)           | 78.5           |             | %            | 40 - 110      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| 2-Fluorophenol (S)             | 83.2           |             | %            | 26 - 116      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| Nitrobenzene-d5 (S)            | 84.5           |             | %            | 38 - 112      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| Phenol-d5 (S)                  | 84.5           |             | %            | 35 - 111      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| Terphenyl-d14 (S)              | 75.5           |             | %            | 45 - 126      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:06 | CGS             | B                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.040         | 0.0036 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:06 | EGO             | B                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.040         | 0.0072 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:06 | EGO             | B                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.040         | 0.0036 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:06 | EGO             | B                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.040         | 0.0072 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:06 | EGO             | B                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.040         | 0.011  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:06 | EGO             | B                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.040         | 0.0072 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:06 | EGO             | B                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.040         | 0.0072 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:06 | EGO             | B                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.040         | 0.0072 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:06 | EGO             | B                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.040         | 0.0084 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:06 | EGO             | B                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.040         | 0.011  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:06 | EGO             | B                     |



## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592008**

Date Collected: 2/9/2017 12:50

Matrix: Solid

Sample ID: **CL-SE-S-07**

Date Received: 2/9/2017 21:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By     | Analyzed  | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-----------------|-----------|-----------------|-----------------------|
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 99.9           |             | %            | 49 - 115      |      | SW846 8082A   | 2/15/17 00:50   | CMA       | 2/15/17 10:06   | EGO B                 |
| Tetrachloro-m-xylene (S)    | 98.3           |             | %            | 27 - 137      |      | SW846 8082A   | 2/15/17 00:50   | CMA       | 2/15/17 10:06   | EGO B                 |
| <b>PESTICIDES</b>           |                |             |              |               |      |               |                 |           |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 10.2          | 3.3  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:48   | RWS B                 |
| alpha-BHC                   | ND             |             | ug/kg        | 10.2          | 0.90 | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:48   | RWS B                 |
| beta-BHC                    | ND             |             | ug/kg        | 10.2          | 1.1  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:48   | RWS B                 |
| delta-BHC                   | ND             |             | ug/kg        | 10.2          | 0.78 | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:48   | RWS B                 |
| gamma-BHC                   | ND             |             | ug/kg        | 10.2          | 0.84 | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:48   | RWS B                 |
| alpha-Chlordane             | ND             |             | ug/kg        | 10.2          | 1.1  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:48   | RWS B                 |
| gamma-Chlordane             | ND             |             | ug/kg        | 10.2          | 1.7  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:48   | RWS B                 |
| 4,4'-DDD                    | ND             |             | ug/kg        | 19.8          | 1.6  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:48   | RWS B                 |
| 4,4'-DDE                    | 3.9J           | J           | ug/kg        | 19.8          | 2.7  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:48   | RWS B                 |
| 4,4'-DDT                    | 5.5J           | J           | ug/kg        | 19.8          | 2.3  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:48   | RWS B                 |
| Dieldrin                    | ND             |             | ug/kg        | 19.8          | 2.3  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:48   | RWS B                 |
| Endosulfan I                | ND             |             | ug/kg        | 10.2          | 1.3  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:48   | RWS B                 |
| Endosulfan II               | ND             |             | ug/kg        | 19.8          | 4.1  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:48   | RWS B                 |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 19.8          | 1.3  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:48   | RWS B                 |
| Endrin                      | ND             |             | ug/kg        | 19.8          | 1.4  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:48   | RWS B                 |
| Endrin Aldehyde             | ND             |             | ug/kg        | 19.8          | 2.2  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:48   | RWS B                 |
| Endrin Ketone               | ND             |             | ug/kg        | 19.8          | 2.8  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:48   | RWS B                 |
| Heptachlor                  | ND             |             | ug/kg        | 10.2          | 1.0  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/18/17 21:51   | RWS B                 |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 10.2          | 1.0  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:48   | RWS B                 |
| Methoxychlor                | ND             |             | ug/kg        | 19.8          | 2.6  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:48   | RWS B                 |
| Toxaphene                   | ND             |             | ug/kg        | 210           | 34.8 | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:48   | RWS B                 |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 88.3           |             | %            | 30 - 135      |      | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:48   | RWS B                 |
| Decachlorobiphenyls (S)     | 80.4           |             | %            | 30 - 135      |      | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/18/17 21:51   | RWS B                 |
| Tetrachloro-m-xylene (S)    | 60.5           |             | %            | 30 - 111      |      | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/18/17 21:51   | RWS B                 |
| Tetrachloro-m-xylene (S)    | 58.7           |             | %            | 30 - 111      |      | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 03:48   | RWS B                 |
| <b>WET CHEMISTRY</b>        |                |             |              |               |      |               |                 |           |                 |                       |
| Moisture                    | 16.7           |             | %            | 0.1           | 0.01 | S2540G-11     |                 |           | 2/13/17 11:13   | VKB B                 |
| Total Solids                | 83.3           |             | %            | 0.1           | 0.01 | S2540G-11     |                 |           | 2/13/17 11:13   | VKB B                 |
| <b>METALS</b>               |                |             |              |               |      |               |                 |           |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.2           | 0.40 | SW846 6020A   | 2/15/17 10:25   | TRR       | 2/15/17 18:26   | MO B2                 |
| Arsenic, Total              | 1.5J           | J           | mg/kg        | 1.8           | 0.60 | SW846 6020A   | 2/15/17 10:25   | TRR       | 2/15/17 18:26   | MO B2                 |

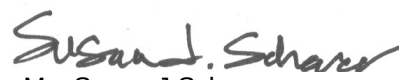
## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592008**  
Sample ID: **CL-SE-S-07**

Date Collected: 2/9/2017 12:50 Matrix: Solid  
Date Received: 2/9/2017 21:20

| Parameters       | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|------------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Beryllium, Total | ND      |      | mg/kg | 0.60  | 0.20  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:26 | MO  | B2   |
| Cadmium, Total   | ND      |      | mg/kg | 0.60  | 0.20  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:26 | MO  | B2   |
| Chromium, Total  | 4.2     |      | mg/kg | 1.2   | 0.40  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:26 | MO  | B2   |
| Copper, Total    | 3.8     |      | mg/kg | 3.0   | 0.96  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:26 | MO  | B2   |
| Lead, Total      | 9.3     |      | mg/kg | 1.2   | 0.40  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:26 | MO  | B2   |
| Mercury, Total   | 0.048J  | J    | mg/kg | 0.056 | 0.018 | SW846 7471B | 2/13/17 09:30 MNP | 2/13/17 12:23 | MNP | B1   |
| Nickel, Total    | 1.7J    | J    | mg/kg | 3.0   | 0.96  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:26 | MO  | B2   |
| Selenium, Total  | ND      |      | mg/kg | 3.0   | 0.96  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:26 | MO  | B2   |
| Silver, Total    | ND      |      | mg/kg | 1.2   | 0.40  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:26 | MO  | B2   |
| Thallium, Total  | ND      |      | mg/kg | 0.60  | 0.20  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:26 | MO  | B2   |
| Zinc, Total      | 9.1     |      | mg/kg | 3.0   | 0.96  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:26 | MO  | B2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592009**

Date Collected: 2/9/2017 13:10

Matrix: Solid

Sample ID: **CL-SE-S-08**

Date Received: 2/9/2017 21:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 19.2           |             | mg/kg        | 13.1          | 3.1  | SW846 8015D   | 2/17/17 02:40 VLM | 2/17/17 13:26 | BS              | B                     |
| Gasoline Range Organics       | 1520J          | J           | ug/kg        | 9350          | 1300 | SW846 8015D   | 2/9/17 13:10 DD   | 2/15/17 07:58 | DD              | A                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 86.6           |             | %            | 38 - 118      |      | SW846 8015D   | 2/17/17 02:40 VLM | 2/17/17 13:26 | BS              | B                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 117            |             | %            | 72 - 134      |      | SW846 8015D   | 2/9/17 13:10 DD   | 2/15/17 07:58 | DD              | A                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | ND             |             | ug/kg        | 16.4          | 7.5  | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 3.3           | 0.97 | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 16.4          | 5.7  | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 3.3           | 0.82 | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| Benzene                       | ND             |             | ug/kg        | 3.3           | 0.82 | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| Bromochloromethane            | ND             |             | ug/kg        | 3.3           | 0.82 | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| Bromodichloromethane          | ND             |             | ug/kg        | 3.3           | 1.2  | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| Bromoform                     | ND             |             | ug/kg        | 3.3           | 0.85 | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| Bromomethane                  | ND             |             | ug/kg        | 3.3           | 0.85 | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| 2-Butanone                    | ND             |             | ug/kg        | 16.4          | 5.2  | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 16.4          | 5.7  | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| Carbon Disulfide              | ND             |             | ug/kg        | 3.3           | 1.0  | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 3.3           | 0.84 | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| Chlorobenzene                 | ND             |             | ug/kg        | 3.3           | 0.84 | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| Chlorodibromomethane          | ND             |             | ug/kg        | 3.3           | 1.1  | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| Chloroethane                  | ND             |             | ug/kg        | 8.2           | 1.4  | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| Chloroform                    | ND             |             | ug/kg        | 3.3           | 0.87 | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| Chloromethane                 | ND             |             | ug/kg        | 3.3           | 0.90 | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 8.2           | 4.8  | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 3.3           | 0.88 | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 3.3           | 0.82 | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 3.3           | 0.82 | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 3.3           | 0.85 | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 3.3           | 0.82 | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 3.3           | 0.85 | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 3.3           | 0.98 | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 3.3           | 0.90 | SW846 8260B   | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP             | B1                    |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592009**

Date Collected: 2/9/2017 13:10

Matrix: Solid

Sample ID: **CL-SE-S-08**

Date Received: 2/9/2017 21:20

| Parameters                 | Results | Flag | Units | RDL      | MDL  | Method      | Prepared By       | Analyzed      | By       | Cntr    |
|----------------------------|---------|------|-------|----------|------|-------------|-------------------|---------------|----------|---------|
| trans-1,3-Dichloropropene  | ND      |      | ug/kg | 3.3      | 0.95 | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| Diisopropyl ether          | ND      |      | ug/kg | 3.3      | 0.82 | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| Ethyl tert-butyl ether     | ND      |      | ug/kg | 3.3      | 0.85 | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| Ethylbenzene               | ND      |      | ug/kg | 3.3      | 1.1  | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| 2-Hexanone                 | ND      |      | ug/kg | 16.4     | 4.6  | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| Methyl t-Butyl Ether       | ND      |      | ug/kg | 3.3      | 0.82 | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| 4-Methyl-2-Pentanone(MIBK) | ND      |      | ug/kg | 16.4     | 6.2  | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| Methylene Chloride         | 8.7     | 1,2  | ug/kg | 3.3      | 1.3  | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| Naphthalene                | ND      |      | ug/kg | 3.3      | 0.82 | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| Styrene                    | ND      |      | ug/kg | 3.3      | 0.82 | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| 1,1,2,2-Tetrachloroethane  | ND      |      | ug/kg | 3.3      | 0.92 | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| Tetrachloroethene          | ND      |      | ug/kg | 3.3      | 0.98 | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| Toluene                    | ND      |      | ug/kg | 3.3      | 1.1  | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| Total Xylenes              | ND      |      | ug/kg | 9.8      | 2.3  | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| 1,1,1-Trichloroethane      | ND      |      | ug/kg | 3.3      | 1.0  | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| 1,1,2-Trichloroethane      | ND      |      | ug/kg | 3.3      | 0.92 | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| Trichloroethene            | ND      |      | ug/kg | 3.3      | 0.82 | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| Vinyl Chloride             | ND      |      | ug/kg | 3.3      | 0.82 | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| o-Xylene                   | ND      |      | ug/kg | 3.3      | 0.95 | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| mp-Xylene                  | ND      |      | ug/kg | 6.6      | 1.4  | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| Surrogate Recoveries       | Results | Flag | Units | Limits   |      | Method      | Prepared          | By            | Analyzed | By Cntr |
| 1,2-Dichloroethane-d4 (S)  | 75.3    |      | %     | 56 - 124 |      | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| 4-Bromofluorobenzene (S)   | 84.9    |      | %     | 51 - 128 |      | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| Dibromofluoromethane (S)   | 86.2    |      | %     | 62 - 123 |      | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| Toluene-d8 (S)             | 85.6    |      | %     | 59 - 131 |      | SW846 8260B | 2/10/17 07:31 TMP | 2/10/17 21:11 | TMP      | B1      |
| SEMIVOLATILES              |         |      |       |          |      |             |                   |               |          |         |
| Acenaphthene               | ND      |      | ug/kg | 128      | 15.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS      | B       |
| Acenaphthylene             | ND      |      | ug/kg | 128      | 18.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS      | B       |
| Acetophenone               | 30.8J   | J    | ug/kg | 257      | 20.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS      | B       |
| Anthracene                 | ND      |      | ug/kg | 128      | 20.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS      | B       |
| Atrazine                   | ND      |      | ug/kg | 257      | 28.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS      | B       |
| Benzaldehyde               | ND      |      | ug/kg | 514      | 43.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS      | B       |
| Benzo(a)anthracene         | 42.1J   | J    | ug/kg | 128      | 12.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS      | B       |
| Benzo(a)pyrene             | 64.3J   | J    | ug/kg | 128      | 10.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS      | B       |
| Benzo(b)fluoranthene       | 103J    | J    | ug/kg | 128      | 12.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS      | B       |
| Benzo(g,h,i)perylene       | 125J    | J    | ug/kg | 128      | 12.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS      | B       |
| Benzo(k)fluoranthene       | ND      |      | ug/kg | 128      | 12.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS      | B       |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592009**

Date Collected: 2/9/2017 13:10

Matrix: Solid

Sample ID: **CL-SE-S-08**

Date Received: 2/9/2017 21:20

| Parameters                  | Results | Flag | Units | RDL | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|-----|------|-------------|-------------------|---------------|-----|------|
| Biphenyl                    | ND      |      | ug/kg | 257 | 18.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 257 | 23.1 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| Butylbenzylphthalate        | ND      |      | ug/kg | 257 | 18.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| Caprolactam                 | ND      |      | ug/kg | 514 | 46.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| Carbazole                   | ND      |      | ug/kg | 257 | 18.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 514 | 25.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| 4-Chloroaniline             | ND      |      | ug/kg | 514 | 30.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 257 | 23.1 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 257 | 33.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 257 | 38.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 257 | 15.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| 2-Chlorophenol              | ND      |      | ug/kg | 514 | 20.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 257 | 20.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| Chrysene                    | 167     |      | ug/kg | 128 | 12.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| mp-Cresol                   | ND      |      | ug/kg | 514 | 20.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| o-Cresol                    | ND      |      | ug/kg | 514 | 28.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 257 | 20.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 257 | 18.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| Dibenzo(a,h)anthracene      | 75.2J   | J    | ug/kg | 128 | 15.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| Dibenzofuran                | ND      |      | ug/kg | 257 | 20.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 514 | 97.6 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 514 | 20.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| Diethylphthalate            | ND      |      | ug/kg | 257 | 20.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 514 | 38.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| Dimethylphthalate           | ND      |      | ug/kg | 257 | 18.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 514 | 103  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 257 | 23.1 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 257 | 30.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 257 | 126  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| bis(2-Ethylhexyl)phthalate  | 397     |      | ug/kg | 257 | 18.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| Fluoranthene                | 51.3J   | J    | ug/kg | 128 | 12.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| Fluorene                    | ND      |      | ug/kg | 128 | 15.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| Hexachlorobenzene           | ND      |      | ug/kg | 257 | 28.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 257 | 25.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 514 | 28.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| Hexachloroethane            | ND      |      | ug/kg | 257 | 23.1 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| Indeno(1,2,3-cd)pyrene      | 58.7J   | J    | ug/kg | 128 | 18.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |
| Isophorone                  | ND      |      | ug/kg | 257 | 15.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS | B    |



## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592009**

Date Collected: 2/9/2017 13:10

Matrix: Solid

Sample ID: **CL-SE-S-08**

Date Received: 2/9/2017 21:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 514           | 66.8   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 257           | 12.8   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| Naphthalene                    | ND             |             | ug/kg        | 128           | 15.4   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 514           | 30.8   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 514           | 51.4   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 514           | 20.5   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 257           | 30.8   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 514           | 28.2   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 514           | 36.0   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 257           | 20.5   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 257           | 20.5   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 514           | 66.8   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| Phenanthrene                   | ND             |             | ug/kg        | 128           | 12.8   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| Phenol                         | ND             |             | ug/kg        | 514           | 25.7   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| Pyrene                         | 53.2J          | J           | ug/kg        | 128           | 12.8   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 257           | 18.0   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 514           | 30.8   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 514           | 30.8   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 514           | 30.8   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 77             |             | %            | 19 - 132      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| 2-Fluorobiphenyl (S)           | 74             |             | %            | 40 - 110      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| 2-Fluorophenol (S)             | 74.4           |             | %            | 26 - 116      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| Nitrobenzene-d5 (S)            | 80.1           |             | %            | 38 - 112      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| Phenol-d5 (S)                  | 76.9           |             | %            | 35 - 111      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| Terphenyl-d14 (S)              | 67.6           |             | %            | 45 - 126      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 17:59 | CGS             | B                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | 0.024J         | J           | mg/kg        | 0.043         | 0.0039 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:18 | EGO             | B                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.043         | 0.0078 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:18 | EGO             | B                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.043         | 0.0039 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:18 | EGO             | B                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.043         | 0.0078 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:18 | EGO             | B                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.043         | 0.012  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:18 | EGO             | B                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.043         | 0.0078 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:18 | EGO             | B                     |
| Aroclor-1254                   | 0.024J         | J           | mg/kg        | 0.043         | 0.0078 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:18 | EGO             | B                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.043         | 0.0078 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:18 | EGO             | B                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.043         | 0.0091 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:18 | EGO             | B                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.043         | 0.012  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:18 | EGO             | B                     |



## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592009**

Date Collected: 2/9/2017 13:10

Matrix: Solid

Sample ID: **CL-SE-S-08**

Date Received: 2/9/2017 21:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By     | Analyzed  | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-----------------|-----------|-----------------|-----------------------|
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 80             |             | %            | 49 - 115      |      | SW846 8082A   | 2/15/17 00:50   | CMA       | 2/15/17 10:18   | EGO B                 |
| Tetrachloro-m-xylene (S)    | 92.1           |             | %            | 27 - 137      |      | SW846 8082A   | 2/15/17 00:50   | CMA       | 2/15/17 10:18   | EGO B                 |
| <b>PESTICIDES</b>           |                |             |              |               |      |               |                 |           |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 11.1          | 3.6  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 01:28   | RWS B                 |
| alpha-BHC                   | ND             |             | ug/kg        | 11.1          | 0.98 | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 01:28   | RWS B                 |
| beta-BHC                    | ND             |             | ug/kg        | 11.1          | 1.2  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 01:28   | RWS B                 |
| delta-BHC                   | ND             |             | ug/kg        | 11.1          | 0.85 | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 01:28   | RWS B                 |
| gamma-BHC                   | ND             |             | ug/kg        | 11.1          | 0.91 | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 01:28   | RWS B                 |
| alpha-Chlordane             | ND             |             | ug/kg        | 11.1          | 1.2  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 01:28   | RWS B                 |
| gamma-Chlordane             | ND             |             | ug/kg        | 11.1          | 1.9  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 01:28   | RWS B                 |
| 4,4'-DDD                    | ND             |             | ug/kg        | 21.5          | 1.8  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 01:28   | RWS B                 |
| 4,4'-DDE                    | ND             |             | ug/kg        | 21.5          | 2.9  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 01:28   | RWS B                 |
| 4,4'-DDT                    | 5.5J           | J           | ug/kg        | 21.5          | 2.5  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 01:28   | RWS B                 |
| Dieldrin                    | ND             |             | ug/kg        | 21.5          | 2.5  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 01:28   | RWS B                 |
| Endosulfan I                | ND             |             | ug/kg        | 11.1          | 1.4  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 01:28   | RWS B                 |
| Endosulfan II               | ND             |             | ug/kg        | 21.5          | 4.5  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 01:28   | RWS B                 |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 21.5          | 1.4  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 01:28   | RWS B                 |
| Endrin                      | ND             |             | ug/kg        | 21.5          | 1.6  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 01:28   | RWS B                 |
| Endrin Aldehyde             | ND             |             | ug/kg        | 21.5          | 2.3  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 01:28   | RWS B                 |
| Endrin Ketone               | ND             |             | ug/kg        | 21.5          | 3.0  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 01:28   | RWS B                 |
| Heptachlor                  | ND             |             | ug/kg        | 11.1          | 1.1  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/18/17 19:15   | RWS B                 |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 11.1          | 1.1  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 01:28   | RWS B                 |
| Methoxychlor                | ND             |             | ug/kg        | 21.5          | 2.9  | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 01:28   | RWS B                 |
| Toxaphene                   | ND             |             | ug/kg        | 228           | 37.7 | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 01:28   | RWS B                 |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 73.2           |             | %            | 30 - 135      |      | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/18/17 19:15   | RWS B                 |
| Decachlorobiphenyls (S)     | 68.7           |             | %            | 30 - 135      |      | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 01:28   | RWS B                 |
| Tetrachloro-m-xylene (S)    | 60.9           |             | %            | 30 - 111      |      | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/17/17 01:28   | RWS B                 |
| Tetrachloro-m-xylene (S)    | 63.6           |             | %            | 30 - 111      |      | SW846 8081B   | 2/15/17 00:50   | CMA       | 2/18/17 19:15   | RWS B                 |
| <b>WET CHEMISTRY</b>        |                |             |              |               |      |               |                 |           |                 |                       |
| Moisture                    | 23.1           |             | %            | 0.1           | 0.01 | S2540G-11     |                 |           | 2/13/17 11:13   | VKB B                 |
| Total Solids                | 76.9           |             | %            | 0.1           | 0.01 | S2540G-11     |                 |           | 2/13/17 11:13   | VKB B                 |
| <b>METALS</b>               |                |             |              |               |      |               |                 |           |                 |                       |
| Antimony, Total             | 0.41J          | J           | mg/kg        | 1.3           | 0.41 | SW846 6020A   | 2/15/17 10:25   | TRR       | 2/15/17 18:30   | MO B2                 |
| Arsenic, Total              | 3.8            |             | mg/kg        | 1.9           | 0.63 | SW846 6020A   | 2/15/17 10:25   | TRR       | 2/15/17 18:30   | MO B2                 |

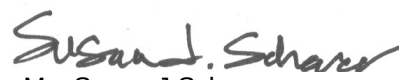
## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592009**  
Sample ID: **CL-SE-S-08**

Date Collected: 2/9/2017 13:10 Matrix: Solid  
Date Received: 2/9/2017 21:20

| Parameters       | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|------------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Beryllium, Total | ND      |      | mg/kg | 0.63  | 0.21  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:30 | MO  | B2   |
| Cadmium, Total   | 0.47J   | J    | mg/kg | 0.63  | 0.21  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:30 | MO  | B2   |
| Chromium, Total  | 13.9    |      | mg/kg | 1.3   | 0.41  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:30 | MO  | B2   |
| Copper, Total    | 31.8    |      | mg/kg | 3.1   | 1.0   | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:30 | MO  | B2   |
| Lead, Total      | 563     |      | mg/kg | 1.3   | 0.41  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:30 | MO  | B2   |
| Mercury, Total   | 0.047J  | J    | mg/kg | 0.058 | 0.019 | SW846 7471B | 2/13/17 09:30 MNP | 2/13/17 12:26 | MNP | B1   |
| Nickel, Total    | 16.9    |      | mg/kg | 3.1   | 1.0   | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:30 | MO  | B2   |
| Selenium, Total  | 1.0J    | J    | mg/kg | 3.1   | 1.0   | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:30 | MO  | B2   |
| Silver, Total    | ND      |      | mg/kg | 1.3   | 0.41  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:30 | MO  | B2   |
| Thallium, Total  | ND      |      | mg/kg | 0.63  | 0.21  | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:30 | MO  | B2   |
| Zinc, Total      | 212     |      | mg/kg | 3.1   | 1.0   | SW846 6020A | 2/15/17 10:25 TRR | 2/15/17 18:30 | MO  | B2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592010**

Date Collected: 2/9/2017 13:25

Matrix: Solid

Sample ID: **CL-SE-S-09**

Date Received: 2/9/2017 21:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 1240           |             | mg/kg        | 143           | 33.7 | SW846 8015D   | 2/17/17 02:40 VLM | 2/20/17 06:28 | BS              | B                     |
| Gasoline Range Organics       | ND             |             | ug/kg        | 7720          | 1070 | SW846 8015D   | 2/9/17 13:25 DD   | 2/15/17 08:34 | DD              | A                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 123            |             | %            | 72 - 134      |      | SW846 8015D   | 2/9/17 13:25 DD   | 2/15/17 08:34 | DD              | A                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | ND             |             | ug/kg        | 13.7          | 6.3  | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.7           | 0.81 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 13.7          | 4.8  | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.7           | 0.68 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Benzene                       | ND             |             | ug/kg        | 2.7           | 0.68 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Bromochloromethane            | ND             |             | ug/kg        | 2.7           | 0.68 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.7           | 0.97 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Bromoform                     | ND             |             | ug/kg        | 2.7           | 0.71 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Bromomethane                  | ND             |             | ug/kg        | 2.7           | 0.71 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| 2-Butanone                    | ND             |             | ug/kg        | 13.7          | 4.4  | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 13.7          | 4.8  | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.7           | 0.86 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.7           | 0.70 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.7           | 0.70 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.7           | 0.93 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Chloroethane                  | ND             |             | ug/kg        | 6.8           | 1.2  | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Chloroform                    | ND             |             | ug/kg        | 2.7           | 0.73 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Chloromethane                 | ND             |             | ug/kg        | 2.7           | 0.75 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 6.8           | 4.0  | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.7           | 0.74 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.7           | 0.68 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.7           | 0.68 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.7           | 0.71 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.7           | 0.68 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.7           | 0.71 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.7           | 0.82 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.7           | 0.75 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| trans-1,3-Dichloropropene     | ND             |             | ug/kg        | 2.7           | 0.79 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Diisopropyl ether             | ND             |             | ug/kg        | 2.7           | 0.68 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Ethyl tert-butyl ether        | ND             |             | ug/kg        | 2.7           | 0.71 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592010**

Date Collected: 2/9/2017 13:25

Matrix: Solid

Sample ID: **CL-SE-S-09**

Date Received: 2/9/2017 21:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| Ethylbenzene                | ND             |             | ug/kg        | 2.7           | 0.93 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| 2-Hexanone                  | ND             |             | ug/kg        | 13.7          | 3.8  | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 2.7           | 0.68 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 13.7          | 5.2  | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Methylene Chloride          | 8.6            | 1,2         | ug/kg        | 2.7           | 1.1  | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Naphthalene                 | ND             |             | ug/kg        | 2.7           | 0.68 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Styrene                     | ND             |             | ug/kg        | 2.7           | 0.68 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.7           | 0.77 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.7           | 0.82 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Toluene                     | ND             |             | ug/kg        | 2.7           | 0.92 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Total Xylenes               | ND             |             | ug/kg        | 8.2           | 1.9  | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.7           | 0.85 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.7           | 0.77 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Trichloroethene             | ND             |             | ug/kg        | 2.7           | 0.68 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.7           | 0.68 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| o-Xylene                    | ND             |             | ug/kg        | 2.7           | 0.79 | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| mp-Xylene                   | ND             |             | ug/kg        | 5.5           | 1.1  | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 76.5           |             | %            | 56 - 124      |      | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| 4-Bromofluorobenzene (S)    | 83.7           |             | %            | 51 - 128      |      | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Dibromofluoromethane (S)    | 85.8           |             | %            | 62 - 123      |      | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| Toluene-d8 (S)              | 85.9           |             | %            | 59 - 131      |      | SW846 8260B   | 2/10/17 07:32 TMP | 2/10/17 21:34 | TMP             | B1                    |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 71.0          | 8.5  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| Acenaphthylene              | 11.1J          | J           | ug/kg        | 71.0          | 9.9  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| Acetophenone                | 19.3J          | J           | ug/kg        | 142           | 11.4 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| Anthracene                  | 39.5J          | J           | ug/kg        | 71.0          | 11.4 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| Atrazine                    | ND             |             | ug/kg        | 142           | 15.6 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| Benzaldehyde                | 192J           | J           | ug/kg        | 284           | 24.2 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| Benzo(a)anthracene          | 127            |             | ug/kg        | 71.0          | 7.1  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| Benzo(a)pyrene              | 224            |             | ug/kg        | 71.0          | 5.7  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| Benzo(b)fluoranthene        | 492            |             | ug/kg        | 71.0          | 7.1  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| Benzo(g,h,i)perylene        | 129            |             | ug/kg        | 71.0          | 7.1  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| Benzo(k)fluoranthene        | 150            |             | ug/kg        | 71.0          | 7.1  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| Biphenyl                    | ND             |             | ug/kg        | 142           | 9.9  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| 4-Bromophenyl-phenylether   | ND             |             | ug/kg        | 142           | 12.8 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| Butylbenzylphthalate        | ND             |             | ug/kg        | 142           | 9.9  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592010**

Date Collected: 2/9/2017 13:25

Matrix: Solid

Sample ID: **CL-SE-S-09**

Date Received: 2/9/2017 21:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Caprolactam                 | ND      |      | ug/kg | 284  | 25.6 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| Carbazole                   | 17.8J   | J    | ug/kg | 142  | 9.9  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 284  | 14.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| 4-Chloroaniline             | ND      |      | ug/kg | 284  | 17.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 142  | 12.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 142  | 18.5 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 142  | 21.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 142  | 8.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| 2-Chlorophenol              | ND      |      | ug/kg | 284  | 11.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 142  | 11.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| Chrysene                    | 217     |      | ug/kg | 71.0 | 7.1  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| mp-Cresol                   | 18.3J   | J    | ug/kg | 284  | 11.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| o-Cresol                    | ND      |      | ug/kg | 284  | 15.6 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| Di-n-Butylphthalate         | 10400   |      | ug/kg | 142  | 11.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 142  | 9.9  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| Dibenzo(a,h)anthracene      | 47.4J   | J    | ug/kg | 71.0 | 8.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| Dibenzofuran                | 11.7J   | J    | ug/kg | 142  | 11.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 284  | 54.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 284  | 11.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| Diethylphthalate            | ND      |      | ug/kg | 142  | 11.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 284  | 21.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| Dimethylphthalate           | ND      |      | ug/kg | 142  | 9.9  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 284  | 56.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 142  | 12.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 142  | 17.0 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 142  | 69.6 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| bis(2-Ethylhexyl)phthalate  | 174     |      | ug/kg | 142  | 9.9  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| Fluoranthene                | 92.3    |      | ug/kg | 71.0 | 7.1  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| Fluorene                    | ND      |      | ug/kg | 71.0 | 8.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| Hexachlorobenzene           | ND      |      | ug/kg | 142  | 15.6 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 142  | 14.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 284  | 15.6 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| Hexachloroethane            | ND      |      | ug/kg | 142  | 12.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| Indeno(1,2,3-cd)pyrene      | 130     |      | ug/kg | 71.0 | 9.9  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| Isophorone                  | ND      |      | ug/kg | 142  | 8.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| 2-Methyl-4,6-dinitrophenol  | ND      |      | ug/kg | 284  | 36.9 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| 2-Methylnaphthalene         | 23.3J   | J    | ug/kg | 142  | 7.1  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |
| Naphthalene                 | 10.2J   | J    | ug/kg | 71.0 | 8.5  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS | B    |



## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592010**

Date Collected: 2/9/2017 13:25

Matrix: Solid

Sample ID: **CL-SE-S-09**

Date Received: 2/9/2017 21:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| 2-Nitroaniline                 | ND             |             | ug/kg        | 284           | 17.0   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 284           | 28.4   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 284           | 11.4   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 142           | 17.0   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 284           | 15.6   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 284           | 19.9   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 142           | 11.4   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 142           | 11.4   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 284           | 36.9   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| Phenanthrene                   | 84.3           |             | ug/kg        | 71.0          | 7.1    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| Phenol                         | ND             |             | ug/kg        | 284           | 14.2   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| Pyrene                         | 112            |             | ug/kg        | 71.0          | 7.1    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 142           | 9.9    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 284           | 17.0   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 284           | 17.0   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 284           | 17.0   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 85.5           |             | %            | 19 - 132      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| 2-Fluorobiphenyl (S)           | 68.3           |             | %            | 40 - 110      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| 2-Fluorophenol (S)             | 80.2           |             | %            | 26 - 116      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| Nitrobenzene-d5 (S)            | 80             |             | %            | 38 - 112      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| Phenol-d5 (S)                  | 88.2           |             | %            | 35 - 111      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| Terphenyl-d14 (S)              | 72             |             | %            | 45 - 126      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:25 | CGS             | B                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | 0.19           |             | mg/kg        | 0.046         | 0.0042 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:41 | EGO             | B                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.046         | 0.0084 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:41 | EGO             | B                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.046         | 0.0042 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:41 | EGO             | B                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.046         | 0.0084 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:41 | EGO             | B                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.046         | 0.013  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:41 | EGO             | B                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.046         | 0.0084 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:41 | EGO             | B                     |
| Aroclor-1254                   | 0.19           |             | mg/kg        | 0.046         | 0.0084 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:41 | EGO             | B                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.046         | 0.0084 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:41 | EGO             | B                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.046         | 0.0098 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:41 | EGO             | B                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.046         | 0.013  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:41 | EGO             | B                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)        | 198            | 4           | %            | 49 - 115      |        | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:41 | EGO             | B                     |



## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592010**

Date Collected: 2/9/2017 13:25

Matrix: Solid

Sample ID: **CL-SE-S-09**

Date Received: 2/9/2017 21:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr           |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|----------------|
| Tetrachloro-m-xylene (S)    | 90.4           |             | %            | 27 - 137      |      | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:41 | EGO             | B              |
| <b>PESTICIDES</b>           |                |             |              |               |      |               |                   |               |                 |                |
| Aldrin                      | ND             |             | ug/kg        | 11.8          | 3.8  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:43 | RWS             | B              |
| alpha-BHC                   | ND             |             | ug/kg        | 11.8          | 1.0  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:43 | RWS             | B              |
| beta-BHC                    | ND             |             | ug/kg        | 11.8          | 1.3  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:43 | RWS             | B              |
| delta-BHC                   | ND             |             | ug/kg        | 11.8          | 0.91 | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:43 | RWS             | B              |
| gamma-BHC                   | ND             |             | ug/kg        | 11.8          | 0.98 | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:43 | RWS             | B              |
| alpha-Chlordane             | 6.9J           | J           | ug/kg        | 11.8          | 1.3  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:43 | RWS             | B              |
| gamma-Chlordane             | 4.1J           | J           | ug/kg        | 11.8          | 2.0  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:43 | RWS             | B              |
| 4,4'-DDD                    | 175            |             | ug/kg        | 23.0          | 1.9  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:43 | RWS             | B              |
| 4,4'-DDE                    | 789            |             | ug/kg        | 230           | 31.3 | SW846 8081B   | 2/15/17 00:50 CMA | 2/18/17 19:46 | RWS             | B              |
| 4,4'-DDT                    | 823            |             | ug/kg        | 230           | 26.5 | SW846 8081B   | 2/15/17 00:50 CMA | 2/18/17 19:46 | RWS             | B              |
| Dieldrin                    | 4.3J           | J           | ug/kg        | 23.0          | 2.6  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:43 | RWS             | B              |
| Endosulfan I                | ND             |             | ug/kg        | 11.8          | 1.5  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:43 | RWS             | B              |
| Endosulfan II               | ND             |             | ug/kg        | 23.0          | 4.8  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:43 | RWS             | B              |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 23.0          | 1.5  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:43 | RWS             | B              |
| Endrin                      | ND             |             | ug/kg        | 23.0          | 1.7  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:43 | RWS             | B              |
| Endrin Aldehyde             | ND             |             | ug/kg        | 23.0          | 2.5  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:43 | RWS             | B              |
| Endrin Ketone               | ND             |             | ug/kg        | 23.0          | 3.2  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:43 | RWS             | B              |
| Heptachlor                  | ND             |             | ug/kg        | 11.8          | 1.2  | SW846 8081B   | 2/15/17 00:50 CMA | 2/18/17 19:31 | RWS             | B              |
| Heptachlor Epoxide          | 7.0J           | J           | ug/kg        | 11.8          | 1.2  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:43 | RWS             | B              |
| Methoxychlor                | ND             |             | ug/kg        | 23.0          | 3.1  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:43 | RWS             | B              |
| Toxaphene                   | ND             |             | ug/kg        | 244           | 40.4 | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:43 | RWS             | B              |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By Cntr</i> |
| Decachlorobiphenyls (S)     | 173            | 3           | %            | 30 - 135      |      | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:43 | RWS             | B              |
| Decachlorobiphenyls (S)     | 168            | 5           | %            | 30 - 135      |      | SW846 8081B   | 2/15/17 00:50 CMA | 2/18/17 19:31 | RWS             | B              |
| Decachlorobiphenyls (S)     | 142            |             | %            | 30 - 135      |      | SW846 8081B   | 2/15/17 00:50 CMA | 2/18/17 19:46 | RWS             | B              |
| Tetrachloro-m-xylene (S)    | 61.9           |             | %            | 30 - 111      |      | SW846 8081B   | 2/15/17 00:50 CMA | 2/18/17 19:31 | RWS             | B              |
| Tetrachloro-m-xylene (S)    | 68.5           |             | %            | 30 - 111      |      | SW846 8081B   | 2/15/17 00:50 CMA | 2/18/17 19:46 | RWS             | B              |
| Tetrachloro-m-xylene (S)    | 59.7           |             | %            | 30 - 111      |      | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 01:43 | RWS             | B              |
| <b>WET CHEMISTRY</b>        |                |             |              |               |      |               |                   |               |                 |                |
| Hexavalent Chromium         | 2.2J           | J           | mg/kg        | 2.8           | 0.54 | SW846 7196A   | 2/23/17 12:00 AHI | 2/23/17 18:45 | AHI             | B              |
| Moisture                    | 29.6           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/13/17 11:13 | VKB             | B              |
| Total Solids                | 70.4           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/13/17 11:13 | VKB             | B              |
| <b>METALS</b>               |                |             |              |               |      |               |                   |               |                 |                |
| Antimony, Total             | 1.8            |             | mg/kg        | 1.4           | 0.47 | SW846 6020A   | 2/15/17 10:20 TRR | 2/15/17 13:49 | MO              | B2             |
| Arsenic, Total              | 3.4            |             | mg/kg        | 2.1           | 0.71 | SW846 6020A   | 2/15/17 10:20 TRR | 2/15/17 13:49 | MO              | B2             |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592010**

Date Collected: 2/9/2017 13:25

Matrix: Solid

Sample ID: **CL-SE-S-09**

Date Received: 2/9/2017 21:20

| Parameters       | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|------------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Beryllium, Total | 0.28J   | J    | mg/kg | 0.71  | 0.23  | SW846 6020A | 2/15/17 10:20 TRR | 2/15/17 13:49 | MO  | B2   |
| Cadmium, Total   | 8.4     |      | mg/kg | 0.71  | 0.23  | SW846 6020A | 2/15/17 10:20 TRR | 2/15/17 13:49 | MO  | B2   |
| Chromium, Total  | 37.1    |      | mg/kg | 1.4   | 0.47  | SW846 6020A | 2/15/17 10:20 TRR | 2/15/17 13:49 | MO  | B2   |
| Copper, Total    | 41.2    |      | mg/kg | 3.6   | 1.1   | SW846 6020A | 2/15/17 10:20 TRR | 2/15/17 13:49 | MO  | B2   |
| Lead, Total      | 432     |      | mg/kg | 1.4   | 0.47  | SW846 6020A | 2/15/17 10:20 TRR | 2/15/17 13:49 | MO  | B2   |
| Mercury, Total   | 0.54    |      | mg/kg | 0.061 | 0.020 | SW846 7471B | 2/13/17 09:30 MNP | 2/13/17 12:30 | MNP | B1   |
| Nickel, Total    | 16.0    |      | mg/kg | 3.6   | 1.1   | SW846 6020A | 2/15/17 10:20 TRR | 2/15/17 13:49 | MO  | B2   |
| Selenium, Total  | ND      |      | mg/kg | 3.6   | 1.1   | SW846 6020A | 2/15/17 10:20 TRR | 2/15/17 13:49 | MO  | B2   |
| Silver, Total    | ND      |      | mg/kg | 1.4   | 0.47  | SW846 6020A | 2/15/17 10:20 TRR | 2/15/17 13:49 | MO  | B2   |
| Thallium, Total  | ND      |      | mg/kg | 0.71  | 0.23  | SW846 6020A | 2/15/17 10:20 TRR | 2/15/17 13:49 | MO  | B2   |
| Zinc, Total      | 578     |      | mg/kg | 3.6   | 1.1   | SW846 6020A | 2/15/17 10:20 TRR | 2/15/17 13:49 | MO  | B2   |



Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592011**

Date Collected: 2/9/2017 13:45

Matrix: Solid

Sample ID: **CL-SE-S-10**

Date Received: 2/9/2017 21:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 172            |             | mg/kg        | 16.0          | 3.8  | SW846 8015D   | 2/17/17 02:40 VLM | 2/17/17 14:39 | BS              | B                     |
| Gasoline Range Organics       | 8970J          | J           | ug/kg        | 10000         | 1390 | SW846 8015D   | 2/9/17 13:45 DD   | 2/16/17 18:45 | DD              | A                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 72.6           |             | %            | 38 - 118      |      | SW846 8015D   | 2/17/17 02:40 VLM | 2/17/17 14:39 | BS              | B                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 95.3           |             | %            | 72 - 134      |      | SW846 8015D   | 2/9/17 13:45 DD   | 2/16/17 18:45 | DD              | A                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | 32.0           |             | ug/kg        | 16.2          | 7.5  | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 3.2           | 0.96 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 16.2          | 5.7  | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 3.2           | 0.81 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Benzene                       | ND             |             | ug/kg        | 3.2           | 0.81 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Bromochloromethane            | ND             |             | ug/kg        | 3.2           | 0.81 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Bromodichloromethane          | ND             |             | ug/kg        | 3.2           | 1.2  | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Bromoform                     | ND             |             | ug/kg        | 3.2           | 0.84 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Bromomethane                  | ND             |             | ug/kg        | 3.2           | 0.84 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| 2-Butanone                    | ND             |             | ug/kg        | 16.2          | 5.2  | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 16.2          | 5.7  | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Carbon Disulfide              | ND             |             | ug/kg        | 3.2           | 1.0  | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 3.2           | 0.83 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Chlorobenzene                 | ND             |             | ug/kg        | 3.2           | 0.83 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Chlorodibromomethane          | ND             |             | ug/kg        | 3.2           | 1.1  | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Chloroethane                  | ND             |             | ug/kg        | 8.1           | 1.4  | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Chloroform                    | ND             |             | ug/kg        | 3.2           | 0.86 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Chloromethane                 | ND             |             | ug/kg        | 3.2           | 0.89 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 8.1           | 4.7  | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 3.2           | 0.87 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 3.2           | 0.81 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 3.2           | 0.81 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 3.2           | 0.84 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 3.2           | 0.81 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 3.2           | 0.84 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 3.2           | 0.97 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 3.2           | 0.89 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592011**  
Sample ID: **CL-SE-S-10**

Date Collected: 2/9/2017 13:45 Matrix: Solid  
Date Received: 2/9/2017 21:20

| Parameters                  | Results        | Flag         | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|--------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |              | ug/kg        | 3.2           | 0.94 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Diisopropyl ether           | ND             |              | ug/kg        | 3.2           | 0.81 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Ethyl tert-butyl ether      | ND             |              | ug/kg        | 3.2           | 0.84 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Ethylbenzene                | ND             |              | ug/kg        | 3.2           | 1.1  | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| 2-Hexanone                  | ND             |              | ug/kg        | 16.2          | 4.5  | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Methyl t-Butyl Ether        | ND             |              | ug/kg        | 3.2           | 0.81 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |              | ug/kg        | 16.2          | 6.2  | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Methylene Chloride          | 15.2           | 14,1<br>5,16 | ug/kg        | 3.2           | 1.3  | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Naphthalene                 | 1.1J           | J            | ug/kg        | 3.2           | 0.81 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Styrene                     | ND             |              | ug/kg        | 3.2           | 0.81 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| 1,1,2,2-Tetrachloroethane   | ND             |              | ug/kg        | 3.2           | 0.91 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Tetrachloroethene           | ND             |              | ug/kg        | 3.2           | 0.97 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Toluene                     | ND             |              | ug/kg        | 3.2           | 1.1  | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Total Xylenes               | ND             |              | ug/kg        | 9.7           | 2.3  | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| 1,1,1-Trichloroethane       | ND             |              | ug/kg        | 3.2           | 1.0  | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| 1,1,2-Trichloroethane       | ND             |              | ug/kg        | 3.2           | 0.91 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Trichloroethene             | ND             |              | ug/kg        | 3.2           | 0.81 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Vinyl Chloride              | ND             |              | ug/kg        | 3.2           | 0.81 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| o-Xylene                    | ND             |              | ug/kg        | 3.2           | 0.94 | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| mp-Xylene                   | ND             |              | ug/kg        | 6.5           | 1.3  | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i>  | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 76             |              | %            | 56 - 124      |      | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| 4-Bromofluorobenzene (S)    | 85.8           |              | %            | 51 - 128      |      | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Dibromofluoromethane (S)    | 90.8           |              | %            | 62 - 123      |      | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| Toluene-d8 (S)              | 85.5           |              | %            | 59 - 131      |      | SW846 8260B   | 2/10/17 07:33 SYB | 2/14/17 01:36 | SYB             | B2                    |
| <b>SEMIVOLATILES</b>        |                |              |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |              | ug/kg        | 76.1          | 9.1  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| Acenaphthylene              | ND             |              | ug/kg        | 76.1          | 10.7 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| Acetophenone                | ND             |              | ug/kg        | 152           | 12.2 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| Anthracene                  | ND             |              | ug/kg        | 76.1          | 12.2 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| Atrazine                    | ND             |              | ug/kg        | 152           | 16.7 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| Benzaldehyde                | 27.6J          | J            | ug/kg        | 304           | 25.9 | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| Benzo(a)anthracene          | 37.4J          | J,12         | ug/kg        | 76.1          | 7.6  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| Benzo(a)pyrene              | 32.0J          | J            | ug/kg        | 76.1          | 6.1  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| Benzo(b)fluoranthene        | 42.6J          | J,4          | ug/kg        | 76.1          | 7.6  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| Benzo(g,h,i)perylene        | 20.9J          | J            | ug/kg        | 76.1          | 7.6  | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592011**  
Sample ID: **CL-SE-S-10**

Date Collected: 2/9/2017 13:45 Matrix: Solid  
Date Received: 2/9/2017 21:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | 15.8J   | J,5  | ug/kg | 76.1 | 7.6  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| Biphenyl                    | ND      |      | ug/kg | 152  | 10.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 152  | 13.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| Butylbenzylphthalate        | ND      | 11   | ug/kg | 152  | 10.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| Caprolactam                 | ND      |      | ug/kg | 304  | 27.4 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| Carbazole                   | ND      |      | ug/kg | 152  | 10.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 304  | 15.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| 4-Chloroaniline             | ND      |      | ug/kg | 304  | 18.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 152  | 13.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 152  | 19.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 152  | 22.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 152  | 9.1  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| 2-Chlorophenol              | ND      |      | ug/kg | 304  | 12.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 152  | 12.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| Chrysene                    | 29.8J   | J,13 | ug/kg | 76.1 | 7.6  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| mp-Cresol                   | ND      |      | ug/kg | 304  | 12.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| o-Cresol                    | ND      |      | ug/kg | 304  | 16.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 152  | 12.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 152  | 10.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| Dibenzo(a,h)anthracene      | 9.4J    | J,7  | ug/kg | 76.1 | 9.1  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| Dibenzofuran                | ND      |      | ug/kg | 152  | 12.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 304  | 57.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 304  | 12.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| Diethylphthalate            | ND      |      | ug/kg | 152  | 12.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 304  | 22.8 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| Dimethylphthalate           | ND      |      | ug/kg | 152  | 10.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 304  | 60.9 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 152  | 13.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 152  | 18.3 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 152  | 74.6 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| bis(2-Ethylhexyl)phthalate  | 54.8J   | J,3  | ug/kg | 152  | 10.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| Fluoranthene                | 50.8J   | J,9  | ug/kg | 76.1 | 7.6  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| Fluorene                    | ND      |      | ug/kg | 76.1 | 9.1  | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| Hexachlorobenzene           | ND      |      | ug/kg | 152  | 16.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 152  | 15.2 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 304  | 16.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| Hexachloroethane            | ND      |      | ug/kg | 152  | 13.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |
| Indeno(1,2,3-cd)pyrene      | 22.9J   | J,6  | ug/kg | 76.1 | 10.7 | SW846 8270D | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS | B    |



## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592011**  
Sample ID: **CL-SE-S-10**

Date Collected: 2/9/2017 13:45 Matrix: Solid  
Date Received: 2/9/2017 21:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 152           | 9.1    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 304           | 39.6   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 152           | 7.6    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| Naphthalene                    | ND             |             | ug/kg        | 76.1          | 9.1    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 304           | 18.3   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 304           | 30.4   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 304           | 12.2   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 152           | 18.3   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 304           | 16.7   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 304           | 21.3   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 152           | 12.2   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 152           | 12.2   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 304           | 39.6   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| Phenanthrene                   | 47.2J          | J,8         | ug/kg        | 76.1          | 7.6    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| Phenol                         | ND             |             | ug/kg        | 304           | 15.2   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| Pyrene                         | 46.4J          | J,10        | ug/kg        | 76.1          | 7.6    | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 152           | 10.7   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 304           | 18.3   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 304           | 18.3   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 304           | 18.3   | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 86.1           |             | %            | 19 - 132      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| 2-Fluorobiphenyl (S)           | 75.8           |             | %            | 40 - 110      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| 2-Fluorophenol (S)             | 80.9           |             | %            | 26 - 116      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| Nitrobenzene-d5 (S)            | 83.6           |             | %            | 38 - 112      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| Phenol-d5 (S)                  | 90.4           |             | %            | 35 - 111      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| Terphenyl-d14 (S)              | 88.2           |             | %            | 45 - 126      |        | SW846 8270D   | 2/15/17 04:20 CMA | 2/15/17 18:51 | CGS             | B                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.048         | 0.0044 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:53 | EGO             | B                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.048         | 0.0088 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:53 | EGO             | B                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.048         | 0.0044 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:53 | EGO             | B                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.048         | 0.0088 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:53 | EGO             | B                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.048         | 0.013  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:53 | EGO             | B                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.048         | 0.0088 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:53 | EGO             | B                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.048         | 0.0088 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:53 | EGO             | B                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.048         | 0.0088 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:53 | EGO             | B                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.048         | 0.010  | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:53 | EGO             | B                     |



## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592011**  
Sample ID: **CL-SE-S-10**

Date Collected: 2/9/2017 13:45 Matrix: Solid  
Date Received: 2/9/2017 21:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.048         | 0.013 | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:53 | EGO             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 92.7           |             | %            | 49 - 115      |       | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:53 | EGO             | B                     |
| Tetrachloro-m-xylene (S)    | 92             |             | %            | 27 - 137      |       | SW846 8082A   | 2/15/17 00:50 CMA | 2/15/17 10:53 | EGO             | B                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 12.4          | 4.0   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 04:04 | RWS             | B                     |
| alpha-BHC                   | ND             |             | ug/kg        | 12.4          | 1.1   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 04:04 | RWS             | B                     |
| beta-BHC                    | ND             |             | ug/kg        | 12.4          | 1.3   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 04:04 | RWS             | B                     |
| delta-BHC                   | ND             |             | ug/kg        | 12.4          | 0.95  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 04:04 | RWS             | B                     |
| gamma-BHC                   | ND             |             | ug/kg        | 12.4          | 1.0   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 04:04 | RWS             | B                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 12.4          | 1.3   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 04:04 | RWS             | B                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 12.4          | 2.1   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 04:04 | RWS             | B                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 24.2          | 2.0   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 04:04 | RWS             | B                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 24.2          | 3.3   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 04:04 | RWS             | B                     |
| 4,4'-DDT                    | 7.0J           | J           | ug/kg        | 24.2          | 2.8   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 04:04 | RWS             | B                     |
| Dieldrin                    | ND             |             | ug/kg        | 24.2          | 2.8   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 04:04 | RWS             | B                     |
| Endosulfan I                | ND             |             | ug/kg        | 12.4          | 1.5   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 04:04 | RWS             | B                     |
| Endosulfan II               | ND             |             | ug/kg        | 24.2          | 5.1   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 04:04 | RWS             | B                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 24.2          | 1.6   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 04:04 | RWS             | B                     |
| Endrin                      | ND             |             | ug/kg        | 24.2          | 1.8   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 04:04 | RWS             | B                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 24.2          | 2.6   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 04:04 | RWS             | B                     |
| Endrin Ketone               | ND             |             | ug/kg        | 24.2          | 3.4   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 04:04 | RWS             | B                     |
| Heptachlor                  | 2.3J           | J           | ug/kg        | 12.4          | 1.2   | SW846 8081B   | 2/15/17 00:50 CMA | 2/18/17 22:06 | RWS             | B                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 12.4          | 1.2   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 04:04 | RWS             | B                     |
| Methoxychlor                | ND             |             | ug/kg        | 24.2          | 3.2   | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 04:04 | RWS             | B                     |
| Toxaphene                   | ND             |             | ug/kg        | 256           | 42.5  | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 04:04 | RWS             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 73.8           |             | %            | 30 - 135      |       | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 04:04 | RWS             | B                     |
| Decachlorobiphenyls (S)     | 75.8           |             | %            | 30 - 135      |       | SW846 8081B   | 2/15/17 00:50 CMA | 2/18/17 22:06 | RWS             | B                     |
| Tetrachloro-m-xylene (S)    | 56.4           |             | %            | 30 - 111      |       | SW846 8081B   | 2/15/17 00:50 CMA | 2/18/17 22:06 | RWS             | B                     |
| Tetrachloro-m-xylene (S)    | 54.9           |             | %            | 30 - 111      |       | SW846 8081B   | 2/15/17 00:50 CMA | 2/17/17 04:04 | RWS             | B                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Moisture                    | 35.6           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/13/17 11:13 | VKB             | B                     |
| Total Solids                | 64.4           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/13/17 11:13 | VKB             | B                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |
| Antimony, Total             | 0.51J          | J           | mg/kg        | 1.5           | 0.50  | SW846 6020A   | 2/15/17 10:20 TRR | 2/15/17 13:53 | MO              | B2                    |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

Lab ID: **2207592011**  
Sample ID: **CL-SE-S-10**

Date Collected: 2/9/2017 13:45 Matrix: Solid  
Date Received: 2/9/2017 21:20

| Parameters       | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|------------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Arsenic, Total   | 3.3     |      | mg/kg | 2.3   | 0.76  | SW846 6020A | 2/15/17 10:20 TRR | 2/15/17 13:53 | MO  | B2   |
| Beryllium, Total | ND      |      | mg/kg | 0.76  | 0.25  | SW846 6020A | 2/15/17 10:20 TRR | 2/15/17 13:53 | MO  | B2   |
| Cadmium, Total   | 1.1     |      | mg/kg | 0.76  | 0.25  | SW846 6020A | 2/15/17 10:20 TRR | 2/15/17 13:53 | MO  | B2   |
| Chromium, Total  | 14.5    |      | mg/kg | 1.5   | 0.50  | SW846 6020A | 2/15/17 10:20 TRR | 2/15/17 13:53 | MO  | B2   |
| Copper, Total    | 26.7    |      | mg/kg | 3.8   | 1.2   | SW846 6020A | 2/15/17 10:20 TRR | 2/15/17 13:53 | MO  | B2   |
| Lead, Total      | 263     |      | mg/kg | 1.5   | 0.50  | SW846 6020A | 2/15/17 10:20 TRR | 2/15/17 13:53 | MO  | B2   |
| Mercury, Total   | 0.091   |      | mg/kg | 0.076 | 0.024 | SW846 7471B | 2/13/17 09:30 MNP | 2/13/17 12:31 | MNP | B1   |
| Nickel, Total    | 6.5     |      | mg/kg | 3.8   | 1.2   | SW846 6020A | 2/15/17 10:20 TRR | 2/15/17 13:53 | MO  | B2   |
| Selenium, Total  | 1.3J    | J    | mg/kg | 3.8   | 1.2   | SW846 6020A | 2/15/17 10:20 TRR | 2/15/17 13:53 | MO  | B2   |
| Silver, Total    | ND      |      | mg/kg | 1.5   | 0.50  | SW846 6020A | 2/15/17 10:20 TRR | 2/15/17 13:53 | MO  | B2   |
| Thallium, Total  | ND      |      | mg/kg | 0.76  | 0.25  | SW846 6020A | 2/15/17 10:20 TRR | 2/15/17 13:53 | MO  | B2   |
| Zinc, Total      | 134     |      | mg/kg | 3.8   | 1.2   | SW846 6020A | 2/15/17 10:20 TRR | 2/15/17 13:53 | MO  | B2   |

  
Ms. Susan J Scherer  
Project Coordinator

**PARAMETER QUALIFIERS**

| Lab ID                                                                                                                                                                                             | #  | Sample ID  | Analytical Method | Analyte                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------|-------------------|----------------------------|
| <b>2207592002</b>                                                                                                                                                                                  | 1  | CL-SE-S-01 | SW846 8260B       | Methylene Chloride         |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 183 and the control limits were 68 to 133.         |    |            |                   |                            |
| <b>2207592002</b>                                                                                                                                                                                  | 2  | CL-SE-S-01 | SW846 8260B       | Methylene Chloride         |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 182 and the control limits were 68 to 133.        |    |            |                   |                            |
| <b>2207592003</b>                                                                                                                                                                                  | 1  | CL-SE-S-02 | SW846 8260B       | Methylene Chloride         |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 183 and the control limits were 68 to 133.         |    |            |                   |                            |
| <b>2207592003</b>                                                                                                                                                                                  | 2  | CL-SE-S-02 | SW846 8260B       | Methylene Chloride         |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 182 and the control limits were 68 to 133.        |    |            |                   |                            |
| <b>2207592004</b>                                                                                                                                                                                  | 1  | CL-SE-S-03 | SW846 8260B       | Methylene Chloride         |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 183 and the control limits were 68 to 133.         |    |            |                   |                            |
| <b>2207592004</b>                                                                                                                                                                                  | 2  | CL-SE-S-03 | SW846 8260B       | Methylene Chloride         |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 182 and the control limits were 68 to 133.        |    |            |                   |                            |
| <b>2207592005</b>                                                                                                                                                                                  | 1  | CL-SE-S-04 | SW846 8260B       | Ethyl tert-butyl ether     |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Ethyl tert-butyl ether. The % Recovery was reported as 53 and the control limits were 75 to 121.       |    |            |                   |                            |
| <b>2207592005</b>                                                                                                                                                                                  | 2  | CL-SE-S-04 | SW846 8260B       | 1,2-Dichloroethane         |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,2-Dichloroethane. The % Recovery was reported as 66.7 and the control limits were 69 to 132.         |    |            |                   |                            |
| <b>2207592005</b>                                                                                                                                                                                  | 3  | CL-SE-S-04 | SW846 8260B       | tert-Amyl methyl ether     |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte tert-Amyl methyl ether. The % Recovery was reported as 70.1 and the control limits were 79 to 123.     |    |            |                   |                            |
| <b>2207592005</b>                                                                                                                                                                                  | 4  | CL-SE-S-04 | SW846 8260B       | 1,2-Dichloropropane        |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,2-Dichloropropane. The % Recovery was reported as 73.9 and the control limits were 78 to 131.        |    |            |                   |                            |
| <b>2207592005</b>                                                                                                                                                                                  | 5  | CL-SE-S-04 | SW846 8260B       | Bromodichloromethane       |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Bromodichloromethane. The % Recovery was reported as 69.9 and the control limits were 74 to 127.       |    |            |                   |                            |
| <b>2207592005</b>                                                                                                                                                                                  | 6  | CL-SE-S-04 | SW846 8260B       | cis-1,3-Dichloropropene    |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte cis-1,3-Dichloropropene. The % Recovery was reported as 55.4 and the control limits were 76 to 123.    |    |            |                   |                            |
| <b>2207592005</b>                                                                                                                                                                                  | 7  | CL-SE-S-04 | SW846 8260B       | 4-Methyl-2-Pentanone(MIBK) |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 4-Methyl-2-Pentanone(MIBK). The % Recovery was reported as 49.7 and the control limits were 64 to 143. |    |            |                   |                            |
| <b>2207592005</b>                                                                                                                                                                                  | 8  | CL-SE-S-04 | SW846 8260B       | trans-1,3-Dichloropropene  |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte trans-1,3-Dichloropropene. The % Recovery was reported as 61 and the control limits were 77 to 123.    |    |            |                   |                            |
| <b>2207592005</b>                                                                                                                                                                                  | 9  | CL-SE-S-04 | SW846 8260B       | 1,1,2-Trichloroethane      |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,1,2-Trichloroethane. The % Recovery was reported as 67.1 and the control limits were 79 to 123.      |    |            |                   |                            |
| <b>2207592005</b>                                                                                                                                                                                  | 10 | CL-SE-S-04 | SW846 8260B       | 2-Hexanone                 |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 2-Hexanone. The % Recovery was reported as 39.6 and the control limits were 62 to 147.                 |    |            |                   |                            |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

|                                                                                                                                                                                                     |    |            |             |                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------|-------------|-----------------------------|
| <b>2207592005</b>                                                                                                                                                                                   | 11 | CL-SE-S-04 | SW846 8260B | Chlorodibromomethane        |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Chlorodibromomethane. The % Recovery was reported as 63.5 and the control limits were 75 to 124.        |    |            |             |                             |
| <b>2207592005</b>                                                                                                                                                                                   | 12 | CL-SE-S-04 | SW846 8260B | 1,2-Dibromoethane           |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,2-Dibromoethane. The % Recovery was reported as 67.3 and the control limits were 76 to 127.           |    |            |             |                             |
| <b>2207592005</b>                                                                                                                                                                                   | 13 | CL-SE-S-04 | SW846 8260B | Chlorobenzene               |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Chlorobenzene. The % Recovery was reported as 67.3 and the control limits were 76 to 125.               |    |            |             |                             |
| <b>2207592005</b>                                                                                                                                                                                   | 14 | CL-SE-S-04 | SW846 8260B | Bromoform                   |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Bromoform. The % Recovery was reported as 66.8 and the control limits were 68 to 131.                   |    |            |             |                             |
| <b>2207592005</b>                                                                                                                                                                                   | 15 | CL-SE-S-04 | SW846 8260B | 1,1,2,2-Tetrachloroethane   |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,1,2,2-Tetrachloroethane. The % Recovery was reported as 66.9 and the control limits were 72 to 134.   |    |            |             |                             |
| <b>2207592005</b>                                                                                                                                                                                   | 16 | CL-SE-S-04 | SW846 8260B | o-Xylene                    |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte o-Xylene. The % Recovery was reported as 70.5 and the control limits were 75 to 129.                    |    |            |             |                             |
| <b>2207592005</b>                                                                                                                                                                                   | 17 | CL-SE-S-04 | SW846 8260B | 1,2-Dibromo-3-chloropropane |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,2-Dibromo-3-chloropropane. The % Recovery was reported as 40.4 and the control limits were 52 to 151. |    |            |             |                             |
| <b>2207592005</b>                                                                                                                                                                                   | 18 | CL-SE-S-04 | SW846 8260B | Naphthalene                 |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Naphthalene. The % Recovery was reported as 26.8 and the control limits were 60 to 146.                 |    |            |             |                             |
| <b>2207592005</b>                                                                                                                                                                                   | 19 | CL-SE-S-04 | SW846 8260B | tert-Amyl Ethylether        |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte tert-Amyl Ethylether. The % Recovery was reported as 59.7 and the control limits were 70 to 130.        |    |            |             |                             |
| <b>2207592005</b>                                                                                                                                                                                   | 20 | CL-SE-S-04 | SW846 8260B | tert-Amyl Alcohol           |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte tert-Amyl Alcohol. The % Recovery was reported as 48.4 and the control limits were 70 to 130.           |    |            |             |                             |
| <b>2207592005</b>                                                                                                                                                                                   | 21 | CL-SE-S-04 | SW846 8260B | Methylene Chloride          |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 183 and the control limits were 68 to 133.          |    |            |             |                             |
| <b>2207592005</b>                                                                                                                                                                                   | 22 | CL-SE-S-04 | SW846 8260B | Methylene Chloride          |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 182 and the control limits were 68 to 133.         |    |            |             |                             |
| <b>2207592005</b>                                                                                                                                                                                   | 23 | CL-SE-S-04 | SW846 8260B | Methyl t-Butyl Ether        |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Methyl t-Butyl Ether. The % Recovery was reported as 67 and the control limits were 70 to 118.          |    |            |             |                             |
| <b>2207592005</b>                                                                                                                                                                                   | 24 | CL-SE-S-04 | SW846 8260B | 2-Butanone                  |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 2-Butanone. The % Recovery was reported as 60.4 and the control limits were 64 to 148.                  |    |            |             |                             |
| <b>2207592006</b>                                                                                                                                                                                   | 1  | CL-SE-S-05 | SW846 8260B | Methylene Chloride          |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 183 and the control limits were 68 to 133.          |    |            |             |                             |

## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

|                                                                                                                                                                                                                |   |            |             |                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|------------|-------------|----------------------------|
| <b>2207592006</b>                                                                                                                                                                                              | 2 | CL-SE-S-05 | SW846 8260B | Methylene Chloride         |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 182 and the control limits were 68 to 133.                    |   |            |             |                            |
| <b>2207592007</b>                                                                                                                                                                                              | 1 | CL-SE-S-06 | SW846 8260B | Methylene Chloride         |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 183 and the control limits were 68 to 133.                     |   |            |             |                            |
| <b>2207592007</b>                                                                                                                                                                                              | 2 | CL-SE-S-06 | SW846 8260B | Methylene Chloride         |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 182 and the control limits were 68 to 133.                    |   |            |             |                            |
| <b>2207592008</b>                                                                                                                                                                                              | 1 | CL-SE-S-07 | SW846 8260B | Methylene Chloride         |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 183 and the control limits were 68 to 133.                     |   |            |             |                            |
| <b>2207592008</b>                                                                                                                                                                                              | 2 | CL-SE-S-07 | SW846 8260B | Methylene Chloride         |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 182 and the control limits were 68 to 133.                    |   |            |             |                            |
| <b>2207592008</b>                                                                                                                                                                                              | 3 | CL-SE-S-07 | SW846 8270D | Hexachlorocyclopentadiene  |
| The QC sample type MS for method SW846 8270D was outside the control limits for the analyte Hexachlorocyclopentadiene. The % Recovery was reported as 25.6 and the control limits were 33 to 109.              |   |            |             |                            |
| <b>2207592009</b>                                                                                                                                                                                              | 1 | CL-SE-S-08 | SW846 8260B | Methylene Chloride         |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 183 and the control limits were 68 to 133.                     |   |            |             |                            |
| <b>2207592009</b>                                                                                                                                                                                              | 2 | CL-SE-S-08 | SW846 8260B | Methylene Chloride         |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 182 and the control limits were 68 to 133.                    |   |            |             |                            |
| <b>2207592010</b>                                                                                                                                                                                              | 1 | CL-SE-S-09 | SW846 8260B | Methylene Chloride         |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 183 and the control limits were 68 to 133.                     |   |            |             |                            |
| <b>2207592010</b>                                                                                                                                                                                              | 2 | CL-SE-S-09 | SW846 8260B | Methylene Chloride         |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 182 and the control limits were 68 to 133.                    |   |            |             |                            |
| <b>2207592010</b>                                                                                                                                                                                              | 3 | CL-SE-S-09 | SW846 8081B | Decachlorobiphenyls        |
| The surrogate Decachlorobiphenyls for method SW846 8081B was outside of control limits. The % Recovery was reported as 173 and the control limits were 30 to 135. This result was reported at a dilution of 5. |   |            |             |                            |
| <b>2207592010</b>                                                                                                                                                                                              | 4 | CL-SE-S-09 | SW846 8082A | Decachlorobiphenyls        |
| The surrogate Decachlorobiphenyls for method SW846 8082A was outside of control limits. The % Recovery was reported as 198 and the control limits were 49 to 115. This result was reported at a dilution of 1. |   |            |             |                            |
| <b>2207592010</b>                                                                                                                                                                                              | 5 | CL-SE-S-09 | SW846 8081B | Decachlorobiphenyls        |
| The surrogate Decachlorobiphenyls for method SW846 8081B was outside of control limits. The % Recovery was reported as 168 and the control limits were 30 to 135. This result was reported at a dilution of 5. |   |            |             |                            |
| <b>2207592011</b>                                                                                                                                                                                              | 3 | CL-SE-S-10 | SW846 8270D | bis(2-Ethylhexyl)phthalate |
| The QC sample type DUP for method SW846 8270D was outside the control limits for the analyte bis(2-Ethylhexyl)phthalate. The RPD was reported as 48.5 and the upper control limit is 21.                       |   |            |             |                            |
| <b>2207592011</b>                                                                                                                                                                                              | 4 | CL-SE-S-10 | SW846 8270D | Benzo(b)fluoranthene       |
| The QC sample type DUP for method SW846 8270D was outside the control limits for the analyte Benzo(b)fluoranthene. The RPD was reported as 44.9 and the upper control limit is 28.                             |   |            |             |                            |



## ANALYTICAL RESULTS

Workorder: 2207592 Chase Lands Phase II

|                                                                                                                                                                                             |    |            |             |                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------|-------------|------------------------|
| <b>2207592011</b>                                                                                                                                                                           | 5  | CL-SE-S-10 | SW846 8270D | Benzo(k)fluoranthene   |
| The QC sample type DUP for method SW846 8270D was outside the control limits for the analyte Benzo(k)fluoranthene. The RPD was reported as 28.5 and the upper control limit is 22.          |    |            |             |                        |
| <b>2207592011</b>                                                                                                                                                                           | 6  | CL-SE-S-10 | SW846 8270D | Indeno(1,2,3-cd)pyrene |
| The QC sample type DUP for method SW846 8270D was outside the control limits for the analyte Indeno(1,2,3-cd)pyrene. The RPD was reported as 66.2 and the upper control limit is 30.        |    |            |             |                        |
| <b>2207592011</b>                                                                                                                                                                           | 7  | CL-SE-S-10 | SW846 8270D | Dibenzo(a,h)anthracene |
| The QC sample type DUP for method SW846 8270D was outside the control limits for the analyte Dibenzo(a,h)anthracene. The RPD was reported as 200 and the upper control limit is 28.         |    |            |             |                        |
| <b>2207592011</b>                                                                                                                                                                           | 8  | CL-SE-S-10 | SW846 8270D | Phenanthrene           |
| The QC sample type DUP for method SW846 8270D was outside the control limits for the analyte Phenanthrene. The RPD was reported as 95.3 and the upper control limit is 20.                  |    |            |             |                        |
| <b>2207592011</b>                                                                                                                                                                           | 9  | CL-SE-S-10 | SW846 8270D | Fluoranthene           |
| The QC sample type DUP for method SW846 8270D was outside the control limits for the analyte Fluoranthene. The RPD was reported as 51 and the upper control limit is 21.                    |    |            |             |                        |
| <b>2207592011</b>                                                                                                                                                                           | 10 | CL-SE-S-10 | SW846 8270D | Pyrene                 |
| The QC sample type DUP for method SW846 8270D was outside the control limits for the analyte Pyrene. The RPD was reported as 67.8 and the upper control limit is 20.                        |    |            |             |                        |
| <b>2207592011</b>                                                                                                                                                                           | 11 | CL-SE-S-10 | SW846 8270D | Butylbenzylphthalate   |
| The QC sample type DUP for method SW846 8270D was outside the control limits for the analyte Butylbenzylphthalate. The RPD was reported as 200 and the upper control limit is 18.           |    |            |             |                        |
| <b>2207592011</b>                                                                                                                                                                           | 12 | CL-SE-S-10 | SW846 8270D | Benzo(a)anthracene     |
| The QC sample type DUP for method SW846 8270D was outside the control limits for the analyte Benzo(a)anthracene. The RPD was reported as 41.6 and the upper control limit is 22.            |    |            |             |                        |
| <b>2207592011</b>                                                                                                                                                                           | 13 | CL-SE-S-10 | SW846 8270D | Chrysene               |
| The QC sample type DUP for method SW846 8270D was outside the control limits for the analyte Chrysene. The RPD was reported as 45.8 and the upper control limit is 20.                      |    |            |             |                        |
| <b>2207592011</b>                                                                                                                                                                           | 14 | CL-SE-S-10 | SW846 8260B | Methylene Chloride     |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                               |    |            |             |                        |
| <b>2207592011</b>                                                                                                                                                                           | 15 | CL-SE-S-10 | SW846 8260B | Methylene Chloride     |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 165 and the control limits were 68 to 133.  |    |            |             |                        |
| <b>2207592011</b>                                                                                                                                                                           | 16 | CL-SE-S-10 | SW846 8260B | Methylene Chloride     |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 169 and the control limits were 68 to 133. |    |            |             |                        |



### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

**QC Batch:** EXTR/46681      **Analysis Method:** SW846 8015D  
**QC Batch Method:** SW846 3546  
**Associated Lab Samples:** 2207592002

#### METHOD BLANK: 2484462

| Parameter                     | Blank Result | Units | Reporting Limit |
|-------------------------------|--------------|-------|-----------------|
| Diesel Range Organics C10-C28 | 4.9J         | mg/kg | 10.6            |
| o-Terphenyl (S)               | 87.8         | %     | 38 - 118        |

#### LABORATORY CONTROL SAMPLE: 2484463

| Parameter                     | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-------------------------------|-----------|-------|-------------|------------|-------------|
| Diesel Range Organics C10-C28 | 82.3      | mg/kg | 33.3        | 27.4       | 38 - 132    |
| o-Terphenyl (S)               | 84.6      | %     |             |            | 38 - 118    |

#### MATRIX SPIKE: 2484464 DUPLICATE: 2484465 ORIGINAL: 2207592002

**\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.**

| Parameter                     | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|-------------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Diesel Range Organics C10-C28 | 49.1966         | mg/kg | 31.8        | 61.7836   | 76.5912    | 39.5     | 82.7      | 38 - 132    | 21.4 | 30      |
| o-Terphenyl (S)               | 79.2            | %     |             |           |            | 79.2     | 85.6      | 38 - 118    |      |         |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

**QC Batch:** EXTR/46711

**Analysis Method:** SW846 8082A

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2207592002, 2207592003, 2207592004, 2207592005, 2207592006, 2207592007, 2207592008, 2207592009, 2207592010, 2207592011

#### METHOD BLANK: 2485657

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aroclor-1016             | ND           | mg/kg | 0.033           |
| Aroclor-1221             | ND           | mg/kg | 0.033           |
| Aroclor-1232             | ND           | mg/kg | 0.033           |
| Aroclor-1242             | ND           | mg/kg | 0.033           |
| Aroclor-1248             | ND           | mg/kg | 0.033           |
| Aroclor-1254             | ND           | mg/kg | 0.033           |
| Aroclor-1260             | ND           | mg/kg | 0.033           |
| Aroclor-1262             | ND           | mg/kg | 0.033           |
| Aroclor-1268             | ND           | mg/kg | 0.033           |
| Decachlorobiphenyls (S)  | 92.8         | %     | 49 - 115        |
| Tetrachloro-m-xylene (S) | 96.8         | %     | 27 - 137        |

#### LABORATORY CONTROL SAMPLE: 2485658

| Parameter                | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|--------------------------|-----------|-------|-------------|------------|-------------|
| Aroclor-1016             | 92.7      | mg/kg | .33         | 0.31       | 43 - 132    |
| Aroclor-1221             |           | mg/kg |             | ND         |             |
| Aroclor-1232             |           | mg/kg |             | ND         |             |
| Aroclor-1242             |           | mg/kg |             | ND         |             |
| Aroclor-1248             |           | mg/kg |             | ND         |             |
| Aroclor-1254             |           | mg/kg |             | ND         |             |
| Aroclor-1260             | 101       | mg/kg | .33         | 0.34       | 53 - 134    |
| Aroclor-1262             |           | mg/kg |             | ND         |             |
| Aroclor-1268             |           | mg/kg |             | ND         |             |
| Decachlorobiphenyls (S)  | 104       | %     |             |            | 49 - 115    |
| Tetrachloro-m-xylene (S) | 101       | %     |             |            | 27 - 137    |

#### MATRIX SPIKE SAMPLE: 2485659 ORIGINAL: 2207592003

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|-----------|-----------------|-------|-------------|-----------|----------|-------------|
|-----------|-----------------|-------|-------------|-----------|----------|-------------|

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

|                          |      |       |     |        |      |          |
|--------------------------|------|-------|-----|--------|------|----------|
| Aroclor-1016             | 0    | mg/kg | .33 | .28531 | 86.7 | 43 - 132 |
| Aroclor-1260             | 0    | mg/kg | .33 | .28434 | 86.4 | 53 - 134 |
| Decachlorobiphenyls (S)  | 87.1 | %     |     |        |      | 49 - 115 |
| Tetrachloro-m-xylene (S) | 91.5 | %     |     |        |      | 27 - 137 |

SAMPLE DUPLICATE: 2485660 ORIGINAL: 2207592004

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Aroclor-1016 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1221 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1232 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1242 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1248 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1254 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1260 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1262 | 0               | mg/kg | 0          | NC  |         |
| Aroclor-1268 | 0               | mg/kg | 0          | NC  |         |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

**QC Batch:** EXTR/46712

**Analysis Method:** SW846 8081B

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2207592002, 2207592003, 2207592004, 2207592005, 2207592006, 2207592007, 2207592008, 2207592009, 2207592010, 2207592011

#### METHOD BLANK: 2485661

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aldrin                   | ND           | ug/kg | 1.7             |
| alpha-BHC                | ND           | ug/kg | 1.7             |
| beta-BHC                 | ND           | ug/kg | 1.7             |
| delta-BHC                | 0.15J        | ug/kg | 1.7             |
| gamma-BHC                | ND           | ug/kg | 1.7             |
| alpha-Chlordane          | ND           | ug/kg | 1.7             |
| gamma-Chlordane          | ND           | ug/kg | 1.7             |
| 4,4'-DDD                 | ND           | ug/kg | 3.3             |
| 4,4'-DDE                 | ND           | ug/kg | 3.3             |
| 4,4'-DDT                 | ND           | ug/kg | 3.3             |
| Dieldrin                 | ND           | ug/kg | 3.3             |
| Endosulfan I             | ND           | ug/kg | 1.7             |
| Endosulfan II            | ND           | ug/kg | 3.3             |
| Endosulfan Sulfate       | ND           | ug/kg | 3.3             |
| Endrin                   | ND           | ug/kg | 3.3             |
| Endrin Aldehyde          | ND           | ug/kg | 3.3             |
| Endrin Ketone            | ND           | ug/kg | 3.3             |
| Heptachlor               | ND           | ug/kg | 1.7             |
| Heptachlor Epoxide       | ND           | ug/kg | 1.7             |
| Methoxychlor             | ND           | ug/kg | 3.3             |
| Toxaphene                | ND           | ug/kg | 35.0            |
| Decachlorobiphenyls (S)  | 60.8         | %     | 30 - 135        |
| Tetrachloro-m-xylene (S) | 43.1         | %     | 30 - 111        |
| Decachlorobiphenyls (S)  | 71.9         | %     | 30 - 135        |
| Tetrachloro-m-xylene (S) | 46           | %     | 30 - 111        |

#### LABORATORY CONTROL SAMPLE: 2485662

| Parameter       | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-----------------|-----------|-------|-------------|------------|-------------|
| Aldrin          | 83.9      | ug/kg | 33.3        | 28.0       | 58 - 103    |
| alpha-BHC       | 85.2      | ug/kg | 33.3        | 28.4       | 57 - 105    |
| beta-BHC        | 73.5      | ug/kg | 33.3        | 24.5       | 53 - 106    |
| delta-BHC       | 83.1      | ug/kg | 33.3        | 27.7       | 60 - 103    |
| gamma-BHC       | 84.2      | ug/kg | 33.3        | 28.1       | 59 - 102    |
| alpha-Chlordane | 83.8      | ug/kg | 33.3        | 27.9       | 62 - 98     |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

|                          |      |       |      |      |          |
|--------------------------|------|-------|------|------|----------|
| gamma-Chlordane          | 87.1 | ug/kg | 33.3 | 29.0 | 58 - 103 |
| 4,4'-DDD                 | 99.2 | ug/kg | 33.3 | 33.1 | 57 - 111 |
| 4,4'-DDE                 | 96.7 | ug/kg | 33.3 | 32.2 | 63 - 112 |
| 4,4'-DDT                 | 89.1 | ug/kg | 33.3 | 29.7 | 60 - 122 |
| Dieldrin                 | 90.5 | ug/kg | 33.3 | 30.2 | 62 - 109 |
| Endosulfan I             | 79.6 | ug/kg | 33.3 | 26.5 | 57 - 98  |
| Endosulfan II            | 85.2 | ug/kg | 33.3 | 28.4 | 59 - 112 |
| Endosulfan Sulfate       | 92.7 | ug/kg | 33.3 | 30.9 | 27 - 96  |
| Endrin                   | 90.7 | ug/kg | 33.3 | 30.2 | 63 - 108 |
| Endrin Aldehyde          | 70.3 | ug/kg | 33.3 | 23.4 | 21 - 92  |
| Endrin Ketone            | 91.9 | ug/kg | 33.3 | 30.6 | 32 - 103 |
| Heptachlor               | 82.7 | ug/kg | 33.3 | 27.6 | 51 - 105 |
| Heptachlor Epoxide       | 85.6 | ug/kg | 33.3 | 28.5 | 62 - 99  |
| Methoxychlor             | 87.4 | ug/kg | 33.3 | 29.1 | 50 - 114 |
| Toxaphene                |      | ug/kg |      | ND   |          |
| Decachlorobiphenyls (S)  | 75.6 | %     |      |      | 30 - 135 |
| Tetrachloro-m-xylene (S) | 55.8 | %     |      |      | 30 - 111 |
| Decachlorobiphenyls (S)  | 78.6 | %     |      |      | 30 - 135 |
| Tetrachloro-m-xylene (S) | 57.2 | %     |      |      | 30 - 111 |

SAMPLE DUPLICATE: 2485663 ORIGINAL: 2207592004

| Parameter          | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------------|-----------------|-------|------------|------|---------|
| Aldrin             | 0               | ug/kg | 0          | NC   | 40      |
| alpha-BHC          | 0               | ug/kg | 0          | NC   | 40      |
| beta-BHC           | 0               | ug/kg | 0          | NC   | 40      |
| delta-BHC          | 0               | ug/kg | 0          | NC   | 40      |
| gamma-BHC          | 0               | ug/kg | 0          | NC   | 40      |
| alpha-Chlordane    | 0               | ug/kg | 0          | NC   | 40      |
| gamma-Chlordane    | 0               | ug/kg | 0          | NC   | 40      |
| 4,4'-DDD           | 0               | ug/kg | 0          | NC   | 40      |
| 4,4'-DDE           | 0               | ug/kg | 0          | NC   | 40      |
| 4,4'-DDT           | 5.2871          | ug/kg | 4.7477     | 10.8 | 40      |
| Dieldrin           | 0               | ug/kg | 0          | NC   | 40      |
| Endosulfan I       | 0               | ug/kg | 0          | NC   | 40      |
| Endosulfan II      | 0               | ug/kg | 0          | NC   | 40      |
| Endosulfan Sulfate | 0               | ug/kg | 0          | NC   | 40      |
| Endrin             | 0               | ug/kg | 0          | NC   | 40      |
| Endrin Aldehyde    | 0               | ug/kg | 0          | NC   | 40      |
| Endrin Ketone      | 0               | ug/kg | 0          | NC   | 40      |
| Heptachlor         | 0               | ug/kg | 0          | NC   | 40      |
| Heptachlor Epoxide | 0               | ug/kg | 0          | NC   | 35      |
| Methoxychlor       | 0               | ug/kg | 0          | NC   | 40      |
| Toxaphene          | 0               | ug/kg | 0          | NC   | 40      |



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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

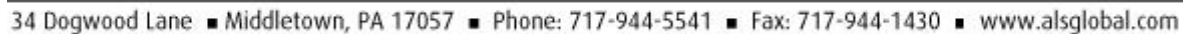
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## QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

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NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01  
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

Workorder: 2207592 Chase Lands Phase II

OC Batch: EXTR/46716

**Analysis Method:** SW846 8015D

OC Batch Method: SW846 3546

**Associated Lab Samples:** 2207592003, 2207592004

METHOD BLANK: 2485695

| Parameter                     | Blank Result | Units | Reporting Limit |
|-------------------------------|--------------|-------|-----------------|
| Diesel Range Organics C10-C28 | 5.5J         | mg/kg | 10.6            |
| o-Terphenyl (S)               | 87.2         | %     | 38 - 118        |

LABORATORY CONTROL SAMPLE: 2485696

| Parameter                        | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | % Rec<br>Limit |
|----------------------------------|--------------|-------|----------------|---------------|----------------|
| Diesel Range Organics<br>C10-C28 | 87.7         | mg/kg | 33.3           | 29.2          | 38 - 132       |
| o-Terphenyl (S)                  | 73.6         | %     |                |               | 38 - 118       |

## QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

**QC Batch:** EXTR/46717

**Analysis Method:** SW846 8270D

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2207592002, 2207592003, 2207592004, 2207592005, 2207592006, 2207592007, 2207592008, 2207592009, 2207592010, 2207592011

METHOD BLANK: 2485735

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acenaphthene                | ND           | ug/kg | 50.0            |
| Acenaphthylene              | ND           | ug/kg | 50.0            |
| Acetophenone                | ND           | ug/kg | 100             |
| Anthracene                  | ND           | ug/kg | 50.0            |
| Atrazine                    | ND           | ug/kg | 100             |
| Benzaldehyde                | ND           | ug/kg | 200             |
| Benzo(a)anthracene          | ND           | ug/kg | 50.0            |
| Benzo(a)pyrene              | ND           | ug/kg | 50.0            |
| Benzo(b)fluoranthene        | ND           | ug/kg | 50.0            |
| Benzo(g,h,i)perylene        | ND           | ug/kg | 50.0            |
| Benzo(k)fluoranthene        | ND           | ug/kg | 50.0            |
| Biphenyl                    | ND           | ug/kg | 100             |
| 4-Bromophenyl-phenylether   | ND           | ug/kg | 100             |
| Butylbenzylphthalate        | ND           | ug/kg | 100             |
| Caprolactam                 | ND           | ug/kg | 200             |
| Carbazole                   | ND           | ug/kg | 100             |
| 4-Chloro-3-methylphenol     | ND           | ug/kg | 200             |
| 4-Chloroaniline             | ND           | ug/kg | 200             |
| bis(2-Chloroethoxy)methane  | ND           | ug/kg | 100             |
| bis(2-Chloroethyl)ether     | ND           | ug/kg | 100             |
| bis(2-Chloroisopropyl)ether | ND           | ug/kg | 100             |
| 2-Chloronaphthalene         | ND           | ug/kg | 100             |
| 2-Chlorophenol              | ND           | ug/kg | 200             |
| 4-Chlorophenyl-phenylether  | ND           | ug/kg | 100             |
| Chrysene                    | ND           | ug/kg | 50.0            |
| mp-Cresol                   | ND           | ug/kg | 200             |
| o-Cresol                    | ND           | ug/kg | 200             |
| Di-n-Butylphthalate         | ND           | ug/kg | 100             |
| Di-n-Octylphthalate         | ND           | ug/kg | 100             |
| Dibenzo(a,h)anthracene      | ND           | ug/kg | 50.0            |
| Dibenzofuran                | ND           | ug/kg | 100             |
| 3,3-Dichlorobenzidine       | ND           | ug/kg | 200             |
| 2,4-Dichlorophenol          | ND           | ug/kg | 200             |
| Diethylphthalate            | ND           | ug/kg | 100             |
| 2,4-Dimethylphenol          | ND           | ug/kg | 200             |
| Dimethylphthalate           | ND           | ug/kg | 100             |
| 2,4-Dinitrophenol           | ND           | ug/kg | 200             |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

|                            |       |       |          |
|----------------------------|-------|-------|----------|
| 2,4-Dinitrotoluene         | ND    | ug/kg | 100      |
| 2,6-Dinitrotoluene         | ND    | ug/kg | 100      |
| 1,4-Dioxane                | ND    | ug/kg | 100      |
| bis(2-Ethylhexyl)phthalate | ND    | ug/kg | 100      |
| Fluoranthene               | ND    | ug/kg | 50.0     |
| Fluorene                   | ND    | ug/kg | 50.0     |
| Hexachlorobenzene          | ND    | ug/kg | 100      |
| Hexachlorobutadiene        | ND    | ug/kg | 100      |
| Hexachlorocyclopentadiene  | ND    | ug/kg | 200      |
| Hexachloroethane           | ND    | ug/kg | 100      |
| Indeno(1,2,3-cd)pyrene     | ND    | ug/kg | 50.0     |
| Isophorone                 | ND    | ug/kg | 100      |
| 2-Methyl-4,6-dinitrophenol | ND    | ug/kg | 200      |
| 2-Methylnaphthalene        | ND    | ug/kg | 100      |
| Naphthalene                | ND    | ug/kg | 50.0     |
| 2-Nitroaniline             | ND    | ug/kg | 200      |
| 3-Nitroaniline             | ND    | ug/kg | 200      |
| 4-Nitroaniline             | ND    | ug/kg | 200      |
| Nitrobenzene               | ND    | ug/kg | 100      |
| 2-Nitrophenol              | ND    | ug/kg | 200      |
| 4-Nitrophenol              | 18.2J | ug/kg | 200      |
| N-Nitroso-di-n-propylamine | ND    | ug/kg | 100      |
| N-Nitrosodiphenylamine     | ND    | ug/kg | 100      |
| Pentachlorophenol          | ND    | ug/kg | 200      |
| Phenanthrene               | ND    | ug/kg | 50.0     |
| Phenol                     | ND    | ug/kg | 200      |
| Pyrene                     | ND    | ug/kg | 50.0     |
| 1,2,4,5-Tetrachlorobenzene | ND    | ug/kg | 100      |
| 2,3,4,6-Tetrachlorophenol  | ND    | ug/kg | 200      |
| 2,4,5-Trichlorophenol      | ND    | ug/kg | 200      |
| 2,4,6-Trichlorophenol      | ND    | ug/kg | 200      |
| 2,4,6-Tribromophenol (S)   | 83    | %     | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 85.5  | %     | 40 - 110 |
| 2-Fluorophenol (S)         | 87.2  | %     | 26 - 116 |
| Nitrobenzene-d5 (S)        | 86.9  | %     | 38 - 112 |
| Phenol-d5 (S)              | 88    | %     | 35 - 111 |
| Terphenyl-d14 (S)          | 77.8  | %     | 45 - 126 |

#### LABORATORY CONTROL SAMPLE: 2485736

| Parameter      | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | % Rec<br>Limit |
|----------------|--------------|-------|----------------|---------------|----------------|
| Acenaphthene   | 91.3         | ug/kg | 3330           | 3040          | 59 - 115       |
| Acenaphthylene | 87.2         | ug/kg | 3330           | 2910          | 59 - 114       |
| Acetophenone   | 52.9         | ug/kg | 3330           | 1760          | 45 - 87        |
| Anthracene     | 91.7         | ug/kg | 3330           | 3060          | 63 - 112       |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

|                             |      |       |      |      |          |
|-----------------------------|------|-------|------|------|----------|
| Atrazine                    | 95.6 | ug/kg | 3330 | 3190 | 54 - 128 |
| Benzaldehyde                | 73.2 | ug/kg | 3330 | 2440 | 52 - 108 |
| Benzo(a)anthracene          | 95.4 | ug/kg | 3330 | 3180 | 61 - 118 |
| Benzo(a)pyrene              | 96.2 | ug/kg | 3330 | 3210 | 61 - 114 |
| Benzo(b)fluoranthene        | 97.5 | ug/kg | 3330 | 3250 | 64 - 113 |
| Benzo(g,h,i)perylene        | 95.6 | ug/kg | 3330 | 3190 | 61 - 118 |
| Benzo(k)fluoranthene        | 96.9 | ug/kg | 3330 | 3230 | 62 - 113 |
| Biphenyl                    | 87.4 | ug/kg | 3330 | 2910 | 60 - 111 |
| 4-Bromophenyl-phenylether   | 91.1 | ug/kg | 3330 | 3040 | 60 - 111 |
| Butylbenzylphthalate        | 99.5 | ug/kg | 3330 | 3320 | 56 - 126 |
| Caprolactam                 | 91.1 | ug/kg | 3330 | 3040 | 38 - 129 |
| Carbazole                   | 97.9 | ug/kg | 3330 | 3260 | 65 - 117 |
| 4-Chloro-3-methylphenol     | 87.6 | ug/kg | 6670 | 5840 | 65 - 118 |
| 4-Chloroaniline             | 81.8 | ug/kg | 3330 | 2730 | 21 - 115 |
| bis(2-Chloroethoxy)methane  | 91   | ug/kg | 3330 | 3030 | 56 - 108 |
| bis(2-Chloroethyl)ether     | 90.7 | ug/kg | 3330 | 3020 | 51 - 105 |
| bis(2-Chloroisopropyl)ether | 86.5 | ug/kg | 3330 | 2880 | 34 - 126 |
| 2-Chloronaphthalene         | 83   | ug/kg | 3330 | 2770 | 55 - 111 |
| 2-Chlorophenol              | 96.9 | ug/kg | 6670 | 6460 | 61 - 111 |
| 4-Chlorophenyl-phenylether  | 82.5 | ug/kg | 3330 | 2750 | 58 - 112 |
| Chrysene                    | 101  | ug/kg | 3330 | 3350 | 63 - 111 |
| mp-Cresol                   | 89.7 | ug/kg | 6670 | 5980 | 60 - 112 |
| o-Cresol                    | 90.7 | ug/kg | 6670 | 6050 | 62 - 113 |
| Di-n-Butylphthalate         | 99.8 | ug/kg | 3330 | 3330 | 58 - 118 |
| Di-n-Octylphthalate         | 104  | ug/kg | 3330 | 3460 | 45 - 128 |
| Dibenzo(a,h)anthracene      | 97.3 | ug/kg | 3330 | 3240 | 64 - 117 |
| Dibenzofuran                | 84.1 | ug/kg | 3330 | 2800 | 61 - 111 |
| 3,3-Dichlorobenzidine       | 81.6 | ug/kg | 6670 | 5440 | 27 - 106 |
| 2,4-Dichlorophenol          | 87.3 | ug/kg | 6670 | 5820 | 65 - 111 |
| Diethylphthalate            | 86   | ug/kg | 3330 | 2870 | 59 - 112 |
| 2,4-Dimethylphenol          | 89.1 | ug/kg | 6670 | 5940 | 65 - 114 |
| Dimethylphthalate           | 86.6 | ug/kg | 3330 | 2890 | 59 - 111 |
| 2,4-Dinitrophenol           | 106  | ug/kg | 6670 | 7080 | 36 - 131 |
| 2,4-Dinitrotoluene          | 96.9 | ug/kg | 3330 | 3230 | 61 - 117 |
| 2,6-Dinitrotoluene          | 98.2 | ug/kg | 3330 | 3270 | 61 - 115 |
| 1,4-Dioxane                 | 62.3 | ug/kg | 3330 | 2080 | 37 - 98  |
| bis(2-Ethylhexyl)phthalate  | 101  | ug/kg | 3330 | 3370 | 51 - 126 |
| Fluoranthene                | 89.5 | ug/kg | 3330 | 2980 | 61 - 116 |
| Fluorene                    | 86.4 | ug/kg | 3330 | 2880 | 61 - 112 |
| Hexachlorobenzene           | 90.4 | ug/kg | 3330 | 3010 | 59 - 109 |
| Hexachlorobutadiene         | 90.9 | ug/kg | 3330 | 3030 | 58 - 123 |
| Hexachlorocyclopentadiene   | 67.1 | ug/kg | 3330 | 2240 | 33 - 109 |
| Hexachloroethane            | 87.9 | ug/kg | 3330 | 2930 | 50 - 103 |
| Indeno(1,2,3-cd)pyrene      | 98.7 | ug/kg | 3330 | 3290 | 62 - 113 |
| Isophorone                  | 82.4 | ug/kg | 3330 | 2750 | 51 - 112 |
| 2-Methyl-4,6-dinitrophenol  | 97.9 | ug/kg | 6670 | 6530 | 53 - 131 |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

|                            |      |       |      |      |          |
|----------------------------|------|-------|------|------|----------|
| 2-Methylnaphthalene        | 85.4 | ug/kg | 3330 | 2850 | 58 - 96  |
| Naphthalene                | 91.5 | ug/kg | 3330 | 3050 | 56 - 105 |
| 2-Nitroaniline             | 98.4 | ug/kg | 3330 | 3280 | 61 - 120 |
| 3-Nitroaniline             | 92.1 | ug/kg | 3330 | 3070 | 52 - 115 |
| 4-Nitroaniline             | 80.7 | ug/kg | 3330 | 2690 | 50 - 106 |
| Nitrobenzene               | 86.1 | ug/kg | 3330 | 2870 | 53 - 108 |
| 2-Nitrophenol              | 95.7 | ug/kg | 6670 | 6380 | 61 - 114 |
| 4-Nitrophenol              | 86.7 | ug/kg | 6670 | 5780 | 49 - 134 |
| N-Nitroso-di-n-propylamine | 79.3 | ug/kg | 3330 | 2640 | 55 - 109 |
| N-Nitrosodiphenylamine     | 111  | ug/kg | 3330 | 3710 | 65 - 134 |
| Pentachlorophenol          | 106  | ug/kg | 6670 | 7030 | 60 - 145 |
| Phenanthrene               | 92.9 | ug/kg | 3330 | 3100 | 62 - 109 |
| Phenol                     | 89   | ug/kg | 6670 | 5930 | 53 - 118 |
| Pyrene                     | 86.3 | ug/kg | 3330 | 2880 | 60 - 114 |
| 1,2,4,5-Tetrachlorobenzene | 77.1 | ug/kg | 3330 | 2570 | 56 - 107 |
| 2,3,4,6-Tetrachlorophenol  | 66.5 | ug/kg | 6670 | 4430 | 60 - 111 |
| 2,4,5-Trichlorophenol      | 80.6 | ug/kg | 6670 | 5370 | 68 - 121 |
| 2,4,6-Trichlorophenol      | 82.7 | ug/kg | 6670 | 5510 | 68 - 119 |
| 2,4,6-Tribromophenol (S)   | 88.8 | %     |      |      | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 82.2 | %     |      |      | 40 - 110 |
| 2-Fluorophenol (S)         | 88.3 | %     |      |      | 26 - 116 |
| Nitrobenzene-d5 (S)        | 89.1 | %     |      |      | 38 - 112 |
| Phenol-d5 (S)              | 90   | %     |      |      | 35 - 111 |
| Terphenyl-d14 (S)          | 79.1 | %     |      |      | 45 - 126 |

MATRIX SPIKE SAMPLE: 2485737 ORIGINAL: 2207592008

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                 | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|---------------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Acenaphthene              | 0               | ug/kg | 3310        | 2979.44   | 90       | 59 - 115    |
| Acenaphthylene            | 0               | ug/kg | 3310        | 2975.78   | 89.9     | 59 - 114    |
| Acetophenone              | 0               | ug/kg | 3310        | 2092.83   | 63.2     | 45 - 87     |
| Anthracene                | 0               | ug/kg | 3310        | 3073.15   | 92.8     | 63 - 112    |
| Atrazine                  | 0               | ug/kg | 3310        | 3430.04   | 104      | 54 - 128    |
| Benzaldehyde              | 0               | ug/kg | 3310        | 2397.11   | 72.4     | 52 - 108    |
| Benzo(a)anthracene        | 15.3861         | ug/kg | 3310        | 2939.82   | 88.3     | 61 - 118    |
| Benzo(a)pyrene            | 11.8476         | ug/kg | 3310        | 3018.09   | 90.8     | 61 - 114    |
| Benzo(b)fluoranthene      | 15.8501         | ug/kg | 3310        | 3070.04   | 92.2     | 64 - 113    |
| Benzo(g,h,i)perylene      | 12.2336         | ug/kg | 3310        | 2894.29   | 87       | 61 - 118    |
| Benzo(k)fluoranthene      | 5.38953         | ug/kg | 3310        | 2998.28   | 90.4     | 62 - 113    |
| Biphenyl                  | 0               | ug/kg | 3310        | 2853.57   | 86.2     | 60 - 111    |
| 4-Bromophenyl-phenylether | 0               | ug/kg | 3310        | 2735.38   | 82.6     | 60 - 111    |
| Butylbenzylphthalate      | 13.3319         | ug/kg | 3310        | 3461.62   | 104      | 56 - 126    |
| Caprolactam               | 0               | ug/kg | 3310        | 3328.64   | 101      | 38 - 129    |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

|                             |         |       |      |         |       |          |
|-----------------------------|---------|-------|------|---------|-------|----------|
| Carbazole                   | 0       | ug/kg | 3310 | 3389.01 | 102   | 65 - 117 |
| 4-Chloro-3-methylphenol     | 0       | ug/kg | 6620 | 5779.06 | 87.3  | 65 - 118 |
| 4-Chloroaniline             | 0       | ug/kg | 3310 | 1467.98 | 44.3  | 21 - 115 |
| bis(2-Chloroethoxy)methane  | 0       | ug/kg | 3310 | 2908.37 | 87.8  | 56 - 108 |
| bis(2-Chloroethyl)ether     | 0       | ug/kg | 3310 | 2980.45 | 90    | 51 - 105 |
| bis(2-Chloroisopropyl)ether | 0       | ug/kg | 3310 | 2744.27 | 82.9  | 34 - 126 |
| 2-Chloronaphthalene         | 0       | ug/kg | 3310 | 2734.64 | 82.6  | 55 - 111 |
| 2-Chlorophenol              | 0       | ug/kg | 6620 | 6315.54 | 95.4  | 61 - 111 |
| 4-Chlorophenyl-phenylether  | 0       | ug/kg | 3310 | 2728.27 | 82.4  | 58 - 112 |
| Chrysene                    | 12.4603 | ug/kg | 3310 | 3070.29 | 92.3  | 63 - 111 |
| mp-Cresol                   | 0       | ug/kg | 6620 | 5774.88 | 87.2  | 60 - 112 |
| o-Cresol                    | 0       | ug/kg | 6620 | 5800.19 | 87.6  | 62 - 113 |
| Di-n-Butylphthalate         | 88.8771 | ug/kg | 3310 | 3673.43 | 108   | 58 - 118 |
| Di-n-Octylphthalate         | 0       | ug/kg | 3310 | 3757.07 | 113   | 45 - 128 |
| Dibenzo(a,h)anthracene      | 0       | ug/kg | 3310 | 2989.29 | 90.3  | 64 - 117 |
| Dibenzofuran                | 0       | ug/kg | 3310 | 2795.23 | 84.4  | 61 - 111 |
| 3,3-Dichlorobenzidine       | 0       | ug/kg | 6620 | 2900.66 | 43.8  | 27 - 106 |
| 2,4-Dichlorophenol          | 0       | ug/kg | 6620 | 5519.25 | 83.3  | 65 - 111 |
| Diethylphthalate            | 0       | ug/kg | 3310 | 3072.99 | 92.8  | 59 - 112 |
| 2,4-Dimethylphenol          | 0       | ug/kg | 6620 | 5459.65 | 82.4  | 65 - 114 |
| Dimethylphthalate           | 0       | ug/kg | 3310 | 2976.16 | 89.9  | 59 - 111 |
| 2,4-Dinitrophenol           | 0       | ug/kg | 6620 | 7191.68 | 109   | 36 - 131 |
| 2,4-Dinitrotoluene          | 0       | ug/kg | 3310 | 3445.45 | 104   | 61 - 117 |
| 2,6-Dinitrotoluene          | 0       | ug/kg | 3310 | 3395.7  | 103   | 61 - 115 |
| 1,4-Dioxane                 | 0       | ug/kg | 3310 | 2009.97 | 60.7  | 37 - 98  |
| bis(2-Ethylhexyl)phthalate  | 224.927 | ug/kg | 3310 | 3725.76 | 106   | 51 - 126 |
| Fluoranthene                | 19.4454 | ug/kg | 3310 | 3163.57 | 95    | 61 - 116 |
| Fluorene                    | 0       | ug/kg | 3310 | 2970.76 | 89.7  | 61 - 112 |
| Hexachlorobenzene           | 0       | ug/kg | 3310 | 2827.12 | 85.4  | 59 - 109 |
| Hexachlorobutadiene         | 0       | ug/kg | 3310 | 2906.72 | 87.8  | 58 - 123 |
| Hexachlorocyclopentadiene   | 0       | ug/kg | 3310 | 848.504 | 25.6* | 33 - 109 |
| Hexachloroethane            | 0       | ug/kg | 3310 | 2567.62 | 77.5  | 50 - 103 |
| Indeno(1,2,3-cd)pyrene      | 8.16656 | ug/kg | 3310 | 3028.66 | 91.2  | 62 - 113 |
| Isophorone                  | 0       | ug/kg | 3310 | 2674.57 | 80.8  | 51 - 112 |
| 2-Methyl-4,6-dinitrophenol  | 0       | ug/kg | 6620 | 6094.26 | 92    | 53 - 131 |
| 2-Methylnaphthalene         | 0       | ug/kg | 3310 | 2839.38 | 85.7  | 58 - 96  |
| Naphthalene                 | 0       | ug/kg | 3310 | 2948.08 | 89    | 56 - 105 |
| 2-Nitroaniline              | 0       | ug/kg | 3310 | 3482.25 | 105   | 61 - 120 |
| 3-Nitroaniline              | 0       | ug/kg | 3310 | 2307.49 | 69.7  | 52 - 115 |
| 4-Nitroaniline              | 0       | ug/kg | 3310 | 3083.47 | 93.1  | 50 - 106 |
| Nitrobenzene                | 0       | ug/kg | 3310 | 2769.25 | 83.6  | 53 - 108 |
| 2-Nitrophenol               | 0       | ug/kg | 6620 | 6271.7  | 94.7  | 61 - 114 |
| 4-Nitrophenol               | 0       | ug/kg | 6620 | 6589.85 | 99.5  | 49 - 134 |
| N-Nitroso-di-n-propylamine  | 0       | ug/kg | 3310 | 2636.09 | 79.6  | 55 - 109 |
| N-Nitrosodiphenylamine      | 0       | ug/kg | 3310 | 3428.16 | 104   | 65 - 134 |
| Pentachlorophenol           | 0       | ug/kg | 6620 | 7106.02 | 107   | 60 - 145 |



### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

|                            |         |       |      |         |      |          |
|----------------------------|---------|-------|------|---------|------|----------|
| Phenanthrene               | 7.6244  | ug/kg | 3310 | 3010.9  | 90.7 | 62 - 109 |
| Phenol                     | 0       | ug/kg | 6620 | 5589.38 | 84.4 | 53 - 118 |
| Pyrene                     | 15.5964 | ug/kg | 3310 | 2641.18 | 79.3 | 60 - 114 |
| 1,2,4,5-Tetrachlorobenzene | 0       | ug/kg | 3310 | 2484.35 | 75   | 56 - 107 |
| 2,3,4,6-Tetrachlorophenol  | 0       | ug/kg | 6620 | 4672.58 | 70.6 | 60 - 111 |
| 2,4,5-Trichlorophenol      | 0       | ug/kg | 6620 | 5403.82 | 81.6 | 68 - 121 |
| 2,4,6-Trichlorophenol      | 0       | ug/kg | 6620 | 5488.91 | 82.9 | 68 - 119 |
| 2,4,6-Tribromophenol (S)   | 85.9    | %     |      |         |      | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 78.3    | %     |      |         |      | 40 - 110 |
| 2-Fluorophenol (S)         | 87.1    | %     |      |         |      | 26 - 116 |
| Nitrobenzene-d5 (S)        | 87.5    | %     |      |         |      | 38 - 112 |
| Phenol-d5 (S)              | 87.4    | %     |      |         |      | 35 - 111 |
| Terphenyl-d14 (S)          | 74.6    | %     |      |         |      | 45 - 126 |

SAMPLE DUPLICATE: 2485738 ORIGINAL: 2207592011

| Parameter                   | Original Result | Units | DUP Result | RPD   | Max RPD |
|-----------------------------|-----------------|-------|------------|-------|---------|
| Acenaphthene                | 0               | ug/kg | 0          | NC    | 17      |
| Acenaphthylene              | 0               | ug/kg | 0          | NC    | 17      |
| Acetophenone                | 0               | ug/kg | 0          | NC    | 21      |
| Anthracene                  | 0               | ug/kg | 0          | NC    | 20      |
| Atrazine                    | 0               | ug/kg | 0          | NC    | 22      |
| Benzaldehyde                | 17.8015         | ug/kg | 22.4792    | 23.2  | 30      |
| Benzo(a)anthracene          | 24.0859         | ug/kg | 15.7978    | 41.6* | 22      |
| Benzo(a)pyrene              | 20.6143         | ug/kg | 16.5149    | 22.1  | 24      |
| Benzo(b)fluoranthene        | 27.4299         | ug/kg | 17.3648    | 44.9* | 28      |
| Benzo(g,h,i)perylene        | 13.4473         | ug/kg | 11.8466    | 12.7  | 30      |
| Benzo(k)fluoranthene        | 10.1904         | ug/kg | 7.64872    | 28.5* | 22      |
| Biphenyl                    | 0               | ug/kg | 0          | NC    | 14      |
| 4-Bromophenyl-phenylether   | 0               | ug/kg | 0          | NC    | 21      |
| Butylbenzylphthalate        | 0               | ug/kg | 9.59308    | NC    | 18      |
| Caprolactam                 | 0               | ug/kg | 0          | NC    | 23      |
| Carbazole                   | 0               | ug/kg | 0          | NC    | 20      |
| 4-Chloro-3-methylphenol     | 0               | ug/kg | 0          | NC    | 20      |
| 4-Chloroaniline             | 0               | ug/kg | 0          | NC    | 22      |
| bis(2-Chloroethoxy)methane  | 0               | ug/kg | 0          | NC    | 18      |
| bis(2-Chloroethyl)ether     | 0               | ug/kg | 0          | NC    | 24      |
| bis(2-Chloroisopropyl)ether | 0               | ug/kg | 0          | NC    | 22      |
| 2-Chloronaphthalene         | 0               | ug/kg | 0          | NC    | 19      |
| 2-Chlorophenol              | 0               | ug/kg | 0          | NC    | 22      |
| 4-Chlorophenyl-phenylether  | 0               | ug/kg | 0          | NC    | 18      |
| Chrysene                    | 19.229          | ug/kg | 12.061     | 45.8* | 20      |
| mp-Cresol                   | 0               | ug/kg | 0          | NC    | 20      |
| o-Cresol                    | 0               | ug/kg | 0          | NC    | 21      |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

|                            |         |       |         |       |    |
|----------------------------|---------|-------|---------|-------|----|
| Di-n-Butylphthalate        | 0       | ug/kg | 0       | NC    | 20 |
| Di-n-Octylphthalate        | 0       | ug/kg | 0       | NC    | 20 |
| Dibenzo(a,h)anthracene     | 6.08601 | ug/kg | 0       | NC    | 28 |
| Dibenzofuran               | 0       | ug/kg | 0       | NC    | 18 |
| 3,3-Dichlorobenzidine      | 0       | ug/kg | 0       | NC    | 26 |
| 2,4-Dichlorophenol         | 0       | ug/kg | 0       | NC    | 20 |
| Diethylphthalate           | 0       | ug/kg | 0       | NC    | 18 |
| 2,4-Dimethylphenol         | 0       | ug/kg | 0       | NC    | 23 |
| Dimethylphthalate          | 0       | ug/kg | 0       | NC    | 18 |
| 2,4-Dinitrophenol          | 0       | ug/kg | 0       | NC    | 30 |
| 2,4-Dinitrotoluene         | 0       | ug/kg | 0       | NC    | 21 |
| 2,6-Dinitrotoluene         | 0       | ug/kg | 0       | NC    | 20 |
| 1,4-Dioxane                | 0       | ug/kg | 0       | NC    | 30 |
| bis(2-Ethylhexyl)phthalate | 35.3385 | ug/kg | 21.5438 | 48.5* | 21 |
| Fluoranthene               | 32.736  | ug/kg | 19.435  | 51*   | 21 |
| Fluorene                   | 0       | ug/kg | 0       | NC    | 16 |
| Hexachlorobenzene          | 0       | ug/kg | 0       | NC    | 21 |
| Hexachlorobutadiene        | 0       | ug/kg | 0       | NC    | 22 |
| Hexachlorocyclopentadiene  | 0       | ug/kg | 0       | NC    | 29 |
| Hexachloroethane           | 0       | ug/kg | 0       | NC    | 28 |
| Indeno(1,2,3-cd)pyrene     | 14.7652 | ug/kg | 7.42005 | 66.2* | 30 |
| Isophorone                 | 0       | ug/kg | 0       | NC    | 19 |
| 2-Methyl-4,6-dinitrophenol | 0       | ug/kg | 0       | NC    | 30 |
| 2-Methylnaphthalene        | 0       | ug/kg | 0       | NC    | 21 |
| Naphthalene                | 0       | ug/kg | 0       | NC    | 21 |
| 2-Nitroaniline             | 0       | ug/kg | 0       | NC    | 19 |
| 3-Nitroaniline             | 0       | ug/kg | 0       | NC    | 22 |
| 4-Nitroaniline             | 0       | ug/kg | 0       | NC    | 19 |
| Nitrobenzene               | 0       | ug/kg | 0       | NC    | 20 |
| 2-Nitrophenol              | 0       | ug/kg | 0       | NC    | 23 |
| 4-Nitrophenol              | 0       | ug/kg | 0       | NC    | 21 |
| N-Nitroso-di-n-propylamine | 0       | ug/kg | 0       | NC    | 20 |
| N-Nitrosodiphenylamine     | 0       | ug/kg | 0       | NC    | 21 |
| Pentachlorophenol          | 0       | ug/kg | 0       | NC    | 25 |
| Phenanthrene               | 30.4292 | ug/kg | 10.7934 | 95.3* | 20 |
| Phenol                     | 0       | ug/kg | 0       | NC    | 23 |
| Pyrene                     | 29.9153 | ug/kg | 14.7691 | 67.8* | 20 |
| 1,2,4,5-Tetrachlorobenzene | 0       | ug/kg | 0       | NC    | 19 |
| 2,3,4,6-Tetrachlorophenol  | 0       | ug/kg | 0       | NC    | 20 |
| 2,4,5-Trichlorophenol      | 0       | ug/kg | 0       | NC    | 22 |
| 2,4,6-Trichlorophenol      | 0       | ug/kg | 0       | NC    | 20 |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

**QC Batch:** EXTR/46749

**Analysis Method:** SW846 8015D

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2207592005, 2207592006, 2207592007, 2207592008, 2207592009, 2207592010, 2207592011

#### METHOD BLANK: 2487242

| Parameter                     | Blank Result | Units | Reporting Limit |
|-------------------------------|--------------|-------|-----------------|
| Diesel Range Organics C10-C28 | 5.4J         | mg/kg | 10.6            |
| o-Terphenyl (S)               | 93.1         | %     | 38 - 118        |

#### LABORATORY CONTROL SAMPLE: 2487243

| Parameter                     | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-------------------------------|-----------|-------|-------------|------------|-------------|
| Diesel Range Organics C10-C28 | 98.6      | mg/kg | 33.3        | 32.9       | 38 - 132    |
| o-Terphenyl (S)               | 90.7      | %     |             |            | 38 - 118    |

#### MATRIX SPIKE: 2487244 DUPLICATE: 2487245 ORIGINAL: 2207906006

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                     | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD |
|-------------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|
| Diesel Range Organics C10-C28 | 111.323         | mg/kg | 32.3        | 155.008   | 180.148    | 135*     | 215*      | 38 - 132    | 15  | 30      |
| o-Terphenyl (S)               | 79.5            | %     |             |           |            | 79.5     | 86.6      | 38 - 118    |     |         |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

**QC Batch:** MDIG/62543

**Analysis Method:** SW846 7471B

**QC Batch Method:** SW846 7471B

**Associated Lab Samples:** 2207592002, 2207592003, 2207592004, 2207592005, 2207592006, 2207592007, 2207592008, 2207592009, 2207592010, 2207592011

#### METHOD BLANK: 2483728

| Parameter      | Blank Result | Units | Reporting Limit |
|----------------|--------------|-------|-----------------|
| Mercury, Total | ND           | mg/kg | 0.050           |

#### LABORATORY CONTROL SAMPLE: 2483729

| Parameter      | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|----------------|-----------|-------|-------------|------------|-------------|
| Mercury, Total | 92        | mg/kg | .4          | 0.37       | 80 - 120    |

#### MATRIX SPIKE: 2483730 DUPLICATE: 2483731 ORIGINAL: 2207585001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter      | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD |
|----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|
| Mercury, Total | .20351          | mg/kg | .91         | 1.04364   | 1.04423    | 92.4     | 87.4      | 80 - 120    | .06 | 20      |

#### MATRIX SPIKE: 2483732 DUPLICATE: 2483733 ORIGINAL: 2207592009

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter      | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Mercury, Total | .03589          | mg/kg | .93         | .97037    | .92281     | 101      | 101       | 80 - 120    | 5.02 | 20      |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

**QC Batch:** MDIG/62609

**Analysis Method:** SW846 6020A

**QC Batch Method:** SW846 3051

**Associated Lab Samples:** 2207592002, 2207592003, 2207592004, 2207592005, 2207592006, 2207592007, 2207592008, 2207592009

#### METHOD BLANK: 2485669

| Parameter        | Blank Result | Units | Reporting Limit |
|------------------|--------------|-------|-----------------|
| Antimony, Total  | ND           | mg/kg | 1.0             |
| Arsenic, Total   | ND           | mg/kg | 1.5             |
| Beryllium, Total | ND           | mg/kg | 0.50            |
| Cadmium, Total   | ND           | mg/kg | 0.50            |
| Chromium, Total  | ND           | mg/kg | 1.0             |
| Copper, Total    | ND           | mg/kg | 2.5             |
| Lead, Total      | ND           | mg/kg | 1.0             |
| Nickel, Total    | ND           | mg/kg | 2.5             |
| Selenium, Total  | ND           | mg/kg | 2.5             |
| Silver, Total    | ND           | mg/kg | 1.0             |
| Thallium, Total  | ND           | mg/kg | 0.50            |
| Zinc, Total      | ND           | mg/kg | 2.5             |

#### LABORATORY CONTROL SAMPLE: 2485671

| Parameter        | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|------------------|-----------|-------|-------------|------------|-------------|
| Antimony, Total  | 96.8      | mg/kg | 20          | 19.4       | 80 - 120    |
| Arsenic, Total   | 97.5      | mg/kg | 20          | 19.5       | 80 - 120    |
| Beryllium, Total | 89.1      | mg/kg | 20          | 17.8       | 80 - 120    |
| Cadmium, Total   | 96        | mg/kg | 20          | 19.2       | 80 - 120    |
| Chromium, Total  | 101       | mg/kg | 20          | 20.3       | 80 - 120    |
| Copper, Total    | 101       | mg/kg | 20          | 20.3       | 80 - 120    |
| Lead, Total      | 101       | mg/kg | 20          | 20.1       | 80 - 120    |
| Nickel, Total    | 102       | mg/kg | 20          | 20.5       | 80 - 120    |
| Selenium, Total  | 90.4      | mg/kg | 20          | 18.1       | 80 - 120    |
| Silver, Total    | 104       | mg/kg | 10          | 10.4       | 80 - 120    |
| Thallium, Total  | 101       | mg/kg | 20          | 20.3       | 80 - 120    |
| Zinc, Total      | 95.2      | mg/kg | 200         | 190        | 80 - 120    |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

MATRIX SPIKE: 2485674 DUPLICATE: 2485675 ORIGINAL: 2208265001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter       | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|-----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Arsenic, Total  | 7.18317         | mg/kg | 19.6        | 19.04314  | 21.38284   | 60.5*    | 72.4*     | 75 - 125    | 11.6 | 20      |
| Cadmium, Total  | .34423          | mg/kg | 19.6        | 14.19314  | 16.07794   | 70.6*    | 80.2      | 75 - 125    | 12.5 | 20      |
| Chromium, Total | 25.59279        | mg/kg | 19.6        | 32.41716  | 35.5152    | 34.8*    | 50.6*     | 75 - 125    | 9.12 | 20      |
| Lead, Total     | 41.85913        | mg/kg | 19.6        | 45.46225  | 48.03578   | 18.4*    | 31.5*     | 75 - 125    | 5.5  | 20      |
| Selenium, Total | 2.14231         | mg/kg | 19.6        | 13.64118  | 15.32647   | 58.6*    | 67.2*     | 75 - 125    | 11.6 | 20      |
| Silver, Total   | .09038          | mg/kg | 9.8         | 7.65      | 8.62941    | 77.1     | 87.1      | 75 - 125    | 12   | 20      |



### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

**QC Batch:** MDIG/62610 **Analysis Method:** SW846 6020A  
**QC Batch Method:** SW846 3051  
**Associated Lab Samples:** 2207592010, 2207592011

#### METHOD BLANK: 2485676

| Parameter        | Blank Result | Units | Reporting Limit |
|------------------|--------------|-------|-----------------|
| Antimony, Total  | ND           | mg/kg | 1.0             |
| Arsenic, Total   | ND           | mg/kg | 1.5             |
| Beryllium, Total | ND           | mg/kg | 0.50            |
| Cadmium, Total   | ND           | mg/kg | 0.50            |
| Chromium, Total  | ND           | mg/kg | 1.0             |
| Copper, Total    | ND           | mg/kg | 2.5             |
| Lead, Total      | ND           | mg/kg | 1.0             |
| Nickel, Total    | ND           | mg/kg | 2.5             |
| Selenium, Total  | ND           | mg/kg | 2.5             |
| Silver, Total    | ND           | mg/kg | 1.0             |
| Thallium, Total  | ND           | mg/kg | 0.50            |
| Zinc, Total      | ND           | mg/kg | 2.5             |

#### LABORATORY CONTROL SAMPLE: 2485677

| Parameter        | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|------------------|-----------|-------|-------------|------------|-------------|
| Antimony, Total  | 93.8      | mg/kg | 20          | 18.8       | 80 - 120    |
| Arsenic, Total   | 95.6      | mg/kg | 20          | 19.1       | 80 - 120    |
| Beryllium, Total | 94.4      | mg/kg | 20          | 18.9       | 80 - 120    |
| Cadmium, Total   | 97.4      | mg/kg | 20          | 19.5       | 80 - 120    |
| Chromium, Total  | 105       | mg/kg | 20          | 21.0       | 80 - 120    |
| Copper, Total    | 103       | mg/kg | 20          | 20.5       | 80 - 120    |
| Lead, Total      | 102       | mg/kg | 20          | 20.4       | 80 - 120    |
| Nickel, Total    | 102       | mg/kg | 20          | 20.5       | 80 - 120    |
| Selenium, Total  | 81.5      | mg/kg | 20          | 16.3       | 80 - 120    |
| Silver, Total    | 104       | mg/kg | 10          | 10.4       | 80 - 120    |
| Thallium, Total  | 101       | mg/kg | 20          | 20.2       | 80 - 120    |
| Zinc, Total      | 96.5      | mg/kg | 200         | 193        | 80 - 120    |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

MATRIX SPIKE: 2485678 DUPLICATE: 2485679 ORIGINAL: 2208266003

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter       | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|-----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Arsenic, Total  | 3.61343         | mg/kg | 19.2        | 17.90721  | 17.81971   | 74.3*    | 73.9*     | 75 - 125    | .49  | 20      |
| Cadmium, Total  | .14444          | mg/kg | 19.2        | 16.34952  | 17.82115   | 84.3     | 91.9      | 75 - 125    | 8.61 | 20      |
| Chromium, Total | 15.14074        | mg/kg | 19.2        | 34.40769  | 28.7125    | 100      | 70.6*     | 75 - 125    | 18   | 20      |
| Lead, Total     | 18.01852        | mg/kg | 19.2        | 42.62212  | 31.30192   | 128*     | 69.1*     | 75 - 125    | 30.6 | 20      |
| Selenium, Total | .96944          | mg/kg | 19.2        | 14.08654  | 15.29856   | 68.2*    | 74.5*     | 75 - 125    | 8.25 | 20      |
| Silver, Total   | .04815          | mg/kg | 9.6         | 8.92356   | 9.50481    | 92.3     | 98.3      | 75 - 125    | 6.31 | 20      |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

**QC Batch:** VOGC/9379

**Analysis Method:** SW846 8015D

**QC Batch Method:** SW846 5035

**Associated Lab Samples:** 2207592002, 2207592003, 2207592004, 2207592005, 2207592006, 2207592007, 2207592008, 2207592009, 2207592010

#### METHOD BLANK: 2485174

| Parameter                  | Blank Result | Units | Reporting Limit |
|----------------------------|--------------|-------|-----------------|
| Gasoline Range Organics    | 2890J        | ug/kg | 10000           |
| a,a,a-Trifluorotoluene (S) | 123          | %     | 72 - 134        |

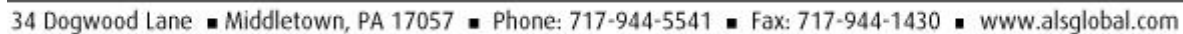
#### LABORATORY CONTROL SAMPLE: 2485175

| Parameter                  | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|----------------------------|-----------|-------|-------------|------------|-------------|
| Gasoline Range Organics    | 78.3      | ug/kg | 100000      | 78300      | 73 - 133    |
| a,a,a-Trifluorotoluene (S) | 107       | %     |             |            | 72 - 134    |

#### MATRIX SPIKE: 2485445 DUPLICATE: 2485446 ORIGINAL: 2207826003

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                  | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|----------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Gasoline Range Organics    | 1610.36         | ug/kg | 94500       | 77399.3   | 76068.5    | 80.2     | 78.8      | 73 - 133    | 1.73 | 18      |
| a,a,a-Trifluorotoluene (S) | 132             | %     |             |           |            | 132      | 127       | 72 - 134    |      |         |



NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01  
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

Workorder: 2207592 Chase Lands Phase II

OC Batch: VOGC/9385

**Analysis Method:** SW846 8015D

**QC Batch Method:** SW846 5035

**Associated Lab Samples:** 2207592011

METHOD BLANK: 2486673

| Parameter                  | Blank Result | Units | Reporting Limit |
|----------------------------|--------------|-------|-----------------|
| Gasoline Range Organics    | 3100J        | ug/kg | 10000           |
| a,a,a-Trifluorotoluene (S) | 131          | %     | 72 - 134        |

LABORATORY CONTROL SAMPLE: 2486674

| Parameter                  | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | % Rec<br>Limit |
|----------------------------|--------------|-------|----------------|---------------|----------------|
| Gasoline Range Organics    | 79.5         | ug/kg | 100000         | 79500         | 73 - 133       |
| a,a,a-Trifluorotoluene (S) | 108          | %     |                |               | 72 - 134       |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

**QC Batch:** VOMS/42408 **Analysis Method:** SW846 8260B

**QC Batch Method:** SW846 5035

**Associated Lab Samples:** 2207592002, 2207592003, 2207592004, 2207592005, 2207592006, 2207592007, 2207592008, 2207592009, 2207592010, 2207592011

METHOD BLANK: 2483707

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acetone                     | ND           | ug/kg | 10.0            |
| tert-Amyl methyl ether      | ND           | ug/kg | 2.0             |
| tert-Amyl Alcohol           | ND           | ug/kg | 10.0            |
| tert-Amyl Ethylether        | ND           | ug/kg | 2.0             |
| Benzene                     | ND           | ug/kg | 2.0             |
| Bromochloromethane          | ND           | ug/kg | 2.0             |
| Bromodichloromethane        | ND           | ug/kg | 2.0             |
| Bromoform                   | ND           | ug/kg | 2.0             |
| Bromomethane                | ND           | ug/kg | 2.0             |
| 2-Butanone                  | ND           | ug/kg | 10.0            |
| tert-Butyl Alcohol          | ND           | ug/kg | 10.0            |
| Carbon Disulfide            | ND           | ug/kg | 2.0             |
| Carbon Tetrachloride        | ND           | ug/kg | 2.0             |
| Chlorobenzene               | ND           | ug/kg | 2.0             |
| Chlorodibromomethane        | ND           | ug/kg | 2.0             |
| Chloroethane                | ND           | ug/kg | 5.0             |
| Chloroform                  | ND           | ug/kg | 2.0             |
| Chloromethane               | ND           | ug/kg | 2.0             |
| 1,2-Dibromo-3-chloropropane | ND           | ug/kg | 5.0             |
| 1,2-Dibromoethane           | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,2-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethene          | ND           | ug/kg | 2.0             |
| cis-1,2-Dichloroethene      | ND           | ug/kg | 2.0             |
| trans-1,2-Dichloroethene    | ND           | ug/kg | 2.0             |
| 1,2-Dichloropropane         | ND           | ug/kg | 2.0             |
| cis-1,3-Dichloropropene     | ND           | ug/kg | 2.0             |
| trans-1,3-Dichloropropene   | ND           | ug/kg | 2.0             |
| Diisopropyl ether           | ND           | ug/kg | 2.0             |
| Ethyl tert-butyl ether      | ND           | ug/kg | 2.0             |
| Ethylbenzene                | ND           | ug/kg | 2.0             |
| 2-Hexanone                  | ND           | ug/kg | 10.0            |
| Methyl t-Butyl Ether        | ND           | ug/kg | 2.0             |
| 4-Methyl-2-Pentanone(MIBK)  | ND           | ug/kg | 10.0            |
| Methylene Chloride          | 0.96J        | ug/kg | 2.0             |
| Naphthalene                 | ND           | ug/kg | 2.0             |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

|                           |      |       |          |
|---------------------------|------|-------|----------|
| Styrene                   | ND   | ug/kg | 2.0      |
| 1,1,2,2-Tetrachloroethane | ND   | ug/kg | 2.0      |
| Tetrachloroethene         | ND   | ug/kg | 2.0      |
| Toluene                   | ND   | ug/kg | 2.0      |
| Total Xylenes             | ND   | ug/kg | 6.0      |
| 1,1,1-Trichloroethane     | ND   | ug/kg | 2.0      |
| 1,1,2-Trichloroethane     | ND   | ug/kg | 2.0      |
| Trichloroethene           | ND   | ug/kg | 2.0      |
| Vinyl Chloride            | ND   | ug/kg | 2.0      |
| o-Xylene                  | ND   | ug/kg | 2.0      |
| mp-Xylene                 | ND   | ug/kg | 4.0      |
| 1,2-Dichloroethane-d4 (S) | 73.6 | %     | 56 - 124 |
| 4-Bromofluorobenzene (S)  | 82.9 | %     | 51 - 128 |
| Dibromofluoromethane (S)  | 83.7 | %     | 62 - 123 |
| Toluene-d8 (S)            | 85.9 | %     | 59 - 131 |

LABORATORY CONTROL SAMPLE: 2483708 DUPLICATE: 2483709

| Parameter                   | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | LCSD<br>Result | LCSD %<br>Rec | % Rec<br>Limit | RPD  | Max |
|-----------------------------|--------------|-------|----------------|---------------|----------------|---------------|----------------|------|-----|
| Acetone                     | 99.6         | ug/kg | 100            | 99.6          | 102            | 102           | 58 - 146       | 1.9  | 40  |
| tert-Amyl methyl ether      | 108          | ug/kg | 20             | 21.6          | 23.6           | 118           | 79 - 123       | 9.2  | 40  |
| tert-Amyl Alcohol           | 89.5         | ug/kg | 100            | 89.5          | 98.1           | 98.1          | 70 - 130       | 9.1  | 40  |
| tert-Amyl Ethylether        | 91.1         | ug/kg | 20             | 18.2          | 19.7           | 98.7          | 70 - 130       | 8    | 40  |
| Benzene                     | 95.2         | ug/kg | 20             | 19.0          | 19.7           | 98.4          | 75 - 132       | 3.3  | 40  |
| Bromochloromethane          | 98.8         | ug/kg | 20             | 19.8          | 20.9           | 105           | 71 - 120       | 5.7  | 40  |
| Bromodichloromethane        | 97.7         | ug/kg | 20             | 19.5          | 20.4           | 102           | 74 - 127       | 4.3  | 40  |
| Bromoform                   | 89.3         | ug/kg | 20             | 17.9          | 18.9           | 94.6          | 68 - 131       | 5.9  | 40  |
| Bromomethane                | 72.5         | ug/kg | 20             | 14.5          | 15.2           | 76.2          | 43 - 148       | 5    | 40  |
| 2-Butanone                  | 99.6         | ug/kg | 100            | 99.6          | 106            | 106           | 64 - 148       | 6.4  | 40  |
| tert-Butyl Alcohol          | 101          | ug/kg | 100            | 101           | 114            | 114           | 51 - 152       | 12.1 | 40  |
| Carbon Disulfide            | 100          | ug/kg | 20             | 20.0          | 20.6           | 103           | 47 - 144       | 2.6  | 40  |
| Carbon Tetrachloride        | 87.3         | ug/kg | 20             | 17.5          | 18.3           | 91.5          | 64 - 136       | 4.8  | 40  |
| Chlorobenzene               | 94.6         | ug/kg | 20             | 18.9          | 19.6           | 98            | 76 - 125       | 3.5  | 40  |
| Chlorodibromomethane        | 95.7         | ug/kg | 20             | 19.1          | 20.3           | 101           | 75 - 124       | 5.9  | 40  |
| Chloroethane                | 77.4         | ug/kg | 20             | 15.5          | 16.3           | 81.6          | 1 - 141        | 5.2  | 40  |
| Chloroform                  | 97.5         | ug/kg | 20             | 19.5          | 20.1           | 100           | 73 - 126       | 3.1  | 40  |
| Chloromethane               | 106          | ug/kg | 20             | 21.3          | 21.8           | 109           | 44 - 139       | 2.5  | 40  |
| 1,2-Dibromo-3-chloropropane | 79           | ug/kg | 20             | 15.8          | 16.7           | 83.7          | 52 - 151       | 5.8  | 40  |
| 1,2-Dibromoethane           | 104          | ug/kg | 20             | 20.8          | 21.5           | 107           | 76 - 127       | 3.1  | 40  |
| 1,1-Dichloroethane          | 96.6         | ug/kg | 20             | 19.3          | 20.4           | 102           | 74 - 131       | 5.4  | 40  |
| 1,2-Dichloroethane          | 92.5         | ug/kg | 20             | 18.5          | 19.4           | 96.9          | 69 - 132       | 4.6  | 40  |
| 1,1-Dichloroethene          | 98.7         | ug/kg | 20             | 19.7          | 20.5           | 103           | 59 - 139       | 3.9  | 40  |
| cis-1,2-Dichloroethene      | 95.9         | ug/kg | 20             | 19.2          | 19.9           | 99.7          | 75 - 128       | 3.9  | 40  |
| trans-1,2-Dichloroethene    | 102          | ug/kg | 20             | 20.4          | 20.9           | 104           | 66 - 133       | 2.3  | 40  |



### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

|                            |      |       |     |      |      |      |          |     |    |
|----------------------------|------|-------|-----|------|------|------|----------|-----|----|
| 1,2-Dichloropropane        | 101  | ug/kg | 20  | 20.3 | 20.5 | 103  | 78 - 131 | 1.2 | 40 |
| cis-1,3-Dichloropropene    | 77.5 | ug/kg | 20  | 15.5 | 16.9 | 84.4 | 76 - 123 | 8.5 | 40 |
| trans-1,3-Dichloropropene  | 96.6 | ug/kg | 20  | 19.3 | 21.1 | 105  | 77 - 123 | 8.8 | 40 |
| Diisopropyl ether          | 102  | ug/kg | 20  | 20.3 | 21.2 | 106  | 71 - 128 | 4.1 | 40 |
| Ethyl tert-butyl ether     | 79.8 | ug/kg | 20  | 16.0 | 17.5 | 87.4 | 75 - 121 | 9.1 | 40 |
| Ethylbenzene               | 93.7 | ug/kg | 20  | 18.7 | 19.6 | 97.9 | 73 - 133 | 4.4 | 40 |
| 2-Hexanone                 | 80.5 | ug/kg | 100 | 80.5 | 85.6 | 85.6 | 62 - 147 | 6.2 | 40 |
| Methyl t-Butyl Ether       | 107  | ug/kg | 20  | 21.5 | 23.0 | 115  | 70 - 118 | 6.9 | 40 |
| 4-Methyl-2-Pentanone(MIBK) | 85.2 | ug/kg | 100 | 85.2 | 89.9 | 89.9 | 64 - 143 | 5.3 | 40 |
| Methylene Chloride         | 183* | ug/kg | 20  | 36.6 | 36.3 | 182* | 68 - 133 | .81 | 40 |
| Naphthalene                | 91.2 | ug/kg | 20  | 18.2 | 19.8 | 99.1 | 60 - 146 | 8.3 | 40 |
| Styrene                    | 91.9 | ug/kg | 20  | 18.4 | 19.2 | 96.1 | 77 - 130 | 4.5 | 40 |
| 1,1,2,2-Tetrachloroethane  | 91.2 | ug/kg | 20  | 18.2 | 19.3 | 96.5 | 72 - 134 | 5.7 | 40 |
| Tetrachloroethene          | 94.5 | ug/kg | 20  | 18.9 | 19.9 | 99.3 | 58 - 137 | 5   | 40 |
| Toluene                    | 96.1 | ug/kg | 20  | 19.2 | 19.8 | 99.2 | 73 - 129 | 3.2 | 40 |
| Total Xylenes              | 96.5 | ug/kg | 60  | 57.9 | 60.0 | 100  | 73 - 130 | 3.5 | 40 |
| 1,1,1-Trichloroethane      | 85.2 | ug/kg | 20  | 17.0 | 18.1 | 90.4 | 68 - 131 | 5.9 | 40 |
| 1,1,2-Trichloroethane      | 95.1 | ug/kg | 20  | 19.0 | 19.3 | 96.4 | 79 - 123 | 1.4 | 40 |
| Trichloroethene            | 97.1 | ug/kg | 20  | 19.4 | 19.8 | 98.9 | 72 - 129 | 1.8 | 40 |
| Vinyl Chloride             | 102  | ug/kg | 20  | 20.4 | 21.0 | 105  | 53 - 141 | 3   | 40 |
| o-Xylene                   | 96.4 | ug/kg | 20  | 19.3 | 20.2 | 101  | 75 - 129 | 4.5 | 40 |
| mp-Xylene                  | 96.6 | ug/kg | 40  | 38.6 | 39.8 | 99.6 | 72 - 130 | 3.1 | 40 |
| 1,2-Dichloroethane-d4 (S)  | 78.5 | %     |     |      | 78.5 |      | 56 - 124 |     |    |
| 4-Bromofluorobenzene (S)   | 83   | %     |     |      | 83   |      | 51 - 128 |     |    |
| Dibromofluoromethane (S)   | 84.6 | %     |     |      | 84.6 |      | 62 - 123 |     |    |
| Toluene-d8 (S)             | 83.2 | %     |     |      | 83.2 |      | 59 - 131 |     |    |

MATRIX SPIKE SAMPLE: 2484068 ORIGINAL: 2207592005

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter              | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|------------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Acetone                | 0               | ug/kg | 110         | 75.4527   | 68.7     | 58 - 146    |
| tert-Amyl methyl ether | 0               | ug/kg | 22          | 15.4114   | 70.1*    | 79 - 123    |
| tert-Amyl Alcohol      | 0               | ug/kg | 110         | 53.2348   | 48.4*    | 70 - 130    |
| tert-Amyl Ethylether   | 0               | ug/kg | 22          | 13.1284   | 59.7*    | 70 - 130    |
| Benzene                | 0               | ug/kg | 22          | 17.5757   | 80       | 75 - 132    |
| Bromochloromethane     | 0               | ug/kg | 22          | 16.341    | 74.4     | 71 - 120    |
| Bromodichloromethane   | 0               | ug/kg | 22          | 15.3565   | 69.9*    | 74 - 127    |
| Bromoform              | 0               | ug/kg | 22          | 14.6802   | 66.8*    | 68 - 131    |
| Bromomethane           | 0               | ug/kg | 22          | 16.6522   | 75.8     | 43 - 148    |
| 2-Butanone             | 0               | ug/kg | 110         | 66.3198   | 60.4*    | 64 - 148    |
| tert-Butyl Alcohol     | 0               | ug/kg | 110         | 65.4204   | 59.5     | 51 - 152    |
| Carbon Disulfide       | 0               | ug/kg | 22          | 19.8167   | 90.2     | 47 - 144    |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

|                             |         |       |      |         |       |          |
|-----------------------------|---------|-------|------|---------|-------|----------|
| Carbon Tetrachloride        | 0       | ug/kg | 22   | 17.7035 | 80.6  | 64 - 136 |
| Chlorobenzene               | 0       | ug/kg | 22   | 14.7929 | 67.3* | 76 - 125 |
| Chlorodibromomethane        | 0       | ug/kg | 22   | 13.9638 | 63.5* | 75 - 124 |
| Chloroethane                | 0       | ug/kg | 22   | 19.3595 | 88.1  | 1 - 141  |
| Chloroform                  | 0       | ug/kg | 22   | 16.9166 | 77    | 73 - 126 |
| Chloromethane               | 0       | ug/kg | 22   | 23.5673 | 107   | 44 - 139 |
| 1,2-Dibromo-3-chloropropane | 0       | ug/kg | 22   | 8.87209 | 40.4* | 52 - 151 |
| 1,2-Dibromoethane           | 0       | ug/kg | 22   | 14.7921 | 67.3* | 76 - 127 |
| 1,1-Dichloroethane          | 0       | ug/kg | 22   | 18.2701 | 83.1  | 74 - 131 |
| 1,2-Dichloroethane          | 0       | ug/kg | 22   | 14.6664 | 66.7* | 69 - 132 |
| 1,1-Dichloroethene          | 0       | ug/kg | 22   | 21.0362 | 95.7  | 59 - 139 |
| cis-1,2-Dichloroethene      | 0       | ug/kg | 22   | 16.9459 | 77.1  | 75 - 128 |
| trans-1,2-Dichloroethene    | 0       | ug/kg | 22   | 19.8978 | 90.5  | 66 - 133 |
| 1,2-Dichloropropane         | 0       | ug/kg | 22   | 16.2475 | 73.9* | 78 - 131 |
| cis-1,3-Dichloropropene     | 0       | ug/kg | 22   | 12.17   | 55.4* | 76 - 123 |
| trans-1,3-Dichloropropene   | 0       | ug/kg | 22   | 13.4006 | 61*   | 77 - 123 |
| Diisopropyl ether           | 0       | ug/kg | 22   | 16.2047 | 73.7  | 71 - 128 |
| Ethyl tert-butyl ether      | 0       | ug/kg | 22   | 11.6466 | 53*   | 75 - 121 |
| Ethylbenzene                | 0       | ug/kg | 22   | 16.8462 | 76.7  | 73 - 133 |
| 2-Hexanone                  | 0       | ug/kg | 110  | 43.5536 | 39.6* | 62 - 147 |
| Methyl t-Butyl Ether        | .70604  | ug/kg | 22   | 15.4398 | 67*   | 70 - 118 |
| 4-Methyl-2-Pentanone(MIBK)  | 0       | ug/kg | 110  | 54.6437 | 49.7* | 64 - 143 |
| Methylene Chloride          | 20.1517 | ug/kg | 22   | 35.2529 | 68.7  | 68 - 133 |
| Naphthalene                 | 0       | ug/kg | 22   | 5.89391 | 26.8* | 60 - 146 |
| Styrene                     | 0       | ug/kg | 22   | 17.1341 | 78    | 77 - 130 |
| 1,1,2,2-Tetrachloroethane   | 0       | ug/kg | 22   | 14.7019 | 66.9* | 72 - 134 |
| Tetrachloroethene           | 0       | ug/kg | 22   | 18.7771 | 85.4  | 58 - 137 |
| Toluene                     | 0       | ug/kg | 22   | 18.5909 | 84.6  | 73 - 129 |
| Total Xylenes               | 0       | ug/kg | 65.9 | 48.7371 | 73.9  | 73 - 130 |
| 1,1,1-Trichloroethane       | 0       | ug/kg | 22   | 16.7392 | 76.2  | 68 - 131 |
| 1,1,2-Trichloroethane       | 0       | ug/kg | 22   | 14.7467 | 67.1* | 79 - 123 |
| Trichloroethene             | 0       | ug/kg | 22   | 17.2969 | 78.7  | 72 - 129 |
| Vinyl Chloride              | 0       | ug/kg | 22   | 24.2794 | 110   | 53 - 141 |
| o-Xylene                    | 0       | ug/kg | 22   | 15.4963 | 70.5* | 75 - 129 |
| mp-Xylene                   | 0       | ug/kg | 44   | 33.2408 | 75.6  | 72 - 130 |
| 1,2-Dichloroethane-d4 (S)   | 79.1    | %     |      |         |       | 56 - 124 |
| 4-Bromofluorobenzene (S)    | 101     | %     |      |         |       | 51 - 128 |
| Dibromofluoromethane (S)    | 87.2    | %     |      |         |       | 62 - 123 |
| Toluene-d8 (S)              | 90.6    | %     |      |         |       | 59 - 131 |

## QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

**QC Batch:** VOMS/42428 **Analysis Method:** SW846 8260B  
**QC Batch Method:** SW846 5035  
**Associated Lab Samples:** 2207592011

METHOD BLANK: 2484966

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acetone                     | ND           | ug/kg | 10.0            |
| tert-Amyl methyl ether      | ND           | ug/kg | 2.0             |
| tert-Amyl Alcohol           | ND           | ug/kg | 10.0            |
| tert-Amyl Ethylether        | ND           | ug/kg | 2.0             |
| Benzene                     | ND           | ug/kg | 2.0             |
| Bromochloromethane          | ND           | ug/kg | 2.0             |
| Bromodichloromethane        | ND           | ug/kg | 2.0             |
| Bromoform                   | ND           | ug/kg | 2.0             |
| Bromomethane                | ND           | ug/kg | 2.0             |
| 2-Butanone                  | ND           | ug/kg | 10.0            |
| tert-Butyl Alcohol          | ND           | ug/kg | 10.0            |
| Carbon Disulfide            | ND           | ug/kg | 2.0             |
| Carbon Tetrachloride        | ND           | ug/kg | 2.0             |
| Chlorobenzene               | ND           | ug/kg | 2.0             |
| Chlorodibromomethane        | ND           | ug/kg | 2.0             |
| Chloroethane                | ND           | ug/kg | 5.0             |
| Chloroform                  | 0.89J        | ug/kg | 2.0             |
| Chloromethane               | ND           | ug/kg | 2.0             |
| 1,2-Dibromo-3-chloropropane | ND           | ug/kg | 5.0             |
| 1,2-Dibromoethane           | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,2-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethene          | ND           | ug/kg | 2.0             |
| cis-1,2-Dichloroethene      | ND           | ug/kg | 2.0             |
| trans-1,2-Dichloroethene    | ND           | ug/kg | 2.0             |
| 1,2-Dichloropropane         | ND           | ug/kg | 2.0             |
| cis-1,3-Dichloropropene     | ND           | ug/kg | 2.0             |
| trans-1,3-Dichloropropene   | ND           | ug/kg | 2.0             |
| Diisopropyl ether           | ND           | ug/kg | 2.0             |
| Ethyl tert-butyl ether      | ND           | ug/kg | 2.0             |
| Ethylbenzene                | ND           | ug/kg | 2.0             |
| 2-Hexanone                  | ND           | ug/kg | 10.0            |
| Methyl t-Butyl Ether        | ND           | ug/kg | 2.0             |
| 4-Methyl-2-Pentanone(MIBK)  | ND           | ug/kg | 10.0            |
| Methylene Chloride          | 7.2          | ug/kg | 2.0             |
| Naphthalene                 | ND           | ug/kg | 2.0             |
| Styrene                     | ND           | ug/kg | 2.0             |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

|                           |      |       |          |
|---------------------------|------|-------|----------|
| 1,1,2,2-Tetrachloroethane | ND   | ug/kg | 2.0      |
| Tetrachloroethene         | ND   | ug/kg | 2.0      |
| Toluene                   | ND   | ug/kg | 2.0      |
| Total Xylenes             | ND   | ug/kg | 6.0      |
| 1,1,1-Trichloroethane     | ND   | ug/kg | 2.0      |
| 1,1,2-Trichloroethane     | ND   | ug/kg | 2.0      |
| Trichloroethene           | ND   | ug/kg | 2.0      |
| Vinyl Chloride            | ND   | ug/kg | 2.0      |
| o-Xylene                  | ND   | ug/kg | 2.0      |
| mp-Xylene                 | ND   | ug/kg | 4.0      |
| 1,2-Dichloroethane-d4 (S) | 68.8 | %     | 56 - 124 |
| 4-Bromofluorobenzene (S)  | 85.7 | %     | 51 - 128 |
| Dibromofluoromethane (S)  | 87.1 | %     | 62 - 123 |
| Toluene-d8 (S)            | 87.3 | %     | 59 - 131 |

LABORATORY CONTROL SAMPLE: 2484967 DUPLICATE: 2484968

| Parameter                   | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | LCSD<br>Result | LCSD %<br>Rec | % Rec<br>Limit | RPD  | Max |
|-----------------------------|--------------|-------|----------------|---------------|----------------|---------------|----------------|------|-----|
| Acetone                     | 106          | ug/kg | 100            | 106           | 110            | 110           | 58 - 146       | 3.6  | 40  |
| tert-Amyl methyl ether      | 116          | ug/kg | 20             | 23.2          | 23.9           | 120           | 79 - 123       | 3.2  | 40  |
| tert-Amyl Alcohol           | 85.1         | ug/kg | 100            | 85.1          | 90.3           | 90.3          | 70 - 130       | 5.9  | 40  |
| tert-Amyl Ethylether        | 93.8         | ug/kg | 20             | 18.8          | 20.2           | 101           | 70 - 130       | 7.6  | 40  |
| Benzene                     | 102          | ug/kg | 20             | 20.4          | 20.6           | 103           | 75 - 132       | 1.4  | 40  |
| Bromochloromethane          | 115          | ug/kg | 20             | 23.1          | 23.1           | 116           | 71 - 120       | .39  | 40  |
| Bromodichloromethane        | 108          | ug/kg | 20             | 21.5          | 21.6           | 108           | 74 - 127       | .31  | 40  |
| Bromoform                   | 98.4         | ug/kg | 20             | 19.7          | 19.5           | 97.3          | 68 - 131       | 1.1  | 40  |
| Bromomethane                | 83           | ug/kg | 20             | 16.6          | 16.1           | 80.5          | 43 - 148       | 3    | 40  |
| 2-Butanone                  | 101          | ug/kg | 100            | 101           | 102            | 102           | 64 - 148       | .69  | 40  |
| tert-Butyl Alcohol          | 101          | ug/kg | 100            | 101           | 102            | 102           | 51 - 152       | 1.6  | 40  |
| Carbon Disulfide            | 108          | ug/kg | 20             | 21.6          | 22.3           | 112           | 47 - 144       | 3    | 40  |
| Carbon Tetrachloride        | 103          | ug/kg | 20             | 20.6          | 21.5           | 107           | 64 - 136       | 3.9  | 40  |
| Chlorobenzene               | 102          | ug/kg | 20             | 20.5          | 20.7           | 103           | 76 - 125       | 1    | 40  |
| Chlorodibromomethane        | 110          | ug/kg | 20             | 22.0          | 21.9           | 110           | 75 - 124       | .068 | 40  |
| Chloroethane                | 80.9         | ug/kg | 20             | 16.2          | 17.2           | 85.8          | 1 - 141        | 5.9  | 40  |
| Chloroform                  | 105          | ug/kg | 20             | 21.0          | 21.6           | 108           | 73 - 126       | 2.6  | 40  |
| Chloromethane               | 105          | ug/kg | 20             | 21.0          | 21.9           | 110           | 44 - 139       | 4.2  | 40  |
| 1,2-Dibromo-3-chloropropane | 76.2         | ug/kg | 20             | 15.2          | 15.7           | 78.7          | 52 - 151       | 3.2  | 40  |
| 1,2-Dibromoethane           | 111          | ug/kg | 20             | 22.1          | 21.8           | 109           | 76 - 127       | 1.2  | 40  |
| 1,1-Dichloroethane          | 102          | ug/kg | 20             | 20.4          | 21.0           | 105           | 74 - 131       | 2.7  | 40  |
| 1,2-Dichloroethane          | 96.8         | ug/kg | 20             | 19.4          | 19.5           | 97.6          | 69 - 132       | .83  | 40  |
| 1,1-Dichloroethene          | 112          | ug/kg | 20             | 22.4          | 22.6           | 113           | 59 - 139       | .85  | 40  |
| cis-1,2-Dichloroethene      | 107          | ug/kg | 20             | 21.4          | 21.8           | 109           | 75 - 128       | 2.2  | 40  |
| trans-1,2-Dichloroethene    | 112          | ug/kg | 20             | 22.4          | 22.8           | 114           | 66 - 133       | 1.4  | 40  |
| 1,2-Dichloropropane         | 102          | ug/kg | 20             | 20.5          | 20.7           | 103           | 78 - 131       | 1.1  | 40  |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

|                            |      |       |     |      |      |      |          |     |    |
|----------------------------|------|-------|-----|------|------|------|----------|-----|----|
| cis-1,3-Dichloropropene    | 81   | ug/kg | 20  | 16.2 | 16.7 | 83.3 | 76 - 123 | 2.8 | 40 |
| trans-1,3-Dichloropropene  | 101  | ug/kg | 20  | 20.2 | 20.8 | 104  | 77 - 123 | 2.7 | 40 |
| Diisopropyl ether          | 99.5 | ug/kg | 20  | 19.9 | 20.1 | 101  | 71 - 128 | 1.1 | 40 |
| Ethyl tert-butyl ether     | 83.9 | ug/kg | 20  | 16.8 | 17.7 | 88.5 | 75 - 121 | 5.4 | 40 |
| Ethylbenzene               | 99.3 | ug/kg | 20  | 19.9 | 20.2 | 101  | 73 - 133 | 1.9 | 40 |
| 2-Hexanone                 | 69   | ug/kg | 100 | 69.0 | 68.1 | 68.1 | 62 - 147 | 1.3 | 40 |
| Methyl t-Butyl Ether       | 112  | ug/kg | 20  | 22.3 | 23.1 | 116  | 70 - 118 | 3.5 | 40 |
| 4-Methyl-2-Pentanone(MIBK) | 75.2 | ug/kg | 100 | 75.2 | 74.4 | 74.4 | 64 - 143 | 1.1 | 40 |
| Methylene Chloride         | 165* | ug/kg | 20  | 33.1 | 33.9 | 169* | 68 - 133 | 2.4 | 40 |
| Naphthalene                | 88.1 | ug/kg | 20  | 17.6 | 18.4 | 92.2 | 60 - 146 | 4.6 | 40 |
| Styrene                    | 92.1 | ug/kg | 20  | 18.4 | 19.1 | 95.5 | 77 - 130 | 3.5 | 40 |
| 1,1,2,2-Tetrachloroethane  | 89   | ug/kg | 20  | 17.8 | 17.8 | 88.8 | 72 - 134 | .27 | 40 |
| Tetrachloroethene          | 109  | ug/kg | 20  | 21.8 | 21.9 | 110  | 58 - 137 | .75 | 40 |
| Toluene                    | 101  | ug/kg | 20  | 20.1 | 20.4 | 102  | 73 - 129 | 1.4 | 40 |
| Total Xylenes              | 104  | ug/kg | 60  | 62.2 | 62.7 | 104  | 73 - 130 | .77 | 40 |
| 1,1,1-Trichloroethane      | 96.8 | ug/kg | 20  | 19.4 | 20.3 | 101  | 68 - 131 | 4.6 | 40 |
| 1,1,2-Trichloroethane      | 97.6 | ug/kg | 20  | 19.5 | 19.5 | 97.3 | 79 - 123 | .34 | 40 |
| Trichloroethene            | 106  | ug/kg | 20  | 21.2 | 21.3 | 107  | 72 - 129 | .71 | 40 |
| Vinyl Chloride             | 104  | ug/kg | 20  | 20.8 | 21.3 | 106  | 53 - 141 | 2   | 40 |
| o-Xylene                   | 105  | ug/kg | 20  | 20.9 | 20.9 | 104  | 75 - 129 | .22 | 40 |
| mp-Xylene                  | 103  | ug/kg | 40  | 41.2 | 41.8 | 104  | 72 - 130 | 1.3 | 40 |
| 1,2-Dichloroethane-d4 (S)  | 75.7 | %     |     |      | 75.7 |      | 56 - 124 |     |    |
| 4-Bromofluorobenzene (S)   | 84.6 | %     |     |      | 84.6 |      | 51 - 128 |     |    |
| Dibromofluoromethane (S)   | 88.2 | %     |     |      | 88.2 |      | 62 - 123 |     |    |
| Toluene-d8 (S)             | 82   | %     |     |      | 82   |      | 59 - 131 |     |    |

MATRIX SPIKE SAMPLE: 2485227 ORIGINAL: 2207906006

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter              | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|------------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Acetone                | 0               | ug/kg | 107         | 74.2234   | 69.3     | 58 - 146    |
| tert-Amyl methyl ether | 0               | ug/kg | 21.4        | 16.7142   | 78.1*    | 79 - 123    |
| tert-Amyl Alcohol      | 0               | ug/kg | 107         | 42.457    | 39.7*    | 70 - 130    |
| tert-Amyl Ethylether   | 0               | ug/kg | 21.4        | 13.1057   | 61.2*    | 70 - 130    |
| Benzene                | 0               | ug/kg | 21.4        | 15.0255   | 70.2*    | 75 - 132    |
| Bromochloromethane     | 0               | ug/kg | 21.4        | 16.6881   | 77.9     | 71 - 120    |
| Bromodichloromethane   | 0               | ug/kg | 21.4        | 14.4541   | 67.5*    | 74 - 127    |
| Bromoform              | 0               | ug/kg | 21.4        | 10.959    | 51.2*    | 68 - 131    |
| Bromomethane           | 0               | ug/kg | 21.4        | 16.4999   | 77.1     | 43 - 148    |
| 2-Butanone             | 0               | ug/kg | 107         | 70.5949   | 65.9     | 64 - 148    |
| tert-Butyl Alcohol     | 0               | ug/kg | 107         | 57.5109   | 53.7     | 51 - 152    |
| Carbon Disulfide       | 0               | ug/kg | 21.4        | 16.5114   | 77.1     | 47 - 144    |
| Carbon Tetrachloride   | 0               | ug/kg | 21.4        | 13.2493   | 61.9*    | 64 - 136    |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

|                             |         |       |      |         |       |          |
|-----------------------------|---------|-------|------|---------|-------|----------|
| Chlorobenzene               | 0       | ug/kg | 21.4 | 11.3508 | 53*   | 76 - 125 |
| Chlorodibromomethane        | 0       | ug/kg | 21.4 | 12.9477 | 60.5* | 75 - 124 |
| Chloroethane                | 0       | ug/kg | 21.4 | 16.7202 | 78.1  | 1 - 141  |
| Chloroform                  | 0       | ug/kg | 21.4 | 15.1186 | 70.6* | 73 - 126 |
| Chloromethane               | 0       | ug/kg | 21.4 | 19.0061 | 88.8  | 44 - 139 |
| 1,2-Dibromo-3-chloropropane | 0       | ug/kg | 21.4 | 6.30895 | 29.5* | 52 - 151 |
| 1,2-Dibromoethane           | 0       | ug/kg | 21.4 | 13.3381 | 62.3* | 76 - 127 |
| 1,1-Dichloroethane          | 0       | ug/kg | 21.4 | 16.179  | 75.6  | 74 - 131 |
| 1,2-Dichloroethane          | 0       | ug/kg | 21.4 | 14.3454 | 67*   | 69 - 132 |
| 1,1-Dichloroethene          | 0       | ug/kg | 21.4 | 17.8842 | 83.5  | 59 - 139 |
| cis-1,2-Dichloroethene      | 0       | ug/kg | 21.4 | 15.8196 | 73.9* | 75 - 128 |
| trans-1,2-Dichloroethene    | 0       | ug/kg | 21.4 | 17.6962 | 82.6  | 66 - 133 |
| 1,2-Dichloropropane         | 0       | ug/kg | 21.4 | 14.4925 | 67.7* | 78 - 131 |
| cis-1,3-Dichloropropene     | 0       | ug/kg | 21.4 | 10.0908 | 47.1* | 76 - 123 |
| trans-1,3-Dichloropropene   | 0       | ug/kg | 21.4 | 11.7818 | 55*   | 77 - 123 |
| Diisopropyl ether           | 0       | ug/kg | 21.4 | 15.6763 | 73.2  | 71 - 128 |
| Ethyl tert-butyl ether      | 0       | ug/kg | 21.4 | 12.2101 | 57*   | 75 - 121 |
| Ethylbenzene                | 0       | ug/kg | 21.4 | 11.8654 | 55.4* | 73 - 133 |
| 2-Hexanone                  | 0       | ug/kg | 107  | 44.4211 | 41.5* | 62 - 147 |
| Methyl t-Butyl Ether        | 0       | ug/kg | 21.4 | 17.1194 | 79.9  | 70 - 118 |
| 4-Methyl-2-Pentanone(MIBK)  | 0       | ug/kg | 107  | 54.3292 | 50.7* | 64 - 143 |
| Methylene Chloride          | 11.5413 | ug/kg | 21.4 | 34.4988 | 107   | 68 - 133 |
| Naphthalene                 | 0       | ug/kg | 21.4 | 3.68382 | 17.2* | 60 - 146 |
| Styrene                     | 0       | ug/kg | 21.4 | 9.76916 | 45.6* | 77 - 130 |
| 1,1,2,2-Tetrachloroethane   | 0       | ug/kg | 21.4 | 10.114  | 47.2* | 72 - 134 |
| Tetrachloroethene           | 0       | ug/kg | 21.4 | 13.3553 | 62.4  | 58 - 137 |
| Toluene                     | 0       | ug/kg | 21.4 | 13.5147 | 63.1* | 73 - 129 |
| Total Xylenes               | 0       | ug/kg | 64.2 | 35.4793 | 55.2* | 73 - 130 |
| 1,1,1-Trichloroethane       | 0       | ug/kg | 21.4 | 14.6002 | 68.2  | 68 - 131 |
| 1,1,2-Trichloroethane       | 0       | ug/kg | 21.4 | 12.9593 | 60.5* | 79 - 123 |
| Trichloroethene             | 0       | ug/kg | 21.4 | 14.4666 | 67.6* | 72 - 129 |
| Vinyl Chloride              | 0       | ug/kg | 21.4 | 19.1777 | 89.6  | 53 - 141 |
| o-Xylene                    | 0       | ug/kg | 21.4 | 11.7837 | 55*   | 75 - 129 |
| mp-Xylene                   | 0       | ug/kg | 42.8 | 23.6956 | 55.3* | 72 - 130 |
| 1,2-Dichloroethane-d4 (S)   | 78.5    | %     |      |         |       | 56 - 124 |
| 4-Bromofluorobenzene (S)    | 87.2    | %     |      |         |       | 51 - 128 |
| Dibromofluoromethane (S)    | 91.2    | %     |      |         |       | 62 - 123 |
| Toluene-d8 (S)              | 84.8    | %     |      |         |       | 59 - 131 |



### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

**QC Batch:** VOMS/42438 **Analysis Method:** SW846 8260B  
**QC Batch Method:** SW846 8260B  
**Associated Lab Samples:** 2207592001

METHOD BLANK: 2485262

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acetone                     | ND           | ug/L  | 10.0            |
| tert-Amyl methyl ether      | ND           | ug/L  | 1.0             |
| tert-Amyl Alcohol           | ND           | ug/L  | 10.0            |
| tert-Amyl Ethylether        | ND           | ug/L  | 1.0             |
| Benzene                     | ND           | ug/L  | 1.0             |
| Bromochloromethane          | ND           | ug/L  | 1.0             |
| Bromodichloromethane        | ND           | ug/L  | 1.0             |
| Bromoform                   | ND           | ug/L  | 1.0             |
| Bromomethane                | ND           | ug/L  | 1.0             |
| 2-Butanone                  | ND           | ug/L  | 10.0            |
| tert-Butyl Alcohol          | ND           | ug/L  | 10.0            |
| Carbon Disulfide            | ND           | ug/L  | 1.0             |
| Carbon Tetrachloride        | ND           | ug/L  | 1.0             |
| Chlorobenzene               | ND           | ug/L  | 1.0             |
| Chlorodibromomethane        | ND           | ug/L  | 1.0             |
| Chloroethane                | ND           | ug/L  | 1.0             |
| Chloroform                  | ND           | ug/L  | 1.0             |
| Chloromethane               | ND           | ug/L  | 1.0             |
| 1,2-Dibromo-3-chloropropane | ND           | ug/L  | 7.0             |
| 1,2-Dibromoethane           | ND           | ug/L  | 1.0             |
| 1,1-Dichloroethane          | ND           | ug/L  | 1.0             |
| 1,2-Dichloroethane          | ND           | ug/L  | 1.0             |
| 1,1-Dichloroethene          | ND           | ug/L  | 1.0             |
| cis-1,2-Dichloroethene      | ND           | ug/L  | 1.0             |
| trans-1,2-Dichloroethene    | ND           | ug/L  | 1.0             |
| 1,2-Dichloropropane         | ND           | ug/L  | 1.0             |
| cis-1,3-Dichloropropene     | ND           | ug/L  | 1.0             |
| trans-1,3-Dichloropropene   | ND           | ug/L  | 1.0             |
| Diisopropyl ether           | ND           | ug/L  | 1.0             |
| Ethyl tert-butyl ether      | ND           | ug/L  | 1.0             |
| Ethylbenzene                | ND           | ug/L  | 1.0             |
| 2-Hexanone                  | ND           | ug/L  | 5.0             |
| Methyl t-Butyl Ether        | ND           | ug/L  | 1.0             |
| 4-Methyl-2-Pentanone(MIBK)  | ND           | ug/L  | 5.0             |
| Methylene Chloride          | ND           | ug/L  | 1.0             |
| Styrene                     | ND           | ug/L  | 1.0             |
| 1,1,1,2-Tetrachloroethane   | ND           | ug/L  | 1.0             |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

|                           |     |      |          |
|---------------------------|-----|------|----------|
| 1,1,2,2-Tetrachloroethane | ND  | ug/L | 1.0      |
| Tetrachloroethene         | ND  | ug/L | 1.0      |
| Toluene                   | ND  | ug/L | 1.0      |
| Total Xylenes             | ND  | ug/L | 3.0      |
| 1,1,1-Trichloroethane     | ND  | ug/L | 1.0      |
| 1,1,2-Trichloroethane     | ND  | ug/L | 1.0      |
| Trichloroethene           | ND  | ug/L | 1.0      |
| Vinyl Chloride            | ND  | ug/L | 1.0      |
| o-Xylene                  | ND  | ug/L | 1.0      |
| mp-Xylene                 | ND  | ug/L | 2.0      |
| 1,2-Dichloroethane-d4 (S) | 101 | %    | 62 - 133 |
| 4-Bromofluorobenzene (S)  | 104 | %    | 79 - 114 |
| Dibromofluoromethane (S)  | 100 | %    | 78 - 116 |
| Toluene-d8 (S)            | 104 | %    | 76 - 127 |

#### LABORATORY CONTROL SAMPLE: 2485263

| Parameter                   | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | % Rec<br>Limit |
|-----------------------------|--------------|-------|----------------|---------------|----------------|
| Acetone                     | 113          | ug/L  | 100            | 113           | 40 - 151       |
| tert-Amyl methyl ether      | 84.1         | ug/L  | 20             | 16.8          | 75 - 121       |
| tert-Amyl Alcohol           | 94.2         | ug/L  | 100            | 94.2          | 70 - 130       |
| tert-Amyl Ethylether        | 116          | ug/L  | 20             | 23.1          | 70 - 130       |
| Benzene                     | 97.2         | ug/L  | 20             | 19.4          | 80 - 124       |
| Bromochloromethane          | 97.9         | ug/L  | 20             | 19.6          | 73 - 117       |
| Bromodichloromethane        | 97.9         | ug/L  | 20             | 19.6          | 79 - 126       |
| Bromoform                   | 86.6         | ug/L  | 20             | 17.3          | 70 - 123       |
| Bromomethane                | 103          | ug/L  | 20             | 20.7          | 45 - 148       |
| 2-Butanone                  | 100          | ug/L  | 100            | 100           | 50 - 152       |
| tert-Butyl Alcohol          | 93.9         | ug/L  | 100            | 93.9          | 17 - 168       |
| Carbon Disulfide            | 110          | ug/L  | 20             | 22.1          | 57 - 131       |
| Carbon Tetrachloride        | 98.6         | ug/L  | 20             | 19.7          | 62 - 132       |
| Chlorobenzene               | 89.5         | ug/L  | 20             | 17.9          | 85 - 117       |
| Chlorodibromomethane        | 96.3         | ug/L  | 20             | 19.3          | 77 - 122       |
| Chloroethane                | 98.3         | ug/L  | 20             | 19.7          | 51 - 142       |
| Chloroform                  | 109          | ug/L  | 20             | 21.9          | 78 - 122       |
| Chloromethane               | 116          | ug/L  | 20             | 23.2          | 38 - 156       |
| 1,2-Dibromo-3-chloropropane | 75.6         | ug/L  | 20             | 15.1          | 59 - 133       |
| 1,2-Dibromoethane           | 95.8         | ug/L  | 20             | 19.2          | 80 - 124       |
| 1,1-Dichloroethane          | 107          | ug/L  | 20             | 21.3          | 78 - 124       |
| 1,2-Dichloroethane          | 101          | ug/L  | 20             | 20.3          | 70 - 133       |
| 1,1-Dichloroethene          | 113          | ug/L  | 20             | 22.7          | 63 - 128       |
| cis-1,2-Dichloroethene      | 101          | ug/L  | 20             | 20.3          | 78 - 125       |
| trans-1,2-Dichloroethene    | 110          | ug/L  | 20             | 22.0          | 71 - 122       |
| 1,2-Dichloropropane         | 101          | ug/L  | 20             | 20.1          | 81 - 127       |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

|                            |      |      |     |      |          |
|----------------------------|------|------|-----|------|----------|
| cis-1,3-Dichloropropene    | 96.4 | ug/L | 20  | 19.3 | 81 - 121 |
| trans-1,3-Dichloropropene  | 99.9 | ug/L | 20  | 20.0 | 78 - 126 |
| Diisopropyl ether          | 104  | ug/L | 20  | 20.8 | 74 - 131 |
| Ethyl tert-butyl ether     | 90.2 | ug/L | 20  | 18.0 | 75 - 123 |
| Ethylbenzene               | 93.4 | ug/L | 20  | 18.7 | 80 - 124 |
| 2-Hexanone                 | 82.2 | ug/L | 100 | 82.2 | 65 - 154 |
| Methyl t-Butyl Ether       | 97.4 | ug/L | 20  | 19.5 | 69 - 115 |
| 4-Methyl-2-Pentanone(MIBK) | 102  | ug/L | 100 | 102  | 71 - 146 |
| Methylene Chloride         | 113  | ug/L | 20  | 22.5 | 76 - 121 |
| Styrene                    | 92.7 | ug/L | 20  | 18.5 | 79 - 123 |
| 1,1,1,2-Tetrachloroethane  | 97.9 | ug/L | 20  | 19.6 | 78 - 121 |
| 1,1,2,2-Tetrachloroethane  | 91.3 | ug/L | 20  | 18.3 | 74 - 135 |
| Tetrachloroethene          | 91.8 | ug/L | 20  | 18.4 | 72 - 124 |
| Toluene                    | 94.5 | ug/L | 20  | 18.9 | 80 - 125 |
| Total Xylenes              | 92.2 | ug/L | 60  | 55.3 | 79 - 125 |
| 1,1,1-Trichloroethane      | 101  | ug/L | 20  | 20.2 | 66 - 130 |
| 1,1,2-Trichloroethane      | 90.1 | ug/L | 20  | 18.0 | 82 - 126 |
| Trichloroethene            | 97   | ug/L | 20  | 19.4 | 77 - 124 |
| Vinyl Chloride             | 94.2 | ug/L | 20  | 18.8 | 27 - 138 |
| o-Xylene                   | 89.3 | ug/L | 20  | 17.9 | 79 - 124 |
| mp-Xylene                  | 93.7 | ug/L | 40  | 37.5 | 79 - 125 |
| 1,2-Dichloroethane-d4 (S)  | 101  | %    |     |      | 62 - 133 |
| 4-Bromofluorobenzene (S)   | 96.1 | %    |     |      | 79 - 114 |
| Dibromofluoromethane (S)   | 94.7 | %    |     |      | 78 - 116 |
| Toluene-d8 (S)             | 100  | %    |     |      | 76 - 127 |

MATRIX SPIKE: 2485343 DUPLICATE: 2485344 ORIGINAL: 2208103004

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD |
|--------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|
| Benzene                  | 0               | ug/L  | 20          | 21.3073   | 107        | 107      |           | 80 - 124    |     |         |
| 1,2-Dibromoethane        | 0               | ug/L  | 20          | 20.2609   | 101        | 101      |           | 80 - 124    |     |         |
| 1,1-Dichloroethane       | 0               | ug/L  | 20          | 23.0622   | 115        | 115      |           | 78 - 124    |     |         |
| 1,2-Dichloroethane       | 0               | ug/L  | 20          | 21.2184   | 106        | 106      |           | 70 - 133    |     |         |
| 1,1-Dichloroethene       | 0               | ug/L  | 20          | 26.6287   | 133*       | 133*     |           | 63 - 128    |     |         |
| cis-1,2-Dichloroethene   | 0               | ug/L  | 20          | 21.7333   | 109        | 109      |           | 78 - 125    |     |         |
| trans-1,2-Dichloroethene | 0               | ug/L  | 20          | 25.0911   | 125*       | 125*     |           | 71 - 122    |     |         |
| Ethylbenzene             | 0               | ug/L  | 20          | 21.974    | 110        | 110      |           | 80 - 124    |     |         |
| Methylene Chloride       | 0               | ug/L  | 20          | 21.5554   | 108        | 108      |           | 76 - 121    |     |         |
| Tetrachloroethene        | 0               | ug/L  | 20          | 22.3498   | 112        | 112      |           | 72 - 124    |     |         |
| Toluene                  | 0               | ug/L  | 20          | 21.9198   | 110        | 110      |           | 80 - 125    |     |         |
| Total Xylenes            | 0               | ug/L  | 60          | 63.6481   | 106        | 106      |           | 79 - 125    |     |         |
| 1,1,1-Trichloroethane    | 0               | ug/L  | 20          | 23.3665   | 117        | 117      |           | 66 - 130    |     |         |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

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|                           |      |      |    |         |     |      |          |
|---------------------------|------|------|----|---------|-----|------|----------|
| Trichloroethene           | 0    | ug/L | 20 | 22.9773 | 115 | 115  | 77 - 124 |
| Vinyl Chloride            | 0    | ug/L | 20 | 24.9587 | 125 | 125  | 27 - 138 |
| 1,2-Dichloroethane-d4 (S) | 99.1 | %    |    |         |     | 99.1 | 62 - 133 |
| 4-Bromofluorobenzene (S)  | 97.6 | %    |    |         |     | 97.6 | 79 - 114 |
| Dibromofluoromethane (S)  | 92.7 | %    |    |         |     | 92.7 | 78 - 116 |
| Toluene-d8 (S)            | 99   | %    |    |         |     | 99   | 76 - 127 |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

**QC Batch:** WCPR/39226      **Analysis Method:** SW846 7196A  
**QC Batch Method:** SW846 3060A  
**Associated Lab Samples:** 2207592005, 2207592010

#### METHOD BLANK: 2490893

| Parameter           | Blank Result | Units | Reporting Limit |
|---------------------|--------------|-------|-----------------|
| Hexavalent Chromium | ND           | mg/kg | 2.0             |

#### LABORATORY CONTROL SAMPLE: 2490894

| Parameter           | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|---------------------|-----------|-------|-------------|------------|-------------|
| Hexavalent Chromium | 96.3      | mg/kg | 19.8        | 19.1       | 80 - 120    |

#### SAMPLE DUPLICATE: 2490895 ORIGINAL: 2210200003

| Parameter           | Original Result | Units | DUP Result | RPD | Max RPD |
|---------------------|-----------------|-------|------------|-----|---------|
| Hexavalent Chromium | 0               | mg/kg | 0          | NC  | 20      |

#### MATRIX SPIKE SAMPLE: 2490896 ORIGINAL: 2210200003

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter           | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|---------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Hexavalent Chromium | 0               | mg/kg | 38.8        | 1.0155    | 2.62*    | 75 - 125    |

#### MATRIX SPIKE SAMPLE: 2490897 ORIGINAL: 2210200003

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter           | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|---------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Hexavalent Chromium | 0               | mg/kg | 632         | 438.7114  | 69.4*    | 75 - 125    |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

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MATRIX SPIKE SAMPLE: 2490898 ORIGINAL: 2210200003

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter           | Original<br>Result | Units | Spike<br>Conc. | MS<br>Result | MS %<br>Rec | % Rec<br>Limit |
|---------------------|--------------------|-------|----------------|--------------|-------------|----------------|
| Hexavalent Chromium | 0                  | mg/kg | 39.1           | 10.94531     | 28*         | 85 - 115       |



### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

**QC Batch:** WETC/182890 **Analysis Method:** S2540G-11

**QC Batch Method:** S2540G-11

**Associated Lab Samples:** 2207592002, 2207592003, 2207592004, 2207592005, 2207592006, 2207592007, 2207592008, 2207592009, 2207592010, 2207592011

SAMPLE DUPLICATE: 2484654 ORIGINAL: 2201470013

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Moisture     | 15.8999         | %     | 15.9274    | .17 | 10      |
| Total Solids | 84.1            | %     | 84.0725    | .03 | 5       |

SAMPLE DUPLICATE: 2484655 ORIGINAL: 2207156001

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 3.8068          | %     | 3.6024     | 5.52 | 10      |
| Total Solids | 96.1931         | %     | 96.3975    | .21  | 5       |

SAMPLE DUPLICATE: 2484657 ORIGINAL: 2207454004

| Parameter    | Original Result | Units | DUP Result | RPD   | Max RPD |
|--------------|-----------------|-------|------------|-------|---------|
| Moisture     | 99.2202         | %     | 99.1656    | .06   | 10      |
| Total Solids | .7797           | %     | .8343      | 6.77* | 5       |

SAMPLE DUPLICATE: 2484658 ORIGINAL: 2207486001

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Moisture     | 98.0099         | %     | 97.939     | .07 | 10      |
| Total Solids | 1.99            | %     | 2.0609     | 3.5 | 5       |

SAMPLE DUPLICATE: 2484659 ORIGINAL: 2207564001

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Moisture     | 6.2319          | %     | 6.2913     | .95 | 10      |
| Total Solids | 93.768          | %     | 93.7086    | .06 | 5       |

### QUALITY CONTROL DATA

Workorder: 2207592 Chase Lands Phase II

SAMPLE DUPLICATE: 2484660 ORIGINAL: 2207585001

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Moisture     | 75.6995         | %     | 75.8474    | .2  | 10      |
| Total Solids | 24.3004         | %     | 24.1525    | .61 | 5       |

SAMPLE DUPLICATE: 2484661 ORIGINAL: 2207592006

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 18.3673         | %     | 19.863     | 7.82 | 10      |
| Total Solids | 81.6326         | %     | 80.1369    | 1.85 | 5       |

SAMPLE DUPLICATE: 2484662 ORIGINAL: 2207727001

| Parameter    | Original Result | Units | DUP Result | RPD   | Max RPD |
|--------------|-----------------|-------|------------|-------|---------|
| Moisture     | 99.8315         | %     | 99.7816    | .05   | 10      |
| Total Solids | .1684           | %     | .2183      | 25.8* | 5       |

SAMPLE DUPLICATE: 2484663 ORIGINAL: 2207772004

| Parameter    | Original Result | Units | DUP Result | RPD   | Max RPD |
|--------------|-----------------|-------|------------|-------|---------|
| Moisture     | 12.6649         | %     | 14.2965    | 12.1* | 10      |
| Total Solids | 87.335          | %     | 85.7034    | 1.89  | 5       |

**QUALITY CONTROL DATA QUALIFIERS**

Workorder: 2207592 Chase Lands Phase II

**QUALITY CONTROL PARAMETER QUALIFIERS**

| Lab ID                                                                                                                                                                                     | # | Sample Type          | Analytical Method | Analyte            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----------------------|-------------------|--------------------|
| <b>2483708</b>                                                                                                                                                                             | 1 | Lab Control Standard | SW846 8260B       | Methylene Chloride |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 183 and the control limits were 68 to 133. |   |                      |                   |                    |
| <b>2484966</b>                                                                                                                                                                             | 2 | Method Blank         | SW846 8260B       | Methylene Chloride |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                              |   |                      |                   |                    |
| <b>2484967</b>                                                                                                                                                                             | 3 | Lab Control Standard | SW846 8260B       | Methylene Chloride |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 165 and the control limits were 68 to 133. |   |                      |                   |                    |

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2207592 Chase Lands Phase II

| Lab ID     | Sample ID  | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|------------|-------------|------------|-----------------|----------------|
| 2207592002 | CL-SE-S-01 | SW846 5035  | VOMS/42408 | SW846 8260B     | VOMS/42409     |
| 2207592003 | CL-SE-S-02 | SW846 5035  | VOMS/42408 | SW846 8260B     | VOMS/42409     |
| 2207592004 | CL-SE-S-03 | SW846 5035  | VOMS/42408 | SW846 8260B     | VOMS/42409     |
| 2207592005 | CL-SE-S-04 | SW846 5035  | VOMS/42408 | SW846 8260B     | VOMS/42409     |
| 2207592006 | CL-SE-S-05 | SW846 5035  | VOMS/42408 | SW846 8260B     | VOMS/42409     |
| 2207592007 | CL-SE-S-06 | SW846 5035  | VOMS/42408 | SW846 8260B     | VOMS/42409     |
| 2207592008 | CL-SE-S-07 | SW846 5035  | VOMS/42408 | SW846 8260B     | VOMS/42409     |
| 2207592009 | CL-SE-S-08 | SW846 5035  | VOMS/42408 | SW846 8260B     | VOMS/42409     |
| 2207592010 | CL-SE-S-09 | SW846 5035  | VOMS/42408 | SW846 8260B     | VOMS/42409     |
| 2207592002 | CL-SE-S-01 | SW846 7471B | MDIG/62543 | SW846 7471B     | META/56078     |
| 2207592003 | CL-SE-S-02 | SW846 7471B | MDIG/62543 | SW846 7471B     | META/56078     |
| 2207592004 | CL-SE-S-03 | SW846 7471B | MDIG/62543 | SW846 7471B     | META/56078     |
| 2207592005 | CL-SE-S-04 | SW846 7471B | MDIG/62543 | SW846 7471B     | META/56078     |
| 2207592006 | CL-SE-S-05 | SW846 7471B | MDIG/62543 | SW846 7471B     | META/56078     |
| 2207592007 | CL-SE-S-06 | SW846 7471B | MDIG/62543 | SW846 7471B     | META/56078     |
| 2207592008 | CL-SE-S-07 | SW846 7471B | MDIG/62543 | SW846 7471B     | META/56078     |
| 2207592009 | CL-SE-S-08 | SW846 7471B | MDIG/62543 | SW846 7471B     | META/56078     |
| 2207592010 | CL-SE-S-09 | SW846 7471B | MDIG/62543 | SW846 7471B     | META/56078     |
| 2207592011 | CL-SE-S-10 | SW846 7471B | MDIG/62543 | SW846 7471B     | META/56078     |
| 2207592002 | CL-SE-S-01 | SW846 3546  | EXTR/46681 | SW846 8015D     | SVGC/44474     |
| 2207592002 | CL-SE-S-01 |             |            | S2540G-11       | WETC/182890    |
| 2207592003 | CL-SE-S-02 |             |            | S2540G-11       | WETC/182890    |
| 2207592004 | CL-SE-S-03 |             |            | S2540G-11       | WETC/182890    |
| 2207592005 | CL-SE-S-04 |             |            | S2540G-11       | WETC/182890    |
| 2207592006 | CL-SE-S-05 |             |            | S2540G-11       | WETC/182890    |
| 2207592007 | CL-SE-S-06 |             |            | S2540G-11       | WETC/182890    |
| 2207592008 | CL-SE-S-07 |             |            | S2540G-11       | WETC/182890    |
| 2207592009 | CL-SE-S-08 |             |            | S2540G-11       | WETC/182890    |
| 2207592010 | CL-SE-S-09 |             |            | S2540G-11       | WETC/182890    |

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2207592 Chase Lands Phase II

| Lab ID     | Sample ID  | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|------------|-------------|------------|-----------------|----------------|
| 2207592011 | CL-SE-S-10 |             |            | S2540G-11       | WETC/182890    |
| 2207592011 | CL-SE-S-10 | SW846 5035  | VOMS/42428 | SW846 8260B     | VOMS/42429     |
| 2207592002 | CL-SE-S-01 | SW846 5035  | VOGC/9379  | SW846 8015D     | VOGC/9380      |
| 2207592003 | CL-SE-S-02 | SW846 5035  | VOGC/9379  | SW846 8015D     | VOGC/9380      |
| 2207592004 | CL-SE-S-03 | SW846 5035  | VOGC/9379  | SW846 8015D     | VOGC/9380      |
| 2207592005 | CL-SE-S-04 | SW846 5035  | VOGC/9379  | SW846 8015D     | VOGC/9380      |
| 2207592006 | CL-SE-S-05 | SW846 5035  | VOGC/9379  | SW846 8015D     | VOGC/9380      |
| 2207592007 | CL-SE-S-06 | SW846 5035  | VOGC/9379  | SW846 8015D     | VOGC/9380      |
| 2207592008 | CL-SE-S-07 | SW846 5035  | VOGC/9379  | SW846 8015D     | VOGC/9380      |
| 2207592009 | CL-SE-S-08 | SW846 5035  | VOGC/9379  | SW846 8015D     | VOGC/9380      |
| 2207592010 | CL-SE-S-09 | SW846 5035  | VOGC/9379  | SW846 8015D     | VOGC/9380      |
| 2207592001 | TB-01      |             |            | SW846 8260B     | VOMS/42438     |
| 2207592002 | CL-SE-S-01 | SW846 3546  | EXTR/46711 | SW846 8082A     | SVGC/44501     |
| 2207592003 | CL-SE-S-02 | SW846 3546  | EXTR/46711 | SW846 8082A     | SVGC/44501     |
| 2207592004 | CL-SE-S-03 | SW846 3546  | EXTR/46711 | SW846 8082A     | SVGC/44501     |
| 2207592005 | CL-SE-S-04 | SW846 3546  | EXTR/46711 | SW846 8082A     | SVGC/44501     |
| 2207592006 | CL-SE-S-05 | SW846 3546  | EXTR/46711 | SW846 8082A     | SVGC/44501     |
| 2207592007 | CL-SE-S-06 | SW846 3546  | EXTR/46711 | SW846 8082A     | SVGC/44501     |
| 2207592008 | CL-SE-S-07 | SW846 3546  | EXTR/46711 | SW846 8082A     | SVGC/44501     |
| 2207592009 | CL-SE-S-08 | SW846 3546  | EXTR/46711 | SW846 8082A     | SVGC/44501     |
| 2207592010 | CL-SE-S-09 | SW846 3546  | EXTR/46711 | SW846 8082A     | SVGC/44501     |
| 2207592011 | CL-SE-S-10 | SW846 3546  | EXTR/46711 | SW846 8082A     | SVGC/44501     |
| 2207592002 | CL-SE-S-01 | SW846 3546  | EXTR/46712 | SW846 8081B     | SVGC/44509     |
| 2207592003 | CL-SE-S-02 | SW846 3546  | EXTR/46712 | SW846 8081B     | SVGC/44509     |
| 2207592004 | CL-SE-S-03 | SW846 3546  | EXTR/46712 | SW846 8081B     | SVGC/44509     |
| 2207592005 | CL-SE-S-04 | SW846 3546  | EXTR/46712 | SW846 8081B     | SVGC/44509     |

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2207592 Chase Lands Phase II

| Lab ID     | Sample ID  | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|------------|-------------|------------|-----------------|----------------|
| 2207592006 | CL-SE-S-05 | SW846 3546  | EXTR/46712 | SW846 8081B     | SVGC/44509     |
| 2207592007 | CL-SE-S-06 | SW846 3546  | EXTR/46712 | SW846 8081B     | SVGC/44509     |
| 2207592008 | CL-SE-S-07 | SW846 3546  | EXTR/46712 | SW846 8081B     | SVGC/44509     |
| 2207592009 | CL-SE-S-08 | SW846 3546  | EXTR/46712 | SW846 8081B     | SVGC/44509     |
| 2207592010 | CL-SE-S-09 | SW846 3546  | EXTR/46712 | SW846 8081B     | SVGC/44509     |
| 2207592011 | CL-SE-S-10 | SW846 3546  | EXTR/46712 | SW846 8081B     | SVGC/44509     |
| 2207592002 | CL-SE-S-01 | SW846 3051  | MDIG/62609 | SW846 6020A     | META/56119     |
| 2207592003 | CL-SE-S-02 | SW846 3051  | MDIG/62609 | SW846 6020A     | META/56119     |
| 2207592004 | CL-SE-S-03 | SW846 3051  | MDIG/62609 | SW846 6020A     | META/56119     |
| 2207592005 | CL-SE-S-04 | SW846 3051  | MDIG/62609 | SW846 6020A     | META/56119     |
| 2207592006 | CL-SE-S-05 | SW846 3051  | MDIG/62609 | SW846 6020A     | META/56119     |
| 2207592007 | CL-SE-S-06 | SW846 3051  | MDIG/62609 | SW846 6020A     | META/56119     |
| 2207592008 | CL-SE-S-07 | SW846 3051  | MDIG/62609 | SW846 6020A     | META/56119     |
| 2207592009 | CL-SE-S-08 | SW846 3051  | MDIG/62609 | SW846 6020A     | META/56119     |
| 2207592010 | CL-SE-S-09 | SW846 3051  | MDIG/62610 | SW846 6020A     | META/56119     |
| 2207592011 | CL-SE-S-10 | SW846 3051  | MDIG/62610 | SW846 6020A     | META/56119     |
| 2207592003 | CL-SE-S-02 | SW846 3546  | EXTR/46716 | SW846 8015D     | SVGC/44505     |
| 2207592004 | CL-SE-S-03 | SW846 3546  | EXTR/46716 | SW846 8015D     | SVGC/44505     |
| 2207592002 | CL-SE-S-01 | SW846 3546  | EXTR/46717 | SW846 8270D     | SVMS/27581     |
| 2207592003 | CL-SE-S-02 | SW846 3546  | EXTR/46717 | SW846 8270D     | SVMS/27581     |
| 2207592004 | CL-SE-S-03 | SW846 3546  | EXTR/46717 | SW846 8270D     | SVMS/27581     |
| 2207592005 | CL-SE-S-04 | SW846 3546  | EXTR/46717 | SW846 8270D     | SVMS/27581     |
| 2207592006 | CL-SE-S-05 | SW846 3546  | EXTR/46717 | SW846 8270D     | SVMS/27581     |
| 2207592007 | CL-SE-S-06 | SW846 3546  | EXTR/46717 | SW846 8270D     | SVMS/27581     |
| 2207592008 | CL-SE-S-07 | SW846 3546  | EXTR/46717 | SW846 8270D     | SVMS/27581     |
| 2207592009 | CL-SE-S-08 | SW846 3546  | EXTR/46717 | SW846 8270D     | SVMS/27581     |
| 2207592010 | CL-SE-S-09 | SW846 3546  | EXTR/46717 | SW846 8270D     | SVMS/27581     |
| 2207592011 | CL-SE-S-10 | SW846 3546  | EXTR/46717 | SW846 8270D     | SVMS/27581     |

**QUALITY CONTROL DATA CROSS REFERENCE TABLE**

Workorder: 2207592 Chase Lands Phase II

| Lab ID     | Sample ID  | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|------------|-------------|------------|-----------------|----------------|
| 2207592011 | CL-SE-S-10 | SW846 5035  | VOGC/9385  | SW846 8015D     | VOGC/9386      |
| 2207592005 | CL-SE-S-04 | SW846 3546  | EXTR/46749 | SW846 8015D     | SVGC/44528     |
| 2207592006 | CL-SE-S-05 | SW846 3546  | EXTR/46749 | SW846 8015D     | SVGC/44528     |
| 2207592007 | CL-SE-S-06 | SW846 3546  | EXTR/46749 | SW846 8015D     | SVGC/44528     |
| 2207592008 | CL-SE-S-07 | SW846 3546  | EXTR/46749 | SW846 8015D     | SVGC/44528     |
| 2207592009 | CL-SE-S-08 | SW846 3546  | EXTR/46749 | SW846 8015D     | SVGC/44528     |
| 2207592010 | CL-SE-S-09 | SW846 3546  | EXTR/46749 | SW846 8015D     | SVGC/44528     |
| 2207592011 | CL-SE-S-10 | SW846 3546  | EXTR/46749 | SW846 8015D     | SVGC/44528     |
| 2207592005 | CL-SE-S-04 | SW846 3060A | WCPR/39226 | SW846 7196A     | WETC/183416    |
| 2207592010 | CL-SE-S-09 | SW846 3060A | WCPR/39226 | SW846 7196A     | WETC/183416    |







34 Dogwood Lane  
Middletown, PA 17057  
P. 717-944-5541  
F. 717-944-1430

# Environmental

## CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT /  
SAMPLER. INSTRUCTIONS ON THE BACK.

Page 2 of 2  
Courier: \_\_\_\_\_  
Tracking #: \_\_\_\_\_

22099592

Co. Name: Howard County DPW  
Contact (Report to): N.H. Blackwell  
Address: Nelson Brooks  
3430 Court House Dr  
Ellicott City, MD 21043

Phone: 410-33-3440  
410-584-7000

Bill to (if different than Report to): N.H. Blackwell PO#:

Project Name: Chase Lands Phase II ALS Quote #:

TAT: ☐ Normal-Standard TAT is 10-12 business days.  
☐ Rush-Subject to ALS approval and surcharges.

Email? ☒ Y nblackwell@howardcountymd.gov / nbrooks@equest.com  
Fax? ☐ Y No:

| Sample Description/Location<br>(as it will appear on the lab report) | COC Comments | Sample Date | Millitary Time |
|----------------------------------------------------------------------|--------------|-------------|----------------|
| 1 CL-SE-S-08                                                         |              | 2/17        | 1340           |
| 2 CL-SE-S-09                                                         |              | ↓           | 1325           |
| 3 CL-SE-S-10                                                         |              | ↓           | 1345           |
| 4                                                                    |              |             |                |
| 5                                                                    |              |             |                |
| 6                                                                    |              |             |                |
| 7                                                                    |              |             |                |
| 8                                                                    |              |             |                |

SAMPLED BY (Please Print):

Michael Thornton

Relinquished By / Company Name

1 Michael Thornton EA

3 Nelson Brooks AB

5 Michael Thornton AB

7

9

Project Comments:

| Container Type | TC   | C    | C    | C    | C    | C    | C    | C    | C    |
|----------------|------|------|------|------|------|------|------|------|------|
| Container Size | 40ml | 40ml | 802  | 802  | 802  | 802  | 802  | 802  | 802  |
| Preservative   | D1   | MCH  | Nine | Nine | Nine | Nine | Nine | Nine | Nine |

### ANALYSIS/METHOD REQUESTED

|                        |           |             |           |             |           |                   |
|------------------------|-----------|-------------|-----------|-------------|-----------|-------------------|
| 8260 - VOC + Dry notes | TPH - GRO | 8270 - SVOC | TPH - DRO | 8082 - PCBs | PP Metals | 8081 - Pesticides |
|------------------------|-----------|-------------|-----------|-------------|-----------|-------------------|

### Enter Number of Containers Per Analysis

|   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 1 | 1 | 1 | 1 | 1 | 1 |
| 3 | 1 | 1 | 1 | 1 | 1 | 1 |
| 4 |   |   |   |   |   |   |
| 5 |   |   |   |   |   |   |
| 6 |   |   |   |   |   |   |
| 7 |   |   |   |   |   |   |
| 8 |   |   |   |   |   |   |

Receipt Information  
(Completed by Sample Receiver)  
Received by: Stacy  
Cooler Temp: \_\_\_\_\_  
Therm. ID: 352  
No. of Coolers: \_\_\_\_\_  
Notes: \_\_\_\_\_

Correct containers? ☒ Y ☐ N  
Correct sample volume? ☒ Y ☐ N  
Correct preservation? ☒ Y ☐ N  
Headspace/Volatiles? ☒ Y ☐ N  
Container in good condition? ☒ Y ☐ N  
CO/Lab labels complete/accurate? ☒ Y ☐ N  
Received on ice? ☒ Y ☐ N  
(If present) Seals intact? ☒ Y ☐ N  
Custody seals Present? ☒ Y ☐ N

ALS FIELD SERVICES  
☐ Pickup  
☐ Labor  
☐ Composite Sampling  
☐ Rental Equipment  
☐ Other: \_\_\_\_\_

SDWA Form 7-0  
☒ Standard  
☐ CLP-like  
☐ NJ-Reduced  
☐ NJ-Full  
☐ Other: \_\_\_\_\_  
Data Deliverables  
Enter PWSID No: \_\_\_\_\_

\* G-Grab: C-Composite  
\*\* Matrix: A=Air; D=Drinking Water; GW=Groundwater; O=Oil; OL=Other Liquid; SL=Sludge; WP=Wipe; WW=Wastewater  
\*\*\* Container Type: AG=Amber Glass; CG=Clear Glass; PL=Plastic. Container Size: 250ml, 500ml, 1L, 50L, etc. Preservative: HCl, HNO3, NaOH, etc.  
Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY



February 24, 2017

Ms. Tara Lamond  
EA Engineering-MD  
225 Schilling Circle  
Hunt Valley, MD 21031

## Certificate of Analysis

|                                            |                                           |
|--------------------------------------------|-------------------------------------------|
| Project Name: <b>2017-REV2-MDE SOIL/GW</b> | Workorder: <b>2207906</b>                 |
| Purchase Order:                            | Workorder ID: <b>Chase Lands Phase II</b> |

Dear Ms. Lamond:

Enclosed are the analytical results for samples received by the laboratory on Friday, February 10, 2017.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

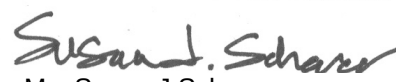
Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at [www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads](http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads).

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Michael Thornton , Mr. Hugh Murphy , Mr. Nelson Brooks , Ms. Niti Blackwell

*This page is included as part of the Analytical Report and must be retained as a permanent record thereof.*

  
Ms. Susan J Scherer  
Project Coordinator

**SAMPLE SUMMARY**

Workorder: 2207906 Chase Lands Phase II

| Lab ID     | Sample ID   | Matrix       | Date Collected  | Date Received   | Collected By |
|------------|-------------|--------------|-----------------|-----------------|--------------|
| 2207906001 | TB-02       | Water        | 2/10/2017 20:25 | 2/10/2017 20:25 | Mr. Michael  |
| 2207906002 | CL-GS-SW-01 | Ground Water | 2/10/2017 12:00 | 2/10/2017 20:25 | Mr. Michael  |
| 2207906003 | CL-GS-SW-02 | Ground Water | 2/10/2017 10:30 | 2/10/2017 20:25 | Mr. Michael  |
| 2207906004 | DUP-01      | Ground Water | 2/10/2017 00:00 | 2/10/2017 20:25 | Mr. Michael  |
| 2207906005 | CL-GS-S-01  | Solid        | 2/10/2017 14:10 | 2/10/2017 20:25 | Mr. Michael  |
| 2207906006 | CL-GS-S-03  | Solid        | 2/10/2017 14:00 | 2/10/2017 20:25 | Mr. Michael  |
| 2207906007 | CL-GS-S-04  | Solid        | 2/10/2017 13:40 | 2/10/2017 20:25 | Mr. Michael  |
| 2207906008 | CL-GS-S-05  | Solid        | 2/10/2017 13:50 | 2/10/2017 20:25 | Mr. Michael  |
| 2207906009 | CL-GS-S-06  | Solid        | 2/10/2017 14:30 | 2/10/2017 20:25 | Mr. Michael  |

## SAMPLE SUMMARY

Workorder: 2207906 Chase Lands Phase II

### Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.

### Standard Acronyms/Flags

|        |                                                                                                                                      |
|--------|--------------------------------------------------------------------------------------------------------------------------------------|
| J      | Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte     |
| U      | Indicates that the analyte was Not Detected (ND)                                                                                     |
| N      | Indicates presumptive evidence of the presence of a compound                                                                         |
| MDL    | Method Detection Limit                                                                                                               |
| PQL    | Practical Quantitation Limit                                                                                                         |
| RDL    | Reporting Detection Limit                                                                                                            |
| ND     | Not Detected - indicates that the analyte was Not Detected at the RDL                                                                |
| Cntr   | Analysis was performed using this container                                                                                          |
| RegLmt | Regulatory Limit                                                                                                                     |
| LCS    | Laboratory Control Sample                                                                                                            |
| MS     | Matrix Spike                                                                                                                         |
| MSD    | Matrix Spike Duplicate                                                                                                               |
| DUP    | Sample Duplicate                                                                                                                     |
| %Rec   | Percent Recovery                                                                                                                     |
| RPD    | Relative Percent Difference                                                                                                          |
| LOD    | DoD Limit of Detection                                                                                                               |
| LOQ    | DoD Limit of Quantitation                                                                                                            |
| DL     | DoD Detection Limit                                                                                                                  |
| I      | Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL) |
| (S)    | Surrogate Compound                                                                                                                   |
| NC     | Not Calculated                                                                                                                       |
| *      | Result outside of QC limits                                                                                                          |

## PROJECT SUMMARY

Workorder: 2207906 Chase Lands Phase II

### Workorder Comments

Hexavalent chromium analysis was performed on samples with a total chromium result greater than 30 mg/kg based on instructions from Hugh Murphy. SJS 02/22/17

### Sample Comments

**Lab ID:** 2207906005

**Sample ID:** CL-GS-S-01

**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2207906006

**Sample ID:** CL-GS-S-03

**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2207906007

**Sample ID:** CL-GS-S-04

**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2207906008

**Sample ID:** CL-GS-S-05

**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2207906009

**Sample ID:** CL-GS-S-06

**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906001**

Date Collected: 2/10/2017 20:25

Matrix: Water

Sample ID: **TB-02**

Date Received: 2/10/2017 20:25

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------|---------------|-----|------|
| <b>VOLATILE ORGANICS</b>    |         |      |       |      |      |             |             |               |     |      |
| Acetone                     | 4.6J    | J    | ug/L  | 10.0 | 3.1  | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| tert-Amyl methyl ether      | ND      |      | ug/L  | 1.0  | 0.20 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| tert-Amyl Alcohol           | ND      |      | ug/L  | 10.0 | 6.6  | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| tert-Amyl Ethylether        | ND      |      | ug/L  | 1.0  | 0.29 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| Benzene                     | ND      |      | ug/L  | 1.0  | 0.23 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| Bromochloromethane          | ND      |      | ug/L  | 1.0  | 0.32 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| Bromodichloromethane        | ND      |      | ug/L  | 1.0  | 0.27 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| Bromoform                   | ND      |      | ug/L  | 1.0  | 0.40 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| Bromomethane                | ND      |      | ug/L  | 1.0  | 0.39 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| 2-Butanone                  | ND      |      | ug/L  | 10.0 | 1.8  | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| tert-Butyl Alcohol          | ND      |      | ug/L  | 10.0 | 2.2  | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| Carbon Disulfide            | ND      |      | ug/L  | 1.0  | 0.23 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| Carbon Tetrachloride        | ND      |      | ug/L  | 1.0  | 0.31 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| Chlorobenzene               | ND      |      | ug/L  | 1.0  | 0.19 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| Chlorodibromomethane        | ND      |      | ug/L  | 1.0  | 0.45 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| Chloroethane                | ND      |      | ug/L  | 1.0  | 0.33 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| Chloroform                  | ND      |      | ug/L  | 1.0  | 0.21 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| Chloromethane               | ND      |      | ug/L  | 1.0  | 0.31 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| 1,2-Dibromo-3-chloropropane | ND      |      | ug/L  | 7.0  | 1.5  | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| 1,2-Dibromoethane           | ND      |      | ug/L  | 1.0  | 0.28 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| 1,1-Dichloroethane          | ND      |      | ug/L  | 1.0  | 0.28 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| 1,2-Dichloroethane          | ND      |      | ug/L  | 1.0  | 0.32 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| 1,1-Dichloroethene          | ND      |      | ug/L  | 1.0  | 0.29 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| cis-1,2-Dichloroethene      | ND      |      | ug/L  | 1.0  | 0.32 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| trans-1,2-Dichloroethene    | ND      |      | ug/L  | 1.0  | 0.26 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| 1,2-Dichloropropane         | ND      |      | ug/L  | 1.0  | 0.24 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| cis-1,3-Dichloropropene     | ND      |      | ug/L  | 1.0  | 0.31 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| trans-1,3-Dichloropropene   | ND      |      | ug/L  | 1.0  | 0.29 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| Diisopropyl ether           | ND      |      | ug/L  | 1.0  | 0.25 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| Ethyl tert-butyl ether      | ND      |      | ug/L  | 1.0  | 0.19 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| Ethylbenzene                | ND      |      | ug/L  | 1.0  | 0.34 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| 2-Hexanone                  | ND      |      | ug/L  | 5.0  | 1.3  | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| Methyl t-Butyl Ether        | ND      |      | ug/L  | 1.0  | 0.33 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| 4-Methyl-2-Pentanone(MIBK)  | ND      |      | ug/L  | 5.0  | 1.5  | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| Methylene Chloride          | ND      |      | ug/L  | 1.0  | 0.45 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |
| Styrene                     | ND      |      | ug/L  | 1.0  | 0.24 | SW846 8260B |             | 2/14/17 15:34 | TMP | A    |



## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906001**

Date Collected: 2/10/2017 20:25

Matrix: Water

Sample ID: **TB-02**

Date Received: 2/10/2017 20:25

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By     | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-----------------|---------------|-----------------|-----------------------|
| 1,1,1,2-Tetrachloroethane   | ND             |             | ug/L         | 1.0           | 0.35 | SW846 8260B   |                 | 2/14/17 15:34 | TMP             | A                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/L         | 1.0           | 0.34 | SW846 8260B   |                 | 2/14/17 15:34 | TMP             | A                     |
| Tetrachloroethene           | ND             |             | ug/L         | 1.0           | 0.35 | SW846 8260B   |                 | 2/14/17 15:34 | TMP             | A                     |
| Toluene                     | ND             |             | ug/L         | 1.0           | 0.23 | SW846 8260B   |                 | 2/14/17 15:34 | TMP             | A                     |
| Total Xylenes               | ND             |             | ug/L         | 3.0           | 0.66 | SW846 8260B   |                 | 2/14/17 15:34 | TMP             | A                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/L         | 1.0           | 0.22 | SW846 8260B   |                 | 2/14/17 15:34 | TMP             | A                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/14/17 15:34 | TMP             | A                     |
| Trichloroethene             | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/14/17 15:34 | TMP             | A                     |
| Vinyl Chloride              | ND             |             | ug/L         | 1.0           | 0.30 | SW846 8260B   |                 | 2/14/17 15:34 | TMP             | A                     |
| o-Xylene                    | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/14/17 15:34 | TMP             | A                     |
| mp-Xylene                   | ND             |             | ug/L         | 2.0           | 0.52 | SW846 8260B   |                 | 2/14/17 15:34 | TMP             | A                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 101            |             | %            | 62 - 133      |      | SW846 8260B   |                 |               | 2/14/17 15:34   | TMP A                 |
| 4-Bromofluorobenzene (S)    | 101            |             | %            | 79 - 114      |      | SW846 8260B   |                 |               | 2/14/17 15:34   | TMP A                 |
| Dibromofluoromethane (S)    | 96.2           |             | %            | 78 - 116      |      | SW846 8260B   |                 |               | 2/14/17 15:34   | TMP A                 |
| Toluene-d8 (S)              | 99             |             | %            | 76 - 127      |      | SW846 8260B   |                 |               | 2/14/17 15:34   | TMP A                 |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906002**  
Sample ID: **CL-GS-SW-01**

Date Collected: 2/10/2017 12:00 Matrix: Ground Water  
Date Received: 2/10/2017 20:25

| Parameters                     | Results | Flag | Units | RDL   | MDL    | Method      | Prepared By       | Analyzed      | By  | Cntr |
|--------------------------------|---------|------|-------|-------|--------|-------------|-------------------|---------------|-----|------|
| Total Polychlorinated Biphenyl | ND      |      | ug/L  | 0.48  | 0.48   | SW846 8082A | 2/15/17 17:30 ACD | 2/16/17 03:45 | EGO | L    |
| <b>VOLATILE ORGANICS</b>       |         |      |       |       |        |             |                   |               |     |      |
| Acetone                        | ND      |      | ug/L  | 10.0  | 3.1    | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| tert-Amyl methyl ether         | ND      |      | ug/L  | 1.0   | 0.20   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| tert-Amyl Alcohol              | ND      |      | ug/L  | 10.0  | 6.6    | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| tert-Amyl Ethylether           | ND      |      | ug/L  | 1.0   | 0.29   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| Benzene                        | ND      |      | ug/L  | 1.0   | 0.23   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| Bromochloromethane             | ND      |      | ug/L  | 1.0   | 0.32   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| Bromodichloromethane           | ND      |      | ug/L  | 1.0   | 0.27   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| Bromoform                      | ND      |      | ug/L  | 1.0   | 0.40   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| Bromomethane                   | ND      |      | ug/L  | 1.0   | 0.39   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| 2-Butanone                     | ND      |      | ug/L  | 10.0  | 1.8    | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| tert-Butyl Alcohol             | ND      |      | ug/L  | 10.0  | 2.2    | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| Carbon Disulfide               | ND      |      | ug/L  | 1.0   | 0.23   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| Carbon Tetrachloride           | ND      |      | ug/L  | 1.0   | 0.31   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| Chlorobenzene                  | ND      |      | ug/L  | 1.0   | 0.19   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| Chlorodibromomethane           | ND      |      | ug/L  | 1.0   | 0.45   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| Chloroethane                   | ND      |      | ug/L  | 1.0   | 0.33   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| Chloroform                     | ND      |      | ug/L  | 1.0   | 0.21   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| Chloromethane                  | ND      |      | ug/L  | 1.0   | 0.31   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| 1,2-Dibromo-3-chloropropane    | ND      |      | ug/L  | 0.020 | 0.0047 | SW846 8011  | 2/16/17 07:00 BS  | 2/16/17 13:22 | EGO | O    |
| 1,2-Dibromoethane              | ND      |      | ug/L  | 0.020 | 0.0096 | SW846 8011  | 2/16/17 07:00 BS  | 2/16/17 13:22 | EGO | O    |
| 1,1-Dichloroethane             | ND      |      | ug/L  | 1.0   | 0.28   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| 1,2-Dichloroethane             | ND      |      | ug/L  | 1.0   | 0.32   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| 1,1-Dichloroethene             | ND      |      | ug/L  | 1.0   | 0.29   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| cis-1,2-Dichloroethene         | ND      |      | ug/L  | 1.0   | 0.32   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| trans-1,2-Dichloroethene       | ND      |      | ug/L  | 1.0   | 0.26   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| 1,2-Dichloropropane            | ND      |      | ug/L  | 1.0   | 0.24   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| cis-1,3-Dichloropropene        | ND      |      | ug/L  | 1.0   | 0.31   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| trans-1,3-Dichloropropene      | ND      |      | ug/L  | 1.0   | 0.29   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| Diisopropyl ether              | ND      |      | ug/L  | 1.0   | 0.25   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| Ethyl tert-butyl ether         | ND      |      | ug/L  | 1.0   | 0.19   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| Ethylbenzene                   | ND      |      | ug/L  | 1.0   | 0.34   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| 2-Hexanone                     | ND      |      | ug/L  | 5.0   | 1.3    | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |
| Methyl t-Butyl Ether           | ND      |      | ug/L  | 1.0   | 0.33   | SW846 8260B |                   | 2/14/17 21:03 | TMP | A    |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906002**  
Sample ID: **CL-GS-SW-01**

Date Collected: 2/10/2017 12:00 Matrix: Ground Water  
Date Received: 2/10/2017 20:25

| Parameters                   | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By     | Analyzed      | By              | Cntr                  |
|------------------------------|----------------|-------------|--------------|---------------|------|---------------|-----------------|---------------|-----------------|-----------------------|
| 4-Methyl-2-Pentanone(MIBK)   | ND             |             | ug/L         | 5.0           | 1.5  | SW846 8260B   |                 | 2/14/17 21:03 | TMP             | A                     |
| Methylene Chloride           | ND             |             | ug/L         | 1.0           | 0.45 | SW846 8260B   |                 | 2/14/17 21:03 | TMP             | A                     |
| Styrene                      | ND             |             | ug/L         | 1.0           | 0.24 | SW846 8260B   |                 | 2/14/17 21:03 | TMP             | A                     |
| 1,1,2,2-Tetrachloroethane    | ND             |             | ug/L         | 1.0           | 0.34 | SW846 8260B   |                 | 2/14/17 21:03 | TMP             | A                     |
| Tetrachloroethene            | ND             |             | ug/L         | 1.0           | 0.35 | SW846 8260B   |                 | 2/14/17 21:03 | TMP             | A                     |
| Toluene                      | ND             |             | ug/L         | 1.0           | 0.23 | SW846 8260B   |                 | 2/14/17 21:03 | TMP             | A                     |
| Total Xylenes                | ND             |             | ug/L         | 3.0           | 0.66 | SW846 8260B   |                 | 2/14/17 21:03 | TMP             | A                     |
| 1,1,1-Trichloroethane        | ND             |             | ug/L         | 1.0           | 0.22 | SW846 8260B   |                 | 2/14/17 21:03 | TMP             | A                     |
| 1,1,2-Trichloroethane        | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/14/17 21:03 | TMP             | A                     |
| Trichloroethene              | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/14/17 21:03 | TMP             | A                     |
| Vinyl Chloride               | ND             |             | ug/L         | 1.0           | 0.30 | SW846 8260B   |                 | 2/14/17 21:03 | TMP             | A                     |
| o-Xylene                     | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/14/17 21:03 | TMP             | A                     |
| mp-Xylene                    | ND             |             | ug/L         | 2.0           | 0.52 | SW846 8260B   |                 | 2/14/17 21:03 | TMP             | A                     |
| <i>Surrogate Recoveries</i>  | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1-Chloro-2-Fluorobenzene (S) | 83.1           |             | %            | 70 - 130      |      | SW846 8011    | 2/16/17 07:00   | BS            | 2/16/17 13:22   | EGO O                 |
| <i>Surrogate Recoveries</i>  | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)    | 101            |             | %            | 62 - 133      |      | SW846 8260B   |                 |               | 2/14/17 21:03   | TMP A                 |
| 4-Bromofluorobenzene (S)     | 99.5           |             | %            | 79 - 114      |      | SW846 8260B   |                 |               | 2/14/17 21:03   | TMP A                 |
| Dibromofluoromethane (S)     | 95.7           |             | %            | 78 - 116      |      | SW846 8260B   |                 |               | 2/14/17 21:03   | TMP A                 |
| Toluene-d8 (S)               | 99.1           |             | %            | 76 - 127      |      | SW846 8260B   |                 |               | 2/14/17 21:03   | TMP A                 |
| <b>SEMIVOLATILES</b>         |                |             |              |               |      |               |                 |               |                 |                       |
| Acenaphthene                 | ND             |             | ug/L         | 1.4           | 0.14 | SW846 8270D   | 2/14/17 12:45   | JTH           | 2/15/17 00:31   | DHF H                 |
| Acenaphthylene               | ND             |             | ug/L         | 1.4           | 0.18 | SW846 8270D   | 2/14/17 12:45   | JTH           | 2/15/17 00:31   | DHF H                 |
| Acetophenone                 | ND             |             | ug/L         | 2.9           | 0.23 | SW846 8270D   | 2/14/17 12:45   | JTH           | 2/15/17 00:31   | DHF H                 |
| Anthracene                   | ND             |             | ug/L         | 1.4           | 0.14 | SW846 8270D   | 2/14/17 12:45   | JTH           | 2/15/17 00:31   | DHF H                 |
| Atrazine                     | ND             |             | ug/L         | 2.9           | 0.23 | SW846 8270D   | 2/14/17 12:45   | JTH           | 2/15/17 00:31   | DHF H                 |
| Benzaldehyde                 | ND             |             | ug/L         | 2.9           | 0.25 | SW846 8270D   | 2/14/17 12:45   | JTH           | 2/15/17 00:31   | DHF H                 |
| Benzo(a)anthracene           | ND             |             | ug/L         | 1.4           | 0.13 | SW846 8270D   | 2/14/17 12:45   | JTH           | 2/15/17 00:31   | DHF H                 |
| Benzo(a)pyrene               | ND             |             | ug/L         | 1.4           | 0.21 | SW846 8270D   | 2/14/17 12:45   | JTH           | 2/15/17 00:31   | DHF H                 |
| Benzo(b)fluoranthene         | ND             |             | ug/L         | 1.4           | 0.11 | SW846 8270D   | 2/14/17 12:45   | JTH           | 2/15/17 00:31   | DHF H                 |
| Benzo(g,h,i)perylene         | ND             |             | ug/L         | 1.4           | 0.21 | SW846 8270D   | 2/14/17 12:45   | JTH           | 2/15/17 00:31   | DHF H                 |
| Benzo(k)fluoranthene         | ND             |             | ug/L         | 1.4           | 0.18 | SW846 8270D   | 2/14/17 12:45   | JTH           | 2/15/17 00:31   | DHF H                 |
| Biphenyl                     | ND             |             | ug/L         | 2.9           | 0.16 | SW846 8270D   | 2/14/17 12:45   | JTH           | 2/15/17 00:31   | DHF H                 |
| 4-Bromophenyl-phenylether    | ND             |             | ug/L         | 2.9           | 0.16 | SW846 8270D   | 2/14/17 12:45   | JTH           | 2/15/17 00:31   | DHF H                 |
| Butylbenzylphthalate         | 0.11J          | J           | ug/L         | 2.9           | 0.11 | SW846 8270D   | 2/14/17 12:45   | JTH           | 2/15/17 00:31   | DHF H                 |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906002**  
Sample ID: **CL-GS-SW-01**

Date Collected: 2/10/2017 12:00 Matrix: Ground Water  
Date Received: 2/10/2017 20:25

| Parameters                  | Results | Flag | Units | RDL | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|-----|-------|-------------|-------------------|---------------|-----|------|
| Caprolactam                 | ND      |      | ug/L  | 2.9 | 0.27  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| Carbazole                   | ND      |      | ug/L  | 2.9 | 0.12  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/L  | 2.9 | 0.18  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| 4-Chloroaniline             | ND      |      | ug/L  | 2.9 | 0.20  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/L  | 2.9 | 0.20  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/L  | 2.9 | 0.16  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/L  | 2.9 | 0.27  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| 2-Chloronaphthalene         | ND      |      | ug/L  | 2.9 | 0.17  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| 2-Chlorophenol              | ND      |      | ug/L  | 2.9 | 0.32  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/L  | 2.9 | 0.14  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| Chrysene                    | ND      |      | ug/L  | 1.4 | 0.12  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| mp-Cresol                   | ND      |      | ug/L  | 2.9 | 0.14  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| o-Cresol                    | ND      |      | ug/L  | 2.9 | 0.24  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| Di-n-Butylphthalate         | ND      |      | ug/L  | 2.9 | 0.14  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| Di-n-Octylphthalate         | ND      |      | ug/L  | 2.9 | 0.097 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/L  | 1.4 | 0.20  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| Dibenzofuran                | ND      |      | ug/L  | 2.9 | 0.11  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/L  | 2.9 | 0.46  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| 2,4-Dichlorophenol          | ND      |      | ug/L  | 2.9 | 0.31  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| Diethylphthalate            | ND      |      | ug/L  | 2.9 | 0.17  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| 2,4-Dimethylphenol          | ND      |      | ug/L  | 2.9 | 0.20  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| Dimethylphthalate           | ND      |      | ug/L  | 2.9 | 0.14  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| 2,4-Dinitrophenol           | ND      |      | ug/L  | 5.8 | 1.7   | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| 2,4-Dinitrotoluene          | ND      |      | ug/L  | 2.9 | 0.12  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| 2,6-Dinitrotoluene          | ND      |      | ug/L  | 2.9 | 0.20  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| 1,4-Dioxane                 | ND      |      | ug/L  | 2.9 | 0.67  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/L  | 2.9 | 0.21  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| Fluoranthene                | ND      |      | ug/L  | 1.4 | 0.16  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| Fluorene                    | ND      |      | ug/L  | 1.4 | 0.19  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| Hexachlorobenzene           | ND      |      | ug/L  | 2.9 | 0.22  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| Hexachlorobutadiene         | ND      |      | ug/L  | 2.9 | 0.18  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| Hexachlorocyclopentadiene   | ND      |      | ug/L  | 2.9 | 0.16  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| Hexachloroethane            | ND      |      | ug/L  | 2.9 | 0.29  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/L  | 1.4 | 0.097 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| Isophorone                  | ND      |      | ug/L  | 2.9 | 0.14  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| 2-Methyl-4,6-dinitrophenol  | ND      |      | ug/L  | 5.8 | 0.32  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| 2-Methylnaphthalene         | ND      |      | ug/L  | 1.4 | 0.15  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |
| Naphthalene                 | ND      |      | ug/L  | 1.4 | 0.12  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF | H    |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906002**  
Sample ID: **CL-GS-SW-01**

Date Collected: 2/10/2017 12:00 Matrix: Ground Water  
Date Received: 2/10/2017 20:25

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| 2-Nitroaniline              | ND             |             | ug/L         | 2.9           | 0.19  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF             | H                     |
| 3-Nitroaniline              | ND             |             | ug/L         | 2.9           | 0.17  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF             | H                     |
| 4-Nitroaniline              | ND             |             | ug/L         | 2.9           | 0.40  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF             | H                     |
| Nitrobenzene                | ND             |             | ug/L         | 2.9           | 0.27  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF             | H                     |
| 2-Nitrophenol               | ND             |             | ug/L         | 2.9           | 0.43  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF             | H                     |
| 4-Nitrophenol               | ND             |             | ug/L         | 2.9           | 1.0   | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF             | H                     |
| N-Nitroso-di-n-propylamine  | ND             |             | ug/L         | 2.9           | 0.23  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF             | H                     |
| N-Nitrosodiphenylamine      | ND             |             | ug/L         | 2.9           | 0.17  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF             | H                     |
| Pentachlorophenol           | ND             |             | ug/L         | 5.8           | 1.0   | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF             | H                     |
| Phenanthrene                | ND             |             | ug/L         | 1.4           | 0.13  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF             | H                     |
| Phenol                      | ND             |             | ug/L         | 7.7           | 0.22  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF             | H                     |
| Pyrene                      | ND             |             | ug/L         | 1.4           | 0.15  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF             | H                     |
| 1,2,4,5-Tetrachlorobenzene  | ND             |             | ug/L         | 2.9           | 0.18  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF             | H                     |
| 2,3,4,6-Tetrachlorophenol   | ND             |             | ug/L         | 2.9           | 0.46  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF             | H                     |
| 2,4,5-Trichlorophenol       | ND             |             | ug/L         | 2.9           | 0.53  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF             | H                     |
| 2,4,6-Trichlorophenol       | ND             |             | ug/L         | 2.9           | 0.55  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF             | H                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)    | 63.6           |             | %            | 47 - 128      |       | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF             | H                     |
| 2-Fluorobiphenyl (S)        | 66.7           |             | %            | 52 - 118      |       | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF             | H                     |
| 2-Fluorophenol (S)          | 40.3           |             | %            | 20 - 87       |       | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF             | H                     |
| Nitrobenzene-d5 (S)         | 66.2           |             | %            | 27 - 139      |       | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF             | H                     |
| Phenol-d5 (S)               | 31.2           |             | %            | 10 - 81       |       | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF             | H                     |
| Terphenyl-d14 (S)           | 86.1           |             | %            | 46 - 133      |       | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:31 | DHF             | H                     |
| <b>SEMIVOLATILE SIM</b>     |                |             |              |               |       |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/L         | 0.097         | 0.011 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 06:54 | CGS             | H                     |
| Acenaphthylene              | ND             |             | ug/L         | 0.097         | 0.011 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 06:54 | CGS             | H                     |
| Anthracene                  | ND             |             | ug/L         | 0.097         | 0.016 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 06:54 | CGS             | H                     |
| Benzo(a)anthracene          | ND             |             | ug/L         | 0.097         | 0.016 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 06:54 | CGS             | H                     |
| Benzo(a)pyrene              | ND             |             | ug/L         | 0.097         | 0.019 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 06:54 | CGS             | H                     |
| Benzo(b)fluoranthene        | ND             |             | ug/L         | 0.097         | 0.019 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 06:54 | CGS             | H                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/L         | 0.097         | 0.037 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 06:54 | CGS             | H                     |
| Benzo(k)fluoranthene        | ND             |             | ug/L         | 0.097         | 0.024 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 06:54 | CGS             | H                     |
| Chrysene                    | ND             |             | ug/L         | 0.097         | 0.016 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 06:54 | CGS             | H                     |
| Dibenzo(a,h)anthracene      | ND             |             | ug/L         | 0.068         | 0.022 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 06:54 | CGS             | H                     |
| Fluoranthene                | ND             |             | ug/L         | 0.097         | 0.017 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 06:54 | CGS             | H                     |
| Fluorene                    | ND             |             | ug/L         | 0.097         | 0.014 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 06:54 | CGS             | H                     |
| Indeno(1,2,3-cd)pyrene      | ND             |             | ug/L         | 0.097         | 0.040 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 06:54 | CGS             | H                     |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906002**  
Sample ID: **CL-GS-SW-01**

Date Collected: 2/10/2017 12:00 Matrix: Ground Water  
Date Received: 2/10/2017 20:25

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Naphthalene                 | ND             |             | ug/L         | 0.097         | 0.036  | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 06:54 | CGS             | H                     |
| Phenanthrene                | ND             |             | ug/L         | 0.097         | 0.019  | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 06:54 | CGS             | H                     |
| Pyrene                      | ND             |             | ug/L         | 0.097         | 0.014  | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 06:54 | CGS             | H                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2-Methylnaphthalene-d10 (S) | 65.6           |             | %            | 29 - 112      |        | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 06:54 | CGS             | H                     |
| Fluoranthene-d10 (S)        | 88.3           |             | %            | 45 - 130      |        | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 06:54 | CGS             | H                     |
| <b>PCBs</b>                 |                |             |              |               |        |               |                   |               |                 |                       |
| Aroclor-1016                | ND             |             | ug/L         | 0.48          | 0.058  | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:45 | EGO             | L                     |
| Aroclor-1221                | ND             |             | ug/L         | 0.48          | 0.067  | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:45 | EGO             | L                     |
| Aroclor-1232                | ND             |             | ug/L         | 0.48          | 0.18   | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:45 | EGO             | L                     |
| Aroclor-1242                | ND             |             | ug/L         | 0.48          | 0.23   | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:45 | EGO             | L                     |
| Aroclor-1248                | ND             |             | ug/L         | 0.48          | 0.13   | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:45 | EGO             | L                     |
| Aroclor-1254                | ND             |             | ug/L         | 0.48          | 0.096  | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:45 | EGO             | L                     |
| Aroclor-1260                | ND             |             | ug/L         | 0.48          | 0.067  | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:45 | EGO             | L                     |
| Aroclor-1262                | ND             |             | ug/L         | 0.48          | 0.096  | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:45 | EGO             | L                     |
| Aroclor-1268                | ND             |             | ug/L         | 0.48          | 0.16   | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:45 | EGO             | L                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 85.7           |             | %            | 30 - 140      |        | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:45 | EGO             | L                     |
| Tetrachloro-m-xylene (S)    | 68             |             | %            | 30 - 133      |        | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:45 | EGO             | L                     |
| <b>PESTICIDES</b>           |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/L         | 0.019         | 0.0048 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |
| alpha-BHC                   | ND             |             | ug/L         | 0.019         | 0.0019 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |
| beta-BHC                    | ND             |             | ug/L         | 0.019         | 0.0077 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |
| delta-BHC                   | ND             |             | ug/L         | 0.019         | 0.0029 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |
| gamma-BHC                   | ND             |             | ug/L         | 0.019         | 0.0029 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |
| alpha-Chlordane             | ND             |             | ug/L         | 0.019         | 0.0029 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |
| gamma-Chlordane             | ND             |             | ug/L         | 0.019         | 0.0029 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |
| 4,4'-DDD                    | ND             |             | ug/L         | 0.019         | 0.0067 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |
| 4,4'-DDE                    | ND             |             | ug/L         | 0.019         | 0.0067 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |
| 4,4'-DDT                    | ND             |             | ug/L         | 0.019         | 0.0058 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |
| Dieldrin                    | ND             |             | ug/L         | 0.019         | 0.0029 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |
| Endosulfan I                | ND             |             | ug/L         | 0.019         | 0.0029 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |
| Endosulfan II               | ND             |             | ug/L         | 0.019         | 0.0058 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |
| Endosulfan Sulfate          | ND             |             | ug/L         | 0.019         | 0.0038 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |
| Endrin                      | ND             |             | ug/L         | 0.019         | 0.0077 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |
| Endrin Aldehyde             | ND             |             | ug/L         | 0.019         | 0.0096 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |



## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906002**  
Sample ID: **CL-GS-SW-01**

Date Collected: 2/10/2017 12:00 Matrix: Ground Water  
Date Received: 2/10/2017 20:25

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL      | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|----------|---------------|-------------------|---------------|-----------------|-----------------------|
| Endrin Ketone                 | ND             |             | ug/L         | 0.019         | 0.0038   | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |
| Heptachlor                    | ND             |             | ug/L         | 0.019         | 0.0029   | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |
| Heptachlor Epoxide            | ND             |             | ug/L         | 0.019         | 0.0038   | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |
| Methoxychlor                  | ND             |             | ug/L         | 0.019         | 0.0087   | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |
| Toxaphene                     | ND             |             | ug/L         | 0.96          | 0.18     | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |          | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)       | 52.5           |             | %            | 30 - 140      |          | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |
| Tetrachloro-m-xylene (S)      | 36.9           |             | %            | 30 - 123      |          | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 04:47 | RWS             | J                     |
| <b>PETROLEUM HC's</b>         |                |             |              |               |          |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 0.080          |             | mg/L         | 0.040         | 0.014    | SW846 8015D   | 2/17/17 12:30 ACD | 2/21/17 17:02 | BS              | E                     |
| Gasoline Range Organics       | 22.0J          | J           | ug/L         | 100           | 13.9     | SW846 8015D   |                   | 2/14/17 14:32 | DD              | B                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |          | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 127            |             | %            | 90 - 129      |          | SW846 8015D   |                   | 2/14/17 14:32 | DD              | B                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |          | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 60.4           |             | %            | 26 - 139      |          | SW846 8015D   | 2/17/17 12:30 ACD | 2/21/17 17:02 | BS              | E                     |
| <b>METALS</b>                 |                |             |              |               |          |               |                   |               |                 |                       |
| Antimony, Total               | ND             |             | mg/L         | 0.0022        | 0.00074  | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:52 | ZMC             | N1                    |
| Arsenic, Total                | ND             |             | mg/L         | 0.0030        | 0.0010   | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:52 | ZMC             | N1                    |
| Beryllium, Total              | ND             |             | mg/L         | 0.0010        | 0.00030  | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:52 | ZMC             | N1                    |
| Cadmium, Total                | ND             |             | mg/L         | 0.0011        | 0.00037  | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:52 | ZMC             | N1                    |
| Chromium, Total               | 0.0013J        | J           | mg/L         | 0.0022        | 0.00074  | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:52 | ZMC             | N1                    |
| Copper, Total                 | 0.0027J        | J           | mg/L         | 0.0056        | 0.0019   | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:52 | ZMC             | N1                    |
| Lead, Total                   | 0.0015J        | J           | mg/L         | 0.0022        | 0.00074  | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:52 | ZMC             | N1                    |
| Mercury, Total                | ND             |             | mg/L         | 0.00022       | 0.000077 | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:52 | ZMC             | N1                    |
| Nickel, Total                 | 0.0046J        | J           | mg/L         | 0.0056        | 0.0019   | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:52 | ZMC             | N1                    |
| Selenium, Total               | ND             |             | mg/L         | 0.0056        | 0.0019   | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:52 | ZMC             | N1                    |
| Silver, Total                 | ND             |             | mg/L         | 0.0022        | 0.00074  | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:52 | ZMC             | N1                    |
| Thallium, Total               | ND             |             | mg/L         | 0.0010        | 0.00030  | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:52 | ZMC             | N1                    |
| Zinc, Total                   | 0.011          |             | mg/L         | 0.0056        | 0.0019   | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:52 | ZMC             | N1                    |





## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906002**  
Sample ID: **CL-GS-SW-01**

Date Collected: 2/10/2017 12:00 Matrix: Ground Water  
Date Received: 2/10/2017 20:25

| Parameters | Results | Flag | Units | RDL | MDL | Method | Prepared By | Analyzed | By | Cntr |
|------------|---------|------|-------|-----|-----|--------|-------------|----------|----|------|
|------------|---------|------|-------|-----|-----|--------|-------------|----------|----|------|

Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906003**  
Sample ID: **CL-GS-SW-02**

Date Collected: 2/10/2017 10:30 Matrix: Ground Water  
Date Received: 2/10/2017 20:25

| Parameters                     | Results | Flag | Units | RDL   | MDL    | Method      | Prepared By       | Analyzed      | By  | Cntr |
|--------------------------------|---------|------|-------|-------|--------|-------------|-------------------|---------------|-----|------|
| Total Polychlorinated Biphenyl | ND      |      | ug/L  | 0.48  | 0.48   | SW846 8082A | 2/15/17 17:30 ACD | 2/16/17 03:56 | EGO | L    |
| <b>VOLATILE ORGANICS</b>       |         |      |       |       |        |             |                   |               |     |      |
| Acetone                        | ND      |      | ug/L  | 10.0  | 3.1    | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| tert-Amyl methyl ether         | ND      |      | ug/L  | 1.0   | 0.20   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| tert-Amyl Alcohol              | ND      |      | ug/L  | 10.0  | 6.6    | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| tert-Amyl Ethylether           | ND      |      | ug/L  | 1.0   | 0.29   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| Benzene                        | ND      |      | ug/L  | 1.0   | 0.23   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| Bromochloromethane             | ND      |      | ug/L  | 1.0   | 0.32   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| Bromodichloromethane           | ND      |      | ug/L  | 1.0   | 0.27   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| Bromoform                      | ND      |      | ug/L  | 1.0   | 0.40   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| Bromomethane                   | ND      |      | ug/L  | 1.0   | 0.39   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| 2-Butanone                     | ND      |      | ug/L  | 10.0  | 1.8    | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| tert-Butyl Alcohol             | ND      |      | ug/L  | 10.0  | 2.2    | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| Carbon Disulfide               | ND      |      | ug/L  | 1.0   | 0.23   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| Carbon Tetrachloride           | ND      |      | ug/L  | 1.0   | 0.31   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| Chlorobenzene                  | ND      |      | ug/L  | 1.0   | 0.19   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| Chlorodibromomethane           | ND      |      | ug/L  | 1.0   | 0.45   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| Chloroethane                   | ND      |      | ug/L  | 1.0   | 0.33   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| Chloroform                     | ND      |      | ug/L  | 1.0   | 0.21   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| Chloromethane                  | ND      |      | ug/L  | 1.0   | 0.31   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| 1,2-Dibromo-3-chloropropane    | ND      |      | ug/L  | 0.020 | 0.0048 | SW846 8011  | 2/16/17 07:00 BS  | 2/16/17 13:50 | EGO | O    |
| 1,2-Dibromoethane              | ND      |      | ug/L  | 0.020 | 0.0097 | SW846 8011  | 2/16/17 07:00 BS  | 2/16/17 13:50 | EGO | O    |
| 1,1-Dichloroethane             | ND      |      | ug/L  | 1.0   | 0.28   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| 1,2-Dichloroethane             | ND      |      | ug/L  | 1.0   | 0.32   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| 1,1-Dichloroethene             | ND      |      | ug/L  | 1.0   | 0.29   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| cis-1,2-Dichloroethene         | ND      |      | ug/L  | 1.0   | 0.32   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| trans-1,2-Dichloroethene       | ND      |      | ug/L  | 1.0   | 0.26   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| 1,2-Dichloropropane            | ND      |      | ug/L  | 1.0   | 0.24   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| cis-1,3-Dichloropropene        | ND      |      | ug/L  | 1.0   | 0.31   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| trans-1,3-Dichloropropene      | ND      |      | ug/L  | 1.0   | 0.29   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| Diisopropyl ether              | ND      |      | ug/L  | 1.0   | 0.25   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| Ethyl tert-butyl ether         | ND      |      | ug/L  | 1.0   | 0.19   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| Ethylbenzene                   | ND      |      | ug/L  | 1.0   | 0.34   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| 2-Hexanone                     | ND      |      | ug/L  | 5.0   | 1.3    | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |
| Methyl t-Butyl Ether           | ND      |      | ug/L  | 1.0   | 0.33   | SW846 8260B |                   | 2/14/17 21:21 | TMP | A    |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906003**  
Sample ID: **CL-GS-SW-02**

Date Collected: 2/10/2017 10:30 Matrix: Ground Water  
Date Received: 2/10/2017 20:25

| Parameters                   | Results | Flag | Units | RDL      | MDL  | Method      | Prepared By   | Analyzed      | By            | Cntr    |
|------------------------------|---------|------|-------|----------|------|-------------|---------------|---------------|---------------|---------|
| 4-Methyl-2-Pentanone(MIBK)   | ND      |      | ug/L  | 5.0      | 1.5  | SW846 8260B |               | 2/14/17 21:21 | TMP           | A       |
| Methylene Chloride           | ND      |      | ug/L  | 1.0      | 0.45 | SW846 8260B |               | 2/14/17 21:21 | TMP           | A       |
| Styrene                      | ND      |      | ug/L  | 1.0      | 0.24 | SW846 8260B |               | 2/14/17 21:21 | TMP           | A       |
| 1,1,2,2-Tetrachloroethane    | ND      |      | ug/L  | 1.0      | 0.34 | SW846 8260B |               | 2/14/17 21:21 | TMP           | A       |
| Tetrachloroethene            | ND      |      | ug/L  | 1.0      | 0.35 | SW846 8260B |               | 2/14/17 21:21 | TMP           | A       |
| Toluene                      | ND      |      | ug/L  | 1.0      | 0.23 | SW846 8260B |               | 2/14/17 21:21 | TMP           | A       |
| Total Xylenes                | ND      |      | ug/L  | 3.0      | 0.66 | SW846 8260B |               | 2/14/17 21:21 | TMP           | A       |
| 1,1,1-Trichloroethane        | ND      |      | ug/L  | 1.0      | 0.22 | SW846 8260B |               | 2/14/17 21:21 | TMP           | A       |
| 1,1,2-Trichloroethane        | ND      |      | ug/L  | 1.0      | 0.33 | SW846 8260B |               | 2/14/17 21:21 | TMP           | A       |
| Trichloroethene              | ND      |      | ug/L  | 1.0      | 0.33 | SW846 8260B |               | 2/14/17 21:21 | TMP           | A       |
| Vinyl Chloride               | ND      |      | ug/L  | 1.0      | 0.30 | SW846 8260B |               | 2/14/17 21:21 | TMP           | A       |
| o-Xylene                     | ND      |      | ug/L  | 1.0      | 0.33 | SW846 8260B |               | 2/14/17 21:21 | TMP           | A       |
| mp-Xylene                    | ND      |      | ug/L  | 2.0      | 0.52 | SW846 8260B |               | 2/14/17 21:21 | TMP           | A       |
| Surrogate Recoveries         | Results | Flag | Units | Limits   |      | Method      | Prepared      | By            | Analyzed      | By Cntr |
| 1-Chloro-2-Fluorobenzene (S) | 87.7    |      | %     | 70 - 130 |      | SW846 8011  | 2/16/17 07:00 | BS            | 2/16/17 13:50 | EGO O   |
| Surrogate Recoveries         | Results | Flag | Units | Limits   |      | Method      | Prepared      | By            | Analyzed      | By Cntr |
| 1,2-Dichloroethane-d4 (S)    | 106     |      | %     | 62 - 133 |      | SW846 8260B |               |               | 2/14/17 21:21 | TMP A   |
| 4-Bromofluorobenzene (S)     | 105     |      | %     | 79 - 114 |      | SW846 8260B |               |               | 2/14/17 21:21 | TMP A   |
| Dibromofluoromethane (S)     | 103     |      | %     | 78 - 116 |      | SW846 8260B |               |               | 2/14/17 21:21 | TMP A   |
| Toluene-d8 (S)               | 101     |      | %     | 76 - 127 |      | SW846 8260B |               |               | 2/14/17 21:21 | TMP A   |
| SEMIVOLATILES                |         |      |       |          |      |             |               |               |               |         |
| Acenaphthene                 | ND      |      | ug/L  | 1.5      | 0.15 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 00:57 | DHF H   |
| Acenaphthylene               | ND      |      | ug/L  | 1.5      | 0.19 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 00:57 | DHF H   |
| Acetophenone                 | ND      |      | ug/L  | 3.0      | 0.24 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 00:57 | DHF H   |
| Anthracene                   | ND      |      | ug/L  | 1.5      | 0.15 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 00:57 | DHF H   |
| Atrazine                     | ND      |      | ug/L  | 3.0      | 0.24 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 00:57 | DHF H   |
| Benzaldehyde                 | ND      |      | ug/L  | 3.0      | 0.26 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 00:57 | DHF H   |
| Benzo(a)anthracene           | ND      |      | ug/L  | 1.5      | 0.13 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 00:57 | DHF H   |
| Benzo(a)pyrene               | ND      |      | ug/L  | 1.5      | 0.22 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 00:57 | DHF H   |
| Benzo(b)fluoranthene         | ND      |      | ug/L  | 1.5      | 0.11 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 00:57 | DHF H   |
| Benzo(g,h,i)perylene         | ND      |      | ug/L  | 1.5      | 0.22 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 00:57 | DHF H   |
| Benzo(k)fluoranthene         | ND      |      | ug/L  | 1.5      | 0.19 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 00:57 | DHF H   |
| Biphenyl                     | ND      |      | ug/L  | 3.0      | 0.17 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 00:57 | DHF H   |
| 4-Bromophenyl-phenylether    | ND      |      | ug/L  | 3.0      | 0.17 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 00:57 | DHF H   |
| Butylbenzylphthalate         | ND      |      | ug/L  | 3.0      | 0.11 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 00:57 | DHF H   |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906003**  
Sample ID: **CL-GS-SW-02**

Date Collected: 2/10/2017 10:30 Matrix: Ground Water  
Date Received: 2/10/2017 20:25

| Parameters                  | Results | Flag | Units | RDL | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|-----|------|-------------|-------------------|---------------|-----|------|
| Caprolactam                 | ND      |      | ug/L  | 3.0 | 0.28 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| Carbazole                   | ND      |      | ug/L  | 3.0 | 0.12 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/L  | 3.0 | 0.19 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| 4-Chloroaniline             | ND      |      | ug/L  | 3.0 | 0.21 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/L  | 3.0 | 0.21 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/L  | 3.0 | 0.17 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/L  | 3.0 | 0.28 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| 2-Chloronaphthalene         | ND      |      | ug/L  | 3.0 | 0.18 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| 2-Chlorophenol              | ND      |      | ug/L  | 3.0 | 0.33 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/L  | 3.0 | 0.14 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| Chrysene                    | ND      |      | ug/L  | 1.5 | 0.12 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| mp-Cresol                   | ND      |      | ug/L  | 3.0 | 0.15 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| o-Cresol                    | ND      |      | ug/L  | 3.0 | 0.25 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| Di-n-Butylphthalate         | ND      |      | ug/L  | 3.0 | 0.14 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| Di-n-Octylphthalate         | ND      |      | ug/L  | 3.0 | 0.10 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/L  | 1.5 | 0.21 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| Dibenzofuran                | ND      |      | ug/L  | 3.0 | 0.11 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/L  | 3.0 | 0.48 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| 2,4-Dichlorophenol          | ND      |      | ug/L  | 3.0 | 0.32 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| Diethylphthalate            | ND      |      | ug/L  | 3.0 | 0.18 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| 2,4-Dimethylphenol          | ND      |      | ug/L  | 3.0 | 0.21 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| Dimethylphthalate           | ND      |      | ug/L  | 3.0 | 0.14 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| 2,4-Dinitrophenol           | ND      |      | ug/L  | 6.1 | 1.8  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| 2,4-Dinitrotoluene          | ND      |      | ug/L  | 3.0 | 0.12 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| 2,6-Dinitrotoluene          | ND      |      | ug/L  | 3.0 | 0.21 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| 1,4-Dioxane                 | ND      |      | ug/L  | 3.0 | 0.70 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| bis(2-Ethylhexyl)phthalate  | 0.36J   | J    | ug/L  | 3.0 | 0.22 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| Fluoranthene                | ND      |      | ug/L  | 1.5 | 0.17 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| Fluorene                    | ND      |      | ug/L  | 1.5 | 0.20 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| Hexachlorobenzene           | ND      |      | ug/L  | 3.0 | 0.23 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| Hexachlorobutadiene         | ND      |      | ug/L  | 3.0 | 0.19 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| Hexachlorocyclopentadiene   | ND      |      | ug/L  | 3.0 | 0.17 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| Hexachloroethane            | ND      |      | ug/L  | 3.0 | 0.30 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/L  | 1.5 | 0.10 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| Isophorone                  | ND      |      | ug/L  | 3.0 | 0.15 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| 2-Methyl-4,6-dinitrophenol  | ND      |      | ug/L  | 6.1 | 0.33 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| 2-Methylnaphthalene         | ND      |      | ug/L  | 1.5 | 0.16 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |
| Naphthalene                 | ND      |      | ug/L  | 1.5 | 0.12 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF | H    |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906003**  
Sample ID: **CL-GS-SW-02**

Date Collected: 2/10/2017 10:30 Matrix: Ground Water  
Date Received: 2/10/2017 20:25

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| 2-Nitroaniline              | ND             |             | ug/L         | 3.0           | 0.20  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF             | H                     |
| 3-Nitroaniline              | ND             |             | ug/L         | 3.0           | 0.18  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF             | H                     |
| 4-Nitroaniline              | ND             |             | ug/L         | 3.0           | 0.41  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF             | H                     |
| Nitrobenzene                | ND             |             | ug/L         | 3.0           | 0.28  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF             | H                     |
| 2-Nitrophenol               | ND             |             | ug/L         | 3.0           | 0.45  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF             | H                     |
| 4-Nitrophenol               | ND             |             | ug/L         | 3.0           | 1.1   | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF             | H                     |
| N-Nitroso-di-n-propylamine  | ND             |             | ug/L         | 3.0           | 0.24  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF             | H                     |
| N-Nitrosodiphenylamine      | ND             |             | ug/L         | 3.0           | 0.18  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF             | H                     |
| Pentachlorophenol           | ND             |             | ug/L         | 6.1           | 1.1   | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF             | H                     |
| Phenanthrene                | ND             |             | ug/L         | 1.5           | 0.13  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF             | H                     |
| Phenol                      | ND             |             | ug/L         | 8.1           | 0.23  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF             | H                     |
| Pyrene                      | ND             |             | ug/L         | 1.5           | 0.16  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF             | H                     |
| 1,2,4,5-Tetrachlorobenzene  | ND             |             | ug/L         | 3.0           | 0.19  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF             | H                     |
| 2,3,4,6-Tetrachlorophenol   | ND             |             | ug/L         | 3.0           | 0.48  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF             | H                     |
| 2,4,5-Trichlorophenol       | ND             |             | ug/L         | 3.0           | 0.56  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF             | H                     |
| 2,4,6-Trichlorophenol       | ND             |             | ug/L         | 3.0           | 0.58  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF             | H                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)    | 70.7           |             | %            | 47 - 128      |       | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF             | H                     |
| 2-Fluorobiphenyl (S)        | 70.5           |             | %            | 52 - 118      |       | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF             | H                     |
| 2-Fluorophenol (S)          | 41.2           |             | %            | 20 - 87       |       | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF             | H                     |
| Nitrobenzene-d5 (S)         | 66.1           |             | %            | 27 - 139      |       | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF             | H                     |
| Phenol-d5 (S)               | 31.3           |             | %            | 10 - 81       |       | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF             | H                     |
| Terphenyl-d14 (S)           | 85.7           |             | %            | 46 - 133      |       | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 00:57 | DHF             | H                     |
| <b>SEMIVOLATILE SIM</b>     |                |             |              |               |       |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/L         | 0.10          | 0.011 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:20 | CGS             | H                     |
| Acenaphthylene              | ND             |             | ug/L         | 0.10          | 0.011 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:20 | CGS             | H                     |
| Anthracene                  | ND             |             | ug/L         | 0.10          | 0.017 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:20 | CGS             | H                     |
| Benzo(a)anthracene          | ND             |             | ug/L         | 0.10          | 0.017 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:20 | CGS             | H                     |
| Benzo(a)pyrene              | ND             |             | ug/L         | 0.10          | 0.020 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:20 | CGS             | H                     |
| Benzo(b)fluoranthene        | ND             |             | ug/L         | 0.10          | 0.020 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:20 | CGS             | H                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/L         | 0.10          | 0.038 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:20 | CGS             | H                     |
| Benzo(k)fluoranthene        | ND             |             | ug/L         | 0.10          | 0.025 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:20 | CGS             | H                     |
| Chrysene                    | ND             |             | ug/L         | 0.10          | 0.017 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:20 | CGS             | H                     |
| Dibenzo(a,h)anthracene      | ND             |             | ug/L         | 0.071         | 0.023 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:20 | CGS             | H                     |
| Fluoranthene                | 0.023J         | J           | ug/L         | 0.10          | 0.018 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:20 | CGS             | H                     |
| Fluorene                    | ND             |             | ug/L         | 0.10          | 0.015 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:20 | CGS             | H                     |
| Indeno(1,2,3-cd)pyrene      | ND             |             | ug/L         | 0.10          | 0.041 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:20 | CGS             | H                     |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906003**  
Sample ID: **CL-GS-SW-02**

Date Collected: 2/10/2017 10:30 Matrix: Ground Water  
Date Received: 2/10/2017 20:25

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Naphthalene                 | 0.040J         | J           | ug/L         | 0.10          | 0.037  | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:20 | CGS             | H                     |
| Phenanthrene                | ND             |             | ug/L         | 0.10          | 0.020  | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:20 | CGS             | H                     |
| Pyrene                      | 0.020J         | J           | ug/L         | 0.10          | 0.015  | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:20 | CGS             | H                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2-Methylnaphthalene-d10 (S) | 66.2           |             | %            | 29 - 112      |        | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:20 | CGS             | H                     |
| Fluoranthene-d10 (S)        | 80.5           |             | %            | 45 - 130      |        | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:20 | CGS             | H                     |
| <b>PCBs</b>                 |                |             |              |               |        |               |                   |               |                 |                       |
| Aroclor-1016                | ND             |             | ug/L         | 0.48          | 0.058  | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:56 | EGO             | L                     |
| Aroclor-1221                | ND             |             | ug/L         | 0.48          | 0.068  | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:56 | EGO             | L                     |
| Aroclor-1232                | ND             |             | ug/L         | 0.48          | 0.18   | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:56 | EGO             | L                     |
| Aroclor-1242                | ND             |             | ug/L         | 0.48          | 0.23   | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:56 | EGO             | L                     |
| Aroclor-1248                | ND             |             | ug/L         | 0.48          | 0.14   | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:56 | EGO             | L                     |
| Aroclor-1254                | ND             |             | ug/L         | 0.48          | 0.097  | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:56 | EGO             | L                     |
| Aroclor-1260                | ND             |             | ug/L         | 0.48          | 0.068  | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:56 | EGO             | L                     |
| Aroclor-1262                | ND             |             | ug/L         | 0.48          | 0.097  | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:56 | EGO             | L                     |
| Aroclor-1268                | ND             |             | ug/L         | 0.48          | 0.16   | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:56 | EGO             | L                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 84             |             | %            | 30 - 140      |        | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:56 | EGO             | L                     |
| Tetrachloro-m-xylene (S)    | 74.7           |             | %            | 30 - 133      |        | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:56 | EGO             | L                     |
| <b>PESTICIDES</b>           |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/L         | 0.019         | 0.0048 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |
| alpha-BHC                   | ND             |             | ug/L         | 0.019         | 0.0019 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |
| beta-BHC                    | ND             |             | ug/L         | 0.019         | 0.0077 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |
| delta-BHC                   | ND             |             | ug/L         | 0.019         | 0.0029 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |
| gamma-BHC                   | ND             |             | ug/L         | 0.019         | 0.0029 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |
| alpha-Chlordane             | ND             |             | ug/L         | 0.019         | 0.0029 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |
| gamma-Chlordane             | ND             |             | ug/L         | 0.019         | 0.0029 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |
| 4,4'-DDD                    | ND             |             | ug/L         | 0.019         | 0.0068 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |
| 4,4'-DDE                    | ND             |             | ug/L         | 0.019         | 0.0068 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |
| 4,4'-DDT                    | ND             |             | ug/L         | 0.019         | 0.0058 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |
| Dieldrin                    | ND             |             | ug/L         | 0.019         | 0.0029 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |
| Endosulfan I                | ND             |             | ug/L         | 0.019         | 0.0029 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |
| Endosulfan II               | ND             |             | ug/L         | 0.019         | 0.0058 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |
| Endosulfan Sulfate          | ND             |             | ug/L         | 0.019         | 0.0039 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |
| Endrin                      | ND             |             | ug/L         | 0.019         | 0.0077 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |
| Endrin Aldehyde             | ND             |             | ug/L         | 0.019         | 0.0097 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |



## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906003**  
Sample ID: **CL-GS-SW-02**

Date Collected: 2/10/2017 10:30 Matrix: Ground Water  
Date Received: 2/10/2017 20:25

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL      | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|----------|---------------|-------------------|---------------|-----------------|-----------------------|
| Endrin Ketone                 | ND             |             | ug/L         | 0.019         | 0.0039   | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |
| Heptachlor                    | ND             |             | ug/L         | 0.019         | 0.0029   | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |
| Heptachlor Epoxide            | ND             |             | ug/L         | 0.019         | 0.0039   | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |
| Methoxychlor                  | ND             |             | ug/L         | 0.019         | 0.0087   | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |
| Toxaphene                     | ND             |             | ug/L         | 0.97          | 0.18     | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |          | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)       | 54.1           |             | %            | 30 - 140      |          | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |
| Tetrachloro-m-xylene (S)      | 56             |             | %            | 30 - 123      |          | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 07:02 | RWS             | J                     |
| <b>PETROLEUM HC's</b>         |                |             |              |               |          |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 0.080          |             | mg/L         | 0.040         | 0.014    | SW846 8015D   | 2/17/17 12:30 ACD | 2/21/17 17:40 | BS              | E                     |
| Gasoline Range Organics       | ND             |             | ug/L         | 100           | 13.9     | SW846 8015D   |                   | 2/14/17 15:08 | DD              | B                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |          | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 127            |             | %            | 90 - 129      |          | SW846 8015D   |                   | 2/14/17 15:08 | DD              | B                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |          | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 46.6           |             | %            | 26 - 139      |          | SW846 8015D   | 2/17/17 12:30 ACD | 2/21/17 17:40 | BS              | E                     |
| <b>METALS</b>                 |                |             |              |               |          |               |                   |               |                 |                       |
| Antimony, Total               | ND             |             | mg/L         | 0.0022        | 0.00074  | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:56 | ZMC             | N1                    |
| Arsenic, Total                | ND             |             | mg/L         | 0.0030        | 0.0010   | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:56 | ZMC             | N1                    |
| Beryllium, Total              | 0.00030J       | J           | mg/L         | 0.0010        | 0.00030  | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:56 | ZMC             | N1                    |
| Cadmium, Total                | 0.00051J       | J           | mg/L         | 0.0011        | 0.00037  | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:56 | ZMC             | N1                    |
| Chromium, Total               | 0.0042         |             | mg/L         | 0.0022        | 0.00074  | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:56 | ZMC             | N1                    |
| Copper, Total                 | 0.0090         |             | mg/L         | 0.0056        | 0.0019   | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:56 | ZMC             | N1                    |
| Lead, Total                   | 0.017          |             | mg/L         | 0.0022        | 0.00074  | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:56 | ZMC             | N1                    |
| Mercury, Total                | 0.00010J       | J           | mg/L         | 0.00022       | 0.000077 | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:56 | ZMC             | N1                    |
| Nickel, Total                 | 0.0058         |             | mg/L         | 0.0056        | 0.0019   | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:56 | ZMC             | N1                    |
| Selenium, Total               | ND             |             | mg/L         | 0.0056        | 0.0019   | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:56 | ZMC             | N1                    |
| Silver, Total                 | ND             |             | mg/L         | 0.0022        | 0.00074  | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:56 | ZMC             | N1                    |
| Thallium, Total               | ND             |             | mg/L         | 0.0010        | 0.00030  | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:56 | ZMC             | N1                    |
| Zinc, Total                   | 0.080          |             | mg/L         | 0.0056        | 0.0019   | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 00:56 | ZMC             | N1                    |





## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906003**  
Sample ID: **CL-GS-SW-02**

Date Collected: 2/10/2017 10:30 Matrix: Ground Water  
Date Received: 2/10/2017 20:25

| Parameters | Results | Flag | Units | RDL | MDL | Method | Prepared By | Analyzed | By | Cntr |
|------------|---------|------|-------|-----|-----|--------|-------------|----------|----|------|
|------------|---------|------|-------|-----|-----|--------|-------------|----------|----|------|

Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906004**

Date Collected: 2/10/2017 00:00

Matrix: Ground Water

Sample ID: **DUP-01**

Date Received: 2/10/2017 20:25

| Parameters                     | Results | Flag | Units | RDL   | MDL    | Method      | Prepared By       | Analyzed      | By  | Cntr |
|--------------------------------|---------|------|-------|-------|--------|-------------|-------------------|---------------|-----|------|
| Total Polychlorinated Biphenyl | ND      |      | ug/L  | 0.47  | 0.47   | SW846 8082A | 2/15/17 17:30 ACD | 2/16/17 03:33 | EGO | L    |
| <b>VOLATILE ORGANICS</b>       |         |      |       |       |        |             |                   |               |     |      |
| Acetone                        | ND      |      | ug/L  | 10.0  | 3.1    | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| tert-Amyl methyl ether         | ND      |      | ug/L  | 1.0   | 0.20   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| tert-Amyl Alcohol              | ND      |      | ug/L  | 10.0  | 6.6    | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| tert-Amyl Ethylether           | ND      |      | ug/L  | 1.0   | 0.29   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| Benzene                        | ND      |      | ug/L  | 1.0   | 0.23   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| Bromochloromethane             | ND      |      | ug/L  | 1.0   | 0.32   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| Bromodichloromethane           | ND      |      | ug/L  | 1.0   | 0.27   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| Bromoform                      | ND      |      | ug/L  | 1.0   | 0.40   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| Bromomethane                   | ND      |      | ug/L  | 1.0   | 0.39   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| 2-Butanone                     | ND      |      | ug/L  | 10.0  | 1.8    | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| tert-Butyl Alcohol             | ND      |      | ug/L  | 10.0  | 2.2    | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| Carbon Disulfide               | ND      |      | ug/L  | 1.0   | 0.23   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| Carbon Tetrachloride           | ND      |      | ug/L  | 1.0   | 0.31   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| Chlorobenzene                  | ND      |      | ug/L  | 1.0   | 0.19   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| Chlorodibromomethane           | ND      |      | ug/L  | 1.0   | 0.45   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| Chloroethane                   | ND      |      | ug/L  | 1.0   | 0.33   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| Chloroform                     | ND      |      | ug/L  | 1.0   | 0.21   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| Chloromethane                  | ND      |      | ug/L  | 1.0   | 0.31   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| 1,2-Dibromo-3-chloropropane    | ND      |      | ug/L  | 0.020 | 0.0048 | SW846 8011  | 2/16/17 07:00 BS  | 2/16/17 14:17 | EGO | O    |
| 1,2-Dibromoethane              | ND      |      | ug/L  | 0.020 | 0.0097 | SW846 8011  | 2/16/17 07:00 BS  | 2/16/17 14:17 | EGO | O    |
| 1,1-Dichloroethane             | ND      |      | ug/L  | 1.0   | 0.28   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| 1,2-Dichloroethane             | ND      |      | ug/L  | 1.0   | 0.32   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| 1,1-Dichloroethene             | ND      |      | ug/L  | 1.0   | 0.29   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| cis-1,2-Dichloroethene         | ND      |      | ug/L  | 1.0   | 0.32   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| trans-1,2-Dichloroethene       | ND      |      | ug/L  | 1.0   | 0.26   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| 1,2-Dichloropropane            | ND      |      | ug/L  | 1.0   | 0.24   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| cis-1,3-Dichloropropene        | ND      |      | ug/L  | 1.0   | 0.31   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| trans-1,3-Dichloropropene      | ND      |      | ug/L  | 1.0   | 0.29   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| Diisopropyl ether              | ND      |      | ug/L  | 1.0   | 0.25   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| Ethyl tert-butyl ether         | ND      |      | ug/L  | 1.0   | 0.19   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| Ethylbenzene                   | ND      |      | ug/L  | 1.0   | 0.34   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| 2-Hexanone                     | ND      |      | ug/L  | 5.0   | 1.3    | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |
| Methyl t-Butyl Ether           | ND      |      | ug/L  | 1.0   | 0.33   | SW846 8260B |                   | 2/14/17 21:40 | TMP | A    |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906004**

Date Collected: 2/10/2017 00:00

Matrix: Ground Water

Sample ID: **DUP-01**

Date Received: 2/10/2017 20:25

| Parameters                   | Results | Flag | Units | RDL      | MDL  | Method      | Prepared By   | Analyzed      | By            | Cntr    |
|------------------------------|---------|------|-------|----------|------|-------------|---------------|---------------|---------------|---------|
| 4-Methyl-2-Pentanone(MIBK)   | ND      |      | ug/L  | 5.0      | 1.5  | SW846 8260B |               | 2/14/17 21:40 | TMP           | A       |
| Methylene Chloride           | ND      |      | ug/L  | 1.0      | 0.45 | SW846 8260B |               | 2/14/17 21:40 | TMP           | A       |
| Styrene                      | ND      |      | ug/L  | 1.0      | 0.24 | SW846 8260B |               | 2/14/17 21:40 | TMP           | A       |
| 1,1,2,2-Tetrachloroethane    | ND      |      | ug/L  | 1.0      | 0.34 | SW846 8260B |               | 2/14/17 21:40 | TMP           | A       |
| Tetrachloroethene            | ND      |      | ug/L  | 1.0      | 0.35 | SW846 8260B |               | 2/14/17 21:40 | TMP           | A       |
| Toluene                      | ND      |      | ug/L  | 1.0      | 0.23 | SW846 8260B |               | 2/14/17 21:40 | TMP           | A       |
| Total Xylenes                | ND      |      | ug/L  | 3.0      | 0.66 | SW846 8260B |               | 2/14/17 21:40 | TMP           | A       |
| 1,1,1-Trichloroethane        | ND      |      | ug/L  | 1.0      | 0.22 | SW846 8260B |               | 2/14/17 21:40 | TMP           | A       |
| 1,1,2-Trichloroethane        | ND      |      | ug/L  | 1.0      | 0.33 | SW846 8260B |               | 2/14/17 21:40 | TMP           | A       |
| Trichloroethene              | ND      |      | ug/L  | 1.0      | 0.33 | SW846 8260B |               | 2/14/17 21:40 | TMP           | A       |
| Vinyl Chloride               | ND      |      | ug/L  | 1.0      | 0.30 | SW846 8260B |               | 2/14/17 21:40 | TMP           | A       |
| o-Xylene                     | ND      |      | ug/L  | 1.0      | 0.33 | SW846 8260B |               | 2/14/17 21:40 | TMP           | A       |
| mp-Xylene                    | ND      |      | ug/L  | 2.0      | 0.52 | SW846 8260B |               | 2/14/17 21:40 | TMP           | A       |
| Surrogate Recoveries         | Results | Flag | Units | Limits   |      | Method      | Prepared      | By            | Analyzed      | By Cntr |
| 1-Chloro-2-Fluorobenzene (S) | 90.5    |      | %     | 70 - 130 |      | SW846 8011  | 2/16/17 07:00 | BS            | 2/16/17 14:17 | EGO O   |
| Surrogate Recoveries         | Results | Flag | Units | Limits   |      | Method      | Prepared      | By            | Analyzed      | By Cntr |
| 1,2-Dichloroethane-d4 (S)    | 103     |      | %     | 62 - 133 |      | SW846 8260B |               |               | 2/14/17 21:40 | TMP A   |
| 4-Bromofluorobenzene (S)     | 101     |      | %     | 79 - 114 |      | SW846 8260B |               |               | 2/14/17 21:40 | TMP A   |
| Dibromofluoromethane (S)     | 100     |      | %     | 78 - 116 |      | SW846 8260B |               |               | 2/14/17 21:40 | TMP A   |
| Toluene-d8 (S)               | 101     |      | %     | 76 - 127 |      | SW846 8260B |               |               | 2/14/17 21:40 | TMP A   |
| SEMIVOLATILES                |         |      |       |          |      |             |               |               |               |         |
| Acenaphthene                 | ND      |      | ug/L  | 1.5      | 0.15 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 01:22 | DHF H   |
| Acenaphthylene               | ND      |      | ug/L  | 1.5      | 0.19 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 01:22 | DHF H   |
| Acetophenone                 | ND      |      | ug/L  | 2.9      | 0.24 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 01:22 | DHF H   |
| Anthracene                   | ND      |      | ug/L  | 1.5      | 0.15 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 01:22 | DHF H   |
| Atrazine                     | ND      |      | ug/L  | 2.9      | 0.24 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 01:22 | DHF H   |
| Benzaldehyde                 | ND      |      | ug/L  | 2.9      | 0.25 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 01:22 | DHF H   |
| Benzo(a)anthracene           | ND      |      | ug/L  | 1.5      | 0.13 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 01:22 | DHF H   |
| Benzo(a)pyrene               | ND      |      | ug/L  | 1.5      | 0.22 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 01:22 | DHF H   |
| Benzo(b)fluoranthene         | ND      |      | ug/L  | 1.5      | 0.11 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 01:22 | DHF H   |
| Benzo(g,h,i)perylene         | ND      |      | ug/L  | 1.5      | 0.22 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 01:22 | DHF H   |
| Benzo(k)fluoranthene         | ND      |      | ug/L  | 1.5      | 0.19 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 01:22 | DHF H   |
| Biphenyl                     | ND      |      | ug/L  | 2.9      | 0.17 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 01:22 | DHF H   |
| 4-Bromophenyl-phenylether    | ND      |      | ug/L  | 2.9      | 0.17 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 01:22 | DHF H   |
| Butylbenzylphthalate         | ND      |      | ug/L  | 2.9      | 0.11 | SW846 8270D | 2/14/17 12:45 | JTH           | 2/15/17 01:22 | DHF H   |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906004**

Date Collected: 2/10/2017 00:00

Matrix: Ground Water

Sample ID: **DUP-01**

Date Received: 2/10/2017 20:25

| Parameters                  | Results | Flag | Units | RDL | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|-----|-------|-------------|-------------------|---------------|-----|------|
| Caprolactam                 | ND      |      | ug/L  | 2.9 | 0.27  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| Carbazole                   | ND      |      | ug/L  | 2.9 | 0.12  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/L  | 2.9 | 0.19  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| 4-Chloroaniline             | ND      |      | ug/L  | 2.9 | 0.21  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/L  | 2.9 | 0.21  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/L  | 2.9 | 0.17  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/L  | 2.9 | 0.27  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| 2-Chloronaphthalene         | ND      |      | ug/L  | 2.9 | 0.18  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| 2-Chlorophenol              | ND      |      | ug/L  | 2.9 | 0.32  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/L  | 2.9 | 0.14  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| Chrysene                    | ND      |      | ug/L  | 1.5 | 0.12  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| mp-Cresol                   | ND      |      | ug/L  | 2.9 | 0.15  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| o-Cresol                    | ND      |      | ug/L  | 2.9 | 0.25  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| Di-n-Butylphthalate         | ND      |      | ug/L  | 2.9 | 0.14  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| Di-n-Octylphthalate         | ND      |      | ug/L  | 2.9 | 0.098 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/L  | 1.5 | 0.21  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| Dibenzofuran                | ND      |      | ug/L  | 2.9 | 0.11  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/L  | 2.9 | 0.47  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| 2,4-Dichlorophenol          | ND      |      | ug/L  | 2.9 | 0.31  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| Diethylphthalate            | ND      |      | ug/L  | 2.9 | 0.18  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| 2,4-Dimethylphenol          | ND      |      | ug/L  | 2.9 | 0.21  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| Dimethylphthalate           | ND      |      | ug/L  | 2.9 | 0.14  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| 2,4-Dinitrophenol           | ND      |      | ug/L  | 5.9 | 1.8   | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| 2,4-Dinitrotoluene          | ND      |      | ug/L  | 2.9 | 0.12  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| 2,6-Dinitrotoluene          | ND      |      | ug/L  | 2.9 | 0.21  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| 1,4-Dioxane                 | ND      |      | ug/L  | 2.9 | 0.68  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/L  | 2.9 | 0.22  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| Fluoranthene                | ND      |      | ug/L  | 1.5 | 0.17  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| Fluorene                    | ND      |      | ug/L  | 1.5 | 0.20  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| Hexachlorobenzene           | ND      |      | ug/L  | 2.9 | 0.23  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| Hexachlorobutadiene         | ND      |      | ug/L  | 2.9 | 0.19  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| Hexachlorocyclopentadiene   | ND      |      | ug/L  | 2.9 | 0.17  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| Hexachloroethane            | ND      |      | ug/L  | 2.9 | 0.29  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/L  | 1.5 | 0.098 | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| Isophorone                  | ND      |      | ug/L  | 2.9 | 0.15  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| 2-Methyl-4,6-dinitrophenol  | ND      |      | ug/L  | 5.9 | 0.32  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| 2-Methylnaphthalene         | ND      |      | ug/L  | 1.5 | 0.16  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |
| Naphthalene                 | ND      |      | ug/L  | 1.5 | 0.12  | SW846 8270D | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF | H    |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906004**

Date Collected: 2/10/2017 00:00

Matrix: Ground Water

Sample ID: **DUP-01**

Date Received: 2/10/2017 20:25

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| 2-Nitroaniline              | ND             |             | ug/L         | 2.9           | 0.20  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF             | H                     |
| 3-Nitroaniline              | ND             |             | ug/L         | 2.9           | 0.18  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF             | H                     |
| 4-Nitroaniline              | ND             |             | ug/L         | 2.9           | 0.40  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF             | H                     |
| Nitrobenzene                | ND             |             | ug/L         | 2.9           | 0.27  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF             | H                     |
| 2-Nitrophenol               | ND             |             | ug/L         | 2.9           | 0.44  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF             | H                     |
| 4-Nitrophenol               | ND             |             | ug/L         | 2.9           | 1.0   | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF             | H                     |
| N-Nitroso-di-n-propylamine  | ND             |             | ug/L         | 2.9           | 0.24  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF             | H                     |
| N-Nitrosodiphenylamine      | ND             |             | ug/L         | 2.9           | 0.18  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF             | H                     |
| Pentachlorophenol           | ND             |             | ug/L         | 5.9           | 1.0   | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF             | H                     |
| Phenanthrene                | ND             |             | ug/L         | 1.5           | 0.13  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF             | H                     |
| Phenol                      | ND             |             | ug/L         | 7.8           | 0.23  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF             | H                     |
| Pyrene                      | ND             |             | ug/L         | 1.5           | 0.16  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF             | H                     |
| 1,2,4,5-Tetrachlorobenzene  | ND             |             | ug/L         | 2.9           | 0.19  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF             | H                     |
| 2,3,4,6-Tetrachlorophenol   | ND             |             | ug/L         | 2.9           | 0.47  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF             | H                     |
| 2,4,5-Trichlorophenol       | ND             |             | ug/L         | 2.9           | 0.54  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF             | H                     |
| 2,4,6-Trichlorophenol       | ND             |             | ug/L         | 2.9           | 0.56  | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF             | H                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)    | 69.1           |             | %            | 47 - 128      |       | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF             | H                     |
| 2-Fluorobiphenyl (S)        | 64             |             | %            | 52 - 118      |       | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF             | H                     |
| 2-Fluorophenol (S)          | 42.8           |             | %            | 20 - 87       |       | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF             | H                     |
| Nitrobenzene-d5 (S)         | 62             |             | %            | 27 - 139      |       | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF             | H                     |
| Phenol-d5 (S)               | 30.8           |             | %            | 10 - 81       |       | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF             | H                     |
| Terphenyl-d14 (S)           | 82.8           |             | %            | 46 - 133      |       | SW846 8270D   | 2/14/17 12:45 JTH | 2/15/17 01:22 | DHF             | H                     |
| <b>SEMIVOLATILE SIM</b>     |                |             |              |               |       |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/L         | 0.098         | 0.011 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:47 | CGS             | H                     |
| Acenaphthylene              | ND             |             | ug/L         | 0.098         | 0.011 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:47 | CGS             | H                     |
| Anthracene                  | ND             |             | ug/L         | 0.098         | 0.017 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:47 | CGS             | H                     |
| Benzo(a)anthracene          | ND             |             | ug/L         | 0.098         | 0.017 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:47 | CGS             | H                     |
| Benzo(a)pyrene              | ND             |             | ug/L         | 0.098         | 0.020 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:47 | CGS             | H                     |
| Benzo(b)fluoranthene        | ND             |             | ug/L         | 0.098         | 0.020 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:47 | CGS             | H                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/L         | 0.098         | 0.037 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:47 | CGS             | H                     |
| Benzo(k)fluoranthene        | ND             |             | ug/L         | 0.098         | 0.025 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:47 | CGS             | H                     |
| Chrysene                    | ND             |             | ug/L         | 0.098         | 0.017 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:47 | CGS             | H                     |
| Dibenzo(a,h)anthracene      | ND             |             | ug/L         | 0.069         | 0.023 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:47 | CGS             | H                     |
| Fluoranthene                | ND             |             | ug/L         | 0.098         | 0.018 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:47 | CGS             | H                     |
| Fluorene                    | ND             |             | ug/L         | 0.098         | 0.015 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:47 | CGS             | H                     |
| Indeno(1,2,3-cd)pyrene      | ND             |             | ug/L         | 0.098         | 0.040 | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:47 | CGS             | H                     |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906004**

Date Collected: 2/10/2017 00:00

Matrix: Ground Water

Sample ID: **DUP-01**

Date Received: 2/10/2017 20:25

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Naphthalene                 | ND             |             | ug/L         | 0.098         | 0.036  | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:47 | CGS             | H                     |
| Phenanthrene                | ND             |             | ug/L         | 0.098         | 0.020  | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:47 | CGS             | H                     |
| Pyrene                      | ND             |             | ug/L         | 0.098         | 0.015  | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:47 | CGS             | H                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2-Methylnaphthalene-d10 (S) | 64             |             | %            | 29 - 112      |        | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:47 | CGS             | H                     |
| Fluoranthene-d10 (S)        | 84             |             | %            | 45 - 130      |        | 8270 SIM      | 2/14/17 12:45 JTH | 2/15/17 07:47 | CGS             | H                     |
| <b>PCBs</b>                 |                |             |              |               |        |               |                   |               |                 |                       |
| Aroclor-1016                | ND             |             | ug/L         | 0.47          | 0.056  | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:33 | EGO             | L                     |
| Aroclor-1221                | ND             |             | ug/L         | 0.47          | 0.066  | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:33 | EGO             | L                     |
| Aroclor-1232                | ND             |             | ug/L         | 0.47          | 0.18   | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:33 | EGO             | L                     |
| Aroclor-1242                | ND             |             | ug/L         | 0.47          | 0.23   | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:33 | EGO             | L                     |
| Aroclor-1248                | ND             |             | ug/L         | 0.47          | 0.13   | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:33 | EGO             | L                     |
| Aroclor-1254                | ND             |             | ug/L         | 0.47          | 0.094  | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:33 | EGO             | L                     |
| Aroclor-1260                | ND             |             | ug/L         | 0.47          | 0.066  | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:33 | EGO             | L                     |
| Aroclor-1262                | ND             |             | ug/L         | 0.47          | 0.094  | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:33 | EGO             | L                     |
| Aroclor-1268                | ND             |             | ug/L         | 0.47          | 0.16   | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:33 | EGO             | L                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 92.3           |             | %            | 30 - 140      |        | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:33 | EGO             | L                     |
| Tetrachloro-m-xylene (S)    | 70.5           |             | %            | 30 - 133      |        | SW846 8082A   | 2/15/17 17:30 ACD | 2/16/17 03:33 | EGO             | L                     |
| <b>PESTICIDES</b>           |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/L         | 0.019         | 0.0047 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |
| alpha-BHC                   | ND             |             | ug/L         | 0.019         | 0.0019 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |
| beta-BHC                    | ND             |             | ug/L         | 0.019         | 0.0075 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |
| delta-BHC                   | ND             |             | ug/L         | 0.019         | 0.0028 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |
| gamma-BHC                   | ND             |             | ug/L         | 0.019         | 0.0028 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |
| alpha-Chlordane             | ND             |             | ug/L         | 0.019         | 0.0028 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |
| gamma-Chlordane             | ND             |             | ug/L         | 0.019         | 0.0028 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |
| 4,4'-DDD                    | ND             |             | ug/L         | 0.019         | 0.0066 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |
| 4,4'-DDE                    | ND             |             | ug/L         | 0.019         | 0.0066 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |
| 4,4'-DDT                    | ND             |             | ug/L         | 0.019         | 0.0056 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |
| Dieldrin                    | ND             |             | ug/L         | 0.019         | 0.0028 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |
| Endosulfan I                | ND             |             | ug/L         | 0.019         | 0.0028 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |
| Endosulfan II               | ND             |             | ug/L         | 0.019         | 0.0056 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |
| Endosulfan Sulfate          | ND             |             | ug/L         | 0.019         | 0.0038 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |
| Endrin                      | ND             |             | ug/L         | 0.019         | 0.0075 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |
| Endrin Aldehyde             | ND             |             | ug/L         | 0.019         | 0.0094 | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |



## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906004**

Date Collected: 2/10/2017 00:00

Matrix: Ground Water

Sample ID: **DUP-01**

Date Received: 2/10/2017 20:25

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL      | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|----------|---------------|-------------------|---------------|-----------------|-----------------------|
| Endrin Ketone                 | ND             |             | ug/L         | 0.019         | 0.0038   | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |
| Heptachlor                    | ND             |             | ug/L         | 0.019         | 0.0028   | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |
| Heptachlor Epoxide            | ND             |             | ug/L         | 0.019         | 0.0038   | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |
| Methoxychlor                  | ND             |             | ug/L         | 0.019         | 0.0085   | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |
| Toxaphene                     | ND             |             | ug/L         | 0.94          | 0.18     | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |          | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)       | 67.1           |             | %            | 30 - 140      |          | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |
| Tetrachloro-m-xylene (S)      | 59.6           |             | %            | 30 - 123      |          | SW846 8081B   | 2/15/17 17:30 ACD | 2/17/17 06:39 | RWS             | J                     |
| <b>PETROLEUM HC's</b>         |                |             |              |               |          |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 0.088          |             | mg/L         | 0.044         | 0.015    | SW846 8015D   | 2/17/17 12:30 ACD | 2/21/17 16:23 | BS              | E                     |
| Gasoline Range Organics       | ND             |             | ug/L         | 100           | 13.9     | SW846 8015D   |                   | 2/14/17 15:44 | DD              | B                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |          | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 124            |             | %            | 90 - 129      |          | SW846 8015D   |                   | 2/14/17 15:44 | DD              | B                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |          | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 48.8           |             | %            | 26 - 139      |          | SW846 8015D   | 2/17/17 12:30 ACD | 2/21/17 16:23 | BS              | E                     |
| <b>METALS</b>                 |                |             |              |               |          |               |                   |               |                 |                       |
| Antimony, Total               | ND             |             | mg/L         | 0.0022        | 0.00074  | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 01:00 | ZMC             | N1                    |
| Arsenic, Total                | 0.0011J        | J           | mg/L         | 0.0030        | 0.0010   | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 01:00 | ZMC             | N1                    |
| Beryllium, Total              | 0.00033J       | J           | mg/L         | 0.0010        | 0.00030  | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 01:00 | ZMC             | N1                    |
| Cadmium, Total                | 0.00053J       | J           | mg/L         | 0.0011        | 0.00037  | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 01:00 | ZMC             | N1                    |
| Chromium, Total               | 0.0049         |             | mg/L         | 0.0022        | 0.00074  | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 01:00 | ZMC             | N1                    |
| Copper, Total                 | 0.0099         |             | mg/L         | 0.0056        | 0.0019   | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 01:00 | ZMC             | N1                    |
| Lead, Total                   | 0.018          |             | mg/L         | 0.0022        | 0.00074  | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 01:00 | ZMC             | N1                    |
| Mercury, Total                | 0.000098 J     | J           | mg/L         | 0.00022       | 0.000077 | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 01:00 | ZMC             | N1                    |
| Nickel, Total                 | 0.0060         |             | mg/L         | 0.0056        | 0.0019   | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 01:00 | ZMC             | N1                    |
| Selenium, Total               | ND             |             | mg/L         | 0.0056        | 0.0019   | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 01:00 | ZMC             | N1                    |
| Silver, Total                 | ND             |             | mg/L         | 0.0022        | 0.00074  | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 01:00 | ZMC             | N1                    |
| Thallium, Total               | ND             |             | mg/L         | 0.0010        | 0.00030  | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 01:00 | ZMC             | N1                    |
| Zinc, Total                   | 0.080          |             | mg/L         | 0.0056        | 0.0019   | SW846 6020A   | 2/14/17 12:19 TRR | 2/15/17 01:00 | ZMC             | N1                    |





**ALS Environmental**



34 Dogwood Lane ■ Middletown, PA 17057 ■ Phone: 717-944-5541 ■ Fax: 717-944-1430 ■ [www.alsglobal.com](http://www.alsglobal.com)

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906004**  
Sample ID: **DUP-01**

Date Collected: 2/10/2017 00:00 Matrix: Ground Water  
Date Received: 2/10/2017 20:25

| Parameters | Results | Flag | Units | RDL | MDL | Method | Prepared By | Analyzed | By | Cntr |
|------------|---------|------|-------|-----|-----|--------|-------------|----------|----|------|
|------------|---------|------|-------|-----|-----|--------|-------------|----------|----|------|

Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906005**

Date Collected: 2/10/2017 14:10

Matrix: Solid

Sample ID: **CL-GS-S-01**

Date Received: 2/10/2017 20:25

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 61.9           |             | mg/kg        | 13.1          | 3.1  | SW846 8015D   | 2/17/17 02:40 VLM | 2/17/17 15:52 | BS              | F                     |
| Gasoline Range Organics       | 5060J          | J           | ug/kg        | 12500         | 1740 | SW846 8015D   | 2/10/17 14:10 DD  | 2/16/17 21:34 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 91.9           |             | %            | 38 - 118      |      | SW846 8015D   | 2/17/17 02:40 VLM | 2/17/17 15:52 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 117            |             | %            | 72 - 134      |      | SW846 8015D   | 2/10/17 14:10 DD  | 2/16/17 21:34 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | 15.8           |             | ug/kg        | 12.7          | 5.9  | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.5           | 0.75 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 12.7          | 4.5  | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Benzene                       | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.5           | 0.91 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 2.5           | 0.66 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 2.5           | 0.66 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| 2-Butanone                    | ND             |             | ug/kg        | 12.7          | 4.1  | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 12.7          | 4.5  | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.5           | 0.80 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.5           | 0.65 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.5           | 0.65 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.5           | 0.87 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 6.4           | 1.1  | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 2.5           | 0.68 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 2.5           | 0.70 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 6.4           | 3.7  | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.5           | 0.69 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.5           | 0.66 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.5           | 0.66 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.5           | 0.76 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.5           | 0.70 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906005**

Date Collected: 2/10/2017 14:10

Matrix: Solid

Sample ID: **CL-GS-S-01**

Date Received: 2/10/2017 20:25

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 2.5           | 0.74 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 2.5           | 0.66 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 2.5           | 0.87 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 12.7          | 3.6  | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 12.7          | 4.8  | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Methylene Chloride          | 3.4            | 1,2,3       | ug/kg        | 2.5           | 0.99 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.5           | 0.71 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.5           | 0.76 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.5           | 0.85 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 7.6           | 1.8  | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.5           | 0.79 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.5           | 0.71 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.5           | 0.74 | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 5.1           | 1.1  | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 76.6           |             | %            | 56 - 124      |      | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 85.8           |             | %            | 51 - 128      |      | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Dibromofluoromethane (S)    | 91.7           |             | %            | 62 - 123      |      | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| Toluene-d8 (S)              | 84.3           |             | %            | 59 - 131      |      | SW846 8260B   | 2/10/17 14:10 SYB | 2/14/17 03:55 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 64.0          | 7.7  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 64.0          | 9.0  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| Acetophenone                | ND             |             | ug/kg        | 128           | 10.2 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 64.0          | 10.2 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 128           | 14.1 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 256           | 21.8 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| Benzo(a)anthracene          | 34.0J          | J           | ug/kg        | 64.0          | 6.4  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| Benzo(a)pyrene              | 37.0J          | J           | ug/kg        | 64.0          | 5.1  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| Benzo(b)fluoranthene        | 62.5J          | J           | ug/kg        | 64.0          | 6.4  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| Benzo(g,h,i)perylene        | 31.2J          | J           | ug/kg        | 64.0          | 6.4  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906005**  
Sample ID: **CL-GS-S-01**

Date Collected: 2/10/2017 14:10 Matrix: Solid  
Date Received: 2/10/2017 20:25

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | 25.7J   | J    | ug/kg | 64.0 | 6.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| Biphenyl                    | ND      |      | ug/kg | 128  | 9.0  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 128  | 11.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| Butylbenzylphthalate        | 9.5J    | J    | ug/kg | 128  | 9.0  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| Caprolactam                 | ND      |      | ug/kg | 256  | 23.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| Carbazole                   | ND      |      | ug/kg | 128  | 9.0  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 256  | 12.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 256  | 15.4 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 128  | 11.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 128  | 16.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 128  | 19.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 128  | 7.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 256  | 10.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 128  | 10.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| Chrysene                    | 27.9J   | J    | ug/kg | 64.0 | 6.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| mp-Cresol                   | ND      |      | ug/kg | 256  | 10.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| o-Cresol                    | ND      |      | ug/kg | 256  | 14.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| Di-n-Butylphthalate         | 423     |      | ug/kg | 128  | 10.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 128  | 9.0  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| Dibenzo(a,h)anthracene      | 10.2J   | J    | ug/kg | 64.0 | 7.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| Dibenzofuran                | ND      |      | ug/kg | 128  | 10.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 256  | 48.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 256  | 10.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| Diethylphthalate            | ND      |      | ug/kg | 128  | 10.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 256  | 19.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 128  | 9.0  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 256  | 51.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 128  | 11.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 128  | 15.4 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 128  | 62.7 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| bis(2-Ethylhexyl)phthalate  | 67.8J   | J    | ug/kg | 128  | 9.0  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| Fluoranthene                | 37.3J   | J    | ug/kg | 64.0 | 6.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| Fluorene                    | ND      |      | ug/kg | 64.0 | 7.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 128  | 14.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 128  | 12.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 256  | 14.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| Hexachloroethane            | ND      |      | ug/kg | 128  | 11.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |
| Indeno(1,2,3-cd)pyrene      | 26.7J   | J    | ug/kg | 64.0 | 9.0  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF | F    |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906005**  
Sample ID: **CL-GS-S-01**

Date Collected: 2/10/2017 14:10 Matrix: Solid  
Date Received: 2/10/2017 20:25

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 128           | 7.7    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 256           | 33.3   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 128           | 6.4    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 64.0          | 7.7    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 256           | 15.4   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 256           | 25.6   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 256           | 10.2   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 128           | 15.4   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 256           | 14.1   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 256           | 17.9   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 128           | 10.2   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 128           | 10.2   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 256           | 33.3   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| Phenanthrene                   | 15.9J          | J           | ug/kg        | 64.0          | 6.4    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| Phenol                         | ND             |             | ug/kg        | 256           | 12.8   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| Pyrene                         | 42.0J          | J           | ug/kg        | 64.0          | 6.4    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 128           | 9.0    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 256           | 15.4   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 256           | 15.4   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 256           | 15.4   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 89.2           |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| 2-Fluorobiphenyl (S)           | 82.5           |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| 2-Fluorophenol (S)             | 68.9           |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| Nitrobenzene-d5 (S)            | 70.5           |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| Phenol-d5 (S)                  | 74.5           |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| Terphenyl-d14 (S)              | 78.5           |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 02:44 | DHF             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | 0.065          |             | mg/kg        | 0.041         | 0.0037 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 03:37 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.041         | 0.0075 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 03:37 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.041         | 0.0037 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 03:37 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.041         | 0.0075 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 03:37 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.041         | 0.011  | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 03:37 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.041         | 0.0075 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 03:37 | EGO             | F                     |
| Aroclor-1254                   | 0.039J         | J           | mg/kg        | 0.041         | 0.0075 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 03:37 | EGO             | F                     |
| Aroclor-1260                   | 0.026J         | J           | mg/kg        | 0.041         | 0.0075 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 03:37 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.041         | 0.0087 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 03:37 | EGO             | F                     |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906005**

Date Collected: 2/10/2017 14:10

Matrix: Solid

Sample ID: **CL-GS-S-01**

Date Received: 2/10/2017 20:25

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.041         | 0.011 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 03:37 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 94.8           |             | %            | 49 - 115      |       | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 03:37 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 72.9           |             | %            | 27 - 137      |       | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 03:37 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 10.6          | 3.4   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 10.6          | 0.93  | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 10.6          | 1.1   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 10.6          | 0.81  | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 10.6          | 0.87  | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 10.6          | 1.1   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 10.6          | 1.8   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| 4,4'-DDD                    | 5.7J           | J           | ug/kg        | 20.6          | 1.7   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| 4,4'-DDE                    | 12.5J          | J           | ug/kg        | 20.6          | 2.8   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| 4,4'-DDT                    | 29.4           |             | ug/kg        | 20.6          | 2.4   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 20.6          | 2.4   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 10.6          | 1.3   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 20.6          | 4.3   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 20.6          | 1.4   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 20.6          | 1.5   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 20.6          | 2.2   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 20.6          | 2.9   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 10.6          | 1.1   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 10.6          | 1.1   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 20.6          | 2.7   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 218           | 36.1  | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 75.7           |             | %            | 30 - 135      |       | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 58.7           |             | %            | 30 - 111      |       | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 22:52 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Moisture                    | 21.9           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/13/17 13:33 | VKB             | F                     |
| Total Solids                | 78.1           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/13/17 13:33 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |
| Antimony, Total             | 1.1J           | J           | mg/kg        | 1.2           | 0.41  | SW846 6020A   | 2/17/17 11:39 TRR | 2/20/17 06:54 | ZMC             | F2                    |
| Arsenic, Total              | 7.7            |             | mg/kg        | 1.8           | 0.62  | SW846 6020A   | 2/17/17 11:39 TRR | 2/20/17 06:54 | ZMC             | F2                    |
| Beryllium, Total            | ND             |             | mg/kg        | 0.62          | 0.20  | SW846 6020A   | 2/17/17 11:39 TRR | 2/20/17 06:54 | ZMC             | F2                    |



## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906005**  
Sample ID: **CL-GS-S-01**

Date Collected: 2/10/2017 14:10 Matrix: Solid  
Date Received: 2/10/2017 20:25

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | 24.8    |      | mg/kg | 0.62  | 0.20  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 06:54 | ZMC | F2   |
| Chromium, Total | 21.5    |      | mg/kg | 1.2   | 0.41  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 06:54 | ZMC | F2   |
| Copper, Total   | 43.4    |      | mg/kg | 3.1   | 0.98  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 06:54 | ZMC | F2   |
| Lead, Total     | 160     |      | mg/kg | 1.2   | 0.41  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 06:54 | ZMC | F2   |
| Mercury, Total  | 0.047J  | J    | mg/kg | 0.053 | 0.017 | SW846 7471B | 2/14/17 15:00 AXC | 2/15/17 11:06 | MNP | F1   |
| Nickel, Total   | 16.0    |      | mg/kg | 3.1   | 0.98  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 06:54 | ZMC | F2   |
| Selenium, Total | ND      |      | mg/kg | 3.1   | 0.98  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 06:54 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.2   | 0.41  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 06:54 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.62  | 0.20  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 06:54 | ZMC | F2   |
| Zinc, Total     | 149     |      | mg/kg | 3.1   | 0.98  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 06:54 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906006**  
Sample ID: **CL-GS-S-03**

Date Collected: 2/10/2017 14:00 Matrix: Solid  
Date Received: 2/10/2017 20:25

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 139            | 34,35       | mg/kg        | 13.2          | 3.1  | SW846 8015D   | 2/17/17 02:40 VLM | 2/17/17 16:28 | BS              | F                     |
| Gasoline Range Organics       | 5270J          | J           | ug/kg        | 13600         | 1890 | SW846 8015D   | 2/10/17 14:00 DD  | 2/16/17 19:53 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 84.7           |             | %            | 38 - 118      |      | SW846 8015D   | 2/17/17 02:40 VLM | 2/17/17 16:28 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 117            |             | %            | 72 - 134      |      | SW846 8015D   | 2/10/17 14:00 DD  | 2/16/17 19:53 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | ND             |             | ug/kg        | 18.2          | 8.4  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             | 6           | ug/kg        | 3.6           | 1.1  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             | 29          | ug/kg        | 18.2          | 6.4  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             | 28          | ug/kg        | 3.6           | 0.91 | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Benzene                       | ND             | 5           | ug/kg        | 3.6           | 0.91 | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 3.6           | 0.91 | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Bromodichloromethane          | ND             | 9           | ug/kg        | 3.6           | 1.3  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Bromoform                     | ND             | 21          | ug/kg        | 3.6           | 0.95 | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 3.6           | 0.95 | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| 2-Butanone                    | ND             |             | ug/kg        | 18.2          | 5.8  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 18.2          | 6.4  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 3.6           | 1.1  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Carbon Tetrachloride          | ND             | 4           | ug/kg        | 3.6           | 0.93 | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Chlorobenzene                 | ND             | 18          | ug/kg        | 3.6           | 0.93 | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Chlorodibromomethane          | ND             | 16          | ug/kg        | 3.6           | 1.2  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 9.1           | 1.5  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Chloroform                    | ND             | 1           | ug/kg        | 3.6           | 0.96 | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 3.6           | 1.0  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             | 26          | ug/kg        | 9.1           | 5.3  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             | 17          | ug/kg        | 3.6           | 0.98 | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 3.6           | 0.91 | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             | 3           | ug/kg        | 3.6           | 0.91 | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 3.6           | 0.95 | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             | 33          | ug/kg        | 3.6           | 0.91 | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 3.6           | 0.95 | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             | 7           | ug/kg        | 3.6           | 1.1  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             | 10          | ug/kg        | 3.6           | 1.0  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906006**  
Sample ID: **CL-GS-S-03**

Date Collected: 2/10/2017 14:00 Matrix: Solid  
Date Received: 2/10/2017 20:25

| Parameters                  | Results        | Flag         | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|--------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             | 12           | ug/kg        | 3.6           | 1.1  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Diisopropyl ether           | ND             |              | ug/kg        | 3.6           | 0.91 | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             | 2            | ug/kg        | 3.6           | 0.95 | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Ethylbenzene                | ND             | 19           | ug/kg        | 3.6           | 1.2  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| 2-Hexanone                  | ND             | 15           | ug/kg        | 18.2          | 5.1  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |              | ug/kg        | 3.6           | 0.91 | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             | 11           | ug/kg        | 18.2          | 6.9  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Methylene Chloride          | 14.4           | 30,3<br>1,32 | ug/kg        | 3.6           | 1.4  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Naphthalene                 | ND             | 27           | ug/kg        | 3.6           | 0.91 | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Styrene                     | ND             | 22           | ug/kg        | 3.6           | 0.91 | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             | 23           | ug/kg        | 3.6           | 1.0  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Tetrachloroethene           | ND             |              | ug/kg        | 3.6           | 1.1  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Toluene                     | ND             | 14           | ug/kg        | 3.6           | 1.2  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Total Xylenes               | ND             | 25           | ug/kg        | 10.9          | 2.5  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |              | ug/kg        | 3.6           | 1.1  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             | 13           | ug/kg        | 3.6           | 1.0  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Trichloroethene             | ND             | 8            | ug/kg        | 3.6           | 0.91 | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Vinyl Chloride              | ND             |              | ug/kg        | 3.6           | 0.91 | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| o-Xylene                    | ND             | 24           | ug/kg        | 3.6           | 1.1  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| mp-Xylene                   | ND             | 20           | ug/kg        | 7.3           | 1.5  | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i>  | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 74.4           |              | %            | 56 - 124      |      | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 87.5           |              | %            | 51 - 128      |      | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Dibromofluoromethane (S)    | 90             |              | %            | 62 - 123      |      | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| Toluene-d8 (S)              | 85.2           |              | %            | 59 - 131      |      | SW846 8260B   | 2/10/17 14:00 SYB | 2/14/17 04:18 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |              |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |              | ug/kg        | 61.6          | 7.4  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| Acenaphthylene              | ND             |              | ug/kg        | 61.6          | 8.6  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| Acetophenone                | ND             |              | ug/kg        | 123           | 9.9  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| Anthracene                  | 13.4J          | J            | ug/kg        | 61.6          | 9.9  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| Atrazine                    | ND             |              | ug/kg        | 123           | 13.5 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| Benzaldehyde                | 300            |              | ug/kg        | 246           | 20.9 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| Benzo(a)anthracene          | 22.3J          | J            | ug/kg        | 61.6          | 6.2  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| Benzo(a)pyrene              | 32.8J          | J            | ug/kg        | 61.6          | 4.9  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| Benzo(b)fluoranthene        | 59.4J          | J            | ug/kg        | 61.6          | 6.2  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| Benzo(g,h,i)perylene        | 36.1J          | J            | ug/kg        | 61.6          | 6.2  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906006**

Date Collected: 2/10/2017 14:00

Matrix: Solid

Sample ID: **CL-GS-S-03**

Date Received: 2/10/2017 20:25

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | 18.6J   | J    | ug/kg | 61.6 | 6.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| Biphenyl                    | ND      |      | ug/kg | 123  | 8.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 123  | 11.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| Butylbenzylphthalate        | ND      |      | ug/kg | 123  | 8.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| Caprolactam                 | ND      |      | ug/kg | 246  | 22.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| Carbazole                   | ND      |      | ug/kg | 123  | 8.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 246  | 12.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 246  | 14.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 123  | 11.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 123  | 16.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 123  | 18.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 123  | 7.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 246  | 9.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 123  | 9.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| Chrysene                    | 42.4J   | J    | ug/kg | 61.6 | 6.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| mp-Cresol                   | ND      |      | ug/kg | 246  | 9.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| o-Cresol                    | ND      |      | ug/kg | 246  | 13.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| Di-n-Butylphthalate         | 217     |      | ug/kg | 123  | 9.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 123  | 8.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| Dibenzo(a,h)anthracene      | 12.8J   | J    | ug/kg | 61.6 | 7.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| Dibenzofuran                | 46.1J   | J    | ug/kg | 123  | 9.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 246  | 46.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 246  | 9.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| Diethylphthalate            | ND      |      | ug/kg | 123  | 9.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 246  | 18.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 123  | 8.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 246  | 49.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 123  | 11.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 123  | 14.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 123  | 60.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| bis(2-Ethylhexyl)phthalate  | 49.2J   | J    | ug/kg | 123  | 8.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| Fluoranthene                | 33.0J   | J    | ug/kg | 61.6 | 6.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| Fluorene                    | ND      |      | ug/kg | 61.6 | 7.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 123  | 13.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 123  | 12.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 246  | 13.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| Hexachloroethane            | ND      |      | ug/kg | 123  | 11.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |
| Indeno(1,2,3-cd)pyrene      | 28.8J   | J    | ug/kg | 61.6 | 8.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF | F    |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906006**

Date Collected: 2/10/2017 14:00

Matrix: Solid

Sample ID: **CL-GS-S-03**

Date Received: 2/10/2017 20:25

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 123           | 7.4    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 246           | 32.0   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 123           | 6.2    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 61.6          | 7.4    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 246           | 14.8   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 246           | 24.6   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 246           | 9.9    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 123           | 14.8   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 246           | 13.5   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 246           | 17.2   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 123           | 9.9    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 123           | 9.9    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| Pentachlorophenol              | 68.5J          | J           | ug/kg        | 246           | 32.0   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| Phenanthrene                   | 15.4J          | J           | ug/kg        | 61.6          | 6.2    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| Phenol                         | ND             |             | ug/kg        | 246           | 12.3   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| Pyrene                         | 32.5J          | J           | ug/kg        | 61.6          | 6.2    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 123           | 8.6    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 246           | 14.8   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 246           | 14.8   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 246           | 14.8   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 85.1           |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| 2-Fluorobiphenyl (S)           | 80             |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| 2-Fluorophenol (S)             | 71.2           |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| Nitrobenzene-d5 (S)            | 73.3           |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| Phenol-d5 (S)                  | 75.6           |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| Terphenyl-d14 (S)              | 79             |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:10 | DHF             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | 0.071          |             | mg/kg        | 0.041         | 0.0037 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:00 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.041         | 0.0074 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:00 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.041         | 0.0037 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:00 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.041         | 0.0074 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:00 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.041         | 0.011  | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:00 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.041         | 0.0074 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:00 | EGO             | F                     |
| Aroclor-1254                   | 0.041J         | J           | mg/kg        | 0.041         | 0.0074 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:00 | EGO             | F                     |
| Aroclor-1260                   | 0.030J         | J           | mg/kg        | 0.041         | 0.0074 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:00 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.041         | 0.0087 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:00 | EGO             | F                     |



## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906006**

Date Collected: 2/10/2017 14:00

Matrix: Solid

Sample ID: **CL-GS-S-03**

Date Received: 2/10/2017 20:25

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.041         | 0.011 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:00 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 84.6           |             | %            | 49 - 115      |       | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:00 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 71.7           |             | %            | 27 - 137      |       | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:00 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 10.5          | 3.4   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 10.5          | 0.93  | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 10.5          | 1.1   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 10.5          | 0.81  | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 10.5          | 0.87  | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 10.5          | 1.1   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 10.5          | 1.8   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| 4,4'-DDD                    | 7.6J           | J           | ug/kg        | 20.5          | 1.7   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| 4,4'-DDE                    | 44.1           |             | ug/kg        | 20.5          | 2.8   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| 4,4'-DDT                    | 57.7           |             | ug/kg        | 20.5          | 2.4   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 20.5          | 2.4   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 10.5          | 1.3   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 20.5          | 4.3   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 20.5          | 1.4   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 20.5          | 1.5   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 20.5          | 2.2   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 20.5          | 2.9   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 10.5          | 1.1   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 10.5          | 1.1   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 20.5          | 2.7   | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 217           | 36.0  | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 71.1           |             | %            | 30 - 135      |       | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 58.3           |             | %            | 30 - 111      |       | SW846 8081B   | 2/16/17 17:55 ACD | 2/18/17 23:37 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Hexavalent Chromium         | ND             |             | mg/kg        | 2.5           | 0.48  | SW846 7196A   | 2/23/17 12:00 AHI | 2/23/17 18:45 | AHI             | F                     |
| Moisture                    | 19.9           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/13/17 13:33 | VKB             | F                     |
| Total Solids                | 80.1           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/13/17 13:33 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |
| Antimony, Total             | 5.8            |             | mg/kg        | 1.2           | 0.39  | SW846 6020A   | 2/17/17 11:39 TRR | 2/20/17 07:09 | ZMC             | F2                    |
| Arsenic, Total              | 5.5            |             | mg/kg        | 1.8           | 0.59  | SW846 6020A   | 2/17/17 11:39 TRR | 2/20/17 07:09 | ZMC             | F2                    |



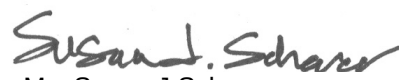
## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906006**  
Sample ID: **CL-GS-S-03**

Date Collected: 2/10/2017 14:00 Matrix: Solid  
Date Received: 2/10/2017 20:25

| Parameters       | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|------------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Beryllium, Total | 0.31J   | J    | mg/kg | 0.59  | 0.19  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:09 | ZMC | F2   |
| Cadmium, Total   | 4.5     |      | mg/kg | 0.59  | 0.19  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:09 | ZMC | F2   |
| Chromium, Total  | 73.0    |      | mg/kg | 1.2   | 0.39  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:09 | ZMC | F2   |
| Copper, Total    | 54.2    |      | mg/kg | 2.9   | 0.94  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:09 | ZMC | F2   |
| Lead, Total      | 543     |      | mg/kg | 1.2   | 0.39  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:09 | ZMC | F2   |
| Mercury, Total   | 0.059   |      | mg/kg | 0.057 | 0.018 | SW846 7471B | 2/14/17 15:00 AXC | 2/15/17 11:08 | MNP | F1   |
| Nickel, Total    | 14.8    |      | mg/kg | 2.9   | 0.94  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:09 | ZMC | F2   |
| Selenium, Total  | 1.1J    | J    | mg/kg | 2.9   | 0.94  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:09 | ZMC | F2   |
| Silver, Total    | ND      |      | mg/kg | 1.2   | 0.39  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:09 | ZMC | F2   |
| Thallium, Total  | ND      |      | mg/kg | 0.59  | 0.19  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:09 | ZMC | F2   |
| Zinc, Total      | 521     |      | mg/kg | 2.9   | 0.94  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:09 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906007**

Date Collected: 2/10/2017 13:40

Matrix: Solid

Sample ID: **CL-GS-S-04**

Date Received: 2/10/2017 20:25

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 179            |             | mg/kg        | 12.0          | 2.8  | SW846 8015D   | 2/17/17 02:40 VLM | 2/17/17 18:15 | BS              | F                     |
| Gasoline Range Organics       | 4310J          | J           | ug/kg        | 15000         | 2090 | SW846 8015D   | 2/10/17 14:30 DD  | 2/16/17 20:26 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 75.3           |             | %            | 38 - 118      |      | SW846 8015D   | 2/17/17 02:40 VLM | 2/17/17 18:15 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 112            |             | %            | 72 - 134      |      | SW846 8015D   | 2/10/17 14:30 DD  | 2/16/17 20:26 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | 155            |             | ug/kg        | 18.0          | 8.3  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 3.6           | 1.1  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 18.0          | 6.3  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 3.6           | 0.90 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Benzene                       | ND             |             | ug/kg        | 3.6           | 0.90 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 3.6           | 0.90 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 3.6           | 1.3  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 3.6           | 0.94 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 3.6           | 0.94 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| 2-Butanone                    | ND             |             | ug/kg        | 18.0          | 5.8  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 18.0          | 6.3  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 3.6           | 1.1  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 3.6           | 0.92 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 3.6           | 0.92 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 3.6           | 1.2  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 9.0           | 1.5  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 3.6           | 0.95 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 3.6           | 0.99 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 9.0           | 5.2  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 3.6           | 0.97 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 3.6           | 0.90 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 3.6           | 0.90 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 3.6           | 0.94 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 3.6           | 0.90 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 3.6           | 0.94 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 3.6           | 1.1  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 3.6           | 0.99 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906007**

Date Collected: 2/10/2017 13:40

Matrix: Solid

Sample ID: **CL-GS-S-04**

Date Received: 2/10/2017 20:25

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 3.6           | 1.0  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 3.6           | 0.90 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 3.6           | 0.94 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 3.6           | 1.2  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 18.0          | 5.0  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 3.6           | 0.90 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 18.0          | 6.8  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Methylene Chloride          | 5.9            | 1,2,3       | ug/kg        | 3.6           | 1.4  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 3.6           | 0.90 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 3.6           | 0.90 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 3.6           | 1.0  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 3.6           | 1.1  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Toluene                     | 2.0J           | J           | ug/kg        | 3.6           | 1.2  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 10.8          | 2.5  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 3.6           | 1.1  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 3.6           | 1.0  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 3.6           | 0.90 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 3.6           | 0.90 | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 3.6           | 1.0  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 7.2           | 1.5  | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 76.5           |             | %            | 56 - 124      |      | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 96.7           |             | %            | 51 - 128      |      | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Dibromofluoromethane (S)    | 91             |             | %            | 62 - 123      |      | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| Toluene-d8 (S)              | 93.7           |             | %            | 59 - 131      |      | SW846 8260B   | 2/10/17 13:40 SYB | 2/14/17 04:42 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 55.8          | 6.7  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 55.8          | 7.8  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| Acetophenone                | ND             |             | ug/kg        | 112           | 8.9  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 55.8          | 8.9  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 112           | 12.3 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| Benzaldehyde                | 32.8J          | J           | ug/kg        | 223           | 19.0 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| Benzo(a)anthracene          | 18.6J          | J           | ug/kg        | 55.8          | 5.6  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| Benzo(a)pyrene              | 22.7J          | J           | ug/kg        | 55.8          | 4.5  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| Benzo(b)fluoranthene        | 22.7J          | J           | ug/kg        | 55.8          | 5.6  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| Benzo(g,h,i)perylene        | 12.5J          | J           | ug/kg        | 55.8          | 5.6  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906007**

Date Collected: 2/10/2017 13:40

Matrix: Solid

Sample ID: **CL-GS-S-04**

Date Received: 2/10/2017 20:25

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | 8.4J    | J    | ug/kg | 55.8 | 5.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| Biphenyl                    | ND      |      | ug/kg | 112  | 7.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 112  | 10.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| Butylbenzylphthalate        | ND      |      | ug/kg | 112  | 7.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| Caprolactam                 | ND      |      | ug/kg | 223  | 20.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| Carbazole                   | ND      |      | ug/kg | 112  | 7.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 223  | 11.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 223  | 13.4 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 112  | 10.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 112  | 14.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 112  | 16.7 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 112  | 6.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 223  | 8.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 112  | 8.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| Chrysene                    | 14.8J   | J    | ug/kg | 55.8 | 5.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| mp-Cresol                   | ND      |      | ug/kg | 223  | 8.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| o-Cresol                    | ND      |      | ug/kg | 223  | 12.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 112  | 8.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 112  | 7.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 55.8 | 6.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| Dibenzofuran                | ND      |      | ug/kg | 112  | 8.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 223  | 42.4 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 223  | 8.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| Diethylphthalate            | ND      |      | ug/kg | 112  | 8.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 223  | 16.7 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 112  | 7.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 223  | 44.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 112  | 10.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 112  | 13.4 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 112  | 54.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| bis(2-Ethylhexyl)phthalate  | 15.9J   | J    | ug/kg | 112  | 7.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| Fluoranthene                | 27.9J   | J    | ug/kg | 55.8 | 5.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| Fluorene                    | ND      |      | ug/kg | 55.8 | 6.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 112  | 12.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 112  | 11.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 223  | 12.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| Hexachloroethane            | ND      |      | ug/kg | 112  | 10.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |
| Indeno(1,2,3-cd)pyrene      | 17.6J   | J    | ug/kg | 55.8 | 7.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF | F    |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906007**  
Sample ID: **CL-GS-S-04**

Date Collected: 2/10/2017 13:40 Matrix: Solid  
Date Received: 2/10/2017 20:25

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 112           | 6.7    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 223           | 29.0   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 112           | 5.6    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 55.8          | 6.7    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 223           | 13.4   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 223           | 22.3   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 223           | 8.9    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 112           | 13.4   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 223           | 12.3   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 223           | 15.6   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 112           | 8.9    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 112           | 8.9    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 223           | 29.0   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| Phenanthrene                   | 17.4J          | J           | ug/kg        | 55.8          | 5.6    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| Phenol                         | ND             |             | ug/kg        | 223           | 11.2   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| Pyrene                         | 25.4J          | J           | ug/kg        | 55.8          | 5.6    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 112           | 7.8    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 223           | 13.4   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 223           | 13.4   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 223           | 13.4   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 77             |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| 2-Fluorobiphenyl (S)           | 74.8           |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| 2-Fluorophenol (S)             | 65.3           |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| Nitrobenzene-d5 (S)            | 68.9           |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| Phenol-d5 (S)                  | 69.7           |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| Terphenyl-d14 (S)              | 71.3           |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 03:36 | DHF             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.037         | 0.0034 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:11 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:11 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.037         | 0.0034 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:11 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:11 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.037         | 0.010  | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:11 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:11 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:11 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:11 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.037         | 0.0079 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:11 | EGO             | F                     |



## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906007**

Date Collected: 2/10/2017 13:40

Matrix: Solid

Sample ID: **CL-GS-S-04**

Date Received: 2/10/2017 20:25

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.037         | 0.010 | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:11 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 93.8           |             | %            | 49 - 115      |       | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:11 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 77.8           |             | %            | 27 - 137      |       | SW846 8082A   | 2/16/17 17:55 ACD | 2/17/17 04:11 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 9.5           | 3.1   | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 9.5           | 0.84  | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 9.5           | 1.0   | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 9.5           | 0.73  | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 9.5           | 0.79  | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 9.5           | 1.0   | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 9.5           | 1.6   | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 18.5          | 1.5   | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 18.5          | 2.5   | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 18.5          | 2.1   | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 18.5          | 2.1   | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 9.5           | 1.2   | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 18.5          | 3.9   | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 18.5          | 1.2   | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 18.5          | 1.3   | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 18.5          | 2.0   | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 18.5          | 2.6   | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 9.5           | 0.95  | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 9.5           | 0.95  | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 18.5          | 2.5   | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 196           | 32.5  | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 71.8           |             | %            | 30 - 135      |       | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 54.4           |             | %            | 30 - 111      |       | SW846 8081B   | 2/16/17 17:55 ACD | 2/19/17 00:22 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Moisture                    | 14.9           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/13/17 13:33 | VKB             | F                     |
| Total Solids                | 85.1           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/13/17 13:33 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |
| Antimony, Total             | 0.42J          | J           | mg/kg        | 1.1           | 0.37  | SW846 6020A   | 2/17/17 11:39 TRR | 2/20/17 07:13 | ZMC             | F2                    |
| Arsenic, Total              | 2.7            |             | mg/kg        | 1.7           | 0.55  | SW846 6020A   | 2/17/17 11:39 TRR | 2/20/17 07:13 | ZMC             | F2                    |
| Beryllium, Total            | ND             |             | mg/kg        | 0.55          | 0.18  | SW846 6020A   | 2/17/17 11:39 TRR | 2/20/17 07:13 | ZMC             | F2                    |



## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906007**

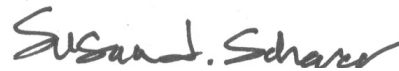
Date Collected: 2/10/2017 13:40

Matrix: Solid

Sample ID: **CL-GS-S-04**

Date Received: 2/10/2017 20:25

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.55  | 0.18  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:13 | ZMC | F2   |
| Chromium, Total | 6.1     |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:13 | ZMC | F2   |
| Copper, Total   | 6.7     |      | mg/kg | 2.8   | 0.89  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:13 | ZMC | F2   |
| Lead, Total     | 33.0    |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:13 | ZMC | F2   |
| Mercury, Total  | 0.11    |      | mg/kg | 0.058 | 0.018 | SW846 7471B | 2/14/17 15:00 AXC | 2/15/17 11:11 | MNP | F1   |
| Nickel, Total   | 2.3J    | J    | mg/kg | 2.8   | 0.89  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:13 | ZMC | F2   |
| Selenium, Total | ND      |      | mg/kg | 2.8   | 0.89  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:13 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:13 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.55  | 0.18  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:13 | ZMC | F2   |
| Zinc, Total     | 10.9    |      | mg/kg | 2.8   | 0.89  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:13 | ZMC | F2   |



Ms. Susan J Scherer

Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906008**  
Sample ID: **CL-GS-S-05**

Date Collected: 2/10/2017 13:50 Matrix: Solid  
Date Received: 2/10/2017 20:25

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 152            |             | mg/kg        | 14.8          | 3.5  | SW846 8015D   | 2/17/17 02:40 VLM | 2/17/17 18:51 | BS              | F                     |
| Gasoline Range Organics       | 4160J          | J           | ug/kg        | 20600         | 2860 | SW846 8015D   | 2/10/17 13:50 DD  | 2/16/17 21:00 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 89.5           |             | %            | 38 - 118      |      | SW846 8015D   | 2/17/17 02:40 VLM | 2/17/17 18:51 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 112            |             | %            | 72 - 134      |      | SW846 8015D   | 2/10/17 13:50 DD  | 2/16/17 21:00 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | 223            |             | ug/kg        | 20.0          | 9.2  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 4.0           | 1.2  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 20.0          | 7.0  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Benzene                       | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 4.0           | 1.4  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| 2-Butanone                    | 6.9J           | J           | ug/kg        | 20.0          | 6.4  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 20.0          | 7.0  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 4.0           | 1.3  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 4.0           | 1.4  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 10.0          | 1.7  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 4.0           | 1.1  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 4.0           | 1.1  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 10.0          | 5.8  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 4.0           | 1.1  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 4.0           | 1.2  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 4.0           | 1.1  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906008**  
Sample ID: **CL-GS-S-05**

Date Collected: 2/10/2017 13:50 Matrix: Solid  
Date Received: 2/10/2017 20:25

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 4.0           | 1.2  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 4.0           | 1.4  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 20.0          | 5.6  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 20.0          | 7.6  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Methylene Chloride          | 14.3           | 1,2,3       | ug/kg        | 4.0           | 1.6  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 4.0           | 1.1  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 4.0           | 1.2  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 4.0           | 1.3  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 12.0          | 2.8  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 4.0           | 1.2  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 4.0           | 1.1  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 4.0           | 1.0  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 4.0           | 1.2  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 8.0           | 1.7  | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 77.9           |             | %            | 56 - 124      |      | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 87.3           |             | %            | 51 - 128      |      | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Dibromofluoromethane (S)    | 91.3           |             | %            | 62 - 123      |      | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| Toluene-d8 (S)              | 84.3           |             | %            | 59 - 131      |      | SW846 8260B   | 2/10/17 13:50 SYB | 2/14/17 05:05 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 71.8          | 8.6  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 71.8          | 10.0 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| Acetophenone                | ND             |             | ug/kg        | 144           | 11.5 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 71.8          | 11.5 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 144           | 15.8 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| Benzaldehyde                | 33.0J          | J           | ug/kg        | 287           | 24.4 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| Benzo(a)anthracene          | 28.4J          | J           | ug/kg        | 71.8          | 7.2  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| Benzo(a)pyrene              | 33.0J          | J           | ug/kg        | 71.8          | 5.7  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 71.8          | 7.2  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| Benzo(g,h,i)perylene        | 18.0J          | J           | ug/kg        | 71.8          | 7.2  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906008**

Date Collected: 2/10/2017 13:50

Matrix: Solid

Sample ID: **CL-GS-S-05**

Date Received: 2/10/2017 20:25

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | 20.1J   | J    | ug/kg | 71.8 | 7.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| Biphenyl                    | ND      |      | ug/kg | 144  | 10.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 144  | 12.9 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| Butylbenzylphthalate        | 15.2J   | J    | ug/kg | 144  | 10.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| Caprolactam                 | ND      |      | ug/kg | 287  | 25.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| Carbazole                   | 11.1J   | J    | ug/kg | 144  | 10.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 287  | 14.4 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 287  | 17.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 144  | 12.9 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 144  | 18.7 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 144  | 21.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 144  | 8.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 287  | 11.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 144  | 11.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| Chrysene                    | 22.4J   | J    | ug/kg | 71.8 | 7.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| mp-Cresol                   | ND      |      | ug/kg | 287  | 11.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| o-Cresol                    | ND      |      | ug/kg | 287  | 15.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| Di-n-Butylphthalate         | 12.6J   | J    | ug/kg | 144  | 11.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| Di-n-Octylphthalate         | 13.9J   | J    | ug/kg | 144  | 10.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| Dibenzo(a,h)anthracene      | 15.1J   | J    | ug/kg | 71.8 | 8.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| Dibenzofuran                | ND      |      | ug/kg | 144  | 11.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 287  | 54.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 287  | 11.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| Diethylphthalate            | ND      |      | ug/kg | 144  | 11.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 287  | 21.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 144  | 10.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 287  | 57.4 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 144  | 12.9 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 144  | 17.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 144  | 70.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| bis(2-Ethylhexyl)phthalate  | 25.2J   | J    | ug/kg | 144  | 10.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| Fluoranthene                | 27.8J   | J    | ug/kg | 71.8 | 7.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| Fluorene                    | ND      |      | ug/kg | 71.8 | 8.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 144  | 15.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 144  | 14.4 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 287  | 15.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| Hexachloroethane            | ND      |      | ug/kg | 144  | 12.9 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |
| Indeno(1,2,3-cd)pyrene      | 25.7J   | J    | ug/kg | 71.8 | 10.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF | F    |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906008**

Date Collected: 2/10/2017 13:50

Matrix: Solid

Sample ID: **CL-GS-S-05**

Date Received: 2/10/2017 20:25

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 144           | 8.6    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 287           | 37.3   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 144           | 7.2    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 71.8          | 8.6    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 287           | 17.2   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 287           | 28.7   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 287           | 11.5   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 144           | 17.2   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 287           | 15.8   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 287           | 20.1   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 144           | 11.5   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 144           | 11.5   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 287           | 37.3   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| Phenanthrene                   | 13.5J          | J           | ug/kg        | 71.8          | 7.2    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| Phenol                         | ND             |             | ug/kg        | 287           | 14.4   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| Pyrene                         | 27.2J          | J           | ug/kg        | 71.8          | 7.2    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 144           | 10.0   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 287           | 17.2   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 287           | 17.2   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 287           | 17.2   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 63.9           |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| 2-Fluorobiphenyl (S)           | 65.8           |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| 2-Fluorophenol (S)             | 53.1           |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| Nitrobenzene-d5 (S)            | 56             |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| Phenol-d5 (S)                  | 57.1           |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| Terphenyl-d14 (S)              | 59.2           |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:02 | DHF             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | 0.016J         | J           | mg/kg        | 0.048         | 0.0043 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:45 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.048         | 0.0087 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:45 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.048         | 0.0043 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:45 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.048         | 0.0087 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:45 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.048         | 0.013  | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:45 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.048         | 0.0087 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:45 | EGO             | F                     |
| Aroclor-1254                   | 0.016J         | J           | mg/kg        | 0.048         | 0.0087 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:45 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.048         | 0.0087 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:45 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.048         | 0.010  | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:45 | EGO             | F                     |



## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906008**

Date Collected: 2/10/2017 13:50

Matrix: Solid

Sample ID: **CL-GS-S-05**

Date Received: 2/10/2017 20:25

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.048         | 0.013 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:45 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 70.2           |             | %            | 49 - 115      |       | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:45 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 73             |             | %            | 27 - 137      |       | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:45 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 12.3          | 4.0   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 12.3          | 1.1   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 12.3          | 1.3   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 12.3          | 0.94  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 12.3          | 1.0   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 12.3          | 1.3   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 12.3          | 2.1   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 23.8          | 2.0   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 23.8          | 3.3   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 23.8          | 2.7   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 23.8          | 2.7   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 12.3          | 1.5   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 23.8          | 5.0   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 23.8          | 1.6   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 23.8          | 1.7   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 23.8          | 2.6   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 23.8          | 3.3   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 12.3          | 1.2   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 12.3          | 1.2   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 23.8          | 3.2   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 253           | 41.9  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 58.4           |             | %            | 30 - 135      |       | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 38.8           |             | %            | 30 - 111      |       | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:21 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Moisture                    | 31.3           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/13/17 13:33 | VKB             | F                     |
| Total Solids                | 68.8           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/13/17 13:33 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.4           | 0.46  | SW846 6020A   | 2/17/17 11:39 TRR | 2/20/17 07:25 | ZMC             | F2                    |
| Arsenic, Total              | 1.3J           | J           | mg/kg        | 2.1           | 0.70  | SW846 6020A   | 2/17/17 11:39 TRR | 2/20/17 07:25 | ZMC             | F2                    |
| Beryllium, Total            | 0.26J          | J           | mg/kg        | 0.70          | 0.23  | SW846 6020A   | 2/17/17 11:39 TRR | 2/20/17 07:25 | ZMC             | F2                    |



## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906008**  
Sample ID: **CL-GS-S-05**

Date Collected: 2/10/2017 13:50 Matrix: Solid  
Date Received: 2/10/2017 20:25

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.70  | 0.23  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:25 | ZMC | F2   |
| Chromium, Total | 8.1     |      | mg/kg | 1.4   | 0.46  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:25 | ZMC | F2   |
| Copper, Total   | 9.1     |      | mg/kg | 3.5   | 1.1   | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:25 | ZMC | F2   |
| Lead, Total     | 29.9    |      | mg/kg | 1.4   | 0.46  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:25 | ZMC | F2   |
| Mercury, Total  | 0.025J  | J    | mg/kg | 0.071 | 0.023 | SW846 7471B | 2/14/17 15:00 AXC | 2/15/17 11:12 | MNP | F1   |
| Nickel, Total   | 3.3J    | J    | mg/kg | 3.5   | 1.1   | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:25 | ZMC | F2   |
| Selenium, Total | 1.9J    | J    | mg/kg | 3.5   | 1.1   | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:25 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.4   | 0.46  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:25 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.70  | 0.23  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:25 | ZMC | F2   |
| Zinc, Total     | 9.4     |      | mg/kg | 3.5   | 1.1   | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:25 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906009**

Date Collected: 2/10/2017 14:30

Matrix: Solid

Sample ID: **CL-GS-S-06**

Date Received: 2/10/2017 20:25

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 78.4           |             | mg/kg        | 12.7          | 3.0  | SW846 8015D   | 2/17/17 02:40 VLM | 2/17/17 19:28 | BS              | F                     |
| Gasoline Range Organics       | 6720J          | J           | ug/kg        | 10700         | 1490 | SW846 8015D   | 2/10/17 14:30 DD  | 2/16/17 19:19 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 93.7           |             | %            | 38 - 118      |      | SW846 8015D   | 2/17/17 02:40 VLM | 2/17/17 19:28 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 111            |             | %            | 72 - 134      |      | SW846 8015D   | 2/10/17 14:30 DD  | 2/16/17 19:19 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | 17.2           |             | ug/kg        | 12.4          | 5.7  | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.5           | 0.73 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 12.4          | 4.3  | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Benzene                       | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.5           | 0.88 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 2.5           | 0.65 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 2.5           | 0.65 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| 2-Butanone                    | ND             |             | ug/kg        | 12.4          | 4.0  | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 12.4          | 4.3  | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.5           | 0.78 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.5           | 0.63 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.5           | 0.63 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.5           | 0.84 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 6.2           | 1.1  | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 2.5           | 0.66 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 2.5           | 0.68 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 6.2           | 3.6  | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.5           | 0.67 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.5           | 0.65 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.5           | 0.65 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.5           | 0.75 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.5           | 0.68 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906009**  
Sample ID: **CL-GS-S-06**

Date Collected: 2/10/2017 14:30 Matrix: Solid  
Date Received: 2/10/2017 20:25

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 2.5           | 0.72 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 2.5           | 0.65 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 2.5           | 0.84 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 12.4          | 3.5  | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 12.4          | 4.7  | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Methylene Chloride          | 12.8           | 1,2,3       | ug/kg        | 2.5           | 0.97 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.5           | 0.70 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.5           | 0.75 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.5           | 0.83 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 7.5           | 1.7  | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.5           | 0.77 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.5           | 0.70 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.5           | 0.72 | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 5.0           | 1.0  | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 73.9           |             | %            | 56 - 124      |      | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 83.1           |             | %            | 51 - 128      |      | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Dibromofluoromethane (S)    | 88.7           |             | %            | 62 - 123      |      | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| Toluene-d8 (S)              | 83.4           |             | %            | 59 - 131      |      | SW846 8260B   | 2/10/17 14:30 SYB | 2/14/17 05:28 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 57.3          | 6.9  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 57.3          | 8.0  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| Acetophenone                | ND             |             | ug/kg        | 115           | 9.2  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 57.3          | 9.2  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 115           | 12.6 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 229           | 19.5 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| Benzo(a)anthracene          | 21.5J          | J           | ug/kg        | 57.3          | 5.7  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| Benzo(a)pyrene              | 17.6J          | J           | ug/kg        | 57.3          | 4.6  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| Benzo(b)fluoranthene        | 18.1J          | J           | ug/kg        | 57.3          | 5.7  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 57.3          | 5.7  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906009**

Date Collected: 2/10/2017 14:30

Matrix: Solid

Sample ID: **CL-GS-S-06**

Date Received: 2/10/2017 20:25

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | 8.0J    | J    | ug/kg | 57.3 | 5.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| Biphenyl                    | ND      |      | ug/kg | 115  | 8.0  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 115  | 10.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| Butylbenzylphthalate        | ND      |      | ug/kg | 115  | 8.0  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| Caprolactam                 | ND      |      | ug/kg | 229  | 20.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| Carbazole                   | ND      |      | ug/kg | 115  | 8.0  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 229  | 11.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 229  | 13.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 115  | 10.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 115  | 14.9 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 115  | 17.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 115  | 6.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 229  | 9.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 115  | 9.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| Chrysene                    | 12.7J   | J    | ug/kg | 57.3 | 5.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| mp-Cresol                   | ND      |      | ug/kg | 229  | 9.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| o-Cresol                    | ND      |      | ug/kg | 229  | 12.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| Di-n-Butylphthalate         | 16.2J   | J    | ug/kg | 115  | 9.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 115  | 8.0  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 57.3 | 6.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| Dibenzofuran                | ND      |      | ug/kg | 115  | 9.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 229  | 43.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 229  | 9.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| Diethylphthalate            | ND      |      | ug/kg | 115  | 9.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 229  | 17.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 115  | 8.0  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 229  | 45.9 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 115  | 10.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 115  | 13.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 115  | 56.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 115  | 8.0  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| Fluoranthene                | 30.2J   | J    | ug/kg | 57.3 | 5.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| Fluorene                    | ND      |      | ug/kg | 57.3 | 6.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 115  | 12.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 115  | 11.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| Hexachlorocyclopentadiene   | ND      | 4    | ug/kg | 229  | 12.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| Hexachloroethane            | ND      |      | ug/kg | 115  | 10.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |
| Indeno(1,2,3-cd)pyrene      | 12.6J   | J    | ug/kg | 57.3 | 8.0  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF | F    |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906009**

Date Collected: 2/10/2017 14:30

Matrix: Solid

Sample ID: **CL-GS-S-06**

Date Received: 2/10/2017 20:25

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 115           | 6.9    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             | 5           | ug/kg        | 229           | 29.8   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 115           | 5.7    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 57.3          | 6.9    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 229           | 13.8   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 229           | 22.9   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 229           | 9.2    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 115           | 13.8   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 229           | 12.6   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 229           | 16.1   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 115           | 9.2    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 115           | 9.2    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 229           | 29.8   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| Phenanthrene                   | 5.8J           | J           | ug/kg        | 57.3          | 5.7    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| Phenol                         | ND             |             | ug/kg        | 229           | 11.5   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| Pyrene                         | 19.3J          | J           | ug/kg        | 57.3          | 5.7    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 115           | 8.0    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 229           | 13.8   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 229           | 13.8   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 229           | 13.8   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 83.9           |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| 2-Fluorobiphenyl (S)           | 76.4           |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| 2-Fluorophenol (S)             | 65.7           |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| Nitrobenzene-d5 (S)            | 68.8           |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| Phenol-d5 (S)                  | 70.4           |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| Terphenyl-d14 (S)              | 78.6           |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 04:28 | DHF             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.039         | 0.0036 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:56 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.039         | 0.0072 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:56 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.039         | 0.0036 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:56 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.039         | 0.0072 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:56 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.039         | 0.011  | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:56 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.039         | 0.0072 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:56 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.039         | 0.0072 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:56 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.039         | 0.0072 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:56 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.039         | 0.0083 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:56 | EGO             | F                     |



## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906009**

Date Collected: 2/10/2017 14:30

Matrix: Solid

Sample ID: **CL-GS-S-06**

Date Received: 2/10/2017 20:25

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.039         | 0.011 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:56 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 82.2           |             | %            | 49 - 115      |       | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:56 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 83.9           |             | %            | 27 - 137      |       | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 09:56 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 10.1          | 3.3   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 10.1          | 0.89  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 10.1          | 1.1   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 10.1          | 0.77  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 10.1          | 0.83  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 10.1          | 1.1   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 10.1          | 1.7   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 19.7          | 1.6   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 19.7          | 2.7   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 19.7          | 2.3   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 19.7          | 2.3   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 10.1          | 1.3   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 19.7          | 4.1   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 19.7          | 1.3   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 19.7          | 1.4   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 19.7          | 2.1   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 19.7          | 2.7   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 10.1          | 1.0   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 10.1          | 1.0   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 19.7          | 2.6   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 209           | 34.6  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 64.1           |             | %            | 30 - 135      |       | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 51.1           |             | %            | 30 - 111      |       | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 14:37 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Moisture                    | 17.2           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/13/17 13:33 | VKB             | F                     |
| Total Solids                | 82.8           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/13/17 13:33 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |
| Antimony, Total             | 0.93J          | J           | mg/kg        | 1.2           | 0.40  | SW846 6020A   | 2/17/17 11:39 TRR | 2/20/17 07:21 | ZMC             | F2                    |
| Arsenic, Total              | 4.5            |             | mg/kg        | 1.8           | 0.60  | SW846 6020A   | 2/17/17 11:39 TRR | 2/20/17 07:21 | ZMC             | F2                    |
| Beryllium, Total            | ND             |             | mg/kg        | 0.60          | 0.20  | SW846 6020A   | 2/17/17 11:39 TRR | 2/20/17 07:21 | ZMC             | F2                    |



## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

Lab ID: **2207906009**

Date Collected: 2/10/2017 14:30

Matrix: Solid

Sample ID: **CL-GS-S-06**

Date Received: 2/10/2017 20:25

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | 3.2     |      | mg/kg | 0.60  | 0.20  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:21 | ZMC | F2   |
| Chromium, Total | 13.1    |      | mg/kg | 1.2   | 0.40  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:21 | ZMC | F2   |
| Copper, Total   | 26.5    |      | mg/kg | 3.0   | 0.97  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:21 | ZMC | F2   |
| Lead, Total     | 129     |      | mg/kg | 1.2   | 0.40  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:21 | ZMC | F2   |
| Mercury, Total  | ND      |      | mg/kg | 0.057 | 0.018 | SW846 7471B | 2/14/17 15:00 AXC | 2/15/17 11:13 | MNP | F1   |
| Nickel, Total   | 4.3     |      | mg/kg | 3.0   | 0.97  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:21 | ZMC | F2   |
| Selenium, Total | 1.2J    | J    | mg/kg | 3.0   | 0.97  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:21 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.2   | 0.40  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:21 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.60  | 0.20  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:21 | ZMC | F2   |
| Zinc, Total     | 1230    |      | mg/kg | 3.0   | 0.97  | SW846 6020A | 2/17/17 11:39 TRR | 2/20/17 07:21 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator

**PARAMETER QUALIFIERS**

| Lab ID                                                                                                                                                                                             | #  | Sample ID  | Analytical Method | Analyte                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------|-------------------|----------------------------|
| <b>2207906005</b>                                                                                                                                                                                  | 1  | CL-GS-S-01 | SW846 8260B       | Methylene Chloride         |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                      |    |            |                   |                            |
| <b>2207906005</b>                                                                                                                                                                                  | 2  | CL-GS-S-01 | SW846 8260B       | Methylene Chloride         |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 165 and the control limits were 68 to 133.         |    |            |                   |                            |
| <b>2207906005</b>                                                                                                                                                                                  | 3  | CL-GS-S-01 | SW846 8260B       | Methylene Chloride         |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 169 and the control limits were 68 to 133.        |    |            |                   |                            |
| <b>2207906006</b>                                                                                                                                                                                  | 1  | CL-GS-S-03 | SW846 8260B       | Chloroform                 |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Chloroform. The % Recovery was reported as 70.6 and the control limits were 73 to 126.                 |    |            |                   |                            |
| <b>2207906006</b>                                                                                                                                                                                  | 2  | CL-GS-S-03 | SW846 8260B       | Ethyl tert-butyl ether     |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Ethyl tert-butyl ether. The % Recovery was reported as 57 and the control limits were 75 to 121.       |    |            |                   |                            |
| <b>2207906006</b>                                                                                                                                                                                  | 3  | CL-GS-S-03 | SW846 8260B       | 1,2-Dichloroethane         |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,2-Dichloroethane. The % Recovery was reported as 67 and the control limits were 69 to 132.           |    |            |                   |                            |
| <b>2207906006</b>                                                                                                                                                                                  | 4  | CL-GS-S-03 | SW846 8260B       | Carbon Tetrachloride       |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Carbon Tetrachloride. The % Recovery was reported as 61.9 and the control limits were 64 to 136.       |    |            |                   |                            |
| <b>2207906006</b>                                                                                                                                                                                  | 5  | CL-GS-S-03 | SW846 8260B       | Benzene                    |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Benzene. The % Recovery was reported as 70.2 and the control limits were 75 to 132.                    |    |            |                   |                            |
| <b>2207906006</b>                                                                                                                                                                                  | 6  | CL-GS-S-03 | SW846 8260B       | tert-Amyl methyl ether     |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte tert-Amyl methyl ether. The % Recovery was reported as 78.1 and the control limits were 79 to 123.     |    |            |                   |                            |
| <b>2207906006</b>                                                                                                                                                                                  | 7  | CL-GS-S-03 | SW846 8260B       | 1,2-Dichloropropane        |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,2-Dichloropropane. The % Recovery was reported as 67.7 and the control limits were 78 to 131.        |    |            |                   |                            |
| <b>2207906006</b>                                                                                                                                                                                  | 8  | CL-GS-S-03 | SW846 8260B       | Trichloroethene            |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Trichloroethene. The % Recovery was reported as 67.6 and the control limits were 72 to 129.            |    |            |                   |                            |
| <b>2207906006</b>                                                                                                                                                                                  | 9  | CL-GS-S-03 | SW846 8260B       | Bromodichloromethane       |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Bromodichloromethane. The % Recovery was reported as 67.5 and the control limits were 74 to 127.       |    |            |                   |                            |
| <b>2207906006</b>                                                                                                                                                                                  | 10 | CL-GS-S-03 | SW846 8260B       | cis-1,3-Dichloropropene    |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte cis-1,3-Dichloropropene. The % Recovery was reported as 47.1 and the control limits were 76 to 123.    |    |            |                   |                            |
| <b>2207906006</b>                                                                                                                                                                                  | 11 | CL-GS-S-03 | SW846 8260B       | 4-Methyl-2-Pentanone(MIBK) |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 4-Methyl-2-Pentanone(MIBK). The % Recovery was reported as 50.7 and the control limits were 64 to 143. |    |            |                   |                            |
| <b>2207906006</b>                                                                                                                                                                                  | 12 | CL-GS-S-03 | SW846 8260B       | trans-1,3-Dichloropropene  |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte trans-1,3-Dichloropropene. The % Recovery was reported as 55 and the control limits were 77 to 123.    |    |            |                   |                            |
| <b>2207906006</b>                                                                                                                                                                                  | 13 | CL-GS-S-03 | SW846 8260B       | 1,1,2-Trichloroethane      |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,1,2-Trichloroethane. The % Recovery was reported as 60.5 and the control limits were 79 to 123.      |    |            |                   |                            |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

|                                                                                                                                                                                                     |    |            |             |                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------|-------------|-----------------------------|
| <b>2207906006</b>                                                                                                                                                                                   | 14 | CL-GS-S-03 | SW846 8260B | Toluene                     |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Toluene. The % Recovery was reported as 63.1 and the control limits were 73 to 129.                     |    |            |             |                             |
| <b>2207906006</b>                                                                                                                                                                                   | 15 | CL-GS-S-03 | SW846 8260B | 2-Hexanone                  |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 2-Hexanone. The % Recovery was reported as 41.5 and the control limits were 62 to 147.                  |    |            |             |                             |
| <b>2207906006</b>                                                                                                                                                                                   | 16 | CL-GS-S-03 | SW846 8260B | Chlorodibromomethane        |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Chlorodibromomethane. The % Recovery was reported as 60.5 and the control limits were 75 to 124.        |    |            |             |                             |
| <b>2207906006</b>                                                                                                                                                                                   | 17 | CL-GS-S-03 | SW846 8260B | 1,2-Dibromoethane           |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,2-Dibromoethane. The % Recovery was reported as 62.3 and the control limits were 76 to 127.           |    |            |             |                             |
| <b>2207906006</b>                                                                                                                                                                                   | 18 | CL-GS-S-03 | SW846 8260B | Chlorobenzene               |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Chlorobenzene. The % Recovery was reported as 53 and the control limits were 76 to 125.                 |    |            |             |                             |
| <b>2207906006</b>                                                                                                                                                                                   | 19 | CL-GS-S-03 | SW846 8260B | Ethylbenzene                |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Ethylbenzene. The % Recovery was reported as 55.4 and the control limits were 73 to 133.                |    |            |             |                             |
| <b>2207906006</b>                                                                                                                                                                                   | 20 | CL-GS-S-03 | SW846 8260B | mp-Xylene                   |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte mp-Xylene. The % Recovery was reported as 55.3 and the control limits were 72 to 130.                   |    |            |             |                             |
| <b>2207906006</b>                                                                                                                                                                                   | 21 | CL-GS-S-03 | SW846 8260B | Bromoform                   |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Bromoform. The % Recovery was reported as 51.2 and the control limits were 68 to 131.                   |    |            |             |                             |
| <b>2207906006</b>                                                                                                                                                                                   | 22 | CL-GS-S-03 | SW846 8260B | Styrene                     |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Styrene. The % Recovery was reported as 45.6 and the control limits were 77 to 130.                     |    |            |             |                             |
| <b>2207906006</b>                                                                                                                                                                                   | 23 | CL-GS-S-03 | SW846 8260B | 1,1,2,2-Tetrachloroethane   |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,1,2,2-Tetrachloroethane. The % Recovery was reported as 47.2 and the control limits were 72 to 134.   |    |            |             |                             |
| <b>2207906006</b>                                                                                                                                                                                   | 24 | CL-GS-S-03 | SW846 8260B | o-Xylene                    |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte o-Xylene. The % Recovery was reported as 55 and the control limits were 75 to 129.                      |    |            |             |                             |
| <b>2207906006</b>                                                                                                                                                                                   | 25 | CL-GS-S-03 | SW846 8260B | Total Xylenes               |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Total Xylenes. The % Recovery was reported as 55.2 and the control limits were 73 to 130.               |    |            |             |                             |
| <b>2207906006</b>                                                                                                                                                                                   | 26 | CL-GS-S-03 | SW846 8260B | 1,2-Dibromo-3-chloropropane |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,2-Dibromo-3-chloropropane. The % Recovery was reported as 29.5 and the control limits were 52 to 151. |    |            |             |                             |
| <b>2207906006</b>                                                                                                                                                                                   | 27 | CL-GS-S-03 | SW846 8260B | Naphthalene                 |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Naphthalene. The % Recovery was reported as 17.2 and the control limits were 60 to 146.                 |    |            |             |                             |
| <b>2207906006</b>                                                                                                                                                                                   | 28 | CL-GS-S-03 | SW846 8260B | tert-Amyl Ethylether        |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte tert-Amyl Ethylether. The % Recovery was reported as 61.2 and the control limits were 70 to 130.        |    |            |             |                             |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

|                                                                                                                                                                                                       |    |            |             |                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------------|-------------|-------------------------------|
| <b>2207906006</b>                                                                                                                                                                                     | 29 | CL-GS-S-03 | SW846 8260B | tert-Amyl Alcohol             |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte tert-Amyl Alcohol. The % Recovery was reported as 39.7 and the control limits were 70 to 130.             |    |            |             |                               |
| <b>2207906006</b>                                                                                                                                                                                     | 30 | CL-GS-S-03 | SW846 8260B | Methylene Chloride            |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                         |    |            |             |                               |
| <b>2207906006</b>                                                                                                                                                                                     | 31 | CL-GS-S-03 | SW846 8260B | Methylene Chloride            |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 165 and the control limits were 68 to 133.            |    |            |             |                               |
| <b>2207906006</b>                                                                                                                                                                                     | 32 | CL-GS-S-03 | SW846 8260B | Methylene Chloride            |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 169 and the control limits were 68 to 133.           |    |            |             |                               |
| <b>2207906006</b>                                                                                                                                                                                     | 33 | CL-GS-S-03 | SW846 8260B | cis-1,2-Dichloroethene        |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte cis-1,2-Dichloroethene. The % Recovery was reported as 73.9 and the control limits were 75 to 128.        |    |            |             |                               |
| <b>2207906006</b>                                                                                                                                                                                     | 34 | CL-GS-S-03 | SW846 8015D | Diesel Range Organics C10-C28 |
| The QC sample type MS for method SW846 8015D was outside the control limits for the analyte Diesel Range Organics C10-C28. The % Recovery was reported as 135 and the control limits were 38 to 132.  |    |            |             |                               |
| <b>2207906006</b>                                                                                                                                                                                     | 35 | CL-GS-S-03 | SW846 8015D | Diesel Range Organics C10-C28 |
| The QC sample type MSD for method SW846 8015D was outside the control limits for the analyte Diesel Range Organics C10-C28. The % Recovery was reported as 215 and the control limits were 38 to 132. |    |            |             |                               |
| <b>2207906007</b>                                                                                                                                                                                     | 1  | CL-GS-S-04 | SW846 8260B | Methylene Chloride            |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                         |    |            |             |                               |
| <b>2207906007</b>                                                                                                                                                                                     | 2  | CL-GS-S-04 | SW846 8260B | Methylene Chloride            |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 165 and the control limits were 68 to 133.            |    |            |             |                               |
| <b>2207906007</b>                                                                                                                                                                                     | 3  | CL-GS-S-04 | SW846 8260B | Methylene Chloride            |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 169 and the control limits were 68 to 133.           |    |            |             |                               |
| <b>2207906008</b>                                                                                                                                                                                     | 1  | CL-GS-S-05 | SW846 8260B | Methylene Chloride            |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                         |    |            |             |                               |
| <b>2207906008</b>                                                                                                                                                                                     | 2  | CL-GS-S-05 | SW846 8260B | Methylene Chloride            |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 165 and the control limits were 68 to 133.            |    |            |             |                               |
| <b>2207906008</b>                                                                                                                                                                                     | 3  | CL-GS-S-05 | SW846 8260B | Methylene Chloride            |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 169 and the control limits were 68 to 133.           |    |            |             |                               |
| <b>2207906009</b>                                                                                                                                                                                     | 1  | CL-GS-S-06 | SW846 8260B | Methylene Chloride            |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                         |    |            |             |                               |
| <b>2207906009</b>                                                                                                                                                                                     | 2  | CL-GS-S-06 | SW846 8260B | Methylene Chloride            |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 165 and the control limits were 68 to 133.            |    |            |             |                               |
| <b>2207906009</b>                                                                                                                                                                                     | 3  | CL-GS-S-06 | SW846 8260B | Methylene Chloride            |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 169 and the control limits were 68 to 133.           |    |            |             |                               |

## ANALYTICAL RESULTS

Workorder: 2207906 Chase Lands Phase II

|                                                                                                                                                                                                    |   |            |             |                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|------------|-------------|----------------------------|
| <b>2207906009</b>                                                                                                                                                                                  | 4 | CL-GS-S-06 | SW846 8270D | Hexachlorocyclopentadiene  |
| The QC sample type MS for method SW846 8270D was outside the control limits for the analyte Hexachlorocyclopentadiene. The % Recovery was reported as 18 and the control limits were 33 to 109.    |   |            |             |                            |
| <b>2207906009</b>                                                                                                                                                                                  | 5 | CL-GS-S-06 | SW846 8270D | 2-Methyl-4,6-dinitrophenol |
| The QC sample type MS for method SW846 8270D was outside the control limits for the analyte 2-Methyl-4,6-dinitrophenol. The % Recovery was reported as 49.6 and the control limits were 53 to 131. |   |            |             |                            |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

**QC Batch:** EXTR/46698 **Analysis Method:** SW846 8270D  
**QC Batch Method:** SW846 3510C  
**Associated Lab Samples:** 2207906002, 2207906003, 2207906004

#### METHOD BLANK: 2485233

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acenaphthene                | ND           | ug/L  | 1.5             |
| Acenaphthylene              | ND           | ug/L  | 1.5             |
| Acetophenone                | ND           | ug/L  | 3.0             |
| Anthracene                  | ND           | ug/L  | 1.5             |
| Atrazine                    | ND           | ug/L  | 3.0             |
| Benzaldehyde                | ND           | ug/L  | 3.0             |
| Benzo(a)anthracene          | ND           | ug/L  | 1.5             |
| Benzo(a)pyrene              | ND           | ug/L  | 1.5             |
| Benzo(b)fluoranthene        | ND           | ug/L  | 1.5             |
| Benzo(g,h,i)perylene        | ND           | ug/L  | 1.5             |
| Benzo(k)fluoranthene        | ND           | ug/L  | 1.5             |
| Biphenyl                    | ND           | ug/L  | 3.0             |
| 4-Bromophenyl-phenylether   | ND           | ug/L  | 3.0             |
| Butylbenzylphthalate        | 0.17J        | ug/L  | 3.0             |
| Caprolactam                 | ND           | ug/L  | 3.0             |
| Carbazole                   | ND           | ug/L  | 3.0             |
| 4-Chloro-3-methylphenol     | ND           | ug/L  | 3.0             |
| 4-Chloroaniline             | ND           | ug/L  | 3.0             |
| bis(2-Chloroethoxy)methane  | ND           | ug/L  | 3.0             |
| bis(2-Chloroethyl)ether     | ND           | ug/L  | 3.0             |
| bis(2-Chloroisopropyl)ether | ND           | ug/L  | 3.0             |
| 2-Chloronaphthalene         | ND           | ug/L  | 3.0             |
| 2-Chlorophenol              | ND           | ug/L  | 3.0             |
| 4-Chlorophenyl-phenylether  | ND           | ug/L  | 3.0             |
| Chrysene                    | ND           | ug/L  | 1.5             |
| mp-Cresol                   | ND           | ug/L  | 3.0             |
| o-Cresol                    | ND           | ug/L  | 3.0             |
| Di-n-Butylphthalate         | 0.19J        | ug/L  | 3.0             |
| Di-n-Octylphthalate         | ND           | ug/L  | 3.0             |
| Dibenzo(a,h)anthracene      | ND           | ug/L  | 1.5             |
| Dibenzofuran                | ND           | ug/L  | 3.0             |
| 3,3-Dichlorobenzidine       | ND           | ug/L  | 3.0             |
| 2,4-Dichlorophenol          | ND           | ug/L  | 3.0             |
| Diethylphthalate            | ND           | ug/L  | 3.0             |
| 2,4-Dimethylphenol          | ND           | ug/L  | 3.0             |
| Dimethylphthalate           | ND           | ug/L  | 3.0             |
| 2,4-Dinitrophenol           | ND           | ug/L  | 6.0             |



### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

|                            |       |      |          |
|----------------------------|-------|------|----------|
| 2,4-Dinitrotoluene         | ND    | ug/L | 3.0      |
| 2,6-Dinitrotoluene         | ND    | ug/L | 3.0      |
| 1,4-Dioxane                | ND    | ug/L | 3.0      |
| bis(2-Ethylhexyl)phthalate | 0.23J | ug/L | 3.0      |
| Fluoranthene               | ND    | ug/L | 1.5      |
| Fluorene                   | ND    | ug/L | 1.5      |
| Hexachlorobenzene          | ND    | ug/L | 3.0      |
| Hexachlorobutadiene        | ND    | ug/L | 3.0      |
| Hexachlorocyclopentadiene  | ND    | ug/L | 3.0      |
| Hexachloroethane           | ND    | ug/L | 3.0      |
| Indeno(1,2,3-cd)pyrene     | ND    | ug/L | 1.5      |
| Isophorone                 | ND    | ug/L | 3.0      |
| 2-Methyl-4,6-dinitrophenol | ND    | ug/L | 6.0      |
| 2-Methylnaphthalene        | ND    | ug/L | 1.5      |
| Naphthalene                | ND    | ug/L | 1.5      |
| 2-Nitroaniline             | ND    | ug/L | 3.0      |
| 3-Nitroaniline             | ND    | ug/L | 3.0      |
| 4-Nitroaniline             | ND    | ug/L | 3.0      |
| Nitrobenzene               | ND    | ug/L | 3.0      |
| 2-Nitrophenol              | ND    | ug/L | 3.0      |
| 4-Nitrophenol              | ND    | ug/L | 3.0      |
| N-Nitroso-di-n-propylamine | ND    | ug/L | 3.0      |
| N-Nitrosodiphenylamine     | ND    | ug/L | 3.0      |
| Pentachlorophenol          | ND    | ug/L | 6.0      |
| Phenanthrene               | ND    | ug/L | 1.5      |
| Phenol                     | ND    | ug/L | 8.0      |
| Pyrene                     | ND    | ug/L | 1.5      |
| 1,2,4,5-Tetrachlorobenzene | ND    | ug/L | 3.0      |
| 2,3,4,6-Tetrachlorophenol  | ND    | ug/L | 3.0      |
| 2,4,5-Trichlorophenol      | ND    | ug/L | 3.0      |
| 2,4,6-Trichlorophenol      | ND    | ug/L | 3.0      |
| 2,4,6-Tribromophenol (S)   | 95.6  | %    | 47 - 128 |
| 2-Fluorobiphenyl (S)       | 82.3  | %    | 52 - 118 |
| 2-Fluorophenol (S)         | 62    | %    | 20 - 87  |
| Nitrobenzene-d5 (S)        | 84.8  | %    | 27 - 139 |
| Phenol-d5 (S)              | 41.5  | %    | 10 - 81  |
| Terphenyl-d14 (S)          | 93.6  | %    | 46 - 133 |

#### LABORATORY CONTROL SAMPLE: 2485234

| Parameter      | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | % Rec<br>Limit |
|----------------|--------------|-------|----------------|---------------|----------------|
| Acenaphthene   | 82.4         | ug/L  | 50             | 41.2          | 36 - 130       |
| Acenaphthylene | 92.4         | ug/L  | 50             | 46.2          | 39 - 130       |
| Acetophenone   | 106          | ug/L  | 50             | 53.0          | 49 - 117       |
| Anthracene     | 113          | ug/L  | 50             | 56.7          | 48 - 133       |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

|                             |      |      |     |      |          |
|-----------------------------|------|------|-----|------|----------|
| Atrazine                    | 110  | ug/L | 50  | 54.9 | 44 - 149 |
| Benzaldehyde                | 85.4 | ug/L | 50  | 42.7 | 38 - 145 |
| Benzo(a)anthracene          | 110  | ug/L | 50  | 55.1 | 51 - 127 |
| Benzo(a)pyrene              | 110  | ug/L | 50  | 55.2 | 53 - 127 |
| Benzo(b)fluoranthene        | 115  | ug/L | 50  | 57.5 | 53 - 131 |
| Benzo(g,h,i)perylene        | 113  | ug/L | 50  | 56.4 | 54 - 131 |
| Benzo(k)fluoranthene        | 116  | ug/L | 50  | 58.2 | 52 - 130 |
| Biphenyl                    | 72   | ug/L | 50  | 36.0 | 30 - 132 |
| 4-Bromophenyl-phenylether   | 104  | ug/L | 50  | 51.9 | 46 - 128 |
| Butylbenzylphthalate        | 103  | ug/L | 50  | 51.3 | 50 - 137 |
| Caprolactam                 | 40.5 | ug/L | 50  | 20.3 | 5 - 118  |
| Carbazole                   | 123  | ug/L | 50  | 61.7 | 52 - 139 |
| 4-Chloro-3-methylphenol     | 119  | ug/L | 100 | 119  | 46 - 144 |
| 4-Chloroaniline             | 112  | ug/L | 50  | 56.2 | 44 - 113 |
| bis(2-Chloroethoxy)methane  | 125  | ug/L | 50  | 62.3 | 43 - 132 |
| bis(2-Chloroethyl)ether     | 119  | ug/L | 50  | 59.4 | 41 - 128 |
| bis(2-Chloroisopropyl)ether | 101  | ug/L | 50  | 50.4 | 32 - 128 |
| 2-Chloronaphthalene         | 75.2 | ug/L | 50  | 37.6 | 27 - 125 |
| 2-Chlorophenol              | 107  | ug/L | 100 | 107  | 42 - 137 |
| 4-Chlorophenyl-phenylether  | 96.6 | ug/L | 50  | 48.3 | 38 - 128 |
| Chrysene                    | 117  | ug/L | 50  | 58.3 | 50 - 131 |
| mp-Cresol                   | 93.1 | ug/L | 100 | 93.1 | 28 - 128 |
| o-Cresol                    | 97.6 | ug/L | 100 | 97.6 | 34 - 136 |
| Di-n-Butylphthalate         | 112  | ug/L | 50  | 56.0 | 47 - 135 |
| Di-n-Octylphthalate         | 83.2 | ug/L | 50  | 41.6 | 35 - 141 |
| Dibenzo(a,h)anthracene      | 117  | ug/L | 50  | 58.3 | 56 - 130 |
| Dibenzofuran                | 92.6 | ug/L | 50  | 46.3 | 39 - 133 |
| 3,3-Dichlorobenzidine       | 110  | ug/L | 100 | 110  | 38 - 115 |
| 2,4-Dichlorophenol          | 119  | ug/L | 100 | 119  | 44 - 142 |
| Diethylphthalate            | 117  | ug/L | 50  | 58.3 | 45 - 132 |
| 2,4-Dimethylphenol          | 115  | ug/L | 100 | 115  | 46 - 141 |
| Dimethylphthalate           | 118  | ug/L | 50  | 58.8 | 44 - 131 |
| 2,4-Dinitrophenol           | 115  | ug/L | 100 | 115  | 21 - 140 |
| 2,4-Dinitrotoluene          | 125  | ug/L | 50  | 62.7 | 49 - 138 |
| 2,6-Dinitrotoluene          | 117  | ug/L | 50  | 58.7 | 49 - 136 |
| 1,4-Dioxane                 | 62.8 | ug/L | 50  | 31.4 | 5 - 129  |
| bis(2-Ethylhexyl)phthalate  | 96.9 | ug/L | 50  | 48.4 | 41 - 145 |
| Fluoranthene                | 127  | ug/L | 50  | 63.3 | 49 - 132 |
| Fluorene                    | 100  | ug/L | 50  | 50.0 | 42 - 131 |
| Hexachlorobenzene           | 110* | ug/L | 50  | 55.0 | 59 - 109 |
| Hexachlorobutadiene         | 61.6 | ug/L | 50  | 30.8 | 5 - 126  |
| Hexachlorocyclopentadiene   | 17.9 | ug/L | 50  | 9.0  | 5 - 97   |
| Hexachloroethane            | 44.9 | ug/L | 50  | 22.4 | 5 - 111  |
| Indeno(1,2,3-cd)pyrene      | 113  | ug/L | 50  | 56.4 | 55 - 126 |
| Isophorone                  | 119  | ug/L | 50  | 59.4 | 45 - 129 |
| 2-Methyl-4,6-dinitrophenol  | 108  | ug/L | 100 | 108  | 46 - 133 |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

|                            |      |      |     |      |          |
|----------------------------|------|------|-----|------|----------|
| 2-Methylnaphthalene        | 66.7 | ug/L | 50  | 33.4 | 22 - 124 |
| Naphthalene                | 72.4 | ug/L | 50  | 36.2 | 21 - 123 |
| 2-Nitroaniline             | 124  | ug/L | 50  | 62.0 | 55 - 138 |
| 3-Nitroaniline             | 135* | ug/L | 50  | 67.5 | 60 - 123 |
| 4-Nitroaniline             | 125* | ug/L | 50  | 62.4 | 53 - 124 |
| Nitrobenzene               | 122  | ug/L | 50  | 60.9 | 41 - 128 |
| 2-Nitrophenol              | 111  | ug/L | 100 | 111  | 46 - 140 |
| 4-Nitrophenol              | 58.4 | ug/L | 100 | 58.4 | 5 - 108  |
| N-Nitroso-di-n-propylamine | 112  | ug/L | 50  | 56.1 | 46 - 133 |
| N-Nitrosodiphenylamine     | 127* | ug/L | 50  | 63.3 | 58 - 125 |
| Pentachlorophenol          | 114  | ug/L | 100 | 114  | 41 - 149 |
| Phenanthrene               | 112  | ug/L | 50  | 55.9 | 46 - 131 |
| Phenol                     | 58.4 | ug/L | 100 | 58.4 | 5 - 111  |
| Pyrene                     | 110  | ug/L | 50  | 55.1 | 48 - 134 |
| 1,2,4,5-Tetrachlorobenzene | 62.4 | ug/L | 50  | 31.2 | 18 - 124 |
| 2,3,4,6-Tetrachlorophenol  | 91.1 | ug/L | 100 | 91.1 | 36 - 133 |
| 2,4,5-Trichlorophenol      | 116  | ug/L | 100 | 116  | 44 - 148 |
| 2,4,6-Trichlorophenol      | 110  | ug/L | 100 | 110  | 41 - 148 |
| 2,4,6-Tribromophenol (S)   | 116  | %    |     |      | 47 - 128 |
| 2-Fluorobiphenyl (S)       | 99.9 | %    |     |      | 52 - 118 |
| 2-Fluorophenol (S)         | 72.2 | %    |     |      | 20 - 87  |
| Nitrobenzene-d5 (S)        | 104  | %    |     |      | 27 - 139 |
| Phenol-d5 (S)              | 51.4 | %    |     |      | 10 - 81  |
| Terphenyl-d14 (S)          | 103  | %    |     |      | 46 - 133 |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

**QC Batch:** EXTR/46700 **Analysis Method:** 8270 SIM

**QC Batch Method:** SW846 3510C

**Associated Lab Samples:** 2207906002, 2207906003, 2207906004

#### METHOD BLANK: 2485237

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acenaphthene                | ND           | ug/L  | 0.10            |
| Acenaphthylene              | ND           | ug/L  | 0.10            |
| Anthracene                  | ND           | ug/L  | 0.10            |
| Benzo(a)anthracene          | ND           | ug/L  | 0.10            |
| Benzo(a)pyrene              | ND           | ug/L  | 0.10            |
| Benzo(b)fluoranthene        | ND           | ug/L  | 0.10            |
| Benzo(g,h,i)perylene        | ND           | ug/L  | 0.10            |
| Benzo(k)fluoranthene        | ND           | ug/L  | 0.10            |
| Chrysene                    | ND           | ug/L  | 0.10            |
| Dibenzo(a,h)anthracene      | ND           | ug/L  | 0.070           |
| Fluoranthene                | ND           | ug/L  | 0.10            |
| Fluorene                    | ND           | ug/L  | 0.10            |
| Indeno(1,2,3-cd)pyrene      | ND           | ug/L  | 0.10            |
| Naphthalene                 | ND           | ug/L  | 0.10            |
| Phenanthrene                | ND           | ug/L  | 0.10            |
| Pyrene                      | ND           | ug/L  | 0.10            |
| 2-Methylnaphthalene-d10 (S) | 84.2         | %     | 29 - 112        |
| Fluoranthene-d10 (S)        | 97.6         | %     | 45 - 130        |

#### LABORATORY CONTROL SAMPLE: 2485238

| Parameter              | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|------------------------|-----------|-------|-------------|------------|-------------|
| Acenaphthene           | 96.5      | ug/L  | 1           | 0.97       | 46 - 121    |
| Acenaphthylene         | 100       | ug/L  | 1           | 1.0        | 49 - 122    |
| Anthracene             | 99.8      | ug/L  | 1           | 1.0        | 47 - 134    |
| Benzo(a)anthracene     | 102       | ug/L  | 1           | 1.0        | 51 - 141    |
| Benzo(a)pyrene         | 100       | ug/L  | 1           | 1.0        | 45 - 139    |
| Benzo(b)fluoranthene   | 101       | ug/L  | 1           | 1.0        | 48 - 147    |
| Benzo(g,h,i)perylene   | 111       | ug/L  | 1           | 1.1        | 43 - 153    |
| Benzo(k)fluoranthene   | 113       | ug/L  | 1           | 1.1        | 52 - 148    |
| Chrysene               | 111       | ug/L  | 1           | 1.1        | 52 - 144    |
| Dibenzo(a,h)anthracene | 114       | ug/L  | 1           | 1.1        | 45 - 150    |
| Fluoranthene           | 98.5      | ug/L  | 1           | 0.98       | 51 - 149    |
| Fluorene               | 99.9      | ug/L  | 1           | 1.0        | 52 - 123    |
| Indeno(1,2,3-cd)pyrene | 112       | ug/L  | 1           | 1.1        | 49 - 143    |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

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|                            |      |      |   |      |          |
|----------------------------|------|------|---|------|----------|
| Naphthalene                | 88.2 | ug/L | 1 | 0.88 | 44 - 113 |
| Phenanthrene               | 96.3 | ug/L | 1 | 0.96 | 50 - 128 |
| Pyrene                     | 100  | ug/L | 1 | 1.0  | 48 - 143 |
| 2-Methylnapthalene-d10 (S) | 82.7 | %    |   |      | 29 - 112 |
| Fluoranthene-d10 (S)       | 95.8 | %    |   |      | 45 - 130 |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

**QC Batch:** EXTR/46723 **Analysis Method:** SW846 8081B

**QC Batch Method:** SW846 3510C

**Associated Lab Samples:** 2207906002, 2207906003, 2207906004

#### METHOD BLANK: 2486031

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aldrin                   | ND           | ug/L  | 0.020           |
| alpha-BHC                | ND           | ug/L  | 0.020           |
| beta-BHC                 | ND           | ug/L  | 0.020           |
| delta-BHC                | ND           | ug/L  | 0.020           |
| gamma-BHC                | ND           | ug/L  | 0.020           |
| alpha-Chlordane          | ND           | ug/L  | 0.020           |
| gamma-Chlordane          | ND           | ug/L  | 0.020           |
| 4,4'-DDD                 | ND           | ug/L  | 0.020           |
| 4,4'-DDE                 | ND           | ug/L  | 0.020           |
| 4,4'-DDT                 | ND           | ug/L  | 0.020           |
| Dieldrin                 | ND           | ug/L  | 0.020           |
| Endosulfan I             | ND           | ug/L  | 0.020           |
| Endosulfan II            | ND           | ug/L  | 0.020           |
| Endosulfan Sulfate       | ND           | ug/L  | 0.020           |
| Endrin                   | ND           | ug/L  | 0.020           |
| Endrin Aldehyde          | ND           | ug/L  | 0.020           |
| Endrin Ketone            | ND           | ug/L  | 0.020           |
| Heptachlor               | ND           | ug/L  | 0.020           |
| Heptachlor Epoxide       | ND           | ug/L  | 0.020           |
| Methoxychlor             | ND           | ug/L  | 0.020           |
| Toxaphene                | ND           | ug/L  | 1.0             |
| Decachlorobiphenyls (S)  | 60           | %     | 30 - 140        |
| Tetrachloro-m-xylene (S) | 31.5         | %     | 30 - 123        |

#### LABORATORY CONTROL SAMPLE: 2486032

| Parameter       | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-----------------|-----------|-------|-------------|------------|-------------|
| Aldrin          | 55.2      | ug/L  | .5          | 0.28       | 45 - 121    |
| alpha-BHC       | 76        | ug/L  | .5          | 0.38       | 60 - 137    |
| beta-BHC        | 83        | ug/L  | .5          | 0.41       | 59 - 139    |
| delta-BHC       | 79.5      | ug/L  | .5          | 0.40       | 59 - 141    |
| gamma-BHC       | 77.1      | ug/L  | .5          | 0.39       | 58 - 138    |
| alpha-Chlordane | 77.4      | ug/L  | .5          | 0.39       | 62 - 131    |
| gamma-Chlordane | 74.6      | ug/L  | .5          | 0.37       | 60 - 129    |
| 4,4'-DDD        | 76.9      | ug/L  | .5          | 0.38       | 58 - 142    |



### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

|                          |      |      |    |      |          |
|--------------------------|------|------|----|------|----------|
| 4,4'-DDE                 | 77.1 | ug/L | .5 | 0.39 | 61 - 132 |
| 4,4'-DDT                 | 76.3 | ug/L | .5 | 0.38 | 58 - 140 |
| Dieldrin                 | 84.9 | ug/L | .5 | 0.42 | 61 - 138 |
| Endosulfan I             | 76.1 | ug/L | .5 | 0.38 | 53 - 128 |
| Endosulfan II            | 77.3 | ug/L | .5 | 0.39 | 57 - 142 |
| Endosulfan Sulfate       | 75.2 | ug/L | .5 | 0.38 | 36 - 148 |
| Endrin                   | 84.8 | ug/L | .5 | 0.42 | 58 - 143 |
| Endrin Aldehyde          | 66.4 | ug/L | .5 | 0.33 | 23 - 139 |
| Endrin Ketone            | 78.8 | ug/L | .5 | 0.39 | 51 - 139 |
| Heptachlor               | 59.6 | ug/L | .5 | 0.30 | 51 - 124 |
| Heptachlor Epoxide       | 83.2 | ug/L | .5 | 0.42 | 62 - 131 |
| Methoxychlor             | 79.6 | ug/L | .5 | 0.40 | 56 - 140 |
| Toxaphene                |      | ug/L |    | ND   |          |
| Decachlorobiphenyls (S)  | 61.2 | %    |    |      | 30 - 140 |
| Tetrachloro-m-xylene (S) | 35.3 | %    |    |      | 30 - 123 |

MATRIX SPIKE: 2486033 DUPLICATE: 2486034 ORIGINAL: 2207768001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|--------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| gamma-BHC                | 0               | ug/L  | 10          | 8.2176    | 9.3038     | 82.2     | 93        | 58 - 138    | 12.4 | 30      |
| Endrin                   | 0               | ug/L  | 10          | 8.8094    | 9.7917     | 88.1     | 97.9      | 58 - 143    | 10.6 | 28      |
| Heptachlor               | 0               | ug/L  | 10          | 6.7203    | 7.9249     | 67.2     | 79.2      | 51 - 124    | 16.5 | 28      |
| Heptachlor Epoxide       | 0               | ug/L  | 10          | 8.5492    | 9.7967     | 85.5     | 98        | 62 - 131    | 13.6 | 27      |
| Methoxychlor             | 0               | ug/L  | 10          | 7.6455    | 8.7911     | 76.5     | 87.9      | 56 - 140    | 13.9 | 21      |
| Decachlorobiphenyls (S)  | 44.4            | %     |             |           |            | 44.4     | 41.7      | 30 - 140    |      |         |
| Tetrachloro-m-xylene (S) | 51.7            | %     |             |           |            | 51.7     | 56.1      | 30 - 123    |      |         |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

**QC Batch:** EXTR/46724      **Analysis Method:** SW846 8082A  
**QC Batch Method:** SW846 3510C  
**Associated Lab Samples:** 2207906002, 2207906003, 2207906004

#### METHOD BLANK: 2486035

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aroclor-1016             | ND           | ug/L  | 0.50            |
| Aroclor-1221             | ND           | ug/L  | 0.50            |
| Aroclor-1232             | ND           | ug/L  | 0.50            |
| Aroclor-1242             | ND           | ug/L  | 0.50            |
| Aroclor-1248             | ND           | ug/L  | 0.50            |
| Aroclor-1254             | ND           | ug/L  | 0.50            |
| Aroclor-1260             | ND           | ug/L  | 0.50            |
| Aroclor-1262             | ND           | ug/L  | 0.50            |
| Aroclor-1268             | ND           | ug/L  | 0.50            |
| Decachlorobiphenyls (S)  | 101          | %     | 30 - 140        |
| Tetrachloro-m-xylene (S) | 64.1         | %     | 30 - 133        |

#### LABORATORY CONTROL SAMPLE: 2486036

| Parameter                | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|--------------------------|-----------|-------|-------------|------------|-------------|
| Aroclor-1016             | 59        | ug/L  | 5           | 3.0        | 43 - 132    |
| Aroclor-1260             | 85.9      | ug/L  | 5           | 4.3        | 49 - 130    |
| Decachlorobiphenyls (S)  | 87.2      | %     |             |            | 30 - 140    |
| Tetrachloro-m-xylene (S) | 55.8      | %     |             |            | 30 - 133    |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

**QC Batch:** EXTR/46745      **Analysis Method:** SW846 8081B  
**QC Batch Method:** SW846 3546  
**Associated Lab Samples:** 2207906005, 2207906006, 2207906007

#### METHOD BLANK: 2486806

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aldrin                   | ND           | ug/kg | 1.7             |
| alpha-BHC                | ND           | ug/kg | 1.7             |
| beta-BHC                 | ND           | ug/kg | 1.7             |
| delta-BHC                | ND           | ug/kg | 1.7             |
| gamma-BHC                | ND           | ug/kg | 1.7             |
| alpha-Chlordane          | ND           | ug/kg | 1.7             |
| gamma-Chlordane          | ND           | ug/kg | 1.7             |
| 4,4'-DDD                 | ND           | ug/kg | 3.3             |
| 4,4'-DDE                 | ND           | ug/kg | 3.3             |
| 4,4'-DDT                 | ND           | ug/kg | 3.3             |
| Dieldrin                 | ND           | ug/kg | 3.3             |
| Endosulfan I             | ND           | ug/kg | 1.7             |
| Endosulfan II            | ND           | ug/kg | 3.3             |
| Endosulfan Sulfate       | ND           | ug/kg | 3.3             |
| Endrin                   | ND           | ug/kg | 3.3             |
| Endrin Aldehyde          | ND           | ug/kg | 3.3             |
| Endrin Ketone            | ND           | ug/kg | 3.3             |
| Heptachlor               | ND           | ug/kg | 1.7             |
| Heptachlor Epoxide       | ND           | ug/kg | 1.7             |
| Methoxychlor             | ND           | ug/kg | 3.3             |
| Toxaphene                | ND           | ug/kg | 35.0            |
| Decachlorobiphenyls (S)  | 67.6         | %     | 30 - 135        |
| Tetrachloro-m-xylene (S) | 66.3         | %     | 30 - 111        |

#### LABORATORY CONTROL SAMPLE: 2486807

| Parameter       | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-----------------|-----------|-------|-------------|------------|-------------|
| Aldrin          | 77        | ug/kg | 33.3        | 25.7       | 58 - 103    |
| alpha-BHC       | 77.2      | ug/kg | 33.3        | 25.7       | 57 - 105    |
| beta-BHC        | 87        | ug/kg | 33.3        | 29.0       | 53 - 106    |
| delta-BHC       | 85        | ug/kg | 33.3        | 28.3       | 60 - 103    |
| gamma-BHC       | 79.2      | ug/kg | 33.3        | 26.4       | 59 - 102    |
| alpha-Chlordane | 85.8      | ug/kg | 33.3        | 28.6       | 62 - 98     |
| gamma-Chlordane | 86        | ug/kg | 33.3        | 28.7       | 58 - 103    |
| 4,4'-DDD        | 85        | ug/kg | 33.3        | 28.3       | 57 - 111    |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

|                          |      |       |      |      |          |
|--------------------------|------|-------|------|------|----------|
| 4,4'-DDE                 | 94.3 | ug/kg | 33.3 | 31.4 | 63 - 112 |
| 4,4'-DDT                 | 81.2 | ug/kg | 33.3 | 27.1 | 60 - 122 |
| Dieldrin                 | 87.3 | ug/kg | 33.3 | 29.1 | 62 - 109 |
| Endosulfan I             | 76.6 | ug/kg | 33.3 | 25.5 | 57 - 98  |
| Endosulfan II            | 83.8 | ug/kg | 33.3 | 27.9 | 59 - 112 |
| Endosulfan Sulfate       | 80.6 | ug/kg | 33.3 | 26.9 | 27 - 96  |
| Endrin                   | 91.2 | ug/kg | 33.3 | 30.4 | 63 - 108 |
| Endrin Aldehyde          | 63.2 | ug/kg | 33.3 | 21.1 | 21 - 92  |
| Endrin Ketone            | 86.9 | ug/kg | 33.3 | 29.0 | 32 - 103 |
| Heptachlor               | 67.7 | ug/kg | 33.3 | 22.6 | 51 - 105 |
| Heptachlor Epoxide       | 86.4 | ug/kg | 33.3 | 28.8 | 62 - 99  |
| Methoxychlor             | 76.9 | ug/kg | 33.3 | 25.6 | 50 - 114 |
| Toxaphene                |      | ug/kg |      | ND   |          |
| Decachlorobiphenyls (S)  | 71.5 | %     |      |      | 30 - 135 |
| Tetrachloro-m-xylene (S) | 58.3 | %     |      |      | 30 - 111 |

MATRIX SPIKE SAMPLE: 2486808 ORIGINAL: 2208892004

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|--------------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Aldrin                   | 0               | ug/kg | 32.9        | 22.2476   | 67.6     | 58 - 103    |
| alpha-BHC                | 0               | ug/kg | 32.9        | 21.1842   | 64.4     | 57 - 105    |
| beta-BHC                 | 0               | ug/kg | 32.9        | 22.4563   | 68.3     | 53 - 106    |
| delta-BHC                | 0               | ug/kg | 32.9        | 21.8941   | 66.6     | 60 - 103    |
| gamma-BHC                | 0               | ug/kg | 32.9        | 21.1907   | 64.4     | 59 - 102    |
| 4,4'-DDD                 | 0               | ug/kg | 32.9        | 22.6091   | 68.7     | 57 - 111    |
| 4,4'-DDE                 | 0               | ug/kg | 32.9        | 25.2356   | 76.7     | 63 - 112    |
| 4,4'-DDT                 | 0               | ug/kg | 32.9        | 21.3078   | 64.8     | 60 - 122    |
| Dieldrin                 | .2828           | ug/kg | 32.9        | 24.1501   | 72.6     | 62 - 109    |
| Endosulfan I             | 0               | ug/kg | 32.9        | 20.581    | 62.6     | 57 - 98     |
| Endosulfan II            | 0               | ug/kg | 32.9        | 20.8388   | 63.3     | 59 - 112    |
| Endosulfan Sulfate       | 0               | ug/kg | 32.9        | 18.4222   | 56       | 27 - 96     |
| Endrin                   | 0               | ug/kg | 32.9        | 23.5752   | 71.7     | 63 - 108    |
| Endrin Aldehyde          | 0               | ug/kg | 32.9        | 13.6033   | 41.4     | 21 - 92     |
| Endrin Ketone            | 0               | ug/kg | 32.9        | 21.4802   | 65.3     | 32 - 103    |
| Heptachlor               | 0               | ug/kg | 32.9        | 22.3074   | 67.8     | 51 - 105    |
| Heptachlor Epoxide       | 0               | ug/kg | 32.9        | 23.9678   | 72.9     | 62 - 99     |
| Methoxychlor             | 0               | ug/kg | 32.9        | 20.3682   | 61.9     | 50 - 114    |
| Decachlorobiphenyls (S)  | 56.3            | %     |             |           |          | 30 - 135    |
| Tetrachloro-m-xylene (S) | 53.4            | %     |             |           |          | 30 - 111    |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

SAMPLE DUPLICATE: 2486809 ORIGINAL: 2207906005

| Parameter          | Original Result | Units | DUP Result | RPD   | Max RPD |
|--------------------|-----------------|-------|------------|-------|---------|
| Aldrin             | 0               | ug/kg | 0          | NC    | 40      |
| alpha-BHC          | 0               | ug/kg | 0          | NC    | 40      |
| beta-BHC           | 0               | ug/kg | 0          | NC    | 40      |
| delta-BHC          | 0               | ug/kg | 0          | NC    | 40      |
| gamma-BHC          | 0               | ug/kg | 0          | NC    | 40      |
| alpha-Chlordane    | 0               | ug/kg | 0          | NC    | 40      |
| gamma-Chlordane    | 0               | ug/kg | 0          | NC    | 40      |
| 4,4'-DDD           | 4.4696          | ug/kg | 2.4081     | 59.9* | 40      |
| 4,4'-DDE           | 9.793           | ug/kg | 6.9285     | 34.3  | 40      |
| 4,4'-DDT           | 22.9458         | ug/kg | 16.1298    | 34.9  | 40      |
| Dieldrin           | 0               | ug/kg | 0          | NC    | 40      |
| Endosulfan I       | 0               | ug/kg | 0          | NC    | 40      |
| Endosulfan II      | 0               | ug/kg | 0          | NC    | 40      |
| Endosulfan Sulfate | 0               | ug/kg | 0          | NC    | 40      |
| Endrin             | 0               | ug/kg | 0          | NC    | 40      |
| Endrin Aldehyde    | 0               | ug/kg | 0          | NC    | 40      |
| Endrin Ketone      | 0               | ug/kg | 0          | NC    | 40      |
| Heptachlor         | 0               | ug/kg | 0          | NC    | 40      |
| Heptachlor Epoxide | 0               | ug/kg | 0          | NC    | 35      |
| Methoxychlor       | 0               | ug/kg | 0          | NC    | 40      |
| Toxaphene          | 0               | ug/kg | 0          | NC    | 40      |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

**QC Batch:** EXTR/46746      **Analysis Method:** SW846 8082A  
**QC Batch Method:** SW846 3546  
**Associated Lab Samples:** 2207906005, 2207906006, 2207906007

#### METHOD BLANK: 2486830

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aroclor-1016             | ND           | mg/kg | 0.033           |
| Aroclor-1221             | ND           | mg/kg | 0.033           |
| Aroclor-1232             | ND           | mg/kg | 0.033           |
| Aroclor-1242             | ND           | mg/kg | 0.033           |
| Aroclor-1248             | ND           | mg/kg | 0.033           |
| Aroclor-1254             | ND           | mg/kg | 0.033           |
| Aroclor-1260             | ND           | mg/kg | 0.033           |
| Aroclor-1262             | ND           | mg/kg | 0.033           |
| Aroclor-1268             | ND           | mg/kg | 0.033           |
| Decachlorobiphenyls (S)  | 89.3         | %     | 49 - 115        |
| Tetrachloro-m-xylene (S) | 87.3         | %     | 27 - 137        |

#### LABORATORY CONTROL SAMPLE: 2486831

| Parameter                | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|--------------------------|-----------|-------|-------------|------------|-------------|
| Aroclor-1016             | 82.2      | mg/kg | .33         | 0.27       | 43 - 132    |
| Aroclor-1221             |           | mg/kg |             | ND         |             |
| Aroclor-1232             |           | mg/kg |             | ND         |             |
| Aroclor-1242             |           | mg/kg |             | ND         |             |
| Aroclor-1248             |           | mg/kg |             | ND         |             |
| Aroclor-1254             |           | mg/kg |             | ND         |             |
| Aroclor-1260             | 90.8      | mg/kg | .33         | 0.30       | 53 - 134    |
| Aroclor-1262             |           | mg/kg |             | ND         |             |
| Aroclor-1268             |           | mg/kg |             | ND         |             |
| Decachlorobiphenyls (S)  | 88.5      | %     |             |            | 49 - 115    |
| Tetrachloro-m-xylene (S) | 88.3      | %     |             |            | 27 - 137    |

#### SAMPLE DUPLICATE: 2486832 ORIGINAL: 2207906005

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Aroclor-1016 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1221 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1232 | 0               | mg/kg | 0          | NC  | 40      |



### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

|              |        |       |        |      |    |
|--------------|--------|-------|--------|------|----|
| Aroclor-1242 | 0      | mg/kg | 0      | NC   | 40 |
| Aroclor-1248 | 0      | mg/kg | 0      | NC   | 40 |
| Aroclor-1254 | .03034 | mg/kg | .02461 | 20.9 | 40 |
| Aroclor-1260 | .02023 | mg/kg | .02293 | 12.5 | 40 |
| Aroclor-1262 | 0      | mg/kg | 0      | NC   |    |
| Aroclor-1268 | 0      | mg/kg | 0      | NC   |    |

MATRIX SPIKE SAMPLE: 2486833 ORIGINAL: 2207906007

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|--------------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Aroclor-1016             | 0               | mg/kg | .33         | .28742    | 87.4     | 43 - 132    |
| Aroclor-1260             | 0               | mg/kg | .33         | .34264    | 104      | 53 - 134    |
| Decachlorobiphenyls (S)  | 107             | %     |             |           |          | 49 - 115    |
| Tetrachloro-m-xylene (S) | 85.3            | %     |             |           |          | 27 - 137    |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

**QC Batch:** EXTR/46749      **Analysis Method:** SW846 8015D  
**QC Batch Method:** SW846 3546  
**Associated Lab Samples:** 2207906005, 2207906006, 2207906007, 2207906008, 2207906009

#### METHOD BLANK: 2487242

| Parameter                     | Blank Result | Units | Reporting Limit |
|-------------------------------|--------------|-------|-----------------|
| Diesel Range Organics C10-C28 | 5.4J         | mg/kg | 10.6            |
| o-Terphenyl (S)               | 93.1         | %     | 38 - 118        |

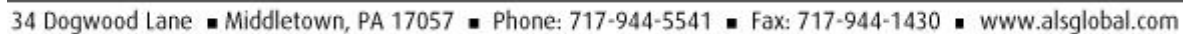
#### LABORATORY CONTROL SAMPLE: 2487243

| Parameter                     | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-------------------------------|-----------|-------|-------------|------------|-------------|
| Diesel Range Organics C10-C28 | 98.6      | mg/kg | 33.3        | 32.9       | 38 - 132    |
| o-Terphenyl (S)               | 90.7      | %     |             |            | 38 - 118    |

#### MATRIX SPIKE: 2487244 DUPLICATE: 2487245 ORIGINAL: 2207906006

**\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.**

| Parameter                     | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD |
|-------------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|
| Diesel Range Organics C10-C28 | 111.323         | mg/kg | 32.3        | 155.008   | 180.148    | 135*     | 215*      | 38 - 132    | 15  | 30      |
| o-Terphenyl (S)               | 79.5            | %     |             |           |            | 79.5     | 86.6      | 38 - 118    |     |         |



NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01  
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

Workorder: 2207906 Chase Lands Phase II

OC Batch: EXTR/46755

**Analysis Method:** SW846 8015D

QC Batch Method: SW846 3510C

**Associated Lab Samples:** 2207906002, 2207906003, 2207906004

METHOD BLANK: 2487384

| Parameter                     | Blank Result | Units | Reporting Limit |
|-------------------------------|--------------|-------|-----------------|
| Diesel Range Organics C10-C28 | 0.032J       | mg/L  | 0.040           |
| o-Terphenyl (S)               | 85.6         | %     | 26 - 139        |

LABORATORY CONTROL SAMPLE: 2487385

| Parameter             | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | % Rec<br>Limit |
|-----------------------|--------------|-------|----------------|---------------|----------------|
| Diesel Range Organics | 76.5         | mg/L  | .5             | 0.38          | 34 - 137       |
| C10-C28               |              |       |                |               |                |
| o-Terphenyl (S)       | 84.3         | %     |                |               | 26 - 139       |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

**QC Batch:** EXTR/46764      **Analysis Method:** SW846 8082A  
**QC Batch Method:** SW846 3546  
**Associated Lab Samples:** 2207906008, 2207906009

#### METHOD BLANK: 2488175

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aroclor-1016             | ND           | mg/kg | 0.033           |
| Aroclor-1221             | ND           | mg/kg | 0.033           |
| Aroclor-1232             | ND           | mg/kg | 0.033           |
| Aroclor-1242             | ND           | mg/kg | 0.033           |
| Aroclor-1248             | ND           | mg/kg | 0.033           |
| Aroclor-1254             | ND           | mg/kg | 0.033           |
| Aroclor-1260             | ND           | mg/kg | 0.033           |
| Aroclor-1262             | ND           | mg/kg | 0.033           |
| Aroclor-1268             | ND           | mg/kg | 0.033           |
| Decachlorobiphenyls (S)  | 109          | %     | 49 - 115        |
| Tetrachloro-m-xylene (S) | 103          | %     | 27 - 137        |

#### LABORATORY CONTROL SAMPLE: 2488176

| Parameter                | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|--------------------------|-----------|-------|-------------|------------|-------------|
| Aroclor-1016             | 95.4      | mg/kg | .33         | 0.32       | 43 - 132    |
| Aroclor-1221             |           | mg/kg |             | ND         |             |
| Aroclor-1232             |           | mg/kg |             | ND         |             |
| Aroclor-1242             |           | mg/kg |             | ND         |             |
| Aroclor-1248             |           | mg/kg |             | ND         |             |
| Aroclor-1254             |           | mg/kg |             | ND         |             |
| Aroclor-1260             | 109       | mg/kg | .33         | 0.36       | 53 - 134    |
| Aroclor-1262             |           | mg/kg |             | ND         |             |
| Aroclor-1268             |           | mg/kg |             | ND         |             |
| Decachlorobiphenyls (S)  | 108       | %     |             |            | 49 - 115    |
| Tetrachloro-m-xylene (S) | 101       | %     |             |            | 27 - 137    |

#### MATRIX SPIKE SAMPLE: 2488177 ORIGINAL: 2207155002

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter    | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|--------------|-----------------|-------|-------------|-----------|----------|-------------|
| Aroclor-1016 | 0               | mg/kg | .32         | .26413    | 81.4     | 43 - 132    |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

|                          |      |       |     |        |      |          |
|--------------------------|------|-------|-----|--------|------|----------|
| Aroclor-1260             | 0    | mg/kg | .32 | .26405 | 81.3 | 53 - 134 |
| Decachlorobiphenyls (S)  | 80.9 | %     |     |        |      | 49 - 115 |
| Tetrachloro-m-xylene (S) | 81.6 | %     |     |        |      | 27 - 137 |

SAMPLE DUPLICATE: 2488178 ORIGINAL: 2208112004

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Aroclor-1016 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1221 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1232 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1242 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1248 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1254 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1260 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1262 | 0               | mg/kg | 0          | NC  |         |
| Aroclor-1268 | 0               | mg/kg | 0          | NC  |         |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

**QC Batch:** EXTR/46765      **Analysis Method:** SW846 8081B  
**QC Batch Method:** SW846 3546  
**Associated Lab Samples:** 2207906008, 2207906009

#### METHOD BLANK: 2488179

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aldrin                   | ND           | ug/kg | 1.7             |
| alpha-BHC                | ND           | ug/kg | 1.7             |
| beta-BHC                 | ND           | ug/kg | 1.7             |
| delta-BHC                | ND           | ug/kg | 1.7             |
| gamma-BHC                | ND           | ug/kg | 1.7             |
| alpha-Chlordane          | ND           | ug/kg | 1.7             |
| gamma-Chlordane          | ND           | ug/kg | 1.7             |
| 4,4'-DDD                 | ND           | ug/kg | 3.3             |
| 4,4'-DDE                 | ND           | ug/kg | 3.3             |
| 4,4'-DDT                 | ND           | ug/kg | 3.3             |
| Dieldrin                 | ND           | ug/kg | 3.3             |
| Endosulfan I             | ND           | ug/kg | 1.7             |
| Endosulfan II            | ND           | ug/kg | 3.3             |
| Endosulfan Sulfate       | ND           | ug/kg | 3.3             |
| Endrin                   | ND           | ug/kg | 3.3             |
| Endrin Aldehyde          | ND           | ug/kg | 3.3             |
| Endrin Ketone            | ND           | ug/kg | 3.3             |
| Heptachlor               | ND           | ug/kg | 1.7             |
| Heptachlor Epoxide       | ND           | ug/kg | 1.7             |
| Methoxychlor             | ND           | ug/kg | 3.3             |
| Toxaphene                | ND           | ug/kg | 35.0            |
| Decachlorobiphenyls (S)  | 69.7         | %     | 30 - 135        |
| Tetrachloro-m-xylene (S) | 51.1         | %     | 30 - 111        |

#### LABORATORY CONTROL SAMPLE: 2488180

| Parameter       | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-----------------|-----------|-------|-------------|------------|-------------|
| Aldrin          | 73.7      | ug/kg | 33.3        | 24.6       | 58 - 103    |
| alpha-BHC       | 74.6      | ug/kg | 33.3        | 24.9       | 57 - 105    |
| beta-BHC        | 67.6      | ug/kg | 33.3        | 22.5       | 53 - 106    |
| delta-BHC       | 77.2      | ug/kg | 33.3        | 25.7       | 60 - 103    |
| gamma-BHC       | 74.3      | ug/kg | 33.3        | 24.8       | 59 - 102    |
| alpha-Chlordane | 72.8      | ug/kg | 33.3        | 24.3       | 62 - 98     |
| gamma-Chlordane | 74.7      | ug/kg | 33.3        | 24.9       | 58 - 103    |
| 4,4'-DDD        | 77.8      | ug/kg | 33.3        | 25.9       | 57 - 111    |



### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

|                          |      |       |      |      |          |
|--------------------------|------|-------|------|------|----------|
| 4,4'-DDE                 | 81   | ug/kg | 33.3 | 27.0 | 63 - 112 |
| 4,4'-DDT                 | 79.2 | ug/kg | 33.3 | 26.4 | 60 - 122 |
| Dieldrin                 | 77.1 | ug/kg | 33.3 | 25.7 | 62 - 109 |
| Endosulfan I             | 69.3 | ug/kg | 33.3 | 23.1 | 57 - 98  |
| Endosulfan II            | 75.3 | ug/kg | 33.3 | 25.1 | 59 - 112 |
| Endosulfan Sulfate       | 75.5 | ug/kg | 33.3 | 25.2 | 27 - 96  |
| Endrin                   | 75.1 | ug/kg | 33.3 | 25.0 | 63 - 108 |
| Endrin Aldehyde          | 63.1 | ug/kg | 33.3 | 21.0 | 21 - 92  |
| Endrin Ketone            | 79.3 | ug/kg | 33.3 | 26.4 | 32 - 103 |
| Heptachlor               | 72   | ug/kg | 33.3 | 24.0 | 51 - 105 |
| Heptachlor Epoxide       | 74.2 | ug/kg | 33.3 | 24.7 | 62 - 99  |
| Methoxychlor             | 73.3 | ug/kg | 33.3 | 24.4 | 50 - 114 |
| Toxaphene                |      | ug/kg |      | ND   |          |
| Decachlorobiphenyls (S)  | 69.3 | %     |      |      | 30 - 135 |
| Tetrachloro-m-xylene (S) | 50.3 | %     |      |      | 30 - 111 |

SAMPLE DUPLICATE: 2488181 ORIGINAL: 2208112004

| Parameter          | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------------|-----------------|-------|------------|-----|---------|
| Aldrin             | 0               | ug/kg | 0          | NC  | 40      |
| alpha-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| beta-BHC           | 0               | ug/kg | 0          | NC  | 40      |
| delta-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| gamma-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| alpha-Chlordane    | 0               | ug/kg | 0          | NC  | 40      |
| gamma-Chlordane    | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDD           | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDE           | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDT           | 0               | ug/kg | 0          | NC  | 40      |
| Dieldrin           | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan I       | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan II      | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan Sulfate | 0               | ug/kg | 0          | NC  | 40      |
| Endrin             | 0               | ug/kg | 0          | NC  | 40      |
| Endrin Aldehyde    | 0               | ug/kg | 0          | NC  | 40      |
| Endrin Ketone      | 0               | ug/kg | 0          | NC  | 40      |
| Heptachlor         | 0               | ug/kg | 0          | NC  | 40      |
| Heptachlor Epoxide | 0               | ug/kg | 0          | NC  | 35      |
| Methoxychlor       | 0               | ug/kg | 0          | NC  | 40      |
| Toxaphene          | 0               | ug/kg | 0          | NC  | 40      |

## QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

**QC Batch:** EXTR/46777 **Analysis Method:** SW846 8270D

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2207906005, 2207906006, 2207906007, 2207906008, 2207906009

METHOD BLANK: 2488349

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acenaphthene                | ND           | ug/kg | 50.0            |
| Acenaphthylene              | ND           | ug/kg | 50.0            |
| Acetophenone                | ND           | ug/kg | 100             |
| Anthracene                  | ND           | ug/kg | 50.0            |
| Atrazine                    | ND           | ug/kg | 100             |
| Benzaldehyde                | ND           | ug/kg | 200             |
| Benzo(a)anthracene          | ND           | ug/kg | 50.0            |
| Benzo(a)pyrene              | ND           | ug/kg | 50.0            |
| Benzo(b)fluoranthene        | ND           | ug/kg | 50.0            |
| Benzo(g,h,i)perylene        | ND           | ug/kg | 50.0            |
| Benzo(k)fluoranthene        | ND           | ug/kg | 50.0            |
| Biphenyl                    | ND           | ug/kg | 100             |
| 4-Bromophenyl-phenylether   | ND           | ug/kg | 100             |
| Butylbenzylphthalate        | ND           | ug/kg | 100             |
| Caprolactam                 | ND           | ug/kg | 200             |
| Carbazole                   | ND           | ug/kg | 100             |
| 4-Chloro-3-methylphenol     | ND           | ug/kg | 200             |
| 4-Chloroaniline             | ND           | ug/kg | 200             |
| bis(2-Chloroethoxy)methane  | ND           | ug/kg | 100             |
| bis(2-Chloroethyl)ether     | ND           | ug/kg | 100             |
| bis(2-Chloroisopropyl)ether | ND           | ug/kg | 100             |
| 2-Chloronaphthalene         | ND           | ug/kg | 200             |
| 2-Chlorophenol              | ND           | ug/kg | 200             |
| 4-Chlorophenyl-phenylether  | ND           | ug/kg | 100             |
| Chrysene                    | ND           | ug/kg | 50.0            |
| mp-Cresol                   | ND           | ug/kg | 200             |
| o-Cresol                    | ND           | ug/kg | 200             |
| Di-n-Butylphthalate         | 9.8J         | ug/kg | 100             |
| Di-n-Octylphthalate         | ND           | ug/kg | 100             |
| Dibenzo(a,h)anthracene      | ND           | ug/kg | 50.0            |
| Dibenzofuran                | ND           | ug/kg | 100             |
| 3,3-Dichlorobenzidine       | ND           | ug/kg | 200             |
| 2,4-Dichlorophenol          | ND           | ug/kg | 200             |
| Diethylphthalate            | ND           | ug/kg | 100             |
| 2,4-Dimethylphenol          | ND           | ug/kg | 200             |
| Dimethylphthalate           | ND           | ug/kg | 100             |
| 2,4-Dinitrophenol           | ND           | ug/kg | 200             |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

|                            |      |       |          |
|----------------------------|------|-------|----------|
| 2,4-Dinitrotoluene         | ND   | ug/kg | 100      |
| 2,6-Dinitrotoluene         | ND   | ug/kg | 100      |
| 1,4-Dioxane                | ND   | ug/kg | 100      |
| bis(2-Ethylhexyl)phthalate | ND   | ug/kg | 100      |
| Fluoranthene               | ND   | ug/kg | 50.0     |
| Fluorene                   | ND   | ug/kg | 50.0     |
| Hexachlorobenzene          | ND   | ug/kg | 100      |
| Hexachlorobutadiene        | ND   | ug/kg | 100      |
| Hexachlorocyclopentadiene  | ND   | ug/kg | 200      |
| Hexachloroethane           | ND   | ug/kg | 100      |
| Indeno(1,2,3-cd)pyrene     | ND   | ug/kg | 50.0     |
| Isophorone                 | ND   | ug/kg | 100      |
| 2-Methyl-4,6-dinitrophenol | ND   | ug/kg | 200      |
| 2-Methylnaphthalene        | ND   | ug/kg | 100      |
| Naphthalene                | ND   | ug/kg | 50.0     |
| 2-Nitroaniline             | ND   | ug/kg | 200      |
| 3-Nitroaniline             | ND   | ug/kg | 200      |
| 4-Nitroaniline             | ND   | ug/kg | 200      |
| Nitrobenzene               | ND   | ug/kg | 100      |
| 2-Nitrophenol              | ND   | ug/kg | 200      |
| 4-Nitrophenol              | ND   | ug/kg | 200      |
| N-Nitroso-di-n-propylamine | ND   | ug/kg | 100      |
| N-Nitrosodiphenylamine     | ND   | ug/kg | 100      |
| Pentachlorophenol          | ND   | ug/kg | 200      |
| Phenanthrene               | ND   | ug/kg | 50.0     |
| Phenol                     | ND   | ug/kg | 200      |
| Pyrene                     | ND   | ug/kg | 50.0     |
| 1,2,4,5-Tetrachlorobenzene | ND   | ug/kg | 100      |
| 2,3,4,6-Tetrachlorophenol  | ND   | ug/kg | 200      |
| 2,4,5-Trichlorophenol      | ND   | ug/kg | 200      |
| 2,4,6-Trichlorophenol      | ND   | ug/kg | 200      |
| 2,4,6-Tribromophenol (S)   | 88.2 | %     | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 90.2 | %     | 40 - 110 |
| 2-Fluorophenol (S)         | 85.5 | %     | 26 - 116 |
| Nitrobenzene-d5 (S)        | 86.4 | %     | 38 - 112 |
| Phenol-d5 (S)              | 88   | %     | 35 - 111 |
| Terphenyl-d14 (S)          | 88   | %     | 45 - 126 |

## LABORATORY CONTROL SAMPLE: 2488350

| Parameter      | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | % Rec<br>Limit |
|----------------|--------------|-------|----------------|---------------|----------------|
| Acenaphthene   | 91.3         | ug/kg | 3330           | 3040          | 59 - 115       |
| Acenaphthylene | 93.9         | ug/kg | 3330           | 3130          | 59 - 114       |
| Acetophenone   | 53.1         | ug/kg | 3330           | 1770          | 45 - 87        |
| Anthracene     | 90.8         | ug/kg | 3330           | 3030          | 63 - 112       |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

|                             |      |       |      |      |          |
|-----------------------------|------|-------|------|------|----------|
| Atrazine                    | 93.7 | ug/kg | 3330 | 3120 | 54 - 128 |
| Benzaldehyde                | 78.4 | ug/kg | 3330 | 2610 | 52 - 108 |
| Benzo(a)anthracene          | 93   | ug/kg | 3330 | 3100 | 61 - 118 |
| Benzo(a)pyrene              | 93.9 | ug/kg | 3330 | 3130 | 61 - 114 |
| Benzo(b)fluoranthene        | 95.4 | ug/kg | 3330 | 3180 | 64 - 113 |
| Benzo(g,h,i)perylene        | 97.4 | ug/kg | 3330 | 3250 | 61 - 118 |
| Benzo(k)fluoranthene        | 95.2 | ug/kg | 3330 | 3170 | 62 - 113 |
| Biphenyl                    | 88.6 | ug/kg | 3330 | 2950 | 60 - 111 |
| 4-Bromophenyl-phenylether   | 98.5 | ug/kg | 3330 | 3280 | 60 - 111 |
| Butylbenzylphthalate        | 99.2 | ug/kg | 3330 | 3310 | 56 - 126 |
| Caprolactam                 | 88.4 | ug/kg | 3330 | 2950 | 38 - 129 |
| Carbazole                   | 94.2 | ug/kg | 3330 | 3140 | 65 - 117 |
| 4-Chloro-3-methylphenol     | 91   | ug/kg | 6670 | 6070 | 65 - 118 |
| 4-Chloroaniline             | 80.4 | ug/kg | 3330 | 2680 | 21 - 115 |
| bis(2-Chloroethoxy)methane  | 93.1 | ug/kg | 3330 | 3100 | 56 - 108 |
| bis(2-Chloroethyl)ether     | 90.5 | ug/kg | 3330 | 3020 | 51 - 105 |
| bis(2-Chloroisopropyl)ether | 88.5 | ug/kg | 3330 | 2950 | 34 - 126 |
| 2-Chloronaphthalene         | 90.9 | ug/kg | 3330 | 3030 | 55 - 111 |
| 2-Chlorophenol              | 89.8 | ug/kg | 6670 | 5980 | 61 - 111 |
| 4-Chlorophenyl-phenylether  | 95.9 | ug/kg | 3330 | 3200 | 58 - 112 |
| Chrysene                    | 98.2 | ug/kg | 3330 | 3270 | 63 - 111 |
| mp-Cresol                   | 88.8 | ug/kg | 6670 | 5920 | 60 - 112 |
| o-Cresol                    | 88.4 | ug/kg | 6670 | 5890 | 62 - 113 |
| Di-n-Butylphthalate         | 105  | ug/kg | 3330 | 3500 | 58 - 118 |
| Di-n-Octylphthalate         | 111  | ug/kg | 3330 | 3710 | 45 - 128 |
| Dibenzo(a,h)anthracene      | 102  | ug/kg | 3330 | 3390 | 64 - 117 |
| Dibenzofuran                | 92.2 | ug/kg | 3330 | 3070 | 61 - 111 |
| 3,3-Dichlorobenzidine       | 77.9 | ug/kg | 6670 | 5190 | 27 - 106 |
| 2,4-Dichlorophenol          | 90.5 | ug/kg | 6670 | 6030 | 65 - 111 |
| Diethylphthalate            | 97.4 | ug/kg | 3330 | 3250 | 59 - 112 |
| 2,4-Dimethylphenol          | 91   | ug/kg | 6670 | 6070 | 65 - 114 |
| Dimethylphthalate           | 95.5 | ug/kg | 3330 | 3180 | 59 - 111 |
| 2,4-Dinitrophenol           | 101  | ug/kg | 6670 | 6750 | 36 - 131 |
| 2,4-Dinitrotoluene          | 93.6 | ug/kg | 3330 | 3120 | 61 - 117 |
| 2,6-Dinitrotoluene          | 94.6 | ug/kg | 3330 | 3150 | 61 - 115 |
| 1,4-Dioxane                 | 60.7 | ug/kg | 3330 | 2020 | 37 - 98  |
| bis(2-Ethylhexyl)phthalate  | 105  | ug/kg | 3330 | 3500 | 51 - 126 |
| Fluoranthene                | 98.1 | ug/kg | 3330 | 3270 | 61 - 116 |
| Fluorene                    | 94.4 | ug/kg | 3330 | 3150 | 61 - 112 |
| Hexachlorobenzene           | 100  | ug/kg | 3330 | 3330 | 59 - 109 |
| Hexachlorobutadiene         | 106  | ug/kg | 3330 | 3520 | 58 - 123 |
| Hexachlorocyclopentadiene   | 75   | ug/kg | 3330 | 2500 | 33 - 109 |
| Hexachloroethane            | 87.2 | ug/kg | 3330 | 2910 | 50 - 103 |
| Indeno(1,2,3-cd)pyrene      | 99.3 | ug/kg | 3330 | 3310 | 62 - 113 |
| Isophorone                  | 87.2 | ug/kg | 3330 | 2910 | 51 - 112 |
| 2-Methyl-4,6-dinitrophenol  | 110  | ug/kg | 6670 | 7350 | 53 - 131 |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

|                            |      |       |      |      |          |
|----------------------------|------|-------|------|------|----------|
| 2-Methylnaphthalene        | 84.8 | ug/kg | 3330 | 2830 | 58 - 96  |
| Naphthalene                | 89.9 | ug/kg | 3330 | 3000 | 56 - 105 |
| 2-Nitroaniline             | 94.8 | ug/kg | 3330 | 3160 | 61 - 120 |
| 3-Nitroaniline             | 87.7 | ug/kg | 3330 | 2920 | 52 - 115 |
| 4-Nitroaniline             | 84.1 | ug/kg | 3330 | 2800 | 50 - 106 |
| Nitrobenzene               | 87.8 | ug/kg | 3330 | 2930 | 53 - 108 |
| 2-Nitrophenol              | 89.1 | ug/kg | 6670 | 5940 | 61 - 114 |
| 4-Nitrophenol              | 92.9 | ug/kg | 6670 | 6190 | 49 - 134 |
| N-Nitroso-di-n-propylamine | 88.1 | ug/kg | 3330 | 2940 | 55 - 109 |
| N-Nitrosodiphenylamine     | 110  | ug/kg | 3330 | 3650 | 65 - 134 |
| Pentachlorophenol          | 120  | ug/kg | 6670 | 8030 | 60 - 145 |
| Phenanthrene               | 93   | ug/kg | 3330 | 3100 | 62 - 109 |
| Phenol                     | 86.1 | ug/kg | 6670 | 5740 | 53 - 118 |
| Pyrene                     | 87.5 | ug/kg | 3330 | 2920 | 60 - 114 |
| 1,2,4,5-Tetrachlorobenzene | 88.9 | ug/kg | 3330 | 2960 | 56 - 107 |
| 2,3,4,6-Tetrachlorophenol  | 77.6 | ug/kg | 6670 | 5170 | 60 - 111 |
| 2,4,5-Trichlorophenol      | 91.6 | ug/kg | 6670 | 6100 | 68 - 121 |
| 2,4,6-Trichlorophenol      | 95   | ug/kg | 6670 | 6340 | 68 - 119 |
| 2,4,6-Tribromophenol (S)   | 96.1 | %     |      |      | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 89.9 | %     |      |      | 40 - 110 |
| 2-Fluorophenol (S)         | 85.4 | %     |      |      | 26 - 116 |
| Nitrobenzene-d5 (S)        | 85.8 | %     |      |      | 38 - 112 |
| Phenol-d5 (S)              | 85.9 | %     |      |      | 35 - 111 |
| Terphenyl-d14 (S)          | 87.7 | %     |      |      | 45 - 126 |

MATRIX SPIKE SAMPLE: 2488351 ORIGINAL: 2207906009

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                 | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|---------------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Acenaphthene              | 0               | ug/kg | 3250        | 2963.76   | 91.3     | 59 - 115    |
| Acenaphthylene            | 0               | ug/kg | 3250        | 2930.09   | 90.2     | 59 - 114    |
| Acetophenone              | 0               | ug/kg | 3250        | 1786.76   | 55       | 45 - 87     |
| Anthracene                | 0               | ug/kg | 3250        | 2872.37   | 88.5     | 63 - 112    |
| Atrazine                  | 0               | ug/kg | 3250        | 2579.37   | 79.4     | 54 - 128    |
| Benzaldehyde              | 0               | ug/kg | 3250        | 2035.49   | 62.7     | 52 - 108    |
| Benzo(a)anthracene        | 17.7955         | ug/kg | 3250        | 2887.19   | 88.4     | 61 - 118    |
| Benzo(a)pyrene            | 14.5419         | ug/kg | 3250        | 2932.25   | 89.9     | 61 - 114    |
| Benzo(b)fluoranthene      | 15.0284         | ug/kg | 3250        | 3139.79   | 96.2     | 64 - 113    |
| Benzo(g,h,i)perylene      | 0               | ug/kg | 3250        | 2621.49   | 80.7     | 61 - 118    |
| Benzo(k)fluoranthene      | 6.60057         | ug/kg | 3250        | 3018.59   | 92.8     | 62 - 113    |
| Biphenyl                  | 0               | ug/kg | 3250        | 2756.52   | 84.9     | 60 - 111    |
| 4-Bromophenyl-phenylether | 0               | ug/kg | 3250        | 3154.47   | 97.2     | 60 - 111    |
| Butylbenzylphthalate      | 0               | ug/kg | 3250        | 3268.12   | 101      | 56 - 126    |
| Caprolactam               | 0               | ug/kg | 3250        | 2702.58   | 83.2     | 38 - 129    |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

|                             |         |       |      |         |       |          |
|-----------------------------|---------|-------|------|---------|-------|----------|
| Carbazole                   | 0       | ug/kg | 3250 | 3010.68 | 92.7  | 65 - 117 |
| 4-Chloro-3-methylphenol     | 0       | ug/kg | 6490 | 5770.96 | 88.9  | 65 - 118 |
| 4-Chloroaniline             | 0       | ug/kg | 3250 | 2226.77 | 68.6  | 21 - 115 |
| bis(2-Chloroethoxy)methane  | 0       | ug/kg | 3250 | 2873.39 | 88.5  | 56 - 108 |
| bis(2-Chloroethyl)ether     | 0       | ug/kg | 3250 | 2735.07 | 84.2  | 51 - 105 |
| bis(2-Chloroisopropyl)ether | 0       | ug/kg | 3250 | 2593.81 | 79.9  | 34 - 126 |
| 2-Chloronaphthalene         | 0       | ug/kg | 3250 | 2849.14 | 87.8  | 55 - 111 |
| 2-Chlorophenol              | 0       | ug/kg | 6490 | 5421.17 | 83.5  | 61 - 111 |
| 4-Chlorophenyl-phenylether  | 0       | ug/kg | 3250 | 3070.64 | 94.6  | 58 - 112 |
| Chrysene                    | 10.5343 | ug/kg | 3250 | 3109.29 | 95.4  | 63 - 111 |
| mp-Cresol                   | 0       | ug/kg | 6490 | 5359.87 | 82.5  | 60 - 112 |
| o-Cresol                    | 0       | ug/kg | 6490 | 5304.74 | 81.7  | 62 - 113 |
| Di-n-Butylphthalate         | 13.4455 | ug/kg | 3250 | 3438.54 | 105   | 58 - 118 |
| Di-n-Octylphthalate         | 0       | ug/kg | 3250 | 3587.25 | 110   | 45 - 128 |
| Dibenzo(a,h)anthracene      | 0       | ug/kg | 3250 | 2818.72 | 86.8  | 64 - 117 |
| Dibenzofuran                | 0       | ug/kg | 3250 | 2902.41 | 89.4  | 61 - 111 |
| 3,3-Dichlorobenzidine       | 0       | ug/kg | 6490 | 5671.22 | 87.3  | 27 - 106 |
| 2,4-Dichlorophenol          | 0       | ug/kg | 6490 | 5553.91 | 85.5  | 65 - 111 |
| Diethylphthalate            | 0       | ug/kg | 3250 | 3272.59 | 101   | 59 - 112 |
| 2,4-Dimethylphenol          | 0       | ug/kg | 6490 | 5603.43 | 86.3  | 65 - 114 |
| Dimethylphthalate           | 0       | ug/kg | 3250 | 3135.47 | 96.6  | 59 - 111 |
| 2,4-Dinitrophenol           | 0       | ug/kg | 6490 | 2780.95 | 42.8  | 36 - 131 |
| 2,4-Dinitrotoluene          | 0       | ug/kg | 3250 | 2849.26 | 87.8  | 61 - 117 |
| 2,6-Dinitrotoluene          | 0       | ug/kg | 3250 | 2985.14 | 91.9  | 61 - 115 |
| 1,4-Dioxane                 | 0       | ug/kg | 3250 | 1737.58 | 53.5  | 37 - 98  |
| bis(2-Ethylhexyl)phthalate  | 0       | ug/kg | 3250 | 3442.61 | 106   | 51 - 126 |
| Fluoranthene                | 25.0216 | ug/kg | 3250 | 2988.49 | 91.3  | 61 - 116 |
| Fluorene                    | 0       | ug/kg | 3250 | 3014.73 | 92.9  | 61 - 112 |
| Hexachlorobenzene           | 0       | ug/kg | 3250 | 3122.17 | 96.2  | 59 - 109 |
| Hexachlorobutadiene         | 0       | ug/kg | 3250 | 3103.05 | 95.6  | 58 - 123 |
| Hexachlorocyclopentadiene   | 0       | ug/kg | 3250 | 585.84  | 18*   | 33 - 109 |
| Hexachloroethane            | 0       | ug/kg | 3250 | 2044.86 | 63    | 50 - 103 |
| Indeno(1,2,3-cd)pyrene      | 10.4164 | ug/kg | 3250 | 2784.59 | 85.4  | 62 - 113 |
| Isophorone                  | 0       | ug/kg | 3250 | 2743.37 | 84.5  | 51 - 112 |
| 2-Methyl-4,6-dinitrophenol  | 0       | ug/kg | 6490 | 3223.68 | 49.6* | 53 - 131 |
| 2-Methylnaphthalene         | 0       | ug/kg | 3250 | 2675.31 | 82.4  | 58 - 96  |
| Naphthalene                 | 0       | ug/kg | 3250 | 2686.14 | 82.7  | 56 - 105 |
| 2-Nitroaniline              | 0       | ug/kg | 3250 | 3112.38 | 95.9  | 61 - 120 |
| 3-Nitroaniline              | 0       | ug/kg | 3250 | 2999.68 | 92.4  | 52 - 115 |
| 4-Nitroaniline              | 0       | ug/kg | 3250 | 3050.81 | 94    | 50 - 106 |
| Nitrobenzene                | 0       | ug/kg | 3250 | 2649.95 | 81.6  | 53 - 108 |
| 2-Nitrophenol               | 0       | ug/kg | 6490 | 5063.77 | 78    | 61 - 114 |
| 4-Nitrophenol               | 0       | ug/kg | 6490 | 5690.69 | 87.6  | 49 - 134 |
| N-Nitroso-di-n-propylamine  | 0       | ug/kg | 3250 | 2713.98 | 83.6  | 55 - 109 |
| N-Nitrosodiphenylamine      | 0       | ug/kg | 3250 | 3495.29 | 108   | 65 - 134 |
| Pentachlorophenol           | 0       | ug/kg | 6490 | 7654.62 | 118   | 60 - 145 |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

|                            |         |       |      |         |      |          |
|----------------------------|---------|-------|------|---------|------|----------|
| Phenanthrene               | 4.78911 | ug/kg | 3250 | 2915.9  | 89.7 | 62 - 109 |
| Phenol                     | 0       | ug/kg | 6490 | 5108.68 | 78.7 | 53 - 118 |
| Pyrene                     | 16.0026 | ug/kg | 3250 | 2781.61 | 85.2 | 60 - 114 |
| 1,2,4,5-Tetrachlorobenzene | 0       | ug/kg | 3250 | 2796.26 | 86.1 | 56 - 107 |
| 2,3,4,6-Tetrachlorophenol  | 0       | ug/kg | 6490 | 4936.5  | 76   | 60 - 111 |
| 2,4,5-Trichlorophenol      | 0       | ug/kg | 6490 | 5734.33 | 88.3 | 68 - 121 |
| 2,4,6-Trichlorophenol      | 0       | ug/kg | 6490 | 6020.23 | 92.7 | 68 - 119 |
| 2,4,6-Tribromophenol (S)   | 92.1    | %     |      |         |      | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 86      | %     |      |         |      | 40 - 110 |
| 2-Fluorophenol (S)         | 75.8    | %     |      |         |      | 26 - 116 |
| Nitrobenzene-d5 (S)        | 78.5    | %     |      |         |      | 38 - 112 |
| Phenol-d5 (S)              | 78.3    | %     |      |         |      | 35 - 111 |
| Terphenyl-d14 (S)          | 84.1    | %     |      |         |      | 45 - 126 |

SAMPLE DUPLICATE: 2488352 ORIGINAL: 2208112005

| Parameter                   | Original Result | Units | DUP Result | RPD | Max RPD |
|-----------------------------|-----------------|-------|------------|-----|---------|
| Acenaphthene                | 0               | ug/kg | 0          | NC  | 17      |
| Acenaphthylene              | 0               | ug/kg | 0          | NC  | 17      |
| Acetophenone                | 0               | ug/kg | 0          | NC  | 21      |
| Anthracene                  | 0               | ug/kg | 0          | NC  | 20      |
| Atrazine                    | 0               | ug/kg | 0          | NC  | 22      |
| Benzaldehyde                | 0               | ug/kg | 0          | NC  | 30      |
| Benzo(a)anthracene          | 6.54357         | ug/kg | 0          | NC  | 22      |
| Benzo(a)pyrene              | 0               | ug/kg | 0          | NC  | 24      |
| Benzo(b)fluoranthene        | 0               | ug/kg | 0          | NC  | 28      |
| Benzo(g,h,i)perylene        | 0               | ug/kg | 0          | NC  | 30      |
| Benzo(k)fluoranthene        | 0               | ug/kg | 0          | NC  | 22      |
| Biphenyl                    | 0               | ug/kg | 0          | NC  | 14      |
| 4-Bromophenyl-phenylether   | 0               | ug/kg | 0          | NC  | 21      |
| Butylbenzylphthalate        | 0               | ug/kg | 0          | NC  | 18      |
| Caprolactam                 | 0               | ug/kg | 0          | NC  | 23      |
| Carbazole                   | 0               | ug/kg | 0          | NC  | 20      |
| 4-Chloro-3-methylphenol     | 0               | ug/kg | 0          | NC  | 20      |
| 4-Chloroaniline             | 0               | ug/kg | 0          | NC  | 22      |
| bis(2-Chloroethoxy)methane  | 0               | ug/kg | 0          | NC  | 18      |
| bis(2-Chloroethyl)ether     | 0               | ug/kg | 0          | NC  | 24      |
| bis(2-Chloroisopropyl)ether | 0               | ug/kg | 0          | NC  | 22      |
| 2-Chloronaphthalene         | 0               | ug/kg | 0          | NC  | 19      |
| 2-Chlorophenol              | 0               | ug/kg | 0          | NC  | 22      |
| 4-Chlorophenyl-phenylether  | 0               | ug/kg | 0          | NC  | 18      |
| Chrysene                    | 0               | ug/kg | 0          | NC  | 20      |
| mp-Cresol                   | 0               | ug/kg | 0          | NC  | 20      |
| o-Cresol                    | 0               | ug/kg | 0          | NC  | 21      |



### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

|                            |   |       |   |    |    |
|----------------------------|---|-------|---|----|----|
| Di-n-Butylphthalate        | 0 | ug/kg | 0 | NC | 20 |
| Di-n-Octylphthalate        | 0 | ug/kg | 0 | NC | 20 |
| Dibenzo(a,h)anthracene     | 0 | ug/kg | 0 | NC | 28 |
| Dibenzofuran               | 0 | ug/kg | 0 | NC | 18 |
| 3,3-Dichlorobenzidine      | 0 | ug/kg | 0 | NC | 26 |
| 2,4-Dichlorophenol         | 0 | ug/kg | 0 | NC | 20 |
| Diethylphthalate           | 0 | ug/kg | 0 | NC | 18 |
| 2,4-Dimethylphenol         | 0 | ug/kg | 0 | NC | 23 |
| Dimethylphthalate          | 0 | ug/kg | 0 | NC | 18 |
| 2,4-Dinitrophenol          | 0 | ug/kg | 0 | NC | 30 |
| 2,4-Dinitrotoluene         | 0 | ug/kg | 0 | NC | 21 |
| 2,6-Dinitrotoluene         | 0 | ug/kg | 0 | NC | 20 |
| 1,4-Dioxane                | 0 | ug/kg | 0 | NC | 30 |
| bis(2-Ethylhexyl)phthalate | 0 | ug/kg | 0 | NC | 21 |
| Fluoranthene               | 0 | ug/kg | 0 | NC | 21 |
| Fluorene                   | 0 | ug/kg | 0 | NC | 16 |
| Hexachlorobenzene          | 0 | ug/kg | 0 | NC | 21 |
| Hexachlorobutadiene        | 0 | ug/kg | 0 | NC | 22 |
| Hexachlorocyclopentadiene  | 0 | ug/kg | 0 | NC | 29 |
| Hexachloroethane           | 0 | ug/kg | 0 | NC | 28 |
| Indeno(1,2,3-cd)pyrene     | 0 | ug/kg | 0 | NC | 30 |
| Isophorone                 | 0 | ug/kg | 0 | NC | 19 |
| 2-Methyl-4,6-dinitrophenol | 0 | ug/kg | 0 | NC | 30 |
| 2-Methylnaphthalene        | 0 | ug/kg | 0 | NC | 21 |
| Naphthalene                | 0 | ug/kg | 0 | NC | 21 |
| 2-Nitroaniline             | 0 | ug/kg | 0 | NC | 19 |
| 3-Nitroaniline             | 0 | ug/kg | 0 | NC | 22 |
| 4-Nitroaniline             | 0 | ug/kg | 0 | NC | 19 |
| Nitrobenzene               | 0 | ug/kg | 0 | NC | 20 |
| 2-Nitrophenol              | 0 | ug/kg | 0 | NC | 23 |
| 4-Nitrophenol              | 0 | ug/kg | 0 | NC | 21 |
| N-Nitroso-di-n-propylamine | 0 | ug/kg | 0 | NC | 20 |
| N-Nitrosodiphenylamine     | 0 | ug/kg | 0 | NC | 21 |
| Pentachlorophenol          | 0 | ug/kg | 0 | NC | 25 |
| Phenanthrene               | 0 | ug/kg | 0 | NC | 20 |
| Phenol                     | 0 | ug/kg | 0 | NC | 23 |
| Pyrene                     | 0 | ug/kg | 0 | NC | 20 |
| 1,2,4,5-Tetrachlorobenzene | 0 | ug/kg | 0 | NC | 19 |
| 2,3,4,6-Tetrachlorophenol  | 0 | ug/kg | 0 | NC | 20 |
| 2,4,5-Trichlorophenol      | 0 | ug/kg | 0 | NC | 22 |
| 2,4,6-Trichlorophenol      | 0 | ug/kg | 0 | NC | 20 |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

**QC Batch:** MDIG/62590 **Analysis Method:** SW846 6020A  
**QC Batch Method:** SW846 3015  
**Associated Lab Samples:** 2207906002, 2207906003, 2207906004

#### METHOD BLANK: 2485108

| Parameter        | Blank Result | Units | Reporting Limit |
|------------------|--------------|-------|-----------------|
| Antimony, Total  | ND           | mg/L  | 0.0022          |
| Arsenic, Total   | ND           | mg/L  | 0.0030          |
| Beryllium, Total | ND           | mg/L  | 0.0010          |
| Cadmium, Total   | ND           | mg/L  | 0.0011          |
| Chromium, Total  | ND           | mg/L  | 0.0022          |
| Copper, Total    | ND           | mg/L  | 0.0056          |
| Lead, Total      | ND           | mg/L  | 0.0022          |
| Mercury, Total   | ND           | mg/L  | 0.00022         |
| Nickel, Total    | ND           | mg/L  | 0.0056          |
| Selenium, Total  | ND           | mg/L  | 0.0056          |
| Silver, Total    | ND           | mg/L  | 0.0022          |
| Thallium, Total  | ND           | mg/L  | 0.0010          |
| Zinc, Total      | ND           | mg/L  | 0.0056          |

#### LABORATORY CONTROL SAMPLE: 2485109

| Parameter        | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|------------------|-----------|-------|-------------|------------|-------------|
| Antimony, Total  | 98.7      | mg/L  | .22         | 0.22       | 80 - 120    |
| Arsenic, Total   | 89.1      | mg/L  | .22         | 0.20       | 80 - 120    |
| Beryllium, Total | 88        | mg/L  | .22         | 0.20       | 80 - 120    |
| Cadmium, Total   | 94        | mg/L  | .22         | 0.21       | 80 - 120    |
| Chromium, Total  | 98.8      | mg/L  | .22         | 0.22       | 80 - 120    |
| Copper, Total    | 98.9      | mg/L  | .22         | 0.22       | 80 - 120    |
| Lead, Total      | 102       | mg/L  | .22         | 0.23       | 80 - 120    |
| Mercury, Total   | 98.5      | mg/L  | .0022       | 0.0022     | 80 - 120    |
| Nickel, Total    | 100       | mg/L  | .22         | 0.22       | 80 - 120    |
| Selenium, Total  | 80.1      | mg/L  | .22         | 0.18       | 80 - 120    |
| Silver, Total    | 109       | mg/L  | .11         | 0.12       | 80 - 120    |
| Thallium, Total  | 101       | mg/L  | .22         | 0.22       | 80 - 120    |
| Zinc, Total      | 87.5      | mg/L  | .22         | 0.19       | 80 - 120    |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

MATRIX SPIKE: 2485110 DUPLICATE: 2485111 ORIGINAL: 2207907001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter        | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Antimony, Total  | .00264          | mg/L  | .22         | .22899    | .22805     | 102      | 101       | 75 - 125    | .41  | 20      |
| Beryllium, Total | .00001          | mg/L  | .22         | .20237    | .20303     | 91.1     | 91.4      | 75 - 125    | .33  | 20      |
| Thallium, Total  | .00001          | mg/L  | .22         | .23907    | .23556     | 108      | 106       | 75 - 125    | 1.48 | 20      |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

**QC Batch:** MDIG/62596 **Analysis Method:** SW846 7471B

**QC Batch Method:** SW846 7471B

**Associated Lab Samples:** 2207906005, 2207906006, 2207906007, 2207906008, 2207906009

#### METHOD BLANK: 2485337

| Parameter      | Blank Result | Units | Reporting Limit |
|----------------|--------------|-------|-----------------|
| Mercury, Total | ND           | mg/kg | 0.050           |

#### LABORATORY CONTROL SAMPLE: 2485338

| Parameter      | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|----------------|-----------|-------|-------------|------------|-------------|
| Mercury, Total | 87.5      | mg/kg | .4          | 0.35       | 80 - 120    |

#### MATRIX SPIKE: 2485339 DUPLICATE: 2485340 ORIGINAL: 2207906006

\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter      | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD |
|----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|
| Mercury, Total | .04745          | mg/kg | .86         | .83966    | .84746     | 91.9     | 94.4      | 80 - 120    | .92 | 20      |

#### MATRIX SPIKE: 2485341 DUPLICATE: 2485342 ORIGINAL: 2208112007

\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter      | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Mercury, Total | 0               | mg/kg | .93         | .84074    | .86923     | 90.8     | 90.4      | 80 - 120    | 3.33 | 20      |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

**QC Batch:** MDIG/62672 **Analysis Method:** SW846 6020A

**QC Batch Method:** SW846 3051

**Associated Lab Samples:** 2207906005, 2207906006, 2207906007, 2207906008, 2207906009

#### METHOD BLANK: 2487299

| Parameter        | Blank Result | Units | Reporting Limit |
|------------------|--------------|-------|-----------------|
| Antimony, Total  | ND           | mg/kg | 1.0             |
| Arsenic, Total   | ND           | mg/kg | 1.5             |
| Beryllium, Total | ND           | mg/kg | 0.50            |
| Cadmium, Total   | ND           | mg/kg | 0.50            |
| Chromium, Total  | ND           | mg/kg | 1.0             |
| Copper, Total    | ND           | mg/kg | 2.5             |
| Lead, Total      | ND           | mg/kg | 1.0             |
| Nickel, Total    | ND           | mg/kg | 2.5             |
| Selenium, Total  | ND           | mg/kg | 2.5             |
| Silver, Total    | ND           | mg/kg | 1.0             |
| Thallium, Total  | ND           | mg/kg | 0.50            |
| Zinc, Total      | ND           | mg/kg | 2.5             |

#### LABORATORY CONTROL SAMPLE: 2487301

| Parameter        | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|------------------|-----------|-------|-------------|------------|-------------|
| Antimony, Total  | 93.5      | mg/kg | 20          | 18.7       | 80 - 120    |
| Arsenic, Total   | 94.9      | mg/kg | 20          | 19.0       | 80 - 120    |
| Beryllium, Total | 91.6      | mg/kg | 20          | 18.3       | 80 - 120    |
| Cadmium, Total   | 95        | mg/kg | 20          | 19.0       | 80 - 120    |
| Chromium, Total  | 97.6      | mg/kg | 20          | 19.5       | 80 - 120    |
| Copper, Total    | 95.3      | mg/kg | 20          | 19.1       | 80 - 120    |
| Lead, Total      | 96        | mg/kg | 20          | 19.2       | 80 - 120    |
| Nickel, Total    | 101       | mg/kg | 20          | 20.2       | 80 - 120    |
| Selenium, Total  | 88.2      | mg/kg | 20          | 17.6       | 80 - 120    |
| Silver, Total    | 98.6      | mg/kg | 10          | 9.9        | 80 - 120    |
| Thallium, Total  | 93.2      | mg/kg | 20          | 18.6       | 80 - 120    |
| Zinc, Total      | 88.8      | mg/kg | 200         | 178        | 80 - 120    |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

MATRIX SPIKE: 2487304 DUPLICATE: 2487305 ORIGINAL: 2208786001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter       | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|-----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Arsenic, Total  | 3.1785          | mg/kg | 20          | 18.196    | 17.58894   | 75.1     | 74.9*     | 75 - 125    | 3.39 | 20      |
| Cadmium, Total  | .1005           | mg/kg | 20          | 15.8815   | 14.0851    | 78.9     | 72.7*     | 75 - 125    | 12   | 20      |
| Chromium, Total | 13.913          | mg/kg | 20          | 27.765    | 33.57933   | 69.3*    | 102       | 75 - 125    | 19   | 20      |
| Lead, Total     | 16.9705         | mg/kg | 20          | 29.6995   | 37.59471   | 63.6*    | 107       | 75 - 125    | 23.5 | 20      |
| Selenium, Total | 1.1315          | mg/kg | 20          | 15.5555   | 13.45433   | 72.1*    | 64.1*     | 75 - 125    | 14.5 | 20      |
| Silver, Total   | .023            | mg/kg | 10          | 8.907     | 7.37067    | 88.8     | 76.4      | 75 - 125    | 18.9 | 20      |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

**QC Batch:** SVGC/44517 **Analysis Method:** SW846 8011  
**QC Batch Method:** EPA 504.1  
**Associated Lab Samples:** 2207906002, 2207906003, 2207906004

#### METHOD BLANK: 2486559

| Parameter                    | Blank Result | Units | Reporting Limit |
|------------------------------|--------------|-------|-----------------|
| 1,2-Dibromo-3-chloropropane  | 0.0          | ug/L  |                 |
| 1,2-Dibromoethane            | 0.0          | ug/L  |                 |
| 1-Chloro-2-Fluorobenzene (S) | 81.7         | %     |                 |

#### LABORATORY CONTROL SAMPLE: 2486560

| Parameter                    | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|------------------------------|-----------|-------|-------------|------------|-------------|
| 1,2-Dibromo-3-chloropropane  | 113       | ug/L  | .05         | 0.057      |             |
| 1,2-Dibromoethane            | 101       | ug/L  | .05         | 0.051      |             |
| 1-Chloro-2-Fluorobenzene (S) | 91        | %     |             |            |             |

#### LABORATORY CONTROL SAMPLE: 2486561

| Parameter                    | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|------------------------------|-----------|-------|-------------|------------|-------------|
| 1,2-Dibromo-3-chloropropane  | 111       | ug/L  | .05         | 0.056      |             |
| 1,2-Dibromoethane            | 127       | ug/L  | .05         | 0.064      |             |
| 1-Chloro-2-Fluorobenzene (S) | 82.9      | %     |             |            |             |

#### MATRIX SPIKE SAMPLE: 2486562 ORIGINAL: 2207726001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                   | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|-----------------------------|-----------------|-------|-------------|-----------|----------|-------------|
| 1,2-Dibromo-3-chloropropane | 0               | ug/L  | .048        | .05048    | 106      |             |
| 1,2-Dibromoethane           | 0               | ug/L  | .048        | .05992    | 126      |             |



**QUALITY CONTROL DATA**Workorder: 2207906 Chase Lands Phase II

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1-Chloro-2-Fluorobenzene 90.7 %  
(S)

SAMPLE DUPLICATE: 2486563 ORIGINAL: 2208850001

| Parameter                   | Original Result | Units | DUP Result | RPD | Max RPD |
|-----------------------------|-----------------|-------|------------|-----|---------|
| 1,2-Dibromo-3-chloropropane | 0               | ug/L  | 0          | NC  |         |
| 1,2-Dibromoethane           | 0               | ug/L  | 0          | NC  |         |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

**QC Batch:** VOGC/9381      **Analysis Method:** SW846 8015D  
**QC Batch Method:** SW846 8015D  
**Associated Lab Samples:** 2207906002, 2207906003, 2207906004

#### METHOD BLANK: 2485192

| Parameter                  | Blank Result | Units | Reporting Limit |
|----------------------------|--------------|-------|-----------------|
| Gasoline Range Organics    | 24.1J        | ug/L  | 100             |
| a,a,a-Trifluorotoluene (S) | 127          | %     | 90 - 129        |

#### LABORATORY CONTROL SAMPLE: 2485193

| Parameter                  | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|----------------------------|-----------|-------|-------------|------------|-------------|
| Gasoline Range Organics    | 85.1      | ug/L  | 1000        | 851        | 77 - 125    |
| a,a,a-Trifluorotoluene (S) | 115       | %     |             |            | 90 - 129    |

#### MATRIX SPIKE: 2485370 DUPLICATE: 2485371 ORIGINAL: 2207897001

**\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.**

| Parameter                  | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|----------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Gasoline Range Organics    | 70.4096         | ug/L  | 1000        | 947.839   | 993.897    | 87.7     | 92.3      | 77 - 125    | 4.74 | 10      |
| a,a,a-Trifluorotoluene (S) | 124             | %     |             |           |            | 124      | 117       | 90 - 129    |      |         |

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

## QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

OC Batch: VOGC/9385

**Analysis Method:** SW846 8015D

**QC Batch Method:** SW846 5035

**Associated Lab Samples:** 2207906005, 2207906006, 2207906007, 2207906008, 2207906009

METHOD BLANK: 2486673

| Parameter                  | Blank Result | Units | Reporting Limit |
|----------------------------|--------------|-------|-----------------|
| Gasoline Range Organics    | 3100J        | ug/kg | 10000           |
| a,a,a-Trifluorotoluene (S) | 131          | %     | 72 - 134        |

LABORATORY CONTROL SAMPLE: 2486674

| Parameter                  | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | % Rec<br>Limit |
|----------------------------|--------------|-------|----------------|---------------|----------------|
| Gasoline Range Organics    | 79.5         | ug/kg | 100000         | 79500         | 73 - 133       |
| a,a,a-Trifluorotoluene (S) | 108          | %     |                |               | 72 - 134       |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

**QC Batch:** VOMS/42428 **Analysis Method:** SW846 8260B

**QC Batch Method:** SW846 5035

**Associated Lab Samples:** 2207906005, 2207906006, 2207906007, 2207906008, 2207906009

METHOD BLANK: 2484966

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acetone                     | ND           | ug/kg | 10.0            |
| tert-Amyl methyl ether      | ND           | ug/kg | 2.0             |
| tert-Amyl Alcohol           | ND           | ug/kg | 10.0            |
| tert-Amyl Ethylether        | ND           | ug/kg | 2.0             |
| Benzene                     | ND           | ug/kg | 2.0             |
| Bromochloromethane          | ND           | ug/kg | 2.0             |
| Bromodichloromethane        | ND           | ug/kg | 2.0             |
| Bromoform                   | ND           | ug/kg | 2.0             |
| Bromomethane                | ND           | ug/kg | 2.0             |
| 2-Butanone                  | ND           | ug/kg | 10.0            |
| tert-Butyl Alcohol          | ND           | ug/kg | 10.0            |
| Carbon Disulfide            | ND           | ug/kg | 2.0             |
| Carbon Tetrachloride        | ND           | ug/kg | 2.0             |
| Chlorobenzene               | ND           | ug/kg | 2.0             |
| Chlorodibromomethane        | ND           | ug/kg | 2.0             |
| Chloroethane                | ND           | ug/kg | 5.0             |
| Chloroform                  | 0.89J        | ug/kg | 2.0             |
| Chloromethane               | ND           | ug/kg | 2.0             |
| 1,2-Dibromo-3-chloropropane | ND           | ug/kg | 5.0             |
| 1,2-Dibromoethane           | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,2-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethene          | ND           | ug/kg | 2.0             |
| cis-1,2-Dichloroethene      | ND           | ug/kg | 2.0             |
| trans-1,2-Dichloroethene    | ND           | ug/kg | 2.0             |
| 1,2-Dichloropropane         | ND           | ug/kg | 2.0             |
| cis-1,3-Dichloropropene     | ND           | ug/kg | 2.0             |
| trans-1,3-Dichloropropene   | ND           | ug/kg | 2.0             |
| Diisopropyl ether           | ND           | ug/kg | 2.0             |
| Ethyl tert-butyl ether      | ND           | ug/kg | 2.0             |
| Ethylbenzene                | ND           | ug/kg | 2.0             |
| 2-Hexanone                  | ND           | ug/kg | 10.0            |
| Methyl t-Butyl Ether        | ND           | ug/kg | 2.0             |
| 4-Methyl-2-Pentanone(MIBK)  | ND           | ug/kg | 10.0            |
| Methylene Chloride          | 7.2          | ug/kg | 2.0             |
| Naphthalene                 | ND           | ug/kg | 2.0             |
| Styrene                     | ND           | ug/kg | 2.0             |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

|                           |      |       |          |
|---------------------------|------|-------|----------|
| 1,1,2,2-Tetrachloroethane | ND   | ug/kg | 2.0      |
| Tetrachloroethene         | ND   | ug/kg | 2.0      |
| Toluene                   | ND   | ug/kg | 2.0      |
| Total Xylenes             | ND   | ug/kg | 6.0      |
| 1,1,1-Trichloroethane     | ND   | ug/kg | 2.0      |
| 1,1,2-Trichloroethane     | ND   | ug/kg | 2.0      |
| Trichloroethene           | ND   | ug/kg | 2.0      |
| Vinyl Chloride            | ND   | ug/kg | 2.0      |
| o-Xylene                  | ND   | ug/kg | 2.0      |
| mp-Xylene                 | ND   | ug/kg | 4.0      |
| 1,2-Dichloroethane-d4 (S) | 68.8 | %     | 56 - 124 |
| 4-Bromofluorobenzene (S)  | 85.7 | %     | 51 - 128 |
| Dibromofluoromethane (S)  | 87.1 | %     | 62 - 123 |
| Toluene-d8 (S)            | 87.3 | %     | 59 - 131 |

LABORATORY CONTROL SAMPLE: 2484967 DUPLICATE: 2484968

| Parameter                   | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | LCSD<br>Result | LCSD %<br>Rec | % Rec<br>Limit | RPD  | Max |
|-----------------------------|--------------|-------|----------------|---------------|----------------|---------------|----------------|------|-----|
| Acetone                     | 106          | ug/kg | 100            | 106           | 110            | 110           | 58 - 146       | 3.6  | 40  |
| tert-Amyl methyl ether      | 116          | ug/kg | 20             | 23.2          | 23.9           | 120           | 79 - 123       | 3.2  | 40  |
| tert-Amyl Alcohol           | 85.1         | ug/kg | 100            | 85.1          | 90.3           | 90.3          | 70 - 130       | 5.9  | 40  |
| tert-Amyl Ethylether        | 93.8         | ug/kg | 20             | 18.8          | 20.2           | 101           | 70 - 130       | 7.6  | 40  |
| Benzene                     | 102          | ug/kg | 20             | 20.4          | 20.6           | 103           | 75 - 132       | 1.4  | 40  |
| Bromochloromethane          | 115          | ug/kg | 20             | 23.1          | 23.1           | 116           | 71 - 120       | .39  | 40  |
| Bromodichloromethane        | 108          | ug/kg | 20             | 21.5          | 21.6           | 108           | 74 - 127       | .31  | 40  |
| Bromoform                   | 98.4         | ug/kg | 20             | 19.7          | 19.5           | 97.3          | 68 - 131       | 1.1  | 40  |
| Bromomethane                | 83           | ug/kg | 20             | 16.6          | 16.1           | 80.5          | 43 - 148       | 3    | 40  |
| 2-Butanone                  | 101          | ug/kg | 100            | 101           | 102            | 102           | 64 - 148       | .69  | 40  |
| tert-Butyl Alcohol          | 101          | ug/kg | 100            | 101           | 102            | 102           | 51 - 152       | 1.6  | 40  |
| Carbon Disulfide            | 108          | ug/kg | 20             | 21.6          | 22.3           | 112           | 47 - 144       | 3    | 40  |
| Carbon Tetrachloride        | 103          | ug/kg | 20             | 20.6          | 21.5           | 107           | 64 - 136       | 3.9  | 40  |
| Chlorobenzene               | 102          | ug/kg | 20             | 20.5          | 20.7           | 103           | 76 - 125       | 1    | 40  |
| Chlorodibromomethane        | 110          | ug/kg | 20             | 22.0          | 21.9           | 110           | 75 - 124       | .068 | 40  |
| Chloroethane                | 80.9         | ug/kg | 20             | 16.2          | 17.2           | 85.8          | 1 - 141        | 5.9  | 40  |
| Chloroform                  | 105          | ug/kg | 20             | 21.0          | 21.6           | 108           | 73 - 126       | 2.6  | 40  |
| Chloromethane               | 105          | ug/kg | 20             | 21.0          | 21.9           | 110           | 44 - 139       | 4.2  | 40  |
| 1,2-Dibromo-3-chloropropane | 76.2         | ug/kg | 20             | 15.2          | 15.7           | 78.7          | 52 - 151       | 3.2  | 40  |
| 1,2-Dibromoethane           | 111          | ug/kg | 20             | 22.1          | 21.8           | 109           | 76 - 127       | 1.2  | 40  |
| 1,1-Dichloroethane          | 102          | ug/kg | 20             | 20.4          | 21.0           | 105           | 74 - 131       | 2.7  | 40  |
| 1,2-Dichloroethane          | 96.8         | ug/kg | 20             | 19.4          | 19.5           | 97.6          | 69 - 132       | .83  | 40  |
| 1,1-Dichloroethene          | 112          | ug/kg | 20             | 22.4          | 22.6           | 113           | 59 - 139       | .85  | 40  |
| cis-1,2-Dichloroethene      | 107          | ug/kg | 20             | 21.4          | 21.8           | 109           | 75 - 128       | 2.2  | 40  |
| trans-1,2-Dichloroethene    | 112          | ug/kg | 20             | 22.4          | 22.8           | 114           | 66 - 133       | 1.4  | 40  |
| 1,2-Dichloropropane         | 102          | ug/kg | 20             | 20.5          | 20.7           | 103           | 78 - 131       | 1.1  | 40  |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

|                            |      |       |     |      |      |      |          |     |    |
|----------------------------|------|-------|-----|------|------|------|----------|-----|----|
| cis-1,3-Dichloropropene    | 81   | ug/kg | 20  | 16.2 | 16.7 | 83.3 | 76 - 123 | 2.8 | 40 |
| trans-1,3-Dichloropropene  | 101  | ug/kg | 20  | 20.2 | 20.8 | 104  | 77 - 123 | 2.7 | 40 |
| Diisopropyl ether          | 99.5 | ug/kg | 20  | 19.9 | 20.1 | 101  | 71 - 128 | 1.1 | 40 |
| Ethyl tert-butyl ether     | 83.9 | ug/kg | 20  | 16.8 | 17.7 | 88.5 | 75 - 121 | 5.4 | 40 |
| Ethylbenzene               | 99.3 | ug/kg | 20  | 19.9 | 20.2 | 101  | 73 - 133 | 1.9 | 40 |
| 2-Hexanone                 | 69   | ug/kg | 100 | 69.0 | 68.1 | 68.1 | 62 - 147 | 1.3 | 40 |
| Methyl t-Butyl Ether       | 112  | ug/kg | 20  | 22.3 | 23.1 | 116  | 70 - 118 | 3.5 | 40 |
| 4-Methyl-2-Pentanone(MIBK) | 75.2 | ug/kg | 100 | 75.2 | 74.4 | 74.4 | 64 - 143 | 1.1 | 40 |
| Methylene Chloride         | 165* | ug/kg | 20  | 33.1 | 33.9 | 169* | 68 - 133 | 2.4 | 40 |
| Naphthalene                | 88.1 | ug/kg | 20  | 17.6 | 18.4 | 92.2 | 60 - 146 | 4.6 | 40 |
| Styrene                    | 92.1 | ug/kg | 20  | 18.4 | 19.1 | 95.5 | 77 - 130 | 3.5 | 40 |
| 1,1,2,2-Tetrachloroethane  | 89   | ug/kg | 20  | 17.8 | 17.8 | 88.8 | 72 - 134 | .27 | 40 |
| Tetrachloroethene          | 109  | ug/kg | 20  | 21.8 | 21.9 | 110  | 58 - 137 | .75 | 40 |
| Toluene                    | 101  | ug/kg | 20  | 20.1 | 20.4 | 102  | 73 - 129 | 1.4 | 40 |
| Total Xylenes              | 104  | ug/kg | 60  | 62.2 | 62.7 | 104  | 73 - 130 | .77 | 40 |
| 1,1,1-Trichloroethane      | 96.8 | ug/kg | 20  | 19.4 | 20.3 | 101  | 68 - 131 | 4.6 | 40 |
| 1,1,2-Trichloroethane      | 97.6 | ug/kg | 20  | 19.5 | 19.5 | 97.3 | 79 - 123 | .34 | 40 |
| Trichloroethene            | 106  | ug/kg | 20  | 21.2 | 21.3 | 107  | 72 - 129 | .71 | 40 |
| Vinyl Chloride             | 104  | ug/kg | 20  | 20.8 | 21.3 | 106  | 53 - 141 | 2   | 40 |
| o-Xylene                   | 105  | ug/kg | 20  | 20.9 | 20.9 | 104  | 75 - 129 | .22 | 40 |
| mp-Xylene                  | 103  | ug/kg | 40  | 41.2 | 41.8 | 104  | 72 - 130 | 1.3 | 40 |
| 1,2-Dichloroethane-d4 (S)  | 75.7 | %     |     |      | 75.7 |      | 56 - 124 |     |    |
| 4-Bromofluorobenzene (S)   | 84.6 | %     |     |      | 84.6 |      | 51 - 128 |     |    |
| Dibromofluoromethane (S)   | 88.2 | %     |     |      | 88.2 |      | 62 - 123 |     |    |
| Toluene-d8 (S)             | 82   | %     |     |      | 82   |      | 59 - 131 |     |    |

MATRIX SPIKE SAMPLE: 2485227 ORIGINAL: 2207906006

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter              | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|------------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Acetone                | 0               | ug/kg | 107         | 74.2234   | 69.3     | 58 - 146    |
| tert-Amyl methyl ether | 0               | ug/kg | 21.4        | 16.7142   | 78.1*    | 79 - 123    |
| tert-Amyl Alcohol      | 0               | ug/kg | 107         | 42.457    | 39.7*    | 70 - 130    |
| tert-Amyl Ethylether   | 0               | ug/kg | 21.4        | 13.1057   | 61.2*    | 70 - 130    |
| Benzene                | 0               | ug/kg | 21.4        | 15.0255   | 70.2*    | 75 - 132    |
| Bromochloromethane     | 0               | ug/kg | 21.4        | 16.6881   | 77.9     | 71 - 120    |
| Bromodichloromethane   | 0               | ug/kg | 21.4        | 14.4541   | 67.5*    | 74 - 127    |
| Bromoform              | 0               | ug/kg | 21.4        | 10.959    | 51.2*    | 68 - 131    |
| Bromomethane           | 0               | ug/kg | 21.4        | 16.4999   | 77.1     | 43 - 148    |
| 2-Butanone             | 0               | ug/kg | 107         | 70.5949   | 65.9     | 64 - 148    |
| tert-Butyl Alcohol     | 0               | ug/kg | 107         | 57.5109   | 53.7     | 51 - 152    |
| Carbon Disulfide       | 0               | ug/kg | 21.4        | 16.5114   | 77.1     | 47 - 144    |
| Carbon Tetrachloride   | 0               | ug/kg | 21.4        | 13.2493   | 61.9*    | 64 - 136    |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

|                             |         |       |      |         |       |          |
|-----------------------------|---------|-------|------|---------|-------|----------|
| Chlorobenzene               | 0       | ug/kg | 21.4 | 11.3508 | 53*   | 76 - 125 |
| Chlorodibromomethane        | 0       | ug/kg | 21.4 | 12.9477 | 60.5* | 75 - 124 |
| Chloroethane                | 0       | ug/kg | 21.4 | 16.7202 | 78.1  | 1 - 141  |
| Chloroform                  | 0       | ug/kg | 21.4 | 15.1186 | 70.6* | 73 - 126 |
| Chloromethane               | 0       | ug/kg | 21.4 | 19.0061 | 88.8  | 44 - 139 |
| 1,2-Dibromo-3-chloropropane | 0       | ug/kg | 21.4 | 6.30895 | 29.5* | 52 - 151 |
| 1,2-Dibromoethane           | 0       | ug/kg | 21.4 | 13.3381 | 62.3* | 76 - 127 |
| 1,1-Dichloroethane          | 0       | ug/kg | 21.4 | 16.179  | 75.6  | 74 - 131 |
| 1,2-Dichloroethane          | 0       | ug/kg | 21.4 | 14.3454 | 67*   | 69 - 132 |
| 1,1-Dichloroethene          | 0       | ug/kg | 21.4 | 17.8842 | 83.5  | 59 - 139 |
| cis-1,2-Dichloroethene      | 0       | ug/kg | 21.4 | 15.8196 | 73.9* | 75 - 128 |
| trans-1,2-Dichloroethene    | 0       | ug/kg | 21.4 | 17.6962 | 82.6  | 66 - 133 |
| 1,2-Dichloropropane         | 0       | ug/kg | 21.4 | 14.4925 | 67.7* | 78 - 131 |
| cis-1,3-Dichloropropene     | 0       | ug/kg | 21.4 | 10.0908 | 47.1* | 76 - 123 |
| trans-1,3-Dichloropropene   | 0       | ug/kg | 21.4 | 11.7818 | 55*   | 77 - 123 |
| Diisopropyl ether           | 0       | ug/kg | 21.4 | 15.6763 | 73.2  | 71 - 128 |
| Ethyl tert-butyl ether      | 0       | ug/kg | 21.4 | 12.2101 | 57*   | 75 - 121 |
| Ethylbenzene                | 0       | ug/kg | 21.4 | 11.8654 | 55.4* | 73 - 133 |
| 2-Hexanone                  | 0       | ug/kg | 107  | 44.4211 | 41.5* | 62 - 147 |
| Methyl t-Butyl Ether        | 0       | ug/kg | 21.4 | 17.1194 | 79.9  | 70 - 118 |
| 4-Methyl-2-Pentanone(MIBK)  | 0       | ug/kg | 107  | 54.3292 | 50.7* | 64 - 143 |
| Methylene Chloride          | 11.5413 | ug/kg | 21.4 | 34.4988 | 107   | 68 - 133 |
| Naphthalene                 | 0       | ug/kg | 21.4 | 3.68382 | 17.2* | 60 - 146 |
| Styrene                     | 0       | ug/kg | 21.4 | 9.76916 | 45.6* | 77 - 130 |
| 1,1,2,2-Tetrachloroethane   | 0       | ug/kg | 21.4 | 10.114  | 47.2* | 72 - 134 |
| Tetrachloroethene           | 0       | ug/kg | 21.4 | 13.3553 | 62.4  | 58 - 137 |
| Toluene                     | 0       | ug/kg | 21.4 | 13.5147 | 63.1* | 73 - 129 |
| Total Xylenes               | 0       | ug/kg | 64.2 | 35.4793 | 55.2* | 73 - 130 |
| 1,1,1-Trichloroethane       | 0       | ug/kg | 21.4 | 14.6002 | 68.2  | 68 - 131 |
| 1,1,2-Trichloroethane       | 0       | ug/kg | 21.4 | 12.9593 | 60.5* | 79 - 123 |
| Trichloroethene             | 0       | ug/kg | 21.4 | 14.4666 | 67.6* | 72 - 129 |
| Vinyl Chloride              | 0       | ug/kg | 21.4 | 19.1777 | 89.6  | 53 - 141 |
| o-Xylene                    | 0       | ug/kg | 21.4 | 11.7837 | 55*   | 75 - 129 |
| mp-Xylene                   | 0       | ug/kg | 42.8 | 23.6956 | 55.3* | 72 - 130 |
| 1,2-Dichloroethane-d4 (S)   | 78.5    | %     |      |         |       | 56 - 124 |
| 4-Bromofluorobenzene (S)    | 87.2    | %     |      |         |       | 51 - 128 |
| Dibromofluoromethane (S)    | 91.2    | %     |      |         |       | 62 - 123 |
| Toluene-d8 (S)              | 84.8    | %     |      |         |       | 59 - 131 |



### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

**QC Batch:** VOMS/42438 **Analysis Method:** SW846 8260B  
**QC Batch Method:** SW846 8260B  
**Associated Lab Samples:** 2207906001, 2207906002, 2207906003, 2207906004

METHOD BLANK: 2485262

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acetone                     | ND           | ug/L  | 10.0            |
| tert-Amyl methyl ether      | ND           | ug/L  | 1.0             |
| tert-Amyl Alcohol           | ND           | ug/L  | 10.0            |
| tert-Amyl Ethylether        | ND           | ug/L  | 1.0             |
| Benzene                     | ND           | ug/L  | 1.0             |
| Bromochloromethane          | ND           | ug/L  | 1.0             |
| Bromodichloromethane        | ND           | ug/L  | 1.0             |
| Bromoform                   | ND           | ug/L  | 1.0             |
| Bromomethane                | ND           | ug/L  | 1.0             |
| 2-Butanone                  | ND           | ug/L  | 10.0            |
| tert-Butyl Alcohol          | ND           | ug/L  | 10.0            |
| Carbon Disulfide            | ND           | ug/L  | 1.0             |
| Carbon Tetrachloride        | ND           | ug/L  | 1.0             |
| Chlorobenzene               | ND           | ug/L  | 1.0             |
| Chlorodibromomethane        | ND           | ug/L  | 1.0             |
| Chloroethane                | ND           | ug/L  | 1.0             |
| Chloroform                  | ND           | ug/L  | 1.0             |
| Chloromethane               | ND           | ug/L  | 1.0             |
| 1,2-Dibromo-3-chloropropane | ND           | ug/L  | 7.0             |
| 1,2-Dibromoethane           | ND           | ug/L  | 1.0             |
| 1,1-Dichloroethane          | ND           | ug/L  | 1.0             |
| 1,2-Dichloroethane          | ND           | ug/L  | 1.0             |
| 1,1-Dichloroethene          | ND           | ug/L  | 1.0             |
| cis-1,2-Dichloroethene      | ND           | ug/L  | 1.0             |
| trans-1,2-Dichloroethene    | ND           | ug/L  | 1.0             |
| 1,2-Dichloropropane         | ND           | ug/L  | 1.0             |
| cis-1,3-Dichloropropene     | ND           | ug/L  | 1.0             |
| trans-1,3-Dichloropropene   | ND           | ug/L  | 1.0             |
| Diisopropyl ether           | ND           | ug/L  | 1.0             |
| Ethyl tert-butyl ether      | ND           | ug/L  | 1.0             |
| Ethylbenzene                | ND           | ug/L  | 1.0             |
| 2-Hexanone                  | ND           | ug/L  | 5.0             |
| Methyl t-Butyl Ether        | ND           | ug/L  | 1.0             |
| 4-Methyl-2-Pentanone(MIBK)  | ND           | ug/L  | 5.0             |
| Methylene Chloride          | ND           | ug/L  | 1.0             |
| Styrene                     | ND           | ug/L  | 1.0             |
| 1,1,1,2-Tetrachloroethane   | ND           | ug/L  | 1.0             |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

|                           |     |      |          |
|---------------------------|-----|------|----------|
| 1,1,2,2-Tetrachloroethane | ND  | ug/L | 1.0      |
| Tetrachloroethene         | ND  | ug/L | 1.0      |
| Toluene                   | ND  | ug/L | 1.0      |
| Total Xylenes             | ND  | ug/L | 3.0      |
| 1,1,1-Trichloroethane     | ND  | ug/L | 1.0      |
| 1,1,2-Trichloroethane     | ND  | ug/L | 1.0      |
| Trichloroethene           | ND  | ug/L | 1.0      |
| Vinyl Chloride            | ND  | ug/L | 1.0      |
| o-Xylene                  | ND  | ug/L | 1.0      |
| mp-Xylene                 | ND  | ug/L | 2.0      |
| 1,2-Dichloroethane-d4 (S) | 101 | %    | 62 - 133 |
| 4-Bromofluorobenzene (S)  | 104 | %    | 79 - 114 |
| Dibromofluoromethane (S)  | 100 | %    | 78 - 116 |
| Toluene-d8 (S)            | 104 | %    | 76 - 127 |

#### LABORATORY CONTROL SAMPLE: 2485263

| Parameter                   | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | % Rec<br>Limit |
|-----------------------------|--------------|-------|----------------|---------------|----------------|
| Acetone                     | 113          | ug/L  | 100            | 113           | 40 - 151       |
| tert-Amyl methyl ether      | 84.1         | ug/L  | 20             | 16.8          | 75 - 121       |
| tert-Amyl Alcohol           | 94.2         | ug/L  | 100            | 94.2          | 70 - 130       |
| tert-Amyl Ethylether        | 116          | ug/L  | 20             | 23.1          | 70 - 130       |
| Benzene                     | 97.2         | ug/L  | 20             | 19.4          | 80 - 124       |
| Bromochloromethane          | 97.9         | ug/L  | 20             | 19.6          | 73 - 117       |
| Bromodichloromethane        | 97.9         | ug/L  | 20             | 19.6          | 79 - 126       |
| Bromoform                   | 86.6         | ug/L  | 20             | 17.3          | 70 - 123       |
| Bromomethane                | 103          | ug/L  | 20             | 20.7          | 45 - 148       |
| 2-Butanone                  | 100          | ug/L  | 100            | 100           | 50 - 152       |
| tert-Butyl Alcohol          | 93.9         | ug/L  | 100            | 93.9          | 17 - 168       |
| Carbon Disulfide            | 110          | ug/L  | 20             | 22.1          | 57 - 131       |
| Carbon Tetrachloride        | 98.6         | ug/L  | 20             | 19.7          | 62 - 132       |
| Chlorobenzene               | 89.5         | ug/L  | 20             | 17.9          | 85 - 117       |
| Chlorodibromomethane        | 96.3         | ug/L  | 20             | 19.3          | 77 - 122       |
| Chloroethane                | 98.3         | ug/L  | 20             | 19.7          | 51 - 142       |
| Chloroform                  | 109          | ug/L  | 20             | 21.9          | 78 - 122       |
| Chloromethane               | 116          | ug/L  | 20             | 23.2          | 38 - 156       |
| 1,2-Dibromo-3-chloropropane | 75.6         | ug/L  | 20             | 15.1          | 59 - 133       |
| 1,2-Dibromoethane           | 95.8         | ug/L  | 20             | 19.2          | 80 - 124       |
| 1,1-Dichloroethane          | 107          | ug/L  | 20             | 21.3          | 78 - 124       |
| 1,2-Dichloroethane          | 101          | ug/L  | 20             | 20.3          | 70 - 133       |
| 1,1-Dichloroethene          | 113          | ug/L  | 20             | 22.7          | 63 - 128       |
| cis-1,2-Dichloroethene      | 101          | ug/L  | 20             | 20.3          | 78 - 125       |
| trans-1,2-Dichloroethene    | 110          | ug/L  | 20             | 22.0          | 71 - 122       |
| 1,2-Dichloropropane         | 101          | ug/L  | 20             | 20.1          | 81 - 127       |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

|                            |      |      |     |      |          |
|----------------------------|------|------|-----|------|----------|
| cis-1,3-Dichloropropene    | 96.4 | ug/L | 20  | 19.3 | 81 - 121 |
| trans-1,3-Dichloropropene  | 99.9 | ug/L | 20  | 20.0 | 78 - 126 |
| Diisopropyl ether          | 104  | ug/L | 20  | 20.8 | 74 - 131 |
| Ethyl tert-butyl ether     | 90.2 | ug/L | 20  | 18.0 | 75 - 123 |
| Ethylbenzene               | 93.4 | ug/L | 20  | 18.7 | 80 - 124 |
| 2-Hexanone                 | 82.2 | ug/L | 100 | 82.2 | 65 - 154 |
| Methyl t-Butyl Ether       | 97.4 | ug/L | 20  | 19.5 | 69 - 115 |
| 4-Methyl-2-Pentanone(MIBK) | 102  | ug/L | 100 | 102  | 71 - 146 |
| Methylene Chloride         | 113  | ug/L | 20  | 22.5 | 76 - 121 |
| Styrene                    | 92.7 | ug/L | 20  | 18.5 | 79 - 123 |
| 1,1,1,2-Tetrachloroethane  | 97.9 | ug/L | 20  | 19.6 | 78 - 121 |
| 1,1,2,2-Tetrachloroethane  | 91.3 | ug/L | 20  | 18.3 | 74 - 135 |
| Tetrachloroethene          | 91.8 | ug/L | 20  | 18.4 | 72 - 124 |
| Toluene                    | 94.5 | ug/L | 20  | 18.9 | 80 - 125 |
| Total Xylenes              | 92.2 | ug/L | 60  | 55.3 | 79 - 125 |
| 1,1,1-Trichloroethane      | 101  | ug/L | 20  | 20.2 | 66 - 130 |
| 1,1,2-Trichloroethane      | 90.1 | ug/L | 20  | 18.0 | 82 - 126 |
| Trichloroethene            | 97   | ug/L | 20  | 19.4 | 77 - 124 |
| Vinyl Chloride             | 94.2 | ug/L | 20  | 18.8 | 27 - 138 |
| o-Xylene                   | 89.3 | ug/L | 20  | 17.9 | 79 - 124 |
| mp-Xylene                  | 93.7 | ug/L | 40  | 37.5 | 79 - 125 |
| 1,2-Dichloroethane-d4 (S)  | 101  | %    |     |      | 62 - 133 |
| 4-Bromofluorobenzene (S)   | 96.1 | %    |     |      | 79 - 114 |
| Dibromofluoromethane (S)   | 94.7 | %    |     |      | 78 - 116 |
| Toluene-d8 (S)             | 100  | %    |     |      | 76 - 127 |

MATRIX SPIKE: 2485343 DUPLICATE: 2485344 ORIGINAL: 2208103004

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD |
|--------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|
| Benzene                  | 0               | ug/L  | 20          | 21.3073   | 107        | 107      |           | 80 - 124    |     |         |
| 1,2-Dibromoethane        | 0               | ug/L  | 20          | 20.2609   | 101        | 101      |           | 80 - 124    |     |         |
| 1,1-Dichloroethane       | 0               | ug/L  | 20          | 23.0622   | 115        | 115      |           | 78 - 124    |     |         |
| 1,2-Dichloroethane       | 0               | ug/L  | 20          | 21.2184   | 106        | 106      |           | 70 - 133    |     |         |
| 1,1-Dichloroethene       | 0               | ug/L  | 20          | 26.6287   | 133*       | 133*     |           | 63 - 128    |     |         |
| cis-1,2-Dichloroethene   | 0               | ug/L  | 20          | 21.7333   | 109        | 109      |           | 78 - 125    |     |         |
| trans-1,2-Dichloroethene | 0               | ug/L  | 20          | 25.0911   | 125*       | 125*     |           | 71 - 122    |     |         |
| Ethylbenzene             | 0               | ug/L  | 20          | 21.974    | 110        | 110      |           | 80 - 124    |     |         |
| Methylene Chloride       | 0               | ug/L  | 20          | 21.5554   | 108        | 108      |           | 76 - 121    |     |         |
| Tetrachloroethene        | 0               | ug/L  | 20          | 22.3498   | 112        | 112      |           | 72 - 124    |     |         |
| Toluene                  | 0               | ug/L  | 20          | 21.9198   | 110        | 110      |           | 80 - 125    |     |         |
| Total Xylenes            | 0               | ug/L  | 60          | 63.6481   | 106        | 106      |           | 79 - 125    |     |         |
| 1,1,1-Trichloroethane    | 0               | ug/L  | 20          | 23.3665   | 117        | 117      |           | 66 - 130    |     |         |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

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|                           |      |      |    |         |     |      |          |
|---------------------------|------|------|----|---------|-----|------|----------|
| Trichloroethene           | 0    | ug/L | 20 | 22.9773 | 115 | 115  | 77 - 124 |
| Vinyl Chloride            | 0    | ug/L | 20 | 24.9587 | 125 | 125  | 27 - 138 |
| 1,2-Dichloroethane-d4 (S) | 99.1 | %    |    |         |     | 99.1 | 62 - 133 |
| 4-Bromofluorobenzene (S)  | 97.6 | %    |    |         |     | 97.6 | 79 - 114 |
| Dibromofluoromethane (S)  | 92.7 | %    |    |         |     | 92.7 | 78 - 116 |
| Toluene-d8 (S)            | 99   | %    |    |         |     | 99   | 76 - 127 |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

**QC Batch:** WCPR/39226      **Analysis Method:** SW846 7196A  
**QC Batch Method:** SW846 3060A  
**Associated Lab Samples:** 2207906006

#### METHOD BLANK: 2490893

| Parameter           | Blank Result | Units | Reporting Limit |
|---------------------|--------------|-------|-----------------|
| Hexavalent Chromium | ND           | mg/kg | 2.0             |

#### LABORATORY CONTROL SAMPLE: 2490894

| Parameter           | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|---------------------|-----------|-------|-------------|------------|-------------|
| Hexavalent Chromium | 96.3      | mg/kg | 19.8        | 19.1       | 80 - 120    |

#### SAMPLE DUPLICATE: 2490895 ORIGINAL: 2210200003

| Parameter           | Original Result | Units | DUP Result | RPD | Max RPD |
|---------------------|-----------------|-------|------------|-----|---------|
| Hexavalent Chromium | 0               | mg/kg | 0          | NC  | 20      |

#### MATRIX SPIKE SAMPLE: 2490896 ORIGINAL: 2210200003

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter           | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|---------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Hexavalent Chromium | 0               | mg/kg | 38.8        | 1.0155    | 2.62*    | 75 - 125    |

#### MATRIX SPIKE SAMPLE: 2490897 ORIGINAL: 2210200003

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter           | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|---------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Hexavalent Chromium | 0               | mg/kg | 632         | 438.7114  | 69.4*    | 75 - 125    |

**QUALITY CONTROL DATA**

Workorder: 2207906 Chase Lands Phase II

MATRIX SPIKE SAMPLE: 2490898 ORIGINAL: 2210200003

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter           | Original<br>Result | Units | Spike<br>Conc. | MS<br>Result | MS %<br>Rec | % Rec<br>Limit |
|---------------------|--------------------|-------|----------------|--------------|-------------|----------------|
| Hexavalent Chromium | 0                  | mg/kg | 39.1           | 10.94531     | 28*         | 85 - 115       |

### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

**QC Batch:** WETC/182905 **Analysis Method:** S2540G-11

**QC Batch Method:** S2540G-11

**Associated Lab Samples:** 2207906005, 2207906006, 2207906007, 2207906008, 2207906009

SAMPLE DUPLICATE: 2484816 ORIGINAL: 2207775001

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 53.719          | %     | 53.0187    | 1.31 | 10      |
| Total Solids | 46.2809         | %     | 46.9812    | 1.5  | 5       |

SAMPLE DUPLICATE: 2484817 ORIGINAL: 2207820003

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Moisture     | 10.5128         | %     | 10.5027    | .1  | 10      |
| Total Solids | 89.4871         | %     | 89.4972    | .01 | 5       |

SAMPLE DUPLICATE: 2484818 ORIGINAL: 2207824004

| Parameter    | Original Result | Units | DUP Result | RPD   | Max RPD |
|--------------|-----------------|-------|------------|-------|---------|
| Moisture     | 28.667          | %     | 24.2614    | 16.6* | 10      |
| Total Solids | 71.3329         | %     | 75.7385    | 5.99* | 5       |

SAMPLE DUPLICATE: 2484819 ORIGINAL: 2207847001

| Parameter    | Original Result | Units | DUP Result | RPD   | Max RPD |
|--------------|-----------------|-------|------------|-------|---------|
| Moisture     | 95.5555         | %     | 94.6692    | .93   | 10      |
| Total Solids | 4.4444          | %     | 5.3307     | 18.1* | 5       |

SAMPLE DUPLICATE: 2484820 ORIGINAL: 2207903007

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Moisture     | 98.5049         | %     | 98.4313    | .07 | 10      |
| Total Solids | 1.495           | %     | 1.5686     | 4.8 | 5       |



### QUALITY CONTROL DATA

Workorder: 2207906 Chase Lands Phase II

SAMPLE DUPLICATE: 2484821 ORIGINAL: 2207950001

| Parameter    | Original<br>Result | Units | DUP<br>Result | RPD  | Max<br>RPD |
|--------------|--------------------|-------|---------------|------|------------|
| Moisture     | 38.4567            | %     | 35.4349       | 8.18 | 10         |
| Total Solids | 61.5432            | %     | 64.565        | 4.79 | 5          |

## QUALITY CONTROL DATA QUALIFIERS

Workorder: 2207906 Chase Lands Phase II

### QUALITY CONTROL PARAMETER QUALIFIERS

| Lab ID                                                                                                                                                                                         | # | Sample Type          | Analytical Method | Analyte                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----------------------|-------------------|------------------------|
| <b>2484966</b>                                                                                                                                                                                 | 1 | Method Blank         | SW846 8260B       | Methylene Chloride     |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                  |   |                      |                   |                        |
| <b>2484967</b>                                                                                                                                                                                 | 2 | Lab Control Standard | SW846 8260B       | Methylene Chloride     |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 165 and the control limits were 68 to 133.     |   |                      |                   |                        |
| <b>2485234</b>                                                                                                                                                                                 | 3 | Lab Control Standard | SW846 8270D       | 3-Nitroaniline         |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte 3-Nitroaniline. The % Recovery was reported as 135 and the control limits were 60 to 123.         |   |                      |                   |                        |
| <b>2485234</b>                                                                                                                                                                                 | 4 | Lab Control Standard | SW846 8270D       | N-Nitrosodiphenylamine |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte N-Nitrosodiphenylamine. The % Recovery was reported as 127 and the control limits were 58 to 125. |   |                      |                   |                        |
| <b>2485234</b>                                                                                                                                                                                 | 5 | Lab Control Standard | SW846 8270D       | 4-Nitroaniline         |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte 4-Nitroaniline. The % Recovery was reported as 125 and the control limits were 53 to 124.         |   |                      |                   |                        |
| <b>2485234</b>                                                                                                                                                                                 | 6 | Lab Control Standard | SW846 8270D       | Hexachlorobenzene      |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Hexachlorobenzene. The % Recovery was reported as 110 and the control limits were 59 to 109.      |   |                      |                   |                        |
| <b>2488352</b>                                                                                                                                                                                 | 7 | Duplicate            | SW846 8270D       | Benzo(a)anthracene     |
| The QC sample type DUP for method SW846 8270D was outside the control limits for the analyte Benzo(a)anthracene. The RPD was reported as 200 and the upper control limit is 22.                |   |                      |                   |                        |

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2207906 Chase Lands Phase II

| Lab ID     | Sample ID   | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|-------------|-------------|------------|-----------------|----------------|
| 2207906005 | CL-GS-S-01  |             |            | S2540G-11       | WETC/182905    |
| 2207906006 | CL-GS-S-03  |             |            | S2540G-11       | WETC/182905    |
| 2207906007 | CL-GS-S-04  |             |            | S2540G-11       | WETC/182905    |
| 2207906008 | CL-GS-S-05  |             |            | S2540G-11       | WETC/182905    |
| 2207906009 | CL-GS-S-06  |             |            | S2540G-11       | WETC/182905    |
| 2207906005 | CL-GS-S-01  | SW846 5035  | VOMS/42428 | SW846 8260B     | VOMS/42429     |
| 2207906006 | CL-GS-S-03  | SW846 5035  | VOMS/42428 | SW846 8260B     | VOMS/42429     |
| 2207906007 | CL-GS-S-04  | SW846 5035  | VOMS/42428 | SW846 8260B     | VOMS/42429     |
| 2207906008 | CL-GS-S-05  | SW846 5035  | VOMS/42428 | SW846 8260B     | VOMS/42429     |
| 2207906009 | CL-GS-S-06  | SW846 5035  | VOMS/42428 | SW846 8260B     | VOMS/42429     |
| 2207906002 | CL-GS-SW-01 | SW846 3015  | MDIG/62590 | SW846 6020A     | META/56106     |
| 2207906003 | CL-GS-SW-02 | SW846 3015  | MDIG/62590 | SW846 6020A     | META/56106     |
| 2207906004 | DUP-01      | SW846 3015  | MDIG/62590 | SW846 6020A     | META/56106     |
| 2207906002 | CL-GS-SW-01 |             |            | SW846 8015D     | VOGC/9381      |
| 2207906003 | CL-GS-SW-02 |             |            | SW846 8015D     | VOGC/9381      |
| 2207906004 | DUP-01      |             |            | SW846 8015D     | VOGC/9381      |
| 2207906002 | CL-GS-SW-01 | SW846 3510C | EXTR/46698 | SW846 8270D     | SVMS/27573     |
| 2207906003 | CL-GS-SW-02 | SW846 3510C | EXTR/46698 | SW846 8270D     | SVMS/27573     |
| 2207906004 | DUP-01      | SW846 3510C | EXTR/46698 | SW846 8270D     | SVMS/27573     |
| 2207906002 | CL-GS-SW-01 | SW846 3510C | EXTR/46700 | 8270 SIM        | SVMS/27576     |
| 2207906003 | CL-GS-SW-02 | SW846 3510C | EXTR/46700 | 8270 SIM        | SVMS/27576     |
| 2207906004 | DUP-01      | SW846 3510C | EXTR/46700 | 8270 SIM        | SVMS/27576     |
| 2207906001 | TB-02       |             |            | SW846 8260B     | VOMS/42438     |
| 2207906002 | CL-GS-SW-01 |             |            | SW846 8260B     | VOMS/42438     |
| 2207906003 | CL-GS-SW-02 |             |            | SW846 8260B     | VOMS/42438     |

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2207906 Chase Lands Phase II

| Lab ID     | Sample ID   | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|-------------|-------------|------------|-----------------|----------------|
| 2207906004 | DUP-01      |             |            | SW846 8260B     | VOMS/42438     |
| 2207906005 | CL-GS-S-01  | SW846 7471B | MDIG/62596 | SW846 7471B     | META/56113     |
| 2207906006 | CL-GS-S-03  | SW846 7471B | MDIG/62596 | SW846 7471B     | META/56113     |
| 2207906007 | CL-GS-S-04  | SW846 7471B | MDIG/62596 | SW846 7471B     | META/56113     |
| 2207906008 | CL-GS-S-05  | SW846 7471B | MDIG/62596 | SW846 7471B     | META/56113     |
| 2207906009 | CL-GS-S-06  | SW846 7471B | MDIG/62596 | SW846 7471B     | META/56113     |
| 2207906002 | CL-GS-SW-01 | SW846 3510C | EXTR/46723 | SW846 8081B     | SVGC/44534     |
| 2207906003 | CL-GS-SW-02 | SW846 3510C | EXTR/46723 | SW846 8081B     | SVGC/44534     |
| 2207906004 | DUP-01      | SW846 3510C | EXTR/46723 | SW846 8081B     | SVGC/44534     |
| 2207906002 | CL-GS-SW-01 | SW846 3510C | EXTR/46724 | SW846 8082A     | SVGC/44512     |
| 2207906003 | CL-GS-SW-02 | SW846 3510C | EXTR/46724 | SW846 8082A     | SVGC/44512     |
| 2207906004 | DUP-01      | SW846 3510C | EXTR/46724 | SW846 8082A     | SVGC/44512     |
| 2207906002 | CL-GS-SW-01 | SW846 8011  | SVGC/44517 | SW846 8011      | SVGC/44519     |
| 2207906003 | CL-GS-SW-02 | SW846 8011  | SVGC/44517 | SW846 8011      | SVGC/44519     |
| 2207906004 | DUP-01      | SW846 8011  | SVGC/44517 | SW846 8011      | SVGC/44519     |
| 2207906005 | CL-GS-S-01  | SW846 5035  | VOGC/9385  | SW846 8015D     | VOGC/9386      |
| 2207906006 | CL-GS-S-03  | SW846 5035  | VOGC/9385  | SW846 8015D     | VOGC/9386      |
| 2207906007 | CL-GS-S-04  | SW846 5035  | VOGC/9385  | SW846 8015D     | VOGC/9386      |
| 2207906008 | CL-GS-S-05  | SW846 5035  | VOGC/9385  | SW846 8015D     | VOGC/9386      |
| 2207906009 | CL-GS-S-06  | SW846 5035  | VOGC/9385  | SW846 8015D     | VOGC/9386      |
| 2207906005 | CL-GS-S-01  | SW846 3546  | EXTR/46745 | SW846 8081B     | SVGC/44539     |
| 2207906006 | CL-GS-S-03  | SW846 3546  | EXTR/46745 | SW846 8081B     | SVGC/44539     |
| 2207906007 | CL-GS-S-04  | SW846 3546  | EXTR/46745 | SW846 8081B     | SVGC/44539     |
| 2207906005 | CL-GS-S-01  | SW846 3546  | EXTR/46746 | SW846 8082A     | SVGC/44523     |

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2207906 Chase Lands Phase II

| Lab ID     | Sample ID   | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|-------------|-------------|------------|-----------------|----------------|
| 2207906006 | CL-GS-S-03  | SW846 3546  | EXTR/46746 | SW846 8082A     | SVGC/44523     |
| 2207906007 | CL-GS-S-04  | SW846 3546  | EXTR/46746 | SW846 8082A     | SVGC/44523     |
| 2207906005 | CL-GS-S-01  | SW846 3546  | EXTR/46749 | SW846 8015D     | SVGC/44528     |
| 2207906006 | CL-GS-S-03  | SW846 3546  | EXTR/46749 | SW846 8015D     | SVGC/44528     |
| 2207906007 | CL-GS-S-04  | SW846 3546  | EXTR/46749 | SW846 8015D     | SVGC/44528     |
| 2207906008 | CL-GS-S-05  | SW846 3546  | EXTR/46749 | SW846 8015D     | SVGC/44528     |
| 2207906009 | CL-GS-S-06  | SW846 3546  | EXTR/46749 | SW846 8015D     | SVGC/44528     |
| 2207906005 | CL-GS-S-01  | SW846 3051  | MDIG/62672 | SW846 6020A     | META/56160     |
| 2207906006 | CL-GS-S-03  | SW846 3051  | MDIG/62672 | SW846 6020A     | META/56160     |
| 2207906007 | CL-GS-S-04  | SW846 3051  | MDIG/62672 | SW846 6020A     | META/56160     |
| 2207906008 | CL-GS-S-05  | SW846 3051  | MDIG/62672 | SW846 6020A     | META/56160     |
| 2207906009 | CL-GS-S-06  | SW846 3051  | MDIG/62672 | SW846 6020A     | META/56160     |
| 2207906002 | CL-GS-SW-01 | SW846 3510C | EXTR/46755 | SW846 8015D     | SVGC/44544     |
| 2207906003 | CL-GS-SW-02 | SW846 3510C | EXTR/46755 | SW846 8015D     | SVGC/44544     |
| 2207906004 | DUP-01      | SW846 3510C | EXTR/46755 | SW846 8015D     | SVGC/44544     |
| 2207906008 | CL-GS-S-05  | SW846 3546  | EXTR/46764 | SW846 8082A     | SVGC/44550     |
| 2207906009 | CL-GS-S-06  | SW846 3546  | EXTR/46764 | SW846 8082A     | SVGC/44550     |
| 2207906008 | CL-GS-S-05  | SW846 3546  | EXTR/46765 | SW846 8081B     | SVGC/44551     |
| 2207906009 | CL-GS-S-06  | SW846 3546  | EXTR/46765 | SW846 8081B     | SVGC/44551     |
| 2207906005 | CL-GS-S-01  | SW846 3546  | EXTR/46777 | SW846 8270D     | SVMS/27610     |
| 2207906006 | CL-GS-S-03  | SW846 3546  | EXTR/46777 | SW846 8270D     | SVMS/27610     |
| 2207906007 | CL-GS-S-04  | SW846 3546  | EXTR/46777 | SW846 8270D     | SVMS/27610     |
| 2207906008 | CL-GS-S-05  | SW846 3546  | EXTR/46777 | SW846 8270D     | SVMS/27610     |
| 2207906009 | CL-GS-S-06  | SW846 3546  | EXTR/46777 | SW846 8270D     | SVMS/27610     |

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2207906 Chase Lands Phase II

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| Lab ID     | Sample ID  | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|------------|-------------|------------|-----------------|----------------|
| 2207906006 | CL-GS-S-03 | SW846 3060A | WCPR/39226 | SW846 7196A     | WETC/183416    |



34 Dogwood Lane  
Middletown, PA 17057  
P. 717-944-5541  
F. 717-944-1430

# Environmental

## CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT/  
SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 2  
Courier: SW  
Tracking #: \_\_\_\_\_



Co. Name: Howard County DPW (EA Engineering)  
Contact (Report to): Nita Blackwell Phone: 410-313-3446  
Address: Nelson Brooks  
3430 Courthouse Dr  
Ellicott City, MD 21043

Bill to (if different than Report to): Nita Blackwell PO#:

Project Name/ID: Chase Lands Phase II ALS Quote #:

TAT: ☒ Normal-Standard TAT is 10-12 business days.  
☐ Rush-Subject to ALS approval and surcharges.

Email? ☒ Y ☐ N Fax? ☐ Y ☐ N  
Y No: nblackwell@howardcountymd.gov / nblackwell@eaeng.com

Sample Description/Location (as it will appear on the lab report)

COC Comments

Sample Date

Military Time

Matrix

Enter Number of Containers Per Analysis

8260 VOCs + Organohalogenes

8270/1514-SVOCs

TPH GRO

TPH DRO

8082-PCBs

8081-Pesticides

Total PP Metals

8260 VOCs

Correct containers? ☒ Y ☐ N

Correct sample volume? ☒ Y ☐ N

Correct preservation? ☒ Y ☐ N

Headspace/Volatiles? ☒ Y ☐ N

CO Labels complete/accurate? ☒ Y ☐ N

Container in good condition? ☒ Y ☐ N

Custody seals present? ☒ Y ☐ N

(If present) Seals intact? ☒ Y ☐ N

Received on ice? ☒ Y ☐ N

CO Labels complete/accurate? ☒ Y ☐ N

Container in good condition? ☒ Y ☐ N

Custody seals present? ☒ Y ☐ N

(If present) Seals intact? ☒ Y ☐ N

Received on ice? ☒ Y ☐ N

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Container in good condition? ☒ Y ☐ N

Custody seals present? ☒ Y ☐ N

(If present) Seals intact? ☒ Y ☐ N





34 Dogwood Lane  
Middletown, PA 17057  
P. 717-944-5541  
F. 717-944-1430

# Environmental

## CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

Page 2 of 2  
Courier: \_\_\_\_\_  
Tracking #: \_\_\_\_\_

COC# 900

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT/  
SAMPLER. INSTRUCTIONS ON THE BACK.

Co. Name: Howard County DPW CEA Engineering  
Contact (Report to): Niki Blackwell Phone: 410-313-3940  
Address: Nelson Brooks 410-584-7008  
3430 Courthouse Dr  
Ellicott City, MD 21043

Bill to (if different than Report to): Niki Blackwell PO#:

Project Name#: Chase Lands Phase II ALS Quote #:

TAT: ☒ Normal-Standard TAT is 10-12 business days.  
☐ Rush-Subject to ALS approval and surcharges.

Email? ☒ Y ☐ N Fax? ☐ Y ☐ N  
Email: nblackwell@howardcountymd.gov / nbrooks@ceast.com

Sample Description/Location (see it will appear on the lab report)

| Sample       | Comments | Sample Date | Military Time |
|--------------|----------|-------------|---------------|
| 1 CL-GS-S-01 |          | 2/10/17     | 1410          |
| 2 CL-GS-S-03 |          |             | 1400          |
| 3 CL-GS-S-04 |          |             | 1340          |
| 4 CL-GS-S-05 |          |             | 1350          |
| 5 CL-GS-S-06 |          |             | 1430          |
| 6            |          |             |               |
| 7            |          |             |               |
| 8            |          |             |               |

SAMPLED BY (Please Print):

Michael Thornton

Relinquished By / Company Name

1 Sharon Thornton EA 2/10/17 1500  
3 Sharon Thornton 2/10 2025  
5 Sharon Thornton 2/10 2025  
7 Sharon Thornton 2/10 2025  
9

Project Comments:

Date

Time

Received By / Company Name

Date

Time

Received By / Company Name

Date

Time

Received By / Company Name

Date

Time

Container Type: TLK C C  
Container Size: 40ml 40ml 8oz  
Preservative: DI VIOH None

ANALYSES/METHOD REQUESTED

8260-VOC + Organics

TPH GRO

8270-SVOC, TPH, B50

PAH, PPAHs, 8081-PK

Enter Number of Containers Per Analysis

4

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

1

Receipt Information  
(Completed by Sample Reception)  
Received In: Stamps  
Cooler Temp: 10C  
Therm. ID: 351  
No. of Coolers: \_\_\_\_\_  
Notes: \_\_\_\_\_

Correct containers? Y  
Correct sample volume? Y  
Correct preservation? Y  
Headspace/Volatiles? Y  
Container in good condition? Y

Circle appropriate Y or N.

COC/Labels complete/accurate? Y

Received on ice? Y

(If present) Seals intact? Y

Custody seals Present? Y

ALS FIELD SERVICES

Picking ☐

Labor ☐

Composite Sampling ☐

Rental Equipment ☐

Other ☐

SDWA Form 7-02

Standard ☐

CLP-like ☐

NJ-Reduced ☐

NJ-Full ☐

Other ☐

SDWA Samples Collected in? MD

MD ☐

NJ ☐

NY ☐

PA ☐

Other ☐

ALS Criteria Required? Standard

ALS Criteria Required? Standard

ALS Criteria Required? Standard

ALS Criteria Required? Standard

ALS Criteria Required? Standard

ALS Criteria Required? Standard

ALS Criteria Required? Standard

ALS Criteria Required? Standard

ALS Criteria Required? Standard

ALS Criteria Required? Standard

ALS Criteria Required? Standard

ALS Criteria Required? Standard



February 24, 2017

Ms. Tara Lamond  
EA Engineering-MD  
225 Schilling Circle  
Hunt Valley, MD 21031

## Certificate of Analysis

|                                            |                                           |
|--------------------------------------------|-------------------------------------------|
| Project Name: <b>2017-REV2-MDE SOIL/GW</b> | Workorder: <b>2208112</b>                 |
| Purchase Order:                            | Workorder ID: <b>Chase Lands Phase II</b> |

Dear Ms. Lamond:

Enclosed are the analytical results for samples received by the laboratory on Monday, February 13, 2017.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at [www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads](http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads).

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Michael Thornton , Mr. Hugh Murphy , Mr. Nelson Brooks , Ms. Niti Blackwell

*This page is included as part of the Analytical Report and must be retained as a permanent record thereof.*

Ms. Susan J Scherer  
Project Coordinator

**SAMPLE SUMMARY**

Workorder: 2208112 Chase Lands Phase II

| Lab ID     | Sample ID   | Matrix | Date Collected  | Date Received   | Collected By |
|------------|-------------|--------|-----------------|-----------------|--------------|
| 2208112001 | TB-03       | Water  | 2/13/2017 20:20 | 2/13/2017 20:20 | Mr. Michael  |
| 2208112002 | DUP-02      | Solid  | 2/13/2017 00:00 | 2/13/2017 20:20 | Mr. Michael  |
| 2208112003 | CL-ISM-S-C5 | Solid  | 2/13/2017 14:10 | 2/13/2017 20:20 | Mr. Michael  |
| 2208112004 | CL-SAW-S-B1 | Solid  | 2/13/2017 12:20 | 2/13/2017 20:20 | Mr. Michael  |
| 2208112005 | CL-SAW-S-D1 | Solid  | 2/13/2017 11:10 | 2/13/2017 20:20 | Mr. Michael  |
| 2208112006 | CL-SAW-S-D2 | Solid  | 2/13/2017 11:50 | 2/13/2017 20:20 | Mr. Michael  |
| 2208112007 | CL-SAW-S-D4 | Solid  | 2/13/2017 09:00 | 2/13/2017 20:20 | Mr. Michael  |
| 2208112008 | CL-SAW-S-E2 | Solid  | 2/13/2017 10:40 | 2/13/2017 20:20 | Mr. Michael  |
| 2208112009 | CL-SAW-S-E3 | Solid  | 2/13/2017 09:50 | 2/13/2017 20:20 | Mr. Michael  |

## SAMPLE SUMMARY

Workorder: 2208112 Chase Lands Phase II

### Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.

### Standard Acronyms/Flags

|        |                                                                                                                                      |
|--------|--------------------------------------------------------------------------------------------------------------------------------------|
| J      | Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte     |
| U      | Indicates that the analyte was Not Detected (ND)                                                                                     |
| N      | Indicates presumptive evidence of the presence of a compound                                                                         |
| MDL    | Method Detection Limit                                                                                                               |
| PQL    | Practical Quantitation Limit                                                                                                         |
| RDL    | Reporting Detection Limit                                                                                                            |
| ND     | Not Detected - indicates that the analyte was Not Detected at the RDL                                                                |
| Cntr   | Analysis was performed using this container                                                                                          |
| RegLmt | Regulatory Limit                                                                                                                     |
| LCS    | Laboratory Control Sample                                                                                                            |
| MS     | Matrix Spike                                                                                                                         |
| MSD    | Matrix Spike Duplicate                                                                                                               |
| DUP    | Sample Duplicate                                                                                                                     |
| %Rec   | Percent Recovery                                                                                                                     |
| RPD    | Relative Percent Difference                                                                                                          |
| LOD    | DoD Limit of Detection                                                                                                               |
| LOQ    | DoD Limit of Quantitation                                                                                                            |
| DL     | DoD Detection Limit                                                                                                                  |
| I      | Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL) |
| (S)    | Surrogate Compound                                                                                                                   |
| NC     | Not Calculated                                                                                                                       |
| *      | Result outside of QC limits                                                                                                          |

## PROJECT SUMMARY

Workorder: 2208112 Chase Lands Phase II

### Workorder Comments

Hexavalent chromium analysis was performed on samples with a total chromium result greater than 30 mg/kg based on instructions from Hugh Murphy. SJS 02/22/17

### Sample Comments

**Lab ID:** 2208112002**Sample ID:** DUP-02**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208112003**Sample ID:** CL-ISM-S-C5**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208112004**Sample ID:** CL-SAW-S-B1**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208112005**Sample ID:** CL-SAW-S-D1**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208112006**Sample ID:** CL-SAW-S-D2**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208112007**Sample ID:** CL-SAW-S-D4**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208112008**Sample ID:** CL-SAW-S-E2**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208112009**Sample ID:** CL-SAW-S-E3**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112001**

Date Collected: 2/13/2017 20:20

Matrix: Water

Sample ID: **TB-03**

Date Received: 2/13/2017 20:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------|---------------|-----|------|
| <b>VOLATILE ORGANICS</b>    |         |      |       |      |      |             |             |               |     |      |
| Acetone                     | 4.8J    | J    | ug/L  | 10.0 | 3.1  | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| tert-Amyl methyl ether      | ND      |      | ug/L  | 1.0  | 0.20 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| tert-Amyl Alcohol           | ND      |      | ug/L  | 10.0 | 6.6  | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| tert-Amyl Ethylether        | ND      |      | ug/L  | 1.0  | 0.29 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| Benzene                     | ND      |      | ug/L  | 1.0  | 0.23 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| Bromochloromethane          | ND      |      | ug/L  | 1.0  | 0.32 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| Bromodichloromethane        | ND      |      | ug/L  | 1.0  | 0.27 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| Bromoform                   | ND      |      | ug/L  | 1.0  | 0.40 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| Bromomethane                | ND      |      | ug/L  | 1.0  | 0.39 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| 2-Butanone                  | ND      |      | ug/L  | 10.0 | 1.8  | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| tert-Butyl Alcohol          | ND      |      | ug/L  | 10.0 | 2.2  | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| Carbon Disulfide            | ND      |      | ug/L  | 1.0  | 0.23 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| Carbon Tetrachloride        | ND      |      | ug/L  | 1.0  | 0.31 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| Chlorobenzene               | ND      |      | ug/L  | 1.0  | 0.19 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| Chlorodibromomethane        | ND      |      | ug/L  | 1.0  | 0.45 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| Chloroethane                | ND      |      | ug/L  | 1.0  | 0.33 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| Chloroform                  | ND      |      | ug/L  | 1.0  | 0.21 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| Chloromethane               | ND      |      | ug/L  | 1.0  | 0.31 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| 1,2-Dibromo-3-chloropropane | ND      |      | ug/L  | 7.0  | 1.5  | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| 1,2-Dibromoethane           | ND      |      | ug/L  | 1.0  | 0.28 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| 1,1-Dichloroethane          | ND      |      | ug/L  | 1.0  | 0.28 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| 1,2-Dichloroethane          | ND      |      | ug/L  | 1.0  | 0.32 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| 1,1-Dichloroethene          | ND      |      | ug/L  | 1.0  | 0.29 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| cis-1,2-Dichloroethene      | ND      |      | ug/L  | 1.0  | 0.32 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| trans-1,2-Dichloroethene    | ND      |      | ug/L  | 1.0  | 0.26 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| 1,2-Dichloropropane         | ND      |      | ug/L  | 1.0  | 0.24 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| cis-1,3-Dichloropropene     | ND      |      | ug/L  | 1.0  | 0.31 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| trans-1,3-Dichloropropene   | ND      |      | ug/L  | 1.0  | 0.29 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| Diisopropyl ether           | ND      |      | ug/L  | 1.0  | 0.25 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| Ethyl tert-butyl ether      | ND      |      | ug/L  | 1.0  | 0.19 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| Ethylbenzene                | ND      |      | ug/L  | 1.0  | 0.34 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| 2-Hexanone                  | ND      |      | ug/L  | 5.0  | 1.3  | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| Methyl t-Butyl Ether        | ND      |      | ug/L  | 1.0  | 0.33 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| 4-Methyl-2-Pentanone(MIBK)  | ND      |      | ug/L  | 5.0  | 1.5  | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| Methylene Chloride          | ND      |      | ug/L  | 1.0  | 0.45 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |
| Styrene                     | ND      |      | ug/L  | 1.0  | 0.24 | SW846 8260B |             | 2/14/17 15:52 | TMP | A    |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112001**

Date Collected: 2/13/2017 20:20

Matrix: Water

Sample ID: **TB-03**

Date Received: 2/13/2017 20:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By     | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-----------------|---------------|-----------------|-----------------------|
| 1,1,1,2-Tetrachloroethane   | ND             |             | ug/L         | 1.0           | 0.35 | SW846 8260B   |                 | 2/14/17 15:52 | TMP             | A                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/L         | 1.0           | 0.34 | SW846 8260B   |                 | 2/14/17 15:52 | TMP             | A                     |
| Tetrachloroethene           | ND             |             | ug/L         | 1.0           | 0.35 | SW846 8260B   |                 | 2/14/17 15:52 | TMP             | A                     |
| Toluene                     | ND             |             | ug/L         | 1.0           | 0.23 | SW846 8260B   |                 | 2/14/17 15:52 | TMP             | A                     |
| Total Xylenes               | ND             |             | ug/L         | 3.0           | 0.66 | SW846 8260B   |                 | 2/14/17 15:52 | TMP             | A                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/L         | 1.0           | 0.22 | SW846 8260B   |                 | 2/14/17 15:52 | TMP             | A                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/14/17 15:52 | TMP             | A                     |
| Trichloroethene             | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/14/17 15:52 | TMP             | A                     |
| Vinyl Chloride              | ND             |             | ug/L         | 1.0           | 0.30 | SW846 8260B   |                 | 2/14/17 15:52 | TMP             | A                     |
| o-Xylene                    | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/14/17 15:52 | TMP             | A                     |
| mp-Xylene                   | ND             |             | ug/L         | 2.0           | 0.52 | SW846 8260B   |                 | 2/14/17 15:52 | TMP             | A                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 104            |             | %            | 62 - 133      |      | SW846 8260B   |                 |               | 2/14/17 15:52   | TMP A                 |
| 4-Bromofluorobenzene (S)    | 99.2           |             | %            | 79 - 114      |      | SW846 8260B   |                 |               | 2/14/17 15:52   | TMP A                 |
| Dibromofluoromethane (S)    | 98.1           |             | %            | 78 - 116      |      | SW846 8260B   |                 |               | 2/14/17 15:52   | TMP A                 |
| Toluene-d8 (S)              | 100            |             | %            | 76 - 127      |      | SW846 8260B   |                 |               | 2/14/17 15:52   | TMP A                 |

  
Ms. Susan J Scherer  
Project Coordinator



## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112002**

Date Collected: 2/13/2017 00:00

Matrix: Solid

Sample ID: **DUP-02**

Date Received: 2/13/2017 20:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By     | Analyzed  | By              | Cntr           |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-----------------|-----------|-----------------|----------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                 |           |                 |                |
| Diesel Range Organics C10-C28 | 5.8J           | J           | mg/kg        | 11.8          | 2.8  | SW846 8015D   | 2/22/17 04:55   | VLM       | 2/22/17 18:49   | BS F           |
| Gasoline Range Organics       | 2370J          | J           | ug/kg        | 7320          | 1020 | SW846 8015D   | 2/13/17 00:00   | DD        | 2/17/17 13:49   | DD D           |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By Cntr</i> |
| o-Terphenyl (S)               | 84.5           |             | %            | 38 - 118      |      | SW846 8015D   | 2/22/17 04:55   | VLM       | 2/22/17 18:49   | BS F           |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 118            |             | %            | 72 - 134      |      | SW846 8015D   | 2/13/17 00:00   | DD        | 2/17/17 13:49   | DD D           |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                 |           |                 |                |
| Acetone                       | 25.5           |             | ug/kg        | 10.2          | 4.7  | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.0           | 0.60 | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 10.2          | 3.6  | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.0           | 0.51 | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| Benzene                       | ND             |             | ug/kg        | 2.0           | 0.51 | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| Bromochloromethane            | ND             |             | ug/kg        | 2.0           | 0.51 | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.0           | 0.72 | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| Bromoform                     | ND             |             | ug/kg        | 2.0           | 0.53 | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| Bromomethane                  | ND             |             | ug/kg        | 2.0           | 0.53 | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| 2-Butanone                    | ND             |             | ug/kg        | 10.2          | 3.2  | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 10.2          | 3.6  | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.0           | 0.64 | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.0           | 0.52 | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.0           | 0.52 | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.0           | 0.69 | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| Chloroethane                  | ND             |             | ug/kg        | 5.1           | 0.86 | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| Chloroform                    | ND             |             | ug/kg        | 2.0           | 0.54 | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| Chloromethane                 | ND             |             | ug/kg        | 2.0           | 0.56 | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 5.1           | 2.9  | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.0           | 0.55 | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.0           | 0.51 | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.0           | 0.51 | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.0           | 0.53 | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.0           | 0.51 | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.0           | 0.53 | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.0           | 0.61 | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.0           | 0.56 | SW846 8260B   | 2/13/17 00:00   | SYB       | 2/15/17 01:39   | SYB B          |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112002**

Date Collected: 2/13/2017 00:00

Matrix: Solid

Sample ID: **DUP-02**

Date Received: 2/13/2017 20:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 2.0           | 0.59 | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 2.0           | 0.51 | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 2.0           | 0.53 | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 2.0           | 0.69 | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 10.2          | 2.8  | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 2.0           | 0.51 | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 10.2          | 3.9  | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| Methylene Chloride          | 14.1           | 1,2,3       | ug/kg        | 2.0           | 0.79 | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| Naphthalene                 | 0.63J          | J           | ug/kg        | 2.0           | 0.51 | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.0           | 0.51 | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.0           | 0.57 | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.0           | 0.61 | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.0           | 0.68 | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 6.1           | 1.4  | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.0           | 0.63 | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.0           | 0.57 | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.0           | 0.51 | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.0           | 0.51 | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.0           | 0.59 | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.1           | 0.84 | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 75.8           |             | %            | 56 - 124      |      | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 84.3           |             | %            | 51 - 128      |      | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| Dibromofluoromethane (S)    | 89             |             | %            | 62 - 123      |      | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| Toluene-d8 (S)              | 85.3           |             | %            | 59 - 131      |      | SW846 8260B   | 2/13/17 00:00 SYB | 2/15/17 01:39 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 53.7          | 6.4  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 53.7          | 7.5  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| Acetophenone                | ND             |             | ug/kg        | 107           | 8.6  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 53.7          | 8.6  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 107           | 11.8 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 215           | 18.3 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| Benzo(a)anthracene          | 10.2J          | J           | ug/kg        | 53.7          | 5.4  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 53.7          | 4.3  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| Benzo(b)fluoranthene        | 6.9J           | J           | ug/kg        | 53.7          | 5.4  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 53.7          | 5.4  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112002**

Date Collected: 2/13/2017 00:00

Matrix: Solid

Sample ID: **DUP-02**

Date Received: 2/13/2017 20:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 53.7 | 5.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| Biphenyl                    | ND      |      | ug/kg | 107  | 7.5  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 107  | 9.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| Butylbenzylphthalate        | ND      |      | ug/kg | 107  | 7.5  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| Caprolactam                 | ND      |      | ug/kg | 215  | 19.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| Carbazole                   | ND      |      | ug/kg | 107  | 7.5  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 215  | 10.7 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 215  | 12.9 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 107  | 9.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 107  | 14.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 107  | 16.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 107  | 6.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 215  | 8.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 107  | 8.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| Chrysene                    | 6.6J    | J    | ug/kg | 53.7 | 5.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| mp-Cresol                   | ND      |      | ug/kg | 215  | 8.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| o-Cresol                    | ND      |      | ug/kg | 215  | 11.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 107  | 8.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 107  | 7.5  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 53.7 | 6.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| Dibenzofuran                | ND      |      | ug/kg | 107  | 8.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 215  | 40.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 215  | 8.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| Diethylphthalate            | ND      |      | ug/kg | 107  | 8.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 215  | 16.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 107  | 7.5  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 215  | 43.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 107  | 9.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 107  | 12.9 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 107  | 52.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 107  | 7.5  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| Fluoranthene                | 11.0J   | J    | ug/kg | 53.7 | 5.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| Fluorene                    | ND      |      | ug/kg | 53.7 | 6.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 107  | 11.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 107  | 10.7 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 215  | 11.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| Hexachloroethane            | ND      |      | ug/kg | 107  | 9.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 53.7 | 7.5  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF | F    |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112002**

Date Collected: 2/13/2017 00:00

Matrix: Solid

Sample ID: **DUP-02**

Date Received: 2/13/2017 20:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 107           | 6.4    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 215           | 27.9   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 107           | 5.4    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 53.7          | 6.4    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 215           | 12.9   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 215           | 21.5   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 215           | 8.6    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 107           | 12.9   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 215           | 11.8   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 215           | 15.0   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 107           | 8.6    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 107           | 8.6    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 215           | 27.9   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| Phenanthrene                   | 7.1J           | J           | ug/kg        | 53.7          | 5.4    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| Phenol                         | ND             |             | ug/kg        | 215           | 10.7   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| Pyrene                         | 8.5J           | J           | ug/kg        | 53.7          | 5.4    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 107           | 7.5    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 215           | 12.9   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 215           | 12.9   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 215           | 12.9   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 92.4           |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| 2-Fluorobiphenyl (S)           | 88.9           |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| 2-Fluorophenol (S)             | 84.9           |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| Nitrobenzene-d5 (S)            | 85.5           |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| Phenol-d5 (S)                  | 84.6           |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| Terphenyl-d14 (S)              | 86.8           |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:20 | DHF             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.036         | 0.0033 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:19 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.036         | 0.0066 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:19 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.036         | 0.0033 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:19 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.036         | 0.0066 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:19 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.036         | 0.0099 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:19 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.036         | 0.0066 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:19 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.036         | 0.0066 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:19 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.036         | 0.0066 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:19 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.036         | 0.0077 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:19 | EGO             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112002**

Date Collected: 2/13/2017 00:00

Matrix: Solid

Sample ID: **DUP-02**

Date Received: 2/13/2017 20:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.036         | 0.0099 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:19 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 87.4           |             | %            | 49 - 115      |        | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:19 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 92.3           |             | %            | 27 - 137      |        | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:19 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 9.3           | 3.0    | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 9.3           | 0.82   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 9.3           | 0.99   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 9.3           | 0.71   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 9.3           | 0.77   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 9.3           | 0.99   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 9.3           | 1.6    | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 18.1          | 1.5    | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 18.1          | 2.5    | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 18.1          | 2.1    | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 18.1          | 2.1    | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 9.3           | 1.1    | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 18.1          | 3.8    | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 18.1          | 1.2    | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 18.1          | 1.3    | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 18.1          | 2.0    | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 18.1          | 2.5    | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 9.3           | 0.93   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 9.3           | 0.93   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 18.1          | 2.4    | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 192           | 31.7   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 64             |             | %            | 30 - 135      |        | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 54.5           |             | %            | 30 - 111      |        | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:08 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |        |               |                   |               |                 |                       |
| Moisture                    | 12.7           |             | %            | 0.1           | 0.01   | S2540G-11     |                   | 2/14/17 11:30 | VKB             | F                     |
| Total Solids                | 87.3           |             | %            | 0.1           | 0.01   | S2540G-11     |                   | 2/14/17 11:30 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |        |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.1           | 0.36   | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 07:29 | ZMC             | F2                    |
| Arsenic, Total              | 4.8            |             | mg/kg        | 1.6           | 0.54   | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 07:29 | ZMC             | F2                    |
| Beryllium, Total            | 0.20J          | J           | mg/kg        | 0.54          | 0.18   | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 07:29 | ZMC             | F2                    |



## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112002**

Date Collected: 2/13/2017 00:00

Matrix: Solid

Sample ID: **DUP-02**

Date Received: 2/13/2017 20:20

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.54  | 0.18  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:29 | ZMC | F2   |
| Chromium, Total | 16.2    |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:29 | ZMC | F2   |
| Copper, Total   | 7.3     |      | mg/kg | 2.7   | 0.86  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:29 | ZMC | F2   |
| Lead, Total     | 12.1    |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:29 | ZMC | F2   |
| Mercury, Total  | ND      |      | mg/kg | 0.049 | 0.016 | SW846 7471B | 2/14/17 15:00 AXC | 2/15/17 11:16 | MNP | F1   |
| Nickel, Total   | 3.3     |      | mg/kg | 2.7   | 0.86  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:29 | ZMC | F2   |
| Selenium, Total | 0.95J   | J    | mg/kg | 2.7   | 0.86  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:29 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:29 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.54  | 0.18  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:29 | ZMC | F2   |
| Zinc, Total     | 12.7    |      | mg/kg | 2.7   | 0.86  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:29 | ZMC | F2   |



Ms. Susan J Scherer

Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112003**  
Sample ID: **CL-ISM-S-C5**

Date Collected: 2/13/2017 14:10 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                  | Results | Flag  | Units | RDL | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|-------|-------|-----|------|-------------|-------------------|---------------|-----|------|
| <b>VOLATILE ORGANICS</b>    |         |       |       |     |      |             |                   |               |     |      |
| Acetone                     | 4.7J    | J     | ug/kg | 10  | 4.6  | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| tert-Amyl methyl ether      | ND      |       | ug/kg | 2.0 | 0.59 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| tert-Amyl Alcohol           | ND      |       | ug/kg | 10  | 3.5  | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| tert-Amyl Ethylether        | ND      |       | ug/kg | 2.0 | 0.50 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| Benzene                     | ND      |       | ug/kg | 2.0 | 0.50 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| Bromochloromethane          | ND      |       | ug/kg | 2.0 | 0.50 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| Bromodichloromethane        | ND      |       | ug/kg | 2.0 | 0.71 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| Bromoform                   | ND      |       | ug/kg | 2.0 | 0.52 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| Bromomethane                | ND      |       | ug/kg | 2.0 | 0.52 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| 2-Butanone                  | ND      |       | ug/kg | 10  | 3.2  | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| tert-Butyl Alcohol          | ND      |       | ug/kg | 10  | 3.5  | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| Carbon Disulfide            | ND      |       | ug/kg | 2.0 | 0.63 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| Carbon Tetrachloride        | ND      |       | ug/kg | 2.0 | 0.51 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| Chlorobenzene               | ND      |       | ug/kg | 2.0 | 0.51 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| Chlorodibromomethane        | ND      |       | ug/kg | 2.0 | 0.68 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| Chloroethane                | ND      |       | ug/kg | 5.0 | 0.85 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| Chloroform                  | ND      |       | ug/kg | 2.0 | 0.53 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| Chloromethane               | ND      |       | ug/kg | 2.0 | 0.55 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| 1,2-Dibromo-3-chloropropane | ND      |       | ug/kg | 5.0 | 2.9  | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| 1,2-Dibromoethane           | ND      |       | ug/kg | 2.0 | 0.54 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| 1,1-Dichloroethane          | ND      |       | ug/kg | 2.0 | 0.50 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| 1,2-Dichloroethane          | ND      |       | ug/kg | 2.0 | 0.50 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| 1,1-Dichloroethene          | ND      |       | ug/kg | 2.0 | 0.52 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| cis-1,2-Dichloroethene      | ND      |       | ug/kg | 2.0 | 0.50 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| trans-1,2-Dichloroethene    | ND      |       | ug/kg | 2.0 | 0.52 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| 1,2-Dichloropropane         | ND      |       | ug/kg | 2.0 | 0.60 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| cis-1,3-Dichloropropene     | ND      |       | ug/kg | 2.0 | 0.55 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| trans-1,3-Dichloropropene   | ND      |       | ug/kg | 2.0 | 0.58 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| Diisopropyl ether           | ND      |       | ug/kg | 2.0 | 0.50 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| Ethyl tert-butyl ether      | ND      |       | ug/kg | 2.0 | 0.52 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| Ethylbenzene                | ND      |       | ug/kg | 2.0 | 0.68 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| 2-Hexanone                  | ND      |       | ug/kg | 10  | 2.8  | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| Methyl t-Butyl Ether        | ND      |       | ug/kg | 2.0 | 0.50 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| 4-Methyl-2-Pentanone(MIBK)  | ND      |       | ug/kg | 10  | 3.8  | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |
| Methylene Chloride          | 12.9    | 1,2,3 | ug/kg | 2.0 | 0.78 | SW846 8260B | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB | B    |



## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112003**  
Sample ID: **CL-ISM-S-C5**

Date Collected: 2/13/2017 14:10 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| Naphthalene                 | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.0           | 0.56 | SW846 8260B   | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.0           | 0.60 | SW846 8260B   | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.0           | 0.67 | SW846 8260B   | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 6.0           | 1.4  | SW846 8260B   | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.0           | 0.62 | SW846 8260B   | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.0           | 0.56 | SW846 8260B   | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.0           | 0.58 | SW846 8260B   | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.0           | 0.83 | SW846 8260B   | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 76.8           |             | %            | 56 - 124      |      | SW846 8260B   | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 84             |             | %            | 51 - 128      |      | SW846 8260B   | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB             | B                     |
| Dibromofluoromethane (S)    | 89.1           |             | %            | 62 - 123      |      | SW846 8260B   | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB             | B                     |
| Toluene-d8 (S)              | 85.5           |             | %            | 59 - 131      |      | SW846 8260B   | 2/13/17 14:10 SYB | 2/15/17 02:02 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 59.8          | 7.2  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 59.8          | 8.4  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| Acetophenone                | ND             |             | ug/kg        | 120           | 9.6  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 59.8          | 9.6  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 120           | 13.2 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 239           | 20.3 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| Benzo(a)anthracene          | 10.8J          | J           | ug/kg        | 59.8          | 6.0  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 59.8          | 4.8  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 59.8          | 6.0  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 59.8          | 6.0  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| Benzo(k)fluoranthene        | ND             |             | ug/kg        | 59.8          | 6.0  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| Biphenyl                    | ND             |             | ug/kg        | 120           | 8.4  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| 4-Bromophenyl-phenylether   | ND             |             | ug/kg        | 120           | 10.8 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| Butylbenzylphthalate        | ND             |             | ug/kg        | 120           | 8.4  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| Caprolactam                 | ND             |             | ug/kg        | 239           | 21.5 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| Carbazole                   | ND             |             | ug/kg        | 120           | 8.4  | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| 4-Chloro-3-methylphenol     | ND             |             | ug/kg        | 239           | 12.0 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| 4-Chloroaniline             | ND             |             | ug/kg        | 239           | 14.4 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| bis(2-Chloroethoxy)methane  | ND             |             | ug/kg        | 120           | 10.8 | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112003**  
Sample ID: **CL-ISM-S-C5**

Date Collected: 2/13/2017 14:10 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 120  | 15.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 120  | 18.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 120  | 7.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 239  | 9.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 120  | 9.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| Chrysene                    | ND      |      | ug/kg | 59.8 | 6.0  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| mp-Cresol                   | ND      |      | ug/kg | 239  | 9.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| o-Cresol                    | ND      |      | ug/kg | 239  | 13.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 120  | 9.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 120  | 8.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 59.8 | 7.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| Dibenzofuran                | ND      |      | ug/kg | 120  | 9.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 239  | 45.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 239  | 9.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| Diethylphthalate            | ND      |      | ug/kg | 120  | 9.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 239  | 18.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 120  | 8.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 239  | 47.9 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 120  | 10.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 120  | 14.4 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 120  | 58.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 120  | 8.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| Fluoranthene                | 9.6J    | J    | ug/kg | 59.8 | 6.0  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| Fluorene                    | ND      |      | ug/kg | 59.8 | 7.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 120  | 13.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 120  | 12.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 239  | 13.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| Hexachloroethane            | ND      |      | ug/kg | 120  | 10.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 59.8 | 8.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| Isophorone                  | ND      |      | ug/kg | 120  | 7.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| 2-Methyl-4,6-dinitrophenol  | ND      |      | ug/kg | 239  | 31.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| 2-Methylnaphthalene         | ND      |      | ug/kg | 120  | 6.0  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| Naphthalene                 | ND      |      | ug/kg | 59.8 | 7.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| 2-Nitroaniline              | ND      |      | ug/kg | 239  | 14.4 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| 3-Nitroaniline              | ND      |      | ug/kg | 239  | 23.9 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| 4-Nitroaniline              | ND      |      | ug/kg | 239  | 9.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| Nitrobenzene                | ND      |      | ug/kg | 120  | 14.4 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |
| 2-Nitrophenol               | ND      |      | ug/kg | 239  | 13.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF | F    |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112003**  
Sample ID: **CL-ISM-S-C5**

Date Collected: 2/13/2017 14:10 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| 4-Nitrophenol                  | ND             |             | ug/kg        | 239           | 16.8   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 120           | 9.6    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 120           | 9.6    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 239           | 31.1   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 59.8          | 6.0    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| Phenol                         | ND             |             | ug/kg        | 239           | 12.0   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| Pyrene                         | ND             |             | ug/kg        | 59.8          | 6.0    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 120           | 8.4    | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 239           | 14.4   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 239           | 14.4   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 239           | 14.4   | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 89.1           |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| 2-Fluorobiphenyl (S)           | 87.2           |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| 2-Fluorophenol (S)             | 80             |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| Nitrobenzene-d5 (S)            | 79.3           |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| Phenol-d5 (S)                  | 79.9           |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| Terphenyl-d14 (S)              | 87.6           |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/21/17 05:47 | DHF             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.039         | 0.0035 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:31 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.039         | 0.0070 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:31 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.039         | 0.0035 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:31 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.039         | 0.0070 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:31 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.039         | 0.011  | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:31 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.039         | 0.0070 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:31 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.039         | 0.0070 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:31 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.039         | 0.0070 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:31 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.039         | 0.0082 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:31 | EGO             | F                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.039         | 0.011  | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:31 | EGO             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)        | 53.1           |             | %            | 49 - 115      |        | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:31 | EGO             | F                     |
| Tetrachloro-m-xylene (S)       | 73.8           |             | %            | 27 - 137      |        | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:31 | EGO             | F                     |
| <b>PESTICIDES</b>              |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                         | ND             |             | ug/kg        | 10            | 3.2    | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |
| alpha-BHC                      | ND             |             | ug/kg        | 10            | 0.88   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |
| beta-BHC                       | ND             |             | ug/kg        | 10            | 1.1    | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112003**  
Sample ID: **CL-ISM-S-C5**

Date Collected: 2/13/2017 14:10 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| delta-BHC                     | ND             |             | ug/kg        | 10            | 0.76 | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |
| gamma-BHC                     | ND             |             | ug/kg        | 10            | 0.82 | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |
| alpha-Chlordane               | ND             |             | ug/kg        | 10            | 1.1  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |
| gamma-Chlordane               | ND             |             | ug/kg        | 10            | 1.7  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |
| 4,4'-DDD                      | ND             |             | ug/kg        | 19.4          | 1.6  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |
| 4,4'-DDE                      | ND             |             | ug/kg        | 19.4          | 2.6  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |
| 4,4'-DDT                      | ND             |             | ug/kg        | 19.4          | 2.2  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |
| Dieldrin                      | ND             |             | ug/kg        | 19.4          | 2.2  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |
| Endosulfan I                  | ND             |             | ug/kg        | 10            | 1.2  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |
| Endosulfan II                 | ND             |             | ug/kg        | 19.4          | 4.0  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |
| Endosulfan Sulfate            | ND             |             | ug/kg        | 19.4          | 1.3  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |
| Endrin                        | ND             |             | ug/kg        | 19.4          | 1.4  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |
| Endrin Aldehyde               | ND             |             | ug/kg        | 19.4          | 2.1  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |
| Endrin Ketone                 | ND             |             | ug/kg        | 19.4          | 2.7  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |
| Heptachlor                    | ND             |             | ug/kg        | 10            | 1.0  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |
| Heptachlor Epoxide            | ND             |             | ug/kg        | 10            | 1.0  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |
| Methoxychlor                  | ND             |             | ug/kg        | 19.4          | 2.6  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |
| Toxaphene                     | ND             |             | ug/kg        | 205           | 34.0 | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)       | 41.7           |             | %            | 30 - 135      |      | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |
| Tetrachloro-m-xylene (S)      | 43.5           |             | %            | 30 - 111      |      | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:24 | RWS             | F                     |
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 9.4J           | J           | mg/kg        | 12.4          | 2.9  | SW846 8015D   | 2/22/17 04:55 VLM | 2/22/17 19:25 | BS              | F                     |
| Gasoline Range Organics       | 3190J          | J           | ug/kg        | 6920          | 961  | SW846 8015D   | 2/13/17 14:10 DD  | 2/17/17 14:22 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 82.7           |             | %            | 38 - 118      |      | SW846 8015D   | 2/22/17 04:55 VLM | 2/22/17 19:25 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 123            |             | %            | 72 - 134      |      | SW846 8015D   | 2/13/17 14:10 DD  | 2/17/17 14:22 | DD              | D                     |
| <b>WET CHEMISTRY</b>          |                |             |              |               |      |               |                   |               |                 |                       |
| Moisture                      | 16.4           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/14/17 11:30 | VKB             | F                     |
| Total Solids                  | 83.6           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/14/17 11:30 | VKB             | F                     |
| <b>METALS</b>                 |                |             |              |               |      |               |                   |               |                 |                       |
| Antimony, Total               | ND             |             | mg/kg        | 1.1           | 0.37 | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 07:33 | ZMC             | F2                    |
| Arsenic, Total                | 5.0            |             | mg/kg        | 1.7           | 0.56 | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 07:33 | ZMC             | F2                    |
| Beryllium, Total              | 0.49J          | J           | mg/kg        | 0.56          | 0.19 | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 07:33 | ZMC             | F2                    |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112003**  
Sample ID: **CL-ISM-S-C5**

Date Collected: 2/13/2017 14:10 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.56  | 0.19  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:33 | ZMC | F2   |
| Chromium, Total | 14.2    |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:33 | ZMC | F2   |
| Copper, Total   | 7.3     |      | mg/kg | 2.8   | 0.90  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:33 | ZMC | F2   |
| Lead, Total     | 16.4    |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:33 | ZMC | F2   |
| Mercury, Total  | ND      |      | mg/kg | 0.059 | 0.019 | SW846 7471B | 2/14/17 15:00 AXC | 2/15/17 11:17 | MNP | F1   |
| Nickel, Total   | 6.6     |      | mg/kg | 2.8   | 0.90  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:33 | ZMC | F2   |
| Selenium, Total | 1.4J    | J    | mg/kg | 2.8   | 0.90  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:33 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:33 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.56  | 0.19  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:33 | ZMC | F2   |
| Zinc, Total     | 22.0    |      | mg/kg | 2.8   | 0.90  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:33 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator



## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112004**  
Sample ID: **CL-SAW-S-B1**

Date Collected: 2/13/2017 12:20 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                  | Results | Flag  | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|-------|-------|------|------|-------------|-------------------|---------------|-----|------|
| <b>VOLATILE ORGANICS</b>    |         |       |       |      |      |             |                   |               |     |      |
| Acetone                     | 13.9    |       | ug/kg | 10.7 | 4.9  | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| tert-Amyl methyl ether      | ND      |       | ug/kg | 2.1  | 0.63 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| tert-Amyl Alcohol           | ND      |       | ug/kg | 10.7 | 3.7  | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| tert-Amyl Ethylether        | ND      |       | ug/kg | 2.1  | 0.53 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| Benzene                     | ND      |       | ug/kg | 2.1  | 0.53 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| Bromochloromethane          | ND      |       | ug/kg | 2.1  | 0.53 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| Bromodichloromethane        | ND      |       | ug/kg | 2.1  | 0.76 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| Bromoform                   | ND      |       | ug/kg | 2.1  | 0.55 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| Bromomethane                | ND      |       | ug/kg | 2.1  | 0.55 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| 2-Butanone                  | ND      |       | ug/kg | 10.7 | 3.4  | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| tert-Butyl Alcohol          | ND      |       | ug/kg | 10.7 | 3.7  | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| Carbon Disulfide            | ND      |       | ug/kg | 2.1  | 0.67 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| Carbon Tetrachloride        | ND      |       | ug/kg | 2.1  | 0.54 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| Chlorobenzene               | ND      |       | ug/kg | 2.1  | 0.54 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| Chlorodibromomethane        | ND      |       | ug/kg | 2.1  | 0.73 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| Chloroethane                | ND      |       | ug/kg | 5.3  | 0.91 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| Chloroform                  | ND      |       | ug/kg | 2.1  | 0.57 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| Chloromethane               | ND      |       | ug/kg | 2.1  | 0.59 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| 1,2-Dibromo-3-chloropropane | ND      |       | ug/kg | 5.3  | 3.1  | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| 1,2-Dibromoethane           | ND      |       | ug/kg | 2.1  | 0.58 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| 1,1-Dichloroethane          | ND      |       | ug/kg | 2.1  | 0.53 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| 1,2-Dichloroethane          | ND      |       | ug/kg | 2.1  | 0.53 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| 1,1-Dichloroethene          | ND      |       | ug/kg | 2.1  | 0.55 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| cis-1,2-Dichloroethene      | ND      |       | ug/kg | 2.1  | 0.53 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| trans-1,2-Dichloroethene    | ND      |       | ug/kg | 2.1  | 0.55 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| 1,2-Dichloropropane         | ND      |       | ug/kg | 2.1  | 0.64 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| cis-1,3-Dichloropropene     | ND      |       | ug/kg | 2.1  | 0.59 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| trans-1,3-Dichloropropene   | ND      |       | ug/kg | 2.1  | 0.62 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| Diisopropyl ether           | ND      |       | ug/kg | 2.1  | 0.53 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| Ethyl tert-butyl ether      | ND      |       | ug/kg | 2.1  | 0.55 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| Ethylbenzene                | ND      |       | ug/kg | 2.1  | 0.73 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| 2-Hexanone                  | ND      |       | ug/kg | 10.7 | 3.0  | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| Methyl t-Butyl Ether        | ND      |       | ug/kg | 2.1  | 0.53 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| 4-Methyl-2-Pentanone(MIBK)  | ND      |       | ug/kg | 10.7 | 4.1  | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |
| Methylene Chloride          | 14.1    | 1,2,3 | ug/kg | 2.1  | 0.83 | SW846 8260B | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB | B    |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112004**  
Sample ID: **CL-SAW-S-B1**

Date Collected: 2/13/2017 12:20 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| Naphthalene                 | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.1           | 0.60 | SW846 8260B   | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.1           | 0.64 | SW846 8260B   | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.1           | 0.71 | SW846 8260B   | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 6.4           | 1.5  | SW846 8260B   | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.1           | 0.66 | SW846 8260B   | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.1           | 0.60 | SW846 8260B   | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.1           | 0.62 | SW846 8260B   | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.3           | 0.89 | SW846 8260B   | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 74.8           |             | %            | 56 - 124      |      | SW846 8260B   | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 85             |             | %            | 51 - 128      |      | SW846 8260B   | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB             | B                     |
| Dibromofluoromethane (S)    | 88.9           |             | %            | 62 - 123      |      | SW846 8260B   | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB             | B                     |
| Toluene-d8 (S)              | 84.7           |             | %            | 59 - 131      |      | SW846 8260B   | 2/13/17 12:20 SYB | 2/15/17 02:25 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 54.9          | 6.6  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 54.9          | 7.7  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| Acetophenone                | ND             |             | ug/kg        | 110           | 8.8  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 54.9          | 8.8  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 110           | 12.1 | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 220           | 18.7 | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| Benzo(a)anthracene          | 8.2J           | J           | ug/kg        | 54.9          | 5.5  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 54.9          | 4.4  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 54.9          | 5.5  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 54.9          | 5.5  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| Benzo(k)fluoranthene        | ND             |             | ug/kg        | 54.9          | 5.5  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| Biphenyl                    | ND             |             | ug/kg        | 110           | 7.7  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| 4-Bromophenyl-phenylether   | ND             |             | ug/kg        | 110           | 9.9  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| Butylbenzylphthalate        | ND             |             | ug/kg        | 110           | 7.7  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| Caprolactam                 | ND             |             | ug/kg        | 220           | 19.8 | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| Carbazole                   | ND             |             | ug/kg        | 110           | 7.7  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| 4-Chloro-3-methylphenol     | ND             |             | ug/kg        | 220           | 11.0 | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| 4-Chloroaniline             | ND             |             | ug/kg        | 220           | 13.2 | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| bis(2-Chloroethoxy)methane  | ND             |             | ug/kg        | 110           | 9.9  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |



## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112004**  
Sample ID: **CL-SAW-S-B1**

Date Collected: 2/13/2017 12:20 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 110  | 14.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 110  | 16.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 110  | 6.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 220  | 8.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 110  | 8.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 54.9 | 5.5  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 220  | 8.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 220  | 12.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 110  | 8.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 110  | 7.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 54.9 | 6.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 110  | 8.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 220  | 41.7 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 220  | 8.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 110  | 8.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 220  | 16.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 110  | 7.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 220  | 43.9 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 110  | 9.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 110  | 13.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 110  | 53.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | 11.8J   | J    | ug/kg | 110  | 7.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| Fluoranthene                | ND      |      | ug/kg | 54.9 | 5.5  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 54.9 | 6.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 110  | 12.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 110  | 11.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 220  | 12.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 110  | 9.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 54.9 | 7.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| Isophorone                  | ND      |      | ug/kg | 110  | 6.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| 2-Methyl-4,6-dinitrophenol  | ND      |      | ug/kg | 220  | 28.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| 2-Methylnaphthalene         | ND      |      | ug/kg | 110  | 5.5  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| Naphthalene                 | ND      |      | ug/kg | 54.9 | 6.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| 2-Nitroaniline              | ND      |      | ug/kg | 220  | 13.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| 3-Nitroaniline              | ND      |      | ug/kg | 220  | 22.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| 4-Nitroaniline              | ND      |      | ug/kg | 220  | 8.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| Nitrobenzene                | ND      |      | ug/kg | 110  | 13.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |
| 2-Nitrophenol               | ND      |      | ug/kg | 220  | 12.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112004**  
Sample ID: **CL-SAW-S-B1**

Date Collected: 2/13/2017 12:20 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| 4-Nitrophenol                  | ND             |             | ug/kg        | 220           | 15.4   | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 110           | 8.8    | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 110           | 8.8    | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 220           | 28.5   | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 54.9          | 5.5    | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 220           | 11.0   | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| Pyrene                         | ND             |             | ug/kg        | 54.9          | 5.5    | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 110           | 7.7    | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 220           | 13.2   | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 220           | 13.2   | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 220           | 13.2   | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 90.3           |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 88.2           |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| 2-Fluorophenol (S)             | 81.2           |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 82.6           |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| Phenol-d5 (S)                  | 82.9           |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| Terphenyl-d14 (S)              | 90.2           |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 19:42 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.036         | 0.0032 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:42 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:42 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.036         | 0.0032 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:42 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:42 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.036         | 0.0097 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:42 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:42 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:42 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:42 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.036         | 0.0075 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:42 | EGO             | F                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.036         | 0.0097 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:42 | EGO             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)        | 96.8           |             | %            | 49 - 115      |        | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:42 | EGO             | F                     |
| Tetrachloro-m-xylene (S)       | 95             |             | %            | 27 - 137      |        | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 10:42 | EGO             | F                     |
| <b>PESTICIDES</b>              |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                         | ND             |             | ug/kg        | 9.2           | 3.0    | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |
| alpha-BHC                      | ND             |             | ug/kg        | 9.2           | 0.81   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |
| beta-BHC                       | ND             |             | ug/kg        | 9.2           | 0.97   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112004**  
Sample ID: **CL-SAW-S-B1**

Date Collected: 2/13/2017 12:20 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| delta-BHC                     | ND             |             | ug/kg        | 9.2           | 0.70 | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |
| gamma-BHC                     | ND             |             | ug/kg        | 9.2           | 0.75 | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |
| alpha-Chlordane               | ND             |             | ug/kg        | 9.2           | 0.97 | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |
| gamma-Chlordane               | ND             |             | ug/kg        | 9.2           | 1.6  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |
| 4,4'-DDD                      | ND             |             | ug/kg        | 17.8          | 1.5  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |
| 4,4'-DDE                      | ND             |             | ug/kg        | 17.8          | 2.4  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |
| 4,4'-DDT                      | ND             |             | ug/kg        | 17.8          | 2.0  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |
| Dieldrin                      | ND             |             | ug/kg        | 17.8          | 2.0  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |
| Endosulfan I                  | ND             |             | ug/kg        | 9.2           | 1.1  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |
| Endosulfan II                 | ND             |             | ug/kg        | 17.8          | 3.7  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |
| Endosulfan Sulfate            | ND             |             | ug/kg        | 17.8          | 1.2  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |
| Endrin                        | ND             |             | ug/kg        | 17.8          | 1.3  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |
| Endrin Aldehyde               | ND             |             | ug/kg        | 17.8          | 1.9  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |
| Endrin Ketone                 | ND             |             | ug/kg        | 17.8          | 2.5  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |
| Heptachlor                    | ND             |             | ug/kg        | 9.2           | 0.92 | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |
| Heptachlor Epoxide            | ND             |             | ug/kg        | 9.2           | 0.92 | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |
| Methoxychlor                  | ND             |             | ug/kg        | 17.8          | 2.4  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |
| Toxaphene                     | ND             |             | ug/kg        | 188           | 31.2 | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)       | 70.7           |             | %            | 30 - 135      |      | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |
| Tetrachloro-m-xylene (S)      | 53.8           |             | %            | 30 - 111      |      | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 15:39 | RWS             | F                     |
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 4.6J           | J           | mg/kg        | 11.4          | 2.7  | SW846 8015D   | 2/22/17 04:55 VLM | 2/22/17 20:02 | BS              | F                     |
| Gasoline Range Organics       | 1060J          | J           | ug/kg        | 5270          | 732  | SW846 8015D   | 2/13/17 12:12 DD  | 2/17/17 14:56 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 87.7           |             | %            | 38 - 118      |      | SW846 8015D   | 2/22/17 04:55 VLM | 2/22/17 20:02 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 118            |             | %            | 72 - 134      |      | SW846 8015D   | 2/13/17 12:12 DD  | 2/17/17 14:56 | DD              | D                     |
| <b>WET CHEMISTRY</b>          |                |             |              |               |      |               |                   |               |                 |                       |
| Moisture                      | 9.5            |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/14/17 11:30 | VKB             | F                     |
| Total Solids                  | 90.5           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/14/17 11:30 | VKB             | F                     |
| <b>METALS</b>                 |                |             |              |               |      |               |                   |               |                 |                       |
| Antimony, Total               | ND             |             | mg/kg        | 1.1           | 0.35 | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 07:37 | ZMC             | F2                    |
| Arsenic, Total                | 3.2            |             | mg/kg        | 1.6           | 0.53 | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 07:37 | ZMC             | F2                    |
| Beryllium, Total              | 0.45J          | J           | mg/kg        | 0.53          | 0.18 | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 07:37 | ZMC             | F2                    |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112004**  
Sample ID: **CL-SAW-S-B1**

Date Collected: 2/13/2017 12:20 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.53  | 0.18  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:37 | ZMC | F2   |
| Chromium, Total | 11.8    |      | mg/kg | 1.1   | 0.35  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:37 | ZMC | F2   |
| Copper, Total   | 7.0     |      | mg/kg | 2.7   | 0.85  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:37 | ZMC | F2   |
| Lead, Total     | 7.3     |      | mg/kg | 1.1   | 0.35  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:37 | ZMC | F2   |
| Mercury, Total  | ND      |      | mg/kg | 0.051 | 0.016 | SW846 7471B | 2/14/17 15:00 AXC | 2/15/17 11:18 | MNP | F1   |
| Nickel, Total   | 6.0     |      | mg/kg | 2.7   | 0.85  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:37 | ZMC | F2   |
| Selenium, Total | 1.2J    | J    | mg/kg | 2.7   | 0.85  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:37 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.35  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:37 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.53  | 0.18  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:37 | ZMC | F2   |
| Zinc, Total     | 19.4    |      | mg/kg | 2.7   | 0.85  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:37 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112005**  
Sample ID: **CL-SAW-S-D1**

Date Collected: 2/13/2017 11:10 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                  | Results | Flag  | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|-------|-------|------|------|-------------|-------------------|---------------|-----|------|
| <b>VOLATILE ORGANICS</b>    |         |       |       |      |      |             |                   |               |     |      |
| Acetone                     | 8.7J    | J     | ug/kg | 10.7 | 4.9  | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| tert-Amyl methyl ether      | ND      |       | ug/kg | 2.1  | 0.63 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| tert-Amyl Alcohol           | ND      |       | ug/kg | 10.7 | 3.7  | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| tert-Amyl Ethylether        | ND      |       | ug/kg | 2.1  | 0.53 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| Benzene                     | ND      |       | ug/kg | 2.1  | 0.53 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| Bromochloromethane          | ND      |       | ug/kg | 2.1  | 0.53 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| Bromodichloromethane        | ND      |       | ug/kg | 2.1  | 0.76 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| Bromoform                   | ND      |       | ug/kg | 2.1  | 0.55 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| Bromomethane                | ND      |       | ug/kg | 2.1  | 0.55 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| 2-Butanone                  | ND      |       | ug/kg | 10.7 | 3.4  | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| tert-Butyl Alcohol          | ND      |       | ug/kg | 10.7 | 3.7  | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| Carbon Disulfide            | ND      |       | ug/kg | 2.1  | 0.67 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| Carbon Tetrachloride        | ND      |       | ug/kg | 2.1  | 0.54 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| Chlorobenzene               | ND      |       | ug/kg | 2.1  | 0.54 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| Chlorodibromomethane        | ND      |       | ug/kg | 2.1  | 0.72 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| Chloroethane                | ND      |       | ug/kg | 5.3  | 0.91 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| Chloroform                  | ND      |       | ug/kg | 2.1  | 0.56 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| Chloromethane               | ND      |       | ug/kg | 2.1  | 0.59 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| 1,2-Dibromo-3-chloropropane | ND      |       | ug/kg | 5.3  | 3.1  | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| 1,2-Dibromoethane           | ND      |       | ug/kg | 2.1  | 0.58 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| 1,1-Dichloroethane          | ND      |       | ug/kg | 2.1  | 0.53 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| 1,2-Dichloroethane          | ND      |       | ug/kg | 2.1  | 0.53 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| 1,1-Dichloroethene          | ND      |       | ug/kg | 2.1  | 0.55 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| cis-1,2-Dichloroethene      | ND      |       | ug/kg | 2.1  | 0.53 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| trans-1,2-Dichloroethene    | ND      |       | ug/kg | 2.1  | 0.55 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| 1,2-Dichloropropane         | ND      |       | ug/kg | 2.1  | 0.64 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| cis-1,3-Dichloropropene     | ND      |       | ug/kg | 2.1  | 0.59 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| trans-1,3-Dichloropropene   | ND      |       | ug/kg | 2.1  | 0.62 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| Diisopropyl ether           | ND      |       | ug/kg | 2.1  | 0.53 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| Ethyl tert-butyl ether      | ND      |       | ug/kg | 2.1  | 0.55 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| Ethylbenzene                | ND      |       | ug/kg | 2.1  | 0.72 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| 2-Hexanone                  | ND      |       | ug/kg | 10.7 | 3.0  | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| Methyl t-Butyl Ether        | ND      |       | ug/kg | 2.1  | 0.53 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| 4-Methyl-2-Pentanone(MIBK)  | ND      |       | ug/kg | 10.7 | 4.1  | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |
| Methylene Chloride          | 11.6    | 1,2,3 | ug/kg | 2.1  | 0.83 | SW846 8260B | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB | B    |



## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112005**  
Sample ID: **CL-SAW-S-D1**

Date Collected: 2/13/2017 11:10 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| Naphthalene                 | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.1           | 0.60 | SW846 8260B   | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.1           | 0.64 | SW846 8260B   | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.1           | 0.71 | SW846 8260B   | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 6.4           | 1.5  | SW846 8260B   | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.1           | 0.66 | SW846 8260B   | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.1           | 0.60 | SW846 8260B   | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.1           | 0.62 | SW846 8260B   | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.3           | 0.88 | SW846 8260B   | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 76             |             | %            | 56 - 124      |      | SW846 8260B   | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 83.7           |             | %            | 51 - 128      |      | SW846 8260B   | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB             | B                     |
| Dibromofluoromethane (S)    | 89.3           |             | %            | 62 - 123      |      | SW846 8260B   | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB             | B                     |
| Toluene-d8 (S)              | 84.7           |             | %            | 59 - 131      |      | SW846 8260B   | 2/13/17 11:10 SYB | 2/15/17 02:48 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 57.5          | 6.9  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 57.5          | 8.1  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| Acetophenone                | ND             |             | ug/kg        | 115           | 9.2  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 57.5          | 9.2  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 115           | 12.7 | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 230           | 19.6 | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| Benzo(a)anthracene          | 7.6J           | J           | ug/kg        | 57.5          | 5.8  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 57.5          | 4.6  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 57.5          | 5.8  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 57.5          | 5.8  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| Benzo(k)fluoranthene        | ND             |             | ug/kg        | 57.5          | 5.8  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| Biphenyl                    | ND             |             | ug/kg        | 115           | 8.1  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| 4-Bromophenyl-phenylether   | ND             |             | ug/kg        | 115           | 10.4 | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| Butylbenzylphthalate        | ND             |             | ug/kg        | 115           | 8.1  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| Caprolactam                 | ND             |             | ug/kg        | 230           | 20.7 | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| Carbazole                   | ND             |             | ug/kg        | 115           | 8.1  | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| 4-Chloro-3-methylphenol     | ND             |             | ug/kg        | 230           | 11.5 | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| 4-Chloroaniline             | ND             |             | ug/kg        | 230           | 13.8 | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| bis(2-Chloroethoxy)methane  | ND             |             | ug/kg        | 115           | 10.4 | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112005**  
Sample ID: **CL-SAW-S-D1**

Date Collected: 2/13/2017 11:10 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 115  | 15.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 115  | 17.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 115  | 6.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 230  | 9.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 115  | 9.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 57.5 | 5.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 230  | 9.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 230  | 12.7 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 115  | 9.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 115  | 8.1  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 57.5 | 6.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 115  | 9.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 230  | 43.7 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 230  | 9.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 115  | 9.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 230  | 17.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 115  | 8.1  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 230  | 46.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 115  | 10.4 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 115  | 13.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 115  | 56.4 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 115  | 8.1  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| Fluoranthene                | ND      |      | ug/kg | 57.5 | 5.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 57.5 | 6.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 115  | 12.7 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 115  | 11.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 230  | 12.7 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 115  | 10.4 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 57.5 | 8.1  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| Isophorone                  | ND      |      | ug/kg | 115  | 6.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| 2-Methyl-4,6-dinitrophenol  | ND      |      | ug/kg | 230  | 29.9 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| 2-Methylnaphthalene         | ND      |      | ug/kg | 115  | 5.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| Naphthalene                 | ND      |      | ug/kg | 57.5 | 6.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| 2-Nitroaniline              | ND      |      | ug/kg | 230  | 13.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| 3-Nitroaniline              | ND      |      | ug/kg | 230  | 23.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| 4-Nitroaniline              | ND      |      | ug/kg | 230  | 9.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| Nitrobenzene                | ND      |      | ug/kg | 115  | 13.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |
| 2-Nitrophenol               | ND      |      | ug/kg | 230  | 12.7 | SW846 8270D | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS | F    |



## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112005**  
Sample ID: **CL-SAW-S-D1**

Date Collected: 2/13/2017 11:10 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| 4-Nitrophenol                  | ND             |             | ug/kg        | 230           | 16.1   | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 115           | 9.2    | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 115           | 9.2    | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 230           | 29.9   | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 57.5          | 5.8    | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 230           | 11.5   | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| Pyrene                         | ND             |             | ug/kg        | 57.5          | 5.8    | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 115           | 8.1    | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 230           | 13.8   | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 230           | 13.8   | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 230           | 13.8   | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 91.6           |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 91.4           |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| 2-Fluorophenol (S)             | 79.4           |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 83.2           |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| Phenol-d5 (S)                  | 81.3           |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| Terphenyl-d14 (S)              | 89.1           |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/22/17 20:08 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.037         | 0.0034 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 11:06 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.037         | 0.0068 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 11:06 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.037         | 0.0034 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 11:06 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.037         | 0.0068 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 11:06 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.037         | 0.010  | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 11:06 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.037         | 0.0068 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 11:06 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.037         | 0.0068 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 11:06 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.037         | 0.0068 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 11:06 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.037         | 0.0079 | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 11:06 | EGO             | F                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.037         | 0.010  | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 11:06 | EGO             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)        | 108            |             | %            | 49 - 115      |        | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 11:06 | EGO             | F                     |
| Tetrachloro-m-xylene (S)       | 95.8           |             | %            | 27 - 137      |        | SW846 8082A   | 2/20/17 01:10 CMA | 2/20/17 11:06 | EGO             | F                     |
| <b>PESTICIDES</b>              |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                         | ND             |             | ug/kg        | 9.6           | 3.1    | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |
| alpha-BHC                      | ND             |             | ug/kg        | 9.6           | 0.85   | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |
| beta-BHC                       | ND             |             | ug/kg        | 9.6           | 1.0    | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112005**  
Sample ID: **CL-SAW-S-D1**

Date Collected: 2/13/2017 11:10 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| delta-BHC                     | ND             |             | ug/kg        | 9.6           | 0.73 | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |
| gamma-BHC                     | ND             |             | ug/kg        | 9.6           | 0.79 | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |
| alpha-Chlordane               | ND             |             | ug/kg        | 9.6           | 1.0  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |
| gamma-Chlordane               | ND             |             | ug/kg        | 9.6           | 1.6  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |
| 4,4'-DDD                      | ND             |             | ug/kg        | 18.6          | 1.5  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |
| 4,4'-DDE                      | ND             |             | ug/kg        | 18.6          | 2.5  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |
| 4,4'-DDT                      | ND             |             | ug/kg        | 18.6          | 2.1  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |
| Dieldrin                      | ND             |             | ug/kg        | 18.6          | 2.1  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |
| Endosulfan I                  | ND             |             | ug/kg        | 9.6           | 1.2  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |
| Endosulfan II                 | ND             |             | ug/kg        | 18.6          | 3.9  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |
| Endosulfan Sulfate            | ND             |             | ug/kg        | 18.6          | 1.2  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |
| Endrin                        | ND             |             | ug/kg        | 18.6          | 1.4  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |
| Endrin Aldehyde               | ND             |             | ug/kg        | 18.6          | 2.0  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |
| Endrin Ketone                 | ND             |             | ug/kg        | 18.6          | 2.6  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |
| Heptachlor                    | ND             |             | ug/kg        | 9.6           | 0.96 | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |
| Heptachlor Epoxide            | ND             |             | ug/kg        | 9.6           | 0.96 | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |
| Methoxychlor                  | ND             |             | ug/kg        | 18.6          | 2.5  | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |
| Toxaphene                     | ND             |             | ug/kg        | 197           | 32.7 | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)       | 74             |             | %            | 30 - 135      |      | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |
| Tetrachloro-m-xylene (S)      | 57.4           |             | %            | 30 - 111      |      | SW846 8081B   | 2/20/17 01:10 CMA | 2/20/17 16:10 | RWS             | F                     |
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 5.3J           | J           | mg/kg        | 12.1          | 2.9  | SW846 8015D   | 2/22/17 04:55 VLM | 2/22/17 20:38 | BS              | F                     |
| Gasoline Range Organics       | 1450J          | J           | ug/kg        | 7250          | 1010 | SW846 8015D   | 2/13/17 11:10 DD  | 2/17/17 15:30 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 82.6           |             | %            | 38 - 118      |      | SW846 8015D   | 2/22/17 04:55 VLM | 2/22/17 20:38 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 116            |             | %            | 72 - 134      |      | SW846 8015D   | 2/13/17 11:10 DD  | 2/17/17 15:30 | DD              | D                     |
| <b>WET CHEMISTRY</b>          |                |             |              |               |      |               |                   |               |                 |                       |
| Moisture                      | 14.2           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/14/17 11:30 | VKB             | F                     |
| Total Solids                  | 85.8           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/14/17 11:30 | VKB             | F                     |
| <b>METALS</b>                 |                |             |              |               |      |               |                   |               |                 |                       |
| Antimony, Total               | ND             |             | mg/kg        | 1.1           | 0.37 | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 07:41 | ZMC             | F2                    |
| Arsenic, Total                | 4.8            |             | mg/kg        | 1.7           | 0.56 | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 07:41 | ZMC             | F2                    |
| Beryllium, Total              | 0.19J          | J           | mg/kg        | 0.56          | 0.19 | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 07:41 | ZMC             | F2                    |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112005**  
Sample ID: **CL-SAW-S-D1**

Date Collected: 2/13/2017 11:10 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.56  | 0.19  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:41 | ZMC | F2   |
| Chromium, Total | 16.2    |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:41 | ZMC | F2   |
| Copper, Total   | 6.3     |      | mg/kg | 2.8   | 0.90  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:41 | ZMC | F2   |
| Lead, Total     | 6.5     |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:41 | ZMC | F2   |
| Mercury, Total  | ND      |      | mg/kg | 0.057 | 0.018 | SW846 7471B | 2/14/17 15:00 AXC | 2/15/17 11:19 | MNP | F1   |
| Nickel, Total   | 2.5J    | J    | mg/kg | 2.8   | 0.90  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:41 | ZMC | F2   |
| Selenium, Total | ND      |      | mg/kg | 2.8   | 0.90  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:41 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:41 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.56  | 0.19  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:41 | ZMC | F2   |
| Zinc, Total     | 9.9     |      | mg/kg | 2.8   | 0.90  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:41 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112006**  
Sample ID: **CL-SAW-S-D2**

Date Collected: 2/13/2017 11:50 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 6.2J           | J           | mg/kg        | 11.9          | 2.8  | SW846 8015D   | 2/22/17 04:55 VLM | 2/22/17 22:28 | BS              | F                     |
| Gasoline Range Organics       | 1600J          | J           | ug/kg        | 6270          | 872  | SW846 8015D   | 2/13/17 11:50 DD  | 2/17/17 16:03 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 84.4           |             | %            | 38 - 118      |      | SW846 8015D   | 2/22/17 04:55 VLM | 2/22/17 22:28 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 121            |             | %            | 72 - 134      |      | SW846 8015D   | 2/13/17 11:50 DD  | 2/17/17 16:03 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | ND             |             | ug/kg        | 9.2           | 4.2  | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 1.8           | 0.54 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 9.2           | 3.2  | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Benzene                       | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 1.8           | 0.66 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 1.8           | 0.48 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 1.8           | 0.48 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| 2-Butanone                    | ND             |             | ug/kg        | 9.2           | 3.0  | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 9.2           | 3.2  | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 1.8           | 0.58 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 1.8           | 0.47 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 1.8           | 0.47 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 1.8           | 0.63 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 4.6           | 0.78 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 1.8           | 0.49 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 1.8           | 0.51 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 4.6           | 2.7  | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 1.8           | 0.50 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 1.8           | 0.48 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 1.8           | 0.48 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 1.8           | 0.55 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 1.8           | 0.51 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112006**  
Sample ID: **CL-SAW-S-D2**

Date Collected: 2/13/2017 11:50 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 1.8           | 0.54 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 1.8           | 0.48 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 1.8           | 0.63 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 9.2           | 2.6  | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 9.2           | 3.5  | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Methylene Chloride          | 13.9           | 1,2,3       | ug/kg        | 1.8           | 0.72 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 1.8           | 0.52 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 1.8           | 0.55 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 1.8           | 0.62 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 5.5           | 1.3  | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 1.8           | 0.57 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 1.8           | 0.52 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 1.8           | 0.54 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 3.7           | 0.77 | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 76.5           |             | %            | 56 - 124      |      | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 84             |             | %            | 51 - 128      |      | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Dibromofluoromethane (S)    | 88.1           |             | %            | 62 - 123      |      | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| Toluene-d8 (S)              | 83.5           |             | %            | 59 - 131      |      | SW846 8260B   | 2/13/17 11:50 SYB | 2/15/17 03:12 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 55.3          | 6.6  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 55.3          | 7.7  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| Acetophenone                | ND             |             | ug/kg        | 111           | 8.8  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 55.3          | 8.8  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 111           | 12.2 | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 221           | 18.8 | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| Benzo(a)anthracene          | ND             | 4           | ug/kg        | 55.3          | 5.5  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| Benzo(a)pyrene              | 5.1J           | J           | ug/kg        | 55.3          | 4.4  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| Benzo(b)fluoranthene        | 8.0J           | J           | ug/kg        | 55.3          | 5.5  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| Benzo(g,h,i)perylene        | 7.8J           | J           | ug/kg        | 55.3          | 5.5  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |



## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112006**  
Sample ID: **CL-SAW-S-D2**

Date Collected: 2/13/2017 11:50 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | 5.9J    | J    | ug/kg | 55.3 | 5.5  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 111  | 7.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 111  | 10   | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| Butylbenzylphthalate        | ND      |      | ug/kg | 111  | 7.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 221  | 19.9 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 111  | 7.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 221  | 11.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 221  | 13.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 111  | 10   | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 111  | 14.4 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 111  | 16.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 111  | 6.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 221  | 8.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 111  | 8.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 55.3 | 5.5  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 221  | 8.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 221  | 12.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 111  | 8.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 111  | 7.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| Dibenzo(a,h)anthracene      | 6.8J    | J    | ug/kg | 55.3 | 6.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 111  | 8.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 221  | 42.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 221  | 8.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 111  | 8.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 221  | 16.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 111  | 7.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 221  | 44.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 111  | 10   | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 111  | 13.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 111  | 54.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 111  | 7.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| Fluoranthene                | 7.7J    | J    | ug/kg | 55.3 | 5.5  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 55.3 | 6.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 111  | 12.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 111  | 11.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 221  | 12.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 111  | 10   | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | 8.1J    | J    | ug/kg | 55.3 | 7.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112006**  
Sample ID: **CL-SAW-S-D2**

Date Collected: 2/13/2017 11:50 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 111           | 6.6    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 221           | 28.7   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 111           | 5.5    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 55.3          | 6.6    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 221           | 13.3   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 221           | 22.1   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 221           | 8.8    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 111           | 13.3   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 221           | 12.2   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 221           | 15.5   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 111           | 8.8    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 111           | 8.8    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 221           | 28.7   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 55.3          | 5.5    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 221           | 11.1   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| Pyrene                         | 6.5J           | J           | ug/kg        | 55.3          | 5.5    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 111           | 7.7    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 221           | 13.3   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 221           | 13.3   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 221           | 13.3   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 86             |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 82.6           |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| 2-Fluorophenol (S)             | 79.3           |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 81.4           |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| Phenol-d5 (S)                  | 76.7           |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| Terphenyl-d14 (S)              | 76.6           |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 19:44 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.036         | 0.0032 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:10 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:10 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.036         | 0.0032 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:10 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:10 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.036         | 0.0097 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:10 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:10 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:10 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:10 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.036         | 0.0075 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:10 | EGO             | F                     |



## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112006**  
Sample ID: **CL-SAW-S-D2**

Date Collected: 2/13/2017 11:50 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.036         | 0.0097 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:10 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 102            |             | %            | 49 - 115      |        | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:10 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 96.1           |             | %            | 27 - 137      |        | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:10 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 9.2           | 3.0    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 9.2           | 0.81   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 9.2           | 0.97   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 9.2           | 0.70   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 9.2           | 0.75   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 9.2           | 0.97   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 9.2           | 1.6    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 17.8          | 1.5    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 17.8          | 2.4    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 17.8          | 2.0    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 17.8          | 2.0    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 9.2           | 1.1    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 17.8          | 3.7    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 17.8          | 1.2    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 17.8          | 1.3    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 17.8          | 1.9    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 17.8          | 2.5    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 9.2           | 0.92   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 9.2           | 0.92   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 17.8          | 2.4    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 189           | 31.2   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 58.8           |             | %            | 30 - 135      |        | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 52.3           |             | %            | 30 - 111      |        | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 14:27 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |        |               |                   |               |                 |                       |
| Moisture                    | 10.7           |             | %            | 0.1           | 0.01   | S2540G-11     |                   | 2/14/17 11:30 | VKB             | F                     |
| Total Solids                | 89.3           |             | %            | 0.1           | 0.01   | S2540G-11     |                   | 2/14/17 11:30 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |        |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.1           | 0.35   | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 07:45 | ZMC             | F2                    |
| Arsenic, Total              | 4.7            |             | mg/kg        | 1.6           | 0.53   | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 07:45 | ZMC             | F2                    |
| Beryllium, Total            | 0.39J          | J           | mg/kg        | 0.53          | 0.17   | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 07:45 | ZMC             | F2                    |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112006**  
Sample ID: **CL-SAW-S-D2**

Date Collected: 2/13/2017 11:50 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.53  | 0.17  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:45 | ZMC | F2   |
| Chromium, Total | 26.4    |      | mg/kg | 1.1   | 0.35  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:45 | ZMC | F2   |
| Copper, Total   | 6.1     |      | mg/kg | 2.6   | 0.85  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:45 | ZMC | F2   |
| Lead, Total     | 14.3    |      | mg/kg | 1.1   | 0.35  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:45 | ZMC | F2   |
| Mercury, Total  | ND      |      | mg/kg | 0.053 | 0.017 | SW846 7471B | 2/14/17 15:00 AXC | 2/15/17 11:20 | MNP | F1   |
| Nickel, Total   | 3.4     |      | mg/kg | 2.6   | 0.85  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:45 | ZMC | F2   |
| Selenium, Total | 0.96J   | J    | mg/kg | 2.6   | 0.85  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:45 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.35  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:45 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.53  | 0.17  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:45 | ZMC | F2   |
| Zinc, Total     | 14.2    |      | mg/kg | 2.6   | 0.85  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 07:45 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112007**  
Sample ID: **CL-SAW-S-D4**

Date Collected: 2/13/2017 09:00 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | ND             |             | mg/kg        | 11.4          | 2.7  | SW846 8015D   | 2/22/17 04:55 VLM | 2/22/17 23:04 | BS              | F                     |
| Gasoline Range Organics       | 1290J          | J           | ug/kg        | 5900          | 820  | SW846 8015D   | 2/13/17 09:00 DD  | 2/17/17 16:37 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 86.1           |             | %            | 38 - 118      |      | SW846 8015D   | 2/22/17 04:55 VLM | 2/22/17 23:04 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 116            |             | %            | 72 - 134      |      | SW846 8015D   | 2/13/17 09:00 DD  | 2/17/17 16:37 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | 6.7J           | J           | ug/kg        | 10.6          | 4.9  | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.1           | 0.62 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 10.6          | 3.7  | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Benzene                       | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.1           | 0.75 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| 2-Butanone                    | ND             |             | ug/kg        | 10.6          | 3.4  | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 10.6          | 3.7  | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.1           | 0.67 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.1           | 0.54 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.1           | 0.54 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.1           | 0.72 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 5.3           | 0.90 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 2.1           | 0.56 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 2.1           | 0.58 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 5.3           | 3.1  | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.1           | 0.57 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.1           | 0.63 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.1           | 0.58 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112007**  
Sample ID: **CL-SAW-S-D4**

Date Collected: 2/13/2017 09:00 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 2.1           | 0.61 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 2.1           | 0.72 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 10.6          | 3.0  | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 10.6          | 4.0  | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Methylene Chloride          | 11.8           | 1,2,3       | ug/kg        | 2.1           | 0.82 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.1           | 0.59 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.1           | 0.63 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.1           | 0.71 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 6.3           | 1.5  | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.1           | 0.65 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.1           | 0.59 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.1           | 0.61 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.2           | 0.88 | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 75.5           |             | %            | 56 - 124      |      | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 84.9           |             | %            | 51 - 128      |      | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Dibromofluoromethane (S)    | 89.7           |             | %            | 62 - 123      |      | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| Toluene-d8 (S)              | 84.6           |             | %            | 59 - 131      |      | SW846 8260B   | 2/13/17 09:00 SYB | 2/15/17 03:35 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 54.3          | 6.5  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| Acenaphthylene              | 8.0J           | J           | ug/kg        | 54.3          | 7.6  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| Acetophenone                | ND             |             | ug/kg        | 109           | 8.7  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 54.3          | 8.7  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 109           | 12.0 | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 217           | 18.5 | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| Benzo(a)anthracene          | ND             | 4           | ug/kg        | 54.3          | 5.4  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 54.3          | 4.3  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 54.3          | 5.4  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 54.3          | 5.4  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112007**  
Sample ID: **CL-SAW-S-D4**

Date Collected: 2/13/2017 09:00 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 54.3 | 5.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 109  | 7.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 109  | 9.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| Butylbenzylphthalate        | ND      |      | ug/kg | 109  | 7.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 217  | 19.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 109  | 7.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 217  | 10.9 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 217  | 13.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 109  | 9.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 109  | 14.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 109  | 16.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 109  | 6.5  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 217  | 8.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 109  | 8.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 54.3 | 5.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 217  | 8.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 217  | 12.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 109  | 8.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 109  | 7.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 54.3 | 6.5  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 109  | 8.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 217  | 41.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 217  | 8.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 109  | 8.7  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 217  | 16.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 109  | 7.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 217  | 43.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 109  | 9.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 109  | 13.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 109  | 53.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | 11.1J   | J    | ug/kg | 109  | 7.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| Fluoranthene                | 7.7J    | J    | ug/kg | 54.3 | 5.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 54.3 | 6.5  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 109  | 12.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 109  | 10.9 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 217  | 12.0 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 109  | 9.8  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 54.3 | 7.6  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS | F    |



## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112007**  
Sample ID: **CL-SAW-S-D4**

Date Collected: 2/13/2017 09:00 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 109           | 6.5    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 217           | 28.3   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 109           | 5.4    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 54.3          | 6.5    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 217           | 13.0   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 217           | 21.7   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 217           | 8.7    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 109           | 13.0   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 217           | 12.0   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 217           | 15.2   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 109           | 8.7    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 109           | 8.7    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 217           | 28.3   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 54.3          | 5.4    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 217           | 10.9   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| Pyrene                         | ND             |             | ug/kg        | 54.3          | 5.4    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 109           | 7.6    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 217           | 13.0   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 217           | 13.0   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 217           | 13.0   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 85.4           |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 82             |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| 2-Fluorophenol (S)             | 76.6           |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 75.8           |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| Phenol-d5 (S)                  | 75.5           |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| Terphenyl-d14 (S)              | 78             |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 17:59 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.035         | 0.0032 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:46 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.035         | 0.0064 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:46 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.035         | 0.0032 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:46 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.035         | 0.0064 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:46 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.035         | 0.0097 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:46 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.035         | 0.0064 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:46 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.035         | 0.0064 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:46 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.035         | 0.0064 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:46 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.035         | 0.0075 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:46 | EGO             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112007**  
Sample ID: **CL-SAW-S-D4**

Date Collected: 2/13/2017 09:00 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.035         | 0.0097 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:46 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 97.9           |             | %            | 49 - 115      |        | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:46 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 91.4           |             | %            | 27 - 137      |        | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:46 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 9.1           | 3.0    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 9.1           | 0.80   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 9.1           | 0.97   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 9.1           | 0.70   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 9.1           | 0.75   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 9.1           | 0.97   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 9.1           | 1.6    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 17.7          | 1.4    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 17.7          | 2.4    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 17.7          | 2.0    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 17.7          | 2.0    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 9.1           | 1.1    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 17.7          | 3.7    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 17.7          | 1.2    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| Endrin                      | ND             |             | ug/kg        | 17.7          | 1.3    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 17.7          | 1.9    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 17.7          | 2.5    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 9.1           | 0.91   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 9.1           | 0.91   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 17.7          | 2.4    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 188           | 31.1   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 57.8           |             | %            | 30 - 135      |        | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| Tetrachloro-m-xylene (S)    | 58.4           |             | %            | 30 - 111      |        | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:11 | BS              | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |        |               |                   |               |                 |                       |
| Moisture                    | 9.8            |             | %            | 0.1           | 0.01   | S2540G-11     |                   | 2/14/17 11:30 | VKB             | F                     |
| Total Solids                | 90.2           |             | %            | 0.1           | 0.01   | S2540G-11     |                   | 2/14/17 11:30 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |        |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.0           | 0.35   | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 08:00 | ZMC             | F2                    |
| Arsenic, Total              | 3.6            |             | mg/kg        | 1.6           | 0.52   | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 08:00 | ZMC             | F2                    |
| Beryllium, Total            | 0.47J          | J           | mg/kg        | 0.52          | 0.17   | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 08:00 | ZMC             | F2                    |



## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112007**  
Sample ID: **CL-SAW-S-D4**

Date Collected: 2/13/2017 09:00 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.52  | 0.17  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:00 | ZMC | F2   |
| Chromium, Total | 14.1    |      | mg/kg | 1.0   | 0.35  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:00 | ZMC | F2   |
| Copper, Total   | 5.2     |      | mg/kg | 2.6   | 0.84  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:00 | ZMC | F2   |
| Lead, Total     | 11.1    |      | mg/kg | 1.0   | 0.35  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:00 | ZMC | F2   |
| Mercury, Total  | ND      |      | mg/kg | 0.048 | 0.015 | SW846 7471B | 2/14/17 15:00 AXC | 2/15/17 11:21 | MNP | F1   |
| Nickel, Total   | 5.5     |      | mg/kg | 2.6   | 0.84  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:00 | ZMC | F2   |
| Selenium, Total | 1.3J    | J    | mg/kg | 2.6   | 0.84  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:00 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.0   | 0.35  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:00 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.52  | 0.17  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:00 | ZMC | F2   |
| Zinc, Total     | 16.4    |      | mg/kg | 2.6   | 0.84  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:00 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112008**  
Sample ID: **CL-SAW-S-E2**

Date Collected: 2/13/2017 10:40 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 5.9J           | J           | mg/kg        | 11.9          | 2.8  | SW846 8015D   | 2/22/17 04:55 VLM | 2/22/17 23:40 | BS              | F                     |
| Gasoline Range Organics       | 1450J          | J           | ug/kg        | 8750          | 1220 | SW846 8015D   | 2/13/17 10:40 DD  | 2/17/17 17:10 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 78.3           |             | %            | 38 - 118      |      | SW846 8015D   | 2/22/17 04:55 VLM | 2/22/17 23:40 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 117            |             | %            | 72 - 134      |      | SW846 8015D   | 2/13/17 10:40 DD  | 2/17/17 17:10 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | 15.2           |             | ug/kg        | 10.6          | 4.9  | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.1           | 0.63 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 10.6          | 3.7  | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Benzene                       | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.1           | 0.75 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| 2-Butanone                    | ND             |             | ug/kg        | 10.6          | 3.4  | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 10.6          | 3.7  | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.1           | 0.67 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.1           | 0.54 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.1           | 0.54 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.1           | 0.72 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 5.3           | 0.90 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 2.1           | 0.56 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 2.1           | 0.58 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 5.3           | 3.1  | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.1           | 0.57 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.1           | 0.64 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.1           | 0.58 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112008**  
Sample ID: **CL-SAW-S-E2**

Date Collected: 2/13/2017 10:40 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 2.1           | 0.62 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 2.1           | 0.72 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 10.6          | 3.0  | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 10.6          | 4.0  | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Methylene Chloride          | 9.3            | 1,2,3       | ug/kg        | 2.1           | 0.83 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.1           | 0.59 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.1           | 0.64 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.1           | 0.71 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 6.4           | 1.5  | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.1           | 0.66 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.1           | 0.59 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.1           | 0.62 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.2           | 0.88 | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 76.2           |             | %            | 56 - 124      |      | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 83.7           |             | %            | 51 - 128      |      | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Dibromofluoromethane (S)    | 88.8           |             | %            | 62 - 123      |      | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| Toluene-d8 (S)              | 83.9           |             | %            | 59 - 131      |      | SW846 8260B   | 2/13/17 10:40 SYB | 2/15/17 03:58 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 58.8          | 7.1  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 58.8          | 8.2  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| Acetophenone                | ND             |             | ug/kg        | 118           | 9.4  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 58.8          | 9.4  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 118           | 12.9 | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 235           | 20.0 | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| Benzo(a)anthracene          | ND             | 4           | ug/kg        | 58.8          | 5.9  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 58.8          | 4.7  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 58.8          | 5.9  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 58.8          | 5.9  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112008**  
Sample ID: **CL-SAW-S-E2**

Date Collected: 2/13/2017 10:40 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 58.8 | 5.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 118  | 8.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 118  | 10.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| Butylbenzylphthalate        | ND      |      | ug/kg | 118  | 8.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 235  | 21.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 118  | 8.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 235  | 11.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 235  | 14.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 118  | 10.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 118  | 15.3 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 118  | 17.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 118  | 7.1  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 235  | 9.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 118  | 9.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 58.8 | 5.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 235  | 9.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 235  | 12.9 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 118  | 9.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 118  | 8.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 58.8 | 7.1  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 118  | 9.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 235  | 44.7 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 235  | 9.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 118  | 9.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 235  | 17.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 118  | 8.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 235  | 47.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 118  | 10.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 118  | 14.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 118  | 57.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 118  | 8.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| Fluoranthene                | ND      |      | ug/kg | 58.8 | 5.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 58.8 | 7.1  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 118  | 12.9 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 118  | 11.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 235  | 12.9 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 118  | 10.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 58.8 | 8.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112008**  
Sample ID: **CL-SAW-S-E2**

Date Collected: 2/13/2017 10:40 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 118           | 7.1    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 235           | 30.6   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 118           | 5.9    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 58.8          | 7.1    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 235           | 14.1   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 235           | 23.5   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 235           | 9.4    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 118           | 14.1   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 235           | 12.9   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 235           | 16.5   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 118           | 9.4    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 118           | 9.4    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 235           | 30.6   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 58.8          | 5.9    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 235           | 11.8   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| Pyrene                         | ND             |             | ug/kg        | 58.8          | 5.9    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 118           | 8.2    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 235           | 14.1   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 235           | 14.1   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 235           | 14.1   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 83.5           |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 80.6           |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| 2-Fluorophenol (S)             | 77.9           |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 78.4           |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| Phenol-d5 (S)                  | 73.1           |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| Terphenyl-d14 (S)              | 77.8           |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:25 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.038         | 0.0034 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:57 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.038         | 0.0068 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:57 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.038         | 0.0034 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:57 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.038         | 0.0068 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:57 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.038         | 0.010  | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:57 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.038         | 0.0068 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:57 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.038         | 0.0068 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:57 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.038         | 0.0068 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:57 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.038         | 0.0080 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:57 | EGO             | F                     |



## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112008**  
Sample ID: **CL-SAW-S-E2**

Date Collected: 2/13/2017 10:40 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.038         | 0.010 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:57 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 52.6           |             | %            | 49 - 115      |       | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:57 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 71.7           |             | %            | 27 - 137      |       | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 06:57 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 9.7           | 3.1   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 9.7           | 0.85  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 9.7           | 1.0   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 9.7           | 0.74  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 9.7           | 0.80  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 9.7           | 1.0   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 9.7           | 1.7   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 18.8          | 1.5   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 18.8          | 2.6   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 18.8          | 2.2   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 18.8          | 2.2   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 9.7           | 1.2   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 18.8          | 3.9   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 18.8          | 1.3   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| Endrin                      | ND             |             | ug/kg        | 18.8          | 1.4   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 18.8          | 2.0   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 18.8          | 2.6   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 9.7           | 0.97  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 9.7           | 0.97  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 18.8          | 2.5   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 199           | 33.0  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 26             | 5           | %            | 30 - 135      |       | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| Tetrachloro-m-xylene (S)    | 48             |             | %            | 30 - 111      |       | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:27 | BS              | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Moisture                    | 15.6           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/14/17 11:30 | VKB             | F                     |
| Total Solids                | 84.4           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/14/17 11:30 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.1           | 0.37  | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 08:04 | ZMC             | F2                    |
| Arsenic, Total              | 6.7            |             | mg/kg        | 1.7           | 0.56  | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 08:04 | ZMC             | F2                    |
| Beryllium, Total            | 0.79           |             | mg/kg        | 0.56          | 0.18  | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 08:04 | ZMC             | F2                    |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112008**  
Sample ID: **CL-SAW-S-E2**

Date Collected: 2/13/2017 10:40 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.56  | 0.18  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:04 | ZMC | F2   |
| Chromium, Total | 26.8    |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:04 | ZMC | F2   |
| Copper, Total   | 9.9     |      | mg/kg | 2.8   | 0.89  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:04 | ZMC | F2   |
| Lead, Total     | 21.2    |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:04 | ZMC | F2   |
| Mercury, Total  | ND      |      | mg/kg | 0.054 | 0.017 | SW846 7471B | 2/14/17 15:00 AXC | 2/15/17 11:24 | MNP | F1   |
| Nickel, Total   | 14.2    |      | mg/kg | 2.8   | 0.89  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:04 | ZMC | F2   |
| Selenium, Total | 2.0J    | J    | mg/kg | 2.8   | 0.89  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:04 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:04 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.56  | 0.18  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:04 | ZMC | F2   |
| Zinc, Total     | 37.2    |      | mg/kg | 2.8   | 0.89  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:04 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator



## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112009**  
Sample ID: **CL-SAW-S-E3**

Date Collected: 2/13/2017 09:50 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By     | Analyzed  | By              | Cntr           |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-----------------|-----------|-----------------|----------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                 |           |                 |                |
| Diesel Range Organics C10-C28 | 4.9J           | J           | mg/kg        | 12.4          | 2.9  | SW846 8015D   | 2/22/17 04:55   | VLM       | 2/23/17 00:17   | BS F           |
| Gasoline Range Organics       | ND             |             | ug/kg        | 5130          | 712  | SW846 8015D   | 2/13/17 09:50   | DD        | 2/17/17 17:44   | DD D           |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By Cntr</i> |
| o-Terphenyl (S)               | 78.8           |             | %            | 38 - 118      |      | SW846 8015D   | 2/22/17 04:55   | VLM       | 2/23/17 00:17   | BS F           |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 119            |             | %            | 72 - 134      |      | SW846 8015D   | 2/13/17 09:50   | DD        | 2/17/17 17:44   | DD D           |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                 |           |                 |                |
| Acetone                       | ND             |             | ug/kg        | 9.7           | 4.5  | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 1.9           | 0.57 | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 9.7           | 3.4  | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| Benzene                       | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| Bromochloromethane            | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| Bromodichloromethane          | ND             |             | ug/kg        | 1.9           | 0.69 | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| Bromoform                     | ND             |             | ug/kg        | 1.9           | 0.50 | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| Bromomethane                  | ND             |             | ug/kg        | 1.9           | 0.50 | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| 2-Butanone                    | ND             |             | ug/kg        | 9.7           | 3.1  | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 9.7           | 3.4  | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| Carbon Disulfide              | ND             |             | ug/kg        | 1.9           | 0.61 | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 1.9           | 0.49 | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| Chlorobenzene                 | ND             |             | ug/kg        | 1.9           | 0.49 | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| Chlorodibromomethane          | ND             |             | ug/kg        | 1.9           | 0.66 | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| Chloroethane                  | ND             |             | ug/kg        | 4.8           | 0.82 | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| Chloroform                    | ND             |             | ug/kg        | 1.9           | 0.51 | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| Chloromethane                 | ND             |             | ug/kg        | 1.9           | 0.53 | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 4.8           | 2.8  | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 1.9           | 0.52 | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 1.9           | 0.50 | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 1.9           | 0.50 | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 1.9           | 0.58 | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 1.9           | 0.53 | SW846 8260B   | 2/13/17 09:50   | SYB       | 2/15/17 04:21   | SYB B          |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112009**  
Sample ID: **CL-SAW-S-E3**

Date Collected: 2/13/2017 09:50 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 1.9           | 0.56 | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 1.9           | 0.50 | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 1.9           | 0.66 | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 9.7           | 2.7  | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 9.7           | 3.7  | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| Methylene Chloride          | 8.4            | 1,2,3       | ug/kg        | 1.9           | 0.75 | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 1.9           | 0.54 | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 1.9           | 0.58 | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 1.9           | 0.65 | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 5.8           | 1.4  | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 1.9           | 0.60 | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 1.9           | 0.54 | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 1.9           | 0.56 | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 3.9           | 0.80 | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 77.1           |             | %            | 56 - 124      |      | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 82.9           |             | %            | 51 - 128      |      | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| Dibromofluoromethane (S)    | 89.2           |             | %            | 62 - 123      |      | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| Toluene-d8 (S)              | 82.9           |             | %            | 59 - 131      |      | SW846 8260B   | 2/13/17 09:50 SYB | 2/15/17 04:21 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 58.5          | 7.0  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 58.5          | 8.2  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| Acetophenone                | ND             |             | ug/kg        | 117           | 9.4  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 58.5          | 9.4  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 117           | 12.9 | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 234           | 19.9 | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| Benzo(a)anthracene          | ND             | 4           | ug/kg        | 58.5          | 5.9  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 58.5          | 4.7  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 58.5          | 5.9  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 58.5          | 5.9  | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112009**  
Sample ID: **CL-SAW-S-E3**

Date Collected: 2/13/2017 09:50 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 58.5 | 5.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 117  | 8.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 117  | 10.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| Butylbenzylphthalate        | ND      |      | ug/kg | 117  | 8.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 234  | 21.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 117  | 8.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 234  | 11.7 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 234  | 14.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 117  | 10.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 117  | 15.2 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 117  | 17.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 117  | 7.0  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 234  | 9.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 117  | 9.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 58.5 | 5.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 234  | 9.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 234  | 12.9 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 117  | 9.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 117  | 8.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 58.5 | 7.0  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 117  | 9.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 234  | 44.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 234  | 9.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 117  | 9.4  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 234  | 17.6 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 117  | 8.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 234  | 46.8 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 117  | 10.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 117  | 14.1 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 117  | 57.4 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 117  | 8.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| Fluoranthene                | ND      |      | ug/kg | 58.5 | 5.9  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 58.5 | 7.0  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 117  | 12.9 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 117  | 11.7 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 234  | 12.9 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 117  | 10.5 | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 58.5 | 8.2  | SW846 8270D | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112009**  
Sample ID: **CL-SAW-S-E3**

Date Collected: 2/13/2017 09:50 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 117           | 7.0    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 234           | 30.4   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 117           | 5.9    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 58.5          | 7.0    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 234           | 14.1   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 234           | 23.4   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 234           | 9.4    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 117           | 14.1   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 234           | 12.9   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 234           | 16.4   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 117           | 9.4    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 117           | 9.4    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 234           | 30.4   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 58.5          | 5.9    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 234           | 11.7   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| Pyrene                         | ND             |             | ug/kg        | 58.5          | 5.9    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 117           | 8.2    | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 234           | 14.1   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 234           | 14.1   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 234           | 14.1   | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 85.4           |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 85.2           |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| 2-Fluorophenol (S)             | 78.1           |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 74             |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| Phenol-d5 (S)                  | 82.2           |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| Terphenyl-d14 (S)              | 87.1           |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 08:45 MPP | 2/23/17 18:52 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.038         | 0.0035 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 07:15 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.038         | 0.0070 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 07:15 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.038         | 0.0035 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 07:15 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.038         | 0.0070 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 07:15 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.038         | 0.010  | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 07:15 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.038         | 0.0070 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 07:15 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.038         | 0.0070 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 07:15 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.038         | 0.0070 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 07:15 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.038         | 0.0081 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 07:15 | EGO             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112009**  
Sample ID: **CL-SAW-S-E3**

Date Collected: 2/13/2017 09:50 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.038         | 0.010 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 07:15 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 69.3           |             | %            | 49 - 115      |       | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 07:15 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 89.8           |             | %            | 27 - 137      |       | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 07:15 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 9.9           | 3.2   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 9.9           | 0.87  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 9.9           | 1.0   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 9.9           | 0.76  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 9.9           | 0.81  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 9.9           | 1.0   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 9.9           | 1.7   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 19.2          | 1.6   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 19.2          | 2.6   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 19.2          | 2.2   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 19.2          | 2.2   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 9.9           | 1.2   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 19.2          | 4.0   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 19.2          | 1.3   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| Endrin                      | ND             |             | ug/kg        | 19.2          | 1.4   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 19.2          | 2.1   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 19.2          | 2.7   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 9.9           | 0.99  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 9.9           | 0.99  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 19.2          | 2.6   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 204           | 33.7  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 33.4           |             | %            | 30 - 135      |       | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| Tetrachloro-m-xylene (S)    | 53.2           |             | %            | 30 - 111      |       | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:43 | BS              | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Hexavalent Chromium         | 3.6            |             | mg/kg        | 2.4           | 0.46  | SW846 7196A   | 2/23/17 12:00 AHI | 2/23/17 18:45 | AHI             | F                     |
| Moisture                    | 16.3           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/14/17 11:30 | VKB             | F                     |
| Total Solids                | 83.7           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/14/17 11:30 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.1           | 0.38  | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 08:08 | ZMC             | F2                    |
| Arsenic, Total              | 8.5            |             | mg/kg        | 1.7           | 0.57  | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 08:08 | ZMC             | F2                    |



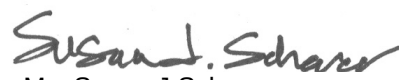
## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

Lab ID: **2208112009**  
Sample ID: **CL-SAW-S-E3**

Date Collected: 2/13/2017 09:50 Matrix: Solid  
Date Received: 2/13/2017 20:20

| Parameters       | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|------------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Beryllium, Total | 0.70    |      | mg/kg | 0.57  | 0.19  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:08 | ZMC | F2   |
| Cadmium, Total   | ND      |      | mg/kg | 0.57  | 0.19  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:08 | ZMC | F2   |
| Chromium, Total  | 41.6    |      | mg/kg | 1.1   | 0.38  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:08 | ZMC | F2   |
| Copper, Total    | 15.6    |      | mg/kg | 2.9   | 0.92  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:08 | ZMC | F2   |
| Lead, Total      | 24.7    |      | mg/kg | 1.1   | 0.38  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:08 | ZMC | F2   |
| Mercury, Total   | 0.036J  | J    | mg/kg | 0.054 | 0.017 | SW846 7471B | 2/14/17 15:00 AXC | 2/15/17 11:26 | MNP | F1   |
| Nickel, Total    | 14.9    |      | mg/kg | 2.9   | 0.92  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:08 | ZMC | F2   |
| Selenium, Total  | 1.7J    | J    | mg/kg | 2.9   | 0.92  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:08 | ZMC | F2   |
| Silver, Total    | ND      |      | mg/kg | 1.1   | 0.38  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:08 | ZMC | F2   |
| Thallium, Total  | 0.21J   | J    | mg/kg | 0.57  | 0.19  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:08 | ZMC | F2   |
| Zinc, Total      | 45.9    |      | mg/kg | 2.9   | 0.92  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:08 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator

**PARAMETER QUALIFIERS**

| Lab ID                                                                                                                                                                                      | # | Sample ID   | Analytical Method | Analyte            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|-------------------|--------------------|
| <b>2208112002</b>                                                                                                                                                                           | 1 | DUP-02      | SW846 8260B       | Methylene Chloride |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                               |   |             |                   |                    |
| <b>2208112002</b>                                                                                                                                                                           | 2 | DUP-02      | SW846 8260B       | Methylene Chloride |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 149 and the control limits were 68 to 133.  |   |             |                   |                    |
| <b>2208112002</b>                                                                                                                                                                           | 3 | DUP-02      | SW846 8260B       | Methylene Chloride |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 145 and the control limits were 68 to 133. |   |             |                   |                    |
| <b>2208112003</b>                                                                                                                                                                           | 1 | CL-ISM-S-C5 | SW846 8260B       | Methylene Chloride |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                               |   |             |                   |                    |
| <b>2208112003</b>                                                                                                                                                                           | 2 | CL-ISM-S-C5 | SW846 8260B       | Methylene Chloride |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 149 and the control limits were 68 to 133.  |   |             |                   |                    |
| <b>2208112003</b>                                                                                                                                                                           | 3 | CL-ISM-S-C5 | SW846 8260B       | Methylene Chloride |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 145 and the control limits were 68 to 133. |   |             |                   |                    |
| <b>2208112004</b>                                                                                                                                                                           | 1 | CL-SAW-S-B1 | SW846 8260B       | Methylene Chloride |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                               |   |             |                   |                    |
| <b>2208112004</b>                                                                                                                                                                           | 2 | CL-SAW-S-B1 | SW846 8260B       | Methylene Chloride |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 149 and the control limits were 68 to 133.  |   |             |                   |                    |
| <b>2208112004</b>                                                                                                                                                                           | 3 | CL-SAW-S-B1 | SW846 8260B       | Methylene Chloride |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 145 and the control limits were 68 to 133. |   |             |                   |                    |
| <b>2208112005</b>                                                                                                                                                                           | 1 | CL-SAW-S-D1 | SW846 8260B       | Methylene Chloride |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                               |   |             |                   |                    |
| <b>2208112005</b>                                                                                                                                                                           | 2 | CL-SAW-S-D1 | SW846 8260B       | Methylene Chloride |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 149 and the control limits were 68 to 133.  |   |             |                   |                    |
| <b>2208112005</b>                                                                                                                                                                           | 3 | CL-SAW-S-D1 | SW846 8260B       | Methylene Chloride |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 145 and the control limits were 68 to 133. |   |             |                   |                    |
| <b>2208112006</b>                                                                                                                                                                           | 1 | CL-SAW-S-D2 | SW846 8260B       | Methylene Chloride |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                               |   |             |                   |                    |
| <b>2208112006</b>                                                                                                                                                                           | 2 | CL-SAW-S-D2 | SW846 8260B       | Methylene Chloride |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 149 and the control limits were 68 to 133.  |   |             |                   |                    |
| <b>2208112006</b>                                                                                                                                                                           | 3 | CL-SAW-S-D2 | SW846 8260B       | Methylene Chloride |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 145 and the control limits were 68 to 133. |   |             |                   |                    |
| <b>2208112006</b>                                                                                                                                                                           | 4 | CL-SAW-S-D2 | SW846 8270D       | Benzo(a)anthracene |
| The QC sample type DUP for method SW846 8270D was outside the control limits for the analyte Benzo(a)anthracene. The RPD was reported as 200 and the upper control limit is 22.             |   |             |                   |                    |
| <b>2208112007</b>                                                                                                                                                                           | 1 | CL-SAW-S-D4 | SW846 8260B       | Methylene Chloride |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                               |   |             |                   |                    |
| <b>2208112007</b>                                                                                                                                                                           | 2 | CL-SAW-S-D4 | SW846 8260B       | Methylene Chloride |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 149 and the control limits were 68 to 133.  |   |             |                   |                    |



## ANALYTICAL RESULTS

Workorder: 2208112 Chase Lands Phase II

|                                                                                                                                                                                                               |   |             |             |                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|-------------|---------------------|
| <b>2208112007</b>                                                                                                                                                                                             | 3 | CL-SAW-S-D4 | SW846 8260B | Methylene Chloride  |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 145 and the control limits were 68 to 133.                   |   |             |             |                     |
| <b>2208112007</b>                                                                                                                                                                                             | 4 | CL-SAW-S-D4 | SW846 8270D | Benzo(a)anthracene  |
| The QC sample type DUP for method SW846 8270D was outside the control limits for the analyte Benzo(a)anthracene. The RPD was reported as 200 and the upper control limit is 22.                               |   |             |             |                     |
| <b>2208112008</b>                                                                                                                                                                                             | 1 | CL-SAW-S-E2 | SW846 8260B | Methylene Chloride  |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                                 |   |             |             |                     |
| <b>2208112008</b>                                                                                                                                                                                             | 2 | CL-SAW-S-E2 | SW846 8260B | Methylene Chloride  |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 149 and the control limits were 68 to 133.                    |   |             |             |                     |
| <b>2208112008</b>                                                                                                                                                                                             | 3 | CL-SAW-S-E2 | SW846 8260B | Methylene Chloride  |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 145 and the control limits were 68 to 133.                   |   |             |             |                     |
| <b>2208112008</b>                                                                                                                                                                                             | 4 | CL-SAW-S-E2 | SW846 8270D | Benzo(a)anthracene  |
| The QC sample type DUP for method SW846 8270D was outside the control limits for the analyte Benzo(a)anthracene. The RPD was reported as 200 and the upper control limit is 22.                               |   |             |             |                     |
| <b>2208112008</b>                                                                                                                                                                                             | 5 | CL-SAW-S-E2 | SW846 8081B | Decachlorobiphenyls |
| The surrogate Decachlorobiphenyls for method SW846 8081B was outside of control limits. The % Recovery was reported as 26 and the control limits were 30 to 135. This result was reported at a dilution of 5. |   |             |             |                     |
| <b>2208112009</b>                                                                                                                                                                                             | 1 | CL-SAW-S-E3 | SW846 8260B | Methylene Chloride  |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                                 |   |             |             |                     |
| <b>2208112009</b>                                                                                                                                                                                             | 2 | CL-SAW-S-E3 | SW846 8260B | Methylene Chloride  |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 149 and the control limits were 68 to 133.                    |   |             |             |                     |
| <b>2208112009</b>                                                                                                                                                                                             | 3 | CL-SAW-S-E3 | SW846 8260B | Methylene Chloride  |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 145 and the control limits were 68 to 133.                   |   |             |             |                     |
| <b>2208112009</b>                                                                                                                                                                                             | 4 | CL-SAW-S-E3 | SW846 8270D | Benzo(a)anthracene  |
| The QC sample type DUP for method SW846 8270D was outside the control limits for the analyte Benzo(a)anthracene. The RPD was reported as 200 and the upper control limit is 22.                               |   |             |             |                     |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

**QC Batch:** EXTR/46764      **Analysis Method:** SW846 8082A  
**QC Batch Method:** SW846 3546  
**Associated Lab Samples:** 2208112002, 2208112003, 2208112004, 2208112005

#### METHOD BLANK: 2488175

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aroclor-1016             | ND           | mg/kg | 0.033           |
| Aroclor-1221             | ND           | mg/kg | 0.033           |
| Aroclor-1232             | ND           | mg/kg | 0.033           |
| Aroclor-1242             | ND           | mg/kg | 0.033           |
| Aroclor-1248             | ND           | mg/kg | 0.033           |
| Aroclor-1254             | ND           | mg/kg | 0.033           |
| Aroclor-1260             | ND           | mg/kg | 0.033           |
| Aroclor-1262             | ND           | mg/kg | 0.033           |
| Aroclor-1268             | ND           | mg/kg | 0.033           |
| Decachlorobiphenyls (S)  | 109          | %     | 49 - 115        |
| Tetrachloro-m-xylene (S) | 103          | %     | 27 - 137        |

#### LABORATORY CONTROL SAMPLE: 2488176

| Parameter                | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|--------------------------|-----------|-------|-------------|------------|-------------|
| Aroclor-1016             | 95.4      | mg/kg | .33         | 0.32       | 43 - 132    |
| Aroclor-1221             |           | mg/kg |             | ND         |             |
| Aroclor-1232             |           | mg/kg |             | ND         |             |
| Aroclor-1242             |           | mg/kg |             | ND         |             |
| Aroclor-1248             |           | mg/kg |             | ND         |             |
| Aroclor-1254             |           | mg/kg |             | ND         |             |
| Aroclor-1260             | 109       | mg/kg | .33         | 0.36       | 53 - 134    |
| Aroclor-1262             |           | mg/kg |             | ND         |             |
| Aroclor-1268             |           | mg/kg |             | ND         |             |
| Decachlorobiphenyls (S)  | 108       | %     |             |            | 49 - 115    |
| Tetrachloro-m-xylene (S) | 101       | %     |             |            | 27 - 137    |

#### MATRIX SPIKE SAMPLE: 2488177 ORIGINAL: 2207155002

\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter    | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|--------------|-----------------|-------|-------------|-----------|----------|-------------|
| Aroclor-1016 | 0               | mg/kg | .32         | .26413    | 81.4     | 43 - 132    |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

|                          |      |       |     |        |      |          |
|--------------------------|------|-------|-----|--------|------|----------|
| Aroclor-1260             | 0    | mg/kg | .32 | .26405 | 81.3 | 53 - 134 |
| Decachlorobiphenyls (S)  | 80.9 | %     |     |        |      | 49 - 115 |
| Tetrachloro-m-xylene (S) | 81.6 | %     |     |        |      | 27 - 137 |

SAMPLE DUPLICATE: 2488178 ORIGINAL: 2208112004

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Aroclor-1016 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1221 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1232 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1242 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1248 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1254 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1260 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1262 | 0               | mg/kg | 0          | NC  |         |
| Aroclor-1268 | 0               | mg/kg | 0          | NC  |         |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

**QC Batch:** EXTR/46765 **Analysis Method:** SW846 8081B

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2208112002, 2208112003, 2208112004, 2208112005

#### METHOD BLANK: 2488179

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aldrin                   | ND           | ug/kg | 1.7             |
| alpha-BHC                | ND           | ug/kg | 1.7             |
| beta-BHC                 | ND           | ug/kg | 1.7             |
| delta-BHC                | ND           | ug/kg | 1.7             |
| gamma-BHC                | ND           | ug/kg | 1.7             |
| alpha-Chlordane          | ND           | ug/kg | 1.7             |
| gamma-Chlordane          | ND           | ug/kg | 1.7             |
| 4,4'-DDD                 | ND           | ug/kg | 3.3             |
| 4,4'-DDE                 | ND           | ug/kg | 3.3             |
| 4,4'-DDT                 | ND           | ug/kg | 3.3             |
| Dieldrin                 | ND           | ug/kg | 3.3             |
| Endosulfan I             | ND           | ug/kg | 1.7             |
| Endosulfan II            | ND           | ug/kg | 3.3             |
| Endosulfan Sulfate       | ND           | ug/kg | 3.3             |
| Endrin                   | ND           | ug/kg | 3.3             |
| Endrin Aldehyde          | ND           | ug/kg | 3.3             |
| Endrin Ketone            | ND           | ug/kg | 3.3             |
| Heptachlor               | ND           | ug/kg | 1.7             |
| Heptachlor Epoxide       | ND           | ug/kg | 1.7             |
| Methoxychlor             | ND           | ug/kg | 3.3             |
| Toxaphene                | ND           | ug/kg | 35.0            |
| Decachlorobiphenyls (S)  | 69.7         | %     | 30 - 135        |
| Tetrachloro-m-xylene (S) | 51.1         | %     | 30 - 111        |

#### LABORATORY CONTROL SAMPLE: 2488180

| Parameter       | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-----------------|-----------|-------|-------------|------------|-------------|
| Aldrin          | 73.7      | ug/kg | 33.3        | 24.6       | 58 - 103    |
| alpha-BHC       | 74.6      | ug/kg | 33.3        | 24.9       | 57 - 105    |
| beta-BHC        | 67.6      | ug/kg | 33.3        | 22.5       | 53 - 106    |
| delta-BHC       | 77.2      | ug/kg | 33.3        | 25.7       | 60 - 103    |
| gamma-BHC       | 74.3      | ug/kg | 33.3        | 24.8       | 59 - 102    |
| alpha-Chlordane | 72.8      | ug/kg | 33.3        | 24.3       | 62 - 98     |
| gamma-Chlordane | 74.7      | ug/kg | 33.3        | 24.9       | 58 - 103    |
| 4,4'-DDD        | 77.8      | ug/kg | 33.3        | 25.9       | 57 - 111    |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

|                          |      |       |      |      |          |
|--------------------------|------|-------|------|------|----------|
| 4,4'-DDE                 | 81   | ug/kg | 33.3 | 27.0 | 63 - 112 |
| 4,4'-DDT                 | 79.2 | ug/kg | 33.3 | 26.4 | 60 - 122 |
| Dieldrin                 | 77.1 | ug/kg | 33.3 | 25.7 | 62 - 109 |
| Endosulfan I             | 69.3 | ug/kg | 33.3 | 23.1 | 57 - 98  |
| Endosulfan II            | 75.3 | ug/kg | 33.3 | 25.1 | 59 - 112 |
| Endosulfan Sulfate       | 75.5 | ug/kg | 33.3 | 25.2 | 27 - 96  |
| Endrin                   | 75.1 | ug/kg | 33.3 | 25.0 | 63 - 108 |
| Endrin Aldehyde          | 63.1 | ug/kg | 33.3 | 21.0 | 21 - 92  |
| Endrin Ketone            | 79.3 | ug/kg | 33.3 | 26.4 | 32 - 103 |
| Heptachlor               | 72   | ug/kg | 33.3 | 24.0 | 51 - 105 |
| Heptachlor Epoxide       | 74.2 | ug/kg | 33.3 | 24.7 | 62 - 99  |
| Methoxychlor             | 73.3 | ug/kg | 33.3 | 24.4 | 50 - 114 |
| Toxaphene                |      | ug/kg |      | ND   |          |
| Decachlorobiphenyls (S)  | 69.3 | %     |      |      | 30 - 135 |
| Tetrachloro-m-xylene (S) | 50.3 | %     |      |      | 30 - 111 |

SAMPLE DUPLICATE: 2488181 ORIGINAL: 2208112004

| Parameter          | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------------|-----------------|-------|------------|-----|---------|
| Aldrin             | 0               | ug/kg | 0          | NC  | 40      |
| alpha-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| beta-BHC           | 0               | ug/kg | 0          | NC  | 40      |
| delta-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| gamma-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| alpha-Chlordane    | 0               | ug/kg | 0          | NC  | 40      |
| gamma-Chlordane    | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDD           | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDE           | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDT           | 0               | ug/kg | 0          | NC  | 40      |
| Dieldrin           | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan I       | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan II      | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan Sulfate | 0               | ug/kg | 0          | NC  | 40      |
| Endrin             | 0               | ug/kg | 0          | NC  | 40      |
| Endrin Aldehyde    | 0               | ug/kg | 0          | NC  | 40      |
| Endrin Ketone      | 0               | ug/kg | 0          | NC  | 40      |
| Heptachlor         | 0               | ug/kg | 0          | NC  | 40      |
| Heptachlor Epoxide | 0               | ug/kg | 0          | NC  | 35      |
| Methoxychlor       | 0               | ug/kg | 0          | NC  | 40      |
| Toxaphene          | 0               | ug/kg | 0          | NC  | 40      |

## QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

**QC Batch:** EXTR/46777

**Analysis Method:** SW846 8270D

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2208112002, 2208112003, 2208112004, 2208112005, 2208112006, 2208112007, 2208112008, 2208112009

METHOD BLANK: 2488349

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acenaphthene                | ND           | ug/kg | 50.0            |
| Acenaphthylene              | ND           | ug/kg | 50.0            |
| Acetophenone                | ND           | ug/kg | 100             |
| Anthracene                  | ND           | ug/kg | 50.0            |
| Atrazine                    | ND           | ug/kg | 100             |
| Benzaldehyde                | ND           | ug/kg | 200             |
| Benzo(a)anthracene          | ND           | ug/kg | 50.0            |
| Benzo(a)pyrene              | ND           | ug/kg | 50.0            |
| Benzo(b)fluoranthene        | ND           | ug/kg | 50.0            |
| Benzo(g,h,i)perylene        | ND           | ug/kg | 50.0            |
| Benzo(k)fluoranthene        | ND           | ug/kg | 50.0            |
| Biphenyl                    | ND           | ug/kg | 100             |
| 4-Bromophenyl-phenylether   | ND           | ug/kg | 100             |
| Butylbenzylphthalate        | ND           | ug/kg | 100             |
| Caprolactam                 | ND           | ug/kg | 200             |
| Carbazole                   | ND           | ug/kg | 100             |
| 4-Chloro-3-methylphenol     | ND           | ug/kg | 200             |
| 4-Chloroaniline             | ND           | ug/kg | 200             |
| bis(2-Chloroethoxy)methane  | ND           | ug/kg | 100             |
| bis(2-Chloroethyl)ether     | ND           | ug/kg | 100             |
| bis(2-Chloroisopropyl)ether | ND           | ug/kg | 100             |
| 2-Chloronaphthalene         | ND           | ug/kg | 200             |
| 2-Chlorophenol              | ND           | ug/kg | 200             |
| 4-Chlorophenyl-phenylether  | ND           | ug/kg | 100             |
| Chrysene                    | ND           | ug/kg | 50.0            |
| mp-Cresol                   | ND           | ug/kg | 200             |
| o-Cresol                    | ND           | ug/kg | 200             |
| Di-n-Butylphthalate         | 9.8J         | ug/kg | 100             |
| Di-n-Octylphthalate         | ND           | ug/kg | 100             |
| Dibenzo(a,h)anthracene      | ND           | ug/kg | 50.0            |
| Dibenzofuran                | ND           | ug/kg | 100             |
| 3,3-Dichlorobenzidine       | ND           | ug/kg | 200             |
| 2,4-Dichlorophenol          | ND           | ug/kg | 200             |
| Diethylphthalate            | ND           | ug/kg | 100             |
| 2,4-Dimethylphenol          | ND           | ug/kg | 200             |
| Dimethylphthalate           | ND           | ug/kg | 100             |
| 2,4-Dinitrophenol           | ND           | ug/kg | 200             |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

|                            |      |       |          |
|----------------------------|------|-------|----------|
| 2,4-Dinitrotoluene         | ND   | ug/kg | 100      |
| 2,6-Dinitrotoluene         | ND   | ug/kg | 100      |
| 1,4-Dioxane                | ND   | ug/kg | 100      |
| bis(2-Ethylhexyl)phthalate | ND   | ug/kg | 100      |
| Fluoranthene               | ND   | ug/kg | 50.0     |
| Fluorene                   | ND   | ug/kg | 50.0     |
| Hexachlorobenzene          | ND   | ug/kg | 100      |
| Hexachlorobutadiene        | ND   | ug/kg | 100      |
| Hexachlorocyclopentadiene  | ND   | ug/kg | 200      |
| Hexachloroethane           | ND   | ug/kg | 100      |
| Indeno(1,2,3-cd)pyrene     | ND   | ug/kg | 50.0     |
| Isophorone                 | ND   | ug/kg | 100      |
| 2-Methyl-4,6-dinitrophenol | ND   | ug/kg | 200      |
| 2-Methylnaphthalene        | ND   | ug/kg | 100      |
| Naphthalene                | ND   | ug/kg | 50.0     |
| 2-Nitroaniline             | ND   | ug/kg | 200      |
| 3-Nitroaniline             | ND   | ug/kg | 200      |
| 4-Nitroaniline             | ND   | ug/kg | 200      |
| Nitrobenzene               | ND   | ug/kg | 100      |
| 2-Nitrophenol              | ND   | ug/kg | 200      |
| 4-Nitrophenol              | ND   | ug/kg | 200      |
| N-Nitroso-di-n-propylamine | ND   | ug/kg | 100      |
| N-Nitrosodiphenylamine     | ND   | ug/kg | 100      |
| Pentachlorophenol          | ND   | ug/kg | 200      |
| Phenanthrene               | ND   | ug/kg | 50.0     |
| Phenol                     | ND   | ug/kg | 200      |
| Pyrene                     | ND   | ug/kg | 50.0     |
| 1,2,4,5-Tetrachlorobenzene | ND   | ug/kg | 100      |
| 2,3,4,6-Tetrachlorophenol  | ND   | ug/kg | 200      |
| 2,4,5-Trichlorophenol      | ND   | ug/kg | 200      |
| 2,4,6-Trichlorophenol      | ND   | ug/kg | 200      |
| 2,4,6-Tribromophenol (S)   | 88.2 | %     | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 90.2 | %     | 40 - 110 |
| 2-Fluorophenol (S)         | 85.5 | %     | 26 - 116 |
| Nitrobenzene-d5 (S)        | 86.4 | %     | 38 - 112 |
| Phenol-d5 (S)              | 88   | %     | 35 - 111 |
| Terphenyl-d14 (S)          | 88   | %     | 45 - 126 |

## LABORATORY CONTROL SAMPLE: 2488350

| Parameter      | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | % Rec<br>Limit |
|----------------|--------------|-------|----------------|---------------|----------------|
| Acenaphthene   | 91.3         | ug/kg | 3330           | 3040          | 59 - 115       |
| Acenaphthylene | 93.9         | ug/kg | 3330           | 3130          | 59 - 114       |
| Acetophenone   | 53.1         | ug/kg | 3330           | 1770          | 45 - 87        |
| Anthracene     | 90.8         | ug/kg | 3330           | 3030          | 63 - 112       |



### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

|                             |      |       |      |      |          |
|-----------------------------|------|-------|------|------|----------|
| Atrazine                    | 93.7 | ug/kg | 3330 | 3120 | 54 - 128 |
| Benzaldehyde                | 78.4 | ug/kg | 3330 | 2610 | 52 - 108 |
| Benzo(a)anthracene          | 93   | ug/kg | 3330 | 3100 | 61 - 118 |
| Benzo(a)pyrene              | 93.9 | ug/kg | 3330 | 3130 | 61 - 114 |
| Benzo(b)fluoranthene        | 95.4 | ug/kg | 3330 | 3180 | 64 - 113 |
| Benzo(g,h,i)perylene        | 97.4 | ug/kg | 3330 | 3250 | 61 - 118 |
| Benzo(k)fluoranthene        | 95.2 | ug/kg | 3330 | 3170 | 62 - 113 |
| Biphenyl                    | 88.6 | ug/kg | 3330 | 2950 | 60 - 111 |
| 4-Bromophenyl-phenylether   | 98.5 | ug/kg | 3330 | 3280 | 60 - 111 |
| Butylbenzylphthalate        | 99.2 | ug/kg | 3330 | 3310 | 56 - 126 |
| Caprolactam                 | 88.4 | ug/kg | 3330 | 2950 | 38 - 129 |
| Carbazole                   | 94.2 | ug/kg | 3330 | 3140 | 65 - 117 |
| 4-Chloro-3-methylphenol     | 91   | ug/kg | 6670 | 6070 | 65 - 118 |
| 4-Chloroaniline             | 80.4 | ug/kg | 3330 | 2680 | 21 - 115 |
| bis(2-Chloroethoxy)methane  | 93.1 | ug/kg | 3330 | 3100 | 56 - 108 |
| bis(2-Chloroethyl)ether     | 90.5 | ug/kg | 3330 | 3020 | 51 - 105 |
| bis(2-Chloroisopropyl)ether | 88.5 | ug/kg | 3330 | 2950 | 34 - 126 |
| 2-Chloronaphthalene         | 90.9 | ug/kg | 3330 | 3030 | 55 - 111 |
| 2-Chlorophenol              | 89.8 | ug/kg | 6670 | 5980 | 61 - 111 |
| 4-Chlorophenyl-phenylether  | 95.9 | ug/kg | 3330 | 3200 | 58 - 112 |
| Chrysene                    | 98.2 | ug/kg | 3330 | 3270 | 63 - 111 |
| mp-Cresol                   | 88.8 | ug/kg | 6670 | 5920 | 60 - 112 |
| o-Cresol                    | 88.4 | ug/kg | 6670 | 5890 | 62 - 113 |
| Di-n-Butylphthalate         | 105  | ug/kg | 3330 | 3500 | 58 - 118 |
| Di-n-Octylphthalate         | 111  | ug/kg | 3330 | 3710 | 45 - 128 |
| Dibenzo(a,h)anthracene      | 102  | ug/kg | 3330 | 3390 | 64 - 117 |
| Dibenzofuran                | 92.2 | ug/kg | 3330 | 3070 | 61 - 111 |
| 3,3-Dichlorobenzidine       | 77.9 | ug/kg | 6670 | 5190 | 27 - 106 |
| 2,4-Dichlorophenol          | 90.5 | ug/kg | 6670 | 6030 | 65 - 111 |
| Diethylphthalate            | 97.4 | ug/kg | 3330 | 3250 | 59 - 112 |
| 2,4-Dimethylphenol          | 91   | ug/kg | 6670 | 6070 | 65 - 114 |
| Dimethylphthalate           | 95.5 | ug/kg | 3330 | 3180 | 59 - 111 |
| 2,4-Dinitrophenol           | 101  | ug/kg | 6670 | 6750 | 36 - 131 |
| 2,4-Dinitrotoluene          | 93.6 | ug/kg | 3330 | 3120 | 61 - 117 |
| 2,6-Dinitrotoluene          | 94.6 | ug/kg | 3330 | 3150 | 61 - 115 |
| 1,4-Dioxane                 | 60.7 | ug/kg | 3330 | 2020 | 37 - 98  |
| bis(2-Ethylhexyl)phthalate  | 105  | ug/kg | 3330 | 3500 | 51 - 126 |
| Fluoranthene                | 98.1 | ug/kg | 3330 | 3270 | 61 - 116 |
| Fluorene                    | 94.4 | ug/kg | 3330 | 3150 | 61 - 112 |
| Hexachlorobenzene           | 100  | ug/kg | 3330 | 3330 | 59 - 109 |
| Hexachlorobutadiene         | 106  | ug/kg | 3330 | 3520 | 58 - 123 |
| Hexachlorocyclopentadiene   | 75   | ug/kg | 3330 | 2500 | 33 - 109 |
| Hexachloroethane            | 87.2 | ug/kg | 3330 | 2910 | 50 - 103 |
| Indeno(1,2,3-cd)pyrene      | 99.3 | ug/kg | 3330 | 3310 | 62 - 113 |
| Isophorone                  | 87.2 | ug/kg | 3330 | 2910 | 51 - 112 |
| 2-Methyl-4,6-dinitrophenol  | 110  | ug/kg | 6670 | 7350 | 53 - 131 |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

|                            |      |       |      |      |          |
|----------------------------|------|-------|------|------|----------|
| 2-Methylnaphthalene        | 84.8 | ug/kg | 3330 | 2830 | 58 - 96  |
| Naphthalene                | 89.9 | ug/kg | 3330 | 3000 | 56 - 105 |
| 2-Nitroaniline             | 94.8 | ug/kg | 3330 | 3160 | 61 - 120 |
| 3-Nitroaniline             | 87.7 | ug/kg | 3330 | 2920 | 52 - 115 |
| 4-Nitroaniline             | 84.1 | ug/kg | 3330 | 2800 | 50 - 106 |
| Nitrobenzene               | 87.8 | ug/kg | 3330 | 2930 | 53 - 108 |
| 2-Nitrophenol              | 89.1 | ug/kg | 6670 | 5940 | 61 - 114 |
| 4-Nitrophenol              | 92.9 | ug/kg | 6670 | 6190 | 49 - 134 |
| N-Nitroso-di-n-propylamine | 88.1 | ug/kg | 3330 | 2940 | 55 - 109 |
| N-Nitrosodiphenylamine     | 110  | ug/kg | 3330 | 3650 | 65 - 134 |
| Pentachlorophenol          | 120  | ug/kg | 6670 | 8030 | 60 - 145 |
| Phenanthrene               | 93   | ug/kg | 3330 | 3100 | 62 - 109 |
| Phenol                     | 86.1 | ug/kg | 6670 | 5740 | 53 - 118 |
| Pyrene                     | 87.5 | ug/kg | 3330 | 2920 | 60 - 114 |
| 1,2,4,5-Tetrachlorobenzene | 88.9 | ug/kg | 3330 | 2960 | 56 - 107 |
| 2,3,4,6-Tetrachlorophenol  | 77.6 | ug/kg | 6670 | 5170 | 60 - 111 |
| 2,4,5-Trichlorophenol      | 91.6 | ug/kg | 6670 | 6100 | 68 - 121 |
| 2,4,6-Trichlorophenol      | 95   | ug/kg | 6670 | 6340 | 68 - 119 |
| 2,4,6-Tribromophenol (S)   | 96.1 | %     |      |      | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 89.9 | %     |      |      | 40 - 110 |
| 2-Fluorophenol (S)         | 85.4 | %     |      |      | 26 - 116 |
| Nitrobenzene-d5 (S)        | 85.8 | %     |      |      | 38 - 112 |
| Phenol-d5 (S)              | 85.9 | %     |      |      | 35 - 111 |
| Terphenyl-d14 (S)          | 87.7 | %     |      |      | 45 - 126 |

MATRIX SPIKE SAMPLE: 2488351 ORIGINAL: 2207906009

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                 | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|---------------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Acenaphthene              | 0               | ug/kg | 3250        | 2963.76   | 91.3     | 59 - 115    |
| Acenaphthylene            | 0               | ug/kg | 3250        | 2930.09   | 90.2     | 59 - 114    |
| Acetophenone              | 0               | ug/kg | 3250        | 1786.76   | 55       | 45 - 87     |
| Anthracene                | 0               | ug/kg | 3250        | 2872.37   | 88.5     | 63 - 112    |
| Atrazine                  | 0               | ug/kg | 3250        | 2579.37   | 79.4     | 54 - 128    |
| Benzaldehyde              | 0               | ug/kg | 3250        | 2035.49   | 62.7     | 52 - 108    |
| Benzo(a)anthracene        | 17.7955         | ug/kg | 3250        | 2887.19   | 88.4     | 61 - 118    |
| Benzo(a)pyrene            | 14.5419         | ug/kg | 3250        | 2932.25   | 89.9     | 61 - 114    |
| Benzo(b)fluoranthene      | 15.0284         | ug/kg | 3250        | 3139.79   | 96.2     | 64 - 113    |
| Benzo(g,h,i)perylene      | 0               | ug/kg | 3250        | 2621.49   | 80.7     | 61 - 118    |
| Benzo(k)fluoranthene      | 6.60057         | ug/kg | 3250        | 3018.59   | 92.8     | 62 - 113    |
| Biphenyl                  | 0               | ug/kg | 3250        | 2756.52   | 84.9     | 60 - 111    |
| 4-Bromophenyl-phenylether | 0               | ug/kg | 3250        | 3154.47   | 97.2     | 60 - 111    |
| Butylbenzylphthalate      | 0               | ug/kg | 3250        | 3268.12   | 101      | 56 - 126    |
| Caprolactam               | 0               | ug/kg | 3250        | 2702.58   | 83.2     | 38 - 129    |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

|                             |         |       |      |         |       |          |
|-----------------------------|---------|-------|------|---------|-------|----------|
| Carbazole                   | 0       | ug/kg | 3250 | 3010.68 | 92.7  | 65 - 117 |
| 4-Chloro-3-methylphenol     | 0       | ug/kg | 6490 | 5770.96 | 88.9  | 65 - 118 |
| 4-Chloroaniline             | 0       | ug/kg | 3250 | 2226.77 | 68.6  | 21 - 115 |
| bis(2-Chloroethoxy)methane  | 0       | ug/kg | 3250 | 2873.39 | 88.5  | 56 - 108 |
| bis(2-Chloroethyl)ether     | 0       | ug/kg | 3250 | 2735.07 | 84.2  | 51 - 105 |
| bis(2-Chloroisopropyl)ether | 0       | ug/kg | 3250 | 2593.81 | 79.9  | 34 - 126 |
| 2-Chloronaphthalene         | 0       | ug/kg | 3250 | 2849.14 | 87.8  | 55 - 111 |
| 2-Chlorophenol              | 0       | ug/kg | 6490 | 5421.17 | 83.5  | 61 - 111 |
| 4-Chlorophenyl-phenylether  | 0       | ug/kg | 3250 | 3070.64 | 94.6  | 58 - 112 |
| Chrysene                    | 10.5343 | ug/kg | 3250 | 3109.29 | 95.4  | 63 - 111 |
| mp-Cresol                   | 0       | ug/kg | 6490 | 5359.87 | 82.5  | 60 - 112 |
| o-Cresol                    | 0       | ug/kg | 6490 | 5304.74 | 81.7  | 62 - 113 |
| Di-n-Butylphthalate         | 13.4455 | ug/kg | 3250 | 3438.54 | 105   | 58 - 118 |
| Di-n-Octylphthalate         | 0       | ug/kg | 3250 | 3587.25 | 110   | 45 - 128 |
| Dibenzo(a,h)anthracene      | 0       | ug/kg | 3250 | 2818.72 | 86.8  | 64 - 117 |
| Dibenzofuran                | 0       | ug/kg | 3250 | 2902.41 | 89.4  | 61 - 111 |
| 3,3-Dichlorobenzidine       | 0       | ug/kg | 6490 | 5671.22 | 87.3  | 27 - 106 |
| 2,4-Dichlorophenol          | 0       | ug/kg | 6490 | 5553.91 | 85.5  | 65 - 111 |
| Diethylphthalate            | 0       | ug/kg | 3250 | 3272.59 | 101   | 59 - 112 |
| 2,4-Dimethylphenol          | 0       | ug/kg | 6490 | 5603.43 | 86.3  | 65 - 114 |
| Dimethylphthalate           | 0       | ug/kg | 3250 | 3135.47 | 96.6  | 59 - 111 |
| 2,4-Dinitrophenol           | 0       | ug/kg | 6490 | 2780.95 | 42.8  | 36 - 131 |
| 2,4-Dinitrotoluene          | 0       | ug/kg | 3250 | 2849.26 | 87.8  | 61 - 117 |
| 2,6-Dinitrotoluene          | 0       | ug/kg | 3250 | 2985.14 | 91.9  | 61 - 115 |
| 1,4-Dioxane                 | 0       | ug/kg | 3250 | 1737.58 | 53.5  | 37 - 98  |
| bis(2-Ethylhexyl)phthalate  | 0       | ug/kg | 3250 | 3442.61 | 106   | 51 - 126 |
| Fluoranthene                | 25.0216 | ug/kg | 3250 | 2988.49 | 91.3  | 61 - 116 |
| Fluorene                    | 0       | ug/kg | 3250 | 3014.73 | 92.9  | 61 - 112 |
| Hexachlorobenzene           | 0       | ug/kg | 3250 | 3122.17 | 96.2  | 59 - 109 |
| Hexachlorobutadiene         | 0       | ug/kg | 3250 | 3103.05 | 95.6  | 58 - 123 |
| Hexachlorocyclopentadiene   | 0       | ug/kg | 3250 | 585.84  | 18*   | 33 - 109 |
| Hexachloroethane            | 0       | ug/kg | 3250 | 2044.86 | 63    | 50 - 103 |
| Indeno(1,2,3-cd)pyrene      | 10.4164 | ug/kg | 3250 | 2784.59 | 85.4  | 62 - 113 |
| Isophorone                  | 0       | ug/kg | 3250 | 2743.37 | 84.5  | 51 - 112 |
| 2-Methyl-4,6-dinitrophenol  | 0       | ug/kg | 6490 | 3223.68 | 49.6* | 53 - 131 |
| 2-Methylnaphthalene         | 0       | ug/kg | 3250 | 2675.31 | 82.4  | 58 - 96  |
| Naphthalene                 | 0       | ug/kg | 3250 | 2686.14 | 82.7  | 56 - 105 |
| 2-Nitroaniline              | 0       | ug/kg | 3250 | 3112.38 | 95.9  | 61 - 120 |
| 3-Nitroaniline              | 0       | ug/kg | 3250 | 2999.68 | 92.4  | 52 - 115 |
| 4-Nitroaniline              | 0       | ug/kg | 3250 | 3050.81 | 94    | 50 - 106 |
| Nitrobenzene                | 0       | ug/kg | 3250 | 2649.95 | 81.6  | 53 - 108 |
| 2-Nitrophenol               | 0       | ug/kg | 6490 | 5063.77 | 78    | 61 - 114 |
| 4-Nitrophenol               | 0       | ug/kg | 6490 | 5690.69 | 87.6  | 49 - 134 |
| N-Nitroso-di-n-propylamine  | 0       | ug/kg | 3250 | 2713.98 | 83.6  | 55 - 109 |
| N-Nitrosodiphenylamine      | 0       | ug/kg | 3250 | 3495.29 | 108   | 65 - 134 |
| Pentachlorophenol           | 0       | ug/kg | 6490 | 7654.62 | 118   | 60 - 145 |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

|                            |         |       |      |         |      |          |
|----------------------------|---------|-------|------|---------|------|----------|
| Phenanthrene               | 4.78911 | ug/kg | 3250 | 2915.9  | 89.7 | 62 - 109 |
| Phenol                     | 0       | ug/kg | 6490 | 5108.68 | 78.7 | 53 - 118 |
| Pyrene                     | 16.0026 | ug/kg | 3250 | 2781.61 | 85.2 | 60 - 114 |
| 1,2,4,5-Tetrachlorobenzene | 0       | ug/kg | 3250 | 2796.26 | 86.1 | 56 - 107 |
| 2,3,4,6-Tetrachlorophenol  | 0       | ug/kg | 6490 | 4936.5  | 76   | 60 - 111 |
| 2,4,5-Trichlorophenol      | 0       | ug/kg | 6490 | 5734.33 | 88.3 | 68 - 121 |
| 2,4,6-Trichlorophenol      | 0       | ug/kg | 6490 | 6020.23 | 92.7 | 68 - 119 |
| 2,4,6-Tribromophenol (S)   | 92.1    | %     |      |         |      | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 86      | %     |      |         |      | 40 - 110 |
| 2-Fluorophenol (S)         | 75.8    | %     |      |         |      | 26 - 116 |
| Nitrobenzene-d5 (S)        | 78.5    | %     |      |         |      | 38 - 112 |
| Phenol-d5 (S)              | 78.3    | %     |      |         |      | 35 - 111 |
| Terphenyl-d14 (S)          | 84.1    | %     |      |         |      | 45 - 126 |

SAMPLE DUPLICATE: 2488352 ORIGINAL: 2208112005

| Parameter                   | Original Result | Units | DUP Result | RPD | Max RPD |
|-----------------------------|-----------------|-------|------------|-----|---------|
| Acenaphthene                | 0               | ug/kg | 0          | NC  | 17      |
| Acenaphthylene              | 0               | ug/kg | 0          | NC  | 17      |
| Acetophenone                | 0               | ug/kg | 0          | NC  | 21      |
| Anthracene                  | 0               | ug/kg | 0          | NC  | 20      |
| Atrazine                    | 0               | ug/kg | 0          | NC  | 22      |
| Benzaldehyde                | 0               | ug/kg | 0          | NC  | 30      |
| Benzo(a)anthracene          | 6.54357         | ug/kg | 0          | NC  | 22      |
| Benzo(a)pyrene              | 0               | ug/kg | 0          | NC  | 24      |
| Benzo(b)fluoranthene        | 0               | ug/kg | 0          | NC  | 28      |
| Benzo(g,h,i)perylene        | 0               | ug/kg | 0          | NC  | 30      |
| Benzo(k)fluoranthene        | 0               | ug/kg | 0          | NC  | 22      |
| Biphenyl                    | 0               | ug/kg | 0          | NC  | 14      |
| 4-Bromophenyl-phenylether   | 0               | ug/kg | 0          | NC  | 21      |
| Butylbenzylphthalate        | 0               | ug/kg | 0          | NC  | 18      |
| Caprolactam                 | 0               | ug/kg | 0          | NC  | 23      |
| Carbazole                   | 0               | ug/kg | 0          | NC  | 20      |
| 4-Chloro-3-methylphenol     | 0               | ug/kg | 0          | NC  | 20      |
| 4-Chloroaniline             | 0               | ug/kg | 0          | NC  | 22      |
| bis(2-Chloroethoxy)methane  | 0               | ug/kg | 0          | NC  | 18      |
| bis(2-Chloroethyl)ether     | 0               | ug/kg | 0          | NC  | 24      |
| bis(2-Chloroisopropyl)ether | 0               | ug/kg | 0          | NC  | 22      |
| 2-Chloronaphthalene         | 0               | ug/kg | 0          | NC  | 19      |
| 2-Chlorophenol              | 0               | ug/kg | 0          | NC  | 22      |
| 4-Chlorophenyl-phenylether  | 0               | ug/kg | 0          | NC  | 18      |
| Chrysene                    | 0               | ug/kg | 0          | NC  | 20      |
| mp-Cresol                   | 0               | ug/kg | 0          | NC  | 20      |
| o-Cresol                    | 0               | ug/kg | 0          | NC  | 21      |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

|                            |   |       |   |    |    |
|----------------------------|---|-------|---|----|----|
| Di-n-Butylphthalate        | 0 | ug/kg | 0 | NC | 20 |
| Di-n-Octylphthalate        | 0 | ug/kg | 0 | NC | 20 |
| Dibenzo(a,h)anthracene     | 0 | ug/kg | 0 | NC | 28 |
| Dibenzofuran               | 0 | ug/kg | 0 | NC | 18 |
| 3,3-Dichlorobenzidine      | 0 | ug/kg | 0 | NC | 26 |
| 2,4-Dichlorophenol         | 0 | ug/kg | 0 | NC | 20 |
| Diethylphthalate           | 0 | ug/kg | 0 | NC | 18 |
| 2,4-Dimethylphenol         | 0 | ug/kg | 0 | NC | 23 |
| Dimethylphthalate          | 0 | ug/kg | 0 | NC | 18 |
| 2,4-Dinitrophenol          | 0 | ug/kg | 0 | NC | 30 |
| 2,4-Dinitrotoluene         | 0 | ug/kg | 0 | NC | 21 |
| 2,6-Dinitrotoluene         | 0 | ug/kg | 0 | NC | 20 |
| 1,4-Dioxane                | 0 | ug/kg | 0 | NC | 30 |
| bis(2-Ethylhexyl)phthalate | 0 | ug/kg | 0 | NC | 21 |
| Fluoranthene               | 0 | ug/kg | 0 | NC | 21 |
| Fluorene                   | 0 | ug/kg | 0 | NC | 16 |
| Hexachlorobenzene          | 0 | ug/kg | 0 | NC | 21 |
| Hexachlorobutadiene        | 0 | ug/kg | 0 | NC | 22 |
| Hexachlorocyclopentadiene  | 0 | ug/kg | 0 | NC | 29 |
| Hexachloroethane           | 0 | ug/kg | 0 | NC | 28 |
| Indeno(1,2,3-cd)pyrene     | 0 | ug/kg | 0 | NC | 30 |
| Isophorone                 | 0 | ug/kg | 0 | NC | 19 |
| 2-Methyl-4,6-dinitrophenol | 0 | ug/kg | 0 | NC | 30 |
| 2-Methylnaphthalene        | 0 | ug/kg | 0 | NC | 21 |
| Naphthalene                | 0 | ug/kg | 0 | NC | 21 |
| 2-Nitroaniline             | 0 | ug/kg | 0 | NC | 19 |
| 3-Nitroaniline             | 0 | ug/kg | 0 | NC | 22 |
| 4-Nitroaniline             | 0 | ug/kg | 0 | NC | 19 |
| Nitrobenzene               | 0 | ug/kg | 0 | NC | 20 |
| 2-Nitrophenol              | 0 | ug/kg | 0 | NC | 23 |
| 4-Nitrophenol              | 0 | ug/kg | 0 | NC | 21 |
| N-Nitroso-di-n-propylamine | 0 | ug/kg | 0 | NC | 20 |
| N-Nitrosodiphenylamine     | 0 | ug/kg | 0 | NC | 21 |
| Pentachlorophenol          | 0 | ug/kg | 0 | NC | 25 |
| Phenanthrene               | 0 | ug/kg | 0 | NC | 20 |
| Phenol                     | 0 | ug/kg | 0 | NC | 23 |
| Pyrene                     | 0 | ug/kg | 0 | NC | 20 |
| 1,2,4,5-Tetrachlorobenzene | 0 | ug/kg | 0 | NC | 19 |
| 2,3,4,6-Tetrachlorophenol  | 0 | ug/kg | 0 | NC | 20 |
| 2,4,5-Trichlorophenol      | 0 | ug/kg | 0 | NC | 22 |
| 2,4,6-Trichlorophenol      | 0 | ug/kg | 0 | NC | 20 |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

**QC Batch:** EXTR/46784

**Analysis Method:** SW846 8082A

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2208112006

#### METHOD BLANK: 2488795

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aroclor-1016             | ND           | mg/kg | 0.033           |
| Aroclor-1221             | ND           | mg/kg | 0.033           |
| Aroclor-1232             | ND           | mg/kg | 0.033           |
| Aroclor-1242             | ND           | mg/kg | 0.033           |
| Aroclor-1248             | ND           | mg/kg | 0.033           |
| Aroclor-1254             | ND           | mg/kg | 0.033           |
| Aroclor-1260             | ND           | mg/kg | 0.033           |
| Aroclor-1262             | ND           | mg/kg | 0.033           |
| Aroclor-1268             | ND           | mg/kg | 0.033           |
| Decachlorobiphenyls (S)  | 97.2         | %     | 49 - 115        |
| Tetrachloro-m-xylene (S) | 96.5         | %     | 27 - 137        |

#### LABORATORY CONTROL SAMPLE: 2488796

| Parameter                | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|--------------------------|-----------|-------|-------------|------------|-------------|
| Aroclor-1016             | 97        | mg/kg | .33         | 0.32       | 43 - 132    |
| Aroclor-1221             |           | mg/kg |             | ND         |             |
| Aroclor-1232             |           | mg/kg |             | ND         |             |
| Aroclor-1242             |           | mg/kg |             | ND         |             |
| Aroclor-1248             |           | mg/kg |             | ND         |             |
| Aroclor-1254             |           | mg/kg |             | ND         |             |
| Aroclor-1260             | 105       | mg/kg | .33         | 0.35       | 53 - 134    |
| Aroclor-1262             |           | mg/kg |             | ND         |             |
| Aroclor-1268             |           | mg/kg |             | ND         |             |
| Decachlorobiphenyls (S)  | 100       | %     |             |            | 49 - 115    |
| Tetrachloro-m-xylene (S) | 101       | %     |             |            | 27 - 137    |

#### MATRIX SPIKE SAMPLE: 2488797 ORIGINAL: 2208399004

\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter    | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|--------------|-----------------|-------|-------------|-----------|----------|-------------|
| Aroclor-1016 | 0               | mg/kg | .48         | .40361    | 83.9     | 43 - 132    |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

|                          |      |       |     |        |      |          |
|--------------------------|------|-------|-----|--------|------|----------|
| Aroclor-1260             | 0    | mg/kg | .48 | .47316 | 98.4 | 53 - 134 |
| Decachlorobiphenyls (S)  | 96.7 | %     |     |        |      | 49 - 115 |
| Tetrachloro-m-xylene (S) | 91.3 | %     |     |        |      | 27 - 137 |

SAMPLE DUPLICATE: 2488798 ORIGINAL: 2208399005

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Aroclor-1016 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1221 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1232 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1242 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1248 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1254 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1260 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1262 | 0               | mg/kg | 0          | NC  |         |
| Aroclor-1268 | 0               | mg/kg | 0          | NC  |         |



## QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

**QC Batch:** EXTR/46785

**Analysis Method:** SW846 8081B

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2208112006

### METHOD BLANK: 2488799

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aldrin                   | ND           | ug/kg | 1.7             |
| alpha-BHC                | ND           | ug/kg | 1.7             |
| beta-BHC                 | ND           | ug/kg | 1.7             |
| delta-BHC                | ND           | ug/kg | 1.7             |
| gamma-BHC                | ND           | ug/kg | 1.7             |
| alpha-Chlordane          | ND           | ug/kg | 1.7             |
| gamma-Chlordane          | ND           | ug/kg | 1.7             |
| 4,4'-DDD                 | ND           | ug/kg | 3.3             |
| 4,4'-DDE                 | ND           | ug/kg | 3.3             |
| 4,4'-DDT                 | ND           | ug/kg | 3.3             |
| Dieldrin                 | ND           | ug/kg | 3.3             |
| Endosulfan I             | ND           | ug/kg | 1.7             |
| Endosulfan II            | ND           | ug/kg | 3.3             |
| Endosulfan Sulfate       | ND           | ug/kg | 3.3             |
| Endrin                   | ND           | ug/kg | 3.3             |
| Endrin Aldehyde          | 0.85J        | ug/kg | 3.3             |
| Endrin Ketone            | ND           | ug/kg | 3.3             |
| Heptachlor               | ND           | ug/kg | 1.7             |
| Heptachlor Epoxide       | ND           | ug/kg | 1.7             |
| Methoxychlor             | ND           | ug/kg | 3.3             |
| Toxaphene                | ND           | ug/kg | 35.0            |
| Decachlorobiphenyls (S)  | 71.7         | %     | 30 - 135        |
| Tetrachloro-m-xylene (S) | 51.2         | %     | 30 - 111        |

### LABORATORY CONTROL SAMPLE: 2488800

| Parameter       | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-----------------|-----------|-------|-------------|------------|-------------|
| Aldrin          | 76        | ug/kg | 33.3        | 25.3       | 58 - 103    |
| alpha-BHC       | 76.9      | ug/kg | 33.3        | 25.6       | 57 - 105    |
| beta-BHC        | 69.3      | ug/kg | 33.3        | 23.1       | 53 - 106    |
| delta-BHC       | 79.9      | ug/kg | 33.3        | 26.6       | 60 - 103    |
| gamma-BHC       | 76.9      | ug/kg | 33.3        | 25.6       | 59 - 102    |
| alpha-Chlordane | 75.9      | ug/kg | 33.3        | 25.3       | 62 - 98     |
| gamma-Chlordane | 76.8      | ug/kg | 33.3        | 25.6       | 58 - 103    |
| 4,4'-DDD        | 89.4      | ug/kg | 33.3        | 29.8       | 57 - 111    |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

|                          |      |       |      |      |          |
|--------------------------|------|-------|------|------|----------|
| 4,4'-DDE                 | 82.4 | ug/kg | 33.3 | 27.5 | 63 - 112 |
| 4,4'-DDT                 | 72   | ug/kg | 33.3 | 24.0 | 60 - 122 |
| Dieldrin                 | 77.7 | ug/kg | 33.3 | 25.9 | 62 - 109 |
| Endosulfan I             | 74.3 | ug/kg | 33.3 | 24.8 | 57 - 98  |
| Endosulfan II            | 76.2 | ug/kg | 33.3 | 25.4 | 59 - 112 |
| Endosulfan Sulfate       | 76.9 | ug/kg | 33.3 | 25.6 | 27 - 96  |
| Endrin                   | 75   | ug/kg | 33.3 | 25.0 | 63 - 108 |
| Endrin Aldehyde          | 60.5 | ug/kg | 33.3 | 20.2 | 21 - 92  |
| Endrin Ketone            | 78.8 | ug/kg | 33.3 | 26.3 | 32 - 103 |
| Heptachlor               | 64.7 | ug/kg | 33.3 | 21.6 | 51 - 105 |
| Heptachlor Epoxide       | 75.8 | ug/kg | 33.3 | 25.3 | 62 - 99  |
| Methoxychlor             | 67.5 | ug/kg | 33.3 | 22.5 | 50 - 114 |
| Toxaphene                |      | ug/kg |      | ND   |          |
| Decachlorobiphenyls (S)  | 66.6 | %     |      |      | 30 - 135 |
| Tetrachloro-m-xylene (S) | 51.5 | %     |      |      | 30 - 111 |

SAMPLE DUPLICATE: 2488801 ORIGINAL: 2208399005

| Parameter          | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------------|-----------------|-------|------------|-----|---------|
| Aldrin             | 0               | ug/kg | 0          | NC  | 40      |
| alpha-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| beta-BHC           | 0               | ug/kg | 0          | NC  | 40      |
| delta-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| gamma-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| alpha-Chlordane    | 0               | ug/kg | 0          | NC  | 40      |
| gamma-Chlordane    | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDD           | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDE           | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDT           | 0               | ug/kg | 0          | NC  | 40      |
| Dieldrin           | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan I       | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan II      | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan Sulfate | 0               | ug/kg | 0          | NC  | 40      |
| Endrin             | 0               | ug/kg | 0          | NC  | 40      |
| Endrin Aldehyde    | 0               | ug/kg | 0          | NC  | 40      |
| Endrin Ketone      | 0               | ug/kg | 0          | NC  | 40      |
| Heptachlor         | 0               | ug/kg | 0          | NC  | 40      |
| Heptachlor Epoxide | 0               | ug/kg | 0          | NC  | 35      |
| Methoxychlor       | 0               | ug/kg | 0          | NC  | 40      |
| Toxaphene          | 0               | ug/kg | 0          | NC  | 40      |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

**QC Batch:** EXTR/46806

**Analysis Method:** SW846 8015D

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2208112002, 2208112003, 2208112004, 2208112005, 2208112006, 2208112007, 2208112008, 2208112009

#### METHOD BLANK: 2489567

| Parameter                     | Blank Result | Units | Reporting Limit |
|-------------------------------|--------------|-------|-----------------|
| Diesel Range Organics C10-C28 | ND           | mg/kg | 10.6            |
| o-Terphenyl (S)               | 91.4         | %     | 38 - 118        |

#### LABORATORY CONTROL SAMPLE: 2489568

| Parameter                     | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-------------------------------|-----------|-------|-------------|------------|-------------|
| Diesel Range Organics C10-C28 | 77.5      | mg/kg | 33.3        | 25.8       | 38 - 132    |
| o-Terphenyl (S)               | 94.7      | %     |             |            | 38 - 118    |

#### MATRIX SPIKE SAMPLE: 2489569 ORIGINAL: 2208112005

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                     | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|-------------------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Diesel Range Organics C10-C28 | 4.57786         | mg/kg | 32.9        | 27.9253   | 71       | 38 - 132    |
| o-Terphenyl (S)               | 90.1            | %     |             |           |          | 38 - 118    |

#### SAMPLE DUPLICATE: 2489570 ORIGINAL: 2208399006

| Parameter                     | Original Result | Units | DUP Result | RPD  | Max RPD |
|-------------------------------|-----------------|-------|------------|------|---------|
| Diesel Range Organics C10-C28 | 5.62793         | mg/kg | 35.3804    | 145* | 30      |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

**QC Batch:** EXTR/46807      **Analysis Method:** SW846 8082A  
**QC Batch Method:** SW846 3546  
**Associated Lab Samples:** 2208112007, 2208112008, 2208112009

#### METHOD BLANK: 2489607

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aroclor-1016             | ND           | mg/kg | 0.033           |
| Aroclor-1221             | ND           | mg/kg | 0.033           |
| Aroclor-1232             | ND           | mg/kg | 0.033           |
| Aroclor-1242             | ND           | mg/kg | 0.033           |
| Aroclor-1248             | ND           | mg/kg | 0.033           |
| Aroclor-1254             | ND           | mg/kg | 0.033           |
| Aroclor-1260             | ND           | mg/kg | 0.033           |
| Aroclor-1262             | ND           | mg/kg | 0.033           |
| Aroclor-1268             | ND           | mg/kg | 0.033           |
| Decachlorobiphenyls (S)  | 96           | %     | 49 - 115        |
| Tetrachloro-m-xylene (S) | 99.3         | %     | 27 - 137        |

#### LABORATORY CONTROL SAMPLE: 2489608

| Parameter                | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|--------------------------|-----------|-------|-------------|------------|-------------|
| Aroclor-1016             | 86.8      | mg/kg | .33         | 0.29       | 43 - 132    |
| Aroclor-1221             |           | mg/kg |             | ND         |             |
| Aroclor-1232             |           | mg/kg |             | ND         |             |
| Aroclor-1242             |           | mg/kg |             | ND         |             |
| Aroclor-1248             |           | mg/kg |             | ND         |             |
| Aroclor-1254             |           | mg/kg |             | ND         |             |
| Aroclor-1260             | 97.6      | mg/kg | .33         | 0.33       | 53 - 134    |
| Aroclor-1262             |           | mg/kg |             | ND         |             |
| Aroclor-1268             |           | mg/kg |             | ND         |             |
| Decachlorobiphenyls (S)  | 97.4      | %     |             |            | 49 - 115    |
| Tetrachloro-m-xylene (S) | 89        | %     |             |            | 27 - 137    |

#### MATRIX SPIKE SAMPLE: 2489609 ORIGINAL: 2208873003

\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter    | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|--------------|-----------------|-------|-------------|-----------|----------|-------------|
| Aroclor-1016 | 0               | mg/kg | .33         | .28711    | 87.3     | 43 - 132    |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

|                          |      |       |     |        |    |          |
|--------------------------|------|-------|-----|--------|----|----------|
| Aroclor-1260             | 0    | mg/kg | .33 | .31896 | 97 | 53 - 134 |
| Decachlorobiphenyls (S)  | 96.6 | %     |     |        |    | 49 - 115 |
| Tetrachloro-m-xylene (S) | 94.5 | %     |     |        |    | 27 - 137 |

SAMPLE DUPLICATE: 2489610 ORIGINAL: 2208873004

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Aroclor-1016 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1221 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1232 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1242 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1248 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1254 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1260 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1262 | 0               | mg/kg | 0          | NC  |         |
| Aroclor-1268 | 0               | mg/kg | 0          | NC  |         |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

**QC Batch:** EXTR/46808 **Analysis Method:** SW846 8081B

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2208112007, 2208112008, 2208112009

#### METHOD BLANK: 2489611

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aldrin                   | ND           | ug/kg | 1.7             |
| alpha-BHC                | ND           | ug/kg | 1.7             |
| beta-BHC                 | ND           | ug/kg | 1.7             |
| delta-BHC                | ND           | ug/kg | 1.7             |
| gamma-BHC                | ND           | ug/kg | 1.7             |
| alpha-Chlordane          | ND           | ug/kg | 1.7             |
| gamma-Chlordane          | ND           | ug/kg | 1.7             |
| 4,4'-DDD                 | ND           | ug/kg | 3.3             |
| 4,4'-DDE                 | ND           | ug/kg | 3.3             |
| 4,4'-DDT                 | ND           | ug/kg | 3.3             |
| Dieldrin                 | ND           | ug/kg | 3.3             |
| Endosulfan I             | ND           | ug/kg | 1.7             |
| Endosulfan II            | ND           | ug/kg | 3.3             |
| Endosulfan Sulfate       | ND           | ug/kg | 3.3             |
| Endrin                   | ND           | ug/kg | 3.3             |
| Endrin Aldehyde          | 1.1J         | ug/kg | 3.3             |
| Endrin Ketone            | ND           | ug/kg | 3.3             |
| Heptachlor               | ND           | ug/kg | 1.7             |
| Heptachlor Epoxide       | ND           | ug/kg | 1.7             |
| Methoxychlor             | ND           | ug/kg | 3.3             |
| Toxaphene                | ND           | ug/kg | 35.0            |
| Decachlorobiphenyls (S)  | 72.5         | %     | 30 - 135        |
| Tetrachloro-m-xylene (S) | 58.4         | %     | 30 - 111        |

#### LABORATORY CONTROL SAMPLE: 2489612

| Parameter       | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-----------------|-----------|-------|-------------|------------|-------------|
| Aldrin          | 90.2      | ug/kg | 33.3        | 30.1       | 58 - 103    |
| alpha-BHC       | 92.8      | ug/kg | 33.3        | 30.9       | 57 - 105    |
| beta-BHC        | 86.8      | ug/kg | 33.3        | 28.9       | 53 - 106    |
| delta-BHC       | 94.1      | ug/kg | 33.3        | 31.4       | 60 - 103    |
| gamma-BHC       | 92.7      | ug/kg | 33.3        | 30.9       | 59 - 102    |
| alpha-Chlordane | 90.3      | ug/kg | 33.3        | 30.1       | 62 - 98     |
| gamma-Chlordane | 91.1      | ug/kg | 33.3        | 30.4       | 58 - 103    |
| 4,4'-DDD        | 104       | ug/kg | 33.3        | 34.7       | 57 - 111    |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

|                          |      |       |      |      |          |
|--------------------------|------|-------|------|------|----------|
| 4,4'-DDE                 | 93.5 | ug/kg | 33.3 | 31.2 | 63 - 112 |
| 4,4'-DDT                 | 92.3 | ug/kg | 33.3 | 30.8 | 60 - 122 |
| Dieldrin                 | 95.4 | ug/kg | 33.3 | 31.8 | 62 - 109 |
| Endosulfan I             | 86.2 | ug/kg | 33.3 | 28.7 | 57 - 98  |
| Endosulfan II            | 93.2 | ug/kg | 33.3 | 31.1 | 59 - 112 |
| Endosulfan Sulfate       | 91.4 | ug/kg | 33.3 | 30.5 | 27 - 96  |
| Endrin                   | 93   | ug/kg | 33.3 | 31.0 | 63 - 108 |
| Endrin Aldehyde          | 79.7 | ug/kg | 33.3 | 26.6 | 21 - 92  |
| Endrin Ketone            | 96.9 | ug/kg | 33.3 | 32.3 | 32 - 103 |
| Heptachlor               | 95.1 | ug/kg | 33.3 | 31.7 | 51 - 105 |
| Heptachlor Epoxide       | 90.6 | ug/kg | 33.3 | 30.2 | 62 - 99  |
| Methoxychlor             | 89.9 | ug/kg | 33.3 | 30.0 | 50 - 114 |
| Toxaphene                |      | ug/kg |      | ND   |          |
| Decachlorobiphenyls (S)  | 74.3 | %     |      |      | 30 - 135 |
| Tetrachloro-m-xylene (S) | 64.6 | %     |      |      | 30 - 111 |

SAMPLE DUPLICATE: 2489613 ORIGINAL: 2208873004

| Parameter          | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------------|-----------------|-------|------------|-----|---------|
| Aldrin             | 0               | ug/kg | 0          | NC  | 40      |
| alpha-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| beta-BHC           | 0               | ug/kg | 0          | NC  | 40      |
| delta-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| gamma-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| alpha-Chlordane    | 0               | ug/kg | 0          | NC  | 40      |
| gamma-Chlordane    | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDD           | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDE           | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDT           | 0               | ug/kg | 0          | NC  | 40      |
| Dieldrin           | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan I       | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan II      | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan Sulfate | 0               | ug/kg | 0          | NC  | 40      |
| Endrin             | 0               | ug/kg | 0          | NC  | 40      |
| Endrin Aldehyde    | 0               | ug/kg | 0          | NC  | 40      |
| Endrin Ketone      | 0               | ug/kg | 0          | NC  | 40      |
| Heptachlor         | 0               | ug/kg | 0          | NC  | 40      |
| Heptachlor Epoxide | 0               | ug/kg | 0          | NC  | 35      |
| Methoxychlor       | 0               | ug/kg | 0          | NC  | 40      |
| Toxaphene          | 0               | ug/kg | 0          | NC  | 40      |



### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

**QC Batch:** MDIG/62596

**Analysis Method:** SW846 7471B

**QC Batch Method:** SW846 7471B

**Associated Lab Samples:** 2208112002, 2208112003, 2208112004, 2208112005, 2208112006, 2208112007, 2208112008, 2208112009

#### METHOD BLANK: 2485337

| Parameter      | Blank Result | Units | Reporting Limit |
|----------------|--------------|-------|-----------------|
| Mercury, Total | ND           | mg/kg | 0.050           |

#### LABORATORY CONTROL SAMPLE: 2485338

| Parameter      | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|----------------|-----------|-------|-------------|------------|-------------|
| Mercury, Total | 87.5      | mg/kg | .4          | 0.35       | 80 - 120    |

#### MATRIX SPIKE: 2485339 DUPLICATE: 2485340 ORIGINAL: 2207906006

\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter      | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD |
|----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|
| Mercury, Total | .04745          | mg/kg | .86         | .83966    | .84746     | 91.9     | 94.4      | 80 - 120    | .92 | 20      |

#### MATRIX SPIKE: 2485341 DUPLICATE: 2485342 ORIGINAL: 2208112007

\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter      | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Mercury, Total | 0               | mg/kg | .93         | .84074    | .86923     | 90.8     | 90.4      | 80 - 120    | 3.33 | 20      |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

**QC Batch:** MDIG/62673

**Analysis Method:** SW846 6020A

**QC Batch Method:** SW846 3051

**Associated Lab Samples:** 2208112002, 2208112003, 2208112004, 2208112005, 2208112006, 2208112007, 2208112008, 2208112009

#### METHOD BLANK: 2487309

| Parameter        | Blank Result | Units | Reporting Limit |
|------------------|--------------|-------|-----------------|
| Antimony, Total  | ND           | mg/kg | 1.0             |
| Arsenic, Total   | ND           | mg/kg | 1.5             |
| Beryllium, Total | ND           | mg/kg | 0.50            |
| Cadmium, Total   | ND           | mg/kg | 0.50            |
| Chromium, Total  | ND           | mg/kg | 1.0             |
| Copper, Total    | ND           | mg/kg | 2.5             |
| Lead, Total      | ND           | mg/kg | 1.0             |
| Nickel, Total    | ND           | mg/kg | 2.5             |
| Selenium, Total  | ND           | mg/kg | 2.5             |
| Silver, Total    | ND           | mg/kg | 1.0             |
| Thallium, Total  | ND           | mg/kg | 0.50            |
| Zinc, Total      | ND           | mg/kg | 2.5             |

#### LABORATORY CONTROL SAMPLE: 2487310

| Parameter        | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|------------------|-----------|-------|-------------|------------|-------------|
| Antimony, Total  | 97.4      | mg/kg | 20          | 19.5       | 80 - 120    |
| Arsenic, Total   | 97.7      | mg/kg | 20          | 19.5       | 80 - 120    |
| Beryllium, Total | 92.6      | mg/kg | 20          | 18.5       | 80 - 120    |
| Cadmium, Total   | 97.8      | mg/kg | 20          | 19.6       | 80 - 120    |
| Chromium, Total  | 99        | mg/kg | 20          | 19.8       | 80 - 120    |
| Copper, Total    | 97.2      | mg/kg | 20          | 19.4       | 80 - 120    |
| Lead, Total      | 99.9      | mg/kg | 20          | 20.0       | 80 - 120    |
| Nickel, Total    | 101       | mg/kg | 20          | 20.2       | 80 - 120    |
| Selenium, Total  | 92.3      | mg/kg | 20          | 18.5       | 80 - 120    |
| Silver, Total    | 101       | mg/kg | 10          | 10.1       | 80 - 120    |
| Thallium, Total  | 97.5      | mg/kg | 20          | 19.5       | 80 - 120    |
| Zinc, Total      | 90        | mg/kg | 200         | 180        | 80 - 120    |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

MATRIX SPIKE: 2487311 DUPLICATE: 2487312 ORIGINAL: 2208789001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter       | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|-----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Arsenic, Total  | 14.41085        | mg/kg | 19.2        | 28.29038  | 26.27877   | 72.2*    | 62.9*     | 75 - 125    | 7.37 | 20      |
| Cadmium, Total  | .21132          | mg/kg | 19.2        | 18.82163  | 17.94292   | 96.8     | 94        | 75 - 125    | 4.78 | 20      |
| Chromium, Total | 39.00047        | mg/kg | 19.2        | 56.44712  | 52.43962   | 90.7     | 71.2*     | 75 - 125    | 7.36 | 20      |
| Lead, Total     | 36.43538        | mg/kg | 19.2        | 58.37548  | 56.40896   | 114      | 106       | 75 - 125    | 3.43 | 20      |
| Selenium, Total | 2.46887         | mg/kg | 19.2        | 17.30144  | 14.49009   | 77.1     | 63.7*     | 75 - 125    | 17.7 | 20      |
| Silver, Total   | .08019          | mg/kg | 9.6         | 9.5351    | 9.25283    | 98.3     | 97.2      | 75 - 125    | 3    | 20      |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

**QC Batch:** VOGC/9388

**Analysis Method:** SW846 8015D

**QC Batch Method:** SW846 5035

**Associated Lab Samples:** 2208112002, 2208112003, 2208112004, 2208112005, 2208112006, 2208112007, 2208112008, 2208112009

#### METHOD BLANK: 2487389

| Parameter                  | Blank Result | Units | Reporting Limit |
|----------------------------|--------------|-------|-----------------|
| Gasoline Range Organics    | 4800J        | ug/kg | 10000           |
| a,a,a-Trifluorotoluene (S) | 115          | %     | 72 - 134        |

#### LABORATORY CONTROL SAMPLE: 2487390

| Parameter                  | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|----------------------------|-----------|-------|-------------|------------|-------------|
| Gasoline Range Organics    | 98.2      | ug/kg | 100000      | 98200      | 73 - 133    |
| a,a,a-Trifluorotoluene (S) | 104       | %     |             |            | 72 - 134    |

#### MATRIX SPIKE: 2487627 DUPLICATE: 2487628 ORIGINAL: 2208112002

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                  | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD |
|----------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|
| Gasoline Range Organics    | 2071.87         | ug/kg | 63500       | 62382.5   | 62156.3    | 94.9     | 94.6      | 73 - 133    | .36 | 18      |
| a,a,a-Trifluorotoluene (S) | 123             | %     |             |           |            | 123      | 117       | 72 - 134    |     |         |

## QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

**QC Batch:** VOMS/42438 **Analysis Method:** SW846 8260B  
**QC Batch Method:** SW846 8260B  
**Associated Lab Samples:** 2208112001

METHOD BLANK: 2485262

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acetone                     | ND           | ug/L  | 10.0            |
| tert-Amyl methyl ether      | ND           | ug/L  | 1.0             |
| tert-Amyl Alcohol           | ND           | ug/L  | 10.0            |
| tert-Amyl Ethylether        | ND           | ug/L  | 1.0             |
| Benzene                     | ND           | ug/L  | 1.0             |
| Bromochloromethane          | ND           | ug/L  | 1.0             |
| Bromodichloromethane        | ND           | ug/L  | 1.0             |
| Bromoform                   | ND           | ug/L  | 1.0             |
| Bromomethane                | ND           | ug/L  | 1.0             |
| 2-Butanone                  | ND           | ug/L  | 10.0            |
| tert-Butyl Alcohol          | ND           | ug/L  | 10.0            |
| Carbon Disulfide            | ND           | ug/L  | 1.0             |
| Carbon Tetrachloride        | ND           | ug/L  | 1.0             |
| Chlorobenzene               | ND           | ug/L  | 1.0             |
| Chlorodibromomethane        | ND           | ug/L  | 1.0             |
| Chloroethane                | ND           | ug/L  | 1.0             |
| Chloroform                  | ND           | ug/L  | 1.0             |
| Chloromethane               | ND           | ug/L  | 1.0             |
| 1,2-Dibromo-3-chloropropane | ND           | ug/L  | 7.0             |
| 1,2-Dibromoethane           | ND           | ug/L  | 1.0             |
| 1,1-Dichloroethane          | ND           | ug/L  | 1.0             |
| 1,2-Dichloroethane          | ND           | ug/L  | 1.0             |
| 1,1-Dichloroethene          | ND           | ug/L  | 1.0             |
| cis-1,2-Dichloroethene      | ND           | ug/L  | 1.0             |
| trans-1,2-Dichloroethene    | ND           | ug/L  | 1.0             |
| 1,2-Dichloropropane         | ND           | ug/L  | 1.0             |
| cis-1,3-Dichloropropene     | ND           | ug/L  | 1.0             |
| trans-1,3-Dichloropropene   | ND           | ug/L  | 1.0             |
| Diisopropyl ether           | ND           | ug/L  | 1.0             |
| Ethyl tert-butyl ether      | ND           | ug/L  | 1.0             |
| Ethylbenzene                | ND           | ug/L  | 1.0             |
| 2-Hexanone                  | ND           | ug/L  | 5.0             |
| Methyl t-Butyl Ether        | ND           | ug/L  | 1.0             |
| 4-Methyl-2-Pentanone(MIBK)  | ND           | ug/L  | 5.0             |
| Methylene Chloride          | ND           | ug/L  | 1.0             |
| Styrene                     | ND           | ug/L  | 1.0             |
| 1,1,1,2-Tetrachloroethane   | ND           | ug/L  | 1.0             |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

|                           |     |      |          |
|---------------------------|-----|------|----------|
| 1,1,2,2-Tetrachloroethane | ND  | ug/L | 1.0      |
| Tetrachloroethene         | ND  | ug/L | 1.0      |
| Toluene                   | ND  | ug/L | 1.0      |
| Total Xylenes             | ND  | ug/L | 3.0      |
| 1,1,1-Trichloroethane     | ND  | ug/L | 1.0      |
| 1,1,2-Trichloroethane     | ND  | ug/L | 1.0      |
| Trichloroethene           | ND  | ug/L | 1.0      |
| Vinyl Chloride            | ND  | ug/L | 1.0      |
| o-Xylene                  | ND  | ug/L | 1.0      |
| mp-Xylene                 | ND  | ug/L | 2.0      |
| 1,2-Dichloroethane-d4 (S) | 101 | %    | 62 - 133 |
| 4-Bromofluorobenzene (S)  | 104 | %    | 79 - 114 |
| Dibromofluoromethane (S)  | 100 | %    | 78 - 116 |
| Toluene-d8 (S)            | 104 | %    | 76 - 127 |

#### LABORATORY CONTROL SAMPLE: 2485263

| Parameter                   | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | % Rec<br>Limit |
|-----------------------------|--------------|-------|----------------|---------------|----------------|
| Acetone                     | 113          | ug/L  | 100            | 113           | 40 - 151       |
| tert-Amyl methyl ether      | 84.1         | ug/L  | 20             | 16.8          | 75 - 121       |
| tert-Amyl Alcohol           | 94.2         | ug/L  | 100            | 94.2          | 70 - 130       |
| tert-Amyl Ethylether        | 116          | ug/L  | 20             | 23.1          | 70 - 130       |
| Benzene                     | 97.2         | ug/L  | 20             | 19.4          | 80 - 124       |
| Bromochloromethane          | 97.9         | ug/L  | 20             | 19.6          | 73 - 117       |
| Bromodichloromethane        | 97.9         | ug/L  | 20             | 19.6          | 79 - 126       |
| Bromoform                   | 86.6         | ug/L  | 20             | 17.3          | 70 - 123       |
| Bromomethane                | 103          | ug/L  | 20             | 20.7          | 45 - 148       |
| 2-Butanone                  | 100          | ug/L  | 100            | 100           | 50 - 152       |
| tert-Butyl Alcohol          | 93.9         | ug/L  | 100            | 93.9          | 17 - 168       |
| Carbon Disulfide            | 110          | ug/L  | 20             | 22.1          | 57 - 131       |
| Carbon Tetrachloride        | 98.6         | ug/L  | 20             | 19.7          | 62 - 132       |
| Chlorobenzene               | 89.5         | ug/L  | 20             | 17.9          | 85 - 117       |
| Chlorodibromomethane        | 96.3         | ug/L  | 20             | 19.3          | 77 - 122       |
| Chloroethane                | 98.3         | ug/L  | 20             | 19.7          | 51 - 142       |
| Chloroform                  | 109          | ug/L  | 20             | 21.9          | 78 - 122       |
| Chloromethane               | 116          | ug/L  | 20             | 23.2          | 38 - 156       |
| 1,2-Dibromo-3-chloropropane | 75.6         | ug/L  | 20             | 15.1          | 59 - 133       |
| 1,2-Dibromoethane           | 95.8         | ug/L  | 20             | 19.2          | 80 - 124       |
| 1,1-Dichloroethane          | 107          | ug/L  | 20             | 21.3          | 78 - 124       |
| 1,2-Dichloroethane          | 101          | ug/L  | 20             | 20.3          | 70 - 133       |
| 1,1-Dichloroethene          | 113          | ug/L  | 20             | 22.7          | 63 - 128       |
| cis-1,2-Dichloroethene      | 101          | ug/L  | 20             | 20.3          | 78 - 125       |
| trans-1,2-Dichloroethene    | 110          | ug/L  | 20             | 22.0          | 71 - 122       |
| 1,2-Dichloropropane         | 101          | ug/L  | 20             | 20.1          | 81 - 127       |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

|                            |      |      |     |      |          |
|----------------------------|------|------|-----|------|----------|
| cis-1,3-Dichloropropene    | 96.4 | ug/L | 20  | 19.3 | 81 - 121 |
| trans-1,3-Dichloropropene  | 99.9 | ug/L | 20  | 20.0 | 78 - 126 |
| Diisopropyl ether          | 104  | ug/L | 20  | 20.8 | 74 - 131 |
| Ethyl tert-butyl ether     | 90.2 | ug/L | 20  | 18.0 | 75 - 123 |
| Ethylbenzene               | 93.4 | ug/L | 20  | 18.7 | 80 - 124 |
| 2-Hexanone                 | 82.2 | ug/L | 100 | 82.2 | 65 - 154 |
| Methyl t-Butyl Ether       | 97.4 | ug/L | 20  | 19.5 | 69 - 115 |
| 4-Methyl-2-Pentanone(MIBK) | 102  | ug/L | 100 | 102  | 71 - 146 |
| Methylene Chloride         | 113  | ug/L | 20  | 22.5 | 76 - 121 |
| Styrene                    | 92.7 | ug/L | 20  | 18.5 | 79 - 123 |
| 1,1,1,2-Tetrachloroethane  | 97.9 | ug/L | 20  | 19.6 | 78 - 121 |
| 1,1,2,2-Tetrachloroethane  | 91.3 | ug/L | 20  | 18.3 | 74 - 135 |
| Tetrachloroethene          | 91.8 | ug/L | 20  | 18.4 | 72 - 124 |
| Toluene                    | 94.5 | ug/L | 20  | 18.9 | 80 - 125 |
| Total Xylenes              | 92.2 | ug/L | 60  | 55.3 | 79 - 125 |
| 1,1,1-Trichloroethane      | 101  | ug/L | 20  | 20.2 | 66 - 130 |
| 1,1,2-Trichloroethane      | 90.1 | ug/L | 20  | 18.0 | 82 - 126 |
| Trichloroethene            | 97   | ug/L | 20  | 19.4 | 77 - 124 |
| Vinyl Chloride             | 94.2 | ug/L | 20  | 18.8 | 27 - 138 |
| o-Xylene                   | 89.3 | ug/L | 20  | 17.9 | 79 - 124 |
| mp-Xylene                  | 93.7 | ug/L | 40  | 37.5 | 79 - 125 |
| 1,2-Dichloroethane-d4 (S)  | 101  | %    |     |      | 62 - 133 |
| 4-Bromofluorobenzene (S)   | 96.1 | %    |     |      | 79 - 114 |
| Dibromofluoromethane (S)   | 94.7 | %    |     |      | 78 - 116 |
| Toluene-d8 (S)             | 100  | %    |     |      | 76 - 127 |

MATRIX SPIKE: 2485343 DUPLICATE: 2485344 ORIGINAL: 2208103004

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD |
|--------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|
| Benzene                  | 0               | ug/L  | 20          | 21.3073   | 107        | 107      |           | 80 - 124    |     |         |
| 1,2-Dibromoethane        | 0               | ug/L  | 20          | 20.2609   | 101        | 101      |           | 80 - 124    |     |         |
| 1,1-Dichloroethane       | 0               | ug/L  | 20          | 23.0622   | 115        | 115      |           | 78 - 124    |     |         |
| 1,2-Dichloroethane       | 0               | ug/L  | 20          | 21.2184   | 106        | 106      |           | 70 - 133    |     |         |
| 1,1-Dichloroethene       | 0               | ug/L  | 20          | 26.6287   | 133*       | 133*     |           | 63 - 128    |     |         |
| cis-1,2-Dichloroethene   | 0               | ug/L  | 20          | 21.7333   | 109        | 109      |           | 78 - 125    |     |         |
| trans-1,2-Dichloroethene | 0               | ug/L  | 20          | 25.0911   | 125*       | 125*     |           | 71 - 122    |     |         |
| Ethylbenzene             | 0               | ug/L  | 20          | 21.974    | 110        | 110      |           | 80 - 124    |     |         |
| Methylene Chloride       | 0               | ug/L  | 20          | 21.5554   | 108        | 108      |           | 76 - 121    |     |         |
| Tetrachloroethene        | 0               | ug/L  | 20          | 22.3498   | 112        | 112      |           | 72 - 124    |     |         |
| Toluene                  | 0               | ug/L  | 20          | 21.9198   | 110        | 110      |           | 80 - 125    |     |         |
| Total Xylenes            | 0               | ug/L  | 60          | 63.6481   | 106        | 106      |           | 79 - 125    |     |         |
| 1,1,1-Trichloroethane    | 0               | ug/L  | 20          | 23.3665   | 117        | 117      |           | 66 - 130    |     |         |



### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

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|                           |      |      |    |         |     |      |          |
|---------------------------|------|------|----|---------|-----|------|----------|
| Trichloroethene           | 0    | ug/L | 20 | 22.9773 | 115 | 115  | 77 - 124 |
| Vinyl Chloride            | 0    | ug/L | 20 | 24.9587 | 125 | 125  | 27 - 138 |
| 1,2-Dichloroethane-d4 (S) | 99.1 | %    |    |         |     | 99.1 | 62 - 133 |
| 4-Bromofluorobenzene (S)  | 97.6 | %    |    |         |     | 97.6 | 79 - 114 |
| Dibromofluoromethane (S)  | 92.7 | %    |    |         |     | 92.7 | 78 - 116 |
| Toluene-d8 (S)            | 99   | %    |    |         |     | 99   | 76 - 127 |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

**QC Batch:** VOMS/42441

**Analysis Method:** SW846 8260B

**QC Batch Method:** SW846 5035

**Associated Lab Samples:** 2208112002, 2208112003, 2208112004, 2208112005, 2208112006, 2208112007, 2208112008, 2208112009

METHOD BLANK: 2485635

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acetone                     | ND           | ug/kg | 10.0            |
| tert-Amyl methyl ether      | ND           | ug/kg | 2.0             |
| tert-Amyl Alcohol           | ND           | ug/kg | 10.0            |
| tert-Amyl Ethylether        | ND           | ug/kg | 2.0             |
| Benzene                     | ND           | ug/kg | 2.0             |
| Bromochloromethane          | ND           | ug/kg | 2.0             |
| Bromodichloromethane        | ND           | ug/kg | 2.0             |
| Bromoform                   | ND           | ug/kg | 2.0             |
| Bromomethane                | ND           | ug/kg | 2.0             |
| 2-Butanone                  | ND           | ug/kg | 10.0            |
| tert-Butyl Alcohol          | ND           | ug/kg | 10.0            |
| Carbon Disulfide            | ND           | ug/kg | 2.0             |
| Carbon Tetrachloride        | ND           | ug/kg | 2.0             |
| Chlorobenzene               | ND           | ug/kg | 2.0             |
| Chlorodibromomethane        | ND           | ug/kg | 2.0             |
| Chloroethane                | ND           | ug/kg | 5.0             |
| Chloroform                  | 0.80J        | ug/kg | 2.0             |
| Chloromethane               | ND           | ug/kg | 2.0             |
| 1,2-Dibromo-3-chloropropane | ND           | ug/kg | 5.0             |
| 1,2-Dibromoethane           | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,2-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethene          | ND           | ug/kg | 2.0             |
| cis-1,2-Dichloroethene      | ND           | ug/kg | 2.0             |
| trans-1,2-Dichloroethene    | ND           | ug/kg | 2.0             |
| 1,2-Dichloropropane         | ND           | ug/kg | 2.0             |
| cis-1,3-Dichloropropene     | ND           | ug/kg | 2.0             |
| trans-1,3-Dichloropropene   | ND           | ug/kg | 2.0             |
| Diisopropyl ether           | ND           | ug/kg | 2.0             |
| Ethyl tert-butyl ether      | ND           | ug/kg | 2.0             |
| Ethylbenzene                | ND           | ug/kg | 2.0             |
| 2-Hexanone                  | ND           | ug/kg | 10.0            |
| Methyl t-Butyl Ether        | ND           | ug/kg | 2.0             |
| 4-Methyl-2-Pentanone(MIBK)  | ND           | ug/kg | 10.0            |
| Methylene Chloride          | 8.5          | ug/kg | 2.0             |
| Naphthalene                 | ND           | ug/kg | 2.0             |
| Styrene                     | ND           | ug/kg | 2.0             |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

|                           |      |       |          |
|---------------------------|------|-------|----------|
| 1,1,2,2-Tetrachloroethane | ND   | ug/kg | 2.0      |
| Tetrachloroethene         | ND   | ug/kg | 2.0      |
| Toluene                   | ND   | ug/kg | 2.0      |
| Total Xylenes             | ND   | ug/kg | 6.0      |
| 1,1,1-Trichloroethane     | ND   | ug/kg | 2.0      |
| 1,1,2-Trichloroethane     | ND   | ug/kg | 2.0      |
| Trichloroethene           | ND   | ug/kg | 2.0      |
| Vinyl Chloride            | ND   | ug/kg | 2.0      |
| o-Xylene                  | ND   | ug/kg | 2.0      |
| mp-Xylene                 | ND   | ug/kg | 4.0      |
| 1,2-Dichloroethane-d4 (S) | 73   | %     | 56 - 124 |
| 4-Bromofluorobenzene (S)  | 83.5 | %     | 51 - 128 |
| Dibromofluoromethane (S)  | 87.8 | %     | 62 - 123 |
| Toluene-d8 (S)            | 85.2 | %     | 59 - 131 |

LABORATORY CONTROL SAMPLE: 2485636 DUPLICATE: 2485637

| Parameter                   | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | LCSD<br>Result | LCSD %<br>Rec | % Rec<br>Limit | RPD  | Max |
|-----------------------------|--------------|-------|----------------|---------------|----------------|---------------|----------------|------|-----|
| Acetone                     | 113          | ug/kg | 100            | 113           | 120            | 120           | 58 - 146       | 5.8  | 40  |
| tert-Amyl methyl ether      | 117          | ug/kg | 20             | 23.4          | 24.0           | 120           | 79 - 123       | 2.6  | 40  |
| tert-Amyl Alcohol           | 87.5         | ug/kg | 100            | 87.5          | 97.3           | 97.3          | 70 - 130       | 10.6 | 40  |
| tert-Amyl Ethylether        | 96           | ug/kg | 20             | 19.2          | 20.6           | 103           | 70 - 130       | 7.2  | 40  |
| Benzene                     | 104          | ug/kg | 20             | 20.7          | 20.8           | 104           | 75 - 132       | .52  | 40  |
| Bromochloromethane          | 115          | ug/kg | 20             | 23.1          | 23.4           | 117           | 71 - 120       | 1.5  | 40  |
| Bromodichloromethane        | 110          | ug/kg | 20             | 22.0          | 22.2           | 111           | 74 - 127       | .73  | 40  |
| Bromoform                   | 94.8         | ug/kg | 20             | 19.0          | 20.0           | 100           | 68 - 131       | 5.3  | 40  |
| Bromomethane                | 85.8         | ug/kg | 20             | 17.2          | 17.1           | 85.3          | 43 - 148       | .51  | 40  |
| 2-Butanone                  | 104          | ug/kg | 100            | 104           | 108            | 108           | 64 - 148       | 3.8  | 40  |
| tert-Butyl Alcohol          | 103          | ug/kg | 100            | 103           | 117            | 117           | 51 - 152       | 12.4 | 40  |
| Carbon Disulfide            | 109          | ug/kg | 20             | 21.8          | 21.9           | 110           | 47 - 144       | .44  | 40  |
| Carbon Tetrachloride        | 103          | ug/kg | 20             | 20.6          | 21.1           | 105           | 64 - 136       | 2.1  | 40  |
| Chlorobenzene               | 104          | ug/kg | 20             | 20.7          | 20.1           | 101           | 76 - 125       | 2.9  | 40  |
| Chlorodibromomethane        | 109          | ug/kg | 20             | 21.9          | 21.5           | 108           | 75 - 124       | 1.5  | 40  |
| Chloroethane                | 86.1         | ug/kg | 20             | 17.2          | 17.3           | 86.5          | 1 - 141        | .5   | 40  |
| Chloroform                  | 106          | ug/kg | 20             | 21.3          | 21.6           | 108           | 73 - 126       | 1.5  | 40  |
| Chloromethane               | 111          | ug/kg | 20             | 22.2          | 22.0           | 110           | 44 - 139       | 1    | 40  |
| 1,2-Dibromo-3-chloropropane | 72.8         | ug/kg | 20             | 14.6          | 15.7           | 78.4          | 52 - 151       | 7.3  | 40  |
| 1,2-Dibromoethane           | 109          | ug/kg | 20             | 21.7          | 22.1           | 111           | 76 - 127       | 2    | 40  |
| 1,1-Dichloroethane          | 106          | ug/kg | 20             | 21.3          | 21.3           | 106           | 74 - 131       | .042 | 40  |
| 1,2-Dichloroethane          | 101          | ug/kg | 20             | 20.2          | 20.3           | 102           | 69 - 132       | .67  | 40  |
| 1,1-Dichloroethene          | 113          | ug/kg | 20             | 22.5          | 22.2           | 111           | 59 - 139       | 1.5  | 40  |
| cis-1,2-Dichloroethene      | 108          | ug/kg | 20             | 21.6          | 21.1           | 106           | 75 - 128       | 2.3  | 40  |
| trans-1,2-Dichloroethene    | 115          | ug/kg | 20             | 23.1          | 22.8           | 114           | 66 - 133       | 1.1  | 40  |
| 1,2-Dichloropropane         | 105          | ug/kg | 20             | 21.1          | 21.4           | 107           | 78 - 131       | 1.4  | 40  |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

|                            |      |       |     |      |      |      |          |       |    |
|----------------------------|------|-------|-----|------|------|------|----------|-------|----|
| cis-1,3-Dichloropropene    | 82.6 | ug/kg | 20  | 16.5 | 16.6 | 83.2 | 76 - 123 | .67   | 40 |
| trans-1,3-Dichloropropene  | 102  | ug/kg | 20  | 20.4 | 21.1 | 105  | 77 - 123 | 3.1   | 40 |
| Diisopropyl ether          | 102  | ug/kg | 20  | 20.5 | 20.9 | 104  | 71 - 128 | 1.9   | 40 |
| Ethyl tert-butyl ether     | 87.1 | ug/kg | 20  | 17.4 | 18.1 | 90.5 | 75 - 121 | 3.9   | 40 |
| Ethylbenzene               | 101  | ug/kg | 20  | 20.3 | 20.0 | 99.9 | 73 - 133 | 1.4   | 40 |
| 2-Hexanone                 | 72.1 | ug/kg | 100 | 72.1 | 75.4 | 75.4 | 62 - 147 | 4.4   | 40 |
| Methyl t-Butyl Ether       | 115  | ug/kg | 20  | 22.9 | 23.6 | 118  | 70 - 118 | 3     | 40 |
| 4-Methyl-2-Pentanone(MIBK) | 78   | ug/kg | 100 | 78.0 | 80.1 | 80.1 | 64 - 143 | 2.7   | 40 |
| Methylene Chloride         | 149* | ug/kg | 20  | 29.8 | 29.0 | 145* | 68 - 133 | 2.7   | 40 |
| Naphthalene                | 84.1 | ug/kg | 20  | 16.8 | 18.8 | 93.8 | 60 - 146 | 11    | 40 |
| Styrene                    | 92.2 | ug/kg | 20  | 18.4 | 18.5 | 92.7 | 77 - 130 | .47   | 40 |
| 1,1,2,2-Tetrachloroethane  | 88.5 | ug/kg | 20  | 17.7 | 18.3 | 91.3 | 72 - 134 | 3.1   | 40 |
| Tetrachloroethene          | 110  | ug/kg | 20  | 21.9 | 21.6 | 108  | 58 - 137 | 1.2   | 40 |
| Toluene                    | 103  | ug/kg | 20  | 20.6 | 20.5 | 102  | 73 - 129 | .38   | 40 |
| Total Xylenes              | 104  | ug/kg | 60  | 62.7 | 61.9 | 103  | 73 - 130 | 1.2   | 40 |
| 1,1,1-Trichloroethane      | 97.8 | ug/kg | 20  | 19.6 | 19.7 | 98.3 | 68 - 131 | .51   | 40 |
| 1,1,2-Trichloroethane      | 97.6 | ug/kg | 20  | 19.5 | 19.6 | 97.8 | 79 - 123 | .22   | 40 |
| Trichloroethene            | 107  | ug/kg | 20  | 21.4 | 21.4 | 107  | 72 - 129 | .0089 | 40 |
| Vinyl Chloride             | 107  | ug/kg | 20  | 21.5 | 21.3 | 106  | 53 - 141 | .95   | 40 |
| o-Xylene                   | 104  | ug/kg | 20  | 20.8 | 20.7 | 104  | 75 - 129 | .29   | 40 |
| mp-Xylene                  | 105  | ug/kg | 40  | 41.9 | 41.2 | 103  | 72 - 130 | 1.6   | 40 |
| 1,2-Dichloroethane-d4 (S)  | 77   | %     |     |      | 77   |      | 56 - 124 |       |    |
| 4-Bromofluorobenzene (S)   | 81.1 | %     |     |      | 81.1 |      | 51 - 128 |       |    |
| Dibromofluoromethane (S)   | 87.1 | %     |     |      | 87.1 |      | 62 - 123 |       |    |
| Toluene-d8 (S)             | 83   | %     |     |      | 83   |      | 59 - 131 |       |    |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

**QC Batch:** WCPR/39226      **Analysis Method:** SW846 7196A  
**QC Batch Method:** SW846 3060A  
**Associated Lab Samples:** 2208112009

#### METHOD BLANK: 2490893

| Parameter           | Blank Result | Units | Reporting Limit |
|---------------------|--------------|-------|-----------------|
| Hexavalent Chromium | ND           | mg/kg | 2.0             |

#### LABORATORY CONTROL SAMPLE: 2490894

| Parameter           | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|---------------------|-----------|-------|-------------|------------|-------------|
| Hexavalent Chromium | 96.3      | mg/kg | 19.8        | 19.1       | 80 - 120    |

#### SAMPLE DUPLICATE: 2490895 ORIGINAL: 2210200003

| Parameter           | Original Result | Units | DUP Result | RPD | Max RPD |
|---------------------|-----------------|-------|------------|-----|---------|
| Hexavalent Chromium | 0               | mg/kg | 0          | NC  | 20      |

#### MATRIX SPIKE SAMPLE: 2490896 ORIGINAL: 2210200003

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter           | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|---------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Hexavalent Chromium | 0               | mg/kg | 38.8        | 1.0155    | 2.62*    | 75 - 125    |

#### MATRIX SPIKE SAMPLE: 2490897 ORIGINAL: 2210200003

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter           | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|---------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Hexavalent Chromium | 0               | mg/kg | 632         | 438.7114  | 69.4*    | 75 - 125    |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

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MATRIX SPIKE SAMPLE: 2490898 ORIGINAL: 2210200003

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter           | Original<br>Result | Units | Spike<br>Conc. | MS<br>Result | MS %<br>Rec | % Rec<br>Limit |
|---------------------|--------------------|-------|----------------|--------------|-------------|----------------|
| Hexavalent Chromium | 0                  | mg/kg | 39.1           | 10.94531     | 28*         | 85 - 115       |

### QUALITY CONTROL DATA

Workorder: 2208112 Chase Lands Phase II

**QC Batch:** WETC/182945 **Analysis Method:** S2540G-11

**QC Batch Method:** S2540G-11

**Associated Lab Samples:** 2208112002, 2208112003, 2208112004, 2208112005, 2208112006, 2208112007, 2208112008, 2208112009

SAMPLE DUPLICATE: 2485358 ORIGINAL: 2207325001

| Parameter    | Original Result | Units | DUP Result | RPD   | Max RPD |
|--------------|-----------------|-------|------------|-------|---------|
| Moisture     | 9.8901          | %     | 8.132      | 19.5* | 10      |
| Total Solids | 90.1098         | %     | 91.8679    | 1.93  | 5       |

SAMPLE DUPLICATE: 2485359 ORIGINAL: 2208040001

| Parameter    | Original Result | Units | DUP Result | RPD   | Max RPD |
|--------------|-----------------|-------|------------|-------|---------|
| Moisture     | 73.2171         | %     | 69.8996    | 4.64  | 10      |
| Total Solids | 26.7828         | %     | 30.1003    | 11.7* | 5       |

SAMPLE DUPLICATE: 2485360 ORIGINAL: 2208081008

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Moisture     | 16.6023         | %     | 16.2735    | 2   | 10      |
| Total Solids | 83.3976         | %     | 83.7264    | .39 | 5       |

SAMPLE DUPLICATE: 2485361 ORIGINAL: 2208085002

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 13.7241         | %     | 13.3863    | 2.49 | 10      |
| Total Solids | 86.2758         | %     | 86.6136    | .39  | 5       |

SAMPLE DUPLICATE: 2485362 ORIGINAL: 2208112003

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Moisture     | 16.4351         | %     | 16.3349    | .61 | 10      |
| Total Solids | 83.5648         | %     | 83.665     | .12 | 5       |



## QUALITY CONTROL DATA QUALIFIERS

Workorder: 2208112 Chase Lands Phase II

### QUALITY CONTROL PARAMETER QUALIFIERS

| Lab ID                                                                                                                                                                                     | # | Sample Type          | Analytical Method | Analyte            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----------------------|-------------------|--------------------|
| <b>2485635</b>                                                                                                                                                                             | 1 | Method Blank         | SW846 8260B       | Methylene Chloride |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                              |   |                      |                   |                    |
| <b>2485636</b>                                                                                                                                                                             | 2 | Lab Control Standard | SW846 8260B       | Methylene Chloride |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 149 and the control limits were 68 to 133. |   |                      |                   |                    |
| <b>2488352</b>                                                                                                                                                                             | 3 | Duplicate            | SW846 8270D       | Benzo(a)anthracene |
| The QC sample type DUP for method SW846 8270D was outside the control limits for the analyte Benzo(a)anthracene. The RPD was reported as 200 and the upper control limit is 22.            |   |                      |                   |                    |

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2208112 Chase Lands Phase II

| Lab ID     | Sample ID   | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|-------------|-------------|------------|-----------------|----------------|
| 2208112001 | TB-03       |             |            | SW846 8260B     | VOMS/42438     |
| 2208112002 | DUP-02      | SW846 7471B | MDIG/62596 | SW846 7471B     | META/56113     |
| 2208112003 | CL-ISM-S-C5 | SW846 7471B | MDIG/62596 | SW846 7471B     | META/56113     |
| 2208112004 | CL-SAW-S-B1 | SW846 7471B | MDIG/62596 | SW846 7471B     | META/56113     |
| 2208112005 | CL-SAW-S-D1 | SW846 7471B | MDIG/62596 | SW846 7471B     | META/56113     |
| 2208112006 | CL-SAW-S-D2 | SW846 7471B | MDIG/62596 | SW846 7471B     | META/56113     |
| 2208112007 | CL-SAW-S-D4 | SW846 7471B | MDIG/62596 | SW846 7471B     | META/56113     |
| 2208112008 | CL-SAW-S-E2 | SW846 7471B | MDIG/62596 | SW846 7471B     | META/56113     |
| 2208112009 | CL-SAW-S-E3 | SW846 7471B | MDIG/62596 | SW846 7471B     | META/56113     |
| 2208112002 | DUP-02      |             |            | S2540G-11       | WETC/182945    |
| 2208112003 | CL-ISM-S-C5 |             |            | S2540G-11       | WETC/182945    |
| 2208112004 | CL-SAW-S-B1 |             |            | S2540G-11       | WETC/182945    |
| 2208112005 | CL-SAW-S-D1 |             |            | S2540G-11       | WETC/182945    |
| 2208112006 | CL-SAW-S-D2 |             |            | S2540G-11       | WETC/182945    |
| 2208112007 | CL-SAW-S-D4 |             |            | S2540G-11       | WETC/182945    |
| 2208112008 | CL-SAW-S-E2 |             |            | S2540G-11       | WETC/182945    |
| 2208112009 | CL-SAW-S-E3 |             |            | S2540G-11       | WETC/182945    |
| 2208112002 | DUP-02      | SW846 5035  | VOMS/42441 | SW846 8260B     | VOMS/42442     |
| 2208112003 | CL-ISM-S-C5 | SW846 5035  | VOMS/42441 | SW846 8260B     | VOMS/42442     |
| 2208112004 | CL-SAW-S-B1 | SW846 5035  | VOMS/42441 | SW846 8260B     | VOMS/42442     |
| 2208112005 | CL-SAW-S-D1 | SW846 5035  | VOMS/42441 | SW846 8260B     | VOMS/42442     |
| 2208112006 | CL-SAW-S-D2 | SW846 5035  | VOMS/42441 | SW846 8260B     | VOMS/42442     |
| 2208112007 | CL-SAW-S-D4 | SW846 5035  | VOMS/42441 | SW846 8260B     | VOMS/42442     |
| 2208112008 | CL-SAW-S-E2 | SW846 5035  | VOMS/42441 | SW846 8260B     | VOMS/42442     |
| 2208112009 | CL-SAW-S-E3 | SW846 5035  | VOMS/42441 | SW846 8260B     | VOMS/42442     |
| 2208112002 | DUP-02      | SW846 3051  | MDIG/62673 | SW846 6020A     | META/56160     |
| 2208112003 | CL-ISM-S-C5 | SW846 3051  | MDIG/62673 | SW846 6020A     | META/56160     |
| 2208112004 | CL-SAW-S-B1 | SW846 3051  | MDIG/62673 | SW846 6020A     | META/56160     |

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2208112 Chase Lands Phase II

| Lab ID     | Sample ID   | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|-------------|-------------|------------|-----------------|----------------|
| 2208112005 | CL-SAW-S-D1 | SW846 3051  | MDIG/62673 | SW846 6020A     | META/56160     |
| 2208112006 | CL-SAW-S-D2 | SW846 3051  | MDIG/62673 | SW846 6020A     | META/56160     |
| 2208112007 | CL-SAW-S-D4 | SW846 3051  | MDIG/62673 | SW846 6020A     | META/56160     |
| 2208112008 | CL-SAW-S-E2 | SW846 3051  | MDIG/62673 | SW846 6020A     | META/56160     |
| 2208112009 | CL-SAW-S-E3 | SW846 3051  | MDIG/62673 | SW846 6020A     | META/56160     |
| 2208112002 | DUP-02      | SW846 5035  | VOGC/9388  | SW846 8015D     | VOGC/9389      |
| 2208112003 | CL-ISM-S-C5 | SW846 5035  | VOGC/9388  | SW846 8015D     | VOGC/9389      |
| 2208112004 | CL-SAW-S-B1 | SW846 5035  | VOGC/9388  | SW846 8015D     | VOGC/9389      |
| 2208112005 | CL-SAW-S-D1 | SW846 5035  | VOGC/9388  | SW846 8015D     | VOGC/9389      |
| 2208112006 | CL-SAW-S-D2 | SW846 5035  | VOGC/9388  | SW846 8015D     | VOGC/9389      |
| 2208112007 | CL-SAW-S-D4 | SW846 5035  | VOGC/9388  | SW846 8015D     | VOGC/9389      |
| 2208112008 | CL-SAW-S-E2 | SW846 5035  | VOGC/9388  | SW846 8015D     | VOGC/9389      |
| 2208112009 | CL-SAW-S-E3 | SW846 5035  | VOGC/9388  | SW846 8015D     | VOGC/9389      |
| 2208112002 | DUP-02      | SW846 3546  | EXTR/46764 | SW846 8082A     | SVGC/44550     |
| 2208112003 | CL-ISM-S-C5 | SW846 3546  | EXTR/46764 | SW846 8082A     | SVGC/44550     |
| 2208112004 | CL-SAW-S-B1 | SW846 3546  | EXTR/46764 | SW846 8082A     | SVGC/44550     |
| 2208112005 | CL-SAW-S-D1 | SW846 3546  | EXTR/46764 | SW846 8082A     | SVGC/44550     |
| 2208112002 | DUP-02      | SW846 3546  | EXTR/46765 | SW846 8081B     | SVGC/44551     |
| 2208112003 | CL-ISM-S-C5 | SW846 3546  | EXTR/46765 | SW846 8081B     | SVGC/44551     |
| 2208112004 | CL-SAW-S-B1 | SW846 3546  | EXTR/46765 | SW846 8081B     | SVGC/44551     |
| 2208112005 | CL-SAW-S-D1 | SW846 3546  | EXTR/46765 | SW846 8081B     | SVGC/44551     |
| 2208112002 | DUP-02      | SW846 3546  | EXTR/46777 | SW846 8270D     | SVMS/27610     |
| 2208112003 | CL-ISM-S-C5 | SW846 3546  | EXTR/46777 | SW846 8270D     | SVMS/27610     |
| 2208112004 | CL-SAW-S-B1 | SW846 3546  | EXTR/46777 | SW846 8270D     | SVMS/27623     |
| 2208112005 | CL-SAW-S-D1 | SW846 3546  | EXTR/46777 | SW846 8270D     | SVMS/27623     |
| 2208112006 | CL-SAW-S-D2 | SW846 3546  | EXTR/46777 | SW846 8270D     | SVMS/27638     |
| 2208112007 | CL-SAW-S-D4 | SW846 3546  | EXTR/46777 | SW846 8270D     | SVMS/27638     |
| 2208112008 | CL-SAW-S-E2 | SW846 3546  | EXTR/46777 | SW846 8270D     | SVMS/27638     |

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2208112 Chase Lands Phase II

| Lab ID     | Sample ID   | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|-------------|-------------|------------|-----------------|----------------|
| 2208112009 | CL-SAW-S-E3 | SW846 3546  | EXTR/46777 | SW846 8270D     | SVMS/27638     |
| 2208112006 | CL-SAW-S-D2 | SW846 3546  | EXTR/46784 | SW846 8082A     | SVGC/44561     |
| 2208112006 | CL-SAW-S-D2 | SW846 3546  | EXTR/46785 | SW846 8081B     | SVGC/44566     |
| 2208112002 | DUP-02      | SW846 3546  | EXTR/46806 | SW846 8015D     | SVGC/44578     |
| 2208112003 | CL-ISM-S-C5 | SW846 3546  | EXTR/46806 | SW846 8015D     | SVGC/44578     |
| 2208112004 | CL-SAW-S-B1 | SW846 3546  | EXTR/46806 | SW846 8015D     | SVGC/44578     |
| 2208112005 | CL-SAW-S-D1 | SW846 3546  | EXTR/46806 | SW846 8015D     | SVGC/44578     |
| 2208112006 | CL-SAW-S-D2 | SW846 3546  | EXTR/46806 | SW846 8015D     | SVGC/44578     |
| 2208112007 | CL-SAW-S-D4 | SW846 3546  | EXTR/46806 | SW846 8015D     | SVGC/44578     |
| 2208112008 | CL-SAW-S-E2 | SW846 3546  | EXTR/46806 | SW846 8015D     | SVGC/44578     |
| 2208112009 | CL-SAW-S-E3 | SW846 3546  | EXTR/46806 | SW846 8015D     | SVGC/44578     |
| 2208112007 | CL-SAW-S-D4 | SW846 3546  | EXTR/46807 | SW846 8082A     | SVGC/44572     |
| 2208112008 | CL-SAW-S-E2 | SW846 3546  | EXTR/46807 | SW846 8082A     | SVGC/44572     |
| 2208112009 | CL-SAW-S-E3 | SW846 3546  | EXTR/46807 | SW846 8082A     | SVGC/44572     |
| 2208112007 | CL-SAW-S-D4 | SW846 3546  | EXTR/46808 | SW846 8081B     | SVGC/44581     |
| 2208112008 | CL-SAW-S-E2 | SW846 3546  | EXTR/46808 | SW846 8081B     | SVGC/44581     |
| 2208112009 | CL-SAW-S-E3 | SW846 3546  | EXTR/46808 | SW846 8081B     | SVGC/44581     |
| 2208112009 | CL-SAW-S-E3 | SW846 3060A | WCPR/39226 | SW846 7196A     | WETC/183416    |



**Environmetal**

34 Dogwood Lane  
Middletown, PA 17057  
P. 717-944-5541  
F. 717-944-1430

# CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT /  
SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 2  
Courier:  
Tracking #:



Co. Name: **Howard County DPW (EA Engineering)**  
Contact (Report to): **Nita Blackwell** Phone: **410-313-3440**  
Address: **Nelson Brooks** **410-584-7000**  
**3430 Courthouse Dr**  
**Ellicott City, MD 21043**

Bill to (if different than Report to): **Nita Blackwell** PO#:

Project Name: **Chase Lands Phase II** ALS Quote #:

TAT: ☒ Normal-Standard TAT is 10-12 business days.  
☐ Rush-Subject to ALS approval and surcharges.

Email? ☒ Y ☐ N ☐ No. **nblackwell@harcourtcounty.net**  
Fax? ☐ Y ☐ N ☐ No. **nblackwell@harcourtcounty.net**

| Sample Description/Location<br>(as it will appear on the job report) | COC Comments | Sample Date | Military Time |
|----------------------------------------------------------------------|--------------|-------------|---------------|
| 1 TB-D3                                                              |              |             |               |
| 2 DUP-02                                                             |              | 2/13/17     |               |
| 3 CL-15M-S-C5                                                        |              | 1410        |               |
| 4 CL-SAW-S-B1                                                        |              | 1220        |               |
| 5 CL-SAW-S-D1                                                        |              | 1110        |               |
| 6 CL-SAW-S-D2                                                        |              | 1150        |               |
| 7 CL-SAW-S-D4                                                        |              | 0900        |               |
| 8 CL-SAW-S-E2                                                        |              | 1040        |               |

Project Comments:

SAMPLED BY (Please Print):

**Michael Thornton**

| Relinquished By / Company Name | Date    | Time | Received By / Company Name | Date | Time |
|--------------------------------|---------|------|----------------------------|------|------|
| 1 <b>Michael Thornton</b>      | 2/13/17 | 1500 | 2 <b>Quana</b>             | 2/13 | 1505 |
| 3 <b>Quana</b>                 | 2/13    |      | 4 <b>Quana</b>             | 2/13 | 1630 |
| 5 <b>Quana</b>                 |         |      | 6 <b>Quana</b>             | 2/13 | 2020 |
| 7                              |         |      | 8                          |      |      |
| 9                              |         |      | 10                         |      |      |

\* Gr/Grb; Co/Composite

Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

\*\*Matrix: Ab-Air; DW=Drinking Water; GW=Groundwater; O=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

\*\*\*Container Type: AG-Amber Glass; CG-Clear Glass; PL-Plastic. Container Size: 250ml, 500ml, 1L, 5oz., etc. Preservative: HCl, HNO3, NaOH, etc.

Rev 01-2013

ALS





34 Dogwood Lane  
Middletown, PA 17057  
P. 717-944-5541  
F. 717-944-1430

# Environmental

## CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT /  
SAMPLER. INSTRUCTIONS ON THE BACK.

Page 2 of 2  
Courier: SJB  
Tracking #: \_\_\_\_\_

COC#

112

Co. Name: Howard County DPW (EA Engineering)  
Contact (Report to): N.Y. Blackwell Phone: 410-313-3440  
Address: Nelson Brooks 410-584-7000  
3430 Courthouse Dr  
Ellicott City, MD 21043

Bill to (if different than Report to): N.Y. Blackwell PO#:

Project Name/ID: Chase Lands Phase II ALS Quote #:

TAT: ☒ Normal Standard TAT is 10-12 business days.  
☐ Rush-Subject to ALS approval and surcharges.

Email? ☒ Y nblackwell@howardcountymd.gov / nbrooks@eaaction  
Fax? ☐ Y No:

Sample Description/Location (as it will appear on the lab report)

1 CL-SAW-S-E3

2

3

4

5

6

7

8

SAMPLED BY (Please Print):

Michael Thornton

Relinquished By / Company Name

1 Nelson Brooks Date 2/13/17 Time 1500

3 N.Y. Blackwell Date 2/13 Time 1630

5 N.Y. Blackwell Date 2/13 Time 1630

7

9

Project Comments:

Container Type TC C  
Container Size 40ml 40ml 80z  
Preservative DI MAOH None

ANALYSIS/METHOD REQUESTED

8260-VOC & Oxygenates

TPH GPO

8270-SVOC, TPH, DRO,

PCBs, PFAS, PAHs, RDX, etc.

Enter Number of Containers Per Analysis

8260-VOC & Oxygenates 4 1 1

TPH GPO 1

8270-SVOC, TPH, DRO, 1

PCBs, PFAS, PAHs, RDX, etc. 1

Receipt Information (Completed by Sampler/Receiver)  
Received By: MAOH  
Cooler Temp: 1  
Therm ID: 352  
No. of Coolers: \_\_\_\_\_  
Notes: \_\_\_\_\_

Correct container? Y N

Correct sample volume? Y N

Correct preservation? Y N

Headspace/Volatiles? Y N

COC Labels complete/accurate? Y N

Received on ice? Y N

(If present) Seals intact? Y N

Custody seals Present? Y N

Container in good condition? Y N

Circle appropriate Y or N.

ALS FIELD SERVICES

Pickup ☐

Labor ☐

Composite Sampling ☐

Rental Equipment ☐

Other: ☐

State Samples Collected in?

MD ☐

NJ ☐

NY ☐

PA ☐

SDWA Form? ☐

yes ☐

yes ☐

yes ☐

yes ☐

Other ☐

Standard ☐

CLP-like ☐

NJ-Reduced ☐

NJ-Full ☐

yes ☐

yes ☐

yes ☐

yes ☐

Data Deliverables

Required? ☐

If yes, format type: ☐

Other ☐

DOB Criteria Required?

February 24, 2017

Ms. Tara Lamond  
EA Engineering-MD  
225 Schilling Circle  
Hunt Valley, MD 21031

## Certificate of Analysis

|                                            |                                           |
|--------------------------------------------|-------------------------------------------|
| Project Name: <b>2017-REV2-MDE SOIL/GW</b> | Workorder: <b>2208399</b>                 |
| Purchase Order:                            | Workorder ID: <b>Chase Lands Phase II</b> |

Dear Ms. Lamond:

Enclosed are the analytical results for samples received by the laboratory on Tuesday, February 14, 2017.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

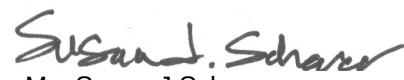
Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at [www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads](http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads).

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Michael Thornton , Mr. Hugh Murphy , Mr. Nelson Brooks , Ms. Niti Blackwell

*This page is included as part of the Analytical Report and must be retained as a permanent record thereof.*

  
Ms. Susan J Scherer  
Project Coordinator



**SAMPLE SUMMARY**

Workorder: 2208399 Chase Lands Phase II

| Lab ID     | Sample ID   | Matrix | Date Collected  | Date Received   | Collected By |
|------------|-------------|--------|-----------------|-----------------|--------------|
| 2208399001 | TB-04       | Water  | 2/14/2017 21:15 | 2/14/2017 21:15 | Mr. Michael  |
| 2208399002 | DUP-03      | Solid  | 2/14/2017 00:00 | 2/14/2017 21:15 | Mr. Michael  |
| 2208399003 | DUP-04      | Solid  | 2/14/2017 00:00 | 2/14/2017 21:15 | Mr. Michael  |
| 2208399004 | CL-ISM-S-A4 | Solid  | 2/14/2017 13:40 | 2/14/2017 21:15 | Mr. Michael  |
| 2208399005 | CL-ISM-S-B4 | Solid  | 2/14/2017 13:00 | 2/14/2017 21:15 | Mr. Michael  |
| 2208399006 | CL-ISM-S-C4 | Solid  | 2/14/2017 12:30 | 2/14/2017 21:15 | Mr. Michael  |
| 2208399007 | CL-ISM-S-D4 | Solid  | 2/14/2017 10:40 | 2/14/2017 21:15 | Mr. Michael  |
| 2208399008 | CL-ISM-S-D5 | Solid  | 2/14/2017 08:15 | 2/14/2017 21:15 | Mr. Michael  |
| 2208399009 | CL-ISM-S-E4 | Solid  | 2/14/2017 10:00 | 2/14/2017 21:15 | Mr. Michael  |
| 2208399010 | CL-ISM-S-E5 | Solid  | 2/14/2017 09:20 | 2/14/2017 21:15 | Mr. Michael  |
| 2208399011 | CL-SAW-S-D3 | Solid  | 2/14/2017 16:30 | 2/14/2017 21:15 | Mr. Michael  |

## SAMPLE SUMMARY

Workorder: 2208399 Chase Lands Phase II

### Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.

### Standard Acronyms/Flags

|        |                                                                                                                                      |
|--------|--------------------------------------------------------------------------------------------------------------------------------------|
| J      | Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte     |
| U      | Indicates that the analyte was Not Detected (ND)                                                                                     |
| N      | Indicates presumptive evidence of the presence of a compound                                                                         |
| MDL    | Method Detection Limit                                                                                                               |
| PQL    | Practical Quantitation Limit                                                                                                         |
| RDL    | Reporting Detection Limit                                                                                                            |
| ND     | Not Detected - indicates that the analyte was Not Detected at the RDL                                                                |
| Cntr   | Analysis was performed using this container                                                                                          |
| RegLmt | Regulatory Limit                                                                                                                     |
| LCS    | Laboratory Control Sample                                                                                                            |
| MS     | Matrix Spike                                                                                                                         |
| MSD    | Matrix Spike Duplicate                                                                                                               |
| DUP    | Sample Duplicate                                                                                                                     |
| %Rec   | Percent Recovery                                                                                                                     |
| RPD    | Relative Percent Difference                                                                                                          |
| LOD    | DoD Limit of Detection                                                                                                               |
| LOQ    | DoD Limit of Quantitation                                                                                                            |
| DL     | DoD Detection Limit                                                                                                                  |
| I      | Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL) |
| (S)    | Surrogate Compound                                                                                                                   |
| NC     | Not Calculated                                                                                                                       |
| *      | Result outside of QC limits                                                                                                          |

## PROJECT SUMMARY

Workorder: 2208399 Chase Lands Phase II

### Workorder Comments

Hexavalent chromium analysis was performed on samples with a total chromium result greater than 30 mg/kg based on instructions from Hugh Murphy. SJS 02/22/17

### Sample Comments

**Lab ID:** 2208399002**Sample ID:** DUP-03**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208399003**Sample ID:** DUP-04**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208399004**Sample ID:** CL-ISM-S-A4**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208399005**Sample ID:** CL-ISM-S-B4**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208399006**Sample ID:** CL-ISM-S-C4**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208399007**Sample ID:** CL-ISM-S-D4**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208399008**Sample ID:** CL-ISM-S-D5**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208399009**Sample ID:** CL-ISM-S-E4**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208399010**Sample ID:** CL-ISM-S-E5**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208399011**Sample ID:** CL-SAW-S-D3**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399001**

Date Collected: 2/14/2017 21:15

Matrix: Water

Sample ID: **TB-04**

Date Received: 2/14/2017 21:15

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------|---------------|-----|------|
| <b>VOLATILE ORGANICS</b>    |         |      |       |      |      |             |             |               |     |      |
| Acetone                     | 8.9J    | J    | ug/L  | 10.0 | 3.1  | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| tert-Amyl methyl ether      | ND      |      | ug/L  | 1.0  | 0.20 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| tert-Amyl Alcohol           | ND      |      | ug/L  | 10.0 | 6.6  | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| tert-Amyl Ethylether        | ND      |      | ug/L  | 1.0  | 0.29 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| Benzene                     | ND      |      | ug/L  | 1.0  | 0.23 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| Bromochloromethane          | ND      |      | ug/L  | 1.0  | 0.32 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| Bromodichloromethane        | ND      |      | ug/L  | 1.0  | 0.27 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| Bromoform                   | ND      |      | ug/L  | 1.0  | 0.40 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| Bromomethane                | ND      |      | ug/L  | 1.0  | 0.39 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| 2-Butanone                  | ND      |      | ug/L  | 10.0 | 1.8  | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| tert-Butyl Alcohol          | ND      |      | ug/L  | 10.0 | 2.2  | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| Carbon Disulfide            | ND      |      | ug/L  | 1.0  | 0.23 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| Carbon Tetrachloride        | ND      |      | ug/L  | 1.0  | 0.31 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| Chlorobenzene               | ND      |      | ug/L  | 1.0  | 0.19 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| Chlorodibromomethane        | ND      |      | ug/L  | 1.0  | 0.45 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| Chloroethane                | ND      |      | ug/L  | 1.0  | 0.33 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| Chloroform                  | ND      |      | ug/L  | 1.0  | 0.21 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| Chloromethane               | ND      |      | ug/L  | 1.0  | 0.31 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| 1,2-Dibromo-3-chloropropane | ND      |      | ug/L  | 7.0  | 1.5  | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| 1,2-Dibromoethane           | ND      |      | ug/L  | 1.0  | 0.28 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| 1,1-Dichloroethane          | ND      |      | ug/L  | 1.0  | 0.28 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| 1,2-Dichloroethane          | ND      |      | ug/L  | 1.0  | 0.32 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| 1,1-Dichloroethene          | ND      |      | ug/L  | 1.0  | 0.29 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| cis-1,2-Dichloroethene      | ND      |      | ug/L  | 1.0  | 0.32 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| trans-1,2-Dichloroethene    | ND      |      | ug/L  | 1.0  | 0.26 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| 1,2-Dichloropropane         | ND      |      | ug/L  | 1.0  | 0.24 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| cis-1,3-Dichloropropene     | ND      |      | ug/L  | 1.0  | 0.31 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| trans-1,3-Dichloropropene   | ND      |      | ug/L  | 1.0  | 0.29 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| Diisopropyl ether           | ND      |      | ug/L  | 1.0  | 0.25 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| Ethyl tert-butyl ether      | ND      |      | ug/L  | 1.0  | 0.19 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| Ethylbenzene                | ND      |      | ug/L  | 1.0  | 0.34 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| 2-Hexanone                  | ND      |      | ug/L  | 5.0  | 1.3  | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| Methyl t-Butyl Ether        | ND      |      | ug/L  | 1.0  | 0.33 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| 4-Methyl-2-Pentanone(MIBK)  | ND      |      | ug/L  | 5.0  | 1.5  | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| Methylene Chloride          | ND      |      | ug/L  | 1.0  | 0.45 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |
| Styrene                     | ND      |      | ug/L  | 1.0  | 0.24 | SW846 8260B |             | 2/16/17 18:48 | TMP | A    |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399001**

Date Collected: 2/14/2017 21:15

Matrix: Water

Sample ID: **TB-04**

Date Received: 2/14/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By     | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-----------------|---------------|-----------------|-----------------------|
| 1,1,1,2-Tetrachloroethane   | ND             |             | ug/L         | 1.0           | 0.35 | SW846 8260B   |                 | 2/16/17 18:48 | TMP             | A                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/L         | 1.0           | 0.34 | SW846 8260B   |                 | 2/16/17 18:48 | TMP             | A                     |
| Tetrachloroethene           | ND             |             | ug/L         | 1.0           | 0.35 | SW846 8260B   |                 | 2/16/17 18:48 | TMP             | A                     |
| Toluene                     | ND             |             | ug/L         | 1.0           | 0.23 | SW846 8260B   |                 | 2/16/17 18:48 | TMP             | A                     |
| Total Xylenes               | ND             |             | ug/L         | 3.0           | 0.66 | SW846 8260B   |                 | 2/16/17 18:48 | TMP             | A                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/L         | 1.0           | 0.22 | SW846 8260B   |                 | 2/16/17 18:48 | TMP             | A                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/16/17 18:48 | TMP             | A                     |
| Trichloroethene             | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/16/17 18:48 | TMP             | A                     |
| Vinyl Chloride              | ND             |             | ug/L         | 1.0           | 0.30 | SW846 8260B   |                 | 2/16/17 18:48 | TMP             | A                     |
| o-Xylene                    | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/16/17 18:48 | TMP             | A                     |
| mp-Xylene                   | ND             |             | ug/L         | 2.0           | 0.52 | SW846 8260B   |                 | 2/16/17 18:48 | TMP             | A                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 104            |             | %            | 62 - 133      |      | SW846 8260B   |                 |               | 2/16/17 18:48   | TMP A                 |
| 4-Bromofluorobenzene (S)    | 103            |             | %            | 79 - 114      |      | SW846 8260B   |                 |               | 2/16/17 18:48   | TMP A                 |
| Dibromofluoromethane (S)    | 102            |             | %            | 78 - 116      |      | SW846 8260B   |                 |               | 2/16/17 18:48   | TMP A                 |
| Toluene-d8 (S)              | 107            |             | %            | 76 - 127      |      | SW846 8260B   |                 |               | 2/16/17 18:48   | TMP A                 |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399002**

Date Collected: 2/14/2017 00:00

Matrix: Solid

Sample ID: **DUP-03**

Date Received: 2/14/2017 21:15

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By     | Analyzed  | By              | Cntr           |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-----------------|-----------|-----------------|----------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                 |           |                 |                |
| Diesel Range Organics C10-C28 | 3.2J           | J           | mg/kg        | 11.7          | 2.8  | SW846 8015D   | 2/22/17 04:55   | VLM       | 2/23/17 00:54   | BS F           |
| Gasoline Range Organics       | ND             |             | ug/kg        | 9350          | 1300 | SW846 8015D   | 2/14/17 00:00   | DD        | 2/17/17 18:18   | DD D           |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By Cntr</i> |
| o-Terphenyl (S)               | 81.2           |             | %            | 38 - 118      |      | SW846 8015D   | 2/22/17 04:55   | VLM       | 2/23/17 00:54   | BS F           |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 118            |             | %            | 72 - 134      |      | SW846 8015D   | 2/14/17 00:00   | DD        | 2/17/17 18:18   | DD D           |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                 |           |                 |                |
| Acetone                       | 6.7J           | J           | ug/kg        | 9.2           | 4.2  | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 1.8           | 0.54 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 9.2           | 3.2  | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| Benzene                       | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| Bromochloromethane            | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| Bromodichloromethane          | ND             |             | ug/kg        | 1.8           | 0.65 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| Bromoform                     | ND             |             | ug/kg        | 1.8           | 0.48 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| Bromomethane                  | ND             |             | ug/kg        | 1.8           | 0.48 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| 2-Butanone                    | ND             |             | ug/kg        | 9.2           | 2.9  | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 9.2           | 3.2  | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| Carbon Disulfide              | ND             |             | ug/kg        | 1.8           | 0.58 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 1.8           | 0.47 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| Chlorobenzene                 | ND             |             | ug/kg        | 1.8           | 0.47 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| Chlorodibromomethane          | ND             |             | ug/kg        | 1.8           | 0.62 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| Chloroethane                  | ND             |             | ug/kg        | 4.6           | 0.78 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| Chloroform                    | ND             |             | ug/kg        | 1.8           | 0.49 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| Chloromethane                 | ND             |             | ug/kg        | 1.8           | 0.51 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 4.6           | 2.7  | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 1.8           | 0.50 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 1.8           | 0.48 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 1.8           | 0.48 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 1.8           | 0.55 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 1.8           | 0.51 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:29   | SYB B          |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399002**

Date Collected: 2/14/2017 00:00

Matrix: Solid

Sample ID: **DUP-03**

Date Received: 2/14/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 1.8           | 0.53 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 1.8           | 0.48 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 1.8           | 0.62 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 9.2           | 2.6  | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 9.2           | 3.5  | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| Methylene Chloride          | 8.4            | 1,2,3       | ug/kg        | 1.8           | 0.72 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 1.8           | 0.51 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 1.8           | 0.55 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 1.8           | 0.62 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 5.5           | 1.3  | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 1.8           | 0.57 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 1.8           | 0.51 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 1.8           | 0.46 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 1.8           | 0.53 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 3.7           | 0.76 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 75.9           |             | %            | 56 - 124      |      | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 82.4           |             | %            | 51 - 128      |      | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| Dibromofluoromethane (S)    | 88.2           |             | %            | 62 - 123      |      | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| Toluene-d8 (S)              | 82.7           |             | %            | 59 - 131      |      | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:29 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 56.1          | 6.7  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 56.1          | 7.9  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS             | F                     |
| Acetophenone                | ND             | 4           | ug/kg        | 112           | 9.0  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 56.1          | 9.0  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 112           | 12.3 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 224           | 19.1 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS             | F                     |
| Benzo(a)anthracene          | ND             |             | ug/kg        | 56.1          | 5.6  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 56.1          | 4.5  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 56.1          | 5.6  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 56.1          | 5.6  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS             | F                     |



## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399002**

Date Collected: 2/14/2017 00:00

Matrix: Solid

Sample ID: **DUP-03**

Date Received: 2/14/2017 21:15

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 56.1 | 5.6  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 112  | 7.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 112  | 10.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| Butylbenzylphthalate        | ND      |      | ug/kg | 112  | 7.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 224  | 20.2 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 112  | 7.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 224  | 11.2 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 224  | 13.5 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 112  | 10.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 112  | 14.6 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 112  | 16.8 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 112  | 6.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 224  | 9.0  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 112  | 9.0  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 56.1 | 5.6  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 224  | 9.0  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 224  | 12.3 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 112  | 9.0  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 112  | 7.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 56.1 | 6.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 112  | 9.0  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 224  | 42.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 224  | 9.0  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 112  | 9.0  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 224  | 16.8 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 112  | 7.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 224  | 44.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 112  | 10.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 112  | 13.5 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 112  | 55.0 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 112  | 7.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| Fluoranthene                | ND      |      | ug/kg | 56.1 | 5.6  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 56.1 | 6.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 112  | 12.3 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 112  | 11.2 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 224  | 12.3 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 112  | 10.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 56.1 | 7.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:13 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399002**

Date Collected: 2/14/2017 00:00

Matrix: Solid

Sample ID: **DUP-03**

Date Received: 2/14/2017 21:15

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed          | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|-------------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 112           | 6.7    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 224           | 29.2   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 112           | 5.6    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 56.1          | 6.7    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 224           | 13.5   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 224           | 22.4   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 224           | 9.0    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 112           | 13.5   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 224           | 12.3   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 224           | 15.7   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 112           | 9.0    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 112           | 9.0    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 224           | 29.2   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 56.1          | 5.6    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| Phenol                         | ND             |             | ug/kg        | 224           | 11.2   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| Pyrene                         | ND             |             | ug/kg        | 56.1          | 5.6    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 112           | 7.9    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 224           | 13.5   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 224           | 13.5   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 224           | 13.5   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>         | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 83.4           |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| 2-Fluorobiphenyl (S)           | 82.5           |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| 2-Fluorophenol (S)             | 82.1           |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| Nitrobenzene-d5 (S)            | 87.6           |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| Phenol-d5 (S)                  | 87.9           |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| Terphenyl-d14 (S)              | 87.9           |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:13 CGS |                 | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |                   |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.038         | 0.0034 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:45 EGO |                 | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.038         | 0.0069 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:45 EGO |                 | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.038         | 0.0034 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:45 EGO |                 | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.038         | 0.0069 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:45 EGO |                 | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.038         | 0.010  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:45 EGO |                 | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.038         | 0.0069 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:45 EGO |                 | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.038         | 0.0069 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:45 EGO |                 | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.038         | 0.0069 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:45 EGO |                 | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.038         | 0.0080 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:45 EGO |                 | F                     |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399002**

Date Collected: 2/14/2017 00:00

Matrix: Solid

Sample ID: **DUP-03**

Date Received: 2/14/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.038         | 0.010 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:45 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 99.4           |             | %            | 49 - 115      |       | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:45 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 101            |             | %            | 27 - 137      |       | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:45 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 9.7           | 3.1   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 9.7           | 0.86  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 9.7           | 1.0   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 9.7           | 0.74  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 9.7           | 0.80  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 9.7           | 1.0   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 9.7           | 1.7   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 18.9          | 1.5   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 18.9          | 2.6   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 18.9          | 2.2   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 18.9          | 2.2   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 9.7           | 1.2   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 18.9          | 3.9   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 18.9          | 1.3   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 18.9          | 1.4   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 18.9          | 2.1   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 18.9          | 2.6   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 9.7           | 0.97  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 9.7           | 0.97  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 18.9          | 2.5   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 200           | 33.2  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 65.5           |             | %            | 30 - 135      |       | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 38.6           |             | %            | 30 - 111      |       | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:14 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Hexavalent Chromium         | ND             |             | mg/kg        | 2.2           | 0.43  | SW846 7196A   | 2/23/17 12:00 AHI | 2/23/17 18:45 | AHI             | F                     |
| Moisture                    | 13.2           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/15/17 10:45 | VKB             | F                     |
| Total Solids                | 86.8           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/15/17 10:45 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.2           | 0.38  | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 08:12 | ZMC             | F2                    |
| Arsenic, Total              | 6.3            |             | mg/kg        | 1.7           | 0.58  | SW846 6020A   | 2/17/17 11:35 TRR | 2/20/17 08:12 | ZMC             | F2                    |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399002**

Date Collected: 2/14/2017 00:00

Matrix: Solid

Sample ID: **DUP-03**

Date Received: 2/14/2017 21:15

| Parameters       | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|------------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Beryllium, Total | 0.94    |      | mg/kg | 0.58  | 0.19  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:12 | ZMC | F2   |
| Cadmium, Total   | 0.21J   | J    | mg/kg | 0.58  | 0.19  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:12 | ZMC | F2   |
| Chromium, Total  | 38.0    |      | mg/kg | 1.2   | 0.38  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:12 | ZMC | F2   |
| Copper, Total    | 18.6    |      | mg/kg | 2.9   | 0.92  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:12 | ZMC | F2   |
| Lead, Total      | 31.2    |      | mg/kg | 1.2   | 0.38  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:12 | ZMC | F2   |
| Mercury, Total   | 0.018J  | J    | mg/kg | 0.050 | 0.016 | SW846 7471B | 2/15/17 14:00 AXC | 2/16/17 10:01 | MNP | F1   |
| Nickel, Total    | 20.3    |      | mg/kg | 2.9   | 0.92  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:12 | ZMC | F2   |
| Selenium, Total  | 2.1J    | J    | mg/kg | 2.9   | 0.92  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:12 | ZMC | F2   |
| Silver, Total    | ND      |      | mg/kg | 1.2   | 0.38  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:12 | ZMC | F2   |
| Thallium, Total  | 0.21J   | J    | mg/kg | 0.58  | 0.19  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:12 | ZMC | F2   |
| Zinc, Total      | 58.7    |      | mg/kg | 2.9   | 0.92  | SW846 6020A | 2/17/17 11:35 TRR | 2/20/17 08:12 | ZMC | F2   |



Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399003**

Date Collected: 2/14/2017 00:00

Matrix: Solid

Sample ID: **DUP-04**

Date Received: 2/14/2017 21:15

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By     | Analyzed  | By              | Cntr           |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-----------------|-----------|-----------------|----------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                 |           |                 |                |
| Diesel Range Organics C10-C28 | 7.1J           | J           | mg/kg        | 13.8          | 3.3  | SW846 8015D   | 2/22/17 04:55   | VLM       | 2/23/17 01:31   | BS F           |
| Gasoline Range Organics       | ND             |             | ug/kg        | 8020          | 1120 | SW846 8015D   | 2/14/17 00:00   | DD        | 2/17/17 18:51   | DD D           |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By Cntr</i> |
| o-Terphenyl (S)               | 82.5           |             | %            | 38 - 118      |      | SW846 8015D   | 2/22/17 04:55   | VLM       | 2/23/17 01:31   | BS F           |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 119            |             | %            | 72 - 134      |      | SW846 8015D   | 2/14/17 00:00   | DD        | 2/17/17 18:51   | DD D           |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                 |           |                 |                |
| Acetone                       | ND             |             | ug/kg        | 11.8          | 5.4  | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.4           | 0.69 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 11.8          | 4.1  | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| Benzene                       | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| Bromochloromethane            | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.4           | 0.83 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| Bromoform                     | ND             |             | ug/kg        | 2.4           | 0.61 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| Bromomethane                  | ND             |             | ug/kg        | 2.4           | 0.61 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| 2-Butanone                    | ND             |             | ug/kg        | 11.8          | 3.8  | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 11.8          | 4.1  | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.4           | 0.74 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.4           | 0.60 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.4           | 0.60 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.4           | 0.80 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| Chloroethane                  | ND             |             | ug/kg        | 5.9           | 1.0  | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| Chloroform                    | ND             |             | ug/kg        | 2.4           | 0.62 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| Chloromethane                 | ND             |             | ug/kg        | 2.4           | 0.65 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 5.9           | 3.4  | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.4           | 0.63 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.4           | 0.61 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.4           | 0.61 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.4           | 0.71 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.4           | 0.65 | SW846 8260B   | 2/14/17 00:00   | SYB       | 2/16/17 06:52   | SYB B          |



## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399003**

Date Collected: 2/14/2017 00:00

Matrix: Solid

Sample ID: **DUP-04**

Date Received: 2/14/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 2.4           | 0.68 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 2.4           | 0.61 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 2.4           | 0.80 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 11.8          | 3.3  | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 11.8          | 4.5  | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| Methylene Chloride          | 10.6           | 1,2,3       | ug/kg        | 2.4           | 0.92 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.4           | 0.66 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.4           | 0.71 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.4           | 0.79 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 7.1           | 1.6  | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.4           | 0.73 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.4           | 0.66 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.4           | 0.68 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.7           | 0.98 | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 75.7           |             | %            | 56 - 124      |      | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 84.6           |             | %            | 51 - 128      |      | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| Dibromofluoromethane (S)    | 90.3           |             | %            | 62 - 123      |      | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| Toluene-d8 (S)              | 84.7           |             | %            | 59 - 131      |      | SW846 8260B   | 2/14/17 00:00 SYB | 2/16/17 06:52 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 63.7          | 7.6  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 63.7          | 8.9  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| Acetophenone                | ND             | 4           | ug/kg        | 127           | 10.2 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 63.7          | 10.2 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 127           | 14.0 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 255           | 21.6 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| Benzo(a)anthracene          | ND             |             | ug/kg        | 63.7          | 6.4  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 63.7          | 5.1  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 63.7          | 6.4  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 63.7          | 6.4  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399003**

Date Collected: 2/14/2017 00:00

Matrix: Solid

Sample ID: **DUP-04**

Date Received: 2/14/2017 21:15

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 63.7 | 6.4  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 127  | 8.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 127  | 11.5 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| Butylbenzylphthalate        | ND      |      | ug/kg | 127  | 8.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 255  | 22.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 127  | 8.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 255  | 12.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 255  | 15.3 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 127  | 11.5 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 127  | 16.6 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 127  | 19.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 127  | 7.6  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 255  | 10.2 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 127  | 10.2 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 63.7 | 6.4  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 255  | 10.2 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 255  | 14.0 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 127  | 10.2 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 127  | 8.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 63.7 | 7.6  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 127  | 10.2 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 255  | 48.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 255  | 10.2 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 127  | 10.2 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 255  | 19.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 127  | 8.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 255  | 50.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 127  | 11.5 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 127  | 15.3 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 127  | 62.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 127  | 8.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| Fluoranthene                | ND      |      | ug/kg | 63.7 | 6.4  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 63.7 | 7.6  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 127  | 14.0 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 127  | 12.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 255  | 14.0 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 127  | 11.5 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 63.7 | 8.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS | F    |



## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399003**

Date Collected: 2/14/2017 00:00

Matrix: Solid

Sample ID: **DUP-04**

Date Received: 2/14/2017 21:15

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 127           | 7.6    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 255           | 33.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 127           | 6.4    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 63.7          | 7.6    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 255           | 15.3   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 255           | 25.5   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 255           | 10.2   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 127           | 15.3   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 255           | 14.0   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 255           | 17.8   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 127           | 10.2   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 127           | 10.2   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 255           | 33.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 63.7          | 6.4    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 255           | 12.7   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| Pyrene                         | ND             |             | ug/kg        | 63.7          | 6.4    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 127           | 8.9    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 255           | 15.3   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 255           | 15.3   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 255           | 15.3   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 81.4           |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 78             |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| 2-Fluorophenol (S)             | 78.7           |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 82.5           |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| Phenol-d5 (S)                  | 82.3           |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| Terphenyl-d14 (S)              | 82.1           |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 11:38 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.066         | 0.0060 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:56 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.066         | 0.012  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:56 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.066         | 0.0060 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:56 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.066         | 0.012  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:56 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.066         | 0.018  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:56 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.066         | 0.012  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:56 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.066         | 0.012  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:56 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.066         | 0.012  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:56 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.066         | 0.014  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:56 | EGO             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399003**

Date Collected: 2/14/2017 00:00

Matrix: Solid

Sample ID: **DUP-04**

Date Received: 2/14/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.066         | 0.018 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:56 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 96.7           |             | %            | 49 - 115      |       | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:56 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 94.5           |             | %            | 27 - 137      |       | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 07:56 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 17.0          | 5.5   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 17.0          | 1.5   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 17.0          | 1.8   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 17.0          | 1.3   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 17.0          | 1.4   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 17.0          | 1.8   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 17.0          | 2.9   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 33.1          | 2.7   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 33.1          | 4.5   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 33.1          | 3.8   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 33.1          | 3.8   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 17.0          | 2.1   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 33.1          | 6.9   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 33.1          | 2.2   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 33.1          | 2.4   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 33.1          | 3.6   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 33.1          | 4.6   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 17.0          | 1.7   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 17.0          | 1.7   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 33.1          | 4.4   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 351           | 58.1  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 57.9           |             | %            | 30 - 135      |       | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 52             |             | %            | 30 - 111      |       | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:29 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Hexavalent Chromium         | 2.9            |             | mg/kg        | 2.7           | 0.52  | SW846 7196A   | 2/23/17 12:00 AHI | 2/23/17 18:45 | AHI             | F                     |
| Moisture                    | 25.9           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/15/17 10:45 | VKB             | F                     |
| Total Solids                | 74.1           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/15/17 10:45 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.3           | 0.45  | SW846 6020A   | 2/20/17 12:56 TRR | 2/21/17 13:58 | MO              | F2                    |
| Arsenic, Total              | 12.5           |             | mg/kg        | 2.0           | 0.67  | SW846 6020A   | 2/20/17 12:56 TRR | 2/21/17 13:58 | MO              | F2                    |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399003**

Date Collected: 2/14/2017 00:00

Matrix: Solid

Sample ID: **DUP-04**

Date Received: 2/14/2017 21:15

| Parameters       | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|------------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Beryllium, Total | 0.77    |      | mg/kg | 0.67  | 0.22  | SW846 6020A | 2/20/17 12:56 TRR | 2/22/17 04:28 | ZMC | F2   |
| Cadmium, Total   | ND      |      | mg/kg | 0.67  | 0.22  | SW846 6020A | 2/20/17 12:56 TRR | 2/21/17 13:58 | MO  | F2   |
| Chromium, Total  | 45.2    |      | mg/kg | 1.3   | 0.45  | SW846 6020A | 2/20/17 12:56 TRR | 2/21/17 13:58 | MO  | F2   |
| Copper, Total    | 6.5     |      | mg/kg | 3.4   | 1.1   | SW846 6020A | 2/20/17 12:56 TRR | 2/21/17 13:58 | MO  | F2   |
| Lead, Total      | 18.9    |      | mg/kg | 1.3   | 0.45  | SW846 6020A | 2/20/17 12:56 TRR | 2/21/17 13:58 | MO  | F2   |
| Mercury, Total   | ND      |      | mg/kg | 0.064 | 0.020 | SW846 7471B | 2/15/17 14:00 AXC | 2/16/17 10:02 | MNP | F1   |
| Nickel, Total    | 8.9     |      | mg/kg | 3.4   | 1.1   | SW846 6020A | 2/20/17 12:56 TRR | 2/21/17 13:58 | MO  | F2   |
| Selenium, Total  | 2.0J    | J    | mg/kg | 3.4   | 1.1   | SW846 6020A | 2/20/17 12:56 TRR | 2/21/17 13:58 | MO  | F2   |
| Silver, Total    | ND      |      | mg/kg | 1.3   | 0.45  | SW846 6020A | 2/20/17 12:56 TRR | 2/21/17 13:58 | MO  | F2   |
| Thallium, Total  | ND      |      | mg/kg | 0.67  | 0.22  | SW846 6020A | 2/20/17 12:56 TRR | 2/21/17 13:58 | MO  | F2   |
| Zinc, Total      | 24.2    |      | mg/kg | 3.4   | 1.1   | SW846 6020A | 2/20/17 12:56 TRR | 2/21/17 13:58 | MO  | F2   |



Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399004**  
Sample ID: **CL-ISM-S-A4**

Date Collected: 2/14/2017 13:40 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr           |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|----------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                |
| Diesel Range Organics C10-C28 | 9.8J           | J           | mg/kg        | 14.6          | 3.4  | SW846 8015D   | 2/22/17 04:55 VLM | 2/23/17 02:08 | BS              | F              |
| Gasoline Range Organics       | 1010J          | J           | ug/kg        | 7030          | 978  | SW846 8015D   | 2/14/17 13:40 DD  | 2/17/17 19:25 | DD              | D              |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By Cntr</i> |
| o-Terphenyl (S)               | 81.6           |             | %            | 38 - 118      |      | SW846 8015D   | 2/22/17 04:55 VLM | 2/23/17 02:08 | BS              | F              |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 114            |             | %            | 72 - 134      |      | SW846 8015D   | 2/14/17 13:40 DD  | 2/17/17 19:25 | DD              | D              |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                |
| Acetone                       | ND             |             | ug/kg        | 14.6          | 6.7  | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.9           | 0.86 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 14.6          | 5.1  | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.9           | 0.73 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| Benzene                       | ND             |             | ug/kg        | 2.9           | 0.73 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| Bromochloromethane            | ND             |             | ug/kg        | 2.9           | 0.73 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.9           | 1.0  | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| Bromoform                     | ND             |             | ug/kg        | 2.9           | 0.76 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| Bromomethane                  | ND             |             | ug/kg        | 2.9           | 0.76 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| 2-Butanone                    | ND             |             | ug/kg        | 14.6          | 4.7  | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 14.6          | 5.1  | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.9           | 0.92 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.9           | 0.74 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.9           | 0.74 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.9           | 0.99 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| Chloroethane                  | ND             |             | ug/kg        | 7.3           | 1.2  | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| Chloroform                    | ND             |             | ug/kg        | 2.9           | 0.77 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| Chloromethane                 | ND             |             | ug/kg        | 2.9           | 0.80 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 7.3           | 4.2  | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.9           | 0.79 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.9           | 0.73 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.9           | 0.73 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.9           | 0.76 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.9           | 0.73 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.9           | 0.76 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.9           | 0.87 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.9           | 0.80 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B              |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399004**  
Sample ID: **CL-ISM-S-A4**

Date Collected: 2/14/2017 13:40 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 2.9           | 0.84 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 2.9           | 0.73 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 2.9           | 0.76 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 2.9           | 0.99 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 14.6          | 4.1  | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 2.9           | 0.73 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 14.6          | 5.5  | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| Methylene Chloride          | 14.1           | 1,2,3       | ug/kg        | 2.9           | 1.1  | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 2.9           | 0.73 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.9           | 0.73 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.9           | 0.81 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.9           | 0.87 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.9           | 0.97 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 8.7           | 2.0  | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.9           | 0.90 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.9           | 0.81 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.9           | 0.73 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.9           | 0.73 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.9           | 0.84 | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 5.8           | 1.2  | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 75.5           |             | %            | 56 - 124      |      | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 85.3           |             | %            | 51 - 128      |      | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| Dibromofluoromethane (S)    | 88.3           |             | %            | 62 - 123      |      | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| Toluene-d8 (S)              | 84.7           |             | %            | 59 - 131      |      | SW846 8260B   | 2/14/17 13:40 SYB | 2/16/17 07:15 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 71.4          | 8.6  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 71.4          | 10   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 | CGS             | F                     |
| Acetophenone                | ND             | 4           | ug/kg        | 143           | 11.4 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 71.4          | 11.4 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 143           | 15.7 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 286           | 24.3 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 | CGS             | F                     |
| Benzo(a)anthracene          | ND             |             | ug/kg        | 71.4          | 7.1  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 71.4          | 5.7  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 71.4          | 7.1  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 71.4          | 7.1  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 | CGS             | F                     |



## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399004**  
Sample ID: **CL-ISM-S-A4**

Date Collected: 2/14/2017 13:40 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed          | By | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|-------------------|----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 71.4 | 7.1  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| Biphenyl                    | ND      |      | ug/kg | 143  | 10   | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 143  | 12.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| Butylbenzylphthalate        | ND      |      | ug/kg | 143  | 10   | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| Caprolactam                 | ND      |      | ug/kg | 286  | 25.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| Carbazole                   | ND      |      | ug/kg | 143  | 10   | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 286  | 14.3 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| 4-Chloroaniline             | ND      |      | ug/kg | 286  | 17.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 143  | 12.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 143  | 18.6 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 143  | 21.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 143  | 8.6  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| 2-Chlorophenol              | ND      |      | ug/kg | 286  | 11.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 143  | 11.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| Chrysene                    | ND      |      | ug/kg | 71.4 | 7.1  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| mp-Cresol                   | ND      |      | ug/kg | 286  | 11.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| o-Cresol                    | ND      |      | ug/kg | 286  | 15.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 143  | 11.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 143  | 10   | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 71.4 | 8.6  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| Dibenzofuran                | ND      |      | ug/kg | 143  | 11.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 286  | 54.3 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 286  | 11.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| Diethylphthalate            | ND      |      | ug/kg | 143  | 11.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 286  | 21.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| Dimethylphthalate           | ND      |      | ug/kg | 143  | 10   | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 286  | 57.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 143  | 12.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 143  | 17.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| 1,4-Dioxane                 | ND      |      | ug/kg | 143  | 70.0 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 143  | 10   | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| Fluoranthene                | ND      |      | ug/kg | 71.4 | 7.1  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| Fluorene                    | ND      |      | ug/kg | 71.4 | 8.6  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| Hexachlorobenzene           | ND      |      | ug/kg | 143  | 15.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| Hexachlorobutadiene         | ND      |      | ug/kg | 143  | 14.3 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 286  | 15.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| Hexachloroethane            | ND      |      | ug/kg | 143  | 12.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 71.4 | 10   | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS | F  |      |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399004**  
Sample ID: **CL-ISM-S-A4**

Date Collected: 2/14/2017 13:40 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed          | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|-------------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 143           | 8.6    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 286           | 37.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 143           | 7.1    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 71.4          | 8.6    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 286           | 17.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 286           | 28.6   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 286           | 11.4   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 143           | 17.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 286           | 15.7   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 286           | 20.0   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 143           | 11.4   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 143           | 11.4   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 286           | 37.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 71.4          | 7.1    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| Phenol                         | ND             |             | ug/kg        | 286           | 14.3   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| Pyrene                         | ND             |             | ug/kg        | 71.4          | 7.1    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 143           | 10     | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 286           | 17.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 286           | 17.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 286           | 17.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>         | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 78.2           |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| 2-Fluorobiphenyl (S)           | 78.8           |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| 2-Fluorophenol (S)             | 78.4           |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| Nitrobenzene-d5 (S)            | 81.2           |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| Phenol-d5 (S)                  | 82.5           |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| Terphenyl-d14 (S)              | 80.4           |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:03 CGS |                 | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |                   |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.067         | 0.0060 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:08 EGO |                 | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.067         | 0.012  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:08 EGO |                 | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.067         | 0.0060 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:08 EGO |                 | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.067         | 0.012  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:08 EGO |                 | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.067         | 0.018  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:08 EGO |                 | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.067         | 0.012  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:08 EGO |                 | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.067         | 0.012  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:08 EGO |                 | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.067         | 0.012  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:08 EGO |                 | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.067         | 0.014  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:08 EGO |                 | F                     |



## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399004**  
Sample ID: **CL-ISM-S-A4**

Date Collected: 2/14/2017 13:40 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.067         | 0.018 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:08 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 95.7           |             | %            | 49 - 115      |       | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:08 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 92.7           |             | %            | 27 - 137      |       | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:08 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 17.1          | 5.5   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 17.1          | 1.5   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 17.1          | 1.8   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 17.1          | 1.3   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 17.1          | 1.4   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 17.1          | 1.8   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 17.1          | 2.9   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 33.3          | 2.7   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 33.3          | 4.5   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 33.3          | 3.8   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 33.3          | 3.8   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 17.1          | 2.1   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 33.3          | 7.0   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 33.3          | 2.2   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 33.3          | 2.4   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 33.3          | 3.6   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 33.3          | 4.6   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 17.1          | 1.7   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 17.1          | 1.7   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 33.3          | 4.4   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 353           | 58.4  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 58.9           |             | %            | 30 - 135      |       | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 52.8           |             | %            | 30 - 111      |       | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 15:45 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Hexavalent Chromium         | 1.6J           | J           | mg/kg        | 2.8           | 0.54  | SW846 7196A   | 2/23/17 12:00 AHI | 2/23/17 18:45 | AHI             | F                     |
| Moisture                    | 30.4           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/15/17 10:45 | VKB             | F                     |
| Total Solids                | 69.6           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/15/17 10:45 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |
| Antimony, Total             | 0.55J          | J           | mg/kg        | 1.4           | 0.47  | SW846 6020A   | 2/21/17 10:55 TRR | 2/22/17 04:32 | ZMC             | F2                    |
| Arsenic, Total              | 22.1           |             | mg/kg        | 2.2           | 0.72  | SW846 6020A   | 2/21/17 10:55 TRR | 2/22/17 04:32 | ZMC             | F2                    |

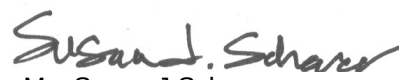
## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399004**  
Sample ID: **CL-ISM-S-A4**

Date Collected: 2/14/2017 13:40 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters       | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|------------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Beryllium, Total | 1.3     |      | mg/kg | 0.72  | 0.24  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:32 | ZMC | F2   |
| Cadmium, Total   | ND      |      | mg/kg | 0.72  | 0.24  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:32 | ZMC | F2   |
| Chromium, Total  | 77.9    |      | mg/kg | 1.4   | 0.47  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:32 | ZMC | F2   |
| Copper, Total    | 10.6    |      | mg/kg | 3.6   | 1.2   | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:32 | ZMC | F2   |
| Lead, Total      | 34.4    |      | mg/kg | 1.4   | 0.47  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:32 | ZMC | F2   |
| Mercury, Total   | 0.067J  | J    | mg/kg | 0.070 | 0.023 | SW846 7471B | 2/15/17 14:00 AXC | 2/16/17 10:03 | MNP | F1   |
| Nickel, Total    | 14.7    |      | mg/kg | 3.6   | 1.2   | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:32 | ZMC | F2   |
| Selenium, Total  | 3.2J    | J    | mg/kg | 3.6   | 1.2   | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:32 | ZMC | F2   |
| Silver, Total    | ND      |      | mg/kg | 1.4   | 0.47  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:32 | ZMC | F2   |
| Thallium, Total  | 0.27J   | J    | mg/kg | 0.72  | 0.24  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:32 | ZMC | F2   |
| Zinc, Total      | 43.1    |      | mg/kg | 3.6   | 1.2   | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:32 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399005**  
Sample ID: **CL-ISM-S-B4**

Date Collected: 2/14/2017 13:00 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By     | Analyzed  | By              | Cntr           |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-----------------|-----------|-----------------|----------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                 |           |                 |                |
| Diesel Range Organics C10-C28 | 4.4J           | J           | mg/kg        | 13.3          | 3.1  | SW846 8015D   | 2/22/17 04:55   | VLM       | 2/23/17 02:45   | BS F           |
| Gasoline Range Organics       | ND             |             | ug/kg        | 5860          | 814  | SW846 8015D   | 2/14/17 13:00   | DD        | 2/17/17 19:59   | DD D           |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By Cntr</i> |
| o-Terphenyl (S)               | 80.8           |             | %            | 38 - 118      |      | SW846 8015D   | 2/22/17 04:55   | VLM       | 2/23/17 02:45   | BS F           |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 118            |             | %            | 72 - 134      |      | SW846 8015D   | 2/14/17 13:00   | DD        | 2/17/17 19:59   | DD D           |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                 |           |                 |                |
| Acetone                       | 6.8J           | J           | ug/kg        | 10.9          | 5.0  | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.2           | 0.64 | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 10.9          | 3.8  | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.2           | 0.54 | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| Benzene                       | ND             |             | ug/kg        | 2.2           | 0.54 | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| Bromochloromethane            | ND             |             | ug/kg        | 2.2           | 0.54 | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.2           | 0.77 | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| Bromoform                     | ND             |             | ug/kg        | 2.2           | 0.57 | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| Bromomethane                  | ND             |             | ug/kg        | 2.2           | 0.57 | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| 2-Butanone                    | ND             |             | ug/kg        | 10.9          | 3.5  | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 10.9          | 3.8  | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.2           | 0.69 | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.2           | 0.56 | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.2           | 0.56 | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.2           | 0.74 | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| Chloroethane                  | ND             |             | ug/kg        | 5.4           | 0.93 | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| Chloroform                    | ND             |             | ug/kg        | 2.2           | 0.58 | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| Chloromethane                 | ND             |             | ug/kg        | 2.2           | 0.60 | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 5.4           | 3.2  | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.2           | 0.59 | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.2           | 0.54 | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.2           | 0.54 | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.2           | 0.57 | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.2           | 0.54 | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.2           | 0.57 | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.2           | 0.65 | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.2           | 0.60 | SW846 8260B   | 2/14/17 13:00   | SYB       | 2/16/17 07:39   | SYB B          |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399005**  
Sample ID: **CL-ISM-S-B4**

Date Collected: 2/14/2017 13:00 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 2.2           | 0.63 | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 2.2           | 0.54 | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 2.2           | 0.57 | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 2.2           | 0.74 | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 10.9          | 3.0  | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 2.2           | 0.54 | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 10.9          | 4.1  | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| Methylene Chloride          | 12.2           | 1,2,3       | ug/kg        | 2.2           | 0.85 | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 2.2           | 0.54 | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.2           | 0.54 | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.2           | 0.61 | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.2           | 0.65 | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.2           | 0.73 | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 6.5           | 1.5  | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.2           | 0.67 | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.2           | 0.61 | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.2           | 0.54 | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.2           | 0.54 | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.2           | 0.63 | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.4           | 0.90 | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 74.3           |             | %            | 56 - 124      |      | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 85             |             | %            | 51 - 128      |      | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| Dibromofluoromethane (S)    | 87.8           |             | %            | 62 - 123      |      | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| Toluene-d8 (S)              | 83.5           |             | %            | 59 - 131      |      | SW846 8260B   | 2/14/17 13:00 SYB | 2/16/17 07:39 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 63.3          | 7.6  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 63.3          | 8.9  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS             | F                     |
| Acetophenone                | ND             | 4           | ug/kg        | 127           | 10.1 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 63.3          | 10.1 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 127           | 13.9 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 253           | 21.5 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS             | F                     |
| Benzo(a)anthracene          | ND             |             | ug/kg        | 63.3          | 6.3  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 63.3          | 5.1  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 63.3          | 6.3  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 63.3          | 6.3  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399005**  
Sample ID: **CL-ISM-S-B4**

Date Collected: 2/14/2017 13:00 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 63.3 | 6.3  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 127  | 8.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 127  | 11.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| Butylbenzylphthalate        | ND      |      | ug/kg | 127  | 8.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 253  | 22.8 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 127  | 8.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 253  | 12.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 253  | 15.2 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 127  | 11.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 127  | 16.5 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 127  | 19.0 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 127  | 7.6  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 253  | 10.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 127  | 10.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 63.3 | 6.3  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 253  | 10.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 253  | 13.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 127  | 10.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 127  | 8.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 63.3 | 7.6  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 127  | 10.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 253  | 48.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 253  | 10.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 127  | 10.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 253  | 19.0 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 127  | 8.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 253  | 50.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 127  | 11.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 127  | 15.2 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 127  | 62.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 127  | 8.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| Fluoranthene                | ND      |      | ug/kg | 63.3 | 6.3  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 63.3 | 7.6  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 127  | 13.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 127  | 12.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 253  | 13.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 127  | 11.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 63.3 | 8.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:28 | CGS | F    |



## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399005**  
Sample ID: **CL-ISM-S-B4**

Date Collected: 2/14/2017 13:00 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed          | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|-------------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 127           | 7.6    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 253           | 32.9   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 127           | 6.3    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 63.3          | 7.6    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 253           | 15.2   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 253           | 25.3   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 253           | 10.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 127           | 15.2   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 253           | 13.9   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 253           | 17.7   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 127           | 10.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 127           | 10.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 253           | 32.9   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 63.3          | 6.3    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| Phenol                         | ND             |             | ug/kg        | 253           | 12.7   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| Pyrene                         | ND             |             | ug/kg        | 63.3          | 6.3    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 127           | 8.9    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 253           | 15.2   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 253           | 15.2   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 253           | 15.2   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>         | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 83.1           |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| 2-Fluorobiphenyl (S)           | 78.5           |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| 2-Fluorophenol (S)             | 81.3           |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| Nitrobenzene-d5 (S)            | 81             |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| Phenol-d5 (S)                  | 85.2           |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| Terphenyl-d14 (S)              | 86             |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:28 CGS |                 | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |                   |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.040         | 0.0036 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:31 EGO |                 | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.040         | 0.0073 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:31 EGO |                 | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.040         | 0.0036 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:31 EGO |                 | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.040         | 0.0073 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:31 EGO |                 | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.040         | 0.011  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:31 EGO |                 | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.040         | 0.0073 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:31 EGO |                 | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.040         | 0.0073 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:31 EGO |                 | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.040         | 0.0073 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:31 EGO |                 | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.040         | 0.0085 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:31 EGO |                 | F                     |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399005**  
Sample ID: **CL-ISM-S-B4**

Date Collected: 2/14/2017 13:00 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.040         | 0.011 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:31 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 101            |             | %            | 49 - 115      |       | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:31 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 98.5           |             | %            | 27 - 137      |       | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:31 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 10.3          | 3.3   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 10.3          | 0.91  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 10.3          | 1.1   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 10.3          | 0.79  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 10.3          | 0.85  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 10.3          | 1.1   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 10.3          | 1.8   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 20.0          | 1.6   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 20.0          | 2.7   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 20.0          | 2.3   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 20.0          | 2.3   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 10.3          | 1.3   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 20.0          | 4.2   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 20.0          | 1.3   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 20.0          | 1.5   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 20.0          | 2.2   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 20.0          | 2.8   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 10.3          | 1.0   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 10.3          | 1.0   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 20.0          | 2.7   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 212           | 35.1  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 62.5           |             | %            | 30 - 135      |       | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 55.4           |             | %            | 30 - 111      |       | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:00 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Moisture                    | 21.1           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/15/17 10:45 | VKB             | F                     |
| Total Solids                | 78.9           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/15/17 10:45 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.3           | 0.42  | SW846 6020A   | 2/21/17 10:55 TRR | 2/22/17 04:36 | ZMC             | F2                    |
| Arsenic, Total              | 7.2            |             | mg/kg        | 1.9           | 0.63  | SW846 6020A   | 2/21/17 10:55 TRR | 2/22/17 04:36 | ZMC             | F2                    |
| Beryllium, Total            | 0.80           |             | mg/kg        | 0.63          | 0.21  | SW846 6020A   | 2/21/17 10:55 TRR | 2/22/17 04:36 | ZMC             | F2                    |



## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399005**  
Sample ID: **CL-ISM-S-B4**

Date Collected: 2/14/2017 13:00 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.63  | 0.21  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:36 | ZMC | F2   |
| Chromium, Total | 26.3    |      | mg/kg | 1.3   | 0.42  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:36 | ZMC | F2   |
| Copper, Total   | 9.8     |      | mg/kg | 3.2   | 1.0   | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:36 | ZMC | F2   |
| Lead, Total     | 20.7    |      | mg/kg | 1.3   | 0.42  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:36 | ZMC | F2   |
| Mercury, Total  | ND      |      | mg/kg | 0.059 | 0.019 | SW846 7471B | 2/15/17 14:00 AXC | 2/16/17 10:04 | MNP | F1   |
| Nickel, Total   | 13.1    |      | mg/kg | 3.2   | 1.0   | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:36 | ZMC | F2   |
| Selenium, Total | 2.8J    | J    | mg/kg | 3.2   | 1.0   | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:36 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.3   | 0.42  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:36 | ZMC | F2   |
| Thallium, Total | 0.22J   | J    | mg/kg | 0.63  | 0.21  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:36 | ZMC | F2   |
| Zinc, Total     | 42.7    |      | mg/kg | 3.2   | 1.0   | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:36 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399006**  
Sample ID: **CL-ISM-S-C4**

Date Collected: 2/14/2017 12:30 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 6.2J           | J           | mg/kg        | 11.6          | 2.7  | SW846 8015D   | 2/22/17 04:55 VLM | 2/23/17 03:22 | BS              | F                     |
| Gasoline Range Organics       | ND             |             | ug/kg        | 5910          | 821  | SW846 8015D   | 2/14/17 12:30 DD  | 2/17/17 20:32 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 83.3           |             | %            | 38 - 118      |      | SW846 8015D   | 2/22/17 04:55 VLM | 2/23/17 03:22 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 114            |             | %            | 72 - 134      |      | SW846 8015D   | 2/14/17 12:30 DD  | 2/17/17 20:32 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | ND             |             | ug/kg        | 10.5          | 4.8  | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.1           | 0.62 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 10.5          | 3.7  | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Benzene                       | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.1           | 0.75 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| 2-Butanone                    | ND             |             | ug/kg        | 10.5          | 3.4  | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 10.5          | 3.7  | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.1           | 0.66 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.1           | 0.54 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.1           | 0.54 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.1           | 0.72 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 5.3           | 0.89 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 2.1           | 0.56 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 2.1           | 0.58 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 5.3           | 3.1  | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.1           | 0.57 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.1           | 0.63 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.1           | 0.58 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399006**  
Sample ID: **CL-ISM-S-C4**

Date Collected: 2/14/2017 12:30 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 2.1           | 0.61 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 2.1           | 0.72 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 10.5          | 2.9  | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 10.5          | 4.0  | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Methylene Chloride          | 12.4           | 1,2,3       | ug/kg        | 2.1           | 0.82 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.1           | 0.59 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.1           | 0.63 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.1           | 0.70 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 6.3           | 1.5  | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.1           | 0.65 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.1           | 0.59 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.1           | 0.61 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.2           | 0.87 | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 74.4           |             | %            | 56 - 124      |      | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 84.9           |             | %            | 51 - 128      |      | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Dibromofluoromethane (S)    | 88.3           |             | %            | 62 - 123      |      | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| Toluene-d8 (S)              | 83.9           |             | %            | 59 - 131      |      | SW846 8260B   | 2/14/17 12:30 SYB | 2/16/17 08:02 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 53.8          | 6.5  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 53.8          | 7.5  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| Acetophenone                | ND             | 4           | ug/kg        | 108           | 8.6  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 53.8          | 8.6  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 108           | 11.8 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 215           | 18.3 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| Benzo(a)anthracene          | ND             |             | ug/kg        | 53.8          | 5.4  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 53.8          | 4.3  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 53.8          | 5.4  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 53.8          | 5.4  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399006**  
Sample ID: **CL-ISM-S-C4**

Date Collected: 2/14/2017 12:30 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 53.8 | 5.4  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 108  | 7.5  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 108  | 9.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| Butylbenzylphthalate        | ND      |      | ug/kg | 108  | 7.5  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 215  | 19.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 108  | 7.5  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 215  | 10.8 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 215  | 12.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 108  | 9.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 108  | 14.0 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 108  | 16.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 108  | 6.5  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 215  | 8.6  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 108  | 8.6  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 53.8 | 5.4  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 215  | 8.6  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 215  | 11.8 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 108  | 8.6  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 108  | 7.5  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 53.8 | 6.5  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 108  | 8.6  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 215  | 40.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 215  | 8.6  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 108  | 8.6  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 215  | 16.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 108  | 7.5  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 215  | 43.0 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 108  | 9.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 108  | 12.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 108  | 52.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 108  | 7.5  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| Fluoranthene                | ND      |      | ug/kg | 53.8 | 5.4  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 53.8 | 6.5  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 108  | 11.8 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 108  | 10.8 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 215  | 11.8 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 108  | 9.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 53.8 | 7.5  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399006**  
Sample ID: **CL-ISM-S-C4**

Date Collected: 2/14/2017 12:30 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 108           | 6.5    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 215           | 28.0   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 108           | 5.4    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 53.8          | 6.5    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 215           | 12.9   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 215           | 21.5   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 215           | 8.6    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 108           | 12.9   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 215           | 11.8   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 215           | 15.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 108           | 8.6    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 108           | 8.6    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 215           | 28.0   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 53.8          | 5.4    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 215           | 10.8   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| Pyrene                         | ND             |             | ug/kg        | 53.8          | 5.4    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 108           | 7.5    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 215           | 12.9   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 215           | 12.9   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 215           | 12.9   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 74.1           |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 72.2           |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| 2-Fluorophenol (S)             | 72.3           |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 77             |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| Phenol-d5 (S)                  | 76.5           |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| Terphenyl-d14 (S)              | 76.4           |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 12:53 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.035         | 0.0032 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:54 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.035         | 0.0063 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:54 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.035         | 0.0032 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:54 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.035         | 0.0063 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:54 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.035         | 0.0095 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:54 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.035         | 0.0063 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:54 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.035         | 0.0063 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:54 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.035         | 0.0063 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:54 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.035         | 0.0074 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:54 | EGO             | F                     |



## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399006**  
Sample ID: **CL-ISM-S-C4**

Date Collected: 2/14/2017 12:30 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.035         | 0.0095 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:54 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 94.7           |             | %            | 49 - 115      |        | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:54 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 87.9           |             | %            | 27 - 137      |        | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 08:54 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 9.0           | 2.9    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 9.0           | 0.79   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 9.0           | 0.95   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 9.0           | 0.69   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 9.0           | 0.74   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 9.0           | 0.95   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 9.0           | 1.5    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 17.4          | 1.4    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 17.4          | 2.4    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 17.4          | 2.0    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 17.4          | 2.0    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 9.0           | 1.1    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 17.4          | 3.6    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 17.4          | 1.2    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 17.4          | 1.3    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 17.4          | 1.9    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 17.4          | 2.4    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 9.0           | 0.90   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 9.0           | 0.90   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 17.4          | 2.3    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 185           | 30.6   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 57.1           |             | %            | 30 - 135      |        | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 59             |             | %            | 30 - 111      |        | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:31 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |        |               |                   |               |                 |                       |
| Moisture                    | 9.5            |             | %            | 0.1           | 0.01   | S2540G-11     |                   | 2/15/17 10:45 | VKB             | F                     |
| Total Solids                | 90.5           |             | %            | 0.1           | 0.01   | S2540G-11     |                   | 2/15/17 10:45 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |        |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.1           | 0.35   | SW846 6020A   | 2/21/17 10:55 TRR | 2/22/17 04:40 | ZMC             | F2                    |
| Arsenic, Total              | 5.9            |             | mg/kg        | 1.6           | 0.53   | SW846 6020A   | 2/21/17 10:55 TRR | 2/22/17 04:40 | ZMC             | F2                    |
| Beryllium, Total            | 0.68           |             | mg/kg        | 0.53          | 0.18   | SW846 6020A   | 2/21/17 10:55 TRR | 2/22/17 04:40 | ZMC             | F2                    |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399006**  
Sample ID: **CL-ISM-S-C4**

Date Collected: 2/14/2017 12:30 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.53  | 0.18  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:40 | ZMC | F2   |
| Chromium, Total | 20.1    |      | mg/kg | 1.1   | 0.35  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:40 | ZMC | F2   |
| Copper, Total   | 9.2     |      | mg/kg | 2.7   | 0.85  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:40 | ZMC | F2   |
| Lead, Total     | 18.2    |      | mg/kg | 1.1   | 0.35  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:40 | ZMC | F2   |
| Mercury, Total  | 0.025J  | J    | mg/kg | 0.047 | 0.015 | SW846 7471B | 2/15/17 14:00 AXC | 2/16/17 10:05 | MNP | F1   |
| Nickel, Total   | 7.9     |      | mg/kg | 2.7   | 0.85  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:40 | ZMC | F2   |
| Selenium, Total | 2.0J    | J    | mg/kg | 2.7   | 0.85  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:40 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.35  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:40 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.53  | 0.18  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:40 | ZMC | F2   |
| Zinc, Total     | 27.8    |      | mg/kg | 2.7   | 0.85  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:40 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator



## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399007**  
Sample ID: **CL-ISM-S-D4**

Date Collected: 2/14/2017 10:40 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 5.9J           | J           | mg/kg        | 12.2          | 2.9  | SW846 8015D   | 2/22/17 04:55 VLM | 2/23/17 04:34 | BS              | F                     |
| Gasoline Range Organics       | 2080J          | J           | ug/kg        | 10700         | 1490 | SW846 8015D   | 2/14/17 10:40 DD  | 2/17/17 21:06 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 87.2           |             | %            | 38 - 118      |      | SW846 8015D   | 2/22/17 04:55 VLM | 2/23/17 04:34 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 114            |             | %            | 72 - 134      |      | SW846 8015D   | 2/14/17 10:40 DD  | 2/17/17 21:06 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | ND             |             | ug/kg        | 10.1          | 4.6  | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.0           | 0.59 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 10.1          | 3.5  | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Benzene                       | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.0           | 0.72 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 2.0           | 0.52 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 2.0           | 0.52 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| 2-Butanone                    | ND             |             | ug/kg        | 10.1          | 3.2  | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 10.1          | 3.5  | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.0           | 0.63 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.0           | 0.51 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.0           | 0.51 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.0           | 0.69 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 5.0           | 0.86 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 2.0           | 0.53 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 2.0           | 0.55 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 5.0           | 2.9  | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.0           | 0.54 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.0           | 0.52 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.0           | 0.52 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.0           | 0.60 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.0           | 0.55 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399007**  
Sample ID: **CL-ISM-S-D4**

Date Collected: 2/14/2017 10:40 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 2.0           | 0.58 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 2.0           | 0.52 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 2.0           | 0.69 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 10.1          | 2.8  | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 10.1          | 3.8  | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Methylene Chloride          | 8.3            | 1,2,3       | ug/kg        | 2.0           | 0.79 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.0           | 0.56 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.0           | 0.60 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.0           | 0.68 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 6.0           | 1.4  | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.0           | 0.62 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.0           | 0.56 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.0           | 0.58 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.0           | 0.84 | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 74.6           |             | %            | 56 - 124      |      | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 82.9           |             | %            | 51 - 128      |      | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Dibromofluoromethane (S)    | 88.8           |             | %            | 62 - 123      |      | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| Toluene-d8 (S)              | 83             |             | %            | 59 - 131      |      | SW846 8260B   | 2/14/17 10:40 SYB | 2/16/17 08:25 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 59.6          | 7.1  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 59.6          | 8.3  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS             | F                     |
| Acetophenone                | ND             | 4           | ug/kg        | 119           | 9.5  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 59.6          | 9.5  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 119           | 13.1 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 238           | 20.2 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS             | F                     |
| Benzo(a)anthracene          | ND             |             | ug/kg        | 59.6          | 6.0  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 59.6          | 4.8  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 59.6          | 6.0  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 59.6          | 6.0  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399007**  
Sample ID: **CL-ISM-S-D4**

Date Collected: 2/14/2017 10:40 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 59.6 | 6.0  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 119  | 8.3  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 119  | 10.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| Butylbenzylphthalate        | ND      |      | ug/kg | 119  | 8.3  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 238  | 21.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 119  | 8.3  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 238  | 11.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 238  | 14.3 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 119  | 10.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 119  | 15.5 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 119  | 17.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 119  | 7.1  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 238  | 9.5  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 119  | 9.5  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 59.6 | 6.0  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 238  | 9.5  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 238  | 13.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 119  | 9.5  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 119  | 8.3  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 59.6 | 7.1  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 119  | 9.5  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 238  | 45.3 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 238  | 9.5  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 119  | 9.5  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 238  | 17.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 119  | 8.3  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 238  | 47.6 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 119  | 10.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 119  | 14.3 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 119  | 58.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 119  | 8.3  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| Fluoranthene                | ND      |      | ug/kg | 59.6 | 6.0  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 59.6 | 7.1  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 119  | 13.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 119  | 11.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 238  | 13.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 119  | 10.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 59.6 | 8.3  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:18 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399007**  
Sample ID: **CL-ISM-S-D4**

Date Collected: 2/14/2017 10:40 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed          | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|-------------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 119           | 7.1    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 238           | 31.0   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 119           | 6.0    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 59.6          | 7.1    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 238           | 14.3   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 238           | 23.8   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 238           | 9.5    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 119           | 14.3   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 238           | 13.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 238           | 16.7   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 119           | 9.5    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 119           | 9.5    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 238           | 31.0   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 59.6          | 6.0    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| Phenol                         | ND             |             | ug/kg        | 238           | 11.9   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| Pyrene                         | ND             |             | ug/kg        | 59.6          | 6.0    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 119           | 8.3    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 238           | 14.3   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 238           | 14.3   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 238           | 14.3   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>         | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 86.3           |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| 2-Fluorobiphenyl (S)           | 83.8           |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| 2-Fluorophenol (S)             | 86.5           |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| Nitrobenzene-d5 (S)            | 91.2           |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| Phenol-d5 (S)                  | 90.1           |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| Terphenyl-d14 (S)              | 90             |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:18 CGS |                 | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |                   |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.039         | 0.0035 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:06 EGO |                 | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.039         | 0.0071 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:06 EGO |                 | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.039         | 0.0035 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:06 EGO |                 | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.039         | 0.0071 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:06 EGO |                 | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.039         | 0.011  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:06 EGO |                 | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.039         | 0.0071 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:06 EGO |                 | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.039         | 0.0071 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:06 EGO |                 | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.039         | 0.0071 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:06 EGO |                 | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.039         | 0.0082 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:06 EGO |                 | F                     |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399007**  
Sample ID: **CL-ISM-S-D4**

Date Collected: 2/14/2017 10:40 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.039         | 0.011 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:06 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 102            |             | %            | 49 - 115      |       | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:06 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 92.2           |             | %            | 27 - 137      |       | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:06 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 10            | 3.2   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 10            | 0.88  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 10            | 1.1   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 10            | 0.76  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 10            | 0.82  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 10            | 1.1   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 10            | 1.7   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 19.4          | 1.6   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 19.4          | 2.6   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 19.4          | 2.2   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 19.4          | 2.2   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 10            | 1.2   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 19.4          | 4.1   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 19.4          | 1.3   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 19.4          | 1.4   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 19.4          | 2.1   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 19.4          | 2.7   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 10            | 1.0   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 10            | 1.0   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 19.4          | 2.6   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 206           | 34.1  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 49.7           |             | %            | 30 - 135      |       | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 51.6           |             | %            | 30 - 111      |       | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 16:47 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Moisture                    | 17.2           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/15/17 10:45 | VKB             | F                     |
| Total Solids                | 82.8           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/15/17 10:45 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.2           | 0.40  | SW846 6020A   | 2/21/17 10:55 TRR | 2/22/17 04:44 | ZMC             | F2                    |
| Arsenic, Total              | 7.5            |             | mg/kg        | 1.8           | 0.60  | SW846 6020A   | 2/21/17 10:55 TRR | 2/22/17 04:44 | ZMC             | F2                    |
| Beryllium, Total            | 0.84           |             | mg/kg        | 0.60          | 0.20  | SW846 6020A   | 2/21/17 10:55 TRR | 2/22/17 04:44 | ZMC             | F2                    |



## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399007**  
Sample ID: **CL-ISM-S-D4**

Date Collected: 2/14/2017 10:40 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.60  | 0.20  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:44 | ZMC | F2   |
| Chromium, Total | 28.7    |      | mg/kg | 1.2   | 0.40  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:44 | ZMC | F2   |
| Copper, Total   | 13.1    |      | mg/kg | 3.0   | 0.97  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:44 | ZMC | F2   |
| Lead, Total     | 18.0    |      | mg/kg | 1.2   | 0.40  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:44 | ZMC | F2   |
| Mercury, Total  | ND      |      | mg/kg | 0.054 | 0.017 | SW846 7471B | 2/15/17 14:00 AXC | 2/16/17 10:06 | MNP | F1   |
| Nickel, Total   | 13.8    |      | mg/kg | 3.0   | 0.97  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:44 | ZMC | F2   |
| Selenium, Total | 1.8J    | J    | mg/kg | 3.0   | 0.97  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:44 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.2   | 0.40  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:44 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.60  | 0.20  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:44 | ZMC | F2   |
| Zinc, Total     | 56.6    |      | mg/kg | 3.0   | 0.97  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:44 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399008**  
Sample ID: **CL-ISM-S-D5**

Date Collected: 2/14/2017 08:15 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 6.6J           | J           | mg/kg        | 15.3          | 3.6  | SW846 8015D   | 2/22/17 04:55 VLM | 2/23/17 05:10 | BS              | F                     |
| Gasoline Range Organics       | ND             |             | ug/kg        | 8060          | 1120 | SW846 8015D   | 2/14/17 08:15 DD  | 2/17/17 21:40 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 85             |             | %            | 38 - 118      |      | SW846 8015D   | 2/22/17 04:55 VLM | 2/23/17 05:10 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 118            |             | %            | 72 - 134      |      | SW846 8015D   | 2/14/17 08:15 DD  | 2/17/17 21:40 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | 14.7           |             | ug/kg        | 12.3          | 5.6  | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.5           | 0.72 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 12.3          | 4.3  | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.5           | 0.61 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Benzene                       | ND             |             | ug/kg        | 2.5           | 0.61 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 2.5           | 0.61 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.5           | 0.87 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| 2-Butanone                    | ND             |             | ug/kg        | 12.3          | 3.9  | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 12.3          | 4.3  | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.5           | 0.77 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.5           | 0.63 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.5           | 0.63 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.5           | 0.83 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 6.1           | 1.0  | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 2.5           | 0.65 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 2.5           | 0.68 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 6.1           | 3.6  | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.5           | 0.66 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.5           | 0.61 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.5           | 0.61 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.5           | 0.61 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.5           | 0.74 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.5           | 0.68 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |



## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399008**  
Sample ID: **CL-ISM-S-D5**

Date Collected: 2/14/2017 08:15 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 2.5           | 0.71 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 2.5           | 0.61 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 2.5           | 0.83 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 12.3          | 3.4  | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 2.5           | 0.61 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 12.3          | 4.7  | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Methylene Chloride          | 13.1           | 1,2,3       | ug/kg        | 2.5           | 0.96 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 2.5           | 0.61 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.5           | 0.61 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.5           | 0.69 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.5           | 0.74 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.5           | 0.82 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 7.4           | 1.7  | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.5           | 0.76 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.5           | 0.69 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.5           | 0.61 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.5           | 0.61 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.5           | 0.71 | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.9           | 1.0  | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 77.7           |             | %            | 56 - 124      |      | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| 4-Bromofluorobenzene (S)    | 83.1           |             | %            | 51 - 128      |      | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Dibromofluoromethane (S)    | 90.3           |             | %            | 62 - 123      |      | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| Toluene-d8 (S)              | 83.4           |             | %            | 59 - 131      |      | SW846 8260B   | 2/14/17 08:15 TMP | 2/16/17 21:35 | TMP             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 73.0          | 8.8  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 73.0          | 10.2 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS             | F                     |
| Acetophenone                | ND             | 4           | ug/kg        | 146           | 11.7 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 73.0          | 11.7 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 146           | 16.1 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 292           | 24.8 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS             | F                     |
| Benzo(a)anthracene          | ND             |             | ug/kg        | 73.0          | 7.3  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 73.0          | 5.8  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 73.0          | 7.3  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 73.0          | 7.3  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399008**  
Sample ID: **CL-ISM-S-D5**

Date Collected: 2/14/2017 08:15 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 73.0 | 7.3  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 146  | 10.2 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 146  | 13.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| Butylbenzylphthalate        | ND      |      | ug/kg | 146  | 10.2 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 292  | 26.3 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 146  | 10.2 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 292  | 14.6 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 292  | 17.5 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 146  | 13.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 146  | 19.0 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 146  | 21.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 146  | 8.8  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 292  | 11.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 146  | 11.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 73.0 | 7.3  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 292  | 11.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 292  | 16.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 146  | 11.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 146  | 10.2 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 73.0 | 8.8  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 146  | 11.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 292  | 55.5 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 292  | 11.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 146  | 11.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 292  | 21.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 146  | 10.2 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 292  | 58.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 146  | 13.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 146  | 17.5 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 146  | 71.6 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 146  | 10.2 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| Fluoranthene                | ND      |      | ug/kg | 73.0 | 7.3  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 73.0 | 8.8  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 146  | 16.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 146  | 14.6 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 292  | 16.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 146  | 13.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 73.0 | 10.2 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 13:43 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399008**  
Sample ID: **CL-ISM-S-D5**

Date Collected: 2/14/2017 08:15 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed          | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|-------------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 146           | 8.8    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 292           | 38.0   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 146           | 7.3    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| Naphthalene                    | ND             |             | ug/kg        | 73.0          | 8.8    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 292           | 17.5   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 292           | 29.2   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 292           | 11.7   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| Nitrobenzene                   | ND             |             | ug/kg        | 146           | 17.5   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 292           | 16.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 292           | 20.5   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 146           | 11.7   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 146           | 11.7   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| Pentachlorophenol              | ND             |             | ug/kg        | 292           | 38.0   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| Phenanthrene                   | ND             |             | ug/kg        | 73.0          | 7.3    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| Phenol                         | ND             |             | ug/kg        | 292           | 14.6   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| Pyrene                         | ND             |             | ug/kg        | 73.0          | 7.3    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 146           | 10.2   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 292           | 17.5   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 292           | 17.5   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 292           | 17.5   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>         | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 76.8           |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| 2-Fluorobiphenyl (S)           | 76             |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| 2-Fluorophenol (S)             | 77.5           |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| Nitrobenzene-d5 (S)            | 80.1           |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| Phenol-d5 (S)                  | 81             |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| Terphenyl-d14 (S)              | 78             |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 13:43 CGS | F               |                       |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |                   |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.071         | 0.0064 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:17 EGO | F               |                       |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.071         | 0.013  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:17 EGO | F               |                       |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.071         | 0.0064 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:17 EGO | F               |                       |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.071         | 0.013  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:17 EGO | F               |                       |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.071         | 0.019  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:17 EGO | F               |                       |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.071         | 0.013  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:17 EGO | F               |                       |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.071         | 0.013  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:17 EGO | F               |                       |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.071         | 0.013  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:17 EGO | F               |                       |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.071         | 0.015  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:17 EGO | F               |                       |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399008**  
Sample ID: **CL-ISM-S-D5**

Date Collected: 2/14/2017 08:15 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.071         | 0.019 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:17 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 114            |             | %            | 49 - 115      |       | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:17 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 101            |             | %            | 27 - 137      |       | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:17 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 18.2          | 5.9   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 18.2          | 1.6   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 18.2          | 1.9   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 18.2          | 1.4   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 18.2          | 1.5   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 18.2          | 1.9   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 18.2          | 3.1   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 35.3          | 2.9   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 35.3          | 4.8   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 35.3          | 4.1   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 35.3          | 4.1   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 18.2          | 2.2   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 35.3          | 7.4   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 35.3          | 2.4   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 35.3          | 2.6   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 35.3          | 3.9   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 35.3          | 4.9   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 18.2          | 1.8   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 18.2          | 1.8   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 35.3          | 4.7   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 375           | 62.1  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 67.6           |             | %            | 30 - 135      |       | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 59.4           |             | %            | 30 - 111      |       | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:03 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Hexavalent Chromium         | 0.74J          | J           | mg/kg        | 2.9           | 0.55  | SW846 7196A   | 2/23/17 12:00 AHI | 2/23/17 18:45 | AHI             | F                     |
| Moisture                    | 32.0           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/15/17 10:45 | VKB             | F                     |
| Total Solids                | 68.0           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/15/17 10:45 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.4           | 0.47  | SW846 6020A   | 2/21/17 10:55 TRR | 2/22/17 04:48 | ZMC             | F2                    |
| Arsenic, Total              | 13.8           |             | mg/kg        | 2.1           | 0.71  | SW846 6020A   | 2/21/17 10:55 TRR | 2/22/17 04:48 | ZMC             | F2                    |

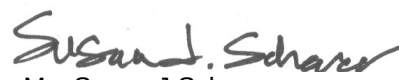
## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399008**  
Sample ID: **CL-ISM-S-D5**

Date Collected: 2/14/2017 08:15 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters       | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|------------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Beryllium, Total | 1.3     |      | mg/kg | 0.71  | 0.23  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:48 | ZMC | F2   |
| Cadmium, Total   | ND      |      | mg/kg | 0.71  | 0.23  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:48 | ZMC | F2   |
| Chromium, Total  | 38.2    |      | mg/kg | 1.4   | 0.47  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:48 | ZMC | F2   |
| Copper, Total    | 12.5    |      | mg/kg | 3.5   | 1.1   | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:48 | ZMC | F2   |
| Lead, Total      | 22.3    |      | mg/kg | 1.4   | 0.47  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:48 | ZMC | F2   |
| Mercury, Total   | 0.042J  | J    | mg/kg | 0.072 | 0.023 | SW846 7471B | 2/15/17 14:00 AXC | 2/16/17 10:07 | MNP | F1   |
| Nickel, Total    | 17.2    |      | mg/kg | 3.5   | 1.1   | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:48 | ZMC | F2   |
| Selenium, Total  | 4.7     |      | mg/kg | 3.5   | 1.1   | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:48 | ZMC | F2   |
| Silver, Total    | ND      |      | mg/kg | 1.4   | 0.47  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:48 | ZMC | F2   |
| Thallium, Total  | 0.28J   | J    | mg/kg | 0.71  | 0.23  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:48 | ZMC | F2   |
| Zinc, Total      | 60.5    |      | mg/kg | 3.5   | 1.1   | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:48 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator



## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399009**  
Sample ID: **CL-ISM-S-E4**

Date Collected: 2/14/2017 10:00 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 3.7J           | J           | mg/kg        | 13.8          | 3.3  | SW846 8015D   | 2/22/17 04:55 VLM | 2/23/17 05:45 | BS              | F                     |
| Gasoline Range Organics       | ND             |             | ug/kg        | 7060          | 981  | SW846 8015D   | 2/14/17 10:00 DD  | 2/17/17 22:13 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 73.4           |             | %            | 38 - 118      |      | SW846 8015D   | 2/22/17 04:55 VLM | 2/23/17 05:45 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 109            |             | %            | 72 - 134      |      | SW846 8015D   | 2/14/17 10:00 DD  | 2/17/17 22:13 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | 40.6           |             | ug/kg        | 11.8          | 5.4  | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.4           | 0.70 | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 11.8          | 4.1  | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| Benzene                       | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| Bromochloromethane            | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.4           | 0.84 | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| Bromoform                     | ND             |             | ug/kg        | 2.4           | 0.61 | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| Bromomethane                  | ND             |             | ug/kg        | 2.4           | 0.61 | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| 2-Butanone                    | ND             |             | ug/kg        | 11.8          | 3.8  | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 11.8          | 4.1  | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.4           | 0.74 | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.4           | 0.60 | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.4           | 0.60 | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.4           | 0.80 | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| Chloroethane                  | ND             |             | ug/kg        | 5.9           | 1.0  | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| Chloroform                    | ND             |             | ug/kg        | 2.4           | 0.62 | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| Chloromethane                 | ND             |             | ug/kg        | 2.4           | 0.65 | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 5.9           | 3.4  | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.4           | 0.64 | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.4           | 0.61 | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.4           | 0.59 | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.4           | 0.61 | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.4           | 0.71 | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.4           | 0.65 | SW846 8260B   | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB             | C                     |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399009**  
Sample ID: **CL-ISM-S-E4**

Date Collected: 2/14/2017 10:00 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                 | Results | Flag | Units | RDL      | MDL  | Method      | Prepared By       | Analyzed      | By       | Cntr |      |
|----------------------------|---------|------|-------|----------|------|-------------|-------------------|---------------|----------|------|------|
| trans-1,3-Dichloropropene  | ND      |      | ug/kg | 2.4      | 0.68 | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| Diisopropyl ether          | ND      |      | ug/kg | 2.4      | 0.59 | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| Ethyl tert-butyl ether     | ND      |      | ug/kg | 2.4      | 0.61 | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| Ethylbenzene               | ND      |      | ug/kg | 2.4      | 0.80 | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| 2-Hexanone                 | ND      |      | ug/kg | 11.8     | 3.3  | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| Methyl t-Butyl Ether       | ND      |      | ug/kg | 2.4      | 0.59 | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| 4-Methyl-2-Pentanone(MIBK) | ND      |      | ug/kg | 11.8     | 4.5  | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| Methylene Chloride         | 8.3     | 5,6  | ug/kg | 2.4      | 0.92 | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| Naphthalene                | 0.68J   | J    | ug/kg | 2.4      | 0.59 | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| Styrene                    | ND      |      | ug/kg | 2.4      | 0.59 | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| 1,1,2,2-Tetrachloroethane  | ND      |      | ug/kg | 2.4      | 0.66 | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| Tetrachloroethene          | ND      |      | ug/kg | 2.4      | 0.71 | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| Toluene                    | ND      |      | ug/kg | 2.4      | 0.79 | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| Total Xylenes              | ND      |      | ug/kg | 7.1      | 1.7  | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| 1,1,1-Trichloroethane      | ND      |      | ug/kg | 2.4      | 0.73 | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| 1,1,2-Trichloroethane      | ND      |      | ug/kg | 2.4      | 0.66 | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| Trichloroethene            | ND      |      | ug/kg | 2.4      | 0.59 | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| Vinyl Chloride             | ND      |      | ug/kg | 2.4      | 0.59 | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| o-Xylene                   | ND      |      | ug/kg | 2.4      | 0.68 | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| mp-Xylene                  | ND      |      | ug/kg | 4.7      | 0.98 | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| Surrogate Recoveries       | Results | Flag | Units | Limits   |      | Method      | Prepared          | By            | Analyzed | By   | Cntr |
| 1,2-Dichloroethane-d4 (S)  | 74.9    |      | %     | 56 - 124 |      | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| 4-Bromofluorobenzene (S)   | 83.4    |      | %     | 51 - 128 |      | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| Dibromofluoromethane (S)   | 89.3    |      | %     | 62 - 123 |      | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| Toluene-d8 (S)             | 82      |      | %     | 59 - 131 |      | SW846 8260B | 2/14/17 10:00 SYB | 2/18/17 01:42 | SYB      | C    |      |
| SEMIVOLATILES              |         |      |       |          |      |             |                   |               |          |      |      |
| Acenaphthene               | ND      |      | ug/kg | 67.0     | 8.0  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 | CGS      | F    |      |
| Acenaphthylene             | ND      |      | ug/kg | 67.0     | 9.4  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 | CGS      | F    |      |
| Acetophenone               | ND      | 4    | ug/kg | 134      | 10.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 | CGS      | F    |      |
| Anthracene                 | ND      |      | ug/kg | 67.0     | 10.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 | CGS      | F    |      |
| Atrazine                   | ND      |      | ug/kg | 134      | 14.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 | CGS      | F    |      |
| Benzaldehyde               | ND      |      | ug/kg | 268      | 22.8 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 | CGS      | F    |      |
| Benzo(a)anthracene         | ND      |      | ug/kg | 67.0     | 6.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 | CGS      | F    |      |
| Benzo(a)pyrene             | ND      |      | ug/kg | 67.0     | 5.4  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 | CGS      | F    |      |
| Benzo(b)fluoranthene       | ND      |      | ug/kg | 67.0     | 6.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 | CGS      | F    |      |
| Benzo(g,h,i)perylene       | ND      |      | ug/kg | 67.0     | 6.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 | CGS      | F    |      |
| Benzo(k)fluoranthene       | ND      |      | ug/kg | 67.0     | 6.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 | CGS      | F    |      |



## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399009**  
Sample ID: **CL-ISM-S-E4**

Date Collected: 2/14/2017 10:00 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed          | By | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|-------------------|----|------|
| Biphenyl                    | ND      |      | ug/kg | 134  | 9.4  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 134  | 12.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| Butylbenzylphthalate        | ND      |      | ug/kg | 134  | 9.4  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| Caprolactam                 | ND      |      | ug/kg | 268  | 24.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| Carbazole                   | ND      |      | ug/kg | 134  | 9.4  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 268  | 13.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| 4-Chloroaniline             | ND      |      | ug/kg | 268  | 16.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 134  | 12.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 134  | 17.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 134  | 20.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 134  | 8.0  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| 2-Chlorophenol              | ND      |      | ug/kg | 268  | 10.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 134  | 10.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| Chrysene                    | ND      |      | ug/kg | 67.0 | 6.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| mp-Cresol                   | ND      |      | ug/kg | 268  | 10.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| o-Cresol                    | ND      |      | ug/kg | 268  | 14.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 134  | 10.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 134  | 9.4  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 67.0 | 8.0  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| Dibenzofuran                | ND      |      | ug/kg | 134  | 10.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 268  | 50.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 268  | 10.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| Diethylphthalate            | ND      |      | ug/kg | 134  | 10.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 268  | 20.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| Dimethylphthalate           | ND      |      | ug/kg | 134  | 9.4  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 268  | 53.6 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 134  | 12.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 134  | 16.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| 1,4-Dioxane                 | ND      |      | ug/kg | 134  | 65.6 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 134  | 9.4  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| Fluoranthene                | ND      |      | ug/kg | 67.0 | 6.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| Fluorene                    | ND      |      | ug/kg | 67.0 | 8.0  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| Hexachlorobenzene           | ND      |      | ug/kg | 134  | 14.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| Hexachlorobutadiene         | ND      |      | ug/kg | 134  | 13.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 268  | 14.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| Hexachloroethane            | ND      |      | ug/kg | 134  | 12.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 67.0 | 9.4  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |
| Isophorone                  | ND      |      | ug/kg | 134  | 8.0  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS | F  |      |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399009**  
Sample ID: **CL-ISM-S-E4**

Date Collected: 2/14/2017 10:00 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed          | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|-------------------|-----------------|-----------------------|
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 268           | 34.8   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 134           | 6.7    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 67.0          | 8.0    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 268           | 16.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 268           | 26.8   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 268           | 10.7   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 134           | 16.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 268           | 14.7   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 268           | 18.8   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 134           | 10.7   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 134           | 10.7   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 268           | 34.8   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 67.0          | 6.7    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| Phenol                         | ND             |             | ug/kg        | 268           | 13.4   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| Pyrene                         | ND             |             | ug/kg        | 67.0          | 6.7    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 134           | 9.4    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 268           | 16.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 268           | 16.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 268           | 16.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>         | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 78             |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| 2-Fluorobiphenyl (S)           | 76.3           |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| 2-Fluorophenol (S)             | 81.1           |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| Nitrobenzene-d5 (S)            | 83.4           |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| Phenol-d5 (S)                  | 83.7           |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| Terphenyl-d14 (S)              | 81.8           |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:08 CGS |                 | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |                   |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.066         | 0.0060 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:29 EGO |                 | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.066         | 0.012  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:29 EGO |                 | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.066         | 0.0060 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:29 EGO |                 | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.066         | 0.012  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:29 EGO |                 | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.066         | 0.018  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:29 EGO |                 | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.066         | 0.012  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:29 EGO |                 | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.066         | 0.012  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:29 EGO |                 | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.066         | 0.012  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:29 EGO |                 | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.066         | 0.014  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:29 EGO |                 | F                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.066         | 0.018  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:29 EGO |                 | F                     |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399009**  
Sample ID: **CL-ISM-S-E4**

Date Collected: 2/14/2017 10:00 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By     | Analyzed  | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-----------------|-----------|-----------------|-----------------------|
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 107            |             | %            | 49 - 115      |      | SW846 8082A   | 2/21/17 01:20   | CMA       | 2/21/17 09:29   | EGO F                 |
| Tetrachloro-m-xylene (S)    | 99.4           |             | %            | 27 - 137      |      | SW846 8082A   | 2/21/17 01:20   | CMA       | 2/21/17 09:29   | EGO F                 |
| <b>PESTICIDES</b>           |                |             |              |               |      |               |                 |           |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 17.0          | 5.5  | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| alpha-BHC                   | ND             |             | ug/kg        | 17.0          | 1.5  | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| beta-BHC                    | ND             |             | ug/kg        | 17.0          | 1.8  | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| delta-BHC                   | ND             |             | ug/kg        | 17.0          | 1.3  | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| gamma-BHC                   | ND             |             | ug/kg        | 17.0          | 1.4  | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| alpha-Chlordane             | ND             |             | ug/kg        | 17.0          | 1.8  | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| gamma-Chlordane             | ND             |             | ug/kg        | 17.0          | 2.9  | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| 4,4'-DDD                    | ND             |             | ug/kg        | 33.0          | 2.7  | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| 4,4'-DDE                    | ND             |             | ug/kg        | 33.0          | 4.5  | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| 4,4'-DDT                    | ND             |             | ug/kg        | 33.0          | 3.8  | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| Dieldrin                    | ND             |             | ug/kg        | 33.0          | 3.8  | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| Endosulfan I                | ND             |             | ug/kg        | 17.0          | 2.1  | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| Endosulfan II               | ND             |             | ug/kg        | 33.0          | 6.9  | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 33.0          | 2.2  | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| Endrin                      | ND             |             | ug/kg        | 33.0          | 2.4  | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| Endrin Aldehyde             | ND             |             | ug/kg        | 33.0          | 3.6  | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| Endrin Ketone               | ND             |             | ug/kg        | 33.0          | 4.6  | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| Heptachlor                  | ND             |             | ug/kg        | 17.0          | 1.7  | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 17.0          | 1.7  | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| Methoxychlor                | ND             |             | ug/kg        | 33.0          | 4.4  | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| Toxaphene                   | ND             |             | ug/kg        | 350           | 58.1 | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 59.3           |             | %            | 30 - 135      |      | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| Tetrachloro-m-xylene (S)    | 59.8           |             | %            | 30 - 111      |      | SW846 8081B   | 2/21/17 01:20   | CMA       | 2/21/17 17:18   | RWS F                 |
| <b>WET CHEMISTRY</b>        |                |             |              |               |      |               |                 |           |                 |                       |
| Moisture                    | 25.8           |             | %            | 0.1           | 0.01 | S2540G-11     |                 |           | 2/15/17 10:45   | VKB F                 |
| Total Solids                | 74.2           |             | %            | 0.1           | 0.01 | S2540G-11     |                 |           | 2/15/17 10:45   | VKB F                 |
| <b>METALS</b>               |                |             |              |               |      |               |                 |           |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.3           | 0.44 | SW846 6020A   | 2/21/17 10:55   | TRR       | 2/22/17 05:19   | ZMC F2                |
| Arsenic, Total              | 6.2            |             | mg/kg        | 2.0           | 0.66 | SW846 6020A   | 2/21/17 10:55   | TRR       | 2/22/17 05:19   | ZMC F2                |
| Beryllium, Total            | 1.1            |             | mg/kg        | 0.66          | 0.22 | SW846 6020A   | 2/21/17 10:55   | TRR       | 2/22/17 05:19   | ZMC F2                |
| Cadmium, Total              | ND             |             | mg/kg        | 0.66          | 0.22 | SW846 6020A   | 2/21/17 10:55   | TRR       | 2/22/17 05:19   | ZMC F2                |

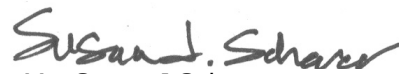
## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399009**  
Sample ID: **CL-ISM-S-E4**

Date Collected: 2/14/2017 10:00 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Chromium, Total | 18.1    |      | mg/kg | 1.3   | 0.44  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 05:19 | ZMC | F2   |
| Copper, Total   | 6.6     |      | mg/kg | 3.3   | 1.1   | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 05:19 | ZMC | F2   |
| Lead, Total     | 16.0    |      | mg/kg | 1.3   | 0.44  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 05:19 | ZMC | F2   |
| Mercury, Total  | 0.044J  | J    | mg/kg | 0.066 | 0.021 | SW846 7471B | 2/15/17 14:00 AXC | 2/16/17 10:08 | MNP | F1   |
| Nickel, Total   | 12.7    |      | mg/kg | 3.3   | 1.1   | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 05:19 | ZMC | F2   |
| Selenium, Total | 3.2J    | J    | mg/kg | 3.3   | 1.1   | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 05:19 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.3   | 0.44  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 05:19 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.66  | 0.22  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 05:19 | ZMC | F2   |
| Zinc, Total     | 48.7    |      | mg/kg | 3.3   | 1.1   | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 05:19 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399010**  
Sample ID: **CL-ISM-S-E5**

Date Collected: 2/14/2017 09:20 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 25.7           |             | mg/kg        | 11.6          | 2.7  | SW846 8015D   | 2/22/17 04:55 VLM | 2/23/17 06:21 | BS              | F                     |
| Gasoline Range Organics       | ND             |             | ug/kg        | 7870          | 1090 | SW846 8015D   | 2/14/17 09:20 DD  | 2/17/17 22:47 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 85.8           |             | %            | 38 - 118      |      | SW846 8015D   | 2/22/17 04:55 VLM | 2/23/17 06:21 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 117            |             | %            | 72 - 134      |      | SW846 8015D   | 2/14/17 09:20 DD  | 2/17/17 22:47 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | 7.0J           | J           | ug/kg        | 9.7           | 4.5  | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 1.9           | 0.57 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 9.7           | 3.4  | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 1.9           | 0.49 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Benzene                       | ND             |             | ug/kg        | 1.9           | 0.49 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 1.9           | 0.49 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 1.9           | 0.69 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 1.9           | 0.50 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 1.9           | 0.50 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| 2-Butanone                    | ND             |             | ug/kg        | 9.7           | 3.1  | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 9.7           | 3.4  | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 1.9           | 0.61 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 1.9           | 0.49 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 1.9           | 0.49 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 1.9           | 0.66 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 4.9           | 0.82 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 1.9           | 0.51 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 1.9           | 0.53 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 4.9           | 2.8  | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 1.9           | 0.52 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 1.9           | 0.49 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 1.9           | 0.49 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 1.9           | 0.50 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 1.9           | 0.49 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 1.9           | 0.50 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 1.9           | 0.58 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 1.9           | 0.53 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |



## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399010**  
Sample ID: **CL-ISM-S-E5**

Date Collected: 2/14/2017 09:20 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 1.9           | 0.56 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 1.9           | 0.49 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 1.9           | 0.50 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 1.9           | 0.66 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 9.7           | 2.7  | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 1.9           | 0.49 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 9.7           | 3.7  | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Methylene Chloride          | 8.9            | 1,2,3       | ug/kg        | 1.9           | 0.76 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 1.9           | 0.49 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Styrene                     | ND             |             | ug/kg        | 1.9           | 0.49 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 1.9           | 0.54 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 1.9           | 0.58 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Toluene                     | ND             |             | ug/kg        | 1.9           | 0.65 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 5.8           | 1.4  | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 1.9           | 0.60 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 1.9           | 0.54 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 1.9           | 0.49 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 1.9           | 0.49 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 1.9           | 0.56 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 3.9           | 0.81 | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 81.6           |             | %            | 56 - 124      |      | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| 4-Bromofluorobenzene (S)    | 86.4           |             | %            | 51 - 128      |      | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Dibromofluoromethane (S)    | 92.5           |             | %            | 62 - 123      |      | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| Toluene-d8 (S)              | 84             |             | %            | 59 - 131      |      | SW846 8260B   | 2/14/17 09:20 TMP | 2/16/17 22:21 | TMP             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 54.7          | 6.6  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 54.7          | 7.7  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 | CGS             | F                     |
| Acetophenone                | ND             | 4           | ug/kg        | 109           | 8.8  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 54.7          | 8.8  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 109           | 12.0 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 219           | 18.6 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 | CGS             | F                     |
| Benzo(a)anthracene          | 14.2J          | J           | ug/kg        | 54.7          | 5.5  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 | CGS             | F                     |
| Benzo(a)pyrene              | 4.5J           | J           | ug/kg        | 54.7          | 4.4  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 54.7          | 5.5  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 54.7          | 5.5  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399010**  
Sample ID: **CL-ISM-S-E5**

Date Collected: 2/14/2017 09:20 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed          | By | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|-------------------|----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 54.7 | 5.5  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| Biphenyl                    | ND      |      | ug/kg | 109  | 7.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 109  | 9.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| Butylbenzylphthalate        | ND      |      | ug/kg | 109  | 7.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| Caprolactam                 | ND      |      | ug/kg | 219  | 19.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| Carbazole                   | ND      |      | ug/kg | 109  | 7.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 219  | 10.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| 4-Chloroaniline             | ND      |      | ug/kg | 219  | 13.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 109  | 9.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 109  | 14.2 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 109  | 16.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 109  | 6.6  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| 2-Chlorophenol              | ND      |      | ug/kg | 219  | 8.8  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 109  | 8.8  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| Chrysene                    | 15.7J   | J    | ug/kg | 54.7 | 5.5  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| mp-Cresol                   | ND      |      | ug/kg | 219  | 8.8  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| o-Cresol                    | ND      |      | ug/kg | 219  | 12.0 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 109  | 8.8  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 109  | 7.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 54.7 | 6.6  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| Dibenzofuran                | ND      |      | ug/kg | 109  | 8.8  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 219  | 41.6 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 219  | 8.8  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| Diethylphthalate            | ND      |      | ug/kg | 109  | 8.8  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 219  | 16.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| Dimethylphthalate           | ND      |      | ug/kg | 109  | 7.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 219  | 43.8 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 109  | 9.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 109  | 13.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| 1,4-Dioxane                 | ND      |      | ug/kg | 109  | 53.6 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 109  | 7.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| Fluoranthene                | 13.1J   | J    | ug/kg | 54.7 | 5.5  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| Fluorene                    | ND      |      | ug/kg | 54.7 | 6.6  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| Hexachlorobenzene           | ND      |      | ug/kg | 109  | 12.0 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| Hexachlorobutadiene         | ND      |      | ug/kg | 109  | 10.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 219  | 12.0 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| Hexachloroethane            | ND      |      | ug/kg | 109  | 9.9  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 54.7 | 7.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS | F  |      |



## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399010**  
Sample ID: **CL-ISM-S-E5**

Date Collected: 2/14/2017 09:20 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed          | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|-------------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 109           | 6.6    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 219           | 28.5   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 109           | 5.5    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 54.7          | 6.6    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 219           | 13.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 219           | 21.9   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 219           | 8.8    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 109           | 13.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 219           | 12.0   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 219           | 15.3   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 109           | 8.8    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 109           | 8.8    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 219           | 28.5   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| Phenanthrene                   | 7.1J           | J           | ug/kg        | 54.7          | 5.5    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| Phenol                         | ND             |             | ug/kg        | 219           | 10.9   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| Pyrene                         | 13.9J          | J           | ug/kg        | 54.7          | 5.5    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 109           | 7.7    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 219           | 13.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 219           | 13.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 219           | 13.1   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>         | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 79             |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| 2-Fluorobiphenyl (S)           | 75.3           |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| 2-Fluorophenol (S)             | 71.2           |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| Nitrobenzene-d5 (S)            | 76.6           |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| Phenol-d5 (S)                  | 79.2           |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| Terphenyl-d14 (S)              | 81.8           |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:33 CGS |                 | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |                   |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.036         | 0.0032 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:40 EGO |                 | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:40 EGO |                 | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.036         | 0.0032 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:40 EGO |                 | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:40 EGO |                 | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.036         | 0.0097 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:40 EGO |                 | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:40 EGO |                 | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:40 EGO |                 | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:40 EGO |                 | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.036         | 0.0076 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:40 EGO |                 | F                     |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399010**  
Sample ID: **CL-ISM-S-E5**

Date Collected: 2/14/2017 09:20 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.036         | 0.0097 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:40 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 106            |             | %            | 49 - 115      |        | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:40 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 97.6           |             | %            | 27 - 137      |        | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:40 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 9.2           | 3.0    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 9.2           | 0.81   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 9.2           | 0.97   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 9.2           | 0.70   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 9.2           | 0.76   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 9.2           | 0.97   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 9.2           | 1.6    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 17.8          | 1.5    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| 4,4'-DDE                    | 4.6J           | J           | ug/kg        | 17.8          | 2.4    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 17.8          | 2.1    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 17.8          | 2.1    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 9.2           | 1.1    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 17.8          | 3.7    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 17.8          | 1.2    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 17.8          | 1.3    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 17.8          | 1.9    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 17.8          | 2.5    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 9.2           | 0.92   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 9.2           | 0.92   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 17.8          | 2.4    | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 189           | 31.3   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 69.5           |             | %            | 30 - 135      |        | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 57.7           |             | %            | 30 - 111      |        | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:34 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |        |               |                   |               |                 |                       |
| Moisture                    | 8.6            |             | %            | 0.1           | 0.01   | S2540G-11     |                   | 2/15/17 10:45 | VKB             | F                     |
| Total Solids                | 91.4           |             | %            | 0.1           | 0.01   | S2540G-11     |                   | 2/15/17 10:45 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |        |               |                   |               |                 |                       |
| Antimony, Total             | 0.39J          | J           | mg/kg        | 1.1           | 0.36   | SW846 6020A   | 2/21/17 10:55 TRR | 2/22/17 05:23 | ZMC             | F2                    |
| Arsenic, Total              | 4.1            |             | mg/kg        | 1.6           | 0.55   | SW846 6020A   | 2/21/17 10:55 TRR | 2/22/17 05:23 | ZMC             | F2                    |
| Beryllium, Total            | 0.29J          | J           | mg/kg        | 0.55          | 0.18   | SW846 6020A   | 2/21/17 10:55 TRR | 2/22/17 05:23 | ZMC             | F2                    |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399010**  
Sample ID: **CL-ISM-S-E5**

Date Collected: 2/14/2017 09:20 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | 0.19J   | J    | mg/kg | 0.55  | 0.18  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 05:23 | ZMC | F2   |
| Chromium, Total | 10.4    |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 05:23 | ZMC | F2   |
| Copper, Total   | 6.9     |      | mg/kg | 2.7   | 0.88  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 05:23 | ZMC | F2   |
| Lead, Total     | 20.7    |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 05:23 | ZMC | F2   |
| Mercury, Total  | 0.45    |      | mg/kg | 0.047 | 0.015 | SW846 7471B | 2/15/17 14:00 AXC | 2/16/17 10:14 | MNP | F1   |
| Nickel, Total   | 4.6     |      | mg/kg | 2.7   | 0.88  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 05:23 | ZMC | F2   |
| Selenium, Total | 1.0J    | J    | mg/kg | 2.7   | 0.88  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 05:23 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 05:23 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.55  | 0.18  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 05:23 | ZMC | F2   |
| Zinc, Total     | 28.0    |      | mg/kg | 2.7   | 0.88  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 05:23 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399011**  
Sample ID: **CL-SAW-S-D3**

Date Collected: 2/14/2017 16:30 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 43.4           |             | mg/kg        | 12.3          | 2.9  | SW846 8015D   | 2/22/17 04:55 VLM | 2/23/17 06:57 | BS              | F                     |
| Gasoline Range Organics       | 3780J          | J           | ug/kg        | 14600         | 2030 | SW846 8015D   | 2/14/17 06:30 DD  | 2/18/17 03:16 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 85.9           |             | %            | 38 - 118      |      | SW846 8015D   | 2/22/17 04:55 VLM | 2/23/17 06:57 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 112            |             | %            | 72 - 134      |      | SW846 8015D   | 2/14/17 06:30 DD  | 2/18/17 03:16 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | 35.0           |             | ug/kg        | 15.6          | 7.2  | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 3.1           | 0.92 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 15.6          | 5.5  | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 3.1           | 0.78 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Benzene                       | ND             |             | ug/kg        | 3.1           | 0.78 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 3.1           | 0.78 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 3.1           | 1.1  | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 3.1           | 0.81 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 3.1           | 0.81 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| 2-Butanone                    | ND             |             | ug/kg        | 15.6          | 5.0  | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 15.6          | 5.5  | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 3.1           | 0.98 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 3.1           | 0.80 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 3.1           | 0.80 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 3.1           | 1.1  | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 7.8           | 1.3  | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 3.1           | 0.83 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 3.1           | 0.86 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 7.8           | 4.5  | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 3.1           | 0.84 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 3.1           | 0.78 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 3.1           | 0.78 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 3.1           | 0.81 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 3.1           | 0.78 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 3.1           | 0.81 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 3.1           | 0.94 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 3.1           | 0.86 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399011**  
Sample ID: **CL-SAW-S-D3**

Date Collected: 2/14/2017 16:30 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 3.1           | 0.91 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 3.1           | 0.78 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 3.1           | 0.81 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 3.1           | 1.1  | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 15.6          | 4.4  | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 3.1           | 0.78 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 15.6          | 5.9  | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Methylene Chloride          | 10.2           | 1,2,3       | ug/kg        | 3.1           | 1.2  | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 3.1           | 0.78 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Styrene                     | ND             |             | ug/kg        | 3.1           | 0.78 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 3.1           | 0.87 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 3.1           | 0.94 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Toluene                     | ND             |             | ug/kg        | 3.1           | 1.0  | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 9.4           | 2.2  | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 3.1           | 0.97 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 3.1           | 0.87 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 3.1           | 0.78 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 3.1           | 0.78 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 3.1           | 0.91 | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 6.2           | 1.3  | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 77.3           |             | %            | 56 - 124      |      | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| 4-Bromofluorobenzene (S)    | 84.8           |             | %            | 51 - 128      |      | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Dibromofluoromethane (S)    | 90.1           |             | %            | 62 - 123      |      | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| Toluene-d8 (S)              | 84.4           |             | %            | 59 - 131      |      | SW846 8260B   | 2/14/17 06:30 TMP | 2/16/17 22:44 | TMP             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 57.0          | 6.8  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 57.0          | 8.0  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS             | F                     |
| Acetophenone                | ND             | 4           | ug/kg        | 114           | 9.1  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS             | F                     |
| Anthracene                  | 19.1J          | J           | ug/kg        | 57.0          | 9.1  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 114           | 12.5 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS             | F                     |
| Benzaldehyde                | 51.7J          | J           | ug/kg        | 228           | 19.4 | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS             | F                     |
| Benzo(a)anthracene          | 7.6J           | J           | ug/kg        | 57.0          | 5.7  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS             | F                     |
| Benzo(a)pyrene              | 8.6J           | J           | ug/kg        | 57.0          | 4.6  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 57.0          | 5.7  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 57.0          | 5.7  | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS             | F                     |



## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399011**  
Sample ID: **CL-SAW-S-D3**

Date Collected: 2/14/2017 16:30 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 57.0 | 5.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 114  | 8.0  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 114  | 10.3 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| Butylbenzylphthalate        | ND      |      | ug/kg | 114  | 8.0  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 228  | 20.5 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 114  | 8.0  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 228  | 11.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 228  | 13.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 114  | 10.3 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 114  | 14.8 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 114  | 17.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 114  | 6.8  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 228  | 9.1  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 114  | 9.1  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| Chrysene                    | 7.7J    | J    | ug/kg | 57.0 | 5.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 228  | 9.1  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 228  | 12.5 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 114  | 9.1  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 114  | 8.0  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 57.0 | 6.8  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| Dibenzofuran                | 10.3J   | J    | ug/kg | 114  | 9.1  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 228  | 43.3 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 228  | 9.1  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 114  | 9.1  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 228  | 17.1 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 114  | 8.0  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 228  | 45.6 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 114  | 10.3 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 114  | 13.7 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 114  | 55.9 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 114  | 8.0  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| Fluoranthene                | 14.8J   | J    | ug/kg | 57.0 | 5.7  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 57.0 | 6.8  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 114  | 12.5 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 114  | 11.4 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 228  | 12.5 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 114  | 10.3 | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 57.0 | 8.0  | SW846 8270D | 2/20/17 18:30 JSR | 2/21/17 14:58 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399011**  
Sample ID: **CL-SAW-S-D3**

Date Collected: 2/14/2017 16:30 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed          | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|-------------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 114           | 6.8    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 228           | 29.7   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| 2-Methylnaphthalene            | 12.6J          | J           | ug/kg        | 114           | 5.7    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| Naphthalene                    | 20.6J          | J           | ug/kg        | 57.0          | 6.8    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 228           | 13.7   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 228           | 22.8   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 228           | 9.1    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| Nitrobenzene                   | ND             |             | ug/kg        | 114           | 13.7   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 228           | 12.5   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 228           | 16.0   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 114           | 9.1    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 114           | 9.1    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| Pentachlorophenol              | ND             |             | ug/kg        | 228           | 29.7   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| Phenanthrene                   | 19.5J          | J           | ug/kg        | 57.0          | 5.7    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| Phenol                         | ND             |             | ug/kg        | 228           | 11.4   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| Pyrene                         | 13.3J          | J           | ug/kg        | 57.0          | 5.7    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 114           | 8.0    | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 228           | 13.7   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 228           | 13.7   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 228           | 13.7   | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>         | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 82.3           |             | %            | 19 - 132      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| 2-Fluorobiphenyl (S)           | 79.1           |             | %            | 40 - 110      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| 2-Fluorophenol (S)             | 74.1           |             | %            | 26 - 116      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| Nitrobenzene-d5 (S)            | 80             |             | %            | 38 - 112      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| Phenol-d5 (S)                  | 81.8           |             | %            | 35 - 111      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| Terphenyl-d14 (S)              | 83.2           |             | %            | 45 - 126      |        | SW846 8270D   | 2/20/17 18:30 JSR | 2/21/17 14:58 CGS | F               |                       |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |                   |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.038         | 0.0035 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:52 EGO | F               |                       |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.038         | 0.0070 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:52 EGO | F               |                       |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.038         | 0.0035 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:52 EGO | F               |                       |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.038         | 0.0070 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:52 EGO | F               |                       |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.038         | 0.010  | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:52 EGO | F               |                       |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.038         | 0.0070 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:52 EGO | F               |                       |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.038         | 0.0070 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:52 EGO | F               |                       |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.038         | 0.0070 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:52 EGO | F               |                       |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.038         | 0.0081 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:52 EGO | F               |                       |



## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399011**  
Sample ID: **CL-SAW-S-D3**

Date Collected: 2/14/2017 16:30 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.038         | 0.010 | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:52 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 107            |             | %            | 49 - 115      |       | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:52 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 97.6           |             | %            | 27 - 137      |       | SW846 8082A   | 2/21/17 01:20 CMA | 2/21/17 09:52 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 9.9           | 3.2   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 9.9           | 0.87  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 9.9           | 1.0   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 9.9           | 0.76  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 9.9           | 0.81  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 9.9           | 1.0   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 9.9           | 1.7   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 19.2          | 1.6   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 19.2          | 2.6   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 19.2          | 2.2   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 19.2          | 2.2   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 9.9           | 1.2   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 19.2          | 4.0   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 19.2          | 1.3   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 19.2          | 1.4   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 19.2          | 2.1   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 19.2          | 2.7   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 9.9           | 0.99  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 9.9           | 0.99  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 19.2          | 2.6   | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 204           | 33.7  | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 66             |             | %            | 30 - 135      |       | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 54.9           |             | %            | 30 - 111      |       | SW846 8081B   | 2/21/17 01:20 CMA | 2/21/17 17:49 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Moisture                    | 14.6           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/15/17 10:45 | VKB             | F                     |
| Total Solids                | 85.4           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/15/17 10:45 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |
| Antimony, Total             | 0.40J          | J,5         | mg/kg        | 1.1           | 0.38  | SW846 6020A   | 2/21/17 10:55 TRR | 2/22/17 04:52 | ZMC             | F2                    |
| Arsenic, Total              | 4.0            | 6           | mg/kg        | 1.7           | 0.57  | SW846 6020A   | 2/21/17 10:55 TRR | 2/22/17 04:52 | ZMC             | F2                    |
| Beryllium, Total            | 0.20J          | J,7         | mg/kg        | 0.57          | 0.19  | SW846 6020A   | 2/21/17 10:55 TRR | 2/22/17 04:52 | ZMC             | F2                    |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

Lab ID: **2208399011**  
Sample ID: **CL-SAW-S-D3**

Date Collected: 2/14/2017 16:30 Matrix: Solid  
Date Received: 2/14/2017 21:15

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      | 8    | mg/kg | 0.57  | 0.19  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:52 | ZMC | F2   |
| Chromium, Total | 8.4     |      | mg/kg | 1.1   | 0.38  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:52 | ZMC | F2   |
| Copper, Total   | 7.1     | 9    | mg/kg | 2.9   | 0.92  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:52 | ZMC | F2   |
| Lead, Total     | 29.1    | 10   | mg/kg | 1.1   | 0.38  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:52 | ZMC | F2   |
| Mercury, Total  | 0.077   |      | mg/kg | 0.053 | 0.017 | SW846 7471B | 2/15/17 14:00 AXC | 2/16/17 10:15 | MNP | F1   |
| Nickel, Total   | 3.6     |      | mg/kg | 2.9   | 0.92  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:52 | ZMC | F2   |
| Selenium, Total | 1.6J    | J,11 | mg/kg | 2.9   | 0.92  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:52 | ZMC | F2   |
| Silver, Total   | ND      | 12   | mg/kg | 1.1   | 0.38  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:52 | ZMC | F2   |
| Thallium, Total | ND      | 13   | mg/kg | 0.57  | 0.19  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:52 | ZMC | F2   |
| Zinc, Total     | 15.5    | 14   | mg/kg | 2.9   | 0.92  | SW846 6020A | 2/21/17 10:55 TRR | 2/22/17 04:52 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator

**PARAMETER QUALIFIERS**

| Lab ID                                                                                                                                                                                      | # | Sample ID   | Analytical Method | Analyte            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|-------------------|--------------------|
| <b>2208399002</b>                                                                                                                                                                           | 1 | DUP-03      | SW846 8260B       | Methylene Chloride |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                               |   |             |                   |                    |
| <b>2208399002</b>                                                                                                                                                                           | 2 | DUP-03      | SW846 8260B       | Methylene Chloride |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 145 and the control limits were 68 to 133.  |   |             |                   |                    |
| <b>2208399002</b>                                                                                                                                                                           | 3 | DUP-03      | SW846 8260B       | Methylene Chloride |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 151 and the control limits were 68 to 133. |   |             |                   |                    |
| <b>2208399002</b>                                                                                                                                                                           | 4 | DUP-03      | SW846 8270D       | Acetophenone       |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.7 and the control limits were 45 to 87.        |   |             |                   |                    |
| <b>2208399003</b>                                                                                                                                                                           | 1 | DUP-04      | SW846 8260B       | Methylene Chloride |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                               |   |             |                   |                    |
| <b>2208399003</b>                                                                                                                                                                           | 2 | DUP-04      | SW846 8260B       | Methylene Chloride |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 145 and the control limits were 68 to 133.  |   |             |                   |                    |
| <b>2208399003</b>                                                                                                                                                                           | 3 | DUP-04      | SW846 8260B       | Methylene Chloride |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 151 and the control limits were 68 to 133. |   |             |                   |                    |
| <b>2208399003</b>                                                                                                                                                                           | 4 | DUP-04      | SW846 8270D       | Acetophenone       |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.7 and the control limits were 45 to 87.        |   |             |                   |                    |
| <b>2208399004</b>                                                                                                                                                                           | 1 | CL-ISM-S-A4 | SW846 8260B       | Methylene Chloride |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                               |   |             |                   |                    |
| <b>2208399004</b>                                                                                                                                                                           | 2 | CL-ISM-S-A4 | SW846 8260B       | Methylene Chloride |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 145 and the control limits were 68 to 133.  |   |             |                   |                    |
| <b>2208399004</b>                                                                                                                                                                           | 3 | CL-ISM-S-A4 | SW846 8260B       | Methylene Chloride |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 151 and the control limits were 68 to 133. |   |             |                   |                    |
| <b>2208399004</b>                                                                                                                                                                           | 4 | CL-ISM-S-A4 | SW846 8270D       | Acetophenone       |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.7 and the control limits were 45 to 87.        |   |             |                   |                    |
| <b>2208399005</b>                                                                                                                                                                           | 1 | CL-ISM-S-B4 | SW846 8260B       | Methylene Chloride |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                               |   |             |                   |                    |
| <b>2208399005</b>                                                                                                                                                                           | 2 | CL-ISM-S-B4 | SW846 8260B       | Methylene Chloride |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 145 and the control limits were 68 to 133.  |   |             |                   |                    |
| <b>2208399005</b>                                                                                                                                                                           | 3 | CL-ISM-S-B4 | SW846 8260B       | Methylene Chloride |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 151 and the control limits were 68 to 133. |   |             |                   |                    |
| <b>2208399005</b>                                                                                                                                                                           | 4 | CL-ISM-S-B4 | SW846 8270D       | Acetophenone       |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.7 and the control limits were 45 to 87.        |   |             |                   |                    |
| <b>2208399006</b>                                                                                                                                                                           | 1 | CL-ISM-S-C4 | SW846 8260B       | Methylene Chloride |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                               |   |             |                   |                    |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

|                                                                                                                                                                                             |   |             |             |                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|-------------|--------------------|
| <b>2208399006</b>                                                                                                                                                                           | 2 | CL-ISM-S-C4 | SW846 8260B | Methylene Chloride |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 145 and the control limits were 68 to 133.  |   |             |             |                    |
| <b>2208399006</b>                                                                                                                                                                           | 3 | CL-ISM-S-C4 | SW846 8260B | Methylene Chloride |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 151 and the control limits were 68 to 133. |   |             |             |                    |
| <b>2208399006</b>                                                                                                                                                                           | 4 | CL-ISM-S-C4 | SW846 8270D | Acetophenone       |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.7 and the control limits were 45 to 87.        |   |             |             |                    |
| <b>2208399007</b>                                                                                                                                                                           | 1 | CL-ISM-S-D4 | SW846 8260B | Methylene Chloride |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                               |   |             |             |                    |
| <b>2208399007</b>                                                                                                                                                                           | 2 | CL-ISM-S-D4 | SW846 8260B | Methylene Chloride |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 145 and the control limits were 68 to 133.  |   |             |             |                    |
| <b>2208399007</b>                                                                                                                                                                           | 3 | CL-ISM-S-D4 | SW846 8260B | Methylene Chloride |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 151 and the control limits were 68 to 133. |   |             |             |                    |
| <b>2208399007</b>                                                                                                                                                                           | 4 | CL-ISM-S-D4 | SW846 8270D | Acetophenone       |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.7 and the control limits were 45 to 87.        |   |             |             |                    |
| <b>2208399008</b>                                                                                                                                                                           | 1 | CL-ISM-S-D5 | SW846 8260B | Methylene Chloride |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                               |   |             |             |                    |
| <b>2208399008</b>                                                                                                                                                                           | 2 | CL-ISM-S-D5 | SW846 8260B | Methylene Chloride |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 172 and the control limits were 68 to 133.  |   |             |             |                    |
| <b>2208399008</b>                                                                                                                                                                           | 3 | CL-ISM-S-D5 | SW846 8260B | Methylene Chloride |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 172 and the control limits were 68 to 133. |   |             |             |                    |
| <b>2208399008</b>                                                                                                                                                                           | 4 | CL-ISM-S-D5 | SW846 8270D | Acetophenone       |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.7 and the control limits were 45 to 87.        |   |             |             |                    |
| <b>2208399009</b>                                                                                                                                                                           | 4 | CL-ISM-S-E4 | SW846 8270D | Acetophenone       |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.7 and the control limits were 45 to 87.        |   |             |             |                    |
| <b>2208399009</b>                                                                                                                                                                           | 5 | CL-ISM-S-E4 | SW846 8260B | Methylene Chloride |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                               |   |             |             |                    |
| <b>2208399009</b>                                                                                                                                                                           | 6 | CL-ISM-S-E4 | SW846 8260B | Methylene Chloride |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 135 and the control limits were 68 to 133.  |   |             |             |                    |
| <b>2208399010</b>                                                                                                                                                                           | 1 | CL-ISM-S-E5 | SW846 8260B | Methylene Chloride |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                               |   |             |             |                    |
| <b>2208399010</b>                                                                                                                                                                           | 2 | CL-ISM-S-E5 | SW846 8260B | Methylene Chloride |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 172 and the control limits were 68 to 133.  |   |             |             |                    |

## ANALYTICAL RESULTS

Workorder: 2208399 Chase Lands Phase II

|                                                                                                                                                                                                                                     |    |             |             |                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------------|-------------|--------------------|
| <b>2208399010</b>                                                                                                                                                                                                                   | 3  | CL-ISM-S-E5 | SW846 8260B | Methylene Chloride |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 172 and the control limits were 68 to 133.                                         |    |             |             |                    |
| <b>2208399010</b>                                                                                                                                                                                                                   | 4  | CL-ISM-S-E5 | SW846 8270D | Acetophenone       |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.7 and the control limits were 45 to 87.                                                |    |             |             |                    |
| <b>2208399011</b>                                                                                                                                                                                                                   | 1  | CL-SAW-S-D3 | SW846 8260B | Methylene Chloride |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                                                       |    |             |             |                    |
| <b>2208399011</b>                                                                                                                                                                                                                   | 2  | CL-SAW-S-D3 | SW846 8260B | Methylene Chloride |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 172 and the control limits were 68 to 133.                                          |    |             |             |                    |
| <b>2208399011</b>                                                                                                                                                                                                                   | 3  | CL-SAW-S-D3 | SW846 8260B | Methylene Chloride |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 172 and the control limits were 68 to 133.                                         |    |             |             |                    |
| <b>2208399011</b>                                                                                                                                                                                                                   | 4  | CL-SAW-S-D3 | SW846 8270D | Acetophenone       |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.7 and the control limits were 45 to 87.                                                |    |             |             |                    |
| <b>2208399011</b>                                                                                                                                                                                                                   | 5  | CL-SAW-S-D3 | SW846 6020A | Antimony, Total    |
| One of the two matrix spike analyses performed on this sample failed to meet acceptable recovery limits. The other matrix spike was within acceptable recovery limits. Matrix interferences are the possible cause for the failure. |    |             |             |                    |
| <b>2208399011</b>                                                                                                                                                                                                                   | 6  | CL-SAW-S-D3 | SW846 6020A | Arsenic, Total     |
| One of the two matrix spike analyses performed on this sample failed to meet acceptable recovery limits. The other matrix spike was within acceptable recovery limits. Matrix interferences are the possible cause for the failure. |    |             |             |                    |
| <b>2208399011</b>                                                                                                                                                                                                                   | 7  | CL-SAW-S-D3 | SW846 6020A | Beryllium, Total   |
| One of the two matrix spike analyses performed on this sample failed to meet acceptable recovery limits. The other matrix spike was within acceptable recovery limits. Matrix interferences are the possible cause for the failure. |    |             |             |                    |
| <b>2208399011</b>                                                                                                                                                                                                                   | 8  | CL-SAW-S-D3 | SW846 6020A | Cadmium, Total     |
| One of the two matrix spike analyses performed on this sample failed to meet acceptable recovery limits. The other matrix spike was within acceptable recovery limits. Matrix interferences are the possible cause for the failure. |    |             |             |                    |
| <b>2208399011</b>                                                                                                                                                                                                                   | 9  | CL-SAW-S-D3 | SW846 6020A | Copper, Total      |
| One of the two matrix spike analyses performed on this sample failed to meet acceptable recovery limits. The other matrix spike was within acceptable recovery limits. Matrix interferences are the possible cause for the failure. |    |             |             |                    |
| <b>2208399011</b>                                                                                                                                                                                                                   | 10 | CL-SAW-S-D3 | SW846 6020A | Lead, Total        |
| One of the two matrix spike analyses performed on this sample failed to meet acceptable recovery limits. The other matrix spike was within acceptable recovery limits. Matrix interferences are the possible cause for the failure. |    |             |             |                    |
| <b>2208399011</b>                                                                                                                                                                                                                   | 11 | CL-SAW-S-D3 | SW846 6020A | Selenium, Total    |
| One of the two matrix spike analyses performed on this sample failed to meet acceptable recovery limits. The other matrix spike was within acceptable recovery limits. Matrix interferences are the possible cause for the failure. |    |             |             |                    |
| <b>2208399011</b>                                                                                                                                                                                                                   | 12 | CL-SAW-S-D3 | SW846 6020A | Silver, Total      |
| One of the two matrix spike analyses performed on this sample failed to meet acceptable recovery limits. The other matrix spike was within acceptable recovery limits. Matrix interferences are the possible cause for the failure. |    |             |             |                    |
| <b>2208399011</b>                                                                                                                                                                                                                   | 13 | CL-SAW-S-D3 | SW846 6020A | Thallium, Total    |
| One of the two matrix spike analyses performed on this sample failed to meet acceptable recovery limits. The other matrix spike was within acceptable recovery limits. Matrix interferences are the possible cause for the failure. |    |             |             |                    |
| <b>2208399011</b>                                                                                                                                                                                                                   | 14 | CL-SAW-S-D3 | SW846 6020A | Zinc, Total        |
| One of the two matrix spike analyses performed on this sample failed to meet acceptable recovery limits. The other matrix spike was within acceptable recovery limits. Matrix interferences are the possible cause for the failure. |    |             |             |                    |

## QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

**QC Batch:** EXTR/46783

**Analysis Method:** SW846 8270D

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2208399002, 2208399003, 2208399004, 2208399005, 2208399006, 2208399007, 2208399008, 2208399009, 2208399010, 2208399011

METHOD BLANK: 2488587

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acenaphthene                | ND           | ug/kg | 50.0            |
| Acenaphthylene              | ND           | ug/kg | 50.0            |
| Acetophenone                | ND           | ug/kg | 100             |
| Anthracene                  | ND           | ug/kg | 50.0            |
| Atrazine                    | ND           | ug/kg | 100             |
| Benzaldehyde                | ND           | ug/kg | 200             |
| Benzo(a)anthracene          | ND           | ug/kg | 50.0            |
| Benzo(a)pyrene              | ND           | ug/kg | 50.0            |
| Benzo(b)fluoranthene        | ND           | ug/kg | 50.0            |
| Benzo(g,h,i)perylene        | ND           | ug/kg | 50.0            |
| Benzo(k)fluoranthene        | ND           | ug/kg | 50.0            |
| Biphenyl                    | ND           | ug/kg | 100             |
| 4-Bromophenyl-phenylether   | ND           | ug/kg | 100             |
| Butylbenzylphthalate        | ND           | ug/kg | 100             |
| Caprolactam                 | ND           | ug/kg | 200             |
| Carbazole                   | ND           | ug/kg | 100             |
| 4-Chloro-3-methylphenol     | ND           | ug/kg | 200             |
| 4-Chloroaniline             | ND           | ug/kg | 200             |
| bis(2-Chloroethoxy)methane  | ND           | ug/kg | 100             |
| bis(2-Chloroethyl)ether     | ND           | ug/kg | 100             |
| bis(2-Chloroisopropyl)ether | ND           | ug/kg | 100             |
| 2-Chloronaphthalene         | ND           | ug/kg | 100             |
| 2-Chlorophenol              | ND           | ug/kg | 200             |
| 4-Chlorophenyl-phenylether  | ND           | ug/kg | 100             |
| Chrysene                    | ND           | ug/kg | 50.0            |
| mp-Cresol                   | ND           | ug/kg | 200             |
| o-Cresol                    | ND           | ug/kg | 200             |
| Di-n-Butylphthalate         | ND           | ug/kg | 100             |
| Di-n-Octylphthalate         | ND           | ug/kg | 100             |
| Dibenzo(a,h)anthracene      | ND           | ug/kg | 50.0            |
| Dibenzofuran                | ND           | ug/kg | 100             |
| 3,3-Dichlorobenzidine       | ND           | ug/kg | 200             |
| 2,4-Dichlorophenol          | ND           | ug/kg | 200             |
| Diethylphthalate            | ND           | ug/kg | 100             |
| 2,4-Dimethylphenol          | ND           | ug/kg | 200             |
| Dimethylphthalate           | ND           | ug/kg | 100             |
| 2,4-Dinitrophenol           | ND           | ug/kg | 200             |



### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

|                            |      |       |          |
|----------------------------|------|-------|----------|
| 2,4-Dinitrotoluene         | ND   | ug/kg | 100      |
| 2,6-Dinitrotoluene         | ND   | ug/kg | 100      |
| 1,4-Dioxane                | ND   | ug/kg | 100      |
| bis(2-Ethylhexyl)phthalate | ND   | ug/kg | 100      |
| Fluoranthene               | ND   | ug/kg | 50.0     |
| Fluorene                   | ND   | ug/kg | 50.0     |
| Hexachlorobenzene          | ND   | ug/kg | 100      |
| Hexachlorobutadiene        | ND   | ug/kg | 100      |
| Hexachlorocyclopentadiene  | ND   | ug/kg | 200      |
| Hexachloroethane           | ND   | ug/kg | 100      |
| Indeno(1,2,3-cd)pyrene     | ND   | ug/kg | 50.0     |
| Isophorone                 | ND   | ug/kg | 100      |
| 2-Methyl-4,6-dinitrophenol | ND   | ug/kg | 200      |
| 2-Methylnaphthalene        | ND   | ug/kg | 100      |
| Naphthalene                | ND   | ug/kg | 50.0     |
| 2-Nitroaniline             | ND   | ug/kg | 200      |
| 3-Nitroaniline             | ND   | ug/kg | 200      |
| 4-Nitroaniline             | ND   | ug/kg | 200      |
| Nitrobenzene               | ND   | ug/kg | 100      |
| 2-Nitrophenol              | ND   | ug/kg | 200      |
| 4-Nitrophenol              | ND   | ug/kg | 200      |
| N-Nitroso-di-n-propylamine | ND   | ug/kg | 100      |
| N-Nitrosodiphenylamine     | ND   | ug/kg | 100      |
| Pentachlorophenol          | ND   | ug/kg | 200      |
| Phenanthrene               | ND   | ug/kg | 50.0     |
| Phenol                     | ND   | ug/kg | 200      |
| Pyrene                     | ND   | ug/kg | 50.0     |
| 1,2,4,5-Tetrachlorobenzene | ND   | ug/kg | 100      |
| 2,3,4,6-Tetrachlorophenol  | ND   | ug/kg | 200      |
| 2,4,5-Trichlorophenol      | ND   | ug/kg | 200      |
| 2,4,6-Trichlorophenol      | ND   | ug/kg | 200      |
| 2,4,6-Tribromophenol (S)   | 76.3 | %     | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 82.8 | %     | 40 - 110 |
| 2-Fluorophenol (S)         | 86.8 | %     | 26 - 116 |
| Nitrobenzene-d5 (S)        | 88.8 | %     | 38 - 112 |
| Phenol-d5 (S)              | 88.6 | %     | 35 - 111 |
| Terphenyl-d14 (S)          | 84.2 | %     | 45 - 126 |

## LABORATORY CONTROL SAMPLE: 2488588

| Parameter      | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | % Rec<br>Limit |
|----------------|--------------|-------|----------------|---------------|----------------|
| Acenaphthene   | 74           | ug/kg | 3330           | 2470          | 59 - 115       |
| Acenaphthylene | 78.6         | ug/kg | 3330           | 2620          | 59 - 114       |
| Acetophenone   | 44.7*        | ug/kg | 3330           | 1490          | 45 - 87        |
| Anthracene     | 72.5         | ug/kg | 3330           | 2420          | 63 - 112       |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

|                             |      |       |      |      |          |
|-----------------------------|------|-------|------|------|----------|
| Atrazine                    | 76.7 | ug/kg | 3330 | 2560 | 54 - 128 |
| Benzaldehyde                | 70.5 | ug/kg | 3330 | 2350 | 52 - 108 |
| Benzo(a)anthracene          | 72.8 | ug/kg | 3330 | 2430 | 61 - 118 |
| Benzo(a)pyrene              | 74.3 | ug/kg | 3330 | 2480 | 61 - 114 |
| Benzo(b)fluoranthene        | 75.5 | ug/kg | 3330 | 2520 | 64 - 113 |
| Benzo(g,h,i)perylene        | 76.9 | ug/kg | 3330 | 2560 | 61 - 118 |
| Benzo(k)fluoranthene        | 74.4 | ug/kg | 3330 | 2480 | 62 - 113 |
| Biphenyl                    | 68.6 | ug/kg | 3330 | 2290 | 60 - 111 |
| 4-Bromophenyl-phenylether   | 72.1 | ug/kg | 3330 | 2400 | 60 - 111 |
| Butylbenzylphthalate        | 70.6 | ug/kg | 3330 | 2350 | 56 - 126 |
| Caprolactam                 | 84.5 | ug/kg | 3330 | 2820 | 38 - 129 |
| Carbazole                   | 77.3 | ug/kg | 3330 | 2580 | 65 - 117 |
| 4-Chloro-3-methylphenol     | 82.3 | ug/kg | 6670 | 5490 | 65 - 118 |
| 4-Chloroaniline             | 54.6 | ug/kg | 3330 | 1820 | 21 - 115 |
| bis(2-Chloroethoxy)methane  | 77.5 | ug/kg | 3330 | 2580 | 56 - 108 |
| bis(2-Chloroethyl)ether     | 74.7 | ug/kg | 3330 | 2490 | 51 - 105 |
| bis(2-Chloroisopropyl)ether | 68.3 | ug/kg | 3330 | 2280 | 34 - 126 |
| 2-Chloronaphthalene         | 72.8 | ug/kg | 3330 | 2430 | 55 - 111 |
| 2-Chlorophenol              | 75.6 | ug/kg | 6670 | 5040 | 61 - 111 |
| 4-Chlorophenyl-phenylether  | 76.8 | ug/kg | 3330 | 2560 | 58 - 112 |
| Chrysene                    | 76.2 | ug/kg | 3330 | 2540 | 63 - 111 |
| mp-Cresol                   | 80.1 | ug/kg | 6670 | 5340 | 60 - 112 |
| o-Cresol                    | 78.3 | ug/kg | 6670 | 5220 | 62 - 113 |
| Di-n-Butylphthalate         | 70.9 | ug/kg | 3330 | 2360 | 58 - 118 |
| Di-n-Octylphthalate         | 65.1 | ug/kg | 3330 | 2170 | 45 - 128 |
| Dibenzo(a,h)anthracene      | 77.8 | ug/kg | 3330 | 2590 | 64 - 117 |
| Dibenzofuran                | 75.1 | ug/kg | 3330 | 2500 | 61 - 111 |
| 3,3-Dichlorobenzidine       | 55.9 | ug/kg | 6670 | 3730 | 27 - 106 |
| 2,4-Dichlorophenol          | 78.5 | ug/kg | 6670 | 5240 | 65 - 111 |
| Diethylphthalate            | 76.1 | ug/kg | 3330 | 2540 | 59 - 112 |
| 2,4-Dimethylphenol          | 78.4 | ug/kg | 6670 | 5230 | 65 - 114 |
| Dimethylphthalate           | 78.7 | ug/kg | 3330 | 2620 | 59 - 111 |
| 2,4-Dinitrophenol           | 101  | ug/kg | 6670 | 6700 | 36 - 131 |
| 2,4-Dinitrotoluene          | 81.4 | ug/kg | 3330 | 2710 | 61 - 117 |
| 2,6-Dinitrotoluene          | 85   | ug/kg | 3330 | 2830 | 61 - 115 |
| 1,4-Dioxane                 | 48.5 | ug/kg | 3330 | 1620 | 37 - 98  |
| bis(2-Ethylhexyl)phthalate  | 65.8 | ug/kg | 3330 | 2190 | 51 - 126 |
| Fluoranthene                | 74.4 | ug/kg | 3330 | 2480 | 61 - 116 |
| Fluorene                    | 76.7 | ug/kg | 3330 | 2560 | 61 - 112 |
| Hexachlorobenzene           | 75.4 | ug/kg | 3330 | 2510 | 59 - 109 |
| Hexachlorobutadiene         | 85.4 | ug/kg | 3330 | 2850 | 58 - 123 |
| Hexachlorocyclopentadiene   | 48.4 | ug/kg | 3330 | 1610 | 33 - 109 |
| Hexachloroethane            | 70.2 | ug/kg | 3330 | 2340 | 50 - 103 |
| Indeno(1,2,3-cd)pyrene      | 75.8 | ug/kg | 3330 | 2530 | 62 - 113 |
| Isophorone                  | 74.6 | ug/kg | 3330 | 2490 | 51 - 112 |
| 2-Methyl-4,6-dinitrophenol  | 84.7 | ug/kg | 6670 | 5650 | 53 - 131 |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

|                            |      |       |      |      |          |
|----------------------------|------|-------|------|------|----------|
| 2-Methylnaphthalene        | 75.6 | ug/kg | 3330 | 2520 | 58 - 96  |
| Naphthalene                | 77.2 | ug/kg | 3330 | 2570 | 56 - 105 |
| 2-Nitroaniline             | 87.5 | ug/kg | 3330 | 2920 | 61 - 120 |
| 3-Nitroaniline             | 74.4 | ug/kg | 3330 | 2480 | 52 - 115 |
| 4-Nitroaniline             | 74.5 | ug/kg | 3330 | 2480 | 50 - 106 |
| Nitrobenzene               | 78   | ug/kg | 3330 | 2600 | 53 - 108 |
| 2-Nitrophenol              | 81.6 | ug/kg | 6670 | 5440 | 61 - 114 |
| 4-Nitrophenol              | 71.4 | ug/kg | 6670 | 4760 | 49 - 134 |
| N-Nitroso-di-n-propylamine | 71.9 | ug/kg | 3330 | 2400 | 55 - 109 |
| N-Nitrosodiphenylamine     | 85.7 | ug/kg | 3330 | 2860 | 65 - 134 |
| Pentachlorophenol          | 90.2 | ug/kg | 6670 | 6010 | 60 - 145 |
| Phenanthrene               | 72.3 | ug/kg | 3330 | 2410 | 62 - 109 |
| Phenol                     | 76.6 | ug/kg | 6670 | 5110 | 53 - 118 |
| Pyrene                     | 74.8 | ug/kg | 3330 | 2490 | 60 - 114 |
| 1,2,4,5-Tetrachlorobenzene | 67.2 | ug/kg | 3330 | 2240 | 56 - 107 |
| 2,3,4,6-Tetrachlorophenol  | 61.1 | ug/kg | 6670 | 4070 | 60 - 111 |
| 2,4,5-Trichlorophenol      | 75   | ug/kg | 6670 | 5000 | 68 - 121 |
| 2,4,6-Trichlorophenol      | 72.4 | ug/kg | 6670 | 4830 | 68 - 119 |
| 2,4,6-Tribromophenol (S)   | 67.2 | %     |      |      | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 67.5 | %     |      |      | 40 - 110 |
| 2-Fluorophenol (S)         | 74.8 | %     |      |      | 26 - 116 |
| Nitrobenzene-d5 (S)        | 77.6 | %     |      |      | 38 - 112 |
| Phenol-d5 (S)              | 78.7 | %     |      |      | 35 - 111 |
| Terphenyl-d14 (S)          | 67.9 | %     |      |      | 45 - 126 |

MATRIX SPIKE: 2488589 DUPLICATE: 2488590 ORIGINAL: 2208786001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter              | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Anthracene             | 542.662         | ug/kg | 3290        | 3083.58   | 3494.08    | 77.2     | 92.1      | 63 - 112    | 12.5 | 20      |
| Benzo(a)anthracene     | 2286.58         | ug/kg | 3290        | 4524.89   | 6270.27    | 68       | 124*      | 61 - 118    | 32.3 | 22      |
| Benzo(a)pyrene         | 2526.92         | ug/kg | 3290        | 4675.53   | 6251.11    | 65.3     | 116*      | 61 - 114    | 28.8 | 24      |
| Benzo(b)fluoranthene   | 3275.18         | ug/kg | 3290        | 5295.06   | 7663.99    | 61.4*    | 137*      | 64 - 113    | 36.6 | 28      |
| Benzo(g,h,i)perylene   | 1566.9          | ug/kg | 3290        | 3751.58   | 4916.18    | 66.4     | 104       | 61 - 118    | 26.9 | 30      |
| Chrysene               | 2477.16         | ug/kg | 3290        | 4687.2    | 6428.25    | 67.2     | 123*      | 63 - 111    | 31.3 | 20      |
| Fluorene               | 138.374         | ug/kg | 3290        | 2711.69   | 3011.33    | 78.2     | 89.6      | 61 - 112    | 10.5 | 16      |
| Indeno(1,2,3-cd)pyrene | 1757.7          | ug/kg | 3290        | 3925.43   | 5293.3     | 65.9     | 110       | 62 - 113    | 29.7 | 30      |
| Naphthalene            | 90.2725         | ug/kg | 3290        | 2781.95   | 2920.67    | 81.8     | 88.3      | 56 - 105    | 4.87 | 21      |
| Phenanthrene           | 1822.75         | ug/kg | 3290        | 3763.17   | 5524.27    | 59*      | 115*      | 62 - 109    | 37.9 | 20      |
| Pyrene                 | 3763.86         | ug/kg | 3290        | 5615.62   | 8503.98    | 56.3*    | 148*      | 60 - 114    | 40.9 | 20      |
| 2-Fluorobiphenyl (S)   | 73.3            | %     |             |           |            | 73.3     | 77.7      | 40 - 110    |      |         |
| Nitrobenzene-d5 (S)    | 82.6            | %     |             |           |            | 82.6     | 84.5      | 38 - 112    |      |         |
| Terphenyl-d14 (S)      | 75.8            | %     |             |           |            | 75.8     | 81.7      | 45 - 126    |      |         |



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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

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## QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

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### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

**QC Batch:** EXTR/46784

**Analysis Method:** SW846 8082A

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2208399002, 2208399003, 2208399004, 2208399005, 2208399006, 2208399007, 2208399008, 2208399009, 2208399010, 2208399011

#### METHOD BLANK: 2488795

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aroclor-1016             | ND           | mg/kg | 0.033           |
| Aroclor-1221             | ND           | mg/kg | 0.033           |
| Aroclor-1232             | ND           | mg/kg | 0.033           |
| Aroclor-1242             | ND           | mg/kg | 0.033           |
| Aroclor-1248             | ND           | mg/kg | 0.033           |
| Aroclor-1254             | ND           | mg/kg | 0.033           |
| Aroclor-1260             | ND           | mg/kg | 0.033           |
| Aroclor-1262             | ND           | mg/kg | 0.033           |
| Aroclor-1268             | ND           | mg/kg | 0.033           |
| Decachlorobiphenyls (S)  | 97.2         | %     | 49 - 115        |
| Tetrachloro-m-xylene (S) | 96.5         | %     | 27 - 137        |

#### LABORATORY CONTROL SAMPLE: 2488796

| Parameter                | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|--------------------------|-----------|-------|-------------|------------|-------------|
| Aroclor-1016             | 97        | mg/kg | .33         | 0.32       | 43 - 132    |
| Aroclor-1221             |           | mg/kg |             | ND         |             |
| Aroclor-1232             |           | mg/kg |             | ND         |             |
| Aroclor-1242             |           | mg/kg |             | ND         |             |
| Aroclor-1248             |           | mg/kg |             | ND         |             |
| Aroclor-1254             |           | mg/kg |             | ND         |             |
| Aroclor-1260             | 105       | mg/kg | .33         | 0.35       | 53 - 134    |
| Aroclor-1262             |           | mg/kg |             | ND         |             |
| Aroclor-1268             |           | mg/kg |             | ND         |             |
| Decachlorobiphenyls (S)  | 100       | %     |             |            | 49 - 115    |
| Tetrachloro-m-xylene (S) | 101       | %     |             |            | 27 - 137    |

#### MATRIX SPIKE SAMPLE: 2488797 ORIGINAL: 2208399004

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|-----------|-----------------|-------|-------------|-----------|----------|-------------|
|-----------|-----------------|-------|-------------|-----------|----------|-------------|

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

|                          |      |       |     |        |      |          |
|--------------------------|------|-------|-----|--------|------|----------|
| Aroclor-1016             | 0    | mg/kg | .48 | .40361 | 83.9 | 43 - 132 |
| Aroclor-1260             | 0    | mg/kg | .48 | .47316 | 98.4 | 53 - 134 |
| Decachlorobiphenyls (S)  | 96.7 | %     |     |        |      | 49 - 115 |
| Tetrachloro-m-xylene (S) | 91.3 | %     |     |        |      | 27 - 137 |

SAMPLE DUPLICATE: 2488798 ORIGINAL: 2208399005

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Aroclor-1016 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1221 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1232 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1242 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1248 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1254 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1260 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1262 | 0               | mg/kg | 0          | NC  |         |
| Aroclor-1268 | 0               | mg/kg | 0          | NC  |         |



### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

**QC Batch:** EXTR/46785

**Analysis Method:** SW846 8081B

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2208399002, 2208399003, 2208399004, 2208399005, 2208399006, 2208399007, 2208399008, 2208399009, 2208399010, 2208399011

#### METHOD BLANK: 2488799

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aldrin                   | ND           | ug/kg | 1.7             |
| alpha-BHC                | ND           | ug/kg | 1.7             |
| beta-BHC                 | ND           | ug/kg | 1.7             |
| delta-BHC                | ND           | ug/kg | 1.7             |
| gamma-BHC                | ND           | ug/kg | 1.7             |
| alpha-Chlordane          | ND           | ug/kg | 1.7             |
| gamma-Chlordane          | ND           | ug/kg | 1.7             |
| 4,4'-DDD                 | ND           | ug/kg | 3.3             |
| 4,4'-DDE                 | ND           | ug/kg | 3.3             |
| 4,4'-DDT                 | ND           | ug/kg | 3.3             |
| Dieldrin                 | ND           | ug/kg | 3.3             |
| Endosulfan I             | ND           | ug/kg | 1.7             |
| Endosulfan II            | ND           | ug/kg | 3.3             |
| Endosulfan Sulfate       | ND           | ug/kg | 3.3             |
| Endrin                   | ND           | ug/kg | 3.3             |
| Endrin Aldehyde          | 0.85J        | ug/kg | 3.3             |
| Endrin Ketone            | ND           | ug/kg | 3.3             |
| Heptachlor               | ND           | ug/kg | 1.7             |
| Heptachlor Epoxide       | ND           | ug/kg | 1.7             |
| Methoxychlor             | ND           | ug/kg | 3.3             |
| Toxaphene                | ND           | ug/kg | 35.0            |
| Decachlorobiphenyls (S)  | 71.7         | %     | 30 - 135        |
| Tetrachloro-m-xylene (S) | 51.2         | %     | 30 - 111        |

#### LABORATORY CONTROL SAMPLE: 2488800

| Parameter       | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-----------------|-----------|-------|-------------|------------|-------------|
| Aldrin          | 76        | ug/kg | 33.3        | 25.3       | 58 - 103    |
| alpha-BHC       | 76.9      | ug/kg | 33.3        | 25.6       | 57 - 105    |
| beta-BHC        | 69.3      | ug/kg | 33.3        | 23.1       | 53 - 106    |
| delta-BHC       | 79.9      | ug/kg | 33.3        | 26.6       | 60 - 103    |
| gamma-BHC       | 76.9      | ug/kg | 33.3        | 25.6       | 59 - 102    |
| alpha-Chlordane | 75.9      | ug/kg | 33.3        | 25.3       | 62 - 98     |
| gamma-Chlordane | 76.8      | ug/kg | 33.3        | 25.6       | 58 - 103    |
| 4,4'-DDD        | 89.4      | ug/kg | 33.3        | 29.8       | 57 - 111    |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

|                          |      |       |      |      |          |
|--------------------------|------|-------|------|------|----------|
| 4,4'-DDE                 | 82.4 | ug/kg | 33.3 | 27.5 | 63 - 112 |
| 4,4'-DDT                 | 72   | ug/kg | 33.3 | 24.0 | 60 - 122 |
| Dieldrin                 | 77.7 | ug/kg | 33.3 | 25.9 | 62 - 109 |
| Endosulfan I             | 74.3 | ug/kg | 33.3 | 24.8 | 57 - 98  |
| Endosulfan II            | 76.2 | ug/kg | 33.3 | 25.4 | 59 - 112 |
| Endosulfan Sulfate       | 76.9 | ug/kg | 33.3 | 25.6 | 27 - 96  |
| Endrin                   | 75   | ug/kg | 33.3 | 25.0 | 63 - 108 |
| Endrin Aldehyde          | 60.5 | ug/kg | 33.3 | 20.2 | 21 - 92  |
| Endrin Ketone            | 78.8 | ug/kg | 33.3 | 26.3 | 32 - 103 |
| Heptachlor               | 64.7 | ug/kg | 33.3 | 21.6 | 51 - 105 |
| Heptachlor Epoxide       | 75.8 | ug/kg | 33.3 | 25.3 | 62 - 99  |
| Methoxychlor             | 67.5 | ug/kg | 33.3 | 22.5 | 50 - 114 |
| Toxaphene                |      | ug/kg |      | ND   |          |
| Decachlorobiphenyls (S)  | 66.6 | %     |      |      | 30 - 135 |
| Tetrachloro-m-xylene (S) | 51.5 | %     |      |      | 30 - 111 |

SAMPLE DUPLICATE: 2488801 ORIGINAL: 2208399005

| Parameter          | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------------|-----------------|-------|------------|-----|---------|
| Aldrin             | 0               | ug/kg | 0          | NC  | 40      |
| alpha-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| beta-BHC           | 0               | ug/kg | 0          | NC  | 40      |
| delta-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| gamma-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| alpha-Chlordane    | 0               | ug/kg | 0          | NC  | 40      |
| gamma-Chlordane    | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDD           | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDE           | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDT           | 0               | ug/kg | 0          | NC  | 40      |
| Dieldrin           | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan I       | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan II      | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan Sulfate | 0               | ug/kg | 0          | NC  | 40      |
| Endrin             | 0               | ug/kg | 0          | NC  | 40      |
| Endrin Aldehyde    | 0               | ug/kg | 0          | NC  | 40      |
| Endrin Ketone      | 0               | ug/kg | 0          | NC  | 40      |
| Heptachlor         | 0               | ug/kg | 0          | NC  | 40      |
| Heptachlor Epoxide | 0               | ug/kg | 0          | NC  | 35      |
| Methoxychlor       | 0               | ug/kg | 0          | NC  | 40      |
| Toxaphene          | 0               | ug/kg | 0          | NC  | 40      |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

**QC Batch:** EXTR/46806

**Analysis Method:** SW846 8015D

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2208399002, 2208399003, 2208399004, 2208399005, 2208399006, 2208399007, 2208399008, 2208399009, 2208399010, 2208399011

#### METHOD BLANK: 2489567

| Parameter                     | Blank Result | Units | Reporting Limit |
|-------------------------------|--------------|-------|-----------------|
| Diesel Range Organics C10-C28 | ND           | mg/kg | 10.6            |
| o-Terphenyl (S)               | 91.4         | %     | 38 - 118        |

#### LABORATORY CONTROL SAMPLE: 2489568

| Parameter                     | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-------------------------------|-----------|-------|-------------|------------|-------------|
| Diesel Range Organics C10-C28 | 77.5      | mg/kg | 33.3        | 25.8       | 38 - 132    |
| o-Terphenyl (S)               | 94.7      | %     |             |            | 38 - 118    |

#### MATRIX SPIKE SAMPLE: 2489569 ORIGINAL: 2208112005

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                     | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|-------------------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Diesel Range Organics C10-C28 | 4.57786         | mg/kg | 32.9        | 27.9253   | 71       | 38 - 132    |
| o-Terphenyl (S)               | 90.1            | %     |             |           |          | 38 - 118    |

#### SAMPLE DUPLICATE: 2489570 ORIGINAL: 2208399006

| Parameter                     | Original Result | Units | DUP Result | RPD  | Max RPD |
|-------------------------------|-----------------|-------|------------|------|---------|
| Diesel Range Organics C10-C28 | 5.62793         | mg/kg | 35.3804    | 145* | 30      |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

**QC Batch:** MDIG/62619

**Analysis Method:** SW846 7471B

**QC Batch Method:** SW846 7471B

**Associated Lab Samples:** 2208399002, 2208399003, 2208399004, 2208399005, 2208399006, 2208399007, 2208399008, 2208399009, 2208399010, 2208399011

#### METHOD BLANK: 2485900

| Parameter      | Blank Result | Units | Reporting Limit |
|----------------|--------------|-------|-----------------|
| Mercury, Total | ND           | mg/kg | 0.050           |

#### LABORATORY CONTROL SAMPLE: 2485901

| Parameter      | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|----------------|-----------|-------|-------------|------------|-------------|
| Mercury, Total | 90.5      | mg/kg | .4          | 0.36       | 80 - 120    |

#### MATRIX SPIKE: 2485902 DUPLICATE: 2485903 ORIGINAL: 2208272003

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter      | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD |
|----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|
| Mercury, Total | 0               | mg/kg | .89         | .88393    | .9         | 99       | 99        | 80 - 120    | 1.8 | 20      |

#### MATRIX SPIKE: 2485904 DUPLICATE: 2485905 ORIGINAL: 2208399009

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter      | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD |
|----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|
| Mercury, Total | .03294          | mg/kg | .89         | .9        | .975       | 97.1     | 98        | 80 - 120    | 8   | 20      |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

**QC Batch:** MDIG/62673      **Analysis Method:** SW846 6020A  
**QC Batch Method:** SW846 3051  
**Associated Lab Samples:** 2208399002

#### METHOD BLANK: 2487309

| Parameter        | Blank Result | Units | Reporting Limit |
|------------------|--------------|-------|-----------------|
| Antimony, Total  | ND           | mg/kg | 1.0             |
| Arsenic, Total   | ND           | mg/kg | 1.5             |
| Beryllium, Total | ND           | mg/kg | 0.50            |
| Cadmium, Total   | ND           | mg/kg | 0.50            |
| Chromium, Total  | ND           | mg/kg | 1.0             |
| Copper, Total    | ND           | mg/kg | 2.5             |
| Lead, Total      | ND           | mg/kg | 1.0             |
| Nickel, Total    | ND           | mg/kg | 2.5             |
| Selenium, Total  | ND           | mg/kg | 2.5             |
| Silver, Total    | ND           | mg/kg | 1.0             |
| Thallium, Total  | ND           | mg/kg | 0.50            |
| Zinc, Total      | ND           | mg/kg | 2.5             |

#### LABORATORY CONTROL SAMPLE: 2487310

| Parameter        | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|------------------|-----------|-------|-------------|------------|-------------|
| Antimony, Total  | 97.4      | mg/kg | 20          | 19.5       | 80 - 120    |
| Arsenic, Total   | 97.7      | mg/kg | 20          | 19.5       | 80 - 120    |
| Beryllium, Total | 92.6      | mg/kg | 20          | 18.5       | 80 - 120    |
| Cadmium, Total   | 97.8      | mg/kg | 20          | 19.6       | 80 - 120    |
| Chromium, Total  | 99        | mg/kg | 20          | 19.8       | 80 - 120    |
| Copper, Total    | 97.2      | mg/kg | 20          | 19.4       | 80 - 120    |
| Lead, Total      | 99.9      | mg/kg | 20          | 20.0       | 80 - 120    |
| Nickel, Total    | 101       | mg/kg | 20          | 20.2       | 80 - 120    |
| Selenium, Total  | 92.3      | mg/kg | 20          | 18.5       | 80 - 120    |
| Silver, Total    | 101       | mg/kg | 10          | 10.1       | 80 - 120    |
| Thallium, Total  | 97.5      | mg/kg | 20          | 19.5       | 80 - 120    |
| Zinc, Total      | 90        | mg/kg | 200         | 180        | 80 - 120    |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

MATRIX SPIKE: 2487311 DUPLICATE: 2487312 ORIGINAL: 2208789001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter       | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|-----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Arsenic, Total  | 14.41085        | mg/kg | 19.2        | 28.29038  | 26.27877   | 72.2*    | 62.9*     | 75 - 125    | 7.37 | 20      |
| Cadmium, Total  | .21132          | mg/kg | 19.2        | 18.82163  | 17.94292   | 96.8     | 94        | 75 - 125    | 4.78 | 20      |
| Chromium, Total | 39.00047        | mg/kg | 19.2        | 56.44712  | 52.43962   | 90.7     | 71.2*     | 75 - 125    | 7.36 | 20      |
| Lead, Total     | 36.43538        | mg/kg | 19.2        | 58.37548  | 56.40896   | 114      | 106       | 75 - 125    | 3.43 | 20      |
| Selenium, Total | 2.46887         | mg/kg | 19.2        | 17.30144  | 14.49009   | 77.1     | 63.7*     | 75 - 125    | 17.7 | 20      |
| Silver, Total   | .08019          | mg/kg | 9.6         | 9.5351    | 9.25283    | 98.3     | 97.2      | 75 - 125    | 3    | 20      |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

**QC Batch:** MDIG/62706

**Analysis Method:** SW846 6020A

**QC Batch Method:** SW846 3051

**Associated Lab Samples:** 2208399003

#### METHOD BLANK: 2488250

| Parameter        | Blank Result | Units | Reporting Limit |
|------------------|--------------|-------|-----------------|
| Antimony, Total  | ND           | mg/kg | 1.0             |
| Arsenic, Total   | ND           | mg/kg | 1.5             |
| Beryllium, Total | ND           | mg/kg | 0.50            |
| Cadmium, Total   | ND           | mg/kg | 0.50            |
| Chromium, Total  | ND           | mg/kg | 1.0             |
| Copper, Total    | ND           | mg/kg | 2.5             |
| Lead, Total      | ND           | mg/kg | 1.0             |
| Nickel, Total    | ND           | mg/kg | 2.5             |
| Selenium, Total  | ND           | mg/kg | 2.5             |
| Silver, Total    | ND           | mg/kg | 1.0             |
| Thallium, Total  | ND           | mg/kg | 0.50            |
| Zinc, Total      | ND           | mg/kg | 2.5             |

#### LABORATORY CONTROL SAMPLE: 2488251

| Parameter        | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|------------------|-----------|-------|-------------|------------|-------------|
| Antimony, Total  | 94        | mg/kg | 20          | 18.8       | 80 - 120    |
| Arsenic, Total   | 95.6      | mg/kg | 20          | 19.1       | 80 - 120    |
| Beryllium, Total | 87.7      | mg/kg | 20          | 17.5       | 80 - 120    |
| Cadmium, Total   | 95.7      | mg/kg | 20          | 19.1       | 80 - 120    |
| Chromium, Total  | 99.7      | mg/kg | 20          | 19.9       | 80 - 120    |
| Copper, Total    | 99.1      | mg/kg | 20          | 19.8       | 80 - 120    |
| Lead, Total      | 93.1      | mg/kg | 20          | 18.6       | 80 - 120    |
| Nickel, Total    | 106       | mg/kg | 20          | 21.2       | 80 - 120    |
| Selenium, Total  | 82.8      | mg/kg | 20          | 16.6       | 80 - 120    |
| Silver, Total    | 89.6      | mg/kg | 10          | 9.0        | 80 - 120    |
| Thallium, Total  | 89.3      | mg/kg | 20          | 17.9       | 80 - 120    |
| Zinc, Total      | 88.1      | mg/kg | 200         | 176        | 80 - 120    |



### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

MATRIX SPIKE: 2488252 DUPLICATE: 2488253 ORIGINAL: 2209463001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter       | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|-----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Arsenic, Total  | 2.901           | mg/kg | 20          | 18.9015   | 23.5075    | 80       | 103       | 75 - 125    | 21.7 | 20      |
| Cadmium, Total  | .141            | mg/kg | 20          | 17.641    | 18.0765    | 87.5     | 89.7      | 75 - 125    | 2.44 | 20      |
| Chromium, Total | 19.0505         | mg/kg | 20          | 48.572    | 48.24      | 148*     | 146*      | 75 - 125    | .69  | 20      |
| Lead, Total     | 17.3055         | mg/kg | 20          | 49.443    | 76.0595    | 161*     | 294*      | 75 - 125    | 42.4 | 20      |
| Selenium, Total | 1.66            | mg/kg | 20          | 16.3635   | 17.3125    | 73.5*    | 78.3      | 75 - 125    | 5.64 | 20      |
| Silver, Total   | .02             | mg/kg | 10          | 8.2365    | 8.207      | 82.2     | 81.9      | 75 - 125    | .36  | 20      |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

**QC Batch:** MDIG/62738

**Analysis Method:** SW846 6020A

**QC Batch Method:** SW846 3051

**Associated Lab Samples:** 2208399004, 2208399005, 2208399006, 2208399007, 2208399008, 2208399009, 2208399010, 2208399011

#### METHOD BLANK: 2488978

| Parameter        | Blank Result | Units | Reporting Limit |
|------------------|--------------|-------|-----------------|
| Antimony, Total  | ND           | mg/kg | 1.0             |
| Arsenic, Total   | ND           | mg/kg | 1.5             |
| Beryllium, Total | ND           | mg/kg | 0.50            |
| Cadmium, Total   | ND           | mg/kg | 0.50            |
| Chromium, Total  | ND           | mg/kg | 1.0             |
| Copper, Total    | ND           | mg/kg | 2.5             |
| Lead, Total      | 0.45J        | mg/kg | 1.0             |
| Nickel, Total    | ND           | mg/kg | 2.5             |
| Selenium, Total  | ND           | mg/kg | 2.5             |
| Silver, Total    | ND           | mg/kg | 1.0             |
| Thallium, Total  | ND           | mg/kg | 0.50            |
| Zinc, Total      | ND           | mg/kg | 2.5             |

#### LABORATORY CONTROL SAMPLE: 2488980

| Parameter        | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|------------------|-----------|-------|-------------|------------|-------------|
| Antimony, Total  | 95.9      | mg/kg | 20          | 19.2       | 80 - 120    |
| Arsenic, Total   | 108       | mg/kg | 20          | 21.5       | 80 - 120    |
| Beryllium, Total | 97.5      | mg/kg | 20          | 19.5       | 80 - 120    |
| Cadmium, Total   | 102       | mg/kg | 20          | 20.3       | 80 - 120    |
| Chromium, Total  | 100       | mg/kg | 20          | 20.1       | 80 - 120    |
| Copper, Total    | 97.6      | mg/kg | 20          | 19.5       | 80 - 120    |
| Lead, Total      | 97.9      | mg/kg | 20          | 19.6       | 80 - 120    |
| Nickel, Total    | 107       | mg/kg | 20          | 21.3       | 80 - 120    |
| Selenium, Total  | 92.3      | mg/kg | 20          | 18.5       | 80 - 120    |
| Silver, Total    | 109       | mg/kg | 10          | 10.9       | 80 - 120    |
| Thallium, Total  | 92.6      | mg/kg | 20          | 18.5       | 80 - 120    |
| Zinc, Total      | 96.7      | mg/kg | 200         | 193        | 80 - 120    |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

MATRIX SPIKE: 2488983 DUPLICATE: 2488984 ORIGINAL: 2208399011

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter        | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Antimony, Total  | .3402           | mg/kg | 20          | 14.529    | 19.341     | 70.9*    | 95        | 75 - 125    | 28.4 | 20      |
| Arsenic, Total   | 3.40147         | mg/kg | 20          | 18.0285   | 22.2455    | 73.1*    | 94.2      | 75 - 125    | 20.9 | 20      |
| Beryllium, Total | .17304          | mg/kg | 20          | 13.4235   | 17.9925    | 66.3*    | 89.1      | 75 - 125    | 29.1 | 20      |
| Cadmium, Total   | .07451          | mg/kg | 20          | 14.479    | 19.202     | 72*      | 95.6      | 75 - 125    | 28   | 20      |
| Chromium, Total  | 7.13431         | mg/kg | 20          | 23.275    | 29.1705    | 80.7     | 110       | 75 - 125    | 22.5 | 20      |
| Copper, Total    | 6.02745         | mg/kg | 20          | 20.876    | 27.9965    | 74.2*    | 110       | 75 - 125    | 29.1 | 20      |
| Lead, Total      | 24.83088        | mg/kg | 20          | 41.486    | 60.214     | 83.3     | 177*      | 75 - 125    | 36.8 | 20      |
| Nickel, Total    | 3.10098         | mg/kg | 20          | 19.1685   | 24.863     | 80.3     | 109       | 75 - 125    | 25.9 | 20      |
| Selenium, Total  | 1.36078         | mg/kg | 20          | 14.007    | 17.521     | 63.2*    | 80.8      | 75 - 125    | 22.3 | 20      |
| Silver, Total    | .11471          | mg/kg | 10          | 7.5325    | 10.016     | 74.2*    | 99        | 75 - 125    | 28.3 | 20      |
| Thallium, Total  | .08088          | mg/kg | 20          | 14.0965   | 18.525     | 70.1*    | 92.2      | 75 - 125    | 27.2 | 20      |
| Zinc, Total      | 13.23284        | mg/kg | 200         | 153.3075  | 196.4085   | 70*      | 91.6      | 75 - 125    | 24.6 | 20      |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

**QC Batch:** VOGC/9388

**Analysis Method:** SW846 8015D

**QC Batch Method:** SW846 5035

**Associated Lab Samples:** 2208399002, 2208399003, 2208399004, 2208399005, 2208399006, 2208399007, 2208399008, 2208399009, 2208399010

#### METHOD BLANK: 2487389

| Parameter                  | Blank Result | Units | Reporting Limit |
|----------------------------|--------------|-------|-----------------|
| Gasoline Range Organics    | 4800J        | ug/kg | 10000           |
| a,a,a-Trifluorotoluene (S) | 115          | %     | 72 - 134        |

#### LABORATORY CONTROL SAMPLE: 2487390

| Parameter                  | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|----------------------------|-----------|-------|-------------|------------|-------------|
| Gasoline Range Organics    | 98.2      | ug/kg | 100000      | 98200      | 73 - 133    |
| a,a,a-Trifluorotoluene (S) | 104       | %     |             |            | 72 - 134    |

#### MATRIX SPIKE: 2487627 DUPLICATE: 2487628 ORIGINAL: 2208112002

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                  | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD |
|----------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|
| Gasoline Range Organics    | 2071.87         | ug/kg | 63500       | 62382.5   | 62156.3    | 94.9     | 94.6      | 73 - 133    | .36 | 18      |
| a,a,a-Trifluorotoluene (S) | 123             | %     |             |           |            | 123      | 117       | 72 - 134    |     |         |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

**QC Batch:** VOGC/9390 **Analysis Method:** SW846 8015D  
**QC Batch Method:** SW846 5035  
**Associated Lab Samples:** 2208399011

#### METHOD BLANK: 2487653

| Parameter                  | Blank Result | Units | Reporting Limit |
|----------------------------|--------------|-------|-----------------|
| Gasoline Range Organics    | 4350J        | ug/kg | 10000           |
| a,a,a-Trifluorotoluene (S) | 116          | %     | 72 - 134        |

#### LABORATORY CONTROL SAMPLE: 2487654

| Parameter                  | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|----------------------------|-----------|-------|-------------|------------|-------------|
| Gasoline Range Organics    | 99.7      | ug/kg | 100000      | 99700      | 73 - 133    |
| a,a,a-Trifluorotoluene (S) | 103       | %     |             |            | 72 - 134    |

#### MATRIX SPIKE: 2487663 DUPLICATE: 2487664 ORIGINAL: 2205202002

**\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.**

| Parameter                  | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|----------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Gasoline Range Organics    | 11940.6         | ug/kg | 129000      | 138891    | 146114     | 98.8     | 104       | 73 - 133    | 5.07 | 18      |
| a,a,a-Trifluorotoluene (S) | 120             | %     |             |           |            | 120      | 126       | 72 - 134    |      |         |

## QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

**QC Batch:** VOMS/42455 **Analysis Method:** SW846 8260B

**QC Batch Method:** SW846 5035

**Associated Lab Samples:** 2208399002, 2208399003, 2208399004, 2208399005, 2208399006, 2208399007

METHOD BLANK: 2486314

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acetone                     | ND           | ug/kg | 10.0            |
| tert-Amyl methyl ether      | ND           | ug/kg | 2.0             |
| tert-Amyl Alcohol           | ND           | ug/kg | 10.0            |
| tert-Amyl Ethylether        | ND           | ug/kg | 2.0             |
| Benzene                     | ND           | ug/kg | 2.0             |
| Bromochloromethane          | ND           | ug/kg | 2.0             |
| Bromodichloromethane        | ND           | ug/kg | 2.0             |
| Bromoform                   | ND           | ug/kg | 2.0             |
| Bromomethane                | ND           | ug/kg | 2.0             |
| 2-Butanone                  | ND           | ug/kg | 10.0            |
| tert-Butyl Alcohol          | ND           | ug/kg | 10.0            |
| Carbon Disulfide            | ND           | ug/kg | 2.0             |
| Carbon Tetrachloride        | ND           | ug/kg | 2.0             |
| Chlorobenzene               | ND           | ug/kg | 2.0             |
| Chlorodibromomethane        | ND           | ug/kg | 2.0             |
| Chloroethane                | ND           | ug/kg | 5.0             |
| Chloroform                  | 0.86J        | ug/kg | 2.0             |
| Chloromethane               | ND           | ug/kg | 2.0             |
| 1,2-Dibromo-3-chloropropane | ND           | ug/kg | 5.0             |
| 1,2-Dibromoethane           | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,2-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethene          | ND           | ug/kg | 2.0             |
| cis-1,2-Dichloroethene      | ND           | ug/kg | 2.0             |
| trans-1,2-Dichloroethene    | ND           | ug/kg | 2.0             |
| 1,2-Dichloropropane         | ND           | ug/kg | 2.0             |
| cis-1,3-Dichloropropene     | ND           | ug/kg | 2.0             |
| trans-1,3-Dichloropropene   | ND           | ug/kg | 2.0             |
| Diisopropyl ether           | ND           | ug/kg | 2.0             |
| Ethyl tert-butyl ether      | ND           | ug/kg | 2.0             |
| Ethylbenzene                | ND           | ug/kg | 2.0             |
| 2-Hexanone                  | ND           | ug/kg | 10.0            |
| Methyl t-Butyl Ether        | ND           | ug/kg | 2.0             |
| 4-Methyl-2-Pentanone(MIBK)  | ND           | ug/kg | 10.0            |
| Methylene Chloride          | 9.6          | ug/kg | 2.0             |
| Naphthalene                 | ND           | ug/kg | 2.0             |
| Styrene                     | ND           | ug/kg | 2.0             |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

|                           |      |       |          |
|---------------------------|------|-------|----------|
| 1,1,2,2-Tetrachloroethane | ND   | ug/kg | 2.0      |
| Tetrachloroethene         | ND   | ug/kg | 2.0      |
| Toluene                   | ND   | ug/kg | 2.0      |
| Total Xylenes             | ND   | ug/kg | 6.0      |
| 1,1,1-Trichloroethane     | ND   | ug/kg | 2.0      |
| 1,1,2-Trichloroethane     | ND   | ug/kg | 2.0      |
| Trichloroethene           | ND   | ug/kg | 2.0      |
| Vinyl Chloride            | ND   | ug/kg | 2.0      |
| o-Xylene                  | ND   | ug/kg | 2.0      |
| mp-Xylene                 | ND   | ug/kg | 4.0      |
| 1,2-Dichloroethane-d4 (S) | 70.4 | %     | 56 - 124 |
| 4-Bromofluorobenzene (S)  | 83.9 | %     | 51 - 128 |
| Dibromofluoromethane (S)  | 86.7 | %     | 62 - 123 |
| Toluene-d8 (S)            | 85.3 | %     | 59 - 131 |

LABORATORY CONTROL SAMPLE: 2486315 DUPLICATE: 2486316

| Parameter                   | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | LCSD<br>Result | LCSD %<br>Rec | % Rec<br>Limit | RPD  | Max |
|-----------------------------|--------------|-------|----------------|---------------|----------------|---------------|----------------|------|-----|
| Acetone                     | 116          | ug/kg | 100            | 116           | 120            | 120           | 58 - 146       | 3.5  | 40  |
| tert-Amyl methyl ether      | 117          | ug/kg | 20             | 23.4          | 25.1           | 126*          | 79 - 123       | 7    | 40  |
| tert-Amyl Alcohol           | 90.9         | ug/kg | 100            | 90.9          | 98.4           | 98.4          | 70 - 130       | 8    | 40  |
| tert-Amyl Ethylether        | 99.8         | ug/kg | 20             | 20.0          | 21.1           | 105           | 70 - 130       | 5.6  | 40  |
| Benzene                     | 108          | ug/kg | 20             | 21.5          | 21.5           | 108           | 75 - 132       | .083 | 40  |
| Bromochloromethane          | 120          | ug/kg | 20             | 24.0          | 23.7           | 118           | 71 - 120       | 1.2  | 40  |
| Bromodichloromethane        | 113          | ug/kg | 20             | 22.5          | 22.9           | 114           | 74 - 127       | 1.5  | 40  |
| Bromoform                   | 97.7         | ug/kg | 20             | 19.5          | 19.9           | 99.6          | 68 - 131       | 2    | 40  |
| Bromomethane                | 82.3         | ug/kg | 20             | 16.5          | 17.5           | 87.4          | 43 - 148       | 6.1  | 40  |
| 2-Butanone                  | 112          | ug/kg | 100            | 112           | 111            | 111           | 64 - 148       | .61  | 40  |
| tert-Butyl Alcohol          | 108          | ug/kg | 100            | 108           | 123            | 123           | 51 - 152       | 12.4 | 40  |
| Carbon Disulfide            | 111          | ug/kg | 20             | 22.3          | 22.2           | 111           | 47 - 144       | .3   | 40  |
| Carbon Tetrachloride        | 93.7         | ug/kg | 20             | 18.7          | 21.6           | 108           | 64 - 136       | 13.9 | 40  |
| Chlorobenzene               | 104          | ug/kg | 20             | 20.7          | 20.6           | 103           | 76 - 125       | .49  | 40  |
| Chlorodibromomethane        | 108          | ug/kg | 20             | 21.6          | 21.9           | 109           | 75 - 124       | 1.4  | 40  |
| Chloroethane                | 88.2         | ug/kg | 20             | 17.6          | 17.2           | 86            | 1 - 141        | 2.5  | 40  |
| Chloroform                  | 112          | ug/kg | 20             | 22.4          | 22.2           | 111           | 73 - 126       | 1    | 40  |
| Chloromethane               | 114          | ug/kg | 20             | 22.7          | 22.0           | 110           | 44 - 139       | 3.3  | 40  |
| 1,2-Dibromo-3-chloropropane | 76.4         | ug/kg | 20             | 15.3          | 16.5           | 82.6          | 52 - 151       | 7.8  | 40  |
| 1,2-Dibromoethane           | 110          | ug/kg | 20             | 22.0          | 22.4           | 112           | 76 - 127       | 2.2  | 40  |
| 1,1-Dichloroethane          | 107          | ug/kg | 20             | 21.4          | 21.9           | 109           | 74 - 131       | 2    | 40  |
| 1,2-Dichloroethane          | 105          | ug/kg | 20             | 21.0          | 21.3           | 107           | 69 - 132       | 1.7  | 40  |
| 1,1-Dichloroethene          | 114          | ug/kg | 20             | 22.8          | 23.0           | 115           | 59 - 139       | .92  | 40  |
| cis-1,2-Dichloroethene      | 109          | ug/kg | 20             | 21.9          | 22.4           | 112           | 75 - 128       | 2.3  | 40  |
| trans-1,2-Dichloroethene    | 118          | ug/kg | 20             | 23.7          | 23.1           | 116           | 66 - 133       | 2.5  | 40  |
| 1,2-Dichloropropane         | 109          | ug/kg | 20             | 21.9          | 22.1           | 110           | 78 - 131       | .93  | 40  |



### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

|                            |      |       |     |      |      |      |          |     |    |
|----------------------------|------|-------|-----|------|------|------|----------|-----|----|
| cis-1,3-Dichloropropene    | 82.6 | ug/kg | 20  | 16.5 | 17.0 | 85   | 76 - 123 | 2.8 | 40 |
| trans-1,3-Dichloropropene  | 103  | ug/kg | 20  | 20.6 | 21.3 | 106  | 77 - 123 | 3   | 40 |
| Diisopropyl ether          | 106  | ug/kg | 20  | 21.2 | 21.4 | 107  | 71 - 128 | .91 | 40 |
| Ethyl tert-butyl ether     | 87.8 | ug/kg | 20  | 17.6 | 18.6 | 93   | 75 - 121 | 5.7 | 40 |
| Ethylbenzene               | 101  | ug/kg | 20  | 20.2 | 20.0 | 99.9 | 73 - 133 | 1.1 | 40 |
| 2-Hexanone                 | 73.2 | ug/kg | 100 | 73.2 | 77.4 | 77.4 | 62 - 147 | 5.7 | 40 |
| Methyl t-Butyl Ether       | 114  | ug/kg | 20  | 22.7 | 24.0 | 120* | 70 - 118 | 5.6 | 40 |
| 4-Methyl-2-Pentanone(MIBK) | 78.2 | ug/kg | 100 | 78.2 | 81.0 | 81   | 64 - 143 | 3.5 | 40 |
| Methylene Chloride         | 145* | ug/kg | 20  | 28.9 | 30.3 | 151* | 68 - 133 | 4.5 | 40 |
| Naphthalene                | 84.7 | ug/kg | 20  | 16.9 | 18.4 | 92.2 | 60 - 146 | 8.6 | 40 |
| Styrene                    | 94.3 | ug/kg | 20  | 18.9 | 19.0 | 94.9 | 77 - 130 | .66 | 40 |
| 1,1,2,2-Tetrachloroethane  | 88.3 | ug/kg | 20  | 17.7 | 18.3 | 91.4 | 72 - 134 | 3.4 | 40 |
| Tetrachloroethene          | 110  | ug/kg | 20  | 22.0 | 21.5 | 108  | 58 - 137 | 2.3 | 40 |
| Toluene                    | 103  | ug/kg | 20  | 20.6 | 20.4 | 102  | 73 - 129 | 1.2 | 40 |
| Total Xylenes              | 106  | ug/kg | 60  | 63.4 | 62.4 | 104  | 73 - 130 | 1.4 | 40 |
| 1,1,1-Trichloroethane      | 100  | ug/kg | 20  | 20.1 | 20.1 | 101  | 68 - 131 | .38 | 40 |
| 1,1,2-Trichloroethane      | 98.5 | ug/kg | 20  | 19.7 | 20.0 | 99.9 | 79 - 123 | 1.4 | 40 |
| Trichloroethene            | 110  | ug/kg | 20  | 22.0 | 22.1 | 110  | 72 - 129 | .27 | 40 |
| Vinyl Chloride             | 108  | ug/kg | 20  | 21.6 | 21.4 | 107  | 53 - 141 | .7  | 40 |
| o-Xylene                   | 106  | ug/kg | 20  | 21.2 | 20.9 | 105  | 75 - 129 | 1.5 | 40 |
| mp-Xylene                  | 105  | ug/kg | 40  | 42.1 | 41.5 | 104  | 72 - 130 | 1.4 | 40 |
| 1,2-Dichloroethane-d4 (S)  | 79.9 | %     |     |      | 79.9 |      | 56 - 124 |     |    |
| 4-Bromofluorobenzene (S)   | 82.8 | %     |     |      | 82.8 |      | 51 - 128 |     |    |
| Dibromofluoromethane (S)   | 89.7 | %     |     |      | 89.7 |      | 62 - 123 |     |    |
| Toluene-d8 (S)             | 82.8 | %     |     |      | 82.8 |      | 59 - 131 |     |    |

MATRIX SPIKE SAMPLE: 2486554 ORIGINAL: 2208267002

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter            | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|----------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Acetone              | 0               | ug/kg | 89          | 63.4946   | 71.4     | 58 - 146    |
| Benzene              | 0               | ug/kg | 17.8        | 11.9726   | 67.3*    | 75 - 132    |
| Bromochloromethane   | 0               | ug/kg | 17.8        | 9.60911   | 54*      | 71 - 120    |
| Bromodichloromethane | 0               | ug/kg | 17.8        | 9.73354   | 54.7*    | 74 - 127    |
| Bromoform            | 0               | ug/kg | 17.8        | 6.66594   | 37.5*    | 68 - 131    |
| Bromomethane         | 0               | ug/kg | 17.8        | 9.2199    | 51.8     | 43 - 148    |
| 2-Butanone           | 0               | ug/kg | 89          | 56.9993   | 64.1     | 64 - 148    |
| Carbon Disulfide     | 0               | ug/kg | 17.8        | 16.0679   | 90.3     | 47 - 144    |
| Carbon Tetrachloride | 0               | ug/kg | 17.8        | 15.3653   | 86.4     | 64 - 136    |
| Chlorobenzene        | 0               | ug/kg | 17.8        | 9.73207   | 54.7*    | 76 - 125    |
| Chlorodibromomethane | 0               | ug/kg | 17.8        | 7.72022   | 43.4*    | 75 - 124    |
| Chloroethane         | 0               | ug/kg | 17.8        | 10.526    | 59.2     | 1 - 141     |
| Chloroform           | 0               | ug/kg | 17.8        | 11.2163   | 63*      | 73 - 126    |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

|                             |         |       |      |         |       |          |
|-----------------------------|---------|-------|------|---------|-------|----------|
| Chloromethane               | 0       | ug/kg | 17.8 | 12.9404 | 72.7  | 44 - 139 |
| 1,2-Dibromo-3-chloropropane | 0       | ug/kg | 17.8 | 5.85533 | 32.9* | 52 - 151 |
| 1,2-Dibromoethane           | 0       | ug/kg | 17.8 | 7.64518 | 43*   | 76 - 127 |
| 1,1-Dichloroethane          | 0       | ug/kg | 17.8 | 11.9766 | 67.3* | 74 - 131 |
| 1,2-Dichloroethane          | 0       | ug/kg | 17.8 | 8.24316 | 46.3* | 69 - 132 |
| 1,1-Dichloroethene          | 0       | ug/kg | 17.8 | 16.9068 | 95    | 59 - 139 |
| cis-1,2-Dichloroethene      | 0       | ug/kg | 17.8 | 11.1714 | 62.8* | 75 - 128 |
| trans-1,2-Dichloroethene    | 0       | ug/kg | 17.8 | 14.9397 | 84    | 66 - 133 |
| 1,2-Dichloropropane         | 0       | ug/kg | 17.8 | 9.72736 | 54.7* | 78 - 131 |
| cis-1,3-Dichloropropene     | 0       | ug/kg | 17.8 | 6.23593 | 35*   | 76 - 123 |
| trans-1,3-Dichloropropene   | 0       | ug/kg | 17.8 | 6.94248 | 39*   | 77 - 123 |
| Ethylbenzene                | 0       | ug/kg | 17.8 | 11.4819 | 64.5* | 73 - 133 |
| 2-Hexanone                  | 0       | ug/kg | 89   | 27.2261 | 30.6* | 62 - 147 |
| 4-Methyl-2-Pentanone(MIBK)  | 0       | ug/kg | 89   | 28.8321 | 32.4* | 64 - 143 |
| Methylene Chloride          | 5.19035 | ug/kg | 17.8 | 13.0176 | 44*   | 68 - 133 |
| Styrene                     | 0       | ug/kg | 17.8 | 8.11403 | 45.6* | 77 - 130 |
| 1,1,2,2-Tetrachloroethane   | 0       | ug/kg | 17.8 | 6.25469 | 35.2* | 72 - 134 |
| Tetrachloroethene           | 0       | ug/kg | 17.8 | 13.9848 | 78.6  | 58 - 137 |
| Toluene                     | 0       | ug/kg | 17.8 | 11.3562 | 63.8* | 73 - 129 |
| Total Xylenes               | 0       | ug/kg | 53.4 | 33.4191 | 62.6* | 73 - 130 |
| 1,1,1-Trichloroethane       | 0       | ug/kg | 17.8 | 13.0793 | 73.5  | 68 - 131 |
| 1,1,2-Trichloroethane       | 0       | ug/kg | 17.8 | 7.21284 | 40.5* | 79 - 123 |
| Trichloroethene             | 0       | ug/kg | 17.8 | 14.053  | 79    | 72 - 129 |
| Vinyl Chloride              | 0       | ug/kg | 17.8 | 14.7227 | 82.7  | 53 - 141 |
| o-Xylene                    | 0       | ug/kg | 17.8 | 10.2909 | 57.8* | 75 - 129 |
| mp-Xylene                   | 0       | ug/kg | 35.6 | 23.1282 | 65*   | 72 - 130 |
| 1,2-Dichloroethane-d4 (S)   | 86.8    | %     |      |         |       | 56 - 124 |
| 4-Bromofluorobenzene (S)    | 81.7    | %     |      |         |       | 51 - 128 |
| Dibromofluoromethane (S)    | 91.4    | %     |      |         |       | 62 - 123 |
| Toluene-d8 (S)              | 79.2    | %     |      |         |       | 59 - 131 |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

**QC Batch:** VOMS/42461 **Analysis Method:** SW846 8260B

**QC Batch Method:** SW846 5035

**Associated Lab Samples:** 2208399008, 2208399009, 2208399010, 2208399011

METHOD BLANK: 2486625

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acetone                     | ND           | ug/kg | 10.0            |
| tert-Amyl methyl ether      | ND           | ug/kg | 2.0             |
| tert-Amyl Alcohol           | ND           | ug/kg | 10.0            |
| tert-Amyl Ethylether        | ND           | ug/kg | 2.0             |
| Benzene                     | ND           | ug/kg | 2.0             |
| Bromochloromethane          | ND           | ug/kg | 2.0             |
| Bromodichloromethane        | ND           | ug/kg | 2.0             |
| Bromoform                   | ND           | ug/kg | 2.0             |
| Bromomethane                | ND           | ug/kg | 2.0             |
| 2-Butanone                  | ND           | ug/kg | 10.0            |
| tert-Butyl Alcohol          | ND           | ug/kg | 10.0            |
| Carbon Disulfide            | ND           | ug/kg | 2.0             |
| Carbon Tetrachloride        | ND           | ug/kg | 2.0             |
| Chlorobenzene               | ND           | ug/kg | 2.0             |
| Chlorodibromomethane        | ND           | ug/kg | 2.0             |
| Chloroethane                | ND           | ug/kg | 5.0             |
| Chloroform                  | ND           | ug/kg | 2.0             |
| Chloromethane               | ND           | ug/kg | 2.0             |
| 1,2-Dibromo-3-chloropropane | ND           | ug/kg | 5.0             |
| 1,2-Dibromoethane           | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,2-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethene          | ND           | ug/kg | 2.0             |
| cis-1,2-Dichloroethene      | ND           | ug/kg | 2.0             |
| trans-1,2-Dichloroethene    | ND           | ug/kg | 2.0             |
| 1,2-Dichloropropane         | ND           | ug/kg | 2.0             |
| cis-1,3-Dichloropropene     | ND           | ug/kg | 2.0             |
| trans-1,3-Dichloropropene   | ND           | ug/kg | 2.0             |
| Diisopropyl ether           | ND           | ug/kg | 2.0             |
| Ethyl tert-butyl ether      | ND           | ug/kg | 2.0             |
| Ethylbenzene                | ND           | ug/kg | 2.0             |
| 2-Hexanone                  | ND           | ug/kg | 10.0            |
| Methyl t-Butyl Ether        | ND           | ug/kg | 2.0             |
| 4-Methyl-2-Pentanone(MIBK)  | ND           | ug/kg | 10.0            |
| Methylene Chloride          | 5.0          | ug/kg | 2.0             |
| Naphthalene                 | ND           | ug/kg | 2.0             |
| Styrene                     | ND           | ug/kg | 2.0             |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

|                           |      |       |          |
|---------------------------|------|-------|----------|
| 1,1,2,2-Tetrachloroethane | ND   | ug/kg | 2.0      |
| Tetrachloroethene         | ND   | ug/kg | 2.0      |
| Toluene                   | ND   | ug/kg | 2.0      |
| Total Xylenes             | ND   | ug/kg | 6.0      |
| 1,1,1-Trichloroethane     | ND   | ug/kg | 2.0      |
| 1,1,2-Trichloroethane     | ND   | ug/kg | 2.0      |
| Trichloroethene           | ND   | ug/kg | 2.0      |
| Vinyl Chloride            | ND   | ug/kg | 2.0      |
| o-Xylene                  | ND   | ug/kg | 2.0      |
| mp-Xylene                 | ND   | ug/kg | 4.0      |
| 1,2-Dichloroethane-d4 (S) | 72.9 | %     | 56 - 124 |
| 4-Bromofluorobenzene (S)  | 83.4 | %     | 51 - 128 |
| Dibromofluoromethane (S)  | 87.5 | %     | 62 - 123 |
| Toluene-d8 (S)            | 84.2 | %     | 59 - 131 |

LABORATORY CONTROL SAMPLE: 2486626 DUPLICATE: 2486627

| Parameter                   | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | LCSD<br>Result | LCSD %<br>Rec | % Rec<br>Limit | RPD  | Max |
|-----------------------------|--------------|-------|----------------|---------------|----------------|---------------|----------------|------|-----|
| Acetone                     | 96.3         | ug/kg | 100            | 96.3          | 97.8           | 97.8          | 58 - 146       | 1.6  | 40  |
| tert-Amyl methyl ether      | 116          | ug/kg | 20             | 23.1          | 24.5           | 122           | 79 - 123       | 5.7  | 40  |
| tert-Amyl Alcohol           | 92.8         | ug/kg | 100            | 92.8          | 107            | 107           | 70 - 130       | 14.3 | 40  |
| tert-Amyl Ethylether        | 96.6         | ug/kg | 20             | 19.3          | 21.0           | 105           | 70 - 130       | 8.2  | 40  |
| Benzene                     | 102          | ug/kg | 20             | 20.3          | 21.1           | 106           | 75 - 132       | 3.8  | 40  |
| Bromochloromethane          | 113          | ug/kg | 20             | 22.5          | 23.6           | 118           | 71 - 120       | 4.6  | 40  |
| Bromodichloromethane        | 109          | ug/kg | 20             | 21.7          | 22.3           | 111           | 74 - 127       | 2.4  | 40  |
| Bromoform                   | 95.1         | ug/kg | 20             | 19.0          | 19.5           | 97.5          | 68 - 131       | 2.5  | 40  |
| Bromomethane                | 76.6         | ug/kg | 20             | 15.3          | 16.6           | 83            | 43 - 148       | 8    | 40  |
| 2-Butanone                  | 105          | ug/kg | 100            | 105           | 105            | 105           | 64 - 148       | .059 | 40  |
| tert-Butyl Alcohol          | 116          | ug/kg | 100            | 116           | 126            | 126           | 51 - 152       | 8.4  | 40  |
| Carbon Disulfide            | 106          | ug/kg | 20             | 21.3          | 21.9           | 109           | 47 - 144       | 2.9  | 40  |
| Carbon Tetrachloride        | 103          | ug/kg | 20             | 20.5          | 21.7           | 109           | 64 - 136       | 5.6  | 40  |
| Chlorobenzene               | 97           | ug/kg | 20             | 19.4          | 19.8           | 99            | 76 - 125       | 2    | 40  |
| Chlorodibromomethane        | 106          | ug/kg | 20             | 21.1          | 21.5           | 107           | 75 - 124       | 1.7  | 40  |
| Chloroethane                | 78.3         | ug/kg | 20             | 15.7          | 16.6           | 82.9          | 1 - 141        | 5.8  | 40  |
| Chloroform                  | 103          | ug/kg | 20             | 20.7          | 21.3           | 106           | 73 - 126       | 2.7  | 40  |
| Chloromethane               | 106          | ug/kg | 20             | 21.2          | 20.9           | 104           | 44 - 139       | 1.8  | 40  |
| 1,2-Dibromo-3-chloropropane | 78.3         | ug/kg | 20             | 15.7          | 17.0           | 84.8          | 52 - 151       | 7.9  | 40  |
| 1,2-Dibromoethane           | 106          | ug/kg | 20             | 21.3          | 21.1           | 106           | 76 - 127       | .65  | 40  |
| 1,1-Dichloroethane          | 103          | ug/kg | 20             | 20.6          | 21.1           | 105           | 74 - 131       | 2.3  | 40  |
| 1,2-Dichloroethane          | 100          | ug/kg | 20             | 20.0          | 20.5           | 102           | 69 - 132       | 2.1  | 40  |
| 1,1-Dichloroethene          | 110          | ug/kg | 20             | 22.0          | 22.3           | 112           | 59 - 139       | 1.6  | 40  |
| cis-1,2-Dichloroethene      | 102          | ug/kg | 20             | 20.5          | 21.6           | 108           | 75 - 128       | 5.4  | 40  |
| trans-1,2-Dichloroethene    | 110          | ug/kg | 20             | 21.9          | 23.0           | 115           | 66 - 133       | 4.7  | 40  |
| 1,2-Dichloropropane         | 103          | ug/kg | 20             | 20.6          | 21.3           | 107           | 78 - 131       | 3.4  | 40  |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

|                            |      |       |     |      |      |      |          |     |    |
|----------------------------|------|-------|-----|------|------|------|----------|-----|----|
| cis-1,3-Dichloropropene    | 77.7 | ug/kg | 20  | 15.5 | 16.4 | 81.8 | 76 - 123 | 5   | 40 |
| trans-1,3-Dichloropropene  | 97.5 | ug/kg | 20  | 19.5 | 20.4 | 102  | 77 - 123 | 4.4 | 40 |
| Diisopropyl ether          | 100  | ug/kg | 20  | 20.1 | 21.0 | 105  | 71 - 128 | 4.6 | 40 |
| Ethyl tert-butyl ether     | 85.9 | ug/kg | 20  | 17.2 | 18.4 | 92.1 | 75 - 121 | 6.9 | 40 |
| Ethylbenzene               | 96.2 | ug/kg | 20  | 19.2 | 19.9 | 99.3 | 73 - 133 | 3.2 | 40 |
| 2-Hexanone                 | 73.5 | ug/kg | 100 | 73.5 | 74.3 | 74.3 | 62 - 147 | 1.2 | 40 |
| Methyl t-Butyl Ether       | 113  | ug/kg | 20  | 22.5 | 23.8 | 119* | 70 - 118 | 5.4 | 40 |
| 4-Methyl-2-Pentanone(MIBK) | 80   | ug/kg | 100 | 80.0 | 78.9 | 78.9 | 64 - 143 | 1.5 | 40 |
| Methylene Chloride         | 172* | ug/kg | 20  | 34.4 | 34.4 | 172* | 68 - 133 | .16 | 40 |
| Naphthalene                | 82.3 | ug/kg | 20  | 16.5 | 18.1 | 90.6 | 60 - 146 | 9.6 | 40 |
| Styrene                    | 86.4 | ug/kg | 20  | 17.3 | 18.3 | 91.6 | 77 - 130 | 5.9 | 40 |
| 1,1,2,2-Tetrachloroethane  | 86.7 | ug/kg | 20  | 17.3 | 17.8 | 88.9 | 72 - 134 | 2.6 | 40 |
| Tetrachloroethene          | 102  | ug/kg | 20  | 20.5 | 21.1 | 105  | 58 - 137 | 3   | 40 |
| Toluene                    | 101  | ug/kg | 20  | 20.2 | 20.5 | 103  | 73 - 129 | 1.4 | 40 |
| Total Xylenes              | 99.6 | ug/kg | 60  | 59.8 | 60.7 | 101  | 73 - 130 | 1.6 | 40 |
| 1,1,1-Trichloroethane      | 95.3 | ug/kg | 20  | 19.1 | 19.9 | 99.4 | 68 - 131 | 4.2 | 40 |
| 1,1,2-Trichloroethane      | 96.4 | ug/kg | 20  | 19.3 | 19.5 | 97.4 | 79 - 123 | .97 | 40 |
| Trichloroethene            | 105  | ug/kg | 20  | 20.9 | 21.2 | 106  | 72 - 129 | 1.5 | 40 |
| Vinyl Chloride             | 101  | ug/kg | 20  | 20.3 | 20.8 | 104  | 53 - 141 | 2.8 | 40 |
| o-Xylene                   | 98.8 | ug/kg | 20  | 19.8 | 20.1 | 101  | 75 - 129 | 1.8 | 40 |
| mp-Xylene                  | 100  | ug/kg | 40  | 40.0 | 40.6 | 102  | 72 - 130 | 1.5 | 40 |
| 1,2-Dichloroethane-d4 (S)  | 79   | %     |     |      | 79   |      | 56 - 124 |     |    |
| 4-Bromofluorobenzene (S)   | 78.8 | %     |     |      | 78.8 |      | 51 - 128 |     |    |
| Dibromofluoromethane (S)   | 87.6 | %     |     |      | 87.6 |      | 62 - 123 |     |    |
| Toluene-d8 (S)             | 81.1 | %     |     |      | 81.1 |      | 59 - 131 |     |    |

MATRIX SPIKE SAMPLE: 2487164 ORIGINAL: 2208589001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                 | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|---------------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Benzene                   | 0               | ug/kg | 14          | 12.9751   | 92.6     | 75 - 132    |
| Ethylbenzene              | 0               | ug/kg | 14          | 11.1017   | 79.3     | 73 - 133    |
| Naphthalene               | 0               | ug/kg | 14          | 6.4089    | 45.8*    | 60 - 146    |
| Toluene                   | 2.84136         | ug/kg | 14          | 13.6926   | 77.5     | 73 - 129    |
| Total Xylenes             | 0               | ug/kg | 42          | 33.2622   | 79.2     | 73 - 130    |
| 1,2-Dichloroethane-d4 (S) | 80.9            | %     |             |           |          | 56 - 124    |
| 4-Bromofluorobenzene (S)  | 83.1            | %     |             |           |          | 51 - 128    |
| Dibromofluoromethane (S)  | 90.7            | %     |             |           |          | 62 - 123    |
| Toluene-d8 (S)            | 80.1            | %     |             |           |          | 59 - 131    |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

**QC Batch:** VOMS/42463 **Analysis Method:** SW846 8260B  
**QC Batch Method:** SW846 8260B  
**Associated Lab Samples:** 2208399001

METHOD BLANK: 2486629

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acetone                     | 4.4J         | ug/L  | 10.0            |
| tert-Amyl methyl ether      | ND           | ug/L  | 1.0             |
| tert-Amyl Alcohol           | ND           | ug/L  | 10.0            |
| tert-Amyl Ethylether        | ND           | ug/L  | 1.0             |
| Benzene                     | ND           | ug/L  | 1.0             |
| Bromochloromethane          | ND           | ug/L  | 1.0             |
| Bromodichloromethane        | ND           | ug/L  | 1.0             |
| Bromoform                   | ND           | ug/L  | 1.0             |
| Bromomethane                | ND           | ug/L  | 1.0             |
| 2-Butanone                  | ND           | ug/L  | 10.0            |
| tert-Butyl Alcohol          | ND           | ug/L  | 10.0            |
| Carbon Disulfide            | ND           | ug/L  | 1.0             |
| Carbon Tetrachloride        | ND           | ug/L  | 1.0             |
| Chlorobenzene               | ND           | ug/L  | 1.0             |
| Chlorodibromomethane        | ND           | ug/L  | 1.0             |
| Chloroethane                | ND           | ug/L  | 1.0             |
| Chloroform                  | ND           | ug/L  | 1.0             |
| Chloromethane               | ND           | ug/L  | 1.0             |
| 1,2-Dibromo-3-chloropropane | ND           | ug/L  | 7.0             |
| 1,2-Dibromoethane           | ND           | ug/L  | 1.0             |
| 1,1-Dichloroethane          | ND           | ug/L  | 1.0             |
| 1,2-Dichloroethane          | ND           | ug/L  | 1.0             |
| 1,1-Dichloroethene          | ND           | ug/L  | 1.0             |
| cis-1,2-Dichloroethene      | ND           | ug/L  | 1.0             |
| trans-1,2-Dichloroethene    | ND           | ug/L  | 1.0             |
| 1,2-Dichloropropane         | ND           | ug/L  | 1.0             |
| cis-1,3-Dichloropropene     | ND           | ug/L  | 1.0             |
| trans-1,3-Dichloropropene   | ND           | ug/L  | 1.0             |
| Diisopropyl ether           | ND           | ug/L  | 1.0             |
| Ethyl tert-butyl ether      | ND           | ug/L  | 1.0             |
| Ethylbenzene                | ND           | ug/L  | 1.0             |
| 2-Hexanone                  | ND           | ug/L  | 5.0             |
| Methyl t-Butyl Ether        | ND           | ug/L  | 1.0             |
| 4-Methyl-2-Pentanone(MIBK)  | ND           | ug/L  | 5.0             |
| Methylene Chloride          | ND           | ug/L  | 1.0             |
| Styrene                     | ND           | ug/L  | 1.0             |
| 1,1,1,2-Tetrachloroethane   | ND           | ug/L  | 1.0             |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

|                           |      |      |          |
|---------------------------|------|------|----------|
| 1,1,2,2-Tetrachloroethane | ND   | ug/L | 1.0      |
| Tetrachloroethene         | ND   | ug/L | 1.0      |
| Toluene                   | ND   | ug/L | 1.0      |
| Total Xylenes             | ND   | ug/L | 3.0      |
| 1,1,1-Trichloroethane     | ND   | ug/L | 1.0      |
| 1,1,2-Trichloroethane     | ND   | ug/L | 1.0      |
| Trichloroethene           | ND   | ug/L | 1.0      |
| Vinyl Chloride            | ND   | ug/L | 1.0      |
| o-Xylene                  | ND   | ug/L | 1.0      |
| mp-Xylene                 | ND   | ug/L | 2.0      |
| 1,2-Dichloroethane-d4 (S) | 99.3 | %    | 62 - 133 |
| 4-Bromofluorobenzene (S)  | 103  | %    | 79 - 114 |
| Dibromofluoromethane (S)  | 99.3 | %    | 78 - 116 |
| Toluene-d8 (S)            | 102  | %    | 76 - 127 |

#### LABORATORY CONTROL SAMPLE: 2486630

| Parameter                   | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | % Rec<br>Limit |
|-----------------------------|--------------|-------|----------------|---------------|----------------|
| Acetone                     | 120          | ug/L  | 100            | 120           | 40 - 151       |
| tert-Amyl methyl ether      | 92.3         | ug/L  | 20             | 18.5          | 75 - 121       |
| tert-Amyl Alcohol           | 86           | ug/L  | 100            | 86.0          | 70 - 130       |
| tert-Amyl Ethylether        | 132*         | ug/L  | 20             | 26.5          | 70 - 130       |
| Benzene                     | 105          | ug/L  | 20             | 21.0          | 80 - 124       |
| Bromochloromethane          | 104          | ug/L  | 20             | 20.9          | 73 - 117       |
| Bromodichloromethane        | 101          | ug/L  | 20             | 20.3          | 79 - 126       |
| Bromoform                   | 87.4         | ug/L  | 20             | 17.5          | 70 - 123       |
| Bromomethane                | 102          | ug/L  | 20             | 20.3          | 45 - 148       |
| 2-Butanone                  | 101          | ug/L  | 100            | 101           | 50 - 152       |
| tert-Butyl Alcohol          | 99.7         | ug/L  | 100            | 99.7          | 17 - 168       |
| Carbon Disulfide            | 125          | ug/L  | 20             | 24.9          | 57 - 131       |
| Carbon Tetrachloride        | 114          | ug/L  | 20             | 22.9          | 62 - 132       |
| Chlorobenzene               | 99.4         | ug/L  | 20             | 19.9          | 85 - 117       |
| Chlorodibromomethane        | 97.4         | ug/L  | 20             | 19.5          | 77 - 122       |
| Chloroethane                | 112          | ug/L  | 20             | 22.4          | 51 - 142       |
| Chloroform                  | 115          | ug/L  | 20             | 23.0          | 78 - 122       |
| Chloromethane               | 130          | ug/L  | 20             | 26.0          | 38 - 156       |
| 1,2-Dibromo-3-chloropropane | 82.4         | ug/L  | 20             | 16.5          | 59 - 133       |
| 1,2-Dibromoethane           | 95           | ug/L  | 20             | 19.0          | 80 - 124       |
| 1,1-Dichloroethane          | 112          | ug/L  | 20             | 22.4          | 78 - 124       |
| 1,2-Dichloroethane          | 107          | ug/L  | 20             | 21.3          | 70 - 133       |
| 1,1-Dichloroethene          | 133*         | ug/L  | 20             | 26.7          | 63 - 128       |
| cis-1,2-Dichloroethene      | 108          | ug/L  | 20             | 21.7          | 78 - 125       |
| trans-1,2-Dichloroethene    | 124*         | ug/L  | 20             | 24.8          | 71 - 122       |
| 1,2-Dichloropropane         | 107          | ug/L  | 20             | 21.4          | 81 - 127       |



### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

|                            |      |      |     |      |          |
|----------------------------|------|------|-----|------|----------|
| cis-1,3-Dichloropropene    | 102  | ug/L | 20  | 20.4 | 81 - 121 |
| trans-1,3-Dichloropropene  | 100  | ug/L | 20  | 20.1 | 78 - 126 |
| Diisopropyl ether          | 111  | ug/L | 20  | 22.1 | 74 - 131 |
| Ethyl tert-butyl ether     | 98.6 | ug/L | 20  | 19.7 | 75 - 123 |
| Ethylbenzene               | 105  | ug/L | 20  | 21.0 | 80 - 124 |
| 2-Hexanone                 | 93.5 | ug/L | 100 | 93.5 | 65 - 154 |
| Methyl t-Butyl Ether       | 105  | ug/L | 20  | 21.0 | 69 - 115 |
| 4-Methyl-2-Pentanone(MIBK) | 113  | ug/L | 100 | 113  | 71 - 146 |
| Methylene Chloride         | 119  | ug/L | 20  | 23.8 | 76 - 121 |
| Styrene                    | 111  | ug/L | 20  | 22.1 | 79 - 123 |
| 1,1,1,2-Tetrachloroethane  | 103  | ug/L | 20  | 20.6 | 78 - 121 |
| 1,1,2,2-Tetrachloroethane  | 99.7 | ug/L | 20  | 19.9 | 74 - 135 |
| Tetrachloroethene          | 109  | ug/L | 20  | 21.8 | 72 - 124 |
| Toluene                    | 105  | ug/L | 20  | 20.9 | 80 - 125 |
| Total Xylenes              | 105  | ug/L | 60  | 63.0 | 79 - 125 |
| 1,1,1-Trichloroethane      | 111  | ug/L | 20  | 22.1 | 66 - 130 |
| 1,1,2-Trichloroethane      | 95.4 | ug/L | 20  | 19.1 | 82 - 126 |
| Trichloroethene            | 110  | ug/L | 20  | 22.1 | 77 - 124 |
| Vinyl Chloride             | 107  | ug/L | 20  | 21.4 | 27 - 138 |
| o-Xylene                   | 100  | ug/L | 20  | 20.1 | 79 - 124 |
| mp-Xylene                  | 107  | ug/L | 40  | 42.9 | 79 - 125 |
| 1,2-Dichloroethane-d4 (S)  | 99.4 | %    |     |      | 62 - 133 |
| 4-Bromofluorobenzene (S)   | 107  | %    |     |      | 79 - 114 |
| Dibromofluoromethane (S)   | 96.4 | %    |     |      | 78 - 116 |
| Toluene-d8 (S)             | 103  | %    |     |      | 76 - 127 |

MATRIX SPIKE: 2486924 DUPLICATE: 2486925 ORIGINAL: 2208729003

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter            | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|----------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Acetone              | 4.21046         | ug/L  | 100         | 120.277   | 124.932    | 116      | 121       | 40 - 151    | 3.8  | 40      |
| Benzene              | 0               | ug/L  | 20          | 22.0555   | 21.8626    | 110      | 109       | 80 - 124    | .88  | 26      |
| Bromochloromethane   | 0               | ug/L  | 20          | 21.6567   | 21.2759    | 108      | 106       | 73 - 117    | 1.8  | 19      |
| Bromodichloromethane | 0               | ug/L  | 20          | 20.8407   | 20.1845    | 104      | 101       | 79 - 126    | 3.2  | 16      |
| Bromoform            | 0               | ug/L  | 20          | 17.5007   | 17.962     | 87.5     | 89.8      | 70 - 123    | 2.6  | 16      |
| Bromomethane         | 0               | ug/L  | 20          | 19.2216   | 20.8962    | 96.1     | 104       | 45 - 148    | 8.3  | 26      |
| 2-Butanone           | 0               | ug/L  | 100         | 94.6501   | 107.238    | 94.7     | 107       | 50 - 152    | 12.5 | 16      |
| Carbon Disulfide     | 0               | ug/L  | 20          | 27.8318   | 27.0076    | 139*     | 135*      | 57 - 131    | 3    | 28      |
| Carbon Tetrachloride | 0               | ug/L  | 20          | 25.9261   | 24.7573    | 130      | 124       | 62 - 132    | 4.6  | 17      |
| Chlorobenzene        | 0               | ug/L  | 20          | 20.983    | 21.274     | 105      | 106       | 85 - 117    | 1.4  | 15      |
| Chlorodibromomethane | 0               | ug/L  | 20          | 19.491    | 20.3718    | 97.5     | 102       | 77 - 122    | 4.4  | 15      |
| Chloroethane         | 0               | ug/L  | 20          | 23.6602   | 22.8353    | 118      | 114       | 51 - 142    | 3.5  | 24      |
| Chloroform           | 0               | ug/L  | 20          | 23.956    | 23.8144    | 120      | 119       | 78 - 122    | .59  | 16      |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

|                             |         |      |     |         |         |      |      |          |      |    |
|-----------------------------|---------|------|-----|---------|---------|------|------|----------|------|----|
| Chloromethane               | 0       | ug/L | 20  | 29.7756 | 28.393  | 149  | 142  | 38 - 156 | 4.8  | 27 |
| 1,2-Dibromo-3-chloropropane | 0       | ug/L | 20  | 16.2312 | 17.2779 | 81.2 | 86.4 | 59 - 133 | 6.2  | 26 |
| 1,2-Dibromoethane           | 0       | ug/L | 20  | 18.9415 | 19.8037 | 94.7 | 99   | 80 - 124 | 4.5  | 19 |
| 1,1-Dichloroethane          | 0       | ug/L | 20  | 24.9792 | 24.3582 | 125* | 122  | 78 - 124 | 2.5  | 15 |
| 1,2-Dichloroethane          | 0       | ug/L | 20  | 20.882  | 20.9924 | 104  | 105  | 70 - 133 | .53  | 19 |
| 1,1-Dichloroethene          | 0       | ug/L | 20  | 29.2106 | 28.4256 | 146* | 142* | 63 - 128 | 2.7  | 21 |
| cis-1,2-Dichloroethene      | 9.11231 | ug/L | 20  | 31.6825 | 31.23   | 113  | 111  | 78 - 125 | 1.4  | 21 |
| trans-1,2-Dichloroethene    | 0       | ug/L | 20  | 26.4697 | 25.7553 | 132* | 129* | 71 - 122 | 2.7  | 22 |
| 1,2-Dichloropropane         | 0       | ug/L | 20  | 22.4677 | 21.5432 | 112  | 108  | 81 - 127 | 4.2  | 15 |
| cis-1,3-Dichloropropene     | 0       | ug/L | 20  | 20.0467 | 20.2428 | 100  | 101  | 81 - 121 | .97  | 16 |
| trans-1,3-Dichloropropene   | 0       | ug/L | 20  | 20.1369 | 20.5266 | 101  | 103  | 78 - 126 | 1.9  | 18 |
| Ethylbenzene                | 0       | ug/L | 20  | 22.1617 | 22.4804 | 111  | 112  | 80 - 124 | 1.4  | 19 |
| 2-Hexanone                  | 0       | ug/L | 100 | 82.4492 | 96.5306 | 82.4 | 96.5 | 65 - 154 | 15.7 | 17 |
| 4-Methyl-2-Pentanone(MIBK)  | 0       | ug/L | 100 | 106.848 | 112.856 | 107  | 113  | 71 - 146 | 5.5  | 16 |
| Methylene Chloride          | 5.01255 | ug/L | 20  | 30.3316 | 28.7641 | 127* | 119  | 76 - 121 | 5.3  | 17 |
| Styrene                     | 0       | ug/L | 20  | 21.2285 | 21.9564 | 106  | 110  | 79 - 123 | 3.4  | 16 |
| 1,1,1,2,2-Tetrachloroethane | 0       | ug/L | 20  | 19.513  | 20.2448 | 97.6 | 101  | 74 - 135 | 3.7  | 16 |
| Tetrachloroethene           | 0       | ug/L | 20  | 22.3982 | 23.3149 | 112  | 117  | 72 - 124 | 4    | 38 |
| Toluene                     | 0       | ug/L | 20  | 22.2154 | 22.3043 | 111  | 112  | 80 - 125 | .4   | 20 |
| Total Xylenes               | 0       | ug/L | 60  | 65.5897 | 67.419  | 109  | 112  | 79 - 125 | 2.8  | 35 |
| 1,1,1-Trichloroethane       | 0       | ug/L | 20  | 24.7203 | 23.7089 | 124  | 119  | 66 - 130 | 4.2  | 20 |
| 1,1,2-Trichloroethane       | 0       | ug/L | 20  | 20.1216 | 20.141  | 101  | 101  | 82 - 126 | .096 | 15 |
| Trichloroethene             | 0       | ug/L | 20  | 23.4648 | 23.085  | 117  | 115  | 77 - 124 | 1.6  | 18 |
| Vinyl Chloride              | 0       | ug/L | 20  | 24.0641 | 22.7053 | 120  | 114  | 27 - 138 | 5.8  | 40 |
| o-Xylene                    | 0       | ug/L | 20  | 21.2275 | 21.648  | 106  | 108  | 79 - 124 | 2    | 19 |
| mp-Xylene                   | 0       | ug/L | 40  | 44.3622 | 45.771  | 111  | 114  | 79 - 125 | 3.1  | 21 |
| 1,2-Dichloroethane-d4 (S)   | 98      | %    |     |         |         | 98   | 97.4 | 62 - 133 |      |    |
| 4-Bromofluorobenzene (S)    | 100     | %    |     |         |         | 100  | 102  | 79 - 114 |      |    |
| Dibromofluoromethane (S)    | 97.7    | %    |     |         |         | 97.7 | 93.2 | 78 - 116 |      |    |
| Toluene-d8 (S)              | 102     | %    |     |         |         | 102  | 104  | 76 - 127 |      |    |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

**QC Batch:** VOMS/42479 **Analysis Method:** SW846 8260B  
**QC Batch Method:** SW846 5035  
**Associated Lab Samples:** 2208399009

#### METHOD BLANK: 2487399

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acetone                     | ND           | ug/kg | 10.0            |
| tert-Amyl methyl ether      | ND           | ug/kg | 2.0             |
| tert-Amyl Alcohol           | ND           | ug/kg | 10.0            |
| tert-Amyl Ethylether        | ND           | ug/kg | 2.0             |
| Benzene                     | ND           | ug/kg | 2.0             |
| Bromochloromethane          | ND           | ug/kg | 2.0             |
| Bromodichloromethane        | ND           | ug/kg | 2.0             |
| Bromoform                   | ND           | ug/kg | 2.0             |
| Bromomethane                | ND           | ug/kg | 2.0             |
| 2-Butanone                  | ND           | ug/kg | 10.0            |
| tert-Butyl Alcohol          | ND           | ug/kg | 10.0            |
| Carbon Disulfide            | ND           | ug/kg | 2.0             |
| Carbon Tetrachloride        | ND           | ug/kg | 2.0             |
| Chlorobenzene               | ND           | ug/kg | 2.0             |
| Chlorodibromomethane        | ND           | ug/kg | 2.0             |
| Chloroethane                | ND           | ug/kg | 5.0             |
| Chloroform                  | 0.84J        | ug/kg | 2.0             |
| Chloromethane               | ND           | ug/kg | 2.0             |
| 1,2-Dibromo-3-chloropropane | ND           | ug/kg | 5.0             |
| 1,2-Dibromoethane           | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,2-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethene          | ND           | ug/kg | 2.0             |
| cis-1,2-Dichloroethene      | ND           | ug/kg | 2.0             |
| trans-1,2-Dichloroethene    | ND           | ug/kg | 2.0             |
| 1,2-Dichloropropane         | ND           | ug/kg | 2.0             |
| cis-1,3-Dichloropropene     | ND           | ug/kg | 2.0             |
| trans-1,3-Dichloropropene   | ND           | ug/kg | 2.0             |
| Diisopropyl ether           | ND           | ug/kg | 2.0             |
| Ethyl tert-butyl ether      | ND           | ug/kg | 2.0             |
| Ethylbenzene                | ND           | ug/kg | 2.0             |
| 2-Hexanone                  | ND           | ug/kg | 10.0            |
| Methyl t-Butyl Ether        | ND           | ug/kg | 2.0             |
| 4-Methyl-2-Pentanone(MIBK)  | ND           | ug/kg | 10.0            |
| Methylene Chloride          | 3.5          | ug/kg | 2.0             |
| Naphthalene                 | ND           | ug/kg | 2.0             |
| Styrene                     | ND           | ug/kg | 2.0             |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

|                           |      |       |          |
|---------------------------|------|-------|----------|
| 1,1,2,2-Tetrachloroethane | ND   | ug/kg | 2.0      |
| Tetrachloroethene         | ND   | ug/kg | 2.0      |
| Toluene                   | ND   | ug/kg | 2.0      |
| Total Xylenes             | ND   | ug/kg | 6.0      |
| 1,1,1-Trichloroethane     | ND   | ug/kg | 2.0      |
| 1,1,2-Trichloroethane     | ND   | ug/kg | 2.0      |
| Trichloroethene           | ND   | ug/kg | 2.0      |
| Vinyl Chloride            | ND   | ug/kg | 2.0      |
| o-Xylene                  | ND   | ug/kg | 2.0      |
| mp-Xylene                 | ND   | ug/kg | 4.0      |
| 1,2-Dichloroethane-d4 (S) | 75.2 | %     | 56 - 124 |
| 4-Bromofluorobenzene (S)  | 82.9 | %     | 51 - 128 |
| Dibromofluoromethane (S)  | 91.4 | %     | 62 - 123 |
| Toluene-d8 (S)            | 84.2 | %     | 59 - 131 |

LABORATORY CONTROL SAMPLE: 2487400 DUPLICATE: 2487401

| Parameter                   | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | LCSD<br>Result | LCSD %<br>Rec | % Rec<br>Limit | RPD  | Max |
|-----------------------------|--------------|-------|----------------|---------------|----------------|---------------|----------------|------|-----|
| Acetone                     | 107          | ug/kg | 100            | 107           | 108            | 108           | 58 - 146       | 1.3  | 40  |
| tert-Amyl methyl ether      | 123          | ug/kg | 20             | 24.6          | 26.3           | 131*          | 79 - 123       | 6.3  | 40  |
| tert-Amyl Alcohol           | 107          | ug/kg | 100            | 107           | 111            | 111           | 70 - 130       | 3.4  | 40  |
| tert-Amyl Ethylether        | 107          | ug/kg | 20             | 21.5          | 22.2           | 111           | 70 - 130       | 3.5  | 40  |
| Benzene                     | 108          | ug/kg | 20             | 21.7          | 21.6           | 108           | 75 - 132       | .36  | 40  |
| Bromochloromethane          | 120          | ug/kg | 20             | 24.1          | 24.4           | 122*          | 71 - 120       | 1.4  | 40  |
| Bromodichloromethane        | 114          | ug/kg | 20             | 22.8          | 22.9           | 114           | 74 - 127       | .21  | 40  |
| Bromoform                   | 94.8         | ug/kg | 20             | 19.0          | 19.3           | 96.4          | 68 - 131       | 1.6  | 40  |
| Bromomethane                | 77           | ug/kg | 20             | 15.4          | 15.2           | 76.1          | 43 - 148       | 1.2  | 40  |
| 2-Butanone                  | 110          | ug/kg | 100            | 110           | 112            | 112           | 64 - 148       | 1.7  | 40  |
| tert-Butyl Alcohol          | 117          | ug/kg | 100            | 117           | 127            | 127           | 51 - 152       | 8.4  | 40  |
| Carbon Disulfide            | 114          | ug/kg | 20             | 22.7          | 22.8           | 114           | 47 - 144       | .51  | 40  |
| Carbon Tetrachloride        | 99.3         | ug/kg | 20             | 19.9          | 22.3           | 112           | 64 - 136       | 11.7 | 40  |
| Chlorobenzene               | 101          | ug/kg | 20             | 20.2          | 20.3           | 101           | 76 - 125       | .59  | 40  |
| Chlorodibromomethane        | 108          | ug/kg | 20             | 21.6          | 21.9           | 110           | 75 - 124       | 1.5  | 40  |
| Chloroethane                | 87.7         | ug/kg | 20             | 17.5          | 17.5           | 87.3          | 1 - 141        | .48  | 40  |
| Chloroform                  | 111          | ug/kg | 20             | 22.3          | 22.1           | 111           | 73 - 126       | .63  | 40  |
| Chloromethane               | 108          | ug/kg | 20             | 21.6          | 21.0           | 105           | 44 - 139       | 3.1  | 40  |
| 1,2-Dibromo-3-chloropropane | 75.3         | ug/kg | 20             | 15.1          | 15.8           | 79            | 52 - 151       | 4.9  | 40  |
| 1,2-Dibromoethane           | 110          | ug/kg | 20             | 21.9          | 22.2           | 111           | 76 - 127       | 1.2  | 40  |
| 1,1-Dichloroethane          | 109          | ug/kg | 20             | 21.7          | 21.8           | 109           | 74 - 131       | .36  | 40  |
| 1,2-Dichloroethane          | 105          | ug/kg | 20             | 21.0          | 20.9           | 105           | 69 - 132       | .29  | 40  |
| 1,1-Dichloroethene          | 117          | ug/kg | 20             | 23.4          | 23.0           | 115           | 59 - 139       | 1.6  | 40  |
| cis-1,2-Dichloroethene      | 112          | ug/kg | 20             | 22.4          | 22.0           | 110           | 75 - 128       | 2.2  | 40  |
| trans-1,2-Dichloroethene    | 116          | ug/kg | 20             | 23.1          | 23.7           | 118           | 66 - 133       | 2.4  | 40  |
| 1,2-Dichloropropane         | 109          | ug/kg | 20             | 21.8          | 21.7           | 109           | 78 - 131       | .32  | 40  |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

|                            |      |       |     |      |      |      |          |      |    |
|----------------------------|------|-------|-----|------|------|------|----------|------|----|
| cis-1,3-Dichloropropene    | 83.2 | ug/kg | 20  | 16.6 | 17.2 | 86.2 | 76 - 123 | 3.5  | 40 |
| trans-1,3-Dichloropropene  | 107  | ug/kg | 20  | 21.3 | 21.8 | 109  | 77 - 123 | 2    | 40 |
| Diisopropyl ether          | 106  | ug/kg | 20  | 21.2 | 21.3 | 107  | 71 - 128 | .76  | 40 |
| Ethyl tert-butyl ether     | 94.7 | ug/kg | 20  | 18.9 | 19.8 | 99.1 | 75 - 121 | 4.6  | 40 |
| Ethylbenzene               | 98.1 | ug/kg | 20  | 19.6 | 19.7 | 98.4 | 73 - 133 | .29  | 40 |
| 2-Hexanone                 | 72.1 | ug/kg | 100 | 72.1 | 76.4 | 76.4 | 62 - 147 | 5.8  | 40 |
| Methyl t-Butyl Ether       | 120* | ug/kg | 20  | 24.0 | 24.7 | 123* | 70 - 118 | 2.7  | 40 |
| 4-Methyl-2-Pentanone(MIBK) | 76   | ug/kg | 100 | 76.0 | 79.5 | 79.5 | 64 - 143 | 4.4  | 40 |
| Methylene Chloride         | 135* | ug/kg | 20  | 26.9 | 26.0 | 130  | 68 - 133 | 3.7  | 40 |
| Naphthalene                | 80.4 | ug/kg | 20  | 16.1 | 17.8 | 89.1 | 60 - 146 | 10.2 | 40 |
| Styrene                    | 88.7 | ug/kg | 20  | 17.7 | 18.1 | 90.7 | 77 - 130 | 2.3  | 40 |
| 1,1,2,2-Tetrachloroethane  | 83.7 | ug/kg | 20  | 16.7 | 17.8 | 89.2 | 72 - 134 | 6.3  | 40 |
| Tetrachloroethene          | 107  | ug/kg | 20  | 21.4 | 21.1 | 105  | 58 - 137 | 1.6  | 40 |
| Toluene                    | 100  | ug/kg | 20  | 20.1 | 20.0 | 100  | 73 - 129 | .25  | 40 |
| Total Xylenes              | 102  | ug/kg | 60  | 61.4 | 61.5 | 102  | 73 - 130 | .11  | 40 |
| 1,1,1-Trichloroethane      | 104  | ug/kg | 20  | 20.9 | 20.7 | 104  | 68 - 131 | .52  | 40 |
| 1,1,2-Trichloroethane      | 95.9 | ug/kg | 20  | 19.2 | 19.5 | 97.4 | 79 - 123 | 1.6  | 40 |
| Trichloroethene            | 112  | ug/kg | 20  | 22.3 | 22.6 | 113  | 72 - 129 | 1.3  | 40 |
| Vinyl Chloride             | 108  | ug/kg | 20  | 21.5 | 21.3 | 107  | 53 - 141 | 1.1  | 40 |
| o-Xylene                   | 102  | ug/kg | 20  | 20.5 | 20.6 | 103  | 75 - 129 | .65  | 40 |
| mp-Xylene                  | 102  | ug/kg | 40  | 40.9 | 40.9 | 102  | 72 - 130 | .16  | 40 |
| 1,2-Dichloroethane-d4 (S)  | 73.2 | %     |     |      | 73.2 |      | 56 - 124 |      |    |
| 4-Bromofluorobenzene (S)   | 80   | %     |     |      | 80   |      | 51 - 128 |      |    |
| Dibromofluoromethane (S)   | 91.1 | %     |     |      | 91.1 |      | 62 - 123 |      |    |
| Toluene-d8 (S)             | 80.3 | %     |     |      | 80.3 |      | 59 - 131 |      |    |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

**QC Batch:** WCPR/39226      **Analysis Method:** SW846 7196A  
**QC Batch Method:** SW846 3060A  
**Associated Lab Samples:** 2208399002, 2208399003, 2208399004, 2208399008

#### METHOD BLANK: 2490893

| Parameter           | Blank Result | Units | Reporting Limit |
|---------------------|--------------|-------|-----------------|
| Hexavalent Chromium | ND           | mg/kg | 2.0             |

#### LABORATORY CONTROL SAMPLE: 2490894

| Parameter           | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|---------------------|-----------|-------|-------------|------------|-------------|
| Hexavalent Chromium | 96.3      | mg/kg | 19.8        | 19.1       | 80 - 120    |

#### SAMPLE DUPLICATE: 2490895 ORIGINAL: 2210200003

| Parameter           | Original Result | Units | DUP Result | RPD | Max RPD |
|---------------------|-----------------|-------|------------|-----|---------|
| Hexavalent Chromium | 0               | mg/kg | 0          | NC  | 20      |

#### MATRIX SPIKE SAMPLE: 2490896 ORIGINAL: 2210200003

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter           | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|---------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Hexavalent Chromium | 0               | mg/kg | 38.8        | 1.0155    | 2.62*    | 75 - 125    |

#### MATRIX SPIKE SAMPLE: 2490897 ORIGINAL: 2210200003

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter           | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|---------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Hexavalent Chromium | 0               | mg/kg | 632         | 438.7114  | 69.4*    | 75 - 125    |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

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MATRIX SPIKE SAMPLE: 2490898 ORIGINAL: 2210200003

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter           | Original<br>Result | Units | Spike<br>Conc. | MS<br>Result | MS %<br>Rec | % Rec<br>Limit |
|---------------------|--------------------|-------|----------------|--------------|-------------|----------------|
| Hexavalent Chromium | 0                  | mg/kg | 39.1           | 10.94531     | 28*         | 85 - 115       |



### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

**QC Batch:** WETC/182995 **Analysis Method:** S2540G-11

**QC Batch Method:** S2540G-11

**Associated Lab Samples:** 2208399002, 2208399003, 2208399004, 2208399005, 2208399006, 2208399007, 2208399008, 2208399009, 2208399010, 2208399011

SAMPLE DUPLICATE: 2485939 ORIGINAL: 2207903009

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Moisture     | 99.9128         | %     | 99.9128    | 0   | 10      |
| Total Solids | .0871           | %     | .0871      | 0   | 5       |

SAMPLE DUPLICATE: 2485940 ORIGINAL: 2208266010

| Parameter    | Original Result | Units | DUP Result | RPD   | Max RPD |
|--------------|-----------------|-------|------------|-------|---------|
| Moisture     | 4.3292          | %     | 3.5819     | 18.9* | 10      |
| Total Solids | 95.6707         | %     | 96.418     | .78   | 5       |

SAMPLE DUPLICATE: 2485941 ORIGINAL: 2208267008

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 25.242          | %     | 25.6005    | 1.41 | 10      |
| Total Solids | 74.7579         | %     | 74.3994    | .48  | 5       |

SAMPLE DUPLICATE: 2485942 ORIGINAL: 2208272005

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 10.1466         | %     | 9.8877     | 2.58 | 10      |
| Total Solids | 89.8533         | %     | 90.1122    | .29  | 5       |

SAMPLE DUPLICATE: 2485943 ORIGINAL: 2208399006

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 9.4827          | %     | 9.2264     | 2.74 | 10      |
| Total Solids | 90.5172         | %     | 90.7735    | .28  | 5       |

### QUALITY CONTROL DATA

Workorder: 2208399 Chase Lands Phase II

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SAMPLE DUPLICATE: 2485944 ORIGINAL: 2208412001

| Parameter    | Original<br>Result | Units | DUP<br>Result | RPD  | Max<br>RPD |
|--------------|--------------------|-------|---------------|------|------------|
| Moisture     | 8.803              | %     | 9.0216        | 2.45 | 10         |
| Total Solids | 91.1969            | %     | 90.9783       | .24  | 5          |

## QUALITY CONTROL DATA QUALIFIERS

Workorder: 2208399 Chase Lands Phase II

### QUALITY CONTROL PARAMETER QUALIFIERS

| Lab ID                                                                                                                                                                                           | #  | Sample Type          | Analytical Method | Analyte                  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----------------------|-------------------|--------------------------|
| <b>2486314</b>                                                                                                                                                                                   | 1  | Method Blank         | SW846 8260B       | Methylene Chloride       |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                    |    |                      |                   |                          |
| <b>2486315</b>                                                                                                                                                                                   | 2  | Lab Control Standard | SW846 8260B       | Methylene Chloride       |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 145 and the control limits were 68 to 133.       |    |                      |                   |                          |
| <b>2486625</b>                                                                                                                                                                                   | 3  | Method Blank         | SW846 8260B       | Methylene Chloride       |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                    |    |                      |                   |                          |
| <b>2486626</b>                                                                                                                                                                                   | 4  | Lab Control Standard | SW846 8260B       | Methylene Chloride       |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 172 and the control limits were 68 to 133.       |    |                      |                   |                          |
| <b>2486630</b>                                                                                                                                                                                   | 5  | Lab Control Standard | SW846 8260B       | trans-1,2-Dichloroethene |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte trans-1,2-Dichloroethene. The % Recovery was reported as 124 and the control limits were 71 to 122. |    |                      |                   |                          |
| <b>2486630</b>                                                                                                                                                                                   | 6  | Lab Control Standard | SW846 8260B       | 1,1-Dichloroethene       |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte 1,1-Dichloroethene. The % Recovery was reported as 133 and the control limits were 63 to 128.       |    |                      |                   |                          |
| <b>2486630</b>                                                                                                                                                                                   | 7  | Lab Control Standard | SW846 8260B       | tert-Amyl Ethylether     |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte tert-Amyl Ethylether. The % Recovery was reported as 132 and the control limits were 70 to 130.     |    |                      |                   |                          |
| <b>2487399</b>                                                                                                                                                                                   | 8  | Method Blank         | SW846 8260B       | Methylene Chloride       |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                    |    |                      |                   |                          |
| <b>2487400</b>                                                                                                                                                                                   | 9  | Lab Control Standard | SW846 8260B       | Methyl t-Butyl Ether     |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methyl t-Butyl Ether. The % Recovery was reported as 120 and the control limits were 70 to 118.     |    |                      |                   |                          |
| <b>2487400</b>                                                                                                                                                                                   | 10 | Lab Control Standard | SW846 8260B       | Methylene Chloride       |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 135 and the control limits were 68 to 133.       |    |                      |                   |                          |
| <b>2488588</b>                                                                                                                                                                                   | 11 | Lab Control Standard | SW846 8270D       | Acetophenone             |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.7 and the control limits were 45 to 87.             |    |                      |                   |                          |

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2208399 Chase Lands Phase II

| Lab ID     | Sample ID   | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|-------------|-------------|------------|-----------------|----------------|
| 2208399002 | DUP-03      | SW846 7471B | MDIG/62619 | SW846 7471B     | META/56129     |
| 2208399003 | DUP-04      | SW846 7471B | MDIG/62619 | SW846 7471B     | META/56129     |
| 2208399004 | CL-ISM-S-A4 | SW846 7471B | MDIG/62619 | SW846 7471B     | META/56129     |
| 2208399005 | CL-ISM-S-B4 | SW846 7471B | MDIG/62619 | SW846 7471B     | META/56129     |
| 2208399006 | CL-ISM-S-C4 | SW846 7471B | MDIG/62619 | SW846 7471B     | META/56129     |
| 2208399007 | CL-ISM-S-D4 | SW846 7471B | MDIG/62619 | SW846 7471B     | META/56129     |
| 2208399008 | CL-ISM-S-D5 | SW846 7471B | MDIG/62619 | SW846 7471B     | META/56129     |
| 2208399009 | CL-ISM-S-E4 | SW846 7471B | MDIG/62619 | SW846 7471B     | META/56129     |
| 2208399010 | CL-ISM-S-E5 | SW846 7471B | MDIG/62619 | SW846 7471B     | META/56129     |
| 2208399011 | CL-SAW-S-D3 | SW846 7471B | MDIG/62619 | SW846 7471B     | META/56129     |
| 2208399002 | DUP-03      |             |            | S2540G-11       | WETC/182995    |
| 2208399003 | DUP-04      |             |            | S2540G-11       | WETC/182995    |
| 2208399004 | CL-ISM-S-A4 |             |            | S2540G-11       | WETC/182995    |
| 2208399005 | CL-ISM-S-B4 |             |            | S2540G-11       | WETC/182995    |
| 2208399006 | CL-ISM-S-C4 |             |            | S2540G-11       | WETC/182995    |
| 2208399007 | CL-ISM-S-D4 |             |            | S2540G-11       | WETC/182995    |
| 2208399008 | CL-ISM-S-D5 |             |            | S2540G-11       | WETC/182995    |
| 2208399009 | CL-ISM-S-E4 |             |            | S2540G-11       | WETC/182995    |
| 2208399010 | CL-ISM-S-E5 |             |            | S2540G-11       | WETC/182995    |
| 2208399011 | CL-SAW-S-D3 |             |            | S2540G-11       | WETC/182995    |
| 2208399002 | DUP-03      | SW846 5035  | VOMS/42455 | SW846 8260B     | VOMS/42456     |
| 2208399003 | DUP-04      | SW846 5035  | VOMS/42455 | SW846 8260B     | VOMS/42456     |
| 2208399004 | CL-ISM-S-A4 | SW846 5035  | VOMS/42455 | SW846 8260B     | VOMS/42456     |
| 2208399005 | CL-ISM-S-B4 | SW846 5035  | VOMS/42455 | SW846 8260B     | VOMS/42456     |
| 2208399006 | CL-ISM-S-C4 | SW846 5035  | VOMS/42455 | SW846 8260B     | VOMS/42456     |
| 2208399007 | CL-ISM-S-D4 | SW846 5035  | VOMS/42455 | SW846 8260B     | VOMS/42456     |
| 2208399008 | CL-ISM-S-D5 | SW846 5035  | VOMS/42461 | SW846 8260B     | VOMS/42462     |
| 2208399010 | CL-ISM-S-E5 | SW846 5035  | VOMS/42461 | SW846 8260B     | VOMS/42462     |
| 2208399011 | CL-SAW-S-D3 | SW846 5035  | VOMS/42461 | SW846 8260B     | VOMS/42462     |

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2208399 Chase Lands Phase II

| Lab ID     | Sample ID   | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|-------------|-------------|------------|-----------------|----------------|
| 2208399001 | TB-04       |             |            | SW846 8260B     | VOMS/42463     |
| 2208399002 | DUP-03      | SW846 3051  | MDIG/62673 | SW846 6020A     | META/56160     |
| 2208399002 | DUP-03      | SW846 5035  | VOGC/9388  | SW846 8015D     | VOGC/9389      |
| 2208399003 | DUP-04      | SW846 5035  | VOGC/9388  | SW846 8015D     | VOGC/9389      |
| 2208399004 | CL-ISM-S-A4 | SW846 5035  | VOGC/9388  | SW846 8015D     | VOGC/9389      |
| 2208399005 | CL-ISM-S-B4 | SW846 5035  | VOGC/9388  | SW846 8015D     | VOGC/9389      |
| 2208399006 | CL-ISM-S-C4 | SW846 5035  | VOGC/9388  | SW846 8015D     | VOGC/9389      |
| 2208399007 | CL-ISM-S-D4 | SW846 5035  | VOGC/9388  | SW846 8015D     | VOGC/9389      |
| 2208399008 | CL-ISM-S-D5 | SW846 5035  | VOGC/9388  | SW846 8015D     | VOGC/9389      |
| 2208399009 | CL-ISM-S-E4 | SW846 5035  | VOGC/9388  | SW846 8015D     | VOGC/9389      |
| 2208399010 | CL-ISM-S-E5 | SW846 5035  | VOGC/9388  | SW846 8015D     | VOGC/9389      |
| 2208399009 | CL-ISM-S-E4 | SW846 5035  | VOMS/42479 | SW846 8260B     | VOMS/42480     |
| 2208399011 | CL-SAW-S-D3 | SW846 5035  | VOGC/9390  | SW846 8015D     | VOGC/9391      |
| 2208399003 | DUP-04      | SW846 3051  | MDIG/62706 | SW846 6020A     | META/56185     |
| 2208399003 | DUP-04      | SW846 3051  | MDIG/62706 | SW846 6020A     | META/56193     |
| 2208399002 | DUP-03      | SW846 3546  | EXTR/46783 | SW846 8270D     | SVMS/27612     |
| 2208399003 | DUP-04      | SW846 3546  | EXTR/46783 | SW846 8270D     | SVMS/27612     |
| 2208399004 | CL-ISM-S-A4 | SW846 3546  | EXTR/46783 | SW846 8270D     | SVMS/27612     |
| 2208399005 | CL-ISM-S-B4 | SW846 3546  | EXTR/46783 | SW846 8270D     | SVMS/27612     |
| 2208399006 | CL-ISM-S-C4 | SW846 3546  | EXTR/46783 | SW846 8270D     | SVMS/27612     |
| 2208399007 | CL-ISM-S-D4 | SW846 3546  | EXTR/46783 | SW846 8270D     | SVMS/27612     |
| 2208399008 | CL-ISM-S-D5 | SW846 3546  | EXTR/46783 | SW846 8270D     | SVMS/27612     |
| 2208399009 | CL-ISM-S-E4 | SW846 3546  | EXTR/46783 | SW846 8270D     | SVMS/27612     |
| 2208399010 | CL-ISM-S-E5 | SW846 3546  | EXTR/46783 | SW846 8270D     | SVMS/27612     |
| 2208399011 | CL-SAW-S-D3 | SW846 3546  | EXTR/46783 | SW846 8270D     | SVMS/27612     |

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2208399 Chase Lands Phase II

| Lab ID     | Sample ID   | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|-------------|-------------|------------|-----------------|----------------|
| 2208399002 | DUP-03      | SW846 3546  | EXTR/46784 | SW846 8082A     | SVGC/44561     |
| 2208399003 | DUP-04      | SW846 3546  | EXTR/46784 | SW846 8082A     | SVGC/44561     |
| 2208399004 | CL-ISM-S-A4 | SW846 3546  | EXTR/46784 | SW846 8082A     | SVGC/44561     |
| 2208399005 | CL-ISM-S-B4 | SW846 3546  | EXTR/46784 | SW846 8082A     | SVGC/44561     |
| 2208399006 | CL-ISM-S-C4 | SW846 3546  | EXTR/46784 | SW846 8082A     | SVGC/44561     |
| 2208399007 | CL-ISM-S-D4 | SW846 3546  | EXTR/46784 | SW846 8082A     | SVGC/44561     |
| 2208399008 | CL-ISM-S-D5 | SW846 3546  | EXTR/46784 | SW846 8082A     | SVGC/44561     |
| 2208399009 | CL-ISM-S-E4 | SW846 3546  | EXTR/46784 | SW846 8082A     | SVGC/44561     |
| 2208399010 | CL-ISM-S-E5 | SW846 3546  | EXTR/46784 | SW846 8082A     | SVGC/44561     |
| 2208399011 | CL-SAW-S-D3 | SW846 3546  | EXTR/46784 | SW846 8082A     | SVGC/44561     |
| 2208399002 | DUP-03      | SW846 3546  | EXTR/46785 | SW846 8081B     | SVGC/44566     |
| 2208399003 | DUP-04      | SW846 3546  | EXTR/46785 | SW846 8081B     | SVGC/44566     |
| 2208399004 | CL-ISM-S-A4 | SW846 3546  | EXTR/46785 | SW846 8081B     | SVGC/44566     |
| 2208399005 | CL-ISM-S-B4 | SW846 3546  | EXTR/46785 | SW846 8081B     | SVGC/44566     |
| 2208399006 | CL-ISM-S-C4 | SW846 3546  | EXTR/46785 | SW846 8081B     | SVGC/44566     |
| 2208399007 | CL-ISM-S-D4 | SW846 3546  | EXTR/46785 | SW846 8081B     | SVGC/44566     |
| 2208399008 | CL-ISM-S-D5 | SW846 3546  | EXTR/46785 | SW846 8081B     | SVGC/44566     |
| 2208399009 | CL-ISM-S-E4 | SW846 3546  | EXTR/46785 | SW846 8081B     | SVGC/44566     |
| 2208399010 | CL-ISM-S-E5 | SW846 3546  | EXTR/46785 | SW846 8081B     | SVGC/44566     |
| 2208399011 | CL-SAW-S-D3 | SW846 3546  | EXTR/46785 | SW846 8081B     | SVGC/44566     |
| 2208399004 | CL-ISM-S-A4 | SW846 3051  | MDIG/62738 | SW846 6020A     | META/56193     |
| 2208399005 | CL-ISM-S-B4 | SW846 3051  | MDIG/62738 | SW846 6020A     | META/56193     |
| 2208399006 | CL-ISM-S-C4 | SW846 3051  | MDIG/62738 | SW846 6020A     | META/56193     |
| 2208399007 | CL-ISM-S-D4 | SW846 3051  | MDIG/62738 | SW846 6020A     | META/56193     |
| 2208399008 | CL-ISM-S-D5 | SW846 3051  | MDIG/62738 | SW846 6020A     | META/56193     |
| 2208399009 | CL-ISM-S-E4 | SW846 3051  | MDIG/62738 | SW846 6020A     | META/56193     |
| 2208399010 | CL-ISM-S-E5 | SW846 3051  | MDIG/62738 | SW846 6020A     | META/56193     |
| 2208399011 | CL-SAW-S-D3 | SW846 3051  | MDIG/62738 | SW846 6020A     | META/56193     |
| 2208399002 | DUP-03      | SW846 3546  | EXTR/46806 | SW846 8015D     | SVGC/44578     |

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2208399 Chase Lands Phase II

| Lab ID     | Sample ID   | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|-------------|-------------|------------|-----------------|----------------|
| 2208399003 | DUP-04      | SW846 3546  | EXTR/46806 | SW846 8015D     | SVGC/44578     |
| 2208399004 | CL-ISM-S-A4 | SW846 3546  | EXTR/46806 | SW846 8015D     | SVGC/44578     |
| 2208399005 | CL-ISM-S-B4 | SW846 3546  | EXTR/46806 | SW846 8015D     | SVGC/44578     |
| 2208399006 | CL-ISM-S-C4 | SW846 3546  | EXTR/46806 | SW846 8015D     | SVGC/44578     |
| 2208399007 | CL-ISM-S-D4 | SW846 3546  | EXTR/46806 | SW846 8015D     | SVGC/44578     |
| 2208399008 | CL-ISM-S-D5 | SW846 3546  | EXTR/46806 | SW846 8015D     | SVGC/44578     |
| 2208399009 | CL-ISM-S-E4 | SW846 3546  | EXTR/46806 | SW846 8015D     | SVGC/44578     |
| 2208399010 | CL-ISM-S-E5 | SW846 3546  | EXTR/46806 | SW846 8015D     | SVGC/44578     |
| 2208399011 | CL-SAW-S-D3 | SW846 3546  | EXTR/46806 | SW846 8015D     | SVGC/44578     |
| 2208399002 | DUP-03      | SW846 3060A | WCPR/39226 | SW846 7196A     | WETC/183416    |
| 2208399003 | DUP-04      | SW846 3060A | WCPR/39226 | SW846 7196A     | WETC/183416    |
| 2208399004 | CL-ISM-S-A4 | SW846 3060A | WCPR/39226 | SW846 7196A     | WETC/183416    |
| 2208399008 | CL-ISM-S-D5 | SW846 3060A | WCPR/39226 | SW846 7196A     | WETC/183416    |





34 Dogwood Lane  
Middletown, PA 17057  
P. 717-944-5541  
F. 717-944-1430

# Environmental

## CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT /  
SAMPLER. INSTRUCTIONS ON THE BACK.

Co. Name: Howard County DPW (CEA Engineering)  
Contact (Report to): Niti Blackwell Phone: 410-343-3440  
Address: Nelson Brooks 410-574-7000  
3430 Courthouse Dr  
Ellicott City, MD 21043

Bill to (if different than Report to): Niti Blackwell PO#:

Project Name#: Chase Lands Phase II ALS Quote #:

TAT: ☒ Normal-Standard TAT is 10-12 business days.  
☐ Rush-Subject to ALS approval and surcharges.

Email? ☒ nblackwell@harcourtcounty.md.gov / nbrooks@ceaspa.com  
Fax? ☐ Y No:

| Sample Description/Location<br>(as it will appear on the lab report) | COC Comments | Sample Date | Military Time |
|----------------------------------------------------------------------|--------------|-------------|---------------|
| 1 TB-04                                                              |              |             |               |
| 2 DUP-03                                                             |              | 2/14/17     | 1300          |
| 3 DUP-04                                                             |              | 2/14/17     | 1230          |
| 4 CL-ISM-S-A4                                                        |              | 2/14/17     | 1040          |
| 5 CL-ISM-S-B4                                                        |              |             |               |
| 6 CL-ISM-S-C4                                                        |              |             |               |
| 7 CL-ISM-S-D4                                                        |              |             |               |
| 8 CL-ISM-S-D5                                                        |              |             |               |

SAMPLED BY (Please Print):

Michael Thornton

Relinquished By / Company Name

Date

Time

Received By / Company Name

Date

Time

Project Comments:

WALA 02/15/17 0433

2/14/17 1500

2/14 1732

2/14 1732

2/14 1732

2/14 1732

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2/14 1732

|                                                                                                                        |                                            |                                                                                                                                   |                                     |
|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| ANALYSES/METHOD REQUESTED<br>TPH GRO<br>8260-VOC + Organics<br>8270-SWC, TPH, DRO, PCBs,<br>PF Metals, BOD, PEST, etc. |                                            | Enter Number of Containers Per Analysis<br>8260-VOC 2<br>8270-SWC 1<br>TPH 1<br>DRO 1<br>PCBs 1<br>PF Metals 1<br>BOD 1<br>PEST 1 |                                     |
| Container Type<br>40ml 8oz<br>DI 1/2" 1/2"                                                                             | Container Size<br>40ml 8oz<br>DI 1/2" 1/2" | Container Material<br>C C<br>C C                                                                                                  | Container Preservation<br>None None |
| ANALYSES/METHOD REQUESTED<br>8260-VOC                                                                                  |                                            | ANALYSES/METHOD REQUESTED<br>8270-SWC, TPH, DRO, PCBs,<br>PF Metals, BOD, PEST, etc.                                              |                                     |
| ANALYSES/METHOD REQUESTED<br>TPH GRO                                                                                   |                                            | ANALYSES/METHOD REQUESTED<br>DRO                                                                                                  |                                     |
| ANALYSES/METHOD REQUESTED<br>PCBs                                                                                      |                                            | ANALYSES/METHOD REQUESTED<br>PF Metals                                                                                            |                                     |
| ANALYSES/METHOD REQUESTED<br>BOD                                                                                       |                                            | ANALYSES/METHOD REQUESTED<br>PEST                                                                                                 |                                     |
| ANALYSES/METHOD REQUESTED<br>etc.                                                                                      |                                            | ANALYSES/METHOD REQUESTED<br>etc.                                                                                                 |                                     |

|                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ALS FIELD SERVICES<br>Pickup <input type="checkbox"/><br>Labor <input type="checkbox"/><br>Composite Sampling <input type="checkbox"/><br>Rental Equipment <input type="checkbox"/><br>Other <input type="checkbox"/> | SDWA Form 7-0<br>yes <input type="checkbox"/> no <input type="checkbox"/><br>CLP-like <input type="checkbox"/><br>NJ-Reduced <input type="checkbox"/><br>NJ-Full <input type="checkbox"/><br>If yes, format type: Other <input type="checkbox"/> | Data Deliverables<br>SDWA Form 7-0 <input type="checkbox"/><br>CLP-like <input type="checkbox"/><br>NJ-Reduced <input type="checkbox"/><br>NJ-Full <input type="checkbox"/><br>If yes, format type: Other <input type="checkbox"/> | SDWA Form 7-0<br>yes <input type="checkbox"/> no <input type="checkbox"/><br>CLP-like <input type="checkbox"/><br>NJ-Reduced <input type="checkbox"/><br>NJ-Full <input type="checkbox"/><br>If yes, format type: Other <input type="checkbox"/> | SDWA Form 7-0<br>yes <input type="checkbox"/> no <input type="checkbox"/><br>CLP-like <input type="checkbox"/><br>NJ-Reduced <input type="checkbox"/><br>NJ-Full <input type="checkbox"/><br>If yes, format type: Other <input type="checkbox"/> | SDWA Form 7-0<br>yes <input type="checkbox"/> no <input type="checkbox"/><br>CLP-like <input type="checkbox"/><br>NJ-Reduced <input type="checkbox"/><br>NJ-Full <input type="checkbox"/><br>If yes, format type: Other <input type="checkbox"/> |
| DOO Criteria Required? <input type="checkbox"/>                                                                                                                                                                       |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                  |





February 24, 2017

Ms. Tara Lamond  
EA Engineering-MD  
225 Schilling Circle  
Hunt Valley, MD 21031

## Certificate of Analysis

|                                            |                                           |
|--------------------------------------------|-------------------------------------------|
| Project Name: <b>2017-REV2-MDE SOIL/GW</b> | Workorder: <b>2208873</b>                 |
| Purchase Order:                            | Workorder ID: <b>Chase Lands Phase II</b> |

Dear Ms. Lamond:

Enclosed are the analytical results for samples received by the laboratory on Wednesday, February 15, 2017.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

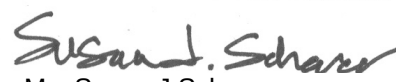
Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at [www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads](http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads).

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Michael Thornton , Mr. Hugh Murphy , Mr. Nelson Brooks , Ms. Niti Blackwell

*This page is included as part of the Analytical Report and must be retained as a permanent record thereof.*

  
Ms. Susan J Scherer  
Project Coordinator

### SAMPLE SUMMARY

Workorder: 2208873 Chase Lands Phase II

| Lab ID     | Sample ID   | Matrix | Date Collected  | Date Received   | Collected By |
|------------|-------------|--------|-----------------|-----------------|--------------|
| 2208873001 | TB-05       | Water  | 2/15/2017 21:15 | 2/15/2017 21:15 | Mr. Michael  |
| 2208873002 | CL-ISM-S-A2 | Solid  | 2/15/2017 13:10 | 2/15/2017 21:15 | Mr. Michael  |
| 2208873003 | CL-ISM-S-A3 | Solid  | 2/15/2017 08:20 | 2/15/2017 21:15 | Mr. Michael  |
| 2208873004 | CL-ISM-S-B1 | Solid  | 2/15/2017 14:00 | 2/15/2017 21:15 | Mr. Michael  |
| 2208873005 | CL-ISM-S-B2 | Solid  | 2/15/2017 12:40 | 2/15/2017 21:15 | Mr. Michael  |
| 2208873006 | CL-ISM-S-B3 | Solid  | 2/15/2017 08:50 | 2/15/2017 21:15 | Mr. Michael  |
| 2208873007 | CL-ISM-S-C2 | Solid  | 2/15/2017 11:00 | 2/15/2017 21:15 | Mr. Michael  |
| 2208873008 | CL-ISM-S-C3 | Solid  | 2/15/2017 09:50 | 2/15/2017 21:15 | Mr. Michael  |
| 2208873009 | CL-ISM-S-D3 | Solid  | 2/15/2017 10:30 | 2/15/2017 21:15 | Mr. Michael  |

## SAMPLE SUMMARY

Workorder: 2208873 Chase Lands Phase II

### Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.

### Standard Acronyms/Flags

|        |                                                                                                                                      |
|--------|--------------------------------------------------------------------------------------------------------------------------------------|
| J      | Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte     |
| U      | Indicates that the analyte was Not Detected (ND)                                                                                     |
| N      | Indicates presumptive evidence of the presence of a compound                                                                         |
| MDL    | Method Detection Limit                                                                                                               |
| PQL    | Practical Quantitation Limit                                                                                                         |
| RDL    | Reporting Detection Limit                                                                                                            |
| ND     | Not Detected - indicates that the analyte was Not Detected at the RDL                                                                |
| Cntr   | Analysis was performed using this container                                                                                          |
| RegLmt | Regulatory Limit                                                                                                                     |
| LCS    | Laboratory Control Sample                                                                                                            |
| MS     | Matrix Spike                                                                                                                         |
| MSD    | Matrix Spike Duplicate                                                                                                               |
| DUP    | Sample Duplicate                                                                                                                     |
| %Rec   | Percent Recovery                                                                                                                     |
| RPD    | Relative Percent Difference                                                                                                          |
| LOD    | DoD Limit of Detection                                                                                                               |
| LOQ    | DoD Limit of Quantitation                                                                                                            |
| DL     | DoD Detection Limit                                                                                                                  |
| I      | Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL) |
| (S)    | Surrogate Compound                                                                                                                   |
| NC     | Not Calculated                                                                                                                       |
| *      | Result outside of QC limits                                                                                                          |

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**PROJECT SUMMARY**Workorder: 2208873 Chase Lands Phase II

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**Sample Comments**

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**Lab ID:** 2208873002**Sample ID:** CL-ISM-S-A2**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208873003**Sample ID:** CL-ISM-S-A3**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208873004**Sample ID:** CL-ISM-S-B1**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208873005**Sample ID:** CL-ISM-S-B2**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208873006**Sample ID:** CL-ISM-S-B3**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8015 diesel range organics analysis due to the level of analyte detected. Reporting limits were adjusted accordingly.

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208873007**Sample ID:** CL-ISM-S-C2**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208873008**Sample ID:** CL-ISM-S-C3**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2208873009**Sample ID:** CL-ISM-S-D3**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873001**

Date Collected: 2/15/2017 21:15

Matrix: Water

Sample ID: **TB-05**

Date Received: 2/15/2017 21:15

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------|---------------|-----|------|
| <b>VOLATILE ORGANICS</b>    |         |      |       |      |      |             |             |               |     |      |
| Acetone                     | ND      |      | ug/L  | 10.0 | 3.1  | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| tert-Amyl methyl ether      | ND      |      | ug/L  | 1.0  | 0.20 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| tert-Amyl Alcohol           | ND      |      | ug/L  | 10.0 | 6.6  | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| tert-Amyl Ethylether        | ND      |      | ug/L  | 1.0  | 0.29 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| Benzene                     | ND      |      | ug/L  | 1.0  | 0.23 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| Bromochloromethane          | ND      |      | ug/L  | 1.0  | 0.32 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| Bromodichloromethane        | ND      |      | ug/L  | 1.0  | 0.27 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| Bromoform                   | ND      |      | ug/L  | 1.0  | 0.40 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| Bromomethane                | 0.41J   | J    | ug/L  | 1.0  | 0.39 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| 2-Butanone                  | ND      |      | ug/L  | 10.0 | 1.8  | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| tert-Butyl Alcohol          | ND      |      | ug/L  | 10.0 | 2.2  | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| Carbon Disulfide            | ND      |      | ug/L  | 1.0  | 0.23 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| Carbon Tetrachloride        | ND      |      | ug/L  | 1.0  | 0.31 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| Chlorobenzene               | ND      |      | ug/L  | 1.0  | 0.19 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| Chlorodibromomethane        | ND      |      | ug/L  | 1.0  | 0.45 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| Chloroethane                | ND      |      | ug/L  | 1.0  | 0.33 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| Chloroform                  | ND      |      | ug/L  | 1.0  | 0.21 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| Chloromethane               | ND      |      | ug/L  | 1.0  | 0.31 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| 1,2-Dibromo-3-chloropropane | ND      |      | ug/L  | 7.0  | 1.5  | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| 1,2-Dibromoethane           | ND      |      | ug/L  | 1.0  | 0.28 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| 1,1-Dichloroethane          | ND      |      | ug/L  | 1.0  | 0.28 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| 1,2-Dichloroethane          | ND      |      | ug/L  | 1.0  | 0.32 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| 1,1-Dichloroethene          | ND      |      | ug/L  | 1.0  | 0.29 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| cis-1,2-Dichloroethene      | ND      |      | ug/L  | 1.0  | 0.32 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| trans-1,2-Dichloroethene    | ND      |      | ug/L  | 1.0  | 0.26 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| 1,2-Dichloropropane         | ND      |      | ug/L  | 1.0  | 0.24 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| cis-1,3-Dichloropropene     | ND      | 1    | ug/L  | 1.0  | 0.31 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| trans-1,3-Dichloropropene   | ND      |      | ug/L  | 1.0  | 0.29 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| Diisopropyl ether           | ND      |      | ug/L  | 1.0  | 0.25 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| Ethyl tert-butyl ether      | ND      |      | ug/L  | 1.0  | 0.19 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| Ethylbenzene                | ND      |      | ug/L  | 1.0  | 0.34 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| 2-Hexanone                  | ND      |      | ug/L  | 5.0  | 1.3  | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| Methyl t-Butyl Ether        | ND      |      | ug/L  | 1.0  | 0.33 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| 4-Methyl-2-Pentanone(MIBK)  | ND      |      | ug/L  | 5.0  | 1.5  | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| Methylene Chloride          | ND      |      | ug/L  | 1.0  | 0.45 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |
| Styrene                     | ND      |      | ug/L  | 1.0  | 0.24 | SW846 8260B |             | 2/16/17 12:04 | TMP | A    |



## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873001**

Date Collected: 2/15/2017 21:15

Matrix: Water

Sample ID: **TB-05**

Date Received: 2/15/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By     | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-----------------|---------------|-----------------|-----------------------|
| 1,1,1,2-Tetrachloroethane   | ND             |             | ug/L         | 1.0           | 0.35 | SW846 8260B   |                 | 2/16/17 12:04 | TMP             | A                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/L         | 1.0           | 0.34 | SW846 8260B   |                 | 2/16/17 12:04 | TMP             | A                     |
| Tetrachloroethene           | ND             |             | ug/L         | 1.0           | 0.35 | SW846 8260B   |                 | 2/16/17 12:04 | TMP             | A                     |
| Toluene                     | ND             |             | ug/L         | 1.0           | 0.23 | SW846 8260B   |                 | 2/16/17 12:04 | TMP             | A                     |
| Total Xylenes               | ND             |             | ug/L         | 3.0           | 0.66 | SW846 8260B   |                 | 2/16/17 12:04 | TMP             | A                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/L         | 1.0           | 0.22 | SW846 8260B   |                 | 2/16/17 12:04 | TMP             | A                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/16/17 12:04 | TMP             | A                     |
| Trichloroethene             | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/16/17 12:04 | TMP             | A                     |
| Vinyl Chloride              | ND             |             | ug/L         | 1.0           | 0.30 | SW846 8260B   |                 | 2/16/17 12:04 | TMP             | A                     |
| o-Xylene                    | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/16/17 12:04 | TMP             | A                     |
| mp-Xylene                   | ND             |             | ug/L         | 2.0           | 0.52 | SW846 8260B   |                 | 2/16/17 12:04 | TMP             | A                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 101            |             | %            | 62 - 133      |      | SW846 8260B   |                 |               | 2/16/17 12:04   | TMP A                 |
| 4-Bromofluorobenzene (S)    | 99.6           |             | %            | 79 - 114      |      | SW846 8260B   |                 |               | 2/16/17 12:04   | TMP A                 |
| Dibromofluoromethane (S)    | 90.9           |             | %            | 78 - 116      |      | SW846 8260B   |                 |               | 2/16/17 12:04   | TMP A                 |
| Toluene-d8 (S)              | 101            |             | %            | 76 - 127      |      | SW846 8260B   |                 |               | 2/16/17 12:04   | TMP A                 |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873002**  
Sample ID: **CL-ISM-S-A2**

Date Collected: 2/15/2017 13:10 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 4.2J           | J           | mg/kg        | 11.7          | 2.7  | SW846 8015D   | 2/22/17 04:55 VLM | 2/23/17 07:33 | BS              | F                     |
| Gasoline Range Organics       | 1580J          | J           | ug/kg        | 8630          | 1200 | SW846 8015D   | 2/15/17 13:10 DD  | 2/18/17 03:49 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 78.4           |             | %            | 38 - 118      |      | SW846 8015D   | 2/22/17 04:55 VLM | 2/23/17 07:33 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 116            |             | %            | 72 - 134      |      | SW846 8015D   | 2/15/17 13:10 DD  | 2/18/17 03:49 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | ND             |             | ug/kg        | 8.7           | 4.0  | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 1.7           | 0.51 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 8.7           | 3.0  | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 1.7           | 0.44 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Benzene                       | ND             |             | ug/kg        | 1.7           | 0.44 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 1.7           | 0.44 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 1.7           | 0.62 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 1.7           | 0.45 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 1.7           | 0.45 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| 2-Butanone                    | ND             |             | ug/kg        | 8.7           | 2.8  | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 8.7           | 3.0  | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 1.7           | 0.55 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 1.7           | 0.44 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 1.7           | 0.44 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 1.7           | 0.59 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 4.4           | 0.74 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 1.7           | 0.46 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 1.7           | 0.48 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 4.4           | 2.5  | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 1.7           | 0.47 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 1.7           | 0.44 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 1.7           | 0.44 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 1.7           | 0.45 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 1.7           | 0.44 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 1.7           | 0.45 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 1.7           | 0.52 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 1.7           | 0.48 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873002**  
Sample ID: **CL-ISM-S-A2**

Date Collected: 2/15/2017 13:10 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 1.7           | 0.51 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 1.7           | 0.44 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 1.7           | 0.45 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 1.7           | 0.59 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 8.7           | 2.4  | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 1.7           | 0.44 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 8.7           | 3.3  | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Methylene Chloride          | 7.3            | 1,2,3       | ug/kg        | 1.7           | 0.68 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 1.7           | 0.44 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 1.7           | 0.44 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 1.7           | 0.49 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 1.7           | 0.52 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 1.7           | 0.58 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 5.2           | 1.2  | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 1.7           | 0.54 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 1.7           | 0.49 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 1.7           | 0.44 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 1.7           | 0.44 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 1.7           | 0.51 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 3.5           | 0.72 | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 75.4           |             | %            | 56 - 124      |      | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 85.2           |             | %            | 51 - 128      |      | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Dibromofluoromethane (S)    | 90.2           |             | %            | 62 - 123      |      | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| Toluene-d8 (S)              | 83             |             | %            | 59 - 131      |      | SW846 8260B   | 2/15/17 13:10 SYB | 2/17/17 08:19 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 54.3          | 6.5  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 54.3          | 7.6  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| Acetophenone                | ND             |             | ug/kg        | 109           | 8.7  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 54.3          | 8.7  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 109           | 11.9 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 217           | 18.5 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| Benzo(a)anthracene          | 8.4J           | J           | ug/kg        | 54.3          | 5.4  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 54.3          | 4.3  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 54.3          | 5.4  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 54.3          | 5.4  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873002**  
Sample ID: **CL-ISM-S-A2**

Date Collected: 2/15/2017 13:10 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 54.3 | 5.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 109  | 7.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 109  | 9.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| Butylbenzylphthalate        | 8.5J    | J    | ug/kg | 109  | 7.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 217  | 19.5 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 109  | 7.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 217  | 10.9 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 217  | 13.0 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 109  | 9.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 109  | 14.1 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 109  | 16.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 109  | 6.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 217  | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 109  | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 54.3 | 5.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 217  | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 217  | 11.9 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 109  | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 109  | 7.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 54.3 | 6.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 109  | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 217  | 41.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 217  | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 109  | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 217  | 16.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 109  | 7.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 217  | 43.4 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 109  | 9.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 109  | 13.0 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 109  | 53.2 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 109  | 7.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| Fluoranthene                | ND      |      | ug/kg | 54.3 | 5.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 54.3 | 6.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 109  | 11.9 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 109  | 10.9 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 217  | 11.9 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 109  | 9.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 54.3 | 7.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873002**  
Sample ID: **CL-ISM-S-A2**

Date Collected: 2/15/2017 13:10 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 109           | 6.5    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 217           | 28.2   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 109           | 5.4    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 54.3          | 6.5    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 217           | 13.0   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 217           | 21.7   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 217           | 8.7    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 109           | 13.0   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 217           | 11.9   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 217           | 15.2   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 109           | 8.7    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 109           | 8.7    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 217           | 28.2   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 54.3          | 5.4    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 217           | 10.9   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| Pyrene                         | ND             |             | ug/kg        | 54.3          | 5.4    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 109           | 7.6    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 217           | 13.0   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 217           | 13.0   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 217           | 13.0   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 84.1           |             | %            | 19 - 132      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 82.8           |             | %            | 40 - 110      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| 2-Fluorophenol (S)             | 74.9           |             | %            | 26 - 116      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 75.7           |             | %            | 38 - 112      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| Phenol-d5 (S)                  | 76.3           |             | %            | 35 - 111      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| Terphenyl-d14 (S)              | 78.1           |             | %            | 45 - 126      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 11:49 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.036         | 0.0033 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:23 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:23 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.036         | 0.0033 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:23 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:23 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.036         | 0.0098 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:23 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:23 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:23 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:23 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.036         | 0.0076 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:23 | EGO             | F                     |



## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873002**  
Sample ID: **CL-ISM-S-A2**

Date Collected: 2/15/2017 13:10 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.036         | 0.0098 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:23 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 88.8           |             | %            | 49 - 115      |        | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:23 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 94.9           |             | %            | 27 - 137      |        | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:23 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 9.2           | 3.0    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 9.2           | 0.81   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 9.2           | 0.98   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 9.2           | 0.71   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 9.2           | 0.76   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 9.2           | 0.98   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 9.2           | 1.6    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 17.9          | 1.5    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 17.9          | 2.4    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 17.9          | 2.1    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 17.9          | 2.1    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 9.2           | 1.1    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 17.9          | 3.7    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 17.9          | 1.2    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| Endrin                      | ND             |             | ug/kg        | 17.9          | 1.3    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 17.9          | 2.0    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 17.9          | 2.5    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 9.2           | 0.92   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 9.2           | 0.92   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 17.9          | 2.4    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 190           | 31.5   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 70.4           |             | %            | 30 - 135      |        | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| Tetrachloro-m-xylene (S)    | 56.5           |             | %            | 30 - 111      |        | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 17:58 | BS              | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |        |               |                   |               |                 |                       |
| Moisture                    | 11.4           |             | %            | 0.1           | 0.01   | S2540G-11     |                   | 2/20/17 11:33 | VKB             | F                     |
| Total Solids                | 88.6           |             | %            | 0.1           | 0.01   | S2540G-11     |                   | 2/20/17 11:33 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |        |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.1           | 0.37   | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 04:35 | ZMC             | F1                    |
| Arsenic, Total              | 3.7            |             | mg/kg        | 1.7           | 0.56   | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 04:35 | ZMC             | F1                    |
| Beryllium, Total            | 0.34J          | J           | mg/kg        | 0.56          | 0.19   | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 04:35 | ZMC             | F1                    |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873002**  
Sample ID: **CL-ISM-S-A2**

Date Collected: 2/15/2017 13:10 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.56  | 0.19  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:35 | ZMC | F1   |
| Chromium, Total | 14.4    |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:35 | ZMC | F1   |
| Copper, Total   | 5.6     |      | mg/kg | 2.8   | 0.90  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:35 | ZMC | F1   |
| Lead, Total     | 8.8     |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:35 | ZMC | F1   |
| Mercury, Total  | ND      |      | mg/kg | 0.054 | 0.017 | SW846 7471B | 2/22/17 11:55 AXC | 2/23/17 12:12 | MNP | F2   |
| Nickel, Total   | 5.9     |      | mg/kg | 2.8   | 0.90  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:35 | ZMC | F1   |
| Selenium, Total | ND      |      | mg/kg | 2.8   | 0.90  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:35 | ZMC | F1   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:35 | ZMC | F1   |
| Thallium, Total | ND      |      | mg/kg | 0.56  | 0.19  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:35 | ZMC | F1   |
| Zinc, Total     | 18.0    |      | mg/kg | 2.8   | 0.90  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:35 | ZMC | F1   |

  
Ms. Susan J Scherer  
Project Coordinator



## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873003**  
Sample ID: **CL-ISM-S-A3**

Date Collected: 2/15/2017 08:20 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr           |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|----------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                |
| Diesel Range Organics C10-C28 | 3.5J           | J           | mg/kg        | 10.8          | 2.5  | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 09:50 | BS              | F              |
| Gasoline Range Organics       | ND             |             | ug/kg        | 5410          | 753  | SW846 8015D   | 2/15/17 08:20 DD  | 2/18/17 04:23 | DD              | D              |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By Cntr</i> |
| o-Terphenyl (S)               | 90.5           |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 09:50 | BS              | F              |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 112            |             | %            | 72 - 134      |      | SW846 8015D   | 2/15/17 08:20 DD  | 2/18/17 04:23 | DD              | D              |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                |
| Acetone                       | ND             |             | ug/kg        | 11.1          | 5.1  | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.2           | 0.65 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 11.1          | 3.9  | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| Benzene                       | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| Bromochloromethane            | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.2           | 0.79 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| Bromoform                     | ND             |             | ug/kg        | 2.2           | 0.58 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| Bromomethane                  | ND             |             | ug/kg        | 2.2           | 0.58 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| 2-Butanone                    | ND             |             | ug/kg        | 11.1          | 3.5  | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 11.1          | 3.9  | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.2           | 0.70 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.2           | 0.57 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.2           | 0.57 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.2           | 0.75 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| Chloroethane                  | ND             |             | ug/kg        | 5.5           | 0.94 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| Chloroform                    | ND             |             | ug/kg        | 2.2           | 0.59 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| Chloromethane                 | ND             |             | ug/kg        | 2.2           | 0.61 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 5.5           | 3.2  | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.2           | 0.60 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.2           | 0.58 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.2           | 0.58 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.2           | 0.66 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.2           | 0.61 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B              |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873003**  
Sample ID: **CL-ISM-S-A3**

Date Collected: 2/15/2017 08:20 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 2.2           | 0.64 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 2.2           | 0.58 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 2.2           | 0.75 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 11.1          | 3.1  | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 11.1          | 4.2  | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| Methylene Chloride          | 13.7           | 1,2,3       | ug/kg        | 2.2           | 0.86 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.2           | 0.62 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.2           | 0.66 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.2           | 0.74 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 6.6           | 1.6  | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.2           | 0.69 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.2           | 0.62 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.2           | 0.64 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.4           | 0.92 | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 72.5           |             | %            | 56 - 124      |      | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 83.1           |             | %            | 51 - 128      |      | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| Dibromofluoromethane (S)    | 88.3           |             | %            | 62 - 123      |      | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| Toluene-d8 (S)              | 83.2           |             | %            | 59 - 131      |      | SW846 8260B   | 2/15/17 08:20 SYB | 2/17/17 08:42 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 51.3          | 6.2  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 51.3          | 7.2  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| Acetophenone                | ND             |             | ug/kg        | 103           | 8.2  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 51.3          | 8.2  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 103           | 11.3 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 205           | 17.4 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| Benzo(a)anthracene          | 5.4J           | J           | ug/kg        | 51.3          | 5.1  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 51.3          | 4.1  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 51.3          | 5.1  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 51.3          | 5.1  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873003**  
Sample ID: **CL-ISM-S-A3**

Date Collected: 2/15/2017 08:20 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 51.3 | 5.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 103  | 7.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 103  | 9.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| Butylbenzylphthalate        | 9.0J    | J    | ug/kg | 103  | 7.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 205  | 18.5 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 103  | 7.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 205  | 10.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 205  | 12.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 103  | 9.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 103  | 13.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 103  | 15.4 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 103  | 6.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 205  | 8.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 103  | 8.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 51.3 | 5.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 205  | 8.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 205  | 11.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 103  | 8.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 103  | 7.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 51.3 | 6.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 103  | 8.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 205  | 39.0 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 205  | 8.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 103  | 8.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 205  | 15.4 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 103  | 7.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 205  | 41.0 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 103  | 9.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 103  | 12.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 103  | 50.2 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 103  | 7.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| Fluoranthene                | ND      |      | ug/kg | 51.3 | 5.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 51.3 | 6.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 103  | 11.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 103  | 10.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 205  | 11.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 103  | 9.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 51.3 | 7.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873003**  
Sample ID: **CL-ISM-S-A3**

Date Collected: 2/15/2017 08:20 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 103           | 6.2    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 205           | 26.7   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 103           | 5.1    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 51.3          | 6.2    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 205           | 12.3   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 205           | 20.5   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 205           | 8.2    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 103           | 12.3   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 205           | 11.3   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 205           | 14.4   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 103           | 8.2    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 103           | 8.2    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 205           | 26.7   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 51.3          | 5.1    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 205           | 10.3   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| Pyrene                         | ND             |             | ug/kg        | 51.3          | 5.1    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 103           | 7.2    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 205           | 12.3   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 205           | 12.3   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 205           | 12.3   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 86             |             | %            | 19 - 132      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 87             |             | %            | 40 - 110      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| 2-Fluorophenol (S)             | 79.2           |             | %            | 26 - 116      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 79.4           |             | %            | 38 - 112      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| Phenol-d5 (S)                  | 82.9           |             | %            | 35 - 111      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| Terphenyl-d14 (S)              | 86.3           |             | %            | 45 - 126      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:16 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.033         | 0.0030 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:34 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.033         | 0.0061 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:34 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.033         | 0.0030 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:34 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.033         | 0.0061 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:34 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.033         | 0.0091 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:34 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.033         | 0.0061 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:34 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.033         | 0.0061 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:34 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.033         | 0.0061 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:34 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.033         | 0.0071 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:34 | EGO             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873003**  
Sample ID: **CL-ISM-S-A3**

Date Collected: 2/15/2017 08:20 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.033         | 0.0091 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:34 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 101            |             | %            | 49 - 115      |        | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:34 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 99             |             | %            | 27 - 137      |        | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:34 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 8.6           | 2.8    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 8.6           | 0.76   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 8.6           | 0.91   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 8.6           | 0.66   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 8.6           | 0.71   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 8.6           | 0.91   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 8.6           | 1.5    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 16.7          | 1.4    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 16.7          | 2.3    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 16.7          | 1.9    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 16.7          | 1.9    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 8.6           | 1.1    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 16.7          | 3.5    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 16.7          | 1.1    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| Endrin                      | ND             |             | ug/kg        | 16.7          | 1.2    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 16.7          | 1.8    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 16.7          | 2.3    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 8.6           | 0.86   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 8.6           | 0.86   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 16.7          | 2.2    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 177           | 29.4   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 69.6           |             | %            | 30 - 135      |        | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| Tetrachloro-m-xylene (S)    | 61             |             | %            | 30 - 111      |        | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:14 | BS              | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |        |               |                   |               |                 |                       |
| Moisture                    | 5.0            |             | %            | 0.1           | 0.01   | S2540G-11     |                   | 2/20/17 11:33 | VKB             | F                     |
| Total Solids                | 95.0           |             | %            | 0.1           | 0.01   | S2540G-11     |                   | 2/20/17 11:33 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |        |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.0           | 0.33   | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 04:51 | ZMC             | F1                    |
| Arsenic, Total              | 1.3J           | J           | mg/kg        | 1.5           | 0.51   | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 04:51 | ZMC             | F1                    |
| Beryllium, Total            | ND             |             | mg/kg        | 0.51          | 0.17   | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 04:51 | ZMC             | F1                    |



## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873003**  
Sample ID: **CL-ISM-S-A3**

Date Collected: 2/15/2017 08:20 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.51  | 0.17  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:51 | ZMC | F1   |
| Chromium, Total | 4.6     |      | mg/kg | 1.0   | 0.33  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:51 | ZMC | F1   |
| Copper, Total   | 2.2J    | J    | mg/kg | 2.5   | 0.81  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:51 | ZMC | F1   |
| Lead, Total     | 2.5     |      | mg/kg | 1.0   | 0.33  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:51 | ZMC | F1   |
| Mercury, Total  | ND      |      | mg/kg | 0.050 | 0.016 | SW846 7471B | 2/22/17 11:55 AXC | 2/23/17 12:13 | MNP | F2   |
| Nickel, Total   | 1.3J    | J    | mg/kg | 2.5   | 0.81  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:51 | ZMC | F1   |
| Selenium, Total | ND      |      | mg/kg | 2.5   | 0.81  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:51 | ZMC | F1   |
| Silver, Total   | ND      |      | mg/kg | 1.0   | 0.33  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:51 | ZMC | F1   |
| Thallium, Total | ND      |      | mg/kg | 0.51  | 0.17  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:51 | ZMC | F1   |
| Zinc, Total     | 4.3     |      | mg/kg | 2.5   | 0.81  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:51 | ZMC | F1   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873004**  
Sample ID: **CL-ISM-S-B1**

Date Collected: 2/15/2017 14:00 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                  | Results | Flag  | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|-------|-------|------|------|-------------|-------------------|---------------|-----|------|
| <b>VOLATILE ORGANICS</b>    |         |       |       |      |      |             |                   |               |     |      |
| Acetone                     | ND      |       | ug/kg | 10.5 | 4.8  | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| tert-Amyl methyl ether      | ND      |       | ug/kg | 2.1  | 0.62 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| tert-Amyl Alcohol           | ND      |       | ug/kg | 10.5 | 3.7  | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| tert-Amyl Ethylether        | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| Benzene                     | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| Bromochloromethane          | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| Bromodichloromethane        | ND      |       | ug/kg | 2.1  | 0.75 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| Bromoform                   | ND      |       | ug/kg | 2.1  | 0.55 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| Bromomethane                | ND      |       | ug/kg | 2.1  | 0.55 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| 2-Butanone                  | ND      |       | ug/kg | 10.5 | 3.4  | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| tert-Butyl Alcohol          | ND      |       | ug/kg | 10.5 | 3.7  | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| Carbon Disulfide            | ND      |       | ug/kg | 2.1  | 0.66 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| Carbon Tetrachloride        | ND      |       | ug/kg | 2.1  | 0.54 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| Chlorobenzene               | ND      |       | ug/kg | 2.1  | 0.54 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| Chlorodibromomethane        | ND      |       | ug/kg | 2.1  | 0.71 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| Chloroethane                | ND      |       | ug/kg | 5.2  | 0.89 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| Chloroform                  | ND      |       | ug/kg | 2.1  | 0.56 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| Chloromethane               | ND      |       | ug/kg | 2.1  | 0.58 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| 1,2-Dibromo-3-chloropropane | ND      |       | ug/kg | 5.2  | 3.0  | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| 1,2-Dibromoethane           | ND      |       | ug/kg | 2.1  | 0.57 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| 1,1-Dichloroethane          | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| 1,2-Dichloroethane          | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| 1,1-Dichloroethene          | ND      |       | ug/kg | 2.1  | 0.55 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| cis-1,2-Dichloroethene      | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| trans-1,2-Dichloroethene    | ND      |       | ug/kg | 2.1  | 0.55 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| 1,2-Dichloropropane         | ND      |       | ug/kg | 2.1  | 0.63 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| cis-1,3-Dichloropropene     | ND      |       | ug/kg | 2.1  | 0.58 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| trans-1,3-Dichloropropene   | ND      |       | ug/kg | 2.1  | 0.61 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| Diisopropyl ether           | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| Ethyl tert-butyl ether      | ND      |       | ug/kg | 2.1  | 0.55 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| Ethylbenzene                | ND      |       | ug/kg | 2.1  | 0.71 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| 2-Hexanone                  | ND      |       | ug/kg | 10.5 | 2.9  | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| Methyl t-Butyl Ether        | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| 4-Methyl-2-Pentanone(MIBK)  | ND      |       | ug/kg | 10.5 | 4.0  | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |
| Methylene Chloride          | 11.4    | 1,2,3 | ug/kg | 2.1  | 0.82 | SW846 8260B | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB | B    |



## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873004**  
Sample ID: **CL-ISM-S-B1**

Date Collected: 2/15/2017 14:00 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| Naphthalene                 | ND             |             | ug/kg        | 2.1           | 0.52 | SW846 8260B   | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.1           | 0.52 | SW846 8260B   | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.1           | 0.59 | SW846 8260B   | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.1           | 0.63 | SW846 8260B   | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.1           | 0.70 | SW846 8260B   | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 6.3           | 1.5  | SW846 8260B   | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.1           | 0.65 | SW846 8260B   | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.1           | 0.59 | SW846 8260B   | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.1           | 0.52 | SW846 8260B   | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.1           | 0.52 | SW846 8260B   | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.1           | 0.61 | SW846 8260B   | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.2           | 0.87 | SW846 8260B   | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 75             |             | %            | 56 - 124      |      | SW846 8260B   | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 81.9           |             | %            | 51 - 128      |      | SW846 8260B   | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB             | B                     |
| Dibromofluoromethane (S)    | 90.5           |             | %            | 62 - 123      |      | SW846 8260B   | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB             | B                     |
| Toluene-d8 (S)              | 83.1           |             | %            | 59 - 131      |      | SW846 8260B   | 2/15/17 14:00 SYB | 2/17/17 09:06 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 52.6          | 6.3  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 52.6          | 7.4  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| Acetophenone                | ND             |             | ug/kg        | 105           | 8.4  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 52.6          | 8.4  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 105           | 11.6 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 210           | 17.9 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| Benzo(a)anthracene          | 5.6J           | J           | ug/kg        | 52.6          | 5.3  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 52.6          | 4.2  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 52.6          | 5.3  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 52.6          | 5.3  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| Benzo(k)fluoranthene        | ND             |             | ug/kg        | 52.6          | 5.3  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| Biphenyl                    | ND             |             | ug/kg        | 105           | 7.4  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| 4-Bromophenyl-phenylether   | ND             |             | ug/kg        | 105           | 9.5  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| Butylbenzylphthalate        | ND             |             | ug/kg        | 105           | 7.4  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| Caprolactam                 | ND             |             | ug/kg        | 210           | 18.9 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| Carbazole                   | ND             |             | ug/kg        | 105           | 7.4  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| 4-Chloro-3-methylphenol     | ND             |             | ug/kg        | 210           | 10.5 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| 4-Chloroaniline             | ND             |             | ug/kg        | 210           | 12.6 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| bis(2-Chloroethoxy)methane  | ND             |             | ug/kg        | 105           | 9.5  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873004**  
Sample ID: **CL-ISM-S-B1**

Date Collected: 2/15/2017 14:00 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 105  | 13.7 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 105  | 15.8 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 105  | 6.3  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 210  | 8.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 105  | 8.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 52.6 | 5.3  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 210  | 8.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 210  | 11.6 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 105  | 8.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 105  | 7.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 52.6 | 6.3  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 105  | 8.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 210  | 40.0 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 210  | 8.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 105  | 8.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 210  | 15.8 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 105  | 7.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 210  | 42.1 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 105  | 9.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 105  | 12.6 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 105  | 51.5 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 105  | 7.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| Fluoranthene                | ND      |      | ug/kg | 52.6 | 5.3  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 52.6 | 6.3  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 105  | 11.6 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 105  | 10.5 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 210  | 11.6 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 105  | 9.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 52.6 | 7.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| Isophorone                  | ND      |      | ug/kg | 105  | 6.3  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| 2-Methyl-4,6-dinitrophenol  | ND      |      | ug/kg | 210  | 27.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| 2-Methylnaphthalene         | ND      |      | ug/kg | 105  | 5.3  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| Naphthalene                 | ND      |      | ug/kg | 52.6 | 6.3  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| 2-Nitroaniline              | ND      |      | ug/kg | 210  | 12.6 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| 3-Nitroaniline              | ND      |      | ug/kg | 210  | 21.0 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| 4-Nitroaniline              | ND      |      | ug/kg | 210  | 8.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| Nitrobenzene                | ND      |      | ug/kg | 105  | 12.6 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |
| 2-Nitrophenol               | ND      |      | ug/kg | 210  | 11.6 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873004**  
Sample ID: **CL-ISM-S-B1**

Date Collected: 2/15/2017 14:00 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| 4-Nitrophenol                  | ND             |             | ug/kg        | 210           | 14.7   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 105           | 8.4    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 105           | 8.4    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 210           | 27.3   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 52.6          | 5.3    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 210           | 10.5   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| Pyrene                         | ND             |             | ug/kg        | 52.6          | 5.3    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 105           | 7.4    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 210           | 12.6   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 210           | 12.6   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 210           | 12.6   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 82.6           |             | %            | 19 - 132      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 78.7           |             | %            | 40 - 110      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| 2-Fluorophenol (S)             | 75.1           |             | %            | 26 - 116      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 76.4           |             | %            | 38 - 112      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| Phenol-d5 (S)                  | 77.1           |             | %            | 35 - 111      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| Terphenyl-d14 (S)              | 85.1           |             | %            | 45 - 126      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 12:42 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.035         | 0.0032 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:57 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.035         | 0.0064 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:57 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.035         | 0.0032 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:57 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.035         | 0.0064 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:57 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.035         | 0.0096 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:57 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.035         | 0.0064 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:57 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.035         | 0.0064 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:57 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.035         | 0.0064 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:57 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.035         | 0.0075 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:57 | EGO             | F                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.035         | 0.0096 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:57 | EGO             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)        | 58.2           |             | %            | 49 - 115      |        | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:57 | EGO             | F                     |
| Tetrachloro-m-xylene (S)       | 58.7           |             | %            | 27 - 137      |        | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 09:57 | EGO             | F                     |
| <b>PESTICIDES</b>              |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                         | ND             |             | ug/kg        | 9.1           | 2.9    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |
| alpha-BHC                      | ND             |             | ug/kg        | 9.1           | 0.80   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |
| beta-BHC                       | ND             |             | ug/kg        | 9.1           | 0.96   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873004**  
Sample ID: **CL-ISM-S-B1**

Date Collected: 2/15/2017 14:00 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| delta-BHC                     | ND             |             | ug/kg        | 9.1           | 0.69 | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |
| gamma-BHC                     | ND             |             | ug/kg        | 9.1           | 0.75 | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |
| alpha-Chlordane               | ND             |             | ug/kg        | 9.1           | 0.96 | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |
| gamma-Chlordane               | ND             |             | ug/kg        | 9.1           | 1.5  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |
| 4,4'-DDD                      | ND             |             | ug/kg        | 17.6          | 1.4  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |
| 4,4'-DDE                      | ND             |             | ug/kg        | 17.6          | 2.4  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |
| 4,4'-DDT                      | ND             |             | ug/kg        | 17.6          | 2.0  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |
| Dieldrin                      | ND             |             | ug/kg        | 17.6          | 2.0  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |
| Endosulfan I                  | ND             |             | ug/kg        | 9.1           | 1.1  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |
| Endosulfan II                 | ND             |             | ug/kg        | 17.6          | 3.7  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |
| Endosulfan Sulfate            | ND             |             | ug/kg        | 17.6          | 1.2  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |
| Endrin                        | ND             |             | ug/kg        | 17.6          | 1.3  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |
| Endrin Aldehyde               | ND             |             | ug/kg        | 17.6          | 1.9  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |
| Endrin Ketone                 | ND             |             | ug/kg        | 17.6          | 2.4  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |
| Heptachlor                    | ND             |             | ug/kg        | 9.1           | 0.91 | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |
| Heptachlor Epoxide            | ND             |             | ug/kg        | 9.1           | 0.91 | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |
| Methoxychlor                  | ND             |             | ug/kg        | 17.6          | 2.3  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |
| Toxaphene                     | ND             |             | ug/kg        | 186           | 30.9 | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)       | 43.1           |             | %            | 30 - 135      |      | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |
| Tetrachloro-m-xylene (S)      | 37.4           |             | %            | 30 - 111      |      | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 18:29 | BS              | F                     |
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 10.2J          | J           | mg/kg        | 11.5          | 2.7  | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 11:42 | BS              | F                     |
| Gasoline Range Organics       | ND             |             | ug/kg        | 5400          | 751  | SW846 8015D   | 2/15/17 14:00 DD  | 2/18/17 04:56 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 94.5           |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 11:42 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 115            |             | %            | 72 - 134      |      | SW846 8015D   | 2/15/17 14:00 DD  | 2/18/17 04:56 | DD              | D                     |
| <b>WET CHEMISTRY</b>          |                |             |              |               |      |               |                   |               |                 |                       |
| Moisture                      | 8.5            |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/20/17 11:33 | VKB             | F                     |
| Total Solids                  | 91.5           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/20/17 11:33 | VKB             | F                     |
| <b>METALS</b>                 |                |             |              |               |      |               |                   |               |                 |                       |
| Antimony, Total               | ND             |             | mg/kg        | 1.1           | 0.35 | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 04:55 | ZMC             | F1                    |
| Arsenic, Total                | 1.4J           | J           | mg/kg        | 1.6           | 0.53 | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 04:55 | ZMC             | F1                    |
| Beryllium, Total              | 0.22J          | J           | mg/kg        | 0.53          | 0.17 | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 04:55 | ZMC             | F1                    |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873004**  
Sample ID: **CL-ISM-S-B1**

Date Collected: 2/15/2017 14:00 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.53  | 0.17  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:55 | ZMC | F1   |
| Chromium, Total | 5.7     |      | mg/kg | 1.1   | 0.35  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:55 | ZMC | F1   |
| Copper, Total   | 2.7     |      | mg/kg | 2.6   | 0.84  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:55 | ZMC | F1   |
| Lead, Total     | 4.5     |      | mg/kg | 1.1   | 0.35  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:55 | ZMC | F1   |
| Mercury, Total  | ND      |      | mg/kg | 0.055 | 0.017 | SW846 7471B | 2/22/17 11:55 AXC | 2/23/17 12:14 | MNP | F2   |
| Nickel, Total   | 2.9     |      | mg/kg | 2.6   | 0.84  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:55 | ZMC | F1   |
| Selenium, Total | ND      |      | mg/kg | 2.6   | 0.84  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:55 | ZMC | F1   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.35  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:55 | ZMC | F1   |
| Thallium, Total | ND      |      | mg/kg | 0.53  | 0.17  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:55 | ZMC | F1   |
| Zinc, Total     | 9.7     |      | mg/kg | 2.6   | 0.84  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:55 | ZMC | F1   |

  
Ms. Susan J Scherer  
Project Coordinator



## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873005**  
Sample ID: **CL-ISM-S-B2**

Date Collected: 2/15/2017 12:40 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                  | Results | Flag  | Units | RDL | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|-------|-------|-----|------|-------------|-------------------|---------------|-----|------|
| <b>VOLATILE ORGANICS</b>    |         |       |       |     |      |             |                   |               |     |      |
| Acetone                     | 8.9J    | J     | ug/kg | 9.9 | 4.6  | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| tert-Amyl methyl ether      | ND      |       | ug/kg | 2.0 | 0.59 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| tert-Amyl Alcohol           | ND      |       | ug/kg | 9.9 | 3.5  | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| tert-Amyl Ethylether        | ND      |       | ug/kg | 2.0 | 0.50 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| Benzene                     | ND      |       | ug/kg | 2.0 | 0.50 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| Bromochloromethane          | ND      |       | ug/kg | 2.0 | 0.50 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| Bromodichloromethane        | ND      |       | ug/kg | 2.0 | 0.71 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| Bromoform                   | ND      |       | ug/kg | 2.0 | 0.52 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| Bromomethane                | ND      |       | ug/kg | 2.0 | 0.52 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| 2-Butanone                  | ND      |       | ug/kg | 9.9 | 3.2  | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| tert-Butyl Alcohol          | ND      |       | ug/kg | 9.9 | 3.5  | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| Carbon Disulfide            | ND      |       | ug/kg | 2.0 | 0.63 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| Carbon Tetrachloride        | ND      |       | ug/kg | 2.0 | 0.51 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| Chlorobenzene               | ND      |       | ug/kg | 2.0 | 0.51 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| Chlorodibromomethane        | ND      |       | ug/kg | 2.0 | 0.68 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| Chloroethane                | ND      |       | ug/kg | 5.0 | 0.84 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| Chloroform                  | ND      |       | ug/kg | 2.0 | 0.53 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| Chloromethane               | ND      |       | ug/kg | 2.0 | 0.55 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| 1,2-Dibromo-3-chloropropane | ND      |       | ug/kg | 5.0 | 2.9  | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| 1,2-Dibromoethane           | ND      |       | ug/kg | 2.0 | 0.54 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| 1,1-Dichloroethane          | ND      |       | ug/kg | 2.0 | 0.50 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| 1,2-Dichloroethane          | ND      |       | ug/kg | 2.0 | 0.50 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| 1,1-Dichloroethene          | ND      |       | ug/kg | 2.0 | 0.52 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| cis-1,2-Dichloroethene      | ND      |       | ug/kg | 2.0 | 0.50 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| trans-1,2-Dichloroethene    | ND      |       | ug/kg | 2.0 | 0.52 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| 1,2-Dichloropropane         | ND      |       | ug/kg | 2.0 | 0.60 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| cis-1,3-Dichloropropene     | ND      |       | ug/kg | 2.0 | 0.55 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| trans-1,3-Dichloropropene   | ND      |       | ug/kg | 2.0 | 0.58 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| Diisopropyl ether           | ND      |       | ug/kg | 2.0 | 0.50 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| Ethyl tert-butyl ether      | ND      |       | ug/kg | 2.0 | 0.52 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| Ethylbenzene                | ND      |       | ug/kg | 2.0 | 0.68 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| 2-Hexanone                  | ND      |       | ug/kg | 9.9 | 2.8  | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| Methyl t-Butyl Ether        | ND      |       | ug/kg | 2.0 | 0.50 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| 4-Methyl-2-Pentanone(MIBK)  | ND      |       | ug/kg | 9.9 | 3.8  | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |
| Methylene Chloride          | 8.4     | 1,2,3 | ug/kg | 2.0 | 0.78 | SW846 8260B | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB | B    |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873005**  
Sample ID: **CL-ISM-S-B2**

Date Collected: 2/15/2017 12:40 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| Naphthalene                 | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.0           | 0.56 | SW846 8260B   | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.0           | 0.60 | SW846 8260B   | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.0           | 0.67 | SW846 8260B   | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 6.0           | 1.4  | SW846 8260B   | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.0           | 0.62 | SW846 8260B   | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.0           | 0.56 | SW846 8260B   | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.0           | 0.58 | SW846 8260B   | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.0           | 0.83 | SW846 8260B   | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 75.3           |             | %            | 56 - 124      |      | SW846 8260B   | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 84.6           |             | %            | 51 - 128      |      | SW846 8260B   | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB             | B                     |
| Dibromofluoromethane (S)    | 89.3           |             | %            | 62 - 123      |      | SW846 8260B   | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB             | B                     |
| Toluene-d8 (S)              | 83.1           |             | %            | 59 - 131      |      | SW846 8260B   | 2/15/17 12:40 SYB | 2/17/17 09:29 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 55.7          | 6.7  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 55.7          | 7.8  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| Acetophenone                | ND             |             | ug/kg        | 111           | 8.9  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 55.7          | 8.9  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 111           | 12.3 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 223           | 18.9 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| Benzo(a)anthracene          | 11.4J          | J           | ug/kg        | 55.7          | 5.6  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| Benzo(a)pyrene              | 6.1J           | J           | ug/kg        | 55.7          | 4.5  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 55.7          | 5.6  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 55.7          | 5.6  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| Benzo(k)fluoranthene        | ND             |             | ug/kg        | 55.7          | 5.6  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| Biphenyl                    | ND             |             | ug/kg        | 111           | 7.8  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| 4-Bromophenyl-phenylether   | ND             |             | ug/kg        | 111           | 10.0 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| Butylbenzylphthalate        | 10.2J          | J           | ug/kg        | 111           | 7.8  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| Caprolactam                 | ND             |             | ug/kg        | 223           | 20.0 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| Carbazole                   | ND             |             | ug/kg        | 111           | 7.8  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| 4-Chloro-3-methylphenol     | ND             |             | ug/kg        | 223           | 11.1 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| 4-Chloroaniline             | ND             |             | ug/kg        | 223           | 13.4 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| bis(2-Chloroethoxy)methane  | ND             |             | ug/kg        | 111           | 10.0 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |



## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873005**  
Sample ID: **CL-ISM-S-B2**

Date Collected: 2/15/2017 12:40 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 111  | 14.5 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 111  | 16.7 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 111  | 6.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 223  | 8.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 111  | 8.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 55.7 | 5.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 223  | 8.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 223  | 12.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 111  | 8.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 111  | 7.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 55.7 | 6.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 111  | 8.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 223  | 42.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 223  | 8.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 111  | 8.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 223  | 16.7 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 111  | 7.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 223  | 44.6 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 111  | 10.0 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 111  | 13.4 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 111  | 54.6 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 111  | 7.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| Fluoranthene                | 6.5J    | J    | ug/kg | 55.7 | 5.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 55.7 | 6.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 111  | 12.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 111  | 11.1 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 223  | 12.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 111  | 10.0 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 55.7 | 7.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| Isophorone                  | ND      |      | ug/kg | 111  | 6.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| 2-Methyl-4,6-dinitrophenol  | ND      |      | ug/kg | 223  | 29.0 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| 2-Methylnaphthalene         | ND      |      | ug/kg | 111  | 5.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| Naphthalene                 | ND      |      | ug/kg | 55.7 | 6.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| 2-Nitroaniline              | ND      |      | ug/kg | 223  | 13.4 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| 3-Nitroaniline              | ND      |      | ug/kg | 223  | 22.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| 4-Nitroaniline              | ND      |      | ug/kg | 223  | 8.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| Nitrobenzene                | ND      |      | ug/kg | 111  | 13.4 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |
| 2-Nitrophenol               | ND      |      | ug/kg | 223  | 12.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873005**  
Sample ID: **CL-ISM-S-B2**

Date Collected: 2/15/2017 12:40 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| 4-Nitrophenol                  | ND             |             | ug/kg        | 223           | 15.6   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 111           | 8.9    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 111           | 8.9    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 223           | 29.0   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 55.7          | 5.6    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 223           | 11.1   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| Pyrene                         | 7.0J           | J           | ug/kg        | 55.7          | 5.6    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 111           | 7.8    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 223           | 13.4   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 223           | 13.4   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 223           | 13.4   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 82.7           |             | %            | 19 - 132      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 74.9           |             | %            | 40 - 110      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| 2-Fluorophenol (S)             | 68.6           |             | %            | 26 - 116      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 70.8           |             | %            | 38 - 112      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| Phenol-d5 (S)                  | 69.3           |             | %            | 35 - 111      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| Terphenyl-d14 (S)              | 82.9           |             | %            | 45 - 126      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:08 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.037         | 0.0034 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 10:32 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 10:32 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.037         | 0.0034 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 10:32 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 10:32 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.037         | 0.010  | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 10:32 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 10:32 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 10:32 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 10:32 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.037         | 0.0078 | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 10:32 | EGO             | F                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.037         | 0.010  | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 10:32 | EGO             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)        | 101            |             | %            | 49 - 115      |        | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 10:32 | EGO             | F                     |
| Tetrachloro-m-xylene (S)       | 93.9           |             | %            | 27 - 137      |        | SW846 8082A   | 2/22/17 03:10 CMA | 2/22/17 10:32 | EGO             | F                     |
| <b>PESTICIDES</b>              |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                         | ND             |             | ug/kg        | 9.5           | 3.1    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |
| alpha-BHC                      | ND             |             | ug/kg        | 9.5           | 0.84   | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |
| beta-BHC                       | ND             |             | ug/kg        | 9.5           | 1.0    | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873005**  
Sample ID: **CL-ISM-S-B2**

Date Collected: 2/15/2017 12:40 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| delta-BHC                     | ND             |             | ug/kg        | 9.5           | 0.73 | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |
| gamma-BHC                     | ND             |             | ug/kg        | 9.5           | 0.78 | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |
| alpha-Chlordane               | ND             |             | ug/kg        | 9.5           | 1.0  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |
| gamma-Chlordane               | ND             |             | ug/kg        | 9.5           | 1.6  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |
| 4,4'-DDD                      | ND             |             | ug/kg        | 18.5          | 1.5  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |
| 4,4'-DDE                      | ND             |             | ug/kg        | 18.5          | 2.5  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |
| 4,4'-DDT                      | ND             |             | ug/kg        | 18.5          | 2.1  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |
| Dieldrin                      | ND             |             | ug/kg        | 18.5          | 2.1  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |
| Endosulfan I                  | ND             |             | ug/kg        | 9.5           | 1.2  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |
| Endosulfan II                 | ND             |             | ug/kg        | 18.5          | 3.9  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |
| Endosulfan Sulfate            | ND             |             | ug/kg        | 18.5          | 1.2  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |
| Endrin                        | ND             |             | ug/kg        | 18.5          | 1.3  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |
| Endrin Aldehyde               | ND             |             | ug/kg        | 18.5          | 2.0  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |
| Endrin Ketone                 | ND             |             | ug/kg        | 18.5          | 2.6  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |
| Heptachlor                    | ND             |             | ug/kg        | 9.5           | 0.95 | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |
| Heptachlor Epoxide            | ND             |             | ug/kg        | 9.5           | 0.95 | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |
| Methoxychlor                  | ND             |             | ug/kg        | 18.5          | 2.5  | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |
| Toxaphene                     | ND             |             | ug/kg        | 196           | 32.5 | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)       | 75.5           |             | %            | 30 - 135      |      | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |
| Tetrachloro-m-xylene (S)      | 57.5           |             | %            | 30 - 111      |      | SW846 8081B   | 2/22/17 03:10 CMA | 2/22/17 19:00 | BS              | F                     |
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 32.0           |             | mg/kg        | 11.9          | 2.8  | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 12:18 | BS              | F                     |
| Gasoline Range Organics       | 894J           | J           | ug/kg        | 5530          | 768  | SW846 8015D   | 2/15/17 12:40 DD  | 2/18/17 05:29 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 91.5           |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 12:18 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 113            |             | %            | 72 - 134      |      | SW846 8015D   | 2/15/17 12:40 DD  | 2/18/17 05:29 | DD              | D                     |
| <b>WET CHEMISTRY</b>          |                |             |              |               |      |               |                   |               |                 |                       |
| Moisture                      | 10.8           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/20/17 11:33 | VKB             | F                     |
| Total Solids                  | 89.2           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/20/17 11:33 | VKB             | F                     |
| <b>METALS</b>                 |                |             |              |               |      |               |                   |               |                 |                       |
| Antimony, Total               | ND             |             | mg/kg        | 1.1           | 0.37 | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 04:59 | ZMC             | F1                    |
| Arsenic, Total                | 2.1            |             | mg/kg        | 1.7           | 0.56 | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 04:59 | ZMC             | F1                    |
| Beryllium, Total              | ND             |             | mg/kg        | 0.56          | 0.18 | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 04:59 | ZMC             | F1                    |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873005**  
Sample ID: **CL-ISM-S-B2**

Date Collected: 2/15/2017 12:40 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.56  | 0.18  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:59 | ZMC | F1   |
| Chromium, Total | 7.5     |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:59 | ZMC | F1   |
| Copper, Total   | 4.5     |      | mg/kg | 2.8   | 0.90  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:59 | ZMC | F1   |
| Lead, Total     | 7.3     |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:59 | ZMC | F1   |
| Mercury, Total  | ND      |      | mg/kg | 0.055 | 0.018 | SW846 7471B | 2/22/17 11:55 AXC | 2/23/17 12:15 | MNP | F2   |
| Nickel, Total   | 3.4     |      | mg/kg | 2.8   | 0.90  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:59 | ZMC | F1   |
| Selenium, Total | ND      |      | mg/kg | 2.8   | 0.90  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:59 | ZMC | F1   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:59 | ZMC | F1   |
| Thallium, Total | ND      |      | mg/kg | 0.56  | 0.18  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:59 | ZMC | F1   |
| Zinc, Total     | 14.7    |      | mg/kg | 2.8   | 0.90  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 04:59 | ZMC | F1   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873006**  
Sample ID: **CL-ISM-S-B3**

Date Collected: 2/15/2017 08:50 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 742            |             | mg/kg        | 58.1          | 13.7 | SW846 8015D   | 2/23/17 02:00 VLM | 2/24/17 01:09 | BS              | F                     |
| Gasoline Range Organics       | 953J           | J           | ug/kg        | 6200          | 861  | SW846 8015D   | 2/15/17 08:50 DD  | 2/18/17 06:03 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 98.3           |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 02:00 VLM | 2/24/17 01:09 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 112            |             | %            | 72 - 134      |      | SW846 8015D   | 2/15/17 08:50 DD  | 2/18/17 06:03 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | 63.6           |             | ug/kg        | 10.6          | 4.9  | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.1           | 0.63 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 10.6          | 3.7  | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Benzene                       | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.1           | 0.76 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| 2-Butanone                    | ND             |             | ug/kg        | 10.6          | 3.4  | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 10.6          | 3.7  | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.1           | 0.67 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.1           | 0.54 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.1           | 0.54 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.1           | 0.72 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 5.3           | 0.90 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 2.1           | 0.56 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 2.1           | 0.59 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 5.3           | 3.1  | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.1           | 0.57 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.1           | 0.64 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.1           | 0.59 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |



## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873006**  
Sample ID: **CL-ISM-S-B3**

Date Collected: 2/15/2017 08:50 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 2.1           | 0.62 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 2.1           | 0.72 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 10.6          | 3.0  | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 10.6          | 4.0  | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Methylene Chloride          | 8.6            | 1,2,3       | ug/kg        | 2.1           | 0.83 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.1           | 0.60 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.1           | 0.64 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.1           | 0.71 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 6.4           | 1.5  | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.1           | 0.66 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.1           | 0.60 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.1           | 0.62 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.3           | 0.88 | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 75.7           |             | %            | 56 - 124      |      | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 82             |             | %            | 51 - 128      |      | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Dibromofluoromethane (S)    | 90.3           |             | %            | 62 - 123      |      | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| Toluene-d8 (S)              | 82.6           |             | %            | 59 - 131      |      | SW846 8260B   | 2/15/17 08:50 SYB | 2/17/17 09:52 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 54.1          | 6.5  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 54.1          | 7.6  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| Acetophenone                | ND             |             | ug/kg        | 108           | 8.7  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 54.1          | 8.7  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 108           | 11.9 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 216           | 18.4 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| Benzo(a)anthracene          | 9.4J           | J           | ug/kg        | 54.1          | 5.4  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 54.1          | 4.3  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 54.1          | 5.4  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 54.1          | 5.4  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873006**  
Sample ID: **CL-ISM-S-B3**

Date Collected: 2/15/2017 08:50 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 54.1 | 5.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 108  | 7.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 108  | 9.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| Butylbenzylphthalate        | 13.9J   | J    | ug/kg | 108  | 7.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 216  | 19.5 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 108  | 7.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 216  | 10.8 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 216  | 13.0 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 108  | 9.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 108  | 14.1 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 108  | 16.2 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 108  | 6.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 216  | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 108  | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 54.1 | 5.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 216  | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 216  | 11.9 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 108  | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 108  | 7.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 54.1 | 6.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 108  | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 216  | 41.1 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 216  | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 108  | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 216  | 16.2 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 108  | 7.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 216  | 43.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 108  | 9.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 108  | 13.0 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 108  | 53.0 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 108  | 7.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| Fluoranthene                | ND      |      | ug/kg | 54.1 | 5.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 54.1 | 6.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 108  | 11.9 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 108  | 10.8 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 216  | 11.9 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 108  | 9.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 54.1 | 7.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS | F    |



## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873006**  
Sample ID: **CL-ISM-S-B3**

Date Collected: 2/15/2017 08:50 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 108           | 6.5    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 216           | 28.1   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 108           | 5.4    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 54.1          | 6.5    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 216           | 13.0   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 216           | 21.6   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 216           | 8.7    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 108           | 13.0   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 216           | 11.9   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 216           | 15.1   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 108           | 8.7    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 108           | 8.7    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 216           | 28.1   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 54.1          | 5.4    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 216           | 10.8   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| Pyrene                         | ND             |             | ug/kg        | 54.1          | 5.4    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 108           | 7.6    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 216           | 13.0   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 216           | 13.0   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 216           | 13.0   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 79.3           |             | %            | 19 - 132      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 73.9           |             | %            | 40 - 110      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| 2-Fluorophenol (S)             | 67.7           |             | %            | 26 - 116      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 68.5           |             | %            | 38 - 112      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| Phenol-d5 (S)                  | 70.7           |             | %            | 35 - 111      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| Terphenyl-d14 (S)              | 73.7           |             | %            | 45 - 126      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 13:34 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.035         | 0.0032 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:13 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.035         | 0.0063 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:13 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.035         | 0.0032 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:13 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.035         | 0.0063 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:13 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.035         | 0.0095 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:13 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.035         | 0.0063 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:13 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.035         | 0.0063 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:13 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.035         | 0.0063 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:13 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.035         | 0.0074 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:13 | EGO             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873006**  
Sample ID: **CL-ISM-S-B3**

Date Collected: 2/15/2017 08:50 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.035         | 0.0095 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:13 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 98.1           |             | %            | 49 - 115      |        | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:13 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 99.1           |             | %            | 27 - 137      |        | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:13 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 9.0           | 2.9    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 9.0           | 0.79   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 9.0           | 0.95   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 9.0           | 0.69   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 9.0           | 0.74   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 9.0           | 0.95   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 9.0           | 1.5    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 17.4          | 1.4    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 17.4          | 2.4    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 17.4          | 2.0    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 17.4          | 2.0    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 9.0           | 1.1    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 17.4          | 3.6    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 17.4          | 1.2    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 17.4          | 1.3    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 17.4          | 1.9    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 17.4          | 2.4    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 9.0           | 0.90   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 9.0           | 0.90   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 17.4          | 2.3    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 185           | 30.6   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 68.1           |             | %            | 30 - 135      |        | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 65.5           |             | %            | 30 - 111      |        | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 16:51 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |        |               |                   |               |                 |                       |
| Moisture                    | 10.5           |             | %            | 0.1           | 0.01   | S2540G-11     |                   | 2/20/17 11:33 | VKB             | F                     |
| Total Solids                | 89.5           |             | %            | 0.1           | 0.01   | S2540G-11     |                   | 2/20/17 11:33 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |        |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.1           | 0.35   | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 05:03 | ZMC             | F1                    |
| Arsenic, Total              | 5.9            |             | mg/kg        | 1.6           | 0.54   | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 05:03 | ZMC             | F1                    |
| Beryllium, Total            | 0.51J          | J           | mg/kg        | 0.54          | 0.18   | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 05:03 | ZMC             | F1                    |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873006**  
Sample ID: **CL-ISM-S-B3**

Date Collected: 2/15/2017 08:50 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.54  | 0.18  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:03 | ZMC | F1   |
| Chromium, Total | 25.2    |      | mg/kg | 1.1   | 0.35  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:03 | ZMC | F1   |
| Copper, Total   | 10.8    |      | mg/kg | 2.7   | 0.86  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:03 | ZMC | F1   |
| Lead, Total     | 12.3    |      | mg/kg | 1.1   | 0.35  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:03 | ZMC | F1   |
| Mercury, Total  | 0.018J  | J    | mg/kg | 0.051 | 0.016 | SW846 7471B | 2/22/17 11:55 AXC | 2/23/17 12:18 | MNP | F2   |
| Nickel, Total   | 11.0    |      | mg/kg | 2.7   | 0.86  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:03 | ZMC | F1   |
| Selenium, Total | 2.0J    | J    | mg/kg | 2.7   | 0.86  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:03 | ZMC | F1   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.35  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:03 | ZMC | F1   |
| Thallium, Total | ND      |      | mg/kg | 0.54  | 0.18  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:03 | ZMC | F1   |
| Zinc, Total     | 33.0    |      | mg/kg | 2.7   | 0.86  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:03 | ZMC | F1   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873007**  
Sample ID: **CL-ISM-S-C2**

Date Collected: 2/15/2017 11:00 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 107            |             | mg/kg        | 12.5          | 2.9  | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 13:32 | BS              | F                     |
| Gasoline Range Organics       | ND             |             | ug/kg        | 8250          | 1150 | SW846 8015D   | 2/15/17 11:00 DD  | 2/18/17 06:36 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 89.3           |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 13:32 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 112            |             | %            | 72 - 134      |      | SW846 8015D   | 2/15/17 11:00 DD  | 2/18/17 06:36 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | ND             |             | ug/kg        | 10.1          | 4.6  | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.0           | 0.60 | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 10.1          | 3.5  | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| Benzene                       | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.0           | 0.72 | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 2.0           | 0.52 | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 2.0           | 0.52 | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| 2-Butanone                    | ND             |             | ug/kg        | 10.1          | 3.2  | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 10.1          | 3.5  | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.0           | 0.64 | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.0           | 0.51 | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.0           | 0.51 | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.0           | 0.69 | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 5.0           | 0.86 | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 2.0           | 0.54 | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 2.0           | 0.56 | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 5.0           | 2.9  | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.0           | 0.55 | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.0           | 0.52 | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.0           | 0.50 | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.0           | 0.52 | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.0           | 0.61 | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.0           | 0.56 | SW846 8260B   | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB             | B                     |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873007**  
Sample ID: **CL-ISM-S-C2**

Date Collected: 2/15/2017 11:00 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                 | Results | Flag | Units | RDL      | MDL  | Method      | Prepared By       | Analyzed      | By       | Cntr |      |
|----------------------------|---------|------|-------|----------|------|-------------|-------------------|---------------|----------|------|------|
| trans-1,3-Dichloropropene  | ND      |      | ug/kg | 2.0      | 0.59 | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| Diisopropyl ether          | ND      |      | ug/kg | 2.0      | 0.50 | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| Ethyl tert-butyl ether     | ND      |      | ug/kg | 2.0      | 0.52 | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| Ethylbenzene               | ND      |      | ug/kg | 2.0      | 0.69 | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| 2-Hexanone                 | ND      |      | ug/kg | 10.1     | 2.8  | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| Methyl t-Butyl Ether       | ND      |      | ug/kg | 2.0      | 0.50 | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| 4-Methyl-2-Pentanone(MIBK) | ND      |      | ug/kg | 10.1     | 3.8  | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| Methylene Chloride         | 7.3     | 1,2  | ug/kg | 2.0      | 0.79 | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| Naphthalene                | ND      |      | ug/kg | 2.0      | 0.50 | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| Styrene                    | ND      |      | ug/kg | 2.0      | 0.50 | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| 1,1,2,2-Tetrachloroethane  | ND      |      | ug/kg | 2.0      | 0.57 | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| Tetrachloroethene          | ND      |      | ug/kg | 2.0      | 0.61 | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| Toluene                    | ND      |      | ug/kg | 2.0      | 0.68 | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| Total Xylenes              | ND      |      | ug/kg | 6.1      | 1.4  | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| 1,1,1-Trichloroethane      | ND      |      | ug/kg | 2.0      | 0.63 | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| 1,1,2-Trichloroethane      | ND      |      | ug/kg | 2.0      | 0.57 | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| Trichloroethene            | ND      |      | ug/kg | 2.0      | 0.50 | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| Vinyl Chloride             | ND      |      | ug/kg | 2.0      | 0.50 | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| o-Xylene                   | ND      |      | ug/kg | 2.0      | 0.59 | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| mp-Xylene                  | ND      |      | ug/kg | 4.0      | 0.84 | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| Surrogate Recoveries       | Results | Flag | Units | Limits   |      | Method      | Prepared          | By            | Analyzed | By   | Cntr |
| 1,2-Dichloroethane-d4 (S)  | 77.9    |      | %     | 56 - 124 |      | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| 4-Bromofluorobenzene (S)   | 83      |      | %     | 51 - 128 |      | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| Dibromofluoromethane (S)   | 92.1    |      | %     | 62 - 123 |      | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| Toluene-d8 (S)             | 81.4    |      | %     | 59 - 131 |      | SW846 8260B | 2/15/17 11:00 SYB | 2/18/17 02:05 | SYB      | B    |      |
| SEMIVOLATILES              |         |      |       |          |      |             |                   |               |          |      |      |
| Acenaphthene               | ND      |      | ug/kg | 59.6     | 7.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS      | F    |      |
| Acenaphthylene             | ND      |      | ug/kg | 59.6     | 8.3  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS      | F    |      |
| Acetophenone               | ND      |      | ug/kg | 119      | 9.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS      | F    |      |
| Anthracene                 | ND      |      | ug/kg | 59.6     | 9.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS      | F    |      |
| Atrazine                   | ND      |      | ug/kg | 119      | 13.1 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS      | F    |      |
| Benzaldehyde               | ND      |      | ug/kg | 238      | 20.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS      | F    |      |
| Benzo(a)anthracene         | 8.0J    | J    | ug/kg | 59.6     | 6.0  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS      | F    |      |
| Benzo(a)pyrene             | ND      |      | ug/kg | 59.6     | 4.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS      | F    |      |
| Benzo(b)fluoranthene       | ND      |      | ug/kg | 59.6     | 6.0  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS      | F    |      |
| Benzo(g,h,i)perylene       | ND      |      | ug/kg | 59.6     | 6.0  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS      | F    |      |
| Benzo(k)fluoranthene       | ND      |      | ug/kg | 59.6     | 6.0  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS      | F    |      |



## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873007**  
Sample ID: **CL-ISM-S-C2**

Date Collected: 2/15/2017 11:00 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Biphenyl                    | ND      |      | ug/kg | 119  | 8.3  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 119  | 10.7 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| Butylbenzylphthalate        | ND      |      | ug/kg | 119  | 8.3  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 238  | 21.4 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 119  | 8.3  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 238  | 11.9 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 238  | 14.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 119  | 10.7 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 119  | 15.5 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 119  | 17.9 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 119  | 7.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 238  | 9.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 119  | 9.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 59.6 | 6.0  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 238  | 9.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 238  | 13.1 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 119  | 9.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 119  | 8.3  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 59.6 | 7.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 119  | 9.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 238  | 45.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 238  | 9.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 119  | 9.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 238  | 17.9 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 119  | 8.3  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 238  | 47.7 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 119  | 10.7 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 119  | 14.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 119  | 58.4 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 119  | 8.3  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| Fluoranthene                | ND      |      | ug/kg | 59.6 | 6.0  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 59.6 | 7.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 119  | 13.1 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 119  | 11.9 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 238  | 13.1 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 119  | 10.7 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 59.6 | 8.3  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |
| Isophorone                  | ND      |      | ug/kg | 119  | 7.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873007**  
Sample ID: **CL-ISM-S-C2**

Date Collected: 2/15/2017 11:00 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 238           | 31.0   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 119           | 6.0    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 59.6          | 7.1    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 238           | 14.3   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 238           | 23.8   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 238           | 9.5    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 119           | 14.3   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 238           | 13.1   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 238           | 16.7   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 119           | 9.5    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 119           | 9.5    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 238           | 31.0   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 59.6          | 6.0    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 238           | 11.9   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| Pyrene                         | ND             |             | ug/kg        | 59.6          | 6.0    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 119           | 8.3    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 238           | 14.3   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 238           | 14.3   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 238           | 14.3   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 69.4           |             | %            | 19 - 132      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 73.4           |             | %            | 40 - 110      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| 2-Fluorophenol (S)             | 63.3           |             | %            | 26 - 116      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 69             |             | %            | 38 - 112      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| Phenol-d5 (S)                  | 65.6           |             | %            | 35 - 111      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| Terphenyl-d14 (S)              | 81.7           |             | %            | 45 - 126      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:00 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.039         | 0.0036 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:25 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.039         | 0.0071 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:25 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.039         | 0.0036 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:25 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.039         | 0.0071 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:25 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.039         | 0.011  | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:25 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.039         | 0.0071 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:25 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.039         | 0.0071 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:25 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.039         | 0.0071 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:25 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.039         | 0.0083 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:25 | EGO             | F                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.039         | 0.011  | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:25 | EGO             | F                     |



## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873007**  
Sample ID: **CL-ISM-S-C2**

Date Collected: 2/15/2017 11:00 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By     | Analyzed  | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-----------------|-----------|-----------------|-----------------------|
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 100            |             | %            | 49 - 115      |      | SW846 8082A   | 2/23/17 00:15   | CMA       | 2/23/17 06:25   | EGO F                 |
| Tetrachloro-m-xylene (S)    | 101            |             | %            | 27 - 137      |      | SW846 8082A   | 2/23/17 00:15   | CMA       | 2/23/17 06:25   | EGO F                 |
| <b>PESTICIDES</b>           |                |             |              |               |      |               |                 |           |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 10.1          | 3.3  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| alpha-BHC                   | ND             |             | ug/kg        | 10.1          | 0.89 | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| beta-BHC                    | ND             |             | ug/kg        | 10.1          | 1.1  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| delta-BHC                   | ND             |             | ug/kg        | 10.1          | 0.77 | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| gamma-BHC                   | ND             |             | ug/kg        | 10.1          | 0.83 | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| alpha-Chlordane             | ND             |             | ug/kg        | 10.1          | 1.1  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| gamma-Chlordane             | ND             |             | ug/kg        | 10.1          | 1.7  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| 4,4'-DDD                    | ND             |             | ug/kg        | 19.5          | 1.6  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| 4,4'-DDE                    | ND             |             | ug/kg        | 19.5          | 2.7  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| 4,4'-DDT                    | ND             |             | ug/kg        | 19.5          | 2.2  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| Dieldrin                    | ND             |             | ug/kg        | 19.5          | 2.2  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| Endosulfan I                | ND             |             | ug/kg        | 10.1          | 1.2  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| Endosulfan II               | ND             |             | ug/kg        | 19.5          | 4.1  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 19.5          | 1.3  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| Endrin                      | ND             |             | ug/kg        | 19.5          | 1.4  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| Endrin Aldehyde             | ND             |             | ug/kg        | 19.5          | 2.1  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| Endrin Ketone               | ND             |             | ug/kg        | 19.5          | 2.7  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| Heptachlor                  | ND             |             | ug/kg        | 10.1          | 1.0  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 10.1          | 1.0  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| Methoxychlor                | ND             |             | ug/kg        | 19.5          | 2.6  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| Toxaphene                   | ND             |             | ug/kg        | 207           | 34.3 | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 62.3           |             | %            | 30 - 135      |      | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| Tetrachloro-m-xylene (S)    | 64.2           |             | %            | 30 - 111      |      | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:07   | RWS F                 |
| <b>WET CHEMISTRY</b>        |                |             |              |               |      |               |                 |           |                 |                       |
| Moisture                    | 17.2           |             | %            | 0.1           | 0.01 | S2540G-11     |                 |           | 2/20/17 11:33   | VKB F                 |
| Total Solids                | 82.8           |             | %            | 0.1           | 0.01 | S2540G-11     |                 |           | 2/20/17 11:33   | VKB F                 |
| <b>METALS</b>               |                |             |              |               |      |               |                 |           |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.2           | 0.38 | SW846 6020A   | 2/22/17 11:05   | TRR       | 2/23/17 05:06   | ZMC F1                |
| Arsenic, Total              | 10             |             | mg/kg        | 1.7           | 0.58 | SW846 6020A   | 2/22/17 11:05   | TRR       | 2/23/17 05:06   | ZMC F1                |
| Beryllium, Total            | 0.60           |             | mg/kg        | 0.58          | 0.19 | SW846 6020A   | 2/22/17 11:05   | TRR       | 2/23/17 05:06   | ZMC F1                |
| Cadmium, Total              | ND             |             | mg/kg        | 0.58          | 0.19 | SW846 6020A   | 2/22/17 11:05   | TRR       | 2/23/17 05:06   | ZMC F1                |

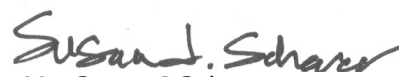
## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873007**  
Sample ID: **CL-ISM-S-C2**

Date Collected: 2/15/2017 11:00 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Chromium, Total | 28.6    |      | mg/kg | 1.2   | 0.38  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:06 | ZMC | F1   |
| Copper, Total   | 10.6    |      | mg/kg | 2.9   | 0.93  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:06 | ZMC | F1   |
| Lead, Total     | 12.0    |      | mg/kg | 1.2   | 0.38  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:06 | ZMC | F1   |
| Mercury, Total  | 0.032J  | J    | mg/kg | 0.057 | 0.018 | SW846 7471B | 2/22/17 11:55 AXC | 2/23/17 12:19 | MNP | F2   |
| Nickel, Total   | 7.2     |      | mg/kg | 2.9   | 0.93  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:06 | ZMC | F1   |
| Selenium, Total | 1.5J    | J    | mg/kg | 2.9   | 0.93  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:06 | ZMC | F1   |
| Silver, Total   | ND      |      | mg/kg | 1.2   | 0.38  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:06 | ZMC | F1   |
| Thallium, Total | ND      |      | mg/kg | 0.58  | 0.19  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:06 | ZMC | F1   |
| Zinc, Total     | 31.0    |      | mg/kg | 2.9   | 0.93  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:06 | ZMC | F1   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873008**  
Sample ID: **CL-ISM-S-C3**

Date Collected: 2/15/2017 09:50 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 65.0           |             | mg/kg        | 11.4          | 2.7  | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 14:09 | BS              | F                     |
| Gasoline Range Organics       | 2220J          | J           | ug/kg        | 6000          | 834  | SW846 8015D   | 2/15/17 09:50 DD  | 2/18/17 07:10 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 95.3           |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 14:09 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 110            |             | %            | 72 - 134      |      | SW846 8015D   | 2/15/17 09:50 DD  | 2/18/17 07:10 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | 16.3           |             | ug/kg        | 9.4           | 4.3  | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 1.9           | 0.55 | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 9.4           | 3.3  | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 1.9           | 0.47 | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| Benzene                       | ND             |             | ug/kg        | 1.9           | 0.47 | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 1.9           | 0.47 | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 1.9           | 0.67 | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 1.9           | 0.49 | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 1.9           | 0.49 | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| 2-Butanone                    | ND             |             | ug/kg        | 9.4           | 3.0  | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 9.4           | 3.3  | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 1.9           | 0.59 | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 1.9           | 0.64 | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 4.7           | 0.80 | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 1.9           | 0.50 | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 1.9           | 0.52 | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 4.7           | 2.7  | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 1.9           | 0.51 | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 1.9           | 0.47 | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 1.9           | 0.47 | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 1.9           | 0.49 | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 1.9           | 0.47 | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 1.9           | 0.49 | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 1.9           | 0.56 | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 1.9           | 0.52 | SW846 8260B   | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB             | B                     |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873008**  
Sample ID: **CL-ISM-S-C3**

Date Collected: 2/15/2017 09:50 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                 | Results | Flag | Units | RDL      | MDL  | Method      | Prepared By       | Analyzed      | By       | Cntr    |
|----------------------------|---------|------|-------|----------|------|-------------|-------------------|---------------|----------|---------|
| trans-1,3-Dichloropropene  | ND      |      | ug/kg | 1.9      | 0.55 | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| Diisopropyl ether          | ND      |      | ug/kg | 1.9      | 0.47 | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| Ethyl tert-butyl ether     | ND      |      | ug/kg | 1.9      | 0.49 | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| Ethylbenzene               | ND      |      | ug/kg | 1.9      | 0.64 | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| 2-Hexanone                 | ND      |      | ug/kg | 9.4      | 2.6  | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| Methyl t-Butyl Ether       | ND      |      | ug/kg | 1.9      | 0.47 | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| 4-Methyl-2-Pentanone(MIBK) | ND      |      | ug/kg | 9.4      | 3.6  | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| Methylene Chloride         | 14.5    | 1,2  | ug/kg | 1.9      | 0.73 | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| Naphthalene                | ND      |      | ug/kg | 1.9      | 0.47 | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| Styrene                    | ND      |      | ug/kg | 1.9      | 0.47 | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| 1,1,2,2-Tetrachloroethane  | ND      |      | ug/kg | 1.9      | 0.53 | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| Tetrachloroethene          | ND      |      | ug/kg | 1.9      | 0.56 | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| Toluene                    | ND      |      | ug/kg | 1.9      | 0.63 | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| Total Xylenes              | ND      |      | ug/kg | 5.6      | 1.3  | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| 1,1,1-Trichloroethane      | ND      |      | ug/kg | 1.9      | 0.58 | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| 1,1,2-Trichloroethane      | ND      |      | ug/kg | 1.9      | 0.53 | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| Trichloroethene            | ND      |      | ug/kg | 1.9      | 0.47 | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| Vinyl Chloride             | ND      |      | ug/kg | 1.9      | 0.47 | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| o-Xylene                   | ND      |      | ug/kg | 1.9      | 0.55 | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| mp-Xylene                  | ND      |      | ug/kg | 3.8      | 0.78 | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| Surrogate Recoveries       | Results | Flag | Units | Limits   |      | Method      | Prepared          | By            | Analyzed | By Cntr |
| 1,2-Dichloroethane-d4 (S)  | 77.7    |      | %     | 56 - 124 |      | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| 4-Bromofluorobenzene (S)   | 82.2    |      | %     | 51 - 128 |      | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| Dibromofluoromethane (S)   | 90.8    |      | %     | 62 - 123 |      | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| Toluene-d8 (S)             | 81.8    |      | %     | 59 - 131 |      | SW846 8260B | 2/15/17 09:50 SYB | 2/18/17 02:29 | SYB      | B       |
| SEMIVOLATILES              |         |      |       |          |      |             |                   |               |          |         |
| Acenaphthene               | ND      |      | ug/kg | 54.5     | 6.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS      | F       |
| Acenaphthylene             | ND      |      | ug/kg | 54.5     | 7.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS      | F       |
| Acetophenone               | ND      |      | ug/kg | 109      | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS      | F       |
| Anthracene                 | ND      |      | ug/kg | 54.5     | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS      | F       |
| Atrazine                   | ND      |      | ug/kg | 109      | 12.0 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS      | F       |
| Benzaldehyde               | ND      |      | ug/kg | 218      | 18.5 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS      | F       |
| Benzo(a)anthracene         | 7.8J    | J    | ug/kg | 54.5     | 5.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS      | F       |
| Benzo(a)pyrene             | ND      |      | ug/kg | 54.5     | 4.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS      | F       |
| Benzo(b)fluoranthene       | ND      |      | ug/kg | 54.5     | 5.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS      | F       |
| Benzo(g,h,i)perylene       | ND      |      | ug/kg | 54.5     | 5.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS      | F       |
| Benzo(k)fluoranthene       | ND      |      | ug/kg | 54.5     | 5.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS      | F       |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873008**  
Sample ID: **CL-ISM-S-C3**

Date Collected: 2/15/2017 09:50 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Biphenyl                    | ND      |      | ug/kg | 109  | 7.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 109  | 9.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| Butylbenzylphthalate        | 9.4J    | J    | ug/kg | 109  | 7.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 218  | 19.6 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 109  | 7.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 218  | 10.9 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 218  | 13.1 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 109  | 9.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 109  | 14.2 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 109  | 16.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 109  | 6.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 218  | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 109  | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 54.5 | 5.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 218  | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 218  | 12.0 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 109  | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 109  | 7.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 54.5 | 6.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 109  | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 218  | 41.4 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 218  | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 109  | 8.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 218  | 16.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 109  | 7.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 218  | 43.6 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 109  | 9.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 109  | 13.1 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 109  | 53.4 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 109  | 7.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| Fluoranthene                | ND      |      | ug/kg | 54.5 | 5.4  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 54.5 | 6.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 109  | 12.0 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 109  | 10.9 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 218  | 12.0 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 109  | 9.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 54.5 | 7.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |
| Isophorone                  | ND      |      | ug/kg | 109  | 6.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS | F    |



## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873008**  
Sample ID: **CL-ISM-S-C3**

Date Collected: 2/15/2017 09:50 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 218           | 28.3   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 109           | 5.4    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 54.5          | 6.5    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 218           | 13.1   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 218           | 21.8   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 218           | 8.7    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 109           | 13.1   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 218           | 12.0   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 218           | 15.3   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 109           | 8.7    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 109           | 8.7    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 218           | 28.3   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 54.5          | 5.4    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 218           | 10.9   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| Pyrene                         | 5.6J           | J           | ug/kg        | 54.5          | 5.4    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 109           | 7.6    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 218           | 13.1   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 218           | 13.1   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 218           | 13.1   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 79.4           |             | %            | 19 - 132      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 75.3           |             | %            | 40 - 110      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| 2-Fluorophenol (S)             | 71             |             | %            | 26 - 116      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 72.1           |             | %            | 38 - 112      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| Phenol-d5 (S)                  | 73.7           |             | %            | 35 - 111      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| Terphenyl-d14 (S)              | 77.5           |             | %            | 45 - 126      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:27 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.036         | 0.0033 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:37 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:37 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.036         | 0.0033 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:37 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:37 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.036         | 0.0098 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:37 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:37 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:37 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:37 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.036         | 0.0076 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:37 | EGO             | F                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.036         | 0.0098 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:37 | EGO             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873008**  
Sample ID: **CL-ISM-S-C3**

Date Collected: 2/15/2017 09:50 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By     | Analyzed  | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-----------------|-----------|-----------------|-----------------------|
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 103            |             | %            | 49 - 115      |      | SW846 8082A   | 2/23/17 00:15   | CMA       | 2/23/17 06:37   | EGO F                 |
| Tetrachloro-m-xylene (S)    | 94.6           |             | %            | 27 - 137      |      | SW846 8082A   | 2/23/17 00:15   | CMA       | 2/23/17 06:37   | EGO F                 |
| <b>PESTICIDES</b>           |                |             |              |               |      |               |                 |           |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 9.3           | 3.0  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| alpha-BHC                   | ND             |             | ug/kg        | 9.3           | 0.82 | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| beta-BHC                    | ND             |             | ug/kg        | 9.3           | 0.98 | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| delta-BHC                   | ND             |             | ug/kg        | 9.3           | 0.71 | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| gamma-BHC                   | ND             |             | ug/kg        | 9.3           | 0.76 | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| alpha-Chlordane             | ND             |             | ug/kg        | 9.3           | 0.98 | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| gamma-Chlordane             | ND             |             | ug/kg        | 9.3           | 1.6  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| 4,4'-DDD                    | ND             |             | ug/kg        | 18.0          | 1.5  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| 4,4'-DDE                    | ND             |             | ug/kg        | 18.0          | 2.5  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| 4,4'-DDT                    | ND             |             | ug/kg        | 18.0          | 2.1  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| Dieldrin                    | ND             |             | ug/kg        | 18.0          | 2.1  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| Endosulfan I                | ND             |             | ug/kg        | 9.3           | 1.1  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| Endosulfan II               | ND             |             | ug/kg        | 18.0          | 3.8  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 18.0          | 1.2  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| Endrin                      | ND             |             | ug/kg        | 18.0          | 1.3  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| Endrin Aldehyde             | ND             |             | ug/kg        | 18.0          | 2.0  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| Endrin Ketone               | ND             |             | ug/kg        | 18.0          | 2.5  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| Heptachlor                  | ND             |             | ug/kg        | 9.3           | 0.93 | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 9.3           | 0.93 | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| Methoxychlor                | ND             |             | ug/kg        | 18.0          | 2.4  | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| Toxaphene                   | ND             |             | ug/kg        | 191           | 31.6 | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i> | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 70.2           |             | %            | 30 - 135      |      | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| Tetrachloro-m-xylene (S)    | 61.2           |             | %            | 30 - 111      |      | SW846 8081B   | 2/23/17 00:15   | CMA       | 2/23/17 17:22   | RWS F                 |
| <b>WET CHEMISTRY</b>        |                |             |              |               |      |               |                 |           |                 |                       |
| Moisture                    | 11.8           |             | %            | 0.1           | 0.01 | S2540G-11     |                 |           | 2/20/17 11:33   | VKB F                 |
| Total Solids                | 88.2           |             | %            | 0.1           | 0.01 | S2540G-11     |                 |           | 2/20/17 11:33   | VKB F                 |
| <b>METALS</b>               |                |             |              |               |      |               |                 |           |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.1           | 0.36 | SW846 6020A   | 2/22/17 11:05   | TRR       | 2/23/17 05:10   | ZMC F1                |
| Arsenic, Total              | 3.3            |             | mg/kg        | 1.6           | 0.54 | SW846 6020A   | 2/22/17 11:05   | TRR       | 2/23/17 05:10   | ZMC F1                |
| Beryllium, Total            | 0.24J          | J           | mg/kg        | 0.54          | 0.18 | SW846 6020A   | 2/22/17 11:05   | TRR       | 2/23/17 05:10   | ZMC F1                |
| Cadmium, Total              | ND             |             | mg/kg        | 0.54          | 0.18 | SW846 6020A   | 2/22/17 11:05   | TRR       | 2/23/17 05:10   | ZMC F1                |



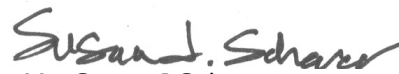
## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873008**  
Sample ID: **CL-ISM-S-C3**

Date Collected: 2/15/2017 09:50 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Chromium, Total | 12.8    |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:10 | ZMC | F1   |
| Copper, Total   | 4.6     |      | mg/kg | 2.7   | 0.87  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:10 | ZMC | F1   |
| Lead, Total     | 6.2     |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:10 | ZMC | F1   |
| Mercury, Total  | 0.034J  | J    | mg/kg | 0.052 | 0.017 | SW846 7471B | 2/22/17 11:55 AXC | 2/23/17 12:23 | MNP | F2   |
| Nickel, Total   | 4.0     |      | mg/kg | 2.7   | 0.87  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:10 | ZMC | F1   |
| Selenium, Total | ND      |      | mg/kg | 2.7   | 0.87  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:10 | ZMC | F1   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:10 | ZMC | F1   |
| Thallium, Total | ND      |      | mg/kg | 0.54  | 0.18  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:10 | ZMC | F1   |
| Zinc, Total     | 14.1    |      | mg/kg | 2.7   | 0.87  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:10 | ZMC | F1   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873009**  
Sample ID: **CL-ISM-S-D3**

Date Collected: 2/15/2017 10:30 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                  | Results | Flag | Units | RDL | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|-----|------|-------------|-------------------|---------------|-----|------|
| <b>VOLATILE ORGANICS</b>    |         |      |       |     |      |             |                   |               |     |      |
| Acetone                     | 27.6    |      | ug/kg | 9.5 | 4.4  | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| tert-Amyl methyl ether      | ND      |      | ug/kg | 1.9 | 0.56 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| tert-Amyl Alcohol           | ND      |      | ug/kg | 9.5 | 3.3  | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| tert-Amyl Ethylether        | ND      |      | ug/kg | 1.9 | 0.47 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| Benzene                     | ND      |      | ug/kg | 1.9 | 0.47 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| Bromochloromethane          | ND      |      | ug/kg | 1.9 | 0.47 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| Bromodichloromethane        | ND      |      | ug/kg | 1.9 | 0.67 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| Bromoform                   | ND      |      | ug/kg | 1.9 | 0.49 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| Bromomethane                | ND      |      | ug/kg | 1.9 | 0.49 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| 2-Butanone                  | ND      |      | ug/kg | 9.5 | 3.0  | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| tert-Butyl Alcohol          | ND      |      | ug/kg | 9.5 | 3.3  | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| Carbon Disulfide            | ND      |      | ug/kg | 1.9 | 0.60 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| Carbon Tetrachloride        | ND      |      | ug/kg | 1.9 | 0.48 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| Chlorobenzene               | ND      |      | ug/kg | 1.9 | 0.48 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| Chlorodibromomethane        | ND      |      | ug/kg | 1.9 | 0.64 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| Chloroethane                | ND      |      | ug/kg | 4.7 | 0.80 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| Chloroform                  | ND      |      | ug/kg | 1.9 | 0.50 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| Chloromethane               | ND      |      | ug/kg | 1.9 | 0.52 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| 1,2-Dibromo-3-chloropropane | ND      |      | ug/kg | 4.7 | 2.7  | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| 1,2-Dibromoethane           | ND      |      | ug/kg | 1.9 | 0.51 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| 1,1-Dichloroethane          | ND      |      | ug/kg | 1.9 | 0.47 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| 1,2-Dichloroethane          | ND      |      | ug/kg | 1.9 | 0.47 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| 1,1-Dichloroethene          | ND      |      | ug/kg | 1.9 | 0.49 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| cis-1,2-Dichloroethene      | ND      |      | ug/kg | 1.9 | 0.47 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| trans-1,2-Dichloroethene    | ND      |      | ug/kg | 1.9 | 0.49 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| 1,2-Dichloropropane         | ND      |      | ug/kg | 1.9 | 0.57 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| cis-1,3-Dichloropropene     | ND      |      | ug/kg | 1.9 | 0.52 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| trans-1,3-Dichloropropene   | ND      |      | ug/kg | 1.9 | 0.55 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| Diisopropyl ether           | ND      |      | ug/kg | 1.9 | 0.47 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| Ethyl tert-butyl ether      | ND      |      | ug/kg | 1.9 | 0.49 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| Ethylbenzene                | ND      |      | ug/kg | 1.9 | 0.64 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| 2-Hexanone                  | ND      |      | ug/kg | 9.5 | 2.6  | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| Methyl t-Butyl Ether        | ND      |      | ug/kg | 1.9 | 0.47 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| 4-Methyl-2-Pentanone(MIBK)  | ND      |      | ug/kg | 9.5 | 3.6  | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| Methylene Chloride          | 11.4    | 1,2  | ug/kg | 1.9 | 0.74 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |
| Naphthalene                 | ND      |      | ug/kg | 1.9 | 0.47 | SW846 8260B | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB | B    |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873009**  
Sample ID: **CL-ISM-S-D3**

Date Collected: 2/15/2017 10:30 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| Styrene                     | ND             |             | ug/kg        | 1.9           | 0.47 | SW846 8260B   | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 1.9           | 0.53 | SW846 8260B   | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 1.9           | 0.57 | SW846 8260B   | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 1.9           | 0.63 | SW846 8260B   | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 5.7           | 1.3  | SW846 8260B   | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 1.9           | 0.59 | SW846 8260B   | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 1.9           | 0.53 | SW846 8260B   | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 1.9           | 0.47 | SW846 8260B   | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 1.9           | 0.47 | SW846 8260B   | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 1.9           | 0.55 | SW846 8260B   | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 3.8           | 0.79 | SW846 8260B   | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 75.3           |             | %            | 56 - 124      |      | SW846 8260B   | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 82.4           |             | %            | 51 - 128      |      | SW846 8260B   | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB             | B                     |
| Dibromofluoromethane (S)    | 90.8           |             | %            | 62 - 123      |      | SW846 8260B   | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB             | B                     |
| Toluene-d8 (S)              | 82.1           |             | %            | 59 - 131      |      | SW846 8260B   | 2/15/17 10:30 SYB | 2/18/17 02:52 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 51.2          | 6.1  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 51.2          | 7.2  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| Acetophenone                | ND             |             | ug/kg        | 102           | 8.2  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 51.2          | 8.2  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 102           | 11.3 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 205           | 17.4 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| Benzo(a)anthracene          | 7.0J           | J           | ug/kg        | 51.2          | 5.1  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 51.2          | 4.1  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 51.2          | 5.1  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 51.2          | 5.1  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| Benzo(k)fluoranthene        | ND             |             | ug/kg        | 51.2          | 5.1  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| Biphenyl                    | ND             |             | ug/kg        | 102           | 7.2  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| 4-Bromophenyl-phenylether   | ND             |             | ug/kg        | 102           | 9.2  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| Butylbenzylphthalate        | ND             |             | ug/kg        | 102           | 7.2  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| Caprolactam                 | ND             |             | ug/kg        | 205           | 18.4 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| Carbazole                   | ND             |             | ug/kg        | 102           | 7.2  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| 4-Chloro-3-methylphenol     | ND             |             | ug/kg        | 205           | 10.2 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| 4-Chloroaniline             | ND             |             | ug/kg        | 205           | 12.3 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| bis(2-Chloroethoxy)methane  | ND             |             | ug/kg        | 102           | 9.2  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| bis(2-Chloroethyl)ether     | ND             |             | ug/kg        | 102           | 13.3 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873009**  
Sample ID: **CL-ISM-S-D3**

Date Collected: 2/15/2017 10:30 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 102  | 15.4 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 102  | 6.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 205  | 8.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 102  | 8.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 51.2 | 5.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 205  | 8.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 205  | 11.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 102  | 8.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 102  | 7.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 51.2 | 6.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 102  | 8.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 205  | 38.9 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 205  | 8.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 102  | 8.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 205  | 15.4 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 102  | 7.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 205  | 41.0 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 102  | 9.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 102  | 12.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 102  | 50.2 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 102  | 7.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| Fluoranthene                | ND      |      | ug/kg | 51.2 | 5.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 51.2 | 6.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 102  | 11.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 102  | 10.2 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 205  | 11.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 102  | 9.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 51.2 | 7.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| Isophorone                  | ND      |      | ug/kg | 102  | 6.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| 2-Methyl-4,6-dinitrophenol  | ND      |      | ug/kg | 205  | 26.6 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| 2-Methylnaphthalene         | ND      |      | ug/kg | 102  | 5.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| Naphthalene                 | ND      |      | ug/kg | 51.2 | 6.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| 2-Nitroaniline              | ND      |      | ug/kg | 205  | 12.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| 3-Nitroaniline              | ND      |      | ug/kg | 205  | 20.5 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| 4-Nitroaniline              | ND      |      | ug/kg | 205  | 8.2  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| Nitrobenzene                | ND      |      | ug/kg | 102  | 12.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| 2-Nitrophenol               | ND      |      | ug/kg | 205  | 11.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |
| 4-Nitrophenol               | ND      |      | ug/kg | 205  | 14.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873009**  
Sample ID: **CL-ISM-S-D3**

Date Collected: 2/15/2017 10:30 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 102           | 8.2    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 102           | 8.2    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 205           | 26.6   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 51.2          | 5.1    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 205           | 10.2   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| Pyrene                         | ND             |             | ug/kg        | 51.2          | 5.1    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 102           | 7.2    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 205           | 12.3   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 205           | 12.3   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 205           | 12.3   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 78.2           |             | %            | 19 - 132      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 78.3           |             | %            | 40 - 110      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| 2-Fluorophenol (S)             | 68.6           |             | %            | 26 - 116      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 72.4           |             | %            | 38 - 112      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| Phenol-d5 (S)                  | 74             |             | %            | 35 - 111      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| Terphenyl-d14 (S)              | 73.9           |             | %            | 45 - 126      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 14:53 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.033         | 0.0030 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:48 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.033         | 0.0060 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:48 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.033         | 0.0030 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:48 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.033         | 0.0060 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:48 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.033         | 0.0090 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:48 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.033         | 0.0060 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:48 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.033         | 0.0060 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:48 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.033         | 0.0060 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:48 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.033         | 0.0070 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:48 | EGO             | F                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.033         | 0.0090 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:48 | EGO             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)        | 101            |             | %            | 49 - 115      |        | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:48 | EGO             | F                     |
| Tetrachloro-m-xylene (S)       | 96.8           |             | %            | 27 - 137      |        | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 06:48 | EGO             | F                     |
| <b>PESTICIDES</b>              |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                         | ND             |             | ug/kg        | 8.5           | 2.8    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |
| alpha-BHC                      | ND             |             | ug/kg        | 8.5           | 0.75   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |
| beta-BHC                       | ND             |             | ug/kg        | 8.5           | 0.90   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |
| delta-BHC                      | ND             |             | ug/kg        | 8.5           | 0.65   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |



## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873009**  
Sample ID: **CL-ISM-S-D3**

Date Collected: 2/15/2017 10:30 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| gamma-BHC                     | ND             |             | ug/kg        | 8.5           | 0.70 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |
| alpha-Chlordane               | ND             |             | ug/kg        | 8.5           | 0.90 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |
| gamma-Chlordane               | ND             |             | ug/kg        | 8.5           | 1.5  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |
| 4,4'-DDD                      | ND             |             | ug/kg        | 16.6          | 1.4  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |
| 4,4'-DDE                      | ND             |             | ug/kg        | 16.6          | 2.3  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |
| 4,4'-DDT                      | ND             |             | ug/kg        | 16.6          | 1.9  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |
| Dieldrin                      | ND             |             | ug/kg        | 16.6          | 1.9  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |
| Endosulfan I                  | ND             |             | ug/kg        | 8.5           | 1.1  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |
| Endosulfan II                 | ND             |             | ug/kg        | 16.6          | 3.5  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |
| Endosulfan Sulfate            | ND             |             | ug/kg        | 16.6          | 1.1  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |
| Endrin                        | ND             |             | ug/kg        | 16.6          | 1.2  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |
| Endrin Aldehyde               | ND             |             | ug/kg        | 16.6          | 1.8  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |
| Endrin Ketone                 | ND             |             | ug/kg        | 16.6          | 2.3  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |
| Heptachlor                    | ND             |             | ug/kg        | 8.5           | 0.85 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |
| Heptachlor Epoxide            | ND             |             | ug/kg        | 8.5           | 0.85 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |
| Methoxychlor                  | ND             |             | ug/kg        | 16.6          | 2.2  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |
| Toxaphene                     | ND             |             | ug/kg        | 176           | 29.2 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)       | 58             |             | %            | 30 - 135      |      | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |
| Tetrachloro-m-xylene (S)      | 62.8           |             | %            | 30 - 111      |      | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:38 | RWS             | F                     |
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 27.5           |             | mg/kg        | 10.7          | 2.5  | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 14:46 | BS              | F                     |
| Gasoline Range Organics       | 1190J          | J           | ug/kg        | 5300          | 737  | SW846 8015D   | 2/15/17 10:30 DD  | 2/21/17 01:58 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 94.1           |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 14:46 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 114            |             | %            | 72 - 134      |      | SW846 8015D   | 2/15/17 10:30 DD  | 2/21/17 01:58 | DD              | D                     |
| <b>WET CHEMISTRY</b>          |                |             |              |               |      |               |                   |               |                 |                       |
| Moisture                      | 5.0            |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/20/17 11:33 | VKB             | F                     |
| Total Solids                  | 95.0           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/20/17 11:33 | VKB             | F                     |
| <b>METALS</b>                 |                |             |              |               |      |               |                   |               |                 |                       |
| Antimony, Total               | ND             |             | mg/kg        | 1.0           | 0.33 | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 05:14 | ZMC             | F1                    |
| Arsenic, Total                | 4.1            |             | mg/kg        | 1.5           | 0.51 | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 05:14 | ZMC             | F1                    |
| Beryllium, Total              | ND             |             | mg/kg        | 0.51          | 0.17 | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 05:14 | ZMC             | F1                    |
| Cadmium, Total                | ND             |             | mg/kg        | 0.51          | 0.17 | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 05:14 | ZMC             | F1                    |

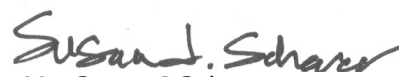
## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

Lab ID: **2208873009**  
Sample ID: **CL-ISM-S-D3**

Date Collected: 2/15/2017 10:30 Matrix: Solid  
Date Received: 2/15/2017 21:15

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Chromium, Total | 13.4    |      | mg/kg | 1.0   | 0.33  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:14 | ZMC | F1   |
| Copper, Total   | 5.6     |      | mg/kg | 2.5   | 0.81  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:14 | ZMC | F1   |
| Lead, Total     | 3.2     |      | mg/kg | 1.0   | 0.33  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:14 | ZMC | F1   |
| Mercury, Total  | ND      |      | mg/kg | 0.048 | 0.015 | SW846 7471B | 2/22/17 11:55 AXC | 2/23/17 12:24 | MNP | F2   |
| Nickel, Total   | 1.9J    | J    | mg/kg | 2.5   | 0.81  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:14 | ZMC | F1   |
| Selenium, Total | 0.91J   | J    | mg/kg | 2.5   | 0.81  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:14 | ZMC | F1   |
| Silver, Total   | ND      |      | mg/kg | 1.0   | 0.33  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:14 | ZMC | F1   |
| Thallium, Total | ND      |      | mg/kg | 0.51  | 0.17  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:14 | ZMC | F1   |
| Zinc, Total     | 5.4     |      | mg/kg | 2.5   | 0.81  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:14 | ZMC | F1   |

  
Ms. Susan J Scherer  
Project Coordinator



**PARAMETER QUALIFIERS**

| Lab ID                                                                                                                                                                                           | # | Sample ID   | Analytical Method | Analyte                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|-------------------|-------------------------|
| <b>2208873001</b>                                                                                                                                                                                | 1 | TB-05       | SW846 8260B       | cis-1,3-Dichloropropene |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte cis-1,3-Dichloropropene. The % Recovery was reported as 78.8 and the control limits were 81 to 121. |   |             |                   |                         |
| <b>2208873002</b>                                                                                                                                                                                | 1 | CL-ISM-S-A2 | SW846 8260B       | Methylene Chloride      |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                    |   |             |                   |                         |
| <b>2208873002</b>                                                                                                                                                                                | 2 | CL-ISM-S-A2 | SW846 8260B       | Methylene Chloride      |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 148 and the control limits were 68 to 133.       |   |             |                   |                         |
| <b>2208873002</b>                                                                                                                                                                                | 3 | CL-ISM-S-A2 | SW846 8260B       | Methylene Chloride      |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 140 and the control limits were 68 to 133.      |   |             |                   |                         |
| <b>2208873003</b>                                                                                                                                                                                | 1 | CL-ISM-S-A3 | SW846 8260B       | Methylene Chloride      |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                    |   |             |                   |                         |
| <b>2208873003</b>                                                                                                                                                                                | 2 | CL-ISM-S-A3 | SW846 8260B       | Methylene Chloride      |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 148 and the control limits were 68 to 133.       |   |             |                   |                         |
| <b>2208873003</b>                                                                                                                                                                                | 3 | CL-ISM-S-A3 | SW846 8260B       | Methylene Chloride      |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 140 and the control limits were 68 to 133.      |   |             |                   |                         |
| <b>2208873004</b>                                                                                                                                                                                | 1 | CL-ISM-S-B1 | SW846 8260B       | Methylene Chloride      |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                    |   |             |                   |                         |
| <b>2208873004</b>                                                                                                                                                                                | 2 | CL-ISM-S-B1 | SW846 8260B       | Methylene Chloride      |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 148 and the control limits were 68 to 133.       |   |             |                   |                         |
| <b>2208873004</b>                                                                                                                                                                                | 3 | CL-ISM-S-B1 | SW846 8260B       | Methylene Chloride      |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 140 and the control limits were 68 to 133.      |   |             |                   |                         |
| <b>2208873005</b>                                                                                                                                                                                | 1 | CL-ISM-S-B2 | SW846 8260B       | Methylene Chloride      |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                    |   |             |                   |                         |
| <b>2208873005</b>                                                                                                                                                                                | 2 | CL-ISM-S-B2 | SW846 8260B       | Methylene Chloride      |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 148 and the control limits were 68 to 133.       |   |             |                   |                         |
| <b>2208873005</b>                                                                                                                                                                                | 3 | CL-ISM-S-B2 | SW846 8260B       | Methylene Chloride      |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 140 and the control limits were 68 to 133.      |   |             |                   |                         |
| <b>2208873006</b>                                                                                                                                                                                | 1 | CL-ISM-S-B3 | SW846 8260B       | Methylene Chloride      |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                    |   |             |                   |                         |
| <b>2208873006</b>                                                                                                                                                                                | 2 | CL-ISM-S-B3 | SW846 8260B       | Methylene Chloride      |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 148 and the control limits were 68 to 133.       |   |             |                   |                         |
| <b>2208873006</b>                                                                                                                                                                                | 3 | CL-ISM-S-B3 | SW846 8260B       | Methylene Chloride      |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 140 and the control limits were 68 to 133.      |   |             |                   |                         |
| <b>2208873007</b>                                                                                                                                                                                | 1 | CL-ISM-S-C2 | SW846 8260B       | Methylene Chloride      |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                    |   |             |                   |                         |
| <b>2208873007</b>                                                                                                                                                                                | 2 | CL-ISM-S-C2 | SW846 8260B       | Methylene Chloride      |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 135 and the control limits were 68 to 133.       |   |             |                   |                         |

## ANALYTICAL RESULTS

Workorder: 2208873 Chase Lands Phase II

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|                   |   |             |             |                    |
|-------------------|---|-------------|-------------|--------------------|
| <b>2208873008</b> | 1 | CL-ISM-S-C3 | SW846 8260B | Methylene Chloride |
|-------------------|---|-------------|-------------|--------------------|

The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.

|                   |   |             |             |                    |
|-------------------|---|-------------|-------------|--------------------|
| <b>2208873008</b> | 2 | CL-ISM-S-C3 | SW846 8260B | Methylene Chloride |
|-------------------|---|-------------|-------------|--------------------|

The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 135 and the control limits were 68 to 133.

|                   |   |             |             |                    |
|-------------------|---|-------------|-------------|--------------------|
| <b>2208873009</b> | 1 | CL-ISM-S-D3 | SW846 8260B | Methylene Chloride |
|-------------------|---|-------------|-------------|--------------------|

The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.

|                   |   |             |             |                    |
|-------------------|---|-------------|-------------|--------------------|
| <b>2208873009</b> | 2 | CL-ISM-S-D3 | SW846 8260B | Methylene Chloride |
|-------------------|---|-------------|-------------|--------------------|

The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 135 and the control limits were 68 to 133.

## QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

**QC Batch:** EXTR/46803

**Analysis Method:** SW846 8270D

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2208873002, 2208873003, 2208873004, 2208873005, 2208873006, 2208873007, 2208873008, 2208873009

METHOD BLANK: 2489359

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acenaphthene                | ND           | ug/kg | 50.0            |
| Acenaphthylene              | ND           | ug/kg | 50.0            |
| Acetophenone                | ND           | ug/kg | 100             |
| Anthracene                  | ND           | ug/kg | 50.0            |
| Atrazine                    | ND           | ug/kg | 100             |
| Benzaldehyde                | ND           | ug/kg | 200             |
| Benzo(a)anthracene          | ND           | ug/kg | 50.0            |
| Benzo(a)pyrene              | ND           | ug/kg | 50.0            |
| Benzo(b)fluoranthene        | ND           | ug/kg | 50.0            |
| Benzo(g,h,i)perylene        | ND           | ug/kg | 50.0            |
| Benzo(k)fluoranthene        | ND           | ug/kg | 50.0            |
| Biphenyl                    | ND           | ug/kg | 100             |
| 4-Bromophenyl-phenylether   | ND           | ug/kg | 100             |
| Butylbenzylphthalate        | ND           | ug/kg | 100             |
| Caprolactam                 | ND           | ug/kg | 200             |
| Carbazole                   | ND           | ug/kg | 100             |
| 4-Chloro-3-methylphenol     | ND           | ug/kg | 200             |
| 4-Chloroaniline             | ND           | ug/kg | 200             |
| bis(2-Chloroethoxy)methane  | ND           | ug/kg | 100             |
| bis(2-Chloroethyl)ether     | ND           | ug/kg | 100             |
| bis(2-Chloroisopropyl)ether | ND           | ug/kg | 100             |
| 2-Chloronaphthalene         | ND           | ug/kg | 200             |
| 2-Chlorophenol              | ND           | ug/kg | 200             |
| 4-Chlorophenyl-phenylether  | ND           | ug/kg | 100             |
| Chrysene                    | ND           | ug/kg | 50.0            |
| mp-Cresol                   | ND           | ug/kg | 200             |
| o-Cresol                    | ND           | ug/kg | 200             |
| Di-n-Butylphthalate         | ND           | ug/kg | 100             |
| Di-n-Octylphthalate         | ND           | ug/kg | 100             |
| Dibenzo(a,h)anthracene      | ND           | ug/kg | 50.0            |
| Dibenzofuran                | ND           | ug/kg | 100             |
| 3,3-Dichlorobenzidine       | ND           | ug/kg | 200             |
| 2,4-Dichlorophenol          | ND           | ug/kg | 200             |
| Diethylphthalate            | ND           | ug/kg | 100             |
| 2,4-Dimethylphenol          | ND           | ug/kg | 200             |
| Dimethylphthalate           | ND           | ug/kg | 100             |
| 2,4-Dinitrophenol           | ND           | ug/kg | 200             |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

|                            |      |       |          |
|----------------------------|------|-------|----------|
| 2,4-Dinitrotoluene         | ND   | ug/kg | 100      |
| 2,6-Dinitrotoluene         | ND   | ug/kg | 100      |
| 1,4-Dioxane                | ND   | ug/kg | 100      |
| bis(2-Ethylhexyl)phthalate | ND   | ug/kg | 100      |
| Fluoranthene               | ND   | ug/kg | 50.0     |
| Fluorene                   | ND   | ug/kg | 50.0     |
| Hexachlorobenzene          | ND   | ug/kg | 100      |
| Hexachlorobutadiene        | ND   | ug/kg | 100      |
| Hexachlorocyclopentadiene  | ND   | ug/kg | 200      |
| Hexachloroethane           | ND   | ug/kg | 100      |
| Indeno(1,2,3-cd)pyrene     | ND   | ug/kg | 50.0     |
| Isophorone                 | ND   | ug/kg | 100      |
| 2-Methyl-4,6-dinitrophenol | ND   | ug/kg | 200      |
| 2-Methylnaphthalene        | ND   | ug/kg | 100      |
| Naphthalene                | ND   | ug/kg | 50.0     |
| 2-Nitroaniline             | ND   | ug/kg | 200      |
| 3-Nitroaniline             | ND   | ug/kg | 200      |
| 4-Nitroaniline             | ND   | ug/kg | 200      |
| Nitrobenzene               | ND   | ug/kg | 100      |
| 2-Nitrophenol              | ND   | ug/kg | 200      |
| 4-Nitrophenol              | ND   | ug/kg | 200      |
| N-Nitroso-di-n-propylamine | ND   | ug/kg | 100      |
| N-Nitrosodiphenylamine     | ND   | ug/kg | 100      |
| Pentachlorophenol          | ND   | ug/kg | 200      |
| Phenanthrene               | ND   | ug/kg | 50.0     |
| Phenol                     | ND   | ug/kg | 200      |
| Pyrene                     | ND   | ug/kg | 50.0     |
| 1,2,4,5-Tetrachlorobenzene | ND   | ug/kg | 100      |
| 2,3,4,6-Tetrachlorophenol  | ND   | ug/kg | 200      |
| 2,4,5-Trichlorophenol      | ND   | ug/kg | 200      |
| 2,4,6-Trichlorophenol      | ND   | ug/kg | 200      |
| 2,4,6-Tribromophenol (S)   | 85   | %     | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 84   | %     | 40 - 110 |
| 2-Fluorophenol (S)         | 79.5 | %     | 26 - 116 |
| Nitrobenzene-d5 (S)        | 80   | %     | 38 - 112 |
| Phenol-d5 (S)              | 82.2 | %     | 35 - 111 |
| Terphenyl-d14 (S)          | 82.6 | %     | 45 - 126 |

#### LABORATORY CONTROL SAMPLE: 2489360

| Parameter      | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | % Rec<br>Limit |
|----------------|--------------|-------|----------------|---------------|----------------|
| Acenaphthene   | 86.5         | ug/kg | 3330           | 2880          | 59 - 115       |
| Acenaphthylene | 88.1         | ug/kg | 3330           | 2940          | 59 - 114       |
| Acetophenone   | 51.3         | ug/kg | 3330           | 1710          | 45 - 87        |
| Anthracene     | 86.6         | ug/kg | 3330           | 2890          | 63 - 112       |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

|                             |      |       |      |      |          |
|-----------------------------|------|-------|------|------|----------|
| Atrazine                    | 83.2 | ug/kg | 3330 | 2770 | 54 - 128 |
| Benzaldehyde                | 69.6 | ug/kg | 3330 | 2320 | 52 - 108 |
| Benzo(a)anthracene          | 87.5 | ug/kg | 3330 | 2920 | 61 - 118 |
| Benzo(a)pyrene              | 87.3 | ug/kg | 3330 | 2910 | 61 - 114 |
| Benzo(b)fluoranthene        | 88.8 | ug/kg | 3330 | 2960 | 64 - 113 |
| Benzo(g,h,i)perylene        | 90.9 | ug/kg | 3330 | 3030 | 61 - 118 |
| Benzo(k)fluoranthene        | 86.9 | ug/kg | 3330 | 2900 | 62 - 113 |
| Biphenyl                    | 81.8 | ug/kg | 3330 | 2730 | 60 - 111 |
| 4-Bromophenyl-phenylether   | 95.1 | ug/kg | 3330 | 3170 | 60 - 111 |
| Butylbenzylphthalate        | 84.7 | ug/kg | 3330 | 2820 | 56 - 126 |
| Caprolactam                 | 89.3 | ug/kg | 3330 | 2980 | 38 - 129 |
| Carbazole                   | 88.5 | ug/kg | 3330 | 2950 | 65 - 117 |
| 4-Chloro-3-methylphenol     | 89.7 | ug/kg | 6670 | 5980 | 65 - 118 |
| 4-Chloroaniline             | 74.6 | ug/kg | 3330 | 2490 | 21 - 115 |
| bis(2-Chloroethoxy)methane  | 88.2 | ug/kg | 3330 | 2940 | 56 - 108 |
| bis(2-Chloroethyl)ether     | 85.6 | ug/kg | 3330 | 2850 | 51 - 105 |
| bis(2-Chloroisopropyl)ether | 82.7 | ug/kg | 3330 | 2760 | 34 - 126 |
| 2-Chloronaphthalene         | 82.6 | ug/kg | 3330 | 2750 | 55 - 111 |
| 2-Chlorophenol              | 86.3 | ug/kg | 6670 | 5750 | 61 - 111 |
| 4-Chlorophenyl-phenylether  | 88.9 | ug/kg | 3330 | 2960 | 58 - 112 |
| Chrysene                    | 92.2 | ug/kg | 3330 | 3070 | 63 - 111 |
| mp-Cresol                   | 86.6 | ug/kg | 6670 | 5770 | 60 - 112 |
| o-Cresol                    | 84.3 | ug/kg | 6670 | 5620 | 62 - 113 |
| Di-n-Butylphthalate         | 89.2 | ug/kg | 3330 | 2970 | 58 - 118 |
| Di-n-Octylphthalate         | 74.9 | ug/kg | 3330 | 2500 | 45 - 128 |
| Dibenzo(a,h)anthracene      | 91.7 | ug/kg | 3330 | 3060 | 64 - 117 |
| Dibenzofuran                | 85.7 | ug/kg | 3330 | 2860 | 61 - 111 |
| 3,3-Dichlorobenzidine       | 69   | ug/kg | 6670 | 4600 | 27 - 106 |
| 2,4-Dichlorophenol          | 86   | ug/kg | 6670 | 5730 | 65 - 111 |
| Diethylphthalate            | 89.8 | ug/kg | 3330 | 2990 | 59 - 112 |
| 2,4-Dimethylphenol          | 86.2 | ug/kg | 6670 | 5750 | 65 - 114 |
| Dimethylphthalate           | 89.9 | ug/kg | 3330 | 3000 | 59 - 111 |
| 2,4-Dinitrophenol           | 94.4 | ug/kg | 6670 | 6290 | 36 - 131 |
| 2,4-Dinitrotoluene          | 90.8 | ug/kg | 3330 | 3030 | 61 - 117 |
| 2,6-Dinitrotoluene          | 92   | ug/kg | 3330 | 3070 | 61 - 115 |
| 1,4-Dioxane                 | 57.6 | ug/kg | 3330 | 1920 | 37 - 98  |
| bis(2-Ethylhexyl)phthalate  | 77.4 | ug/kg | 3330 | 2580 | 51 - 126 |
| Fluoranthene                | 82.9 | ug/kg | 3330 | 2760 | 61 - 116 |
| Fluorene                    | 88.2 | ug/kg | 3330 | 2940 | 61 - 112 |
| Hexachlorobenzene           | 94.5 | ug/kg | 3330 | 3150 | 59 - 109 |
| Hexachlorobutadiene         | 96.3 | ug/kg | 3330 | 3210 | 58 - 123 |
| Hexachlorocyclopentadiene   | 70.2 | ug/kg | 3330 | 2340 | 33 - 109 |
| Hexachloroethane            | 83.5 | ug/kg | 3330 | 2780 | 50 - 103 |
| Indeno(1,2,3-cd)pyrene      | 90.7 | ug/kg | 3330 | 3020 | 62 - 113 |
| Isophorone                  | 84.5 | ug/kg | 3330 | 2820 | 51 - 112 |
| 2-Methyl-4,6-dinitrophenol  | 104  | ug/kg | 6670 | 6900 | 53 - 131 |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

|                            |      |       |      |      |          |
|----------------------------|------|-------|------|------|----------|
| 2-Methylnaphthalene        | 81.5 | ug/kg | 3330 | 2720 | 58 - 96  |
| Naphthalene                | 84   | ug/kg | 3330 | 2800 | 56 - 105 |
| 2-Nitroaniline             | 89.9 | ug/kg | 3330 | 3000 | 61 - 120 |
| 3-Nitroaniline             | 87.1 | ug/kg | 3330 | 2900 | 52 - 115 |
| 4-Nitroaniline             | 85.3 | ug/kg | 3330 | 2840 | 50 - 106 |
| Nitrobenzene               | 85.6 | ug/kg | 3330 | 2850 | 53 - 108 |
| 2-Nitrophenol              | 85.1 | ug/kg | 6670 | 5670 | 61 - 114 |
| 4-Nitrophenol              | 87   | ug/kg | 6670 | 5800 | 49 - 134 |
| N-Nitroso-di-n-propylamine | 84.5 | ug/kg | 3330 | 2820 | 55 - 109 |
| N-Nitrosodiphenylamine     | 108  | ug/kg | 3330 | 3590 | 65 - 134 |
| Pentachlorophenol          | 113  | ug/kg | 6670 | 7530 | 60 - 145 |
| Phenanthrene               | 88.5 | ug/kg | 3330 | 2950 | 62 - 109 |
| Phenol                     | 84.7 | ug/kg | 6670 | 5650 | 53 - 118 |
| Pyrene                     | 92.2 | ug/kg | 3330 | 3070 | 60 - 114 |
| 1,2,4,5-Tetrachlorobenzene | 80.7 | ug/kg | 3330 | 2690 | 56 - 107 |
| 2,3,4,6-Tetrachlorophenol  | 73.2 | ug/kg | 6670 | 4880 | 60 - 111 |
| 2,4,5-Trichlorophenol      | 86.3 | ug/kg | 6670 | 5760 | 68 - 121 |
| 2,4,6-Trichlorophenol      | 88.2 | ug/kg | 6670 | 5880 | 68 - 119 |
| 2,4,6-Tribromophenol (S)   | 92.2 | %     |      |      | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 82   | %     |      |      | 40 - 110 |
| 2-Fluorophenol (S)         | 82.3 | %     |      |      | 26 - 116 |
| Nitrobenzene-d5 (S)        | 80.7 | %     |      |      | 38 - 112 |
| Phenol-d5 (S)              | 83.7 | %     |      |      | 35 - 111 |
| Terphenyl-d14 (S)          | 86.9 | %     |      |      | 45 - 126 |

MATRIX SPIKE: 2489361 DUPLICATE: 2489362 ORIGINAL: 2209651001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                  | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|----------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Acenaphthene               | 258.557         | ug/kg | 3290        | 2722.56   | 2688.43    | 74.9     | 74.4      | 59 - 115    | 1.26 | 17      |
| Acenaphthylene             | 0               | ug/kg | 3290        | 2547.11   | 2525.32    | 77.4     | 77.3      | 59 - 114    | .86  | 17      |
| Anthracene                 | 681.882         | ug/kg | 3290        | 3318.55   | 3226.54    | 80.2     | 77.9      | 63 - 112    | 2.81 | 20      |
| Benzo(a)anthracene         | 1324.98         | ug/kg | 3290        | 4651.22   | 4102.84    | 101      | 85        | 61 - 118    | 12.5 | 22      |
| Benzo(a)pyrene             | 1311.21         | ug/kg | 3290        | 4602.89   | 4071.43    | 100      | 84.5      | 61 - 114    | 12.3 | 24      |
| Benzo(b)fluoranthene       | 1552.82         | ug/kg | 3290        | 5030.23   | 4682.66    | 106      | 95.8      | 64 - 113    | 7.16 | 28      |
| Benzo(g,h,i)perylene       | 783.555         | ug/kg | 3290        | 3653.73   | 3474.34    | 87.3     | 82.3      | 61 - 118    | 5.03 | 30      |
| Benzo(k)fluoranthene       | 606.96          | ug/kg | 3290        | 3461.15   | 3323.02    | 86.8     | 83.1      | 62 - 113    | 4.07 | 22      |
| 4-Bromophenyl-phenylether  | 0               | ug/kg | 3290        | 2504.07   | 2488.47    | 76.1     | 76.1      | 60 - 111    | .62  | 21      |
| Butylbenzylphthalate       | 0               | ug/kg | 3290        | 2267.12   | 2276.87    | 68.9     | 69.7      | 56 - 126    | .43  | 18      |
| Carbazole                  | 166.471         | ug/kg | 3290        | 2670.53   | 2633.76    | 76.1     | 75.5      | 65 - 117    | 1.39 | 20      |
| 4-Chloro-3-methylphenol    | 0               | ug/kg | 6580        | 4585.63   | 4686.4     | 69.7     | 71.7      | 65 - 118    | 2.17 | 20      |
| 4-Chloroaniline            | 0               | ug/kg | 3290        | 1878.57   | 1731.44    | 57.1     | 53        | 21 - 115    | 8.15 | 22      |
| bis(2-Chloroethoxy)methane | 0               | ug/kg | 3290        | 2363.27   | 2389.28    | 71.8     | 73.1      | 56 - 108    | 1.09 | 18      |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

|                             |         |       |      |         |         |       |       |          |      |    |
|-----------------------------|---------|-------|------|---------|---------|-------|-------|----------|------|----|
| bis(2-Chloroethyl)ether     | 0       | ug/kg | 3290 | 2242    | 2307.84 | 68.2  | 70.6  | 51 - 105 | 2.89 | 24 |
| bis(2-Chloroisopropyl)ether | 0       | ug/kg | 3290 | 2064.06 | 2095.22 | 62.7  | 64.1  | 34 - 126 | 1.5  | 22 |
| 2-Chloronaphthalene         | 0       | ug/kg | 3290 | 2358.12 | 2341.44 | 71.7  | 71.6  | 55 - 111 | .71  | 19 |
| 2-Chlorophenol              | 0       | ug/kg | 6580 | 4476.94 | 4568.74 | 68    | 69.9  | 61 - 111 | 2.03 | 22 |
| 4-Chlorophenyl-phenylether  | 0       | ug/kg | 3290 | 2406.52 | 2410.82 | 73.2  | 73.8  | 58 - 112 | .18  | 18 |
| Chrysene                    | 1346.72 | ug/kg | 3290 | 4738.22 | 4280.44 | 103   | 89.8  | 63 - 111 | 10.2 | 20 |
| mp-Cresol                   | 0       | ug/kg | 6580 | 4306.55 | 4548.85 | 65.5  | 69.6  | 60 - 112 | 5.47 | 20 |
| o-Cresol                    | 0       | ug/kg | 6580 | 4233.23 | 4496.91 | 64.3  | 68.8  | 62 - 113 | 6.04 | 21 |
| Di-n-Butylphthalate         | 0       | ug/kg | 3290 | 2394.21 | 2361.91 | 72.8  | 72.3  | 58 - 118 | 1.36 | 20 |
| Di-n-Octylphthalate         | 0       | ug/kg | 3290 | 2253.83 | 2162.35 | 68.5  | 66.2  | 45 - 128 | 4.14 | 20 |
| Dibenzo(a,h)anthracene      | 197.138 | ug/kg | 3290 | 2711.52 | 2689.97 | 76.4  | 76.3  | 64 - 117 | .8   | 28 |
| Dibenzofuran                | 195.881 | ug/kg | 3290 | 2578.61 | 2547.72 | 72.4  | 72    | 61 - 111 | 1.21 | 18 |
| 3,3-Dichlorobenzidine       | 0       | ug/kg | 6580 | 3553.61 | 3677.92 | 54    | 56.3  | 27 - 106 | 3.44 | 26 |
| 2,4-Dichlorophenol          | 0       | ug/kg | 6580 | 4621.82 | 4672.89 | 70.3  | 71.5  | 65 - 111 | 1.1  | 20 |
| Diethylphthalate            | 0       | ug/kg | 3290 | 2385.35 | 2393.43 | 72.5  | 73.2  | 59 - 112 | .34  | 18 |
| 2,4-Dimethylphenol          | 0       | ug/kg | 6580 | 4608.74 | 4649.52 | 70.1  | 71.1  | 65 - 114 | .88  | 23 |
| Dimethylphthalate           | 0       | ug/kg | 3290 | 2457.78 | 2453.41 | 74.7  | 75.1  | 59 - 111 | .18  | 18 |
| 2,4-Dinitrophenol           | 0       | ug/kg | 6580 | 3083.73 | 2371.11 | 46.9  | 36.3  | 36 - 131 | 26.1 | 30 |
| 2,4-Dinitrotoluene          | 0       | ug/kg | 3290 | 2468.33 | 2523.4  | 75    | 77.2  | 61 - 117 | 2.21 | 21 |
| 2,6-Dinitrotoluene          | 0       | ug/kg | 3290 | 2439.21 | 2448.83 | 74.2  | 74.9  | 61 - 115 | .39  | 20 |
| bis(2-Ethylhexyl)phthalate  | 0       | ug/kg | 3290 | 2249.04 | 2119.84 | 68.4  | 64.9  | 51 - 126 | 5.91 | 21 |
| Fluoranthene                | 3102.84 | ug/kg | 3290 | 7420.41 | 6317.34 | 131*  | 98.4  | 61 - 116 | 16.1 | 21 |
| Fluorene                    | 382.966 | ug/kg | 3290 | 2939.35 | 2829.56 | 77.7  | 74.9  | 61 - 112 | 3.81 | 16 |
| Hexachlorobenzene           | 0       | ug/kg | 3290 | 2496.95 | 2562.37 | 75.9  | 78.4  | 59 - 109 | 2.59 | 21 |
| Hexachlorobutadiene         | 0       | ug/kg | 3290 | 2649.9  | 2630.91 | 80.6  | 80.5  | 58 - 123 | .72  | 22 |
| Hexachlorocyclopentadiene   | 0       | ug/kg | 3290 | 1064.46 | 609.564 | 32.4* | 18.7* | 33 - 109 | 54.3 | 29 |
| Hexachloroethane            | 0       | ug/kg | 3290 | 2170.45 | 2083.73 | 66    | 63.8  | 50 - 103 | 4.08 | 28 |
| Indeno(1,2,3-cd)pyrene      | 842.078 | ug/kg | 3290 | 3845    | 3570.12 | 91.3  | 83.5  | 62 - 113 | 7.41 | 30 |
| Isophorone                  | 0       | ug/kg | 3290 | 2201.48 | 2202.94 | 66.9  | 67.4  | 51 - 112 | .07  | 19 |
| 2-Methyl-4,6-dinitrophenol  | 0       | ug/kg | 6580 | 4250.36 | 3589.49 | 64.6  | 54.9  | 53 - 131 | 16.9 | 30 |
| 2-Methylnaphthalene         | 208.289 | ug/kg | 3290 | 2458.46 | 2405.01 | 68.4  | 67.2  | 58 - 96  | 2.2  | 21 |
| Naphthalene                 | 82.3639 | ug/kg | 3290 | 2366.33 | 2393.95 | 69.4  | 70.7  | 56 - 105 | 1.16 | 21 |
| 2-Nitroaniline              | 0       | ug/kg | 3290 | 2521.76 | 2528.43 | 76.7  | 77.4  | 61 - 120 | .26  | 19 |
| 3-Nitroaniline              | 0       | ug/kg | 3290 | 2324.1  | 2289.17 | 70.7  | 70    | 52 - 115 | 1.51 | 22 |
| 4-Nitroaniline              | 0       | ug/kg | 3290 | 2355.73 | 2334.04 | 71.6  | 71.4  | 50 - 106 | .92  | 19 |
| Nitrobenzene                | 0       | ug/kg | 3290 | 2303.03 | 2312.82 | 70    | 70.8  | 53 - 108 | .42  | 20 |
| 2-Nitrophenol               | 0       | ug/kg | 6580 | 4643.49 | 4617.62 | 70.6  | 70.6  | 61 - 114 | .56  | 23 |
| 4-Nitrophenol               | 0       | ug/kg | 6580 | 4802.58 | 4737.24 | 73    | 72.5  | 49 - 134 | 1.37 | 21 |
| N-Nitroso-di-n-propylamine  | 0       | ug/kg | 3290 | 2092.83 | 2120.83 | 63.6  | 64.9  | 55 - 109 | 1.33 | 20 |
| N-Nitrosodiphenylamine      | 0       | ug/kg | 3290 | 3025.32 | 2936.27 | 92    | 89.8  | 65 - 134 | 2.99 | 21 |
| Pentachlorophenol           | 0       | ug/kg | 6580 | 5547.39 | 5402.39 | 84.3  | 82.7  | 60 - 145 | 2.65 | 25 |
| Phenanthrene                | 2106.62 | ug/kg | 3290 | 5281.3  | 4769.46 | 96.5  | 81.5  | 62 - 109 | 10.2 | 20 |
| Phenol                      | 0       | ug/kg | 6580 | 4221.92 | 4384.4  | 64.2  | 67.1  | 53 - 118 | 3.78 | 23 |
| Pyrene                      | 2581.81 | ug/kg | 3290 | 6422.24 | 5666.2  | 117*  | 94.4  | 60 - 114 | 12.5 | 20 |
| 2,4,5-Trichlorophenol       | 0       | ug/kg | 6580 | 4686.06 | 4708.85 | 71.2  | 72    | 68 - 121 | .49  | 22 |
| 2,4,6-Trichlorophenol       | 0       | ug/kg | 6580 | 4954.08 | 4950.05 | 75.3  | 75.7  | 68 - 119 | .08  | 20 |
| 2,4,6-Tribromophenol (S)    | 74.4    | %     |      |         |         | 74.4  | 74.2  | 19 - 132 |      |    |



### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

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|                      |      |   |      |      |          |
|----------------------|------|---|------|------|----------|
| 2-Fluorobiphenyl (S) | 70.7 | % | 70.7 | 72.2 | 40 - 110 |
| 2-Fluorophenol (S)   | 63.5 | % | 63.5 | 64.9 | 26 - 116 |
| Nitrobenzene-d5 (S)  | 67.7 | % | 67.7 | 69.9 | 38 - 112 |
| Phenol-d5 (S)        | 64.3 | % | 64.3 | 67.9 | 35 - 111 |
| Terphenyl-d14 (S)    | 65.8 | % | 65.8 | 66.9 | 45 - 126 |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

**QC Batch:** EXTR/46806      **Analysis Method:** SW846 8015D  
**QC Batch Method:** SW846 3546  
**Associated Lab Samples:** 2208873002

#### METHOD BLANK: 2489567

| Parameter                     | Blank Result | Units | Reporting Limit |
|-------------------------------|--------------|-------|-----------------|
| Diesel Range Organics C10-C28 | ND           | mg/kg | 10.6            |
| o-Terphenyl (S)               | 91.4         | %     | 38 - 118        |

#### LABORATORY CONTROL SAMPLE: 2489568

| Parameter                     | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-------------------------------|-----------|-------|-------------|------------|-------------|
| Diesel Range Organics C10-C28 | 77.5      | mg/kg | 33.3        | 25.8       | 38 - 132    |
| o-Terphenyl (S)               | 94.7      | %     |             |            | 38 - 118    |

#### MATRIX SPIKE SAMPLE: 2489569 ORIGINAL: 2208112005

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                     | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|-------------------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Diesel Range Organics C10-C28 | 4.57786         | mg/kg | 32.9        | 27.9253   | 71       | 38 - 132    |
| o-Terphenyl (S)               | 90.1            | %     |             |           |          | 38 - 118    |

#### SAMPLE DUPLICATE: 2489570 ORIGINAL: 2208399006

| Parameter                     | Original Result | Units | DUP Result | RPD  | Max RPD |
|-------------------------------|-----------------|-------|------------|------|---------|
| Diesel Range Organics C10-C28 | 5.62793         | mg/kg | 35.3804    | 145* | 30      |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

**QC Batch:** EXTR/46807      **Analysis Method:** SW846 8082A  
**QC Batch Method:** SW846 3546  
**Associated Lab Samples:** 2208873002, 2208873003, 2208873004, 2208873005

#### METHOD BLANK: 2489607

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aroclor-1016             | ND           | mg/kg | 0.033           |
| Aroclor-1221             | ND           | mg/kg | 0.033           |
| Aroclor-1232             | ND           | mg/kg | 0.033           |
| Aroclor-1242             | ND           | mg/kg | 0.033           |
| Aroclor-1248             | ND           | mg/kg | 0.033           |
| Aroclor-1254             | ND           | mg/kg | 0.033           |
| Aroclor-1260             | ND           | mg/kg | 0.033           |
| Aroclor-1262             | ND           | mg/kg | 0.033           |
| Aroclor-1268             | ND           | mg/kg | 0.033           |
| Decachlorobiphenyls (S)  | 96           | %     | 49 - 115        |
| Tetrachloro-m-xylene (S) | 99.3         | %     | 27 - 137        |

#### LABORATORY CONTROL SAMPLE: 2489608

| Parameter                | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|--------------------------|-----------|-------|-------------|------------|-------------|
| Aroclor-1016             | 86.8      | mg/kg | .33         | 0.29       | 43 - 132    |
| Aroclor-1221             |           | mg/kg |             | ND         |             |
| Aroclor-1232             |           | mg/kg |             | ND         |             |
| Aroclor-1242             |           | mg/kg |             | ND         |             |
| Aroclor-1248             |           | mg/kg |             | ND         |             |
| Aroclor-1254             |           | mg/kg |             | ND         |             |
| Aroclor-1260             | 97.6      | mg/kg | .33         | 0.33       | 53 - 134    |
| Aroclor-1262             |           | mg/kg |             | ND         |             |
| Aroclor-1268             |           | mg/kg |             | ND         |             |
| Decachlorobiphenyls (S)  | 97.4      | %     |             |            | 49 - 115    |
| Tetrachloro-m-xylene (S) | 89        | %     |             |            | 27 - 137    |

#### MATRIX SPIKE SAMPLE: 2489609 ORIGINAL: 2208873003

\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter    | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|--------------|-----------------|-------|-------------|-----------|----------|-------------|
| Aroclor-1016 | 0               | mg/kg | .33         | .28711    | 87.3     | 43 - 132    |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

|                          |      |       |     |        |    |          |
|--------------------------|------|-------|-----|--------|----|----------|
| Aroclor-1260             | 0    | mg/kg | .33 | .31896 | 97 | 53 - 134 |
| Decachlorobiphenyls (S)  | 96.6 | %     |     |        |    | 49 - 115 |
| Tetrachloro-m-xylene (S) | 94.5 | %     |     |        |    | 27 - 137 |

SAMPLE DUPLICATE: 2489610 ORIGINAL: 2208873004

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Aroclor-1016 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1221 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1232 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1242 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1248 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1254 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1260 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1262 | 0               | mg/kg | 0          | NC  |         |
| Aroclor-1268 | 0               | mg/kg | 0          | NC  |         |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

**QC Batch:** EXTR/46808 **Analysis Method:** SW846 8081B

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2208873002, 2208873003, 2208873004, 2208873005

#### METHOD BLANK: 2489611

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aldrin                   | ND           | ug/kg | 1.7             |
| alpha-BHC                | ND           | ug/kg | 1.7             |
| beta-BHC                 | ND           | ug/kg | 1.7             |
| delta-BHC                | ND           | ug/kg | 1.7             |
| gamma-BHC                | ND           | ug/kg | 1.7             |
| alpha-Chlordane          | ND           | ug/kg | 1.7             |
| gamma-Chlordane          | ND           | ug/kg | 1.7             |
| 4,4'-DDD                 | ND           | ug/kg | 3.3             |
| 4,4'-DDE                 | ND           | ug/kg | 3.3             |
| 4,4'-DDT                 | ND           | ug/kg | 3.3             |
| Dieldrin                 | ND           | ug/kg | 3.3             |
| Endosulfan I             | ND           | ug/kg | 1.7             |
| Endosulfan II            | ND           | ug/kg | 3.3             |
| Endosulfan Sulfate       | ND           | ug/kg | 3.3             |
| Endrin                   | ND           | ug/kg | 3.3             |
| Endrin Aldehyde          | 1.1J         | ug/kg | 3.3             |
| Endrin Ketone            | ND           | ug/kg | 3.3             |
| Heptachlor               | ND           | ug/kg | 1.7             |
| Heptachlor Epoxide       | ND           | ug/kg | 1.7             |
| Methoxychlor             | ND           | ug/kg | 3.3             |
| Toxaphene                | ND           | ug/kg | 35.0            |
| Decachlorobiphenyls (S)  | 72.5         | %     | 30 - 135        |
| Tetrachloro-m-xylene (S) | 58.4         | %     | 30 - 111        |

#### LABORATORY CONTROL SAMPLE: 2489612

| Parameter       | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-----------------|-----------|-------|-------------|------------|-------------|
| Aldrin          | 90.2      | ug/kg | 33.3        | 30.1       | 58 - 103    |
| alpha-BHC       | 92.8      | ug/kg | 33.3        | 30.9       | 57 - 105    |
| beta-BHC        | 86.8      | ug/kg | 33.3        | 28.9       | 53 - 106    |
| delta-BHC       | 94.1      | ug/kg | 33.3        | 31.4       | 60 - 103    |
| gamma-BHC       | 92.7      | ug/kg | 33.3        | 30.9       | 59 - 102    |
| alpha-Chlordane | 90.3      | ug/kg | 33.3        | 30.1       | 62 - 98     |
| gamma-Chlordane | 91.1      | ug/kg | 33.3        | 30.4       | 58 - 103    |
| 4,4'-DDD        | 104       | ug/kg | 33.3        | 34.7       | 57 - 111    |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

|                          |      |       |      |      |          |
|--------------------------|------|-------|------|------|----------|
| 4,4'-DDE                 | 93.5 | ug/kg | 33.3 | 31.2 | 63 - 112 |
| 4,4'-DDT                 | 92.3 | ug/kg | 33.3 | 30.8 | 60 - 122 |
| Dieldrin                 | 95.4 | ug/kg | 33.3 | 31.8 | 62 - 109 |
| Endosulfan I             | 86.2 | ug/kg | 33.3 | 28.7 | 57 - 98  |
| Endosulfan II            | 93.2 | ug/kg | 33.3 | 31.1 | 59 - 112 |
| Endosulfan Sulfate       | 91.4 | ug/kg | 33.3 | 30.5 | 27 - 96  |
| Endrin                   | 93   | ug/kg | 33.3 | 31.0 | 63 - 108 |
| Endrin Aldehyde          | 79.7 | ug/kg | 33.3 | 26.6 | 21 - 92  |
| Endrin Ketone            | 96.9 | ug/kg | 33.3 | 32.3 | 32 - 103 |
| Heptachlor               | 95.1 | ug/kg | 33.3 | 31.7 | 51 - 105 |
| Heptachlor Epoxide       | 90.6 | ug/kg | 33.3 | 30.2 | 62 - 99  |
| Methoxychlor             | 89.9 | ug/kg | 33.3 | 30.0 | 50 - 114 |
| Toxaphene                |      | ug/kg |      | ND   |          |
| Decachlorobiphenyls (S)  | 74.3 | %     |      |      | 30 - 135 |
| Tetrachloro-m-xylene (S) | 64.6 | %     |      |      | 30 - 111 |

SAMPLE DUPLICATE: 2489613 ORIGINAL: 2208873004

| Parameter          | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------------|-----------------|-------|------------|-----|---------|
| Aldrin             | 0               | ug/kg | 0          | NC  | 40      |
| alpha-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| beta-BHC           | 0               | ug/kg | 0          | NC  | 40      |
| delta-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| gamma-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| alpha-Chlordane    | 0               | ug/kg | 0          | NC  | 40      |
| gamma-Chlordane    | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDD           | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDE           | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDT           | 0               | ug/kg | 0          | NC  | 40      |
| Dieldrin           | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan I       | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan II      | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan Sulfate | 0               | ug/kg | 0          | NC  | 40      |
| Endrin             | 0               | ug/kg | 0          | NC  | 40      |
| Endrin Aldehyde    | 0               | ug/kg | 0          | NC  | 40      |
| Endrin Ketone      | 0               | ug/kg | 0          | NC  | 40      |
| Heptachlor         | 0               | ug/kg | 0          | NC  | 40      |
| Heptachlor Epoxide | 0               | ug/kg | 0          | NC  | 35      |
| Methoxychlor       | 0               | ug/kg | 0          | NC  | 40      |
| Toxaphene          | 0               | ug/kg | 0          | NC  | 40      |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

**QC Batch:** EXTR/46818 **Analysis Method:** SW846 8081B

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2208873006, 2208873007, 2208873008, 2208873009

#### METHOD BLANK: 2490182

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aldrin                   | ND           | ug/kg | 1.7             |
| alpha-BHC                | ND           | ug/kg | 1.7             |
| beta-BHC                 | ND           | ug/kg | 1.7             |
| delta-BHC                | ND           | ug/kg | 1.7             |
| gamma-BHC                | ND           | ug/kg | 1.7             |
| alpha-Chlordane          | ND           | ug/kg | 1.7             |
| gamma-Chlordane          | ND           | ug/kg | 1.7             |
| 4,4'-DDD                 | ND           | ug/kg | 3.3             |
| 4,4'-DDE                 | ND           | ug/kg | 3.3             |
| 4,4'-DDT                 | ND           | ug/kg | 3.3             |
| Dieldrin                 | ND           | ug/kg | 3.3             |
| Endosulfan I             | ND           | ug/kg | 1.7             |
| Endosulfan II            | ND           | ug/kg | 3.3             |
| Endosulfan Sulfate       | ND           | ug/kg | 3.3             |
| Endrin                   | ND           | ug/kg | 3.3             |
| Endrin Aldehyde          | 0.98J        | ug/kg | 3.3             |
| Endrin Ketone            | ND           | ug/kg | 3.3             |
| Heptachlor               | ND           | ug/kg | 1.7             |
| Heptachlor Epoxide       | ND           | ug/kg | 1.7             |
| Methoxychlor             | ND           | ug/kg | 3.3             |
| Toxaphene                | ND           | ug/kg | 35.0            |
| Decachlorobiphenyls (S)  | 64.6         | %     | 30 - 135        |
| Tetrachloro-m-xylene (S) | 54           | %     | 30 - 111        |

#### LABORATORY CONTROL SAMPLE: 2490183

| Parameter       | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-----------------|-----------|-------|-------------|------------|-------------|
| Aldrin          | 80.8      | ug/kg | 33.3        | 26.9       | 58 - 103    |
| alpha-BHC       | 80.9      | ug/kg | 33.3        | 27.0       | 57 - 105    |
| beta-BHC        | 70.2      | ug/kg | 33.3        | 23.4       | 53 - 106    |
| delta-BHC       | 83.3      | ug/kg | 33.3        | 27.8       | 60 - 103    |
| gamma-BHC       | 79.8      | ug/kg | 33.3        | 26.6       | 59 - 102    |
| alpha-Chlordane | 77.5      | ug/kg | 33.3        | 25.8       | 62 - 98     |
| gamma-Chlordane | 78.5      | ug/kg | 33.3        | 26.2       | 58 - 103    |
| 4,4'-DDD        | 93.4      | ug/kg | 33.3        | 31.1       | 57 - 111    |



### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

|                          |      |       |      |      |          |
|--------------------------|------|-------|------|------|----------|
| 4,4'-DDE                 | 83.9 | ug/kg | 33.3 | 28.0 | 63 - 112 |
| 4,4'-DDT                 | 77.7 | ug/kg | 33.3 | 25.9 | 60 - 122 |
| Dieldrin                 | 81.2 | ug/kg | 33.3 | 27.1 | 62 - 109 |
| Endosulfan I             | 75.2 | ug/kg | 33.3 | 25.1 | 57 - 98  |
| Endosulfan II            | 78.1 | ug/kg | 33.3 | 26.0 | 59 - 112 |
| Endosulfan Sulfate       | 85.8 | ug/kg | 33.3 | 28.6 | 27 - 96  |
| Endrin                   | 77.7 | ug/kg | 33.3 | 25.9 | 63 - 108 |
| Endrin Aldehyde          | 71.3 | ug/kg | 33.3 | 23.8 | 21 - 92  |
| Endrin Ketone            | 82.2 | ug/kg | 33.3 | 27.4 | 32 - 103 |
| Heptachlor               | 96.2 | ug/kg | 33.3 | 32.1 | 51 - 105 |
| Heptachlor Epoxide       | 77.8 | ug/kg | 33.3 | 25.9 | 62 - 99  |
| Methoxychlor             | 72.7 | ug/kg | 33.3 | 24.2 | 50 - 114 |
| Toxaphene                |      | ug/kg |      | ND   |          |
| Decachlorobiphenyls (S)  | 68.5 | %     |      |      | 30 - 135 |
| Tetrachloro-m-xylene (S) | 54.3 | %     |      |      | 30 - 111 |

SAMPLE DUPLICATE: 2490185 ORIGINAL: 2209651001

| Parameter          | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------------|-----------------|-------|------------|-----|---------|
| Aldrin             | 0               | ug/kg | 0          | NC  | 40      |
| alpha-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| beta-BHC           | 0               | ug/kg | 0          | NC  | 40      |
| delta-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| gamma-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDD           | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDE           | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDT           | 0               | ug/kg | 0          | NC  | 40      |
| Dieldrin           | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan I       | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan II      | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan Sulfate | 0               | ug/kg | 0          | NC  | 40      |
| Endrin             | 0               | ug/kg | 0          | NC  | 40      |
| Endrin Aldehyde    | 0               | ug/kg | 0          | NC  | 40      |
| Endrin Ketone      | 0               | ug/kg | 0          | NC  | 40      |
| Heptachlor         | 0               | ug/kg | 0          | NC  | 40      |
| Heptachlor Epoxide | 0               | ug/kg | 0          | NC  | 35      |
| Methoxychlor       | 0               | ug/kg | 0          | NC  | 40      |
| Toxaphene          | 0               | ug/kg | 0          | NC  | 40      |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

**QC Batch:** EXTR/46819      **Analysis Method:** SW846 8082A  
**QC Batch Method:** SW846 3546  
**Associated Lab Samples:** 2208873006, 2208873007, 2208873008, 2208873009

#### METHOD BLANK: 2490186

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aroclor-1016             | ND           | mg/kg | 0.033           |
| Aroclor-1221             | ND           | mg/kg | 0.033           |
| Aroclor-1232             | ND           | mg/kg | 0.033           |
| Aroclor-1242             | ND           | mg/kg | 0.033           |
| Aroclor-1248             | ND           | mg/kg | 0.033           |
| Aroclor-1254             | ND           | mg/kg | 0.033           |
| Aroclor-1260             | ND           | mg/kg | 0.033           |
| Aroclor-1262             | ND           | mg/kg | 0.033           |
| Aroclor-1268             | ND           | mg/kg | 0.033           |
| Decachlorobiphenyls (S)  | 106          | %     | 49 - 115        |
| Tetrachloro-m-xylene (S) | 98.9         | %     | 27 - 137        |

#### LABORATORY CONTROL SAMPLE: 2490187

| Parameter                | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|--------------------------|-----------|-------|-------------|------------|-------------|
| Aroclor-1016             | 93.5      | mg/kg | .33         | 0.31       | 43 - 132    |
| Aroclor-1221             |           | mg/kg |             | ND         |             |
| Aroclor-1232             |           | mg/kg |             | ND         |             |
| Aroclor-1242             |           | mg/kg |             | ND         |             |
| Aroclor-1248             |           | mg/kg |             | ND         |             |
| Aroclor-1254             |           | mg/kg |             | ND         |             |
| Aroclor-1260             | 98.4      | mg/kg | .33         | 0.33       | 53 - 134    |
| Aroclor-1262             |           | mg/kg |             | ND         |             |
| Aroclor-1268             |           | mg/kg |             | ND         |             |
| Decachlorobiphenyls (S)  | 103       | %     |             |            | 49 - 115    |
| Tetrachloro-m-xylene (S) | 93.8      | %     |             |            | 27 - 137    |

#### SAMPLE DUPLICATE: 2490188 ORIGINAL: 2209651001

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Aroclor-1016 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1221 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1232 | 0               | mg/kg | 0          | NC  | 40      |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

|              |   |       |   |    |    |
|--------------|---|-------|---|----|----|
| Aroclor-1242 | 0 | mg/kg | 0 | NC | 40 |
| Aroclor-1248 | 0 | mg/kg | 0 | NC | 40 |
| Aroclor-1254 | 0 | mg/kg | 0 | NC | 40 |
| Aroclor-1260 | 0 | mg/kg | 0 | NC | 40 |

MATRIX SPIKE SAMPLE: 2490189 ORIGINAL: 2209845001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|--------------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Aroclor-1016             | 0               | mg/kg | .33         | .26901    | 81.8     | 43 - 132    |
| Aroclor-1260             | 0               | mg/kg | .33         | .26091    | 79.3     | 53 - 134    |
| Decachlorobiphenyls (S)  | 75.4            | %     |             |           |          | 49 - 115    |
| Tetrachloro-m-xylene (S) | 85.6            | %     |             |           |          | 27 - 137    |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

**QC Batch:** EXTR/46820

**Analysis Method:** SW846 8015D

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2208873003, 2208873004, 2208873005, 2208873006, 2208873007, 2208873008, 2208873009

#### METHOD BLANK: 2490190

| Parameter                     | Blank Result | Units | Reporting Limit |
|-------------------------------|--------------|-------|-----------------|
| Diesel Range Organics C10-C28 | 2.6J         | mg/kg | 10.6            |
| o-Terphenyl (S)               | 102          | %     | 38 - 118        |

#### LABORATORY CONTROL SAMPLE: 2490191

| Parameter                     | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-------------------------------|-----------|-------|-------------|------------|-------------|
| Diesel Range Organics C10-C28 | 86.8      | mg/kg | 33.3        | 28.9       | 38 - 132    |
| o-Terphenyl (S)               | 78.7      | %     |             |            | 38 - 118    |

#### MATRIX SPIKE: 2490192 DUPLICATE: 2490193 ORIGINAL: 2208873003

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                     | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|-------------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Diesel Range Organics C10-C28 | 3.36215         | mg/kg | 31.8        | 27.1049   | 30.3733    | 74.6     | 81.6      | 38 - 132    | 11.4 | 30      |
| o-Terphenyl (S)               | 79.4            | %     |             |           |            | 79.4     | 76        | 38 - 118    |      |         |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

**QC Batch:** MDIG/62761

**Analysis Method:** SW846 6020A

**QC Batch Method:** SW846 3051

**Associated Lab Samples:** 2208873002, 2208873003, 2208873004, 2208873005, 2208873006, 2208873007, 2208873008, 2208873009

#### METHOD BLANK: 2489561

| Parameter        | Blank Result | Units | Reporting Limit |
|------------------|--------------|-------|-----------------|
| Antimony, Total  | ND           | mg/kg | 1.0             |
| Arsenic, Total   | ND           | mg/kg | 1.5             |
| Beryllium, Total | ND           | mg/kg | 0.50            |
| Cadmium, Total   | ND           | mg/kg | 0.50            |
| Chromium, Total  | ND           | mg/kg | 1.0             |
| Copper, Total    | ND           | mg/kg | 2.5             |
| Lead, Total      | ND           | mg/kg | 1.0             |
| Nickel, Total    | ND           | mg/kg | 2.5             |
| Selenium, Total  | ND           | mg/kg | 2.5             |
| Silver, Total    | ND           | mg/kg | 1.0             |
| Thallium, Total  | ND           | mg/kg | 0.50            |
| Zinc, Total      | ND           | mg/kg | 2.5             |

#### LABORATORY CONTROL SAMPLE: 2489562

| Parameter        | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|------------------|-----------|-------|-------------|------------|-------------|
| Antimony, Total  | 99.9      | mg/kg | 20          | 20.0       | 80 - 120    |
| Arsenic, Total   | 97.2      | mg/kg | 20          | 19.4       | 80 - 120    |
| Beryllium, Total | 92.7      | mg/kg | 20          | 18.5       | 80 - 120    |
| Cadmium, Total   | 96.2      | mg/kg | 20          | 19.2       | 80 - 120    |
| Chromium, Total  | 101       | mg/kg | 20          | 20.2       | 80 - 120    |
| Copper, Total    | 103       | mg/kg | 20          | 20.7       | 80 - 120    |
| Lead, Total      | 96.5      | mg/kg | 20          | 19.3       | 80 - 120    |
| Nickel, Total    | 103       | mg/kg | 20          | 20.5       | 80 - 120    |
| Selenium, Total  | 91.5      | mg/kg | 20          | 18.3       | 80 - 120    |
| Silver, Total    | 102       | mg/kg | 10          | 10.2       | 80 - 120    |
| Thallium, Total  | 94.8      | mg/kg | 20          | 19.0       | 80 - 120    |
| Zinc, Total      | 94.6      | mg/kg | 200         | 189        | 80 - 120    |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

MATRIX SPIKE: 2489563 DUPLICATE: 2489564 ORIGINAL: 2209460001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter       | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|-----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Arsenic, Total  | 4.4245          | mg/kg | 19.2        | 15.43125  | 16.69327   | 57.2*    | 63.8*     | 75 - 125    | 7.86 | 20      |
| Cadmium, Total  | .0975           | mg/kg | 19.2        | 11.08894  | 13.03317   | 57.2*    | 67.3*     | 75 - 125    | 16.1 | 20      |
| Chromium, Total | 21.755          | mg/kg | 19.2        | 40.82885  | 47.11971   | 99.2     | 132*      | 75 - 125    | 14.3 | 20      |
| Lead, Total     | 18.26           | mg/kg | 19.2        | 30.30769  | 35.58942   | 62.6*    | 90.1      | 75 - 125    | 16   | 20      |
| Selenium, Total | 1.9935          | mg/kg | 19.2        | 11.65096  | 13.40144   | 50.2*    | 59.3*     | 75 - 125    | 14   | 20      |
| Silver, Total   | .0215           | mg/kg | 9.6         | 5.89808   | 7.00721    | 61.1*    | 72.7*     | 75 - 125    | 17.2 | 20      |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

**QC Batch:** MDIG/62773

**Analysis Method:** SW846 7471B

**QC Batch Method:** SW846 7471B

**Associated Lab Samples:** 2208873002, 2208873003, 2208873004, 2208873005, 2208873006, 2208873007, 2208873008, 2208873009

#### METHOD BLANK: 2489815

| Parameter      | Blank Result | Units | Reporting Limit |
|----------------|--------------|-------|-----------------|
| Mercury, Total | ND           | mg/kg | 0.050           |

#### LABORATORY CONTROL SAMPLE: 2489816

| Parameter      | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|----------------|-----------|-------|-------------|------------|-------------|
| Mercury, Total | 94.5      | mg/kg | .4          | 0.38       | 80 - 120    |

#### MATRIX SPIKE: 2489817 DUPLICATE: 2489818 ORIGINAL: 2206305001

\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter      | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Mercury, Total | .86981          | mg/kg | .85         | .97627    | 1.21379    | 12.6*    | 39.9*     | 80 - 120    | 21.7 | 20      |

#### MATRIX SPIKE: 2489819 DUPLICATE: 2489820 ORIGINAL: 2208873007

\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter      | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Mercury, Total | .02623          | mg/kg | 1           | 1.024     | 1          | 99.8     | 99.3      | 80 - 120    | 2.37 | 20      |



### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

**QC Batch:** VOGC/9390

**Analysis Method:** SW846 8015D

**QC Batch Method:** SW846 5035

**Associated Lab Samples:** 2208873002, 2208873003, 2208873004, 2208873005, 2208873006, 2208873007, 2208873008

#### METHOD BLANK: 2487653

| Parameter                  | Blank Result | Units | Reporting Limit |
|----------------------------|--------------|-------|-----------------|
| Gasoline Range Organics    | 4350J        | ug/kg | 10000           |
| a,a,a-Trifluorotoluene (S) | 116          | %     | 72 - 134        |

#### LABORATORY CONTROL SAMPLE: 2487654

| Parameter                  | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|----------------------------|-----------|-------|-------------|------------|-------------|
| Gasoline Range Organics    | 99.7      | ug/kg | 100000      | 99700      | 73 - 133    |
| a,a,a-Trifluorotoluene (S) | 103       | %     |             |            | 72 - 134    |

#### MATRIX SPIKE: 2487663 DUPLICATE: 2487664 ORIGINAL: 2205202002

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                  | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|----------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Gasoline Range Organics    | 11940.6         | ug/kg | 129000      | 138891    | 146114     | 98.8     | 104       | 73 - 133    | 5.07 | 18      |
| a,a,a-Trifluorotoluene (S) | 120             | %     |             |           |            | 120      | 126       | 72 - 134    |      |         |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

**QC Batch:** VOGC/9394      **Analysis Method:** SW846 8015D  
**QC Batch Method:** SW846 5035  
**Associated Lab Samples:** 2208873009

#### METHOD BLANK: 2488484

| Parameter                  | Blank Result | Units | Reporting Limit |
|----------------------------|--------------|-------|-----------------|
| Gasoline Range Organics    | 3870J        | ug/kg | 10000           |
| a,a,a-Trifluorotoluene (S) | 118          | %     | 72 - 134        |

#### LABORATORY CONTROL SAMPLE: 2488485

| Parameter                  | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|----------------------------|-----------|-------|-------------|------------|-------------|
| Gasoline Range Organics    | 85.7      | ug/kg | 100000      | 85700      | 73 - 133    |
| a,a,a-Trifluorotoluene (S) | 104       | %     |             |            | 72 - 134    |

#### MATRIX SPIKE: 2488528 DUPLICATE: 2488529 ORIGINAL: 2208873009

**\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.**

| Parameter                  | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD |
|----------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|
| Gasoline Range Organics    | 1127.36         | ug/kg | 50400       | 44964.5   | 45111.7    | 87       | 87.3      | 73 - 133    | .33 | 18      |
| a,a,a-Trifluorotoluene (S) | 120             | %     |             |           |            | 120      | 115       | 72 - 134    |     |         |

## QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

**QC Batch:** VOMS/42466 **Analysis Method:** SW846 8260B  
**QC Batch Method:** SW846 8260B  
**Associated Lab Samples:** 2208873001

METHOD BLANK: 2486677

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acetone                     | ND           | ug/L  | 10.0            |
| tert-Amyl methyl ether      | ND           | ug/L  | 1.0             |
| tert-Amyl Alcohol           | ND           | ug/L  | 10.0            |
| tert-Amyl Ethylether        | ND           | ug/L  | 1.0             |
| Benzene                     | ND           | ug/L  | 1.0             |
| Bromochloromethane          | ND           | ug/L  | 1.0             |
| Bromodichloromethane        | ND           | ug/L  | 1.0             |
| Bromoform                   | ND           | ug/L  | 1.0             |
| Bromomethane                | ND           | ug/L  | 1.0             |
| 2-Butanone                  | ND           | ug/L  | 10.0            |
| tert-Butyl Alcohol          | ND           | ug/L  | 10.0            |
| Carbon Disulfide            | ND           | ug/L  | 1.0             |
| Carbon Tetrachloride        | ND           | ug/L  | 1.0             |
| Chlorobenzene               | ND           | ug/L  | 1.0             |
| Chlorodibromomethane        | ND           | ug/L  | 1.0             |
| Chloroethane                | ND           | ug/L  | 1.0             |
| Chloroform                  | ND           | ug/L  | 1.0             |
| Chloromethane               | ND           | ug/L  | 1.0             |
| 1,2-Dibromo-3-chloropropane | ND           | ug/L  | 7.0             |
| 1,2-Dibromoethane           | ND           | ug/L  | 1.0             |
| 1,1-Dichloroethane          | ND           | ug/L  | 1.0             |
| 1,2-Dichloroethane          | ND           | ug/L  | 1.0             |
| 1,1-Dichloroethene          | ND           | ug/L  | 1.0             |
| cis-1,2-Dichloroethene      | ND           | ug/L  | 1.0             |
| trans-1,2-Dichloroethene    | ND           | ug/L  | 1.0             |
| 1,2-Dichloropropane         | ND           | ug/L  | 1.0             |
| cis-1,3-Dichloropropene     | ND           | ug/L  | 1.0             |
| trans-1,3-Dichloropropene   | ND           | ug/L  | 1.0             |
| Diisopropyl ether           | ND           | ug/L  | 1.0             |
| Ethyl tert-butyl ether      | ND           | ug/L  | 1.0             |
| Ethylbenzene                | ND           | ug/L  | 1.0             |
| 2-Hexanone                  | ND           | ug/L  | 5.0             |
| Methyl t-Butyl Ether        | ND           | ug/L  | 1.0             |
| 4-Methyl-2-Pentanone(MIBK)  | ND           | ug/L  | 5.0             |
| Methylene Chloride          | ND           | ug/L  | 1.0             |
| Styrene                     | ND           | ug/L  | 1.0             |
| 1,1,1,2-Tetrachloroethane   | ND           | ug/L  | 1.0             |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

|                           |     |      |          |
|---------------------------|-----|------|----------|
| 1,1,2,2-Tetrachloroethane | ND  | ug/L | 1.0      |
| Tetrachloroethene         | ND  | ug/L | 1.0      |
| Toluene                   | ND  | ug/L | 1.0      |
| Total Xylenes             | ND  | ug/L | 3.0      |
| 1,1,1-Trichloroethane     | ND  | ug/L | 1.0      |
| 1,1,2-Trichloroethane     | ND  | ug/L | 1.0      |
| Trichloroethene           | ND  | ug/L | 1.0      |
| Vinyl Chloride            | ND  | ug/L | 1.0      |
| o-Xylene                  | ND  | ug/L | 1.0      |
| mp-Xylene                 | ND  | ug/L | 2.0      |
| 1,2-Dichloroethane-d4 (S) | 100 | %    | 62 - 133 |
| 4-Bromofluorobenzene (S)  | 102 | %    | 79 - 114 |
| Dibromofluoromethane (S)  | 91  | %    | 78 - 116 |
| Toluene-d8 (S)            | 102 | %    | 76 - 127 |

#### LABORATORY CONTROL SAMPLE: 2486678

| Parameter                   | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | % Rec<br>Limit |
|-----------------------------|--------------|-------|----------------|---------------|----------------|
| Acetone                     | 87.8         | ug/L  | 100            | 87.8          | 40 - 151       |
| tert-Amyl methyl ether      | 96.2         | ug/L  | 20             | 19.2          | 75 - 121       |
| tert-Amyl Alcohol           | 74.6         | ug/L  | 100            | 74.6          | 70 - 130       |
| tert-Amyl Ethylether        | 95.8         | ug/L  | 20             | 19.2          | 70 - 130       |
| Benzene                     | 93.4         | ug/L  | 20             | 18.7          | 80 - 124       |
| Bromochloromethane          | 99.3         | ug/L  | 20             | 19.9          | 73 - 117       |
| Bromodichloromethane        | 93           | ug/L  | 20             | 18.6          | 79 - 126       |
| Bromoform                   | 70.8         | ug/L  | 20             | 14.2          | 70 - 123       |
| Bromomethane                | 86.6         | ug/L  | 20             | 17.3          | 45 - 148       |
| 2-Butanone                  | 104          | ug/L  | 100            | 104           | 50 - 152       |
| tert-Butyl Alcohol          | 90.3         | ug/L  | 100            | 90.3          | 17 - 168       |
| Carbon Disulfide            | 80.8         | ug/L  | 20             | 16.2          | 57 - 131       |
| Carbon Tetrachloride        | 95.8         | ug/L  | 20             | 19.2          | 62 - 132       |
| Chlorobenzene               | 91.7         | ug/L  | 20             | 18.3          | 85 - 117       |
| Chlorodibromomethane        | 82.9         | ug/L  | 20             | 16.6          | 77 - 122       |
| Chloroethane                | 99.9         | ug/L  | 20             | 20.0          | 51 - 142       |
| Chloroform                  | 98.8         | ug/L  | 20             | 19.8          | 78 - 122       |
| Chloromethane               | 92.3         | ug/L  | 20             | 18.5          | 38 - 156       |
| 1,2-Dibromo-3-chloropropane | 73.4         | ug/L  | 20             | 14.7          | 59 - 133       |
| 1,2-Dibromoethane           | 96.1         | ug/L  | 20             | 19.2          | 80 - 124       |
| 1,1-Dichloroethane          | 96.2         | ug/L  | 20             | 19.2          | 78 - 124       |
| 1,2-Dichloroethane          | 95           | ug/L  | 20             | 19.0          | 70 - 133       |
| 1,1-Dichloroethene          | 96.4         | ug/L  | 20             | 19.3          | 63 - 128       |
| cis-1,2-Dichloroethene      | 90.2         | ug/L  | 20             | 18.0          | 78 - 125       |
| trans-1,2-Dichloroethene    | 96.5         | ug/L  | 20             | 19.3          | 71 - 122       |
| 1,2-Dichloropropane         | 93.2         | ug/L  | 20             | 18.6          | 81 - 127       |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

|                            |       |      |     |      |          |
|----------------------------|-------|------|-----|------|----------|
| cis-1,3-Dichloropropene    | 78.8* | ug/L | 20  | 15.8 | 81 - 121 |
| trans-1,3-Dichloropropene  | 82.8  | ug/L | 20  | 16.6 | 78 - 126 |
| Diisopropyl ether          | 94.5  | ug/L | 20  | 18.9 | 74 - 131 |
| Ethyl tert-butyl ether     | 93.2  | ug/L | 20  | 18.6 | 75 - 123 |
| Ethylbenzene               | 95.6  | ug/L | 20  | 19.1 | 80 - 124 |
| 2-Hexanone                 | 86.1  | ug/L | 100 | 86.1 | 65 - 154 |
| Methyl t-Butyl Ether       | 91    | ug/L | 20  | 18.2 | 69 - 115 |
| 4-Methyl-2-Pentanone(MIBK) | 78.5  | ug/L | 100 | 78.5 | 71 - 146 |
| Methylene Chloride         | 94.1  | ug/L | 20  | 18.8 | 76 - 121 |
| Styrene                    | 99.9  | ug/L | 20  | 20.0 | 79 - 123 |
| 1,1,1,2-Tetrachloroethane  | 99.5  | ug/L | 20  | 19.9 | 78 - 121 |
| 1,1,2,2-Tetrachloroethane  | 94.3  | ug/L | 20  | 18.9 | 74 - 135 |
| Tetrachloroethene          | 96.2  | ug/L | 20  | 19.2 | 72 - 124 |
| Toluene                    | 95.5  | ug/L | 20  | 19.1 | 80 - 125 |
| Total Xylenes              | 96.7  | ug/L | 60  | 58.0 | 79 - 125 |
| 1,1,1-Trichloroethane      | 97.7  | ug/L | 20  | 19.5 | 66 - 130 |
| 1,1,2-Trichloroethane      | 96    | ug/L | 20  | 19.2 | 82 - 126 |
| Trichloroethene            | 90.5  | ug/L | 20  | 18.1 | 77 - 124 |
| Vinyl Chloride             | 91.9  | ug/L | 20  | 18.4 | 27 - 138 |
| o-Xylene                   | 96.5  | ug/L | 20  | 19.3 | 79 - 124 |
| mp-Xylene                  | 96.8  | ug/L | 40  | 38.7 | 79 - 125 |
| 1,2-Dichloroethane-d4 (S)  | 101   | %    |     |      | 62 - 133 |
| 4-Bromofluorobenzene (S)   | 102   | %    |     |      | 79 - 114 |
| Dibromofluoromethane (S)   | 95    | %    |     |      | 78 - 116 |
| Toluene-d8 (S)             | 99.3  | %    |     |      | 76 - 127 |

MATRIX SPIKE: 2486882 DUPLICATE: 2486883 ORIGINAL: 2208646006

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                 | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD |
|---------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|
| Benzene                   | 0               | ug/L  | 20          | 20.305    | 19.7748    | 102      | 98.9      | 80 - 124    | 2.6 | 26      |
| Ethylbenzene              | 0               | ug/L  | 20          | 18.8595   | 19.2387    | 94.3     | 96.2      | 80 - 124    | 2   | 19      |
| Toluene                   | 0               | ug/L  | 20          | 19.4999   | 19.7405    | 97.5     | 98.7      | 80 - 125    | 1.2 | 20      |
| 1,2-Dichloroethane-d4 (S) | 103             | %     |             |           |            | 103      | 99.1      | 62 - 133    |     |         |
| 4-Bromofluorobenzene (S)  | 101             | %     |             |           |            | 101      | 96.7      | 79 - 114    |     |         |
| Dibromofluoromethane (S)  | 98              | %     |             |           |            | 98       | 97.3      | 78 - 116    |     |         |
| Toluene-d8 (S)            | 95.8            | %     |             |           |            | 95.8     | 98.6      | 76 - 127    |     |         |

## QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

**QC Batch:** VOMS/42471 **Analysis Method:** SW846 8260B

**QC Batch Method:** SW846 5035

**Associated Lab Samples:** 2208873002, 2208873003, 2208873004, 2208873005, 2208873006

METHOD BLANK: 2487165

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acetone                     | ND           | ug/kg | 10.0            |
| tert-Amyl methyl ether      | ND           | ug/kg | 2.0             |
| tert-Amyl Alcohol           | ND           | ug/kg | 10.0            |
| tert-Amyl Ethylether        | ND           | ug/kg | 2.0             |
| Benzene                     | ND           | ug/kg | 2.0             |
| Bromochloromethane          | ND           | ug/kg | 2.0             |
| Bromodichloromethane        | ND           | ug/kg | 2.0             |
| Bromoform                   | ND           | ug/kg | 2.0             |
| Bromomethane                | ND           | ug/kg | 2.0             |
| 2-Butanone                  | ND           | ug/kg | 10.0            |
| tert-Butyl Alcohol          | ND           | ug/kg | 10.0            |
| Carbon Disulfide            | ND           | ug/kg | 2.0             |
| Carbon Tetrachloride        | ND           | ug/kg | 2.0             |
| Chlorobenzene               | ND           | ug/kg | 2.0             |
| Chlorodibromomethane        | ND           | ug/kg | 2.0             |
| Chloroethane                | ND           | ug/kg | 5.0             |
| Chloroform                  | 0.94J        | ug/kg | 2.0             |
| Chloromethane               | ND           | ug/kg | 2.0             |
| 1,2-Dibromo-3-chloropropane | ND           | ug/kg | 5.0             |
| 1,2-Dibromoethane           | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,2-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethene          | ND           | ug/kg | 2.0             |
| cis-1,2-Dichloroethene      | ND           | ug/kg | 2.0             |
| trans-1,2-Dichloroethene    | ND           | ug/kg | 2.0             |
| 1,2-Dichloropropane         | ND           | ug/kg | 2.0             |
| cis-1,3-Dichloropropene     | ND           | ug/kg | 2.0             |
| trans-1,3-Dichloropropene   | ND           | ug/kg | 2.0             |
| Diisopropyl ether           | ND           | ug/kg | 2.0             |
| Ethyl tert-butyl ether      | ND           | ug/kg | 2.0             |
| Ethylbenzene                | ND           | ug/kg | 2.0             |
| 2-Hexanone                  | ND           | ug/kg | 10.0            |
| Methyl t-Butyl Ether        | ND           | ug/kg | 2.0             |
| 4-Methyl-2-Pentanone(MIBK)  | ND           | ug/kg | 10.0            |
| Methylene Chloride          | 9.3          | ug/kg | 2.0             |
| Naphthalene                 | ND           | ug/kg | 2.0             |
| Styrene                     | ND           | ug/kg | 2.0             |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

|                           |      |       |          |
|---------------------------|------|-------|----------|
| 1,1,2,2-Tetrachloroethane | ND   | ug/kg | 2.0      |
| Tetrachloroethene         | ND   | ug/kg | 2.0      |
| Toluene                   | ND   | ug/kg | 2.0      |
| Total Xylenes             | ND   | ug/kg | 6.0      |
| 1,1,1-Trichloroethane     | ND   | ug/kg | 2.0      |
| 1,1,2-Trichloroethane     | ND   | ug/kg | 2.0      |
| Trichloroethene           | ND   | ug/kg | 2.0      |
| Vinyl Chloride            | ND   | ug/kg | 2.0      |
| o-Xylene                  | ND   | ug/kg | 2.0      |
| mp-Xylene                 | ND   | ug/kg | 4.0      |
| 1,2-Dichloroethane-d4 (S) | 71.7 | %     | 56 - 124 |
| 4-Bromofluorobenzene (S)  | 83.5 | %     | 51 - 128 |
| Dibromofluoromethane (S)  | 88.2 | %     | 62 - 123 |
| Toluene-d8 (S)            | 84.2 | %     | 59 - 131 |

LABORATORY CONTROL SAMPLE: 2487166 DUPLICATE: 2487167

| Parameter                   | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | LCSD<br>Result | LCSD %<br>Rec | % Rec<br>Limit | RPD  | Max |
|-----------------------------|--------------|-------|----------------|---------------|----------------|---------------|----------------|------|-----|
| Acetone                     | 98.1         | ug/kg | 100            | 98.1          | 99.1           | 99.1          | 58 - 146       | .92  | 40  |
| tert-Amyl methyl ether      | 124*         | ug/kg | 20             | 24.7          | 25.3           | 126*          | 79 - 123       | 2.2  | 40  |
| tert-Amyl Alcohol           | 101          | ug/kg | 100            | 101           | 108            | 108           | 70 - 130       | 6.7  | 40  |
| tert-Amyl Ethylether        | 103          | ug/kg | 20             | 20.6          | 21.8           | 109           | 70 - 130       | 5.8  | 40  |
| Benzene                     | 104          | ug/kg | 20             | 20.8          | 21.2           | 106           | 75 - 132       | 1.6  | 40  |
| Bromochloromethane          | 113          | ug/kg | 20             | 22.5          | 23.4           | 117           | 71 - 120       | 3.7  | 40  |
| Bromodichloromethane        | 110          | ug/kg | 20             | 22.0          | 22.2           | 111           | 74 - 127       | .63  | 40  |
| Bromoform                   | 90.7         | ug/kg | 20             | 18.1          | 19.6           | 98.2          | 68 - 131       | 7.9  | 40  |
| Bromomethane                | 80.2         | ug/kg | 20             | 16.0          | 16.2           | 80.9          | 43 - 148       | .88  | 40  |
| 2-Butanone                  | 106          | ug/kg | 100            | 106           | 106            | 106           | 64 - 148       | .044 | 40  |
| tert-Butyl Alcohol          | 127          | ug/kg | 100            | 127           | 130            | 130           | 51 - 152       | 2.4  | 40  |
| Carbon Disulfide            | 111          | ug/kg | 20             | 22.2          | 22.2           | 111           | 47 - 144       | .14  | 40  |
| Carbon Tetrachloride        | 95           | ug/kg | 20             | 19.0          | 22.1           | 110           | 64 - 136       | 15   | 40  |
| Chlorobenzene               | 97.9         | ug/kg | 20             | 19.6          | 20.1           | 100           | 76 - 125       | 2.4  | 40  |
| Chlorodibromomethane        | 105          | ug/kg | 20             | 20.9          | 21.0           | 105           | 75 - 124       | .43  | 40  |
| Chloroethane                | 78.4         | ug/kg | 20             | 15.7          | 15.8           | 79.1          | 1 - 141        | .84  | 40  |
| Chloroform                  | 107          | ug/kg | 20             | 21.4          | 21.4           | 107           | 73 - 126       | .11  | 40  |
| Chloromethane               | 97           | ug/kg | 20             | 19.4          | 19.1           | 95.7          | 44 - 139       | 1.3  | 40  |
| 1,2-Dibromo-3-chloropropane | 75.1         | ug/kg | 20             | 15.0          | 15.8           | 79.2          | 52 - 151       | 5.3  | 40  |
| 1,2-Dibromoethane           | 105          | ug/kg | 20             | 20.9          | 21.6           | 108           | 76 - 127       | 3.2  | 40  |
| 1,1-Dichloroethane          | 106          | ug/kg | 20             | 21.2          | 21.3           | 106           | 74 - 131       | .33  | 40  |
| 1,2-Dichloroethane          | 101          | ug/kg | 20             | 20.2          | 20.5           | 102           | 69 - 132       | 1.2  | 40  |
| 1,1-Dichloroethene          | 113          | ug/kg | 20             | 22.6          | 23.0           | 115           | 59 - 139       | 1.7  | 40  |
| cis-1,2-Dichloroethene      | 107          | ug/kg | 20             | 21.3          | 21.6           | 108           | 75 - 128       | 1.4  | 40  |
| trans-1,2-Dichloroethene    | 115          | ug/kg | 20             | 23.0          | 23.3           | 117           | 66 - 133       | 1.2  | 40  |
| 1,2-Dichloropropane         | 106          | ug/kg | 20             | 21.1          | 21.5           | 108           | 78 - 131       | 1.7  | 40  |



### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

|                            |      |       |     |      |      |      |          |      |    |
|----------------------------|------|-------|-----|------|------|------|----------|------|----|
| cis-1,3-Dichloropropene    | 79.8 | ug/kg | 20  | 16.0 | 16.4 | 82.1 | 76 - 123 | 2.8  | 40 |
| trans-1,3-Dichloropropene  | 101  | ug/kg | 20  | 20.3 | 21.2 | 106  | 77 - 123 | 4.8  | 40 |
| Diisopropyl ether          | 102  | ug/kg | 20  | 20.4 | 20.7 | 104  | 71 - 128 | 1.7  | 40 |
| Ethyl tert-butyl ether     | 90.1 | ug/kg | 20  | 18.0 | 18.9 | 94.3 | 75 - 121 | 4.7  | 40 |
| Ethylbenzene               | 96.2 | ug/kg | 20  | 19.2 | 19.6 | 98.1 | 73 - 133 | 1.9  | 40 |
| 2-Hexanone                 | 70   | ug/kg | 100 | 70.0 | 73.8 | 73.8 | 62 - 147 | 5.2  | 40 |
| Methyl t-Butyl Ether       | 116  | ug/kg | 20  | 23.1 | 23.8 | 119* | 70 - 118 | 3.1  | 40 |
| 4-Methyl-2-Pentanone(MIBK) | 74   | ug/kg | 100 | 74.0 | 77.7 | 77.7 | 64 - 143 | 4.9  | 40 |
| Methylene Chloride         | 148* | ug/kg | 20  | 29.6 | 28.1 | 140* | 68 - 133 | 5.3  | 40 |
| Naphthalene                | 78.9 | ug/kg | 20  | 15.8 | 17.5 | 87.6 | 60 - 146 | 10.4 | 40 |
| Styrene                    | 87.2 | ug/kg | 20  | 17.4 | 17.9 | 89.3 | 77 - 130 | 2.4  | 40 |
| 1,1,2,2-Tetrachloroethane  | 83.6 | ug/kg | 20  | 16.7 | 17.4 | 87.1 | 72 - 134 | 4.1  | 40 |
| Tetrachloroethene          | 103  | ug/kg | 20  | 20.7 | 21.3 | 106  | 58 - 137 | 2.8  | 40 |
| Toluene                    | 96.5 | ug/kg | 20  | 19.3 | 20.0 | 100  | 73 - 129 | 3.7  | 40 |
| Total Xylenes              | 99.6 | ug/kg | 60  | 59.7 | 60.3 | 100  | 73 - 130 | .85  | 40 |
| 1,1,1-Trichloroethane      | 101  | ug/kg | 20  | 20.1 | 20.7 | 103  | 68 - 131 | 2.7  | 40 |
| 1,1,2-Trichloroethane      | 93.1 | ug/kg | 20  | 18.6 | 19.0 | 94.8 | 79 - 123 | 1.9  | 40 |
| Trichloroethene            | 108  | ug/kg | 20  | 21.6 | 21.2 | 106  | 72 - 129 | 1.7  | 40 |
| Vinyl Chloride             | 96.9 | ug/kg | 20  | 19.4 | 19.2 | 96.2 | 53 - 141 | .77  | 40 |
| o-Xylene                   | 99.1 | ug/kg | 20  | 19.8 | 20.1 | 101  | 75 - 129 | 1.4  | 40 |
| mp-Xylene                  | 99.8 | ug/kg | 40  | 39.9 | 40.1 | 100  | 72 - 130 | .57  | 40 |
| 1,2-Dichloroethane-d4 (S)  | 78.3 | %     |     |      | 78.3 |      | 56 - 124 |      |    |
| 4-Bromofluorobenzene (S)   | 81.3 | %     |     |      | 81.3 |      | 51 - 128 |      |    |
| Dibromofluoromethane (S)   | 89.6 | %     |     |      | 89.6 |      | 62 - 123 |      |    |
| Toluene-d8 (S)             | 80.4 | %     |     |      | 80.4 |      | 59 - 131 |      |    |

MATRIX SPIKE SAMPLE: 2487398 ORIGINAL: 2208789002

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter            | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|----------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Acetone              | 10.4868         | ug/kg | 93.8        | 117.457   | 114      | 58 - 146    |
| Benzene              | 0               | ug/kg | 18.8        | 14.8971   | 79.4     | 75 - 132    |
| Bromochloromethane   | 0               | ug/kg | 18.8        | 16.9751   | 90.5     | 71 - 120    |
| Bromodichloromethane | 0               | ug/kg | 18.8        | 14.9691   | 79.8     | 74 - 127    |
| Bromoform            | 0               | ug/kg | 18.8        | 11.4351   | 60.9*    | 68 - 131    |
| Bromomethane         | 0               | ug/kg | 18.8        | 8.54984   | 45.6     | 43 - 148    |
| 2-Butanone           | 0               | ug/kg | 93.8        | 81.3458   | 86.7     | 64 - 148    |
| Carbon Disulfide     | 0               | ug/kg | 18.8        | 17.2697   | 92       | 47 - 144    |
| Carbon Tetrachloride | 0               | ug/kg | 18.8        | 15.3765   | 82       | 64 - 136    |
| Chlorobenzene        | 0               | ug/kg | 18.8        | 11.9951   | 63.9*    | 76 - 125    |
| Chlorodibromomethane | 0               | ug/kg | 18.8        | 13.5662   | 72.3*    | 75 - 124    |
| Chloroethane         | 0               | ug/kg | 18.8        | 12.0736   | 64.4     | 1 - 141     |
| Chloroform           | 0               | ug/kg | 18.8        | 14.9491   | 79.7     | 73 - 126    |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

|                             |         |       |      |         |       |          |
|-----------------------------|---------|-------|------|---------|-------|----------|
| Chloromethane               | 0       | ug/kg | 18.8 | 16.845  | 89.8  | 44 - 139 |
| 1,2-Dibromo-3-chloropropane | 0       | ug/kg | 18.8 | 9.22427 | 49.2* | 52 - 151 |
| 1,2-Dibromoethane           | 0       | ug/kg | 18.8 | 13.8511 | 73.8* | 76 - 127 |
| 1,1-Dichloroethane          | 0       | ug/kg | 18.8 | 15.4644 | 82.4  | 74 - 131 |
| 1,2-Dichloroethane          | 0       | ug/kg | 18.8 | 14.2655 | 76    | 69 - 132 |
| 1,1-Dichloroethene          | 0       | ug/kg | 18.8 | 17.0493 | 90.9  | 59 - 139 |
| cis-1,2-Dichloroethene      | 0       | ug/kg | 18.8 | 15.1813 | 80.9  | 75 - 128 |
| trans-1,2-Dichloroethene    | 0       | ug/kg | 18.8 | 16.7657 | 89.4  | 66 - 133 |
| 1,2-Dichloropropane         | 0       | ug/kg | 18.8 | 14.9885 | 79.9  | 78 - 131 |
| cis-1,3-Dichloropropene     | 0       | ug/kg | 18.8 | 10.7921 | 57.5* | 76 - 123 |
| trans-1,3-Dichloropropene   | 0       | ug/kg | 18.8 | 13.283  | 70.8* | 77 - 123 |
| Ethylbenzene                | 0       | ug/kg | 18.8 | 11.8727 | 63.3* | 73 - 133 |
| 2-Hexanone                  | 0       | ug/kg | 93.8 | 52.2434 | 55.7* | 62 - 147 |
| 4-Methyl-2-Pentanone(MIBK)  | 0       | ug/kg | 93.8 | 54.8185 | 58.4* | 64 - 143 |
| Methylene Chloride          | 3.89318 | ug/kg | 18.8 | 23.4791 | 104   | 68 - 133 |
| Styrene                     | 0       | ug/kg | 18.8 | 10.3395 | 55.1* | 77 - 130 |
| 1,1,2,2-Tetrachloroethane   | 0       | ug/kg | 18.8 | 10.7159 | 57.1* | 72 - 134 |
| Tetrachloroethene           | 0       | ug/kg | 18.8 | 13.6375 | 72.7  | 58 - 137 |
| Toluene                     | 0       | ug/kg | 18.8 | 13.7274 | 73.2  | 73 - 129 |
| Total Xylenes               | 0       | ug/kg | 56.3 | 35.7932 | 63.6* | 73 - 130 |
| 1,1,1-Trichloroethane       | 0       | ug/kg | 18.8 | 14.3159 | 76.3  | 68 - 131 |
| 1,1,2-Trichloroethane       | 0       | ug/kg | 18.8 | 13.024  | 69.4* | 79 - 123 |
| Trichloroethene             | 0       | ug/kg | 18.8 | 14.9791 | 79.8  | 72 - 129 |
| Vinyl Chloride              | 0       | ug/kg | 18.8 | 17      | 90.6  | 53 - 141 |
| o-Xylene                    | 0       | ug/kg | 18.8 | 11.791  | 62.8* | 75 - 129 |
| mp-Xylene                   | 0       | ug/kg | 37.5 | 24.0022 | 64*   | 72 - 130 |
| 1,2-Dichloroethane-d4 (S)   | 80.3    | %     |      |         |       | 56 - 124 |
| 4-Bromofluorobenzene (S)    | 83.1    | %     |      |         |       | 51 - 128 |
| Dibromofluoromethane (S)    | 90.3    | %     |      |         |       | 62 - 123 |
| Toluene-d8 (S)              | 80      | %     |      |         |       | 59 - 131 |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

**QC Batch:** VOMS/42479 **Analysis Method:** SW846 8260B  
**QC Batch Method:** SW846 5035  
**Associated Lab Samples:** 2208873007, 2208873008, 2208873009

#### METHOD BLANK: 2487399

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acetone                     | ND           | ug/kg | 10.0            |
| tert-Amyl methyl ether      | ND           | ug/kg | 2.0             |
| tert-Amyl Alcohol           | ND           | ug/kg | 10.0            |
| tert-Amyl Ethylether        | ND           | ug/kg | 2.0             |
| Benzene                     | ND           | ug/kg | 2.0             |
| Bromochloromethane          | ND           | ug/kg | 2.0             |
| Bromodichloromethane        | ND           | ug/kg | 2.0             |
| Bromoform                   | ND           | ug/kg | 2.0             |
| Bromomethane                | ND           | ug/kg | 2.0             |
| 2-Butanone                  | ND           | ug/kg | 10.0            |
| tert-Butyl Alcohol          | ND           | ug/kg | 10.0            |
| Carbon Disulfide            | ND           | ug/kg | 2.0             |
| Carbon Tetrachloride        | ND           | ug/kg | 2.0             |
| Chlorobenzene               | ND           | ug/kg | 2.0             |
| Chlorodibromomethane        | ND           | ug/kg | 2.0             |
| Chloroethane                | ND           | ug/kg | 5.0             |
| Chloroform                  | 0.84J        | ug/kg | 2.0             |
| Chloromethane               | ND           | ug/kg | 2.0             |
| 1,2-Dibromo-3-chloropropane | ND           | ug/kg | 5.0             |
| 1,2-Dibromoethane           | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,2-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethene          | ND           | ug/kg | 2.0             |
| cis-1,2-Dichloroethene      | ND           | ug/kg | 2.0             |
| trans-1,2-Dichloroethene    | ND           | ug/kg | 2.0             |
| 1,2-Dichloropropane         | ND           | ug/kg | 2.0             |
| cis-1,3-Dichloropropene     | ND           | ug/kg | 2.0             |
| trans-1,3-Dichloropropene   | ND           | ug/kg | 2.0             |
| Diisopropyl ether           | ND           | ug/kg | 2.0             |
| Ethyl tert-butyl ether      | ND           | ug/kg | 2.0             |
| Ethylbenzene                | ND           | ug/kg | 2.0             |
| 2-Hexanone                  | ND           | ug/kg | 10.0            |
| Methyl t-Butyl Ether        | ND           | ug/kg | 2.0             |
| 4-Methyl-2-Pentanone(MIBK)  | ND           | ug/kg | 10.0            |
| Methylene Chloride          | 3.5          | ug/kg | 2.0             |
| Naphthalene                 | ND           | ug/kg | 2.0             |
| Styrene                     | ND           | ug/kg | 2.0             |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

|                           |      |       |          |
|---------------------------|------|-------|----------|
| 1,1,2,2-Tetrachloroethane | ND   | ug/kg | 2.0      |
| Tetrachloroethene         | ND   | ug/kg | 2.0      |
| Toluene                   | ND   | ug/kg | 2.0      |
| Total Xylenes             | ND   | ug/kg | 6.0      |
| 1,1,1-Trichloroethane     | ND   | ug/kg | 2.0      |
| 1,1,2-Trichloroethane     | ND   | ug/kg | 2.0      |
| Trichloroethene           | ND   | ug/kg | 2.0      |
| Vinyl Chloride            | ND   | ug/kg | 2.0      |
| o-Xylene                  | ND   | ug/kg | 2.0      |
| mp-Xylene                 | ND   | ug/kg | 4.0      |
| 1,2-Dichloroethane-d4 (S) | 75.2 | %     | 56 - 124 |
| 4-Bromofluorobenzene (S)  | 82.9 | %     | 51 - 128 |
| Dibromofluoromethane (S)  | 91.4 | %     | 62 - 123 |
| Toluene-d8 (S)            | 84.2 | %     | 59 - 131 |

LABORATORY CONTROL SAMPLE: 2487400 DUPLICATE: 2487401

| Parameter                   | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | LCSD<br>Result | LCSD %<br>Rec | % Rec<br>Limit | RPD  | Max |
|-----------------------------|--------------|-------|----------------|---------------|----------------|---------------|----------------|------|-----|
| Acetone                     | 107          | ug/kg | 100            | 107           | 108            | 108           | 58 - 146       | 1.3  | 40  |
| tert-Amyl methyl ether      | 123          | ug/kg | 20             | 24.6          | 26.3           | 131*          | 79 - 123       | 6.3  | 40  |
| tert-Amyl Alcohol           | 107          | ug/kg | 100            | 107           | 111            | 111           | 70 - 130       | 3.4  | 40  |
| tert-Amyl Ethylether        | 107          | ug/kg | 20             | 21.5          | 22.2           | 111           | 70 - 130       | 3.5  | 40  |
| Benzene                     | 108          | ug/kg | 20             | 21.7          | 21.6           | 108           | 75 - 132       | .36  | 40  |
| Bromochloromethane          | 120          | ug/kg | 20             | 24.1          | 24.4           | 122*          | 71 - 120       | 1.4  | 40  |
| Bromodichloromethane        | 114          | ug/kg | 20             | 22.8          | 22.9           | 114           | 74 - 127       | .21  | 40  |
| Bromoform                   | 94.8         | ug/kg | 20             | 19.0          | 19.3           | 96.4          | 68 - 131       | 1.6  | 40  |
| Bromomethane                | 77           | ug/kg | 20             | 15.4          | 15.2           | 76.1          | 43 - 148       | 1.2  | 40  |
| 2-Butanone                  | 110          | ug/kg | 100            | 110           | 112            | 112           | 64 - 148       | 1.7  | 40  |
| tert-Butyl Alcohol          | 117          | ug/kg | 100            | 117           | 127            | 127           | 51 - 152       | 8.4  | 40  |
| Carbon Disulfide            | 114          | ug/kg | 20             | 22.7          | 22.8           | 114           | 47 - 144       | .51  | 40  |
| Carbon Tetrachloride        | 99.3         | ug/kg | 20             | 19.9          | 22.3           | 112           | 64 - 136       | 11.7 | 40  |
| Chlorobenzene               | 101          | ug/kg | 20             | 20.2          | 20.3           | 101           | 76 - 125       | .59  | 40  |
| Chlorodibromomethane        | 108          | ug/kg | 20             | 21.6          | 21.9           | 110           | 75 - 124       | 1.5  | 40  |
| Chloroethane                | 87.7         | ug/kg | 20             | 17.5          | 17.5           | 87.3          | 1 - 141        | .48  | 40  |
| Chloroform                  | 111          | ug/kg | 20             | 22.3          | 22.1           | 111           | 73 - 126       | .63  | 40  |
| Chloromethane               | 108          | ug/kg | 20             | 21.6          | 21.0           | 105           | 44 - 139       | 3.1  | 40  |
| 1,2-Dibromo-3-chloropropane | 75.3         | ug/kg | 20             | 15.1          | 15.8           | 79            | 52 - 151       | 4.9  | 40  |
| 1,2-Dibromoethane           | 110          | ug/kg | 20             | 21.9          | 22.2           | 111           | 76 - 127       | 1.2  | 40  |
| 1,1-Dichloroethane          | 109          | ug/kg | 20             | 21.7          | 21.8           | 109           | 74 - 131       | .36  | 40  |
| 1,2-Dichloroethane          | 105          | ug/kg | 20             | 21.0          | 20.9           | 105           | 69 - 132       | .29  | 40  |
| 1,1-Dichloroethene          | 117          | ug/kg | 20             | 23.4          | 23.0           | 115           | 59 - 139       | 1.6  | 40  |
| cis-1,2-Dichloroethene      | 112          | ug/kg | 20             | 22.4          | 22.0           | 110           | 75 - 128       | 2.2  | 40  |
| trans-1,2-Dichloroethene    | 116          | ug/kg | 20             | 23.1          | 23.7           | 118           | 66 - 133       | 2.4  | 40  |
| 1,2-Dichloropropane         | 109          | ug/kg | 20             | 21.8          | 21.7           | 109           | 78 - 131       | .32  | 40  |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

|                            |      |       |     |      |      |      |          |      |    |
|----------------------------|------|-------|-----|------|------|------|----------|------|----|
| cis-1,3-Dichloropropene    | 83.2 | ug/kg | 20  | 16.6 | 17.2 | 86.2 | 76 - 123 | 3.5  | 40 |
| trans-1,3-Dichloropropene  | 107  | ug/kg | 20  | 21.3 | 21.8 | 109  | 77 - 123 | 2    | 40 |
| Diisopropyl ether          | 106  | ug/kg | 20  | 21.2 | 21.3 | 107  | 71 - 128 | .76  | 40 |
| Ethyl tert-butyl ether     | 94.7 | ug/kg | 20  | 18.9 | 19.8 | 99.1 | 75 - 121 | 4.6  | 40 |
| Ethylbenzene               | 98.1 | ug/kg | 20  | 19.6 | 19.7 | 98.4 | 73 - 133 | .29  | 40 |
| 2-Hexanone                 | 72.1 | ug/kg | 100 | 72.1 | 76.4 | 76.4 | 62 - 147 | 5.8  | 40 |
| Methyl t-Butyl Ether       | 120* | ug/kg | 20  | 24.0 | 24.7 | 123* | 70 - 118 | 2.7  | 40 |
| 4-Methyl-2-Pentanone(MIBK) | 76   | ug/kg | 100 | 76.0 | 79.5 | 79.5 | 64 - 143 | 4.4  | 40 |
| Methylene Chloride         | 135* | ug/kg | 20  | 26.9 | 26.0 | 130  | 68 - 133 | 3.7  | 40 |
| Naphthalene                | 80.4 | ug/kg | 20  | 16.1 | 17.8 | 89.1 | 60 - 146 | 10.2 | 40 |
| Styrene                    | 88.7 | ug/kg | 20  | 17.7 | 18.1 | 90.7 | 77 - 130 | 2.3  | 40 |
| 1,1,2,2-Tetrachloroethane  | 83.7 | ug/kg | 20  | 16.7 | 17.8 | 89.2 | 72 - 134 | 6.3  | 40 |
| Tetrachloroethene          | 107  | ug/kg | 20  | 21.4 | 21.1 | 105  | 58 - 137 | 1.6  | 40 |
| Toluene                    | 100  | ug/kg | 20  | 20.1 | 20.0 | 100  | 73 - 129 | .25  | 40 |
| Total Xylenes              | 102  | ug/kg | 60  | 61.4 | 61.5 | 102  | 73 - 130 | .11  | 40 |
| 1,1,1-Trichloroethane      | 104  | ug/kg | 20  | 20.9 | 20.7 | 104  | 68 - 131 | .52  | 40 |
| 1,1,2-Trichloroethane      | 95.9 | ug/kg | 20  | 19.2 | 19.5 | 97.4 | 79 - 123 | 1.6  | 40 |
| Trichloroethene            | 112  | ug/kg | 20  | 22.3 | 22.6 | 113  | 72 - 129 | 1.3  | 40 |
| Vinyl Chloride             | 108  | ug/kg | 20  | 21.5 | 21.3 | 107  | 53 - 141 | 1.1  | 40 |
| o-Xylene                   | 102  | ug/kg | 20  | 20.5 | 20.6 | 103  | 75 - 129 | .65  | 40 |
| mp-Xylene                  | 102  | ug/kg | 40  | 40.9 | 40.9 | 102  | 72 - 130 | .16  | 40 |
| 1,2-Dichloroethane-d4 (S)  | 73.2 | %     |     |      | 73.2 |      | 56 - 124 |      |    |
| 4-Bromofluorobenzene (S)   | 80   | %     |     |      | 80   |      | 51 - 128 |      |    |
| Dibromofluoromethane (S)   | 91.1 | %     |     |      | 91.1 |      | 62 - 123 |      |    |
| Toluene-d8 (S)             | 80.3 | %     |     |      | 80.3 |      | 59 - 131 |      |    |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

**QC Batch:** WETC/183208

**Analysis Method:** S2540G-11

**QC Batch Method:** S2540G-11

**Associated Lab Samples:** 2208873002, 2208873003, 2208873004, 2208873005, 2208873006, 2208873007, 2208873008, 2208873009

SAMPLE DUPLICATE: 2488423 ORIGINAL: 2208763001

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 10.033          | %     | 10.9643    | 8.87 | 10      |
| Total Solids | 89.9669         | %     | 89.0356    | 1.04 | 5       |

SAMPLE DUPLICATE: 2488424 ORIGINAL: 2208873005

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Moisture     | 10.8108         | %     | 10.8247    | .13 | 10      |
| Total Solids | 89.1891         | %     | 89.1752    | .02 | 5       |

SAMPLE DUPLICATE: 2488425 ORIGINAL: 2208966005

| Parameter    | Original Result | Units | DUP Result | RPD   | Max RPD |
|--------------|-----------------|-------|------------|-------|---------|
| Moisture     | 99.8939         | %     | 99.7867    | .11   | 10      |
| Total Solids | .106            | %     | .2132      | 67.2* | 5       |

SAMPLE DUPLICATE: 2488426 ORIGINAL: 2208986002

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 98.7777         | %     | 98.8051    | .03  | 10      |
| Total Solids | 1.2222          | %     | 1.1948     | 2.27 | 5       |

SAMPLE DUPLICATE: 2488427 ORIGINAL: 2209045004

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 25.5114         | %     | 26.3513    | 3.24 | 10      |
| Total Solids | 74.4885         | %     | 73.6486    | 1.13 | 5       |

### QUALITY CONTROL DATA

Workorder: 2208873 Chase Lands Phase II

SAMPLE DUPLICATE: 2488428 ORIGINAL: 2209087001

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Moisture     | 84.7826         | %     | 85.232     | .53 | 10      |
| Total Solids | 15.2173         | %     | 14.7679    | 3   | 5       |

SAMPLE DUPLICATE: 2488429 ORIGINAL: 2209173002

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 76.5625         | %     | 76.8267    | .34  | 10      |
| Total Solids | 23.4375         | %     | 23.1732    | 1.13 | 5       |

SAMPLE DUPLICATE: 2488430 ORIGINAL: 2209395009

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 7.9663          | %     | 7.6755     | 3.72 | 10      |
| Total Solids | 92.0336         | %     | 92.3244    | .32  | 5       |

SAMPLE DUPLICATE: 2488431 ORIGINAL: 2209395019

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Moisture     | 12.8267         | %     | 12.4726    | 2.8 | 10      |
| Total Solids | 87.1732         | %     | 87.5273    | .41 | 5       |

SAMPLE DUPLICATE: 2488432 ORIGINAL: 2209395029

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 8.4989          | %     | 8.0988     | 4.82 | 10      |
| Total Solids | 91.501          | %     | 91.9011    | .44  | 5       |



## QUALITY CONTROL DATA QUALIFIERS

Workorder: 2208873 Chase Lands Phase II

### QUALITY CONTROL PARAMETER QUALIFIERS

| Lab ID                                                                                                                                                                                           | # | Sample Type          | Analytical Method | Analyte                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----------------------|-------------------|-------------------------|
| <b>2486678</b>                                                                                                                                                                                   | 1 | Lab Control Standard | SW846 8260B       | cis-1,3-Dichloropropene |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte cis-1,3-Dichloropropene. The % Recovery was reported as 78.8 and the control limits were 81 to 121. |   |                      |                   |                         |
| <b>2487165</b>                                                                                                                                                                                   | 2 | Method Blank         | SW846 8260B       | Methylene Chloride      |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                    |   |                      |                   |                         |
| <b>2487166</b>                                                                                                                                                                                   | 3 | Lab Control Standard | SW846 8260B       | tert-Amyl methyl ether  |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte tert-Amyl methyl ether. The % Recovery was reported as 124 and the control limits were 79 to 123.   |   |                      |                   |                         |
| <b>2487166</b>                                                                                                                                                                                   | 4 | Lab Control Standard | SW846 8260B       | Methylene Chloride      |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 148 and the control limits were 68 to 133.       |   |                      |                   |                         |
| <b>2487399</b>                                                                                                                                                                                   | 5 | Method Blank         | SW846 8260B       | Methylene Chloride      |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                    |   |                      |                   |                         |
| <b>2487400</b>                                                                                                                                                                                   | 6 | Lab Control Standard | SW846 8260B       | Methyl t-Butyl Ether    |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methyl t-Butyl Ether. The % Recovery was reported as 120 and the control limits were 70 to 118.     |   |                      |                   |                         |
| <b>2487400</b>                                                                                                                                                                                   | 7 | Lab Control Standard | SW846 8260B       | Methylene Chloride      |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 135 and the control limits were 68 to 133.       |   |                      |                   |                         |

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2208873 Chase Lands Phase II

| Lab ID     | Sample ID   | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|-------------|-------------|------------|-----------------|----------------|
| 2208873001 | TB-05       |             |            | SW846 8260B     | VOMS/42466     |
| 2208873002 | CL-ISM-S-A2 | SW846 5035  | VOMS/42471 | SW846 8260B     | VOMS/42472     |
| 2208873003 | CL-ISM-S-A3 | SW846 5035  | VOMS/42471 | SW846 8260B     | VOMS/42472     |
| 2208873004 | CL-ISM-S-B1 | SW846 5035  | VOMS/42471 | SW846 8260B     | VOMS/42472     |
| 2208873005 | CL-ISM-S-B2 | SW846 5035  | VOMS/42471 | SW846 8260B     | VOMS/42472     |
| 2208873006 | CL-ISM-S-B3 | SW846 5035  | VOMS/42471 | SW846 8260B     | VOMS/42472     |
| 2208873007 | CL-ISM-S-C2 | SW846 5035  | VOMS/42479 | SW846 8260B     | VOMS/42480     |
| 2208873008 | CL-ISM-S-C3 | SW846 5035  | VOMS/42479 | SW846 8260B     | VOMS/42480     |
| 2208873009 | CL-ISM-S-D3 | SW846 5035  | VOMS/42479 | SW846 8260B     | VOMS/42480     |
| 2208873002 | CL-ISM-S-A2 | SW846 5035  | VOGC/9390  | SW846 8015D     | VOGC/9391      |
| 2208873003 | CL-ISM-S-A3 | SW846 5035  | VOGC/9390  | SW846 8015D     | VOGC/9391      |
| 2208873004 | CL-ISM-S-B1 | SW846 5035  | VOGC/9390  | SW846 8015D     | VOGC/9391      |
| 2208873005 | CL-ISM-S-B2 | SW846 5035  | VOGC/9390  | SW846 8015D     | VOGC/9391      |
| 2208873006 | CL-ISM-S-B3 | SW846 5035  | VOGC/9390  | SW846 8015D     | VOGC/9391      |
| 2208873007 | CL-ISM-S-C2 | SW846 5035  | VOGC/9390  | SW846 8015D     | VOGC/9391      |
| 2208873008 | CL-ISM-S-C3 | SW846 5035  | VOGC/9390  | SW846 8015D     | VOGC/9391      |
| 2208873002 | CL-ISM-S-A2 |             |            | S2540G-11       | WETC/183208    |
| 2208873003 | CL-ISM-S-A3 |             |            | S2540G-11       | WETC/183208    |
| 2208873004 | CL-ISM-S-B1 |             |            | S2540G-11       | WETC/183208    |
| 2208873005 | CL-ISM-S-B2 |             |            | S2540G-11       | WETC/183208    |
| 2208873006 | CL-ISM-S-B3 |             |            | S2540G-11       | WETC/183208    |
| 2208873007 | CL-ISM-S-C2 |             |            | S2540G-11       | WETC/183208    |
| 2208873008 | CL-ISM-S-C3 |             |            | S2540G-11       | WETC/183208    |
| 2208873009 | CL-ISM-S-D3 |             |            | S2540G-11       | WETC/183208    |
| 2208873009 | CL-ISM-S-D3 | SW846 5035  | VOGC/9394  | SW846 8015D     | VOGC/9395      |

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2208873 Chase Lands Phase II

| Lab ID     | Sample ID   | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|-------------|-------------|------------|-----------------|----------------|
| 2208873002 | CL-ISM-S-A2 | SW846 3546  | EXTR/46803 | SW846 8270D     | SVMS/27623     |
| 2208873003 | CL-ISM-S-A3 | SW846 3546  | EXTR/46803 | SW846 8270D     | SVMS/27623     |
| 2208873004 | CL-ISM-S-B1 | SW846 3546  | EXTR/46803 | SW846 8270D     | SVMS/27623     |
| 2208873005 | CL-ISM-S-B2 | SW846 3546  | EXTR/46803 | SW846 8270D     | SVMS/27623     |
| 2208873006 | CL-ISM-S-B3 | SW846 3546  | EXTR/46803 | SW846 8270D     | SVMS/27623     |
| 2208873007 | CL-ISM-S-C2 | SW846 3546  | EXTR/46803 | SW846 8270D     | SVMS/27623     |
| 2208873008 | CL-ISM-S-C3 | SW846 3546  | EXTR/46803 | SW846 8270D     | SVMS/27623     |
| 2208873009 | CL-ISM-S-D3 | SW846 3546  | EXTR/46803 | SW846 8270D     | SVMS/27623     |
| 2208873002 | CL-ISM-S-A2 | SW846 3051  | MDIG/62761 | SW846 6020A     | META/56219     |
| 2208873003 | CL-ISM-S-A3 | SW846 3051  | MDIG/62761 | SW846 6020A     | META/56219     |
| 2208873004 | CL-ISM-S-B1 | SW846 3051  | MDIG/62761 | SW846 6020A     | META/56219     |
| 2208873005 | CL-ISM-S-B2 | SW846 3051  | MDIG/62761 | SW846 6020A     | META/56219     |
| 2208873006 | CL-ISM-S-B3 | SW846 3051  | MDIG/62761 | SW846 6020A     | META/56219     |
| 2208873007 | CL-ISM-S-C2 | SW846 3051  | MDIG/62761 | SW846 6020A     | META/56219     |
| 2208873008 | CL-ISM-S-C3 | SW846 3051  | MDIG/62761 | SW846 6020A     | META/56219     |
| 2208873009 | CL-ISM-S-D3 | SW846 3051  | MDIG/62761 | SW846 6020A     | META/56219     |
| 2208873002 | CL-ISM-S-A2 | SW846 3546  | EXTR/46806 | SW846 8015D     | SVGC/44578     |
| 2208873002 | CL-ISM-S-A2 | SW846 3546  | EXTR/46807 | SW846 8082A     | SVGC/44572     |
| 2208873003 | CL-ISM-S-A3 | SW846 3546  | EXTR/46807 | SW846 8082A     | SVGC/44572     |
| 2208873004 | CL-ISM-S-B1 | SW846 3546  | EXTR/46807 | SW846 8082A     | SVGC/44572     |
| 2208873005 | CL-ISM-S-B2 | SW846 3546  | EXTR/46807 | SW846 8082A     | SVGC/44572     |
| 2208873002 | CL-ISM-S-A2 | SW846 3546  | EXTR/46808 | SW846 8081B     | SVGC/44581     |
| 2208873003 | CL-ISM-S-A3 | SW846 3546  | EXTR/46808 | SW846 8081B     | SVGC/44581     |
| 2208873004 | CL-ISM-S-B1 | SW846 3546  | EXTR/46808 | SW846 8081B     | SVGC/44581     |
| 2208873005 | CL-ISM-S-B2 | SW846 3546  | EXTR/46808 | SW846 8081B     | SVGC/44581     |
| 2208873002 | CL-ISM-S-A2 | SW846 7471B | MDIG/62773 | SW846 7471B     | META/56230     |

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2208873 Chase Lands Phase II

| Lab ID     | Sample ID   | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|-------------|-------------|------------|-----------------|----------------|
| 2208873003 | CL-ISM-S-A3 | SW846 7471B | MDIG/62773 | SW846 7471B     | META/56230     |
| 2208873004 | CL-ISM-S-B1 | SW846 7471B | MDIG/62773 | SW846 7471B     | META/56230     |
| 2208873005 | CL-ISM-S-B2 | SW846 7471B | MDIG/62773 | SW846 7471B     | META/56230     |
| 2208873006 | CL-ISM-S-B3 | SW846 7471B | MDIG/62773 | SW846 7471B     | META/56230     |
| 2208873007 | CL-ISM-S-C2 | SW846 7471B | MDIG/62773 | SW846 7471B     | META/56230     |
| 2208873008 | CL-ISM-S-C3 | SW846 7471B | MDIG/62773 | SW846 7471B     | META/56230     |
| 2208873009 | CL-ISM-S-D3 | SW846 7471B | MDIG/62773 | SW846 7471B     | META/56230     |
| 2208873006 | CL-ISM-S-B3 | SW846 3546  | EXTR/46818 | SW846 8081B     | SVGC/44597     |
| 2208873007 | CL-ISM-S-C2 | SW846 3546  | EXTR/46818 | SW846 8081B     | SVGC/44597     |
| 2208873008 | CL-ISM-S-C3 | SW846 3546  | EXTR/46818 | SW846 8081B     | SVGC/44597     |
| 2208873009 | CL-ISM-S-D3 | SW846 3546  | EXTR/46818 | SW846 8081B     | SVGC/44597     |
| 2208873006 | CL-ISM-S-B3 | SW846 3546  | EXTR/46819 | SW846 8082A     | SVGC/44589     |
| 2208873007 | CL-ISM-S-C2 | SW846 3546  | EXTR/46819 | SW846 8082A     | SVGC/44589     |
| 2208873008 | CL-ISM-S-C3 | SW846 3546  | EXTR/46819 | SW846 8082A     | SVGC/44589     |
| 2208873009 | CL-ISM-S-D3 | SW846 3546  | EXTR/46819 | SW846 8082A     | SVGC/44589     |
| 2208873003 | CL-ISM-S-A3 | SW846 3546  | EXTR/46820 | SW846 8015D     | SVGC/44594     |
| 2208873004 | CL-ISM-S-B1 | SW846 3546  | EXTR/46820 | SW846 8015D     | SVGC/44594     |
| 2208873005 | CL-ISM-S-B2 | SW846 3546  | EXTR/46820 | SW846 8015D     | SVGC/44594     |
| 2208873006 | CL-ISM-S-B3 | SW846 3546  | EXTR/46820 | SW846 8015D     | SVGC/44594     |
| 2208873007 | CL-ISM-S-C2 | SW846 3546  | EXTR/46820 | SW846 8015D     | SVGC/44594     |
| 2208873008 | CL-ISM-S-C3 | SW846 3546  | EXTR/46820 | SW846 8015D     | SVGC/44594     |
| 2208873009 | CL-ISM-S-D3 | SW846 3546  | EXTR/46820 | SW846 8015D     | SVGC/44594     |



34 Dogwood Lane  
Middletown, PA 17057  
P. 717-944-5541  
F. 717-944-1430

Environmental

CHAIN OF CUSTODY/  
REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT/  
SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 2  
Courier:  
Tracking #:



\* 2 2 0 8 8 7 3 \*

Co. Name: Howard County DPW (EA Engineering)  
Contact (Report to): N.H. Blackwell Phone: 410-343-3440  
Address: Nelson Brooks 410-584-7000  
3430 Courthouse Dr  
Ellicott City, MD 21043  
Bill to (if different than Report to): N.H. Blackwell PO#:

Project Name/ID: Chase Land's Phase II ALS Quote #:

TAT: ☒ Normal Standard TAT is 10-12 business days. Date Required: 2/24/17  
☐ Rush-Subject to ALS approval and surcharges. Approved By:

Email? ☒ Y ☐ N Fax? ☐ Y ☐ N  
Y No. 1 Y blackwell@howardcountymd.gov / nblackwell@howardcountymd.gov

| Sample Description/Location<br>(as it will appear on the job report) | COC Comments | Sample Date  | Military Time |
|----------------------------------------------------------------------|--------------|--------------|---------------|
| 1 TB-05                                                              |              |              |               |
| 2 CL-ISM-S-A2                                                        |              | 2/15/17 1310 | 650           |
| 3 CL-ISM-S-A3                                                        |              | 2/15/17 1320 | 1             |
| 4 CL-ISM-S-B1                                                        |              | 1400         | 1             |
| 5 CL-ISM-S-B2                                                        |              | 1240         | 1             |
| 6 CL-ISM-S-B3                                                        |              | 0850         | 1             |
| 7 CL-ISM-S-C2                                                        |              | 1100         | 1             |
| 8 CL-ISM-S-C3                                                        |              | 0950         | 1             |

Project Comments:

SAMPLED BY (Please Print):

Michael Thornton

Relinquished By / Company Name

1 2/15/17 1500 2/15/17 1500

3 2/15/17 2115 2/15/17 2115

5 2/15/17 2115 2/15/17 2115

7 2/15/17 2115 2/15/17 2115

9 2/15/17 2115 2/15/17 2115

10 2/15/17 2115 2/15/17 2115

11 2/15/17 2115 2/15/17 2115

12 2/15/17 2115 2/15/17 2115

13 2/15/17 2115 2/15/17 2115

14 2/15/17 2115 2/15/17 2115

| Container Type | Size  | Preservative | Matrix |
|----------------|-------|--------------|--------|
| TCH            | C     | C            | C      |
| 40ml           | 40ml  | 80ml         | 40ml   |
| DE             | 100ml | 100ml        | 100ml  |

| ANALYSES/METHOD REQUESTED                  | Enter Number of Containers Per Analysis |
|--------------------------------------------|-----------------------------------------|
| 8260-VOC + Oxyanions                       | 4                                       |
| 8270-SVOC, TPH, PCBs, P, Metals, 8071-Pest | 1                                       |
| 8260-VOC                                   | 2                                       |

| Correct container? | Correct sample volume? | Correct preservation? | Headspace/Volatiles? | Container in good condition? |
|--------------------|------------------------|-----------------------|----------------------|------------------------------|
| Y                  | Y                      | Y                     | Y                    | Y                            |
| N                  | N                      | N                     | N                    | N                            |

| ALS FIELD SERVICES                        | ALS Lab Services                            |
|-------------------------------------------|---------------------------------------------|
| <input type="checkbox"/> Pickup           | <input type="checkbox"/> Lab                |
| <input type="checkbox"/> Labor            | <input type="checkbox"/> Composite Sampling |
| <input type="checkbox"/> Rental Equipment | <input type="checkbox"/> Other:             |

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34 Dogwood Lane  
Middletown, PA 17057  
P. 717-944-5541  
F. 717-944-1430

# Environmetal

## CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT/ SAMPLER. INSTRUCTIONS ON THE BACK.

Page 2 of 2  
Courier:  
Tracking #:

COC#13

Co. Name: Howard County DPW (EA Engineering)  
Contact (Report to): N.Y. Blackwell Phone: 410-343-3440  
Address: Nelson Brooks 410-584-7000  
2430 Courthouse Dr  
Ellicott City, MD 21043  
Bill to (if different than Report to): N.Y. Blackwell PO#:

Project Name/ID: Chase Lays Phase II - ALS Quote #:  
TAT: ☐ Normal Standard TAT is 10-12 business days. Date Required:  
☐ Rush-Subject to ALS approval and surcharges. Approved By:

Email? ☐ Fax? ☐ -Y No: ☒ N.Y. Blackwell@howardcountyind.gov/nbnotes@easton

| Sample Description/Location<br>(as it will appear on the lab report) | COC Comments | Sample Date | Military Time |
|----------------------------------------------------------------------|--------------|-------------|---------------|
| 1 CL-ISM-S-D3                                                        |              | 2/15/17     | 1030          |
| 2                                                                    |              |             |               |
| 3                                                                    |              |             |               |
| 4                                                                    |              |             |               |
| 5                                                                    |              |             |               |
| 6                                                                    |              |             |               |
| 7                                                                    |              |             |               |
| 8                                                                    |              |             |               |

Project Comments:

SAMPLED BY (Please Print):

Michael Thornton

| Relinquished By / Company Name | Date    | Time | Received By / Company Name | Date    | Time |
|--------------------------------|---------|------|----------------------------|---------|------|
| 1 Nelson Brooks                | 2/15/17 | 1500 | 2 Nelson Brooks            | 2/15/17 | 1500 |
| 3 Nelson Brooks                | 2/15    |      | 4 Nelson Brooks            | 2/15    | 1530 |
| 5 Nelson Brooks                | 2/15    |      | 6 Nelson Brooks            | 2/15    | 1530 |
| 7 Nelson Brooks                |         |      | 8 Nelson Brooks            |         |      |
| 9 Nelson Brooks                |         |      | 10 Nelson Brooks           |         |      |

|                                                                                                                                                                            |  |                                                                                                                                                                                                  |  |                                                                                                                                                                                                      |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Receipt Information</b><br>(Completed by Sample Receiving)<br>Performed by: <u>SP-13</u><br>Cooler Temp: <u>1</u><br>Therm. ID: <u>352</u><br>No. of Coolers:<br>Notes: |  | <b>ANALYSES/METHOD REQUESTED</b><br>TPH GRO<br>8260-VOC + Organics<br>8270-SVOC, THAO, PCBs<br>PP Metals, 8081-Pest                                                                              |  | <b>Enter Number of Containers Per Analysis</b><br>4 1 1                                                                                                                                              |  |
| <b>Correct containers?</b> Y N<br><b>Correct sample volume?</b> Y N<br><b>Correct preservation?</b> Y N<br><b>Headspace/Volatiles?</b> Y N<br>Circle appropriate Y or N.   |  | <b>Custody seals Present?</b> Y N<br><b>(If present) Seals intact?</b> Y N<br><b>Received on ice?</b> Y N<br><b>COC Labels complete/accurate?</b> Y N<br><b>Container in good condition?</b> Y N |  | <b>ALS FIELD SERVICES</b><br>Pickup <input type="checkbox"/><br>Labor <input type="checkbox"/><br>Composite Sampling <input type="checkbox"/><br>Rental Equipment <input type="checkbox"/><br>Other: |  |

\*\*Matrix: Air=Air; DW=Drinking Water; GW=Groundwater; O=Oil; OL=Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater  
 \*\*\*Container Type: AG=Amber Glass; CG=Clear Glass; PL=Plastic. Container Size: 250ml, 500ml, 1L, 2L, etc. Preservative: HCl, HNO3, NaOH, etc.  
 Copies: WHITE - ORIGINAL CANARY - CUSTOMER COPY

February 27, 2017

Ms. Tara Lamond  
EA Engineering-MD  
225 Schilling Circle  
Hunt Valley, MD 21031

## Certificate of Analysis

|                                            |                                           |
|--------------------------------------------|-------------------------------------------|
| Project Name: <b>2017-REV2-MDE SOIL/GW</b> | Workorder: <b>2209155</b>                 |
| Purchase Order:                            | Workorder ID: <b>Chase Lands Phase II</b> |

Dear Ms. Lamond:

Enclosed are the analytical results for samples received by the laboratory on Thursday, February 16, 2017.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

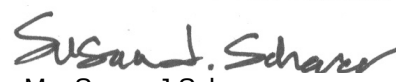
Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at [www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads](http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads).

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Michael Thornton , Mr. Hugh Murphy , Mr. Nelson Brooks , Ms. Niti Blackwell

*This page is included as part of the Analytical Report and must be retained as a permanent record thereof.*

  
Ms. Susan J Scherer  
Project Coordinator



**SAMPLE SUMMARY**

Workorder: 2209155 Chase Lands Phase II

| Lab ID     | Sample ID   | Matrix | Date Collected  | Date Received   | Collected By |
|------------|-------------|--------|-----------------|-----------------|--------------|
| 2209155001 | TB-06       | Water  | 2/16/2017 20:20 | 2/16/2017 20:20 | Mr. Michael  |
| 2209155002 | CL-GS-S-02  | Solid  | 2/16/2017 10:50 | 2/16/2017 20:20 | Mr. Michael  |
| 2209155003 | CL-GS-S-07  | Solid  | 2/16/2017 13:50 | 2/16/2017 20:20 | Mr. Michael  |
| 2209155004 | CL-SAW-S-C3 | Solid  | 2/16/2017 14:30 | 2/16/2017 20:20 | Mr. Michael  |
| 2209155005 | CL-ISM-S-C1 | Solid  | 2/16/2017 08:00 | 2/16/2017 20:20 | Mr. Michael  |
| 2209155006 | CL-GS-S-08  | Solid  | 2/16/2017 12:00 | 2/16/2017 20:20 | Mr. Michael  |

## SAMPLE SUMMARY

Workorder: 2209155 Chase Lands Phase II

### Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.

### Standard Acronyms/Flags

|        |                                                                                                                                      |
|--------|--------------------------------------------------------------------------------------------------------------------------------------|
| J      | Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte     |
| U      | Indicates that the analyte was Not Detected (ND)                                                                                     |
| N      | Indicates presumptive evidence of the presence of a compound                                                                         |
| MDL    | Method Detection Limit                                                                                                               |
| PQL    | Practical Quantitation Limit                                                                                                         |
| RDL    | Reporting Detection Limit                                                                                                            |
| ND     | Not Detected - indicates that the analyte was Not Detected at the RDL                                                                |
| Cntr   | Analysis was performed using this container                                                                                          |
| RegLmt | Regulatory Limit                                                                                                                     |
| LCS    | Laboratory Control Sample                                                                                                            |
| MS     | Matrix Spike                                                                                                                         |
| MSD    | Matrix Spike Duplicate                                                                                                               |
| DUP    | Sample Duplicate                                                                                                                     |
| %Rec   | Percent Recovery                                                                                                                     |
| RPD    | Relative Percent Difference                                                                                                          |
| LOD    | DoD Limit of Detection                                                                                                               |
| LOQ    | DoD Limit of Quantitation                                                                                                            |
| DL     | DoD Detection Limit                                                                                                                  |
| I      | Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL) |
| (S)    | Surrogate Compound                                                                                                                   |
| NC     | Not Calculated                                                                                                                       |
| *      | Result outside of QC limits                                                                                                          |

## PROJECT SUMMARY

Workorder: 2209155 Chase Lands Phase II

---

### Sample Comments

---

**Lab ID:** 2209155002

**Sample ID:** CL-GS-S-02

**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2209155003

**Sample ID:** CL-GS-S-07

**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2209155004

**Sample ID:** CL-SAW-S-C3

**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2209155005

**Sample ID:** CL-ISM-S-C1

**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

**Lab ID:** 2209155006

**Sample ID:** CL-GS-S-08

**Sample Type:** SAMPLE

This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155001**

Date Collected: 2/16/2017 20:20

Matrix: Water

Sample ID: **TB-06**

Date Received: 2/16/2017 20:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------|---------------|-----|------|
| <b>VOLATILE ORGANICS</b>    |         |      |       |      |      |             |             |               |     |      |
| Acetone                     | 9.7J    | J    | ug/L  | 10.0 | 3.1  | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| tert-Amyl methyl ether      | ND      |      | ug/L  | 1.0  | 0.20 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| tert-Amyl Alcohol           | ND      |      | ug/L  | 10.0 | 6.6  | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| tert-Amyl Ethylether        | ND      |      | ug/L  | 1.0  | 0.29 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| Benzene                     | ND      |      | ug/L  | 1.0  | 0.23 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| Bromochloromethane          | ND      |      | ug/L  | 1.0  | 0.32 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| Bromodichloromethane        | ND      |      | ug/L  | 1.0  | 0.27 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| Bromoform                   | ND      |      | ug/L  | 1.0  | 0.40 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| Bromomethane                | 0.43J   | J    | ug/L  | 1.0  | 0.39 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| 2-Butanone                  | ND      |      | ug/L  | 10.0 | 1.8  | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| tert-Butyl Alcohol          | ND      |      | ug/L  | 10.0 | 2.2  | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| Carbon Disulfide            | 0.25J   | J    | ug/L  | 1.0  | 0.23 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| Carbon Tetrachloride        | ND      |      | ug/L  | 1.0  | 0.31 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| Chlorobenzene               | ND      |      | ug/L  | 1.0  | 0.19 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| Chlorodibromomethane        | ND      |      | ug/L  | 1.0  | 0.45 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| Chloroethane                | ND      |      | ug/L  | 1.0  | 0.33 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| Chloroform                  | ND      |      | ug/L  | 1.0  | 0.21 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| Chloromethane               | 0.49J   | J    | ug/L  | 1.0  | 0.31 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| 1,2-Dibromo-3-chloropropane | ND      |      | ug/L  | 7.0  | 1.5  | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| 1,2-Dibromoethane           | ND      |      | ug/L  | 1.0  | 0.28 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| 1,1-Dichloroethane          | ND      |      | ug/L  | 1.0  | 0.28 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| 1,2-Dichloroethane          | ND      |      | ug/L  | 1.0  | 0.32 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| 1,1-Dichloroethene          | ND      |      | ug/L  | 1.0  | 0.29 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| cis-1,2-Dichloroethene      | ND      |      | ug/L  | 1.0  | 0.32 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| trans-1,2-Dichloroethene    | ND      |      | ug/L  | 1.0  | 0.26 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| 1,2-Dichloropropane         | ND      |      | ug/L  | 1.0  | 0.24 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| cis-1,3-Dichloropropene     | ND      |      | ug/L  | 1.0  | 0.31 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| trans-1,3-Dichloropropene   | ND      |      | ug/L  | 1.0  | 0.29 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| Diisopropyl ether           | ND      |      | ug/L  | 1.0  | 0.25 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| Ethyl tert-butyl ether      | ND      |      | ug/L  | 1.0  | 0.19 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| Ethylbenzene                | ND      |      | ug/L  | 1.0  | 0.34 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| 2-Hexanone                  | 2.1J    | J    | ug/L  | 5.0  | 1.3  | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| Methyl t-Butyl Ether        | ND      |      | ug/L  | 1.0  | 0.33 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| 4-Methyl-2-Pentanone(MIBK)  | ND      |      | ug/L  | 5.0  | 1.5  | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| Methylene Chloride          | ND      |      | ug/L  | 1.0  | 0.45 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |
| Styrene                     | ND      |      | ug/L  | 1.0  | 0.24 | SW846 8260B |             | 2/17/17 21:54 | TMP | A    |

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155001**

Date Collected: 2/16/2017 20:20

Matrix: Water

Sample ID: **TB-06**

Date Received: 2/16/2017 20:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By     | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-----------------|---------------|-----------------|-----------------------|
| 1,1,1,2-Tetrachloroethane   | ND             |             | ug/L         | 1.0           | 0.35 | SW846 8260B   |                 | 2/17/17 21:54 | TMP             | A                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/L         | 1.0           | 0.34 | SW846 8260B   |                 | 2/17/17 21:54 | TMP             | A                     |
| Tetrachloroethene           | ND             |             | ug/L         | 1.0           | 0.35 | SW846 8260B   |                 | 2/17/17 21:54 | TMP             | A                     |
| Toluene                     | ND             |             | ug/L         | 1.0           | 0.23 | SW846 8260B   |                 | 2/17/17 21:54 | TMP             | A                     |
| Total Xylenes               | ND             |             | ug/L         | 3.0           | 0.66 | SW846 8260B   |                 | 2/17/17 21:54 | TMP             | A                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/L         | 1.0           | 0.22 | SW846 8260B   |                 | 2/17/17 21:54 | TMP             | A                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/17/17 21:54 | TMP             | A                     |
| Trichloroethene             | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/17/17 21:54 | TMP             | A                     |
| Vinyl Chloride              | ND             |             | ug/L         | 1.0           | 0.30 | SW846 8260B   |                 | 2/17/17 21:54 | TMP             | A                     |
| o-Xylene                    | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/17/17 21:54 | TMP             | A                     |
| mp-Xylene                   | ND             |             | ug/L         | 2.0           | 0.52 | SW846 8260B   |                 | 2/17/17 21:54 | TMP             | A                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 92.4           |             | %            | 62 - 133      |      | SW846 8260B   |                 |               | 2/17/17 21:54   | TMP A                 |
| 4-Bromofluorobenzene (S)    | 93.4           |             | %            | 79 - 114      |      | SW846 8260B   |                 |               | 2/17/17 21:54   | TMP A                 |
| Dibromofluoromethane (S)    | 96.6           |             | %            | 78 - 116      |      | SW846 8260B   |                 |               | 2/17/17 21:54   | TMP A                 |
| Toluene-d8 (S)              | 95.9           |             | %            | 76 - 127      |      | SW846 8260B   |                 |               | 2/17/17 21:54   | TMP A                 |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155002**

Date Collected: 2/16/2017 10:50

Matrix: Solid

Sample ID: **CL-GS-S-02**

Date Received: 2/16/2017 20:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 40.5           |             | mg/kg        | 12.0          | 2.8  | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 15:23 | BS              | F                     |
| Gasoline Range Organics       | ND             |             | ug/kg        | 12800         | 1780 | SW846 8015D   | 2/16/17 10:50 DD  | 2/18/17 07:44 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 88.7           |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 15:23 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 117            |             | %            | 72 - 134      |      | SW846 8015D   | 2/16/17 10:50 DD  | 2/18/17 07:44 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | ND             |             | ug/kg        | 12.0          | 5.5  | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.4           | 0.71 | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 12.0          | 4.2  | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.4           | 0.60 | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| Benzene                       | ND             |             | ug/kg        | 2.4           | 0.60 | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| Bromochloromethane            | ND             |             | ug/kg        | 2.4           | 0.60 | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.4           | 0.85 | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| Bromoform                     | ND             |             | ug/kg        | 2.4           | 0.62 | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| Bromomethane                  | ND             |             | ug/kg        | 2.4           | 0.62 | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| 2-Butanone                    | ND             |             | ug/kg        | 12.0          | 3.8  | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 12.0          | 4.2  | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.4           | 0.75 | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.4           | 0.61 | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.4           | 0.61 | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.4           | 0.81 | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| Chloroethane                  | ND             |             | ug/kg        | 6.0           | 1.0  | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| Chloroform                    | ND             |             | ug/kg        | 2.4           | 0.63 | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| Chloromethane                 | ND             |             | ug/kg        | 2.4           | 0.66 | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 6.0           | 3.5  | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.4           | 0.65 | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.4           | 0.60 | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| 1,2-Dichloroethane            | 1.5J           | J           | ug/kg        | 2.4           | 0.60 | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.4           | 0.62 | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.4           | 0.60 | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.4           | 0.62 | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.4           | 0.72 | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.4           | 0.66 | SW846 8260B   | 2/16/17 10:50 TMP | 2/21/17 15:29 | TMP             | C                     |

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155002**

Date Collected: 2/16/2017 10:50

Matrix: Solid

Sample ID: **CL-GS-S-02**

Date Received: 2/16/2017 20:20

| Parameters                 | Results | Flag  | Units | RDL      | MDL  | Method      | Prepared By       | Analyzed          | By       | Cntr |      |
|----------------------------|---------|-------|-------|----------|------|-------------|-------------------|-------------------|----------|------|------|
| trans-1,3-Dichloropropene  | ND      |       | ug/kg | 2.4      | 0.69 | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| Diisopropyl ether          | ND      |       | ug/kg | 2.4      | 0.60 | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| Ethyl tert-butyl ether     | ND      |       | ug/kg | 2.4      | 0.62 | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| Ethylbenzene               | ND      |       | ug/kg | 2.4      | 0.81 | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| 2-Hexanone                 | ND      |       | ug/kg | 12.0     | 3.3  | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| Methyl t-Butyl Ether       | ND      |       | ug/kg | 2.4      | 0.60 | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| 4-Methyl-2-Pentanone(MIBK) | ND      |       | ug/kg | 12.0     | 4.5  | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| Methylene Chloride         | 16.0    | 6,7,8 | ug/kg | 2.4      | 0.93 | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| Naphthalene                | ND      |       | ug/kg | 2.4      | 0.60 | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| Styrene                    | ND      |       | ug/kg | 2.4      | 0.60 | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| 1,1,2,2-Tetrachloroethane  | ND      |       | ug/kg | 2.4      | 0.67 | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| Tetrachloroethene          | ND      |       | ug/kg | 2.4      | 0.72 | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| Toluene                    | ND      |       | ug/kg | 2.4      | 0.80 | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| Total Xylenes              | ND      |       | ug/kg | 7.2      | 1.7  | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| 1,1,1-Trichloroethane      | ND      |       | ug/kg | 2.4      | 0.74 | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| 1,1,2-Trichloroethane      | ND      |       | ug/kg | 2.4      | 0.67 | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| Trichloroethene            | ND      |       | ug/kg | 2.4      | 0.60 | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| Vinyl Chloride             | ND      |       | ug/kg | 2.4      | 0.60 | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| o-Xylene                   | ND      |       | ug/kg | 2.4      | 0.69 | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| mp-Xylene                  | ND      |       | ug/kg | 4.8      | 0.99 | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| Surrogate Recoveries       | Results | Flag  | Units | Limits   |      | Method      | Prepared          | By                | Analyzed | By   | Cntr |
| 1,2-Dichloroethane-d4 (S)  | 75.3    |       | %     | 56 - 124 |      | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| 4-Bromofluorobenzene (S)   | 40.5    | 5     | %     | 51 - 128 |      | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| Dibromofluoromethane (S)   | 94.3    |       | %     | 62 - 123 |      | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| Toluene-d8 (S)             | 82.2    |       | %     | 59 - 131 |      | SW846 8260B | 2/16/17 10:50 TMP | 2/21/17 15:29 TMP | C        |      |      |
| SEMIVOLATILES              |         |       |       |          |      |             |                   |                   |          |      |      |
| Acenaphthene               | ND      |       | ug/kg | 56.5     | 6.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 CGS | F        |      |      |
| Acenaphthylene             | ND      |       | ug/kg | 56.5     | 7.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 CGS | F        |      |      |
| Acetophenone               | ND      |       | ug/kg | 113      | 9.0  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 CGS | F        |      |      |
| Anthracene                 | ND      |       | ug/kg | 56.5     | 9.0  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 CGS | F        |      |      |
| Atrazine                   | ND      |       | ug/kg | 113      | 12.4 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 CGS | F        |      |      |
| Benzaldehyde               | ND      |       | ug/kg | 226      | 19.2 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 CGS | F        |      |      |
| Benzo(a)anthracene         | 28.2J   | J     | ug/kg | 56.5     | 5.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 CGS | F        |      |      |
| Benzo(a)pyrene             | 20.3J   | J     | ug/kg | 56.5     | 4.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 CGS | F        |      |      |
| Benzo(b)fluoranthene       | 23.4J   | J     | ug/kg | 56.5     | 5.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 CGS | F        |      |      |
| Benzo(g,h,i)perylene       | 17.4J   | J     | ug/kg | 56.5     | 5.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 CGS | F        |      |      |



## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155002**

Date Collected: 2/16/2017 10:50

Matrix: Solid

Sample ID: **CL-GS-S-02**

Date Received: 2/16/2017 20:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | 12.2J   | J    | ug/kg | 56.5 | 5.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 113  | 7.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 113  | 10.2 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| Butylbenzylphthalate        | 14.3J   | J    | ug/kg | 113  | 7.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 226  | 20.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 113  | 7.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 226  | 11.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 226  | 13.6 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 113  | 10.2 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 113  | 14.7 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 113  | 16.9 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 113  | 6.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 226  | 9.0  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 113  | 9.0  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| Chrysene                    | 17.7J   | J    | ug/kg | 56.5 | 5.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 226  | 9.0  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 226  | 12.4 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 113  | 9.0  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 113  | 7.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 56.5 | 6.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 113  | 9.0  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 226  | 42.9 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 226  | 9.0  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 113  | 9.0  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 226  | 16.9 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 113  | 7.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 226  | 45.2 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 113  | 10.2 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 113  | 13.6 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 113  | 55.4 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 113  | 7.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| Fluoranthene                | 31.4J   | J    | ug/kg | 56.5 | 5.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 56.5 | 6.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 113  | 12.4 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 113  | 11.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 226  | 12.4 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 113  | 10.2 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | 17.3J   | J    | ug/kg | 56.5 | 7.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155002**

Date Collected: 2/16/2017 10:50

Matrix: Solid

Sample ID: **CL-GS-S-02**

Date Received: 2/16/2017 20:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 113           | 6.8    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 226           | 29.4   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 113           | 5.6    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 56.5          | 6.8    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 226           | 13.6   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 226           | 22.6   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 226           | 9.0    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 113           | 13.6   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 226           | 12.4   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 226           | 15.8   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 113           | 9.0    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 113           | 9.0    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 226           | 29.4   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| Phenanthrene                   | 14.6J          | J           | ug/kg        | 56.5          | 5.6    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 226           | 11.3   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| Pyrene                         | 28.1J          | J           | ug/kg        | 56.5          | 5.6    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 113           | 7.9    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 226           | 13.6   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 226           | 13.6   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 226           | 13.6   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 78.2           |             | %            | 19 - 132      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 76.5           |             | %            | 40 - 110      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| 2-Fluorophenol (S)             | 69.1           |             | %            | 26 - 116      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 70.8           |             | %            | 38 - 112      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| Phenol-d5 (S)                  | 71.4           |             | %            | 35 - 111      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| Terphenyl-d14 (S)              | 66.8           |             | %            | 45 - 126      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:31 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.036         | 0.0033 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:46 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:46 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.036         | 0.0033 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:46 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:46 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.036         | 0.0098 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:46 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:46 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:46 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:46 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.036         | 0.0076 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:46 | EGO             | F                     |

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155002**

Date Collected: 2/16/2017 10:50

Matrix: Solid

Sample ID: **CL-GS-S-02**

Date Received: 2/16/2017 20:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.036         | 0.0098 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:46 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 80.6           |             | %            | 49 - 115      |        | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:46 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 90.8           |             | %            | 27 - 137      |        | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:46 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 9.2           | 3.0    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:53 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 9.2           | 0.82   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:53 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 9.2           | 0.98   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:53 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 9.2           | 0.71   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:53 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 9.2           | 0.76   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:53 | RWS             | F                     |
| alpha-Chlordane             | 3.6J           | J           | ug/kg        | 9.2           | 0.98   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:53 | RWS             | F                     |
| gamma-Chlordane             | 3.1J           | J           | ug/kg        | 9.2           | 1.6    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:53 | RWS             | F                     |
| 4,4'-DDD                    | 38.4           |             | ug/kg        | 17.9          | 1.5    | SW846 8081B   | 2/23/17 00:15 CMA | 2/24/17 15:55 | RWS             | F                     |
| 4,4'-DDE                    | 45.7           |             | ug/kg        | 17.9          | 2.4    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:53 | RWS             | F                     |
| 4,4'-DDT                    | 202            |             | ug/kg        | 17.9          | 2.1    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:53 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 17.9          | 2.1    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:53 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 9.2           | 1.1    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:53 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 17.9          | 3.7    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:53 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 17.9          | 1.2    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:53 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 17.9          | 1.3    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:53 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 17.9          | 2.0    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:53 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 17.9          | 2.5    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:53 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 9.2           | 0.92   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:53 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 9.2           | 0.92   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:53 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 17.9          | 2.4    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:53 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 190           | 31.5   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:53 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 70.2           |             | %            | 30 - 135      |        | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:53 | RWS             | F                     |
| Decachlorobiphenyls (S)     | 73             |             | %            | 30 - 135      |        | SW846 8081B   | 2/23/17 00:15 CMA | 2/24/17 15:55 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 59.1           |             | %            | 30 - 111      |        | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 17:53 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 62.3           |             | %            | 30 - 111      |        | SW846 8081B   | 2/23/17 00:15 CMA | 2/24/17 15:55 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |        |               |                   |               |                 |                       |
| Moisture                    | 12.7           |             | %            | 0.1           | 0.01   | S2540G-11     |                   | 2/20/17 11:33 | VKB             | F                     |
| Total Solids                | 87.3           |             | %            | 0.1           | 0.01   | S2540G-11     |                   | 2/20/17 11:33 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |        |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.1           | 0.36   | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 05:22 | ZMC             | F1                    |

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155002**

Date Collected: 2/16/2017 10:50

Matrix: Solid

Sample ID: **CL-GS-S-02**

Date Received: 2/16/2017 20:20

| Parameters       | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|------------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Arsenic, Total   | 4.9     |      | mg/kg | 1.6   | 0.54  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:22 | ZMC | F1   |
| Beryllium, Total | 0.30J   | J    | mg/kg | 0.54  | 0.18  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:22 | ZMC | F1   |
| Cadmium, Total   | ND      |      | mg/kg | 0.54  | 0.18  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:22 | ZMC | F1   |
| Chromium, Total  | 21.9    |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:22 | ZMC | F1   |
| Copper, Total    | 10.4    |      | mg/kg | 2.7   | 0.86  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:22 | ZMC | F1   |
| Lead, Total      | 20.8    |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:22 | ZMC | F1   |
| Mercury, Total   | 0.028J  | J    | mg/kg | 0.053 | 0.017 | SW846 7471B | 2/22/17 11:55 AXC | 2/23/17 12:46 | MNP | F2   |
| Nickel, Total    | 8.1     |      | mg/kg | 2.7   | 0.86  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:22 | ZMC | F1   |
| Selenium, Total  | 1.1J    | J    | mg/kg | 2.7   | 0.86  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:22 | ZMC | F1   |
| Silver, Total    | ND      |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:22 | ZMC | F1   |
| Thallium, Total  | ND      |      | mg/kg | 0.54  | 0.18  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:22 | ZMC | F1   |
| Zinc, Total      | 35.9    |      | mg/kg | 2.7   | 0.86  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:22 | ZMC | F1   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155003**

Date Collected: 2/16/2017 13:50

Matrix: Solid

Sample ID: **CL-GS-S-07**

Date Received: 2/16/2017 20:20

| Parameters                  | Results | Flag  | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed          | By | Cntr |
|-----------------------------|---------|-------|-------|------|------|-------------|-------------------|-------------------|----|------|
| <b>VOLATILE ORGANICS</b>    |         |       |       |      |      |             |                   |                   |    |      |
| Acetone                     | 48.2    |       | ug/kg | 13.7 | 6.3  | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| tert-Amyl methyl ether      | ND      |       | ug/kg | 2.7  | 0.81 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| tert-Amyl Alcohol           | ND      |       | ug/kg | 13.7 | 4.8  | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| tert-Amyl Ethylether        | ND      |       | ug/kg | 2.7  | 0.68 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| Benzene                     | ND      |       | ug/kg | 2.7  | 0.68 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| Bromochloromethane          | ND      |       | ug/kg | 2.7  | 0.68 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| Bromodichloromethane        | ND      |       | ug/kg | 2.7  | 0.97 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| Bromoform                   | ND      |       | ug/kg | 2.7  | 0.71 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| Bromomethane                | ND      |       | ug/kg | 2.7  | 0.71 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| 2-Butanone                  | ND      |       | ug/kg | 13.7 | 4.4  | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| tert-Butyl Alcohol          | ND      |       | ug/kg | 13.7 | 4.8  | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| Carbon Disulfide            | ND      |       | ug/kg | 2.7  | 0.86 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| Carbon Tetrachloride        | ND      |       | ug/kg | 2.7  | 0.70 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| Chlorobenzene               | ND      |       | ug/kg | 2.7  | 0.70 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| Chlorodibromomethane        | ND      |       | ug/kg | 2.7  | 0.93 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| Chloroethane                | ND      |       | ug/kg | 6.8  | 1.2  | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| Chloroform                  | ND      |       | ug/kg | 2.7  | 0.72 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| Chloromethane               | ND      |       | ug/kg | 2.7  | 0.75 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| 1,2-Dibromo-3-chloropropane | ND      |       | ug/kg | 6.8  | 4.0  | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| 1,2-Dibromoethane           | ND      |       | ug/kg | 2.7  | 0.74 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| 1,1-Dichloroethane          | ND      |       | ug/kg | 2.7  | 0.68 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| 1,2-Dichloroethane          | ND      |       | ug/kg | 2.7  | 0.68 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| 1,1-Dichloroethene          | ND      |       | ug/kg | 2.7  | 0.71 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| cis-1,2-Dichloroethene      | ND      |       | ug/kg | 2.7  | 0.68 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| trans-1,2-Dichloroethene    | ND      |       | ug/kg | 2.7  | 0.71 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| 1,2-Dichloropropane         | ND      |       | ug/kg | 2.7  | 0.82 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| cis-1,3-Dichloropropene     | ND      |       | ug/kg | 2.7  | 0.75 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| trans-1,3-Dichloropropene   | ND      |       | ug/kg | 2.7  | 0.79 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| Diisopropyl ether           | ND      |       | ug/kg | 2.7  | 0.68 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| Ethyl tert-butyl ether      | ND      |       | ug/kg | 2.7  | 0.71 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| Ethylbenzene                | ND      |       | ug/kg | 2.7  | 0.93 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| 2-Hexanone                  | ND      |       | ug/kg | 13.7 | 3.8  | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| Methyl t-Butyl Ether        | ND      |       | ug/kg | 2.7  | 0.68 | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| 4-Methyl-2-Pentanone(MIBK)  | ND      |       | ug/kg | 13.7 | 5.2  | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |
| Methylene Chloride          | 13.4    | 1,2,3 | ug/kg | 2.7  | 1.1  | SW846 8260B | 2/16/17 13:50 CJC | 2/21/17 02:43 CJC | B  |      |



## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155003**

Date Collected: 2/16/2017 13:50

Matrix: Solid

Sample ID: **CL-GS-S-07**

Date Received: 2/16/2017 20:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| Naphthalene                 | ND             |             | ug/kg        | 2.7           | 0.68 | SW846 8260B   | 2/16/17 13:50 CJC | 2/21/17 02:43 | CJC             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.7           | 0.68 | SW846 8260B   | 2/16/17 13:50 CJC | 2/21/17 02:43 | CJC             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.7           | 0.76 | SW846 8260B   | 2/16/17 13:50 CJC | 2/21/17 02:43 | CJC             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.7           | 0.82 | SW846 8260B   | 2/16/17 13:50 CJC | 2/21/17 02:43 | CJC             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.7           | 0.92 | SW846 8260B   | 2/16/17 13:50 CJC | 2/21/17 02:43 | CJC             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 8.2           | 1.9  | SW846 8260B   | 2/16/17 13:50 CJC | 2/21/17 02:43 | CJC             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.7           | 0.85 | SW846 8260B   | 2/16/17 13:50 CJC | 2/21/17 02:43 | CJC             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.7           | 0.76 | SW846 8260B   | 2/16/17 13:50 CJC | 2/21/17 02:43 | CJC             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.7           | 0.68 | SW846 8260B   | 2/16/17 13:50 CJC | 2/21/17 02:43 | CJC             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.7           | 0.68 | SW846 8260B   | 2/16/17 13:50 CJC | 2/21/17 02:43 | CJC             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.7           | 0.79 | SW846 8260B   | 2/16/17 13:50 CJC | 2/21/17 02:43 | CJC             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 5.5           | 1.1  | SW846 8260B   | 2/16/17 13:50 CJC | 2/21/17 02:43 | CJC             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 75.9           |             | %            | 56 - 124      |      | SW846 8260B   | 2/16/17 13:50 CJC | 2/21/17 02:43 | CJC             | B                     |
| 4-Bromofluorobenzene (S)    | 73.3           |             | %            | 51 - 128      |      | SW846 8260B   | 2/16/17 13:50 CJC | 2/21/17 02:43 | CJC             | B                     |
| Dibromofluoromethane (S)    | 91.5           |             | %            | 62 - 123      |      | SW846 8260B   | 2/16/17 13:50 CJC | 2/21/17 02:43 | CJC             | B                     |
| Toluene-d8 (S)              | 83.2           |             | %            | 59 - 131      |      | SW846 8260B   | 2/16/17 13:50 CJC | 2/21/17 02:43 | CJC             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 57.1          | 6.9  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 57.1          | 8.0  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| Acetophenone                | ND             |             | ug/kg        | 114           | 9.1  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 57.1          | 9.1  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 114           | 12.6 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 228           | 19.4 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| Benzo(a)anthracene          | 10.7J          | J           | ug/kg        | 57.1          | 5.7  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 57.1          | 4.6  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 57.1          | 5.7  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 57.1          | 5.7  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| Benzo(k)fluoranthene        | ND             |             | ug/kg        | 57.1          | 5.7  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| Biphenyl                    | ND             |             | ug/kg        | 114           | 8.0  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| 4-Bromophenyl-phenylether   | ND             |             | ug/kg        | 114           | 10.3 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| Butylbenzylphthalate        | ND             |             | ug/kg        | 114           | 8.0  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| Caprolactam                 | ND             |             | ug/kg        | 228           | 20.6 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| Carbazole                   | ND             |             | ug/kg        | 114           | 8.0  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| 4-Chloro-3-methylphenol     | ND             |             | ug/kg        | 228           | 11.4 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| 4-Chloroaniline             | ND             |             | ug/kg        | 228           | 13.7 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| bis(2-Chloroethoxy)methane  | ND             |             | ug/kg        | 114           | 10.3 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155003**

Date Collected: 2/16/2017 13:50

Matrix: Solid

Sample ID: **CL-GS-S-07**

Date Received: 2/16/2017 20:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 114  | 14.9 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 114  | 17.1 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 114  | 6.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 228  | 9.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 114  | 9.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 57.1 | 5.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 228  | 9.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 228  | 12.6 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 114  | 9.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 114  | 8.0  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 57.1 | 6.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 114  | 9.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 228  | 43.4 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 228  | 9.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 114  | 9.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 228  | 17.1 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 114  | 8.0  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 228  | 45.7 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 114  | 10.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 114  | 13.7 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 114  | 56.0 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 114  | 8.0  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| Fluoranthene                | ND      |      | ug/kg | 57.1 | 5.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 57.1 | 6.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 114  | 12.6 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 114  | 11.4 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 228  | 12.6 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 114  | 10.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 57.1 | 8.0  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| Isophorone                  | ND      |      | ug/kg | 114  | 6.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| 2-Methyl-4,6-dinitrophenol  | ND      |      | ug/kg | 228  | 29.7 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| 2-Methylnaphthalene         | ND      |      | ug/kg | 114  | 5.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| Naphthalene                 | ND      |      | ug/kg | 57.1 | 6.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| 2-Nitroaniline              | ND      |      | ug/kg | 228  | 13.7 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| 3-Nitroaniline              | ND      |      | ug/kg | 228  | 22.8 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| 4-Nitroaniline              | ND      |      | ug/kg | 228  | 9.1  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| Nitrobenzene                | ND      |      | ug/kg | 114  | 13.7 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |
| 2-Nitrophenol               | ND      |      | ug/kg | 228  | 12.6 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS | F    |



## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155003**

Date Collected: 2/16/2017 13:50

Matrix: Solid

Sample ID: **CL-GS-S-07**

Date Received: 2/16/2017 20:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| 4-Nitrophenol                  | ND             |             | ug/kg        | 228           | 16.0   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 114           | 9.1    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 114           | 9.1    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 228           | 29.7   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 57.1          | 5.7    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 228           | 11.4   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| Pyrene                         | ND             |             | ug/kg        | 57.1          | 5.7    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 114           | 8.0    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 228           | 13.7   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 228           | 13.7   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 228           | 13.7   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 79.2           |             | %            | 19 - 132      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 76.4           |             | %            | 40 - 110      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| 2-Fluorophenol (S)             | 68.3           |             | %            | 26 - 116      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 69.9           |             | %            | 38 - 112      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| Phenol-d5 (S)                  | 70.4           |             | %            | 35 - 111      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| Terphenyl-d14 (S)              | 70.5           |             | %            | 45 - 126      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 17:57 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.037         | 0.0034 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:58 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:58 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.037         | 0.0034 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:58 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:58 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.037         | 0.010  | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:58 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:58 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:58 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:58 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.037         | 0.0078 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:58 | EGO             | F                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.037         | 0.010  | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:58 | EGO             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)        | 92.3           |             | %            | 49 - 115      |        | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:58 | EGO             | F                     |
| Tetrachloro-m-xylene (S)       | 92.8           |             | %            | 27 - 137      |        | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 07:58 | EGO             | F                     |
| <b>PESTICIDES</b>              |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                         | ND             |             | ug/kg        | 9.5           | 3.1    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |
| alpha-BHC                      | ND             |             | ug/kg        | 9.5           | 0.84   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |
| beta-BHC                       | ND             |             | ug/kg        | 9.5           | 1.0    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155003**  
Sample ID: **CL-GS-S-07**

Date Collected: 2/16/2017 13:50 Matrix: Solid  
Date Received: 2/16/2017 20:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| delta-BHC                     | ND             |             | ug/kg        | 9.5           | 0.73 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |
| gamma-BHC                     | ND             |             | ug/kg        | 9.5           | 0.78 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |
| alpha-Chlordane               | ND             |             | ug/kg        | 9.5           | 1.0  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |
| gamma-Chlordane               | ND             |             | ug/kg        | 9.5           | 1.6  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |
| 4,4'-DDD                      | ND             |             | ug/kg        | 18.5          | 1.5  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |
| 4,4'-DDE                      | ND             |             | ug/kg        | 18.5          | 2.5  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |
| 4,4'-DDT                      | ND             |             | ug/kg        | 18.5          | 2.1  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |
| Dieldrin                      | ND             |             | ug/kg        | 18.5          | 2.1  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |
| Endosulfan I                  | ND             |             | ug/kg        | 9.5           | 1.2  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |
| Endosulfan II                 | ND             |             | ug/kg        | 18.5          | 3.9  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |
| Endosulfan Sulfate            | ND             |             | ug/kg        | 18.5          | 1.2  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |
| Endrin                        | ND             |             | ug/kg        | 18.5          | 1.3  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |
| Endrin Aldehyde               | ND             |             | ug/kg        | 18.5          | 2.0  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |
| Endrin Ketone                 | ND             |             | ug/kg        | 18.5          | 2.6  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |
| Heptachlor                    | ND             |             | ug/kg        | 9.5           | 0.95 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |
| Heptachlor Epoxide            | ND             |             | ug/kg        | 9.5           | 0.95 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |
| Methoxychlor                  | ND             |             | ug/kg        | 18.5          | 2.5  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |
| Toxaphene                     | ND             |             | ug/kg        | 196           | 32.5 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)       | 71.7           |             | %            | 30 - 135      |      | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |
| Tetrachloro-m-xylene (S)      | 62.8           |             | %            | 30 - 111      |      | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:09 | RWS             | F                     |
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 44.7           |             | mg/kg        | 11.6          | 2.7  | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 15:59 | BS              | F                     |
| Gasoline Range Organics       | 1050J          | J           | ug/kg        | 6000          | 833  | SW846 8015D   | 2/16/17 13:50 DD  | 2/18/17 08:17 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 89.5           |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 15:59 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 111            |             | %            | 72 - 134      |      | SW846 8015D   | 2/16/17 13:50 DD  | 2/18/17 08:17 | DD              | D                     |
| <b>WET CHEMISTRY</b>          |                |             |              |               |      |               |                   |               |                 |                       |
| Moisture                      | 13.0           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/20/17 11:33 | VKB             | F                     |
| Total Solids                  | 87.0           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/20/17 11:33 | VKB             | F                     |
| <b>METALS</b>                 |                |             |              |               |      |               |                   |               |                 |                       |
| Antimony, Total               | ND             |             | mg/kg        | 1.1           | 0.36 | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 05:26 | ZMC             | F1                    |
| Arsenic, Total                | 5.4            |             | mg/kg        | 1.7           | 0.55 | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 05:26 | ZMC             | F1                    |
| Beryllium, Total              | 0.80           |             | mg/kg        | 0.55          | 0.18 | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 05:26 | ZMC             | F1                    |

**ANALYTICAL RESULTS**

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155003**

Date Collected: 2/16/2017 13:50

Matrix: Solid

Sample ID: **CL-GS-S-07**

Date Received: 2/16/2017 20:20

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.55  | 0.18  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:26 | ZMC | F1   |
| Chromium, Total | 28.6    |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:26 | ZMC | F1   |
| Copper, Total   | 12.1    |      | mg/kg | 2.8   | 0.88  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:26 | ZMC | F1   |
| Lead, Total     | 23.6    |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:26 | ZMC | F1   |
| Mercury, Total  | ND      |      | mg/kg | 0.053 | 0.017 | SW846 7471B | 2/22/17 11:55 AXC | 2/23/17 12:48 | MNP | F2   |
| Nickel, Total   | 15.0    |      | mg/kg | 2.8   | 0.88  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:26 | ZMC | F1   |
| Selenium, Total | 2.6J    | J    | mg/kg | 2.8   | 0.88  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:26 | ZMC | F1   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:26 | ZMC | F1   |
| Thallium, Total | 0.20J   | J    | mg/kg | 0.55  | 0.18  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:26 | ZMC | F1   |
| Zinc, Total     | 46.6    |      | mg/kg | 2.8   | 0.88  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:26 | ZMC | F1   |

Ms. Susan J Scherer

Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155004**  
Sample ID: **CL-SAW-S-C3**

Date Collected: 2/16/2017 14:30 Matrix: Solid  
Date Received: 2/16/2017 20:20

| Parameters                  | Results | Flag  | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|-------|-------|------|------|-------------|-------------------|---------------|-----|------|
| <b>VOLATILE ORGANICS</b>    |         |       |       |      |      |             |                   |               |     |      |
| Acetone                     | 35.9    |       | ug/kg | 10.3 | 4.7  | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| tert-Amyl methyl ether      | ND      |       | ug/kg | 2.1  | 0.61 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| tert-Amyl Alcohol           | ND      |       | ug/kg | 10.3 | 3.6  | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| tert-Amyl Ethylether        | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| Benzene                     | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| Bromochloromethane          | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| Bromodichloromethane        | ND      |       | ug/kg | 2.1  | 0.73 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| Bromoform                   | ND      |       | ug/kg | 2.1  | 0.54 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| Bromomethane                | ND      |       | ug/kg | 2.1  | 0.54 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| 2-Butanone                  | ND      |       | ug/kg | 10.3 | 3.3  | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| tert-Butyl Alcohol          | ND      |       | ug/kg | 10.3 | 3.6  | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| Carbon Disulfide            | ND      |       | ug/kg | 2.1  | 0.65 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| Carbon Tetrachloride        | ND      |       | ug/kg | 2.1  | 0.53 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| Chlorobenzene               | ND      |       | ug/kg | 2.1  | 0.53 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| Chlorodibromomethane        | ND      |       | ug/kg | 2.1  | 0.70 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| Chloroethane                | ND      |       | ug/kg | 5.2  | 0.88 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| Chloroform                  | ND      |       | ug/kg | 2.1  | 0.55 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| Chloromethane               | ND      |       | ug/kg | 2.1  | 0.57 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| 1,2-Dibromo-3-chloropropane | ND      |       | ug/kg | 5.2  | 3.0  | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| 1,2-Dibromoethane           | ND      |       | ug/kg | 2.1  | 0.56 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| 1,1-Dichloroethane          | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| 1,2-Dichloroethane          | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| 1,1-Dichloroethene          | ND      |       | ug/kg | 2.1  | 0.54 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| cis-1,2-Dichloroethene      | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| trans-1,2-Dichloroethene    | ND      |       | ug/kg | 2.1  | 0.54 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| 1,2-Dichloropropane         | ND      |       | ug/kg | 2.1  | 0.62 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| cis-1,3-Dichloropropene     | ND      |       | ug/kg | 2.1  | 0.57 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| trans-1,3-Dichloropropene   | ND      |       | ug/kg | 2.1  | 0.60 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| Diisopropyl ether           | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| Ethyl tert-butyl ether      | ND      |       | ug/kg | 2.1  | 0.54 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| Ethylbenzene                | ND      |       | ug/kg | 2.1  | 0.70 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| 2-Hexanone                  | ND      |       | ug/kg | 10.3 | 2.9  | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| Methyl t-Butyl Ether        | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| 4-Methyl-2-Pentanone(MIBK)  | ND      |       | ug/kg | 10.3 | 3.9  | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |
| Methylene Chloride          | 11.6    | 1,2,3 | ug/kg | 2.1  | 0.81 | SW846 8260B | 2/16/17 14:30 CJC | 2/21/17 03:06 | CJC | B    |

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155004**  
Sample ID: **CL-SAW-S-C3**

Date Collected: 2/16/2017 14:30 Matrix: Solid  
Date Received: 2/16/2017 20:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| Naphthalene                 | ND             |             | ug/kg        | 2.1           | 0.52 | SW846 8260B   | 2/16/17 14:30 CJG | 2/21/17 03:06 | CJG             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.1           | 0.52 | SW846 8260B   | 2/16/17 14:30 CJG | 2/21/17 03:06 | CJG             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.1           | 0.58 | SW846 8260B   | 2/16/17 14:30 CJG | 2/21/17 03:06 | CJG             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.1           | 0.62 | SW846 8260B   | 2/16/17 14:30 CJG | 2/21/17 03:06 | CJG             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.1           | 0.69 | SW846 8260B   | 2/16/17 14:30 CJG | 2/21/17 03:06 | CJG             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 6.2           | 1.4  | SW846 8260B   | 2/16/17 14:30 CJG | 2/21/17 03:06 | CJG             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.1           | 0.64 | SW846 8260B   | 2/16/17 14:30 CJG | 2/21/17 03:06 | CJG             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.1           | 0.58 | SW846 8260B   | 2/16/17 14:30 CJG | 2/21/17 03:06 | CJG             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.1           | 0.52 | SW846 8260B   | 2/16/17 14:30 CJG | 2/21/17 03:06 | CJG             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.1           | 0.52 | SW846 8260B   | 2/16/17 14:30 CJG | 2/21/17 03:06 | CJG             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.1           | 0.60 | SW846 8260B   | 2/16/17 14:30 CJG | 2/21/17 03:06 | CJG             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.1           | 0.86 | SW846 8260B   | 2/16/17 14:30 CJG | 2/21/17 03:06 | CJG             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 75.3           |             | %            | 56 - 124      |      | SW846 8260B   | 2/16/17 14:30 CJG | 2/21/17 03:06 | CJG             | B                     |
| 4-Bromofluorobenzene (S)    | 85.4           |             | %            | 51 - 128      |      | SW846 8260B   | 2/16/17 14:30 CJG | 2/21/17 03:06 | CJG             | B                     |
| Dibromofluoromethane (S)    | 91.4           |             | %            | 62 - 123      |      | SW846 8260B   | 2/16/17 14:30 CJG | 2/21/17 03:06 | CJG             | B                     |
| Toluene-d8 (S)              | 83.2           |             | %            | 59 - 131      |      | SW846 8260B   | 2/16/17 14:30 CJG | 2/21/17 03:06 | CJG             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 54.9          | 6.6  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 54.9          | 7.7  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| Acetophenone                | ND             |             | ug/kg        | 110           | 8.8  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 54.9          | 8.8  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 110           | 12.1 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 219           | 18.7 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| Benzo(a)anthracene          | 11.2J          | J           | ug/kg        | 54.9          | 5.5  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| Benzo(a)pyrene              | 6.4J           | J           | ug/kg        | 54.9          | 4.4  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| Benzo(b)fluoranthene        | 7.1J           | J           | ug/kg        | 54.9          | 5.5  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| Benzo(g,h,i)perylene        | 6.3J           | J           | ug/kg        | 54.9          | 5.5  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| Benzo(k)fluoranthene        | ND             |             | ug/kg        | 54.9          | 5.5  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| Biphenyl                    | ND             |             | ug/kg        | 110           | 7.7  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| 4-Bromophenyl-phenylether   | ND             |             | ug/kg        | 110           | 9.9  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| Butylbenzylphthalate        | 14.4J          | J           | ug/kg        | 110           | 7.7  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| Caprolactam                 | ND             |             | ug/kg        | 219           | 19.7 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| Carbazole                   | ND             |             | ug/kg        | 110           | 7.7  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| 4-Chloro-3-methylphenol     | ND             |             | ug/kg        | 219           | 11.0 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| 4-Chloroaniline             | ND             |             | ug/kg        | 219           | 13.2 | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| bis(2-Chloroethoxy)methane  | ND             |             | ug/kg        | 110           | 9.9  | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |



## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155004**  
Sample ID: **CL-SAW-S-C3**

Date Collected: 2/16/2017 14:30 Matrix: Solid  
Date Received: 2/16/2017 20:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 110  | 14.3 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 110  | 16.5 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 110  | 6.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 219  | 8.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 110  | 8.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 54.9 | 5.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 219  | 8.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 219  | 12.1 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 110  | 8.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 110  | 7.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 54.9 | 6.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 110  | 8.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 219  | 41.7 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 219  | 8.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 110  | 8.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 219  | 16.5 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 110  | 7.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 219  | 43.9 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 110  | 9.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 110  | 13.2 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 110  | 53.8 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 110  | 7.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| Fluoranthene                | 8.0J    | J    | ug/kg | 54.9 | 5.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 54.9 | 6.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 110  | 12.1 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 110  | 11.0 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 219  | 12.1 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 110  | 9.9  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 54.9 | 7.7  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| Isophorone                  | ND      |      | ug/kg | 110  | 6.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| 2-Methyl-4,6-dinitrophenol  | ND      |      | ug/kg | 219  | 28.5 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| 2-Methylnaphthalene         | ND      |      | ug/kg | 110  | 5.5  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| Naphthalene                 | ND      |      | ug/kg | 54.9 | 6.6  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| 2-Nitroaniline              | ND      |      | ug/kg | 219  | 13.2 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| 3-Nitroaniline              | ND      |      | ug/kg | 219  | 21.9 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| 4-Nitroaniline              | ND      |      | ug/kg | 219  | 8.8  | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| Nitrobenzene                | ND      |      | ug/kg | 110  | 13.2 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |
| 2-Nitrophenol               | ND      |      | ug/kg | 219  | 12.1 | SW846 8270D | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155004**  
Sample ID: **CL-SAW-S-C3**

Date Collected: 2/16/2017 14:30 Matrix: Solid  
Date Received: 2/16/2017 20:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| 4-Nitrophenol                  | ND             |             | ug/kg        | 219           | 15.4   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 110           | 8.8    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 110           | 8.8    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 219           | 28.5   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| Phenanthrene                   | 5.5J           | J           | ug/kg        | 54.9          | 5.5    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 219           | 11.0   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| Pyrene                         | ND             |             | ug/kg        | 54.9          | 5.5    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 110           | 7.7    | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 219           | 13.2   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 219           | 13.2   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 219           | 13.2   | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 72.9           |             | %            | 19 - 132      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 71.8           |             | %            | 40 - 110      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| 2-Fluorophenol (S)             | 62.6           |             | %            | 26 - 116      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 66.4           |             | %            | 38 - 112      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| Phenol-d5 (S)                  | 64.6           |             | %            | 35 - 111      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| Terphenyl-d14 (S)              | 67.4           |             | %            | 45 - 126      |        | SW846 8270D   | 2/21/17 23:25 CMA | 2/22/17 18:24 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.036         | 0.0033 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:09 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.036         | 0.0066 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:09 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.036         | 0.0033 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:09 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.036         | 0.0066 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:09 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.036         | 0.0099 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:09 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.036         | 0.0066 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:09 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.036         | 0.0066 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:09 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.036         | 0.0066 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:09 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.036         | 0.0077 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:09 | EGO             | F                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.036         | 0.0099 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:09 | EGO             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)        | 98.5           |             | %            | 49 - 115      |        | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:09 | EGO             | F                     |
| Tetrachloro-m-xylene (S)       | 95.4           |             | %            | 27 - 137      |        | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:09 | EGO             | F                     |
| <b>PESTICIDES</b>              |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                         | ND             |             | ug/kg        | 9.4           | 3.0    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |
| alpha-BHC                      | ND             |             | ug/kg        | 9.4           | 0.83   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |
| beta-BHC                       | ND             |             | ug/kg        | 9.4           | 0.99   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |



## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155004**  
Sample ID: **CL-SAW-S-C3**

Date Collected: 2/16/2017 14:30 Matrix: Solid  
Date Received: 2/16/2017 20:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| delta-BHC                     | ND             |             | ug/kg        | 9.4           | 0.72 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |
| gamma-BHC                     | ND             |             | ug/kg        | 9.4           | 0.77 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |
| alpha-Chlordane               | ND             |             | ug/kg        | 9.4           | 0.99 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |
| gamma-Chlordane               | ND             |             | ug/kg        | 9.4           | 1.6  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |
| 4,4'-DDD                      | ND             |             | ug/kg        | 18.2          | 1.5  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |
| 4,4'-DDE                      | ND             |             | ug/kg        | 18.2          | 2.5  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |
| 4,4'-DDT                      | ND             |             | ug/kg        | 18.2          | 2.1  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |
| Dieldrin                      | ND             |             | ug/kg        | 18.2          | 2.1  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |
| Endosulfan I                  | ND             |             | ug/kg        | 9.4           | 1.2  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |
| Endosulfan II                 | ND             |             | ug/kg        | 18.2          | 3.8  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |
| Endosulfan Sulfate            | ND             |             | ug/kg        | 18.2          | 1.2  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |
| Endrin                        | ND             |             | ug/kg        | 18.2          | 1.3  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |
| Endrin Aldehyde               | ND             |             | ug/kg        | 18.2          | 2.0  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |
| Endrin Ketone                 | ND             |             | ug/kg        | 18.2          | 2.5  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |
| Heptachlor                    | ND             |             | ug/kg        | 9.4           | 0.94 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |
| Heptachlor Epoxide            | ND             |             | ug/kg        | 9.4           | 0.94 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |
| Methoxychlor                  | ND             |             | ug/kg        | 18.2          | 2.4  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |
| Toxaphene                     | ND             |             | ug/kg        | 193           | 32.0 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)       | 70.1           |             | %            | 30 - 135      |      | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |
| Tetrachloro-m-xylene (S)      | 59             |             | %            | 30 - 111      |      | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:24 | RWS             | F                     |
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 63.4           |             | mg/kg        | 11.9          | 2.8  | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 16:35 | BS              | F                     |
| Gasoline Range Organics       | 874J           | J           | ug/kg        | 5740          | 797  | SW846 8015D   | 2/16/17 14:30 DD  | 2/18/17 08:51 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 88.4           |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 16:35 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 116            |             | %            | 72 - 134      |      | SW846 8015D   | 2/16/17 14:30 DD  | 2/18/17 08:51 | DD              | D                     |
| <b>WET CHEMISTRY</b>          |                |             |              |               |      |               |                   |               |                 |                       |
| Moisture                      | 11.8           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/20/17 11:33 | VKB             | F                     |
| Total Solids                  | 88.2           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/20/17 11:33 | VKB             | F                     |
| <b>METALS</b>                 |                |             |              |               |      |               |                   |               |                 |                       |
| Antimony, Total               | ND             |             | mg/kg        | 1.1           | 0.36 | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 05:42 | ZMC             | F1                    |
| Arsenic, Total                | 1.4J           | J           | mg/kg        | 1.6           | 0.55 | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 05:42 | ZMC             | F1                    |
| Beryllium, Total              | ND             |             | mg/kg        | 0.55          | 0.18 | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 05:42 | ZMC             | F1                    |

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155004**  
Sample ID: **CL-SAW-S-C3**

Date Collected: 2/16/2017 14:30 Matrix: Solid  
Date Received: 2/16/2017 20:20

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.55  | 0.18  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:42 | ZMC | F1   |
| Chromium, Total | 4.0     |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:42 | ZMC | F1   |
| Copper, Total   | 4.2     |      | mg/kg | 2.7   | 0.87  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:42 | ZMC | F1   |
| Lead, Total     | 9.3     |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:42 | ZMC | F1   |
| Mercury, Total  | 0.029J  | J    | mg/kg | 0.056 | 0.018 | SW846 7471B | 2/22/17 11:55 AXC | 2/23/17 12:49 | MNP | F2   |
| Nickel, Total   | 1.8J    | J    | mg/kg | 2.7   | 0.87  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:42 | ZMC | F1   |
| Selenium, Total | ND      |      | mg/kg | 2.7   | 0.87  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:42 | ZMC | F1   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:42 | ZMC | F1   |
| Thallium, Total | ND      |      | mg/kg | 0.55  | 0.18  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:42 | ZMC | F1   |
| Zinc, Total     | 7.1     |      | mg/kg | 2.7   | 0.87  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:42 | ZMC | F1   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155005**  
Sample ID: **CL-ISM-S-C1**

Date Collected: 2/16/2017 08:00 Matrix: Solid  
Date Received: 2/16/2017 20:20

| Parameters                  | Results | Flag  | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed          | By | Cntr |
|-----------------------------|---------|-------|-------|------|------|-------------|-------------------|-------------------|----|------|
| <b>VOLATILE ORGANICS</b>    |         |       |       |      |      |             |                   |                   |    |      |
| Acetone                     | 33.9    |       | ug/kg | 11.6 | 5.3  | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| tert-Amyl methyl ether      | ND      |       | ug/kg | 2.3  | 0.68 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| tert-Amyl Alcohol           | ND      |       | ug/kg | 11.6 | 4.1  | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| tert-Amyl Ethylether        | ND      |       | ug/kg | 2.3  | 0.58 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| Benzene                     | ND      |       | ug/kg | 2.3  | 0.58 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| Bromochloromethane          | ND      |       | ug/kg | 2.3  | 0.58 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| Bromodichloromethane        | ND      |       | ug/kg | 2.3  | 0.82 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| Bromoform                   | ND      |       | ug/kg | 2.3  | 0.60 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| Bromomethane                | ND      |       | ug/kg | 2.3  | 0.60 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| 2-Butanone                  | ND      |       | ug/kg | 11.6 | 3.7  | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| tert-Butyl Alcohol          | ND      |       | ug/kg | 11.6 | 4.1  | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| Carbon Disulfide            | ND      |       | ug/kg | 2.3  | 0.73 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| Carbon Tetrachloride        | ND      |       | ug/kg | 2.3  | 0.59 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| Chlorobenzene               | ND      |       | ug/kg | 2.3  | 0.59 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| Chlorodibromomethane        | ND      |       | ug/kg | 2.3  | 0.79 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| Chloroethane                | ND      |       | ug/kg | 5.8  | 0.99 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| Chloroform                  | ND      |       | ug/kg | 2.3  | 0.61 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| Chloromethane               | ND      |       | ug/kg | 2.3  | 0.64 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| 1,2-Dibromo-3-chloropropane | ND      |       | ug/kg | 5.8  | 3.4  | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| 1,2-Dibromoethane           | ND      |       | ug/kg | 2.3  | 0.63 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| 1,1-Dichloroethane          | ND      |       | ug/kg | 2.3  | 0.58 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| 1,2-Dichloroethane          | ND      |       | ug/kg | 2.3  | 0.58 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| 1,1-Dichloroethene          | ND      |       | ug/kg | 2.3  | 0.60 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| cis-1,2-Dichloroethene      | ND      |       | ug/kg | 2.3  | 0.58 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| trans-1,2-Dichloroethene    | ND      |       | ug/kg | 2.3  | 0.60 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| 1,2-Dichloropropane         | ND      |       | ug/kg | 2.3  | 0.70 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| cis-1,3-Dichloropropene     | ND      |       | ug/kg | 2.3  | 0.64 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| trans-1,3-Dichloropropene   | ND      |       | ug/kg | 2.3  | 0.67 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| Diisopropyl ether           | ND      |       | ug/kg | 2.3  | 0.58 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| Ethyl tert-butyl ether      | ND      |       | ug/kg | 2.3  | 0.60 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| Ethylbenzene                | ND      |       | ug/kg | 2.3  | 0.79 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| 2-Hexanone                  | ND      |       | ug/kg | 11.6 | 3.2  | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| Methyl t-Butyl Ether        | ND      |       | ug/kg | 2.3  | 0.58 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| 4-Methyl-2-Pentanone(MIBK)  | ND      |       | ug/kg | 11.6 | 4.4  | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |
| Methylene Chloride          | 16.4    | 1,2,3 | ug/kg | 2.3  | 0.90 | SW846 8260B | 2/16/17 08:00 CJC | 2/21/17 03:29 CJC | B  |      |

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155005**  
Sample ID: **CL-ISM-S-C1**

Date Collected: 2/16/2017 08:00 Matrix: Solid  
Date Received: 2/16/2017 20:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| Naphthalene                 | ND             |             | ug/kg        | 2.3           | 0.58 | SW846 8260B   | 2/16/17 08:00 CJC | 2/21/17 03:29 | CJC             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.3           | 0.58 | SW846 8260B   | 2/16/17 08:00 CJC | 2/21/17 03:29 | CJC             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.3           | 0.65 | SW846 8260B   | 2/16/17 08:00 CJC | 2/21/17 03:29 | CJC             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.3           | 0.70 | SW846 8260B   | 2/16/17 08:00 CJC | 2/21/17 03:29 | CJC             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.3           | 0.78 | SW846 8260B   | 2/16/17 08:00 CJC | 2/21/17 03:29 | CJC             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 7.0           | 1.6  | SW846 8260B   | 2/16/17 08:00 CJC | 2/21/17 03:29 | CJC             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.3           | 0.72 | SW846 8260B   | 2/16/17 08:00 CJC | 2/21/17 03:29 | CJC             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.3           | 0.65 | SW846 8260B   | 2/16/17 08:00 CJC | 2/21/17 03:29 | CJC             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.3           | 0.58 | SW846 8260B   | 2/16/17 08:00 CJC | 2/21/17 03:29 | CJC             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.3           | 0.58 | SW846 8260B   | 2/16/17 08:00 CJC | 2/21/17 03:29 | CJC             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.3           | 0.67 | SW846 8260B   | 2/16/17 08:00 CJC | 2/21/17 03:29 | CJC             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.6           | 0.96 | SW846 8260B   | 2/16/17 08:00 CJC | 2/21/17 03:29 | CJC             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 85.2           |             | %            | 56 - 124      |      | SW846 8260B   | 2/16/17 08:00 CJC | 2/21/17 03:29 | CJC             | B                     |
| 4-Bromofluorobenzene (S)    | 79.9           |             | %            | 51 - 128      |      | SW846 8260B   | 2/16/17 08:00 CJC | 2/21/17 03:29 | CJC             | B                     |
| Dibromofluoromethane (S)    | 95.4           |             | %            | 62 - 123      |      | SW846 8260B   | 2/16/17 08:00 CJC | 2/21/17 03:29 | CJC             | B                     |
| Toluene-d8 (S)              | 80.6           |             | %            | 59 - 131      |      | SW846 8260B   | 2/16/17 08:00 CJC | 2/21/17 03:29 | CJC             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 54.5          | 6.5  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 54.5          | 7.6  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| Acetophenone                | ND             | 4           | ug/kg        | 109           | 8.7  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 54.5          | 8.7  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 109           | 12.0 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 218           | 18.5 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| Benzo(a)anthracene          | 7.4J           | J           | ug/kg        | 54.5          | 5.5  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 54.5          | 4.4  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 54.5          | 5.5  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 54.5          | 5.5  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| Benzo(k)fluoranthene        | ND             |             | ug/kg        | 54.5          | 5.5  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| Biphenyl                    | ND             |             | ug/kg        | 109           | 7.6  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| 4-Bromophenyl-phenylether   | ND             |             | ug/kg        | 109           | 9.8  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| Butylbenzylphthalate        | ND             |             | ug/kg        | 109           | 7.6  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| Caprolactam                 | ND             |             | ug/kg        | 218           | 19.6 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| Carbazole                   | ND             |             | ug/kg        | 109           | 7.6  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| 4-Chloro-3-methylphenol     | ND             |             | ug/kg        | 218           | 10.9 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| 4-Chloroaniline             | ND             |             | ug/kg        | 218           | 13.1 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| bis(2-Chloroethoxy)methane  | ND             |             | ug/kg        | 109           | 9.8  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155005**  
Sample ID: **CL-ISM-S-C1**

Date Collected: 2/16/2017 08:00 Matrix: Solid  
Date Received: 2/16/2017 20:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 109  | 14.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 109  | 16.4 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 109  | 6.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 218  | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 109  | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 54.5 | 5.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 218  | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 218  | 12.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 109  | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 109  | 7.6  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 54.5 | 6.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 109  | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 218  | 41.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 218  | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 109  | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 218  | 16.4 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 109  | 7.6  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 218  | 43.6 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 109  | 9.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 109  | 13.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 109  | 53.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 109  | 7.6  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| Fluoranthene                | ND      |      | ug/kg | 54.5 | 5.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 54.5 | 6.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 109  | 12.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 109  | 10.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 218  | 12.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 109  | 9.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 54.5 | 7.6  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| Isophorone                  | ND      |      | ug/kg | 109  | 6.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| 2-Methyl-4,6-dinitrophenol  | ND      |      | ug/kg | 218  | 28.4 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| 2-Methylnaphthalene         | ND      |      | ug/kg | 109  | 5.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| Naphthalene                 | ND      |      | ug/kg | 54.5 | 6.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| 2-Nitroaniline              | ND      |      | ug/kg | 218  | 13.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| 3-Nitroaniline              | ND      |      | ug/kg | 218  | 21.8 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| 4-Nitroaniline              | ND      |      | ug/kg | 218  | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| Nitrobenzene                | ND      |      | ug/kg | 109  | 13.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |
| 2-Nitrophenol               | ND      |      | ug/kg | 218  | 12.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS | F    |



## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155005**  
Sample ID: **CL-ISM-S-C1**

Date Collected: 2/16/2017 08:00 Matrix: Solid  
Date Received: 2/16/2017 20:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| 4-Nitrophenol                  | ND             |             | ug/kg        | 218           | 15.3   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 109           | 8.7    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 109           | 8.7    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 218           | 28.4   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 54.5          | 5.5    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 218           | 10.9   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| Pyrene                         | ND             |             | ug/kg        | 54.5          | 5.5    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 109           | 7.6    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 218           | 13.1   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 218           | 13.1   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 218           | 13.1   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 80.7           |             | %            | 19 - 132      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 76.3           |             | %            | 40 - 110      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| 2-Fluorophenol (S)             | 72.2           |             | %            | 26 - 116      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 70.2           |             | %            | 38 - 112      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| Phenol-d5 (S)                  | 78             |             | %            | 35 - 111      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| Terphenyl-d14 (S)              | 80.4           |             | %            | 45 - 126      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 07:47 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.036         | 0.0033 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:21 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.036         | 0.0066 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:21 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.036         | 0.0033 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:21 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.036         | 0.0066 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:21 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.036         | 0.0099 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:21 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.036         | 0.0066 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:21 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.036         | 0.0066 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:21 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.036         | 0.0066 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:21 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.036         | 0.0077 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:21 | EGO             | F                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.036         | 0.0099 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:21 | EGO             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)        | 72.9           |             | %            | 49 - 115      |        | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:21 | EGO             | F                     |
| Tetrachloro-m-xylene (S)       | 80.8           |             | %            | 27 - 137      |        | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:21 | EGO             | F                     |
| <b>PESTICIDES</b>              |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                         | ND             |             | ug/kg        | 9.4           | 3.0    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |
| alpha-BHC                      | ND             |             | ug/kg        | 9.4           | 0.83   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |
| beta-BHC                       | ND             |             | ug/kg        | 9.4           | 0.99   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155005**  
Sample ID: **CL-ISM-S-C1**

Date Collected: 2/16/2017 08:00 Matrix: Solid  
Date Received: 2/16/2017 20:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| delta-BHC                     | ND             |             | ug/kg        | 9.4           | 0.72 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |
| gamma-BHC                     | ND             |             | ug/kg        | 9.4           | 0.77 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |
| alpha-Chlordane               | ND             |             | ug/kg        | 9.4           | 0.99 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |
| gamma-Chlordane               | ND             |             | ug/kg        | 9.4           | 1.6  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |
| 4,4'-DDD                      | ND             |             | ug/kg        | 18.2          | 1.5  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |
| 4,4'-DDE                      | ND             |             | ug/kg        | 18.2          | 2.5  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |
| 4,4'-DDT                      | ND             |             | ug/kg        | 18.2          | 2.1  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |
| Dieldrin                      | ND             |             | ug/kg        | 18.2          | 2.1  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |
| Endosulfan I                  | ND             |             | ug/kg        | 9.4           | 1.2  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |
| Endosulfan II                 | ND             |             | ug/kg        | 18.2          | 3.8  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |
| Endosulfan Sulfate            | ND             |             | ug/kg        | 18.2          | 1.2  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |
| Endrin                        | ND             |             | ug/kg        | 18.2          | 1.3  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |
| Endrin Aldehyde               | ND             |             | ug/kg        | 18.2          | 2.0  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |
| Endrin Ketone                 | ND             |             | ug/kg        | 18.2          | 2.5  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |
| Heptachlor                    | ND             |             | ug/kg        | 9.4           | 0.94 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |
| Heptachlor Epoxide            | ND             |             | ug/kg        | 9.4           | 0.94 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |
| Methoxychlor                  | ND             |             | ug/kg        | 18.2          | 2.4  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |
| Toxaphene                     | ND             |             | ug/kg        | 193           | 32.0 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)       | 51.8           |             | %            | 30 - 135      |      | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |
| Tetrachloro-m-xylene (S)      | 53.2           |             | %            | 30 - 111      |      | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:40 | RWS             | F                     |
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 32.1           |             | mg/kg        | 11.5          | 2.7  | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 17:12 | BS              | F                     |
| Gasoline Range Organics       | ND             |             | ug/kg        | 7030          | 977  | SW846 8015D   | 2/16/17 08:00 DD  | 2/18/17 09:24 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 91.1           |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 17:12 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 117            |             | %            | 72 - 134      |      | SW846 8015D   | 2/16/17 08:00 DD  | 2/18/17 09:24 | DD              | D                     |
| <b>WET CHEMISTRY</b>          |                |             |              |               |      |               |                   |               |                 |                       |
| Hexavalent Chromium           | ND             |             | mg/kg        | 2.3           | 0.44 | SW846 7196A   | 2/25/17 10:00 AHI | 2/25/17 17:15 | AHI             | F                     |
| Moisture                      | 11.9           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/20/17 11:33 | VKB             | F                     |
| Total Solids                  | 88.1           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/20/17 11:33 | VKB             | F                     |
| <b>METALS</b>                 |                |             |              |               |      |               |                   |               |                 |                       |
| Antimony, Total               | ND             |             | mg/kg        | 1.1           | 0.36 | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 05:46 | ZMC             | F1                    |
| Arsenic, Total                | 12.3           |             | mg/kg        | 1.6           | 0.55 | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 05:46 | ZMC             | F1                    |



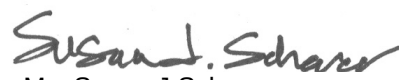
## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155005**  
Sample ID: **CL-ISM-S-C1**

Date Collected: 2/16/2017 08:00 Matrix: Solid  
Date Received: 2/16/2017 20:20

| Parameters       | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|------------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Beryllium, Total | 2.0     |      | mg/kg | 0.55  | 0.18  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:46 | ZMC | F1   |
| Cadmium, Total   | ND      |      | mg/kg | 0.55  | 0.18  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:46 | ZMC | F1   |
| Chromium, Total  | 67.6    |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:46 | ZMC | F1   |
| Copper, Total    | 21.5    |      | mg/kg | 2.7   | 0.87  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:46 | ZMC | F1   |
| Lead, Total      | 40.0    |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:46 | ZMC | F1   |
| Mercury, Total   | ND      |      | mg/kg | 0.051 | 0.016 | SW846 7471B | 2/22/17 11:55 AXC | 2/23/17 12:52 | MNP | F2   |
| Nickel, Total    | 38.2    |      | mg/kg | 2.7   | 0.87  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:46 | ZMC | F1   |
| Selenium, Total  | 5.7     |      | mg/kg | 2.7   | 0.87  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:46 | ZMC | F1   |
| Silver, Total    | ND      |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:46 | ZMC | F1   |
| Thallium, Total  | 0.61    |      | mg/kg | 0.55  | 0.18  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:46 | ZMC | F1   |
| Zinc, Total      | 115     |      | mg/kg | 2.7   | 0.87  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:46 | ZMC | F1   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155006**

Date Collected: 2/16/2017 12:00

Matrix: Solid

Sample ID: **CL-GS-S-08**

Date Received: 2/16/2017 20:20

| Parameters                  | Results | Flag  | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|-------|-------|------|------|-------------|-------------------|---------------|-----|------|
| <b>VOLATILE ORGANICS</b>    |         |       |       |      |      |             |                   |               |     |      |
| Acetone                     | ND      |       | ug/kg | 11.7 | 5.4  | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| tert-Amyl methyl ether      | ND      |       | ug/kg | 2.3  | 0.69 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| tert-Amyl Alcohol           | ND      |       | ug/kg | 11.7 | 4.1  | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| tert-Amyl Ethylether        | ND      |       | ug/kg | 2.3  | 0.59 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| Benzene                     | ND      |       | ug/kg | 2.3  | 0.59 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| Bromochloromethane          | ND      |       | ug/kg | 2.3  | 0.59 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| Bromodichloromethane        | ND      |       | ug/kg | 2.3  | 0.83 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| Bromoform                   | ND      |       | ug/kg | 2.3  | 0.61 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| Bromomethane                | ND      |       | ug/kg | 2.3  | 0.61 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| 2-Butanone                  | ND      |       | ug/kg | 11.7 | 3.8  | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| tert-Butyl Alcohol          | ND      |       | ug/kg | 11.7 | 4.1  | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| Carbon Disulfide            | ND      |       | ug/kg | 2.3  | 0.74 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| Carbon Tetrachloride        | ND      |       | ug/kg | 2.3  | 0.60 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| Chlorobenzene               | ND      |       | ug/kg | 2.3  | 0.60 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| Chlorodibromomethane        | ND      |       | ug/kg | 2.3  | 0.80 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| Chloroethane                | ND      |       | ug/kg | 5.9  | 1.0  | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| Chloroform                  | ND      |       | ug/kg | 2.3  | 0.62 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| Chloromethane               | ND      |       | ug/kg | 2.3  | 0.65 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| 1,2-Dibromo-3-chloropropane | ND      |       | ug/kg | 5.9  | 3.4  | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| 1,2-Dibromoethane           | ND      |       | ug/kg | 2.3  | 0.63 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| 1,1-Dichloroethane          | ND      |       | ug/kg | 2.3  | 0.59 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| 1,2-Dichloroethane          | ND      |       | ug/kg | 2.3  | 0.59 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| 1,1-Dichloroethene          | ND      |       | ug/kg | 2.3  | 0.61 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| cis-1,2-Dichloroethene      | ND      |       | ug/kg | 2.3  | 0.59 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| trans-1,2-Dichloroethene    | ND      |       | ug/kg | 2.3  | 0.61 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| 1,2-Dichloropropane         | ND      |       | ug/kg | 2.3  | 0.70 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| cis-1,3-Dichloropropene     | ND      |       | ug/kg | 2.3  | 0.65 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| trans-1,3-Dichloropropene   | ND      |       | ug/kg | 2.3  | 0.68 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| Diisopropyl ether           | ND      |       | ug/kg | 2.3  | 0.59 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| Ethyl tert-butyl ether      | ND      |       | ug/kg | 2.3  | 0.61 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| Ethylbenzene                | ND      |       | ug/kg | 2.3  | 0.80 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| 2-Hexanone                  | ND      |       | ug/kg | 11.7 | 3.3  | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| Methyl t-Butyl Ether        | ND      |       | ug/kg | 2.3  | 0.59 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| 4-Methyl-2-Pentanone(MIBK)  | ND      |       | ug/kg | 11.7 | 4.5  | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |
| Methylene Chloride          | 10.5    | 1,2,3 | ug/kg | 2.3  | 0.92 | SW846 8260B | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC | B    |

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155006**

Date Collected: 2/16/2017 12:00

Matrix: Solid

Sample ID: **CL-GS-S-08**

Date Received: 2/16/2017 20:20

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| Naphthalene                 | ND             |             | ug/kg        | 2.3           | 0.59 | SW846 8260B   | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.3           | 0.59 | SW846 8260B   | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.3           | 0.66 | SW846 8260B   | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.3           | 0.70 | SW846 8260B   | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.3           | 0.79 | SW846 8260B   | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 7.0           | 1.6  | SW846 8260B   | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.3           | 0.73 | SW846 8260B   | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.3           | 0.66 | SW846 8260B   | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.3           | 0.59 | SW846 8260B   | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.3           | 0.59 | SW846 8260B   | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.3           | 0.68 | SW846 8260B   | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.7           | 0.97 | SW846 8260B   | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 76.6           |             | %            | 56 - 124      |      | SW846 8260B   | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC             | B                     |
| 4-Bromofluorobenzene (S)    | 83.2           |             | %            | 51 - 128      |      | SW846 8260B   | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC             | B                     |
| Dibromofluoromethane (S)    | 93.9           |             | %            | 62 - 123      |      | SW846 8260B   | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC             | B                     |
| Toluene-d8 (S)              | 82.8           |             | %            | 59 - 131      |      | SW846 8260B   | 2/16/17 12:00 CJC | 2/21/17 03:53 | CJC             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 54.3          | 6.5  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 54.3          | 7.6  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| Acetophenone                | ND             | 4           | ug/kg        | 109           | 8.7  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 54.3          | 8.7  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 109           | 11.9 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 217           | 18.5 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| Benzo(a)anthracene          | 16.8J          | J           | ug/kg        | 54.3          | 5.4  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| Benzo(a)pyrene              | 11.0J          | J           | ug/kg        | 54.3          | 4.3  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| Benzo(b)fluoranthene        | 32.3J          | J           | ug/kg        | 54.3          | 5.4  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 54.3          | 5.4  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| Benzo(k)fluoranthene        | 9.5J           | J           | ug/kg        | 54.3          | 5.4  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| Biphenyl                    | ND             |             | ug/kg        | 109           | 7.6  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| 4-Bromophenyl-phenylether   | ND             |             | ug/kg        | 109           | 9.8  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| Butylbenzylphthalate        | ND             |             | ug/kg        | 109           | 7.6  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| Caprolactam                 | ND             |             | ug/kg        | 217           | 19.6 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| Carbazole                   | ND             |             | ug/kg        | 109           | 7.6  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| 4-Chloro-3-methylphenol     | ND             |             | ug/kg        | 217           | 10.9 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| 4-Chloroaniline             | ND             |             | ug/kg        | 217           | 13.0 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| bis(2-Chloroethoxy)methane  | ND             |             | ug/kg        | 109           | 9.8  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155006**

Date Collected: 2/16/2017 12:00

Matrix: Solid

Sample ID: **CL-GS-S-08**

Date Received: 2/16/2017 20:20

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 109  | 14.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 109  | 16.3 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 109  | 6.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 217  | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 109  | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| Chrysene                    | 22.5J   | J    | ug/kg | 54.3 | 5.4  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 217  | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 217  | 11.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 109  | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 109  | 7.6  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 54.3 | 6.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 109  | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 217  | 41.3 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 217  | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 109  | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 217  | 16.3 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 109  | 7.6  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 217  | 43.4 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 109  | 9.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 109  | 13.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 109  | 53.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 109  | 7.6  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| Fluoranthene                | 9.4J    | J    | ug/kg | 54.3 | 5.4  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 54.3 | 6.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 109  | 11.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 109  | 10.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 217  | 11.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 109  | 9.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | 8.7J    | J    | ug/kg | 54.3 | 7.6  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| Isophorone                  | ND      |      | ug/kg | 109  | 6.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| 2-Methyl-4,6-dinitrophenol  | ND      |      | ug/kg | 217  | 28.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| 2-Methylnaphthalene         | ND      |      | ug/kg | 109  | 5.4  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| Naphthalene                 | ND      |      | ug/kg | 54.3 | 6.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| 2-Nitroaniline              | ND      |      | ug/kg | 217  | 13.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| 3-Nitroaniline              | ND      |      | ug/kg | 217  | 21.7 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| 4-Nitroaniline              | ND      |      | ug/kg | 217  | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| Nitrobenzene                | ND      |      | ug/kg | 109  | 13.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |
| 2-Nitrophenol               | ND      |      | ug/kg | 217  | 11.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155006**  
Sample ID: **CL-GS-S-08**

Date Collected: 2/16/2017 12:00 Matrix: Solid  
Date Received: 2/16/2017 20:20

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| 4-Nitrophenol                  | ND             |             | ug/kg        | 217           | 15.2   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 109           | 8.7    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 109           | 8.7    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 217           | 28.2   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 54.3          | 5.4    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 217           | 10.9   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| Pyrene                         | 8.5J           | J           | ug/kg        | 54.3          | 5.4    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 109           | 7.6    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 217           | 13.0   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 217           | 13.0   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 217           | 13.0   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 77.7           |             | %            | 19 - 132      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 74.4           |             | %            | 40 - 110      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| 2-Fluorophenol (S)             | 67.5           |             | %            | 26 - 116      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 66.2           |             | %            | 38 - 112      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| Phenol-d5 (S)                  | 75.4           |             | %            | 35 - 111      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| Terphenyl-d14 (S)              | 75.8           |             | %            | 45 - 126      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 08:13 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.036         | 0.0033 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:32 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.036         | 0.0066 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:32 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.036         | 0.0033 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:32 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.036         | 0.0066 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:32 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.036         | 0.0098 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:32 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.036         | 0.0066 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:32 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.036         | 0.0066 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:32 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.036         | 0.0066 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:32 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.036         | 0.0077 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:32 | EGO             | F                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.036         | 0.0098 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:32 | EGO             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)        | 106            |             | %            | 49 - 115      |        | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:32 | EGO             | F                     |
| Tetrachloro-m-xylene (S)       | 95.8           |             | %            | 27 - 137      |        | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 08:32 | EGO             | F                     |
| <b>PESTICIDES</b>              |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                         | ND             |             | ug/kg        | 9.3           | 3.0    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:55 | RWS             | F                     |
| alpha-BHC                      | ND             |             | ug/kg        | 9.3           | 0.82   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:55 | RWS             | F                     |
| beta-BHC                       | ND             |             | ug/kg        | 9.3           | 0.98   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:55 | RWS             | F                     |



## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155006**

Date Collected: 2/16/2017 12:00

Matrix: Solid

Sample ID: **CL-GS-S-08**

Date Received: 2/16/2017 20:20

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| delta-BHC                     | ND             |             | ug/kg        | 9.3           | 0.71 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:55 | RWS             | F                     |
| gamma-BHC                     | ND             |             | ug/kg        | 9.3           | 0.77 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:55 | RWS             | F                     |
| alpha-Chlordane               | ND             |             | ug/kg        | 9.3           | 0.98 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:55 | RWS             | F                     |
| gamma-Chlordane               | ND             |             | ug/kg        | 9.3           | 1.6  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:55 | RWS             | F                     |
| 4,4'-DDD                      | 56.4J          | J           | ug/kg        | 180           | 14.8 | SW846 8081B   | 2/23/17 00:15 CMA | 2/24/17 15:40 | RWS             | F                     |
| 4,4'-DDE                      | 112            |             | ug/kg        | 18.0          | 2.5  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:55 | RWS             | F                     |
| 4,4'-DDT                      | 344            |             | ug/kg        | 180           | 20.8 | SW846 8081B   | 2/23/17 00:15 CMA | 2/24/17 15:40 | RWS             | F                     |
| Dieldrin                      | ND             |             | ug/kg        | 18.0          | 2.1  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:55 | RWS             | F                     |
| Endosulfan I                  | ND             |             | ug/kg        | 9.3           | 1.1  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:55 | RWS             | F                     |
| Endosulfan II                 | ND             |             | ug/kg        | 18.0          | 3.8  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:55 | RWS             | F                     |
| Endosulfan Sulfate            | ND             |             | ug/kg        | 18.0          | 1.2  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:55 | RWS             | F                     |
| Endrin                        | ND             |             | ug/kg        | 18.0          | 1.3  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:55 | RWS             | F                     |
| Endrin Aldehyde               | ND             |             | ug/kg        | 18.0          | 2.0  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:55 | RWS             | F                     |
| Endrin Ketone                 | ND             |             | ug/kg        | 18.0          | 2.5  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:55 | RWS             | F                     |
| Heptachlor                    | ND             |             | ug/kg        | 9.3           | 0.93 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:55 | RWS             | F                     |
| Heptachlor Epoxide            | ND             |             | ug/kg        | 9.3           | 0.93 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:55 | RWS             | F                     |
| Methoxychlor                  | ND             |             | ug/kg        | 18.0          | 2.4  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:55 | RWS             | F                     |
| Toxaphene                     | ND             |             | ug/kg        | 191           | 31.7 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:55 | RWS             | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)       | 79.3           |             | %            | 30 - 135      |      | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:55 | RWS             | F                     |
| Decachlorobiphenyls (S)       | 73.2           |             | %            | 30 - 135      |      | SW846 8081B   | 2/23/17 00:15 CMA | 2/24/17 15:40 | RWS             | F                     |
| Tetrachloro-m-xylene (S)      | 61.8           |             | %            | 30 - 111      |      | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 18:55 | RWS             | F                     |
| Tetrachloro-m-xylene (S)      | 70.1           |             | %            | 30 - 111      |      | SW846 8081B   | 2/23/17 00:15 CMA | 2/24/17 15:40 | RWS             | F                     |
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 26.8           |             | mg/kg        | 11.5          | 2.7  | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 17:48 | BS              | F                     |
| Gasoline Range Organics       | ND             |             | ug/kg        | 5360          | 745  | SW846 8015D   | 2/16/17 12:00 DD  | 2/18/17 09:58 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 92             |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 17:48 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 110            |             | %            | 72 - 134      |      | SW846 8015D   | 2/16/17 12:00 DD  | 2/18/17 09:58 | DD              | D                     |
| <b>WET CHEMISTRY</b>          |                |             |              |               |      |               |                   |               |                 |                       |
| Moisture                      | 10.9           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/20/17 11:33 | VKB             | F                     |
| Total Solids                  | 89.1           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/20/17 11:33 | VKB             | F                     |
| <b>METALS</b>                 |                |             |              |               |      |               |                   |               |                 |                       |
| Antimony, Total               | 0.53J          | J           | mg/kg        | 1.1           | 0.36 | SW846 6020A   | 2/22/17 11:05 TRR | 2/23/17 05:50 | ZMC             | F1                    |

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

Lab ID: **2209155006**  
Sample ID: **CL-GS-S-08**

Date Collected: 2/16/2017 12:00 Matrix: Solid  
Date Received: 2/16/2017 20:20

| Parameters       | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|------------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Arsenic, Total   | 4.5     |      | mg/kg | 1.6   | 0.54  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:50 | ZMC | F1   |
| Beryllium, Total | 0.51J   | J    | mg/kg | 0.54  | 0.18  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:50 | ZMC | F1   |
| Cadmium, Total   | 0.93    |      | mg/kg | 0.54  | 0.18  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:50 | ZMC | F1   |
| Chromium, Total  | 22.8    |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:50 | ZMC | F1   |
| Copper, Total    | 280     |      | mg/kg | 2.7   | 0.86  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:50 | ZMC | F1   |
| Lead, Total      | 145     |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:50 | ZMC | F1   |
| Mercury, Total   | 0.031J  | J    | mg/kg | 0.048 | 0.015 | SW846 7471B | 2/22/17 11:55 AXC | 2/23/17 12:53 | MNP | F2   |
| Nickel, Total    | 9.9     |      | mg/kg | 2.7   | 0.86  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:50 | ZMC | F1   |
| Selenium, Total  | 1.4J    | J    | mg/kg | 2.7   | 0.86  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:50 | ZMC | F1   |
| Silver, Total    | ND      |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:50 | ZMC | F1   |
| Thallium, Total  | ND      |      | mg/kg | 0.54  | 0.18  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:50 | ZMC | F1   |
| Zinc, Total      | 115     |      | mg/kg | 2.7   | 0.86  | SW846 6020A | 2/22/17 11:05 TRR | 2/23/17 05:50 | ZMC | F1   |

  
Ms. Susan J Scherer  
Project Coordinator



**PARAMETER QUALIFIERS**

| Lab ID                                                                                                                                                                                                           | # | Sample ID   | Analytical Method | Analyte              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|-------------------|----------------------|
| <b>2209155002</b>                                                                                                                                                                                                | 5 | CL-GS-S-02  | SW846 8260B       | 4-Bromofluorobenzene |
| The surrogate 4-Bromofluorobenzene for method SW846 8260B was outside of control limits. The % Recovery was reported as 40.5 and the control limits were 51 to 128. This result was reported at a dilution of 1. |   |             |                   |                      |
| <b>2209155002</b>                                                                                                                                                                                                | 6 | CL-GS-S-02  | SW846 8260B       | Methylene Chloride   |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                                    |   |             |                   |                      |
| <b>2209155002</b>                                                                                                                                                                                                | 7 | CL-GS-S-02  | SW846 8260B       | Methylene Chloride   |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 185 and the control limits were 68 to 133.                       |   |             |                   |                      |
| <b>2209155002</b>                                                                                                                                                                                                | 8 | CL-GS-S-02  | SW846 8260B       | Methylene Chloride   |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 204 and the control limits were 68 to 133.                      |   |             |                   |                      |
| <b>2209155003</b>                                                                                                                                                                                                | 1 | CL-GS-S-07  | SW846 8260B       | Methylene Chloride   |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                                    |   |             |                   |                      |
| <b>2209155003</b>                                                                                                                                                                                                | 2 | CL-GS-S-07  | SW846 8260B       | Methylene Chloride   |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 199 and the control limits were 68 to 133.                       |   |             |                   |                      |
| <b>2209155003</b>                                                                                                                                                                                                | 3 | CL-GS-S-07  | SW846 8260B       | Methylene Chloride   |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 205 and the control limits were 68 to 133.                      |   |             |                   |                      |
| <b>2209155004</b>                                                                                                                                                                                                | 1 | CL-SAW-S-C3 | SW846 8260B       | Methylene Chloride   |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                                    |   |             |                   |                      |
| <b>2209155004</b>                                                                                                                                                                                                | 2 | CL-SAW-S-C3 | SW846 8260B       | Methylene Chloride   |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 199 and the control limits were 68 to 133.                       |   |             |                   |                      |
| <b>2209155004</b>                                                                                                                                                                                                | 3 | CL-SAW-S-C3 | SW846 8260B       | Methylene Chloride   |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 205 and the control limits were 68 to 133.                      |   |             |                   |                      |
| <b>2209155005</b>                                                                                                                                                                                                | 1 | CL-ISM-S-C1 | SW846 8260B       | Methylene Chloride   |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                                    |   |             |                   |                      |
| <b>2209155005</b>                                                                                                                                                                                                | 2 | CL-ISM-S-C1 | SW846 8260B       | Methylene Chloride   |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 199 and the control limits were 68 to 133.                       |   |             |                   |                      |
| <b>2209155005</b>                                                                                                                                                                                                | 3 | CL-ISM-S-C1 | SW846 8260B       | Methylene Chloride   |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 205 and the control limits were 68 to 133.                      |   |             |                   |                      |
| <b>2209155005</b>                                                                                                                                                                                                | 4 | CL-ISM-S-C1 | SW846 8270D       | Acetophenone         |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.5 and the control limits were 45 to 87.                             |   |             |                   |                      |
| <b>2209155006</b>                                                                                                                                                                                                | 1 | CL-GS-S-08  | SW846 8260B       | Methylene Chloride   |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                                    |   |             |                   |                      |
| <b>2209155006</b>                                                                                                                                                                                                | 2 | CL-GS-S-08  | SW846 8260B       | Methylene Chloride   |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 199 and the control limits were 68 to 133.                       |   |             |                   |                      |
| <b>2209155006</b>                                                                                                                                                                                                | 3 | CL-GS-S-08  | SW846 8260B       | Methylene Chloride   |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 205 and the control limits were 68 to 133.                      |   |             |                   |                      |

## ANALYTICAL RESULTS

Workorder: 2209155 Chase Lands Phase II

|                   |   |            |             |              |
|-------------------|---|------------|-------------|--------------|
| <b>2209155006</b> | 4 | CL-GS-S-08 | SW846 8270D | Acetophenone |
|-------------------|---|------------|-------------|--------------|

The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.5 and the control limits were 45 to 87.

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

**QC Batch:** EXTR/46803 **Analysis Method:** SW846 8270D

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2209155002, 2209155003, 2209155004

METHOD BLANK: 2489359

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acenaphthene                | ND           | ug/kg | 50.0            |
| Acenaphthylene              | ND           | ug/kg | 50.0            |
| Acetophenone                | ND           | ug/kg | 100             |
| Anthracene                  | ND           | ug/kg | 50.0            |
| Atrazine                    | ND           | ug/kg | 100             |
| Benzaldehyde                | ND           | ug/kg | 200             |
| Benzo(a)anthracene          | ND           | ug/kg | 50.0            |
| Benzo(a)pyrene              | ND           | ug/kg | 50.0            |
| Benzo(b)fluoranthene        | ND           | ug/kg | 50.0            |
| Benzo(g,h,i)perylene        | ND           | ug/kg | 50.0            |
| Benzo(k)fluoranthene        | ND           | ug/kg | 50.0            |
| Biphenyl                    | ND           | ug/kg | 100             |
| 4-Bromophenyl-phenylether   | ND           | ug/kg | 100             |
| Butylbenzylphthalate        | ND           | ug/kg | 100             |
| Caprolactam                 | ND           | ug/kg | 200             |
| Carbazole                   | ND           | ug/kg | 100             |
| 4-Chloro-3-methylphenol     | ND           | ug/kg | 200             |
| 4-Chloroaniline             | ND           | ug/kg | 200             |
| bis(2-Chloroethoxy)methane  | ND           | ug/kg | 100             |
| bis(2-Chloroethyl)ether     | ND           | ug/kg | 100             |
| bis(2-Chloroisopropyl)ether | ND           | ug/kg | 100             |
| 2-Chloronaphthalene         | ND           | ug/kg | 200             |
| 2-Chlorophenol              | ND           | ug/kg | 200             |
| 4-Chlorophenyl-phenylether  | ND           | ug/kg | 100             |
| Chrysene                    | ND           | ug/kg | 50.0            |
| mp-Cresol                   | ND           | ug/kg | 200             |
| o-Cresol                    | ND           | ug/kg | 200             |
| Di-n-Butylphthalate         | ND           | ug/kg | 100             |
| Di-n-Octylphthalate         | ND           | ug/kg | 100             |
| Dibenzo(a,h)anthracene      | ND           | ug/kg | 50.0            |
| Dibenzofuran                | ND           | ug/kg | 100             |
| 3,3-Dichlorobenzidine       | ND           | ug/kg | 200             |
| 2,4-Dichlorophenol          | ND           | ug/kg | 200             |
| Diethylphthalate            | ND           | ug/kg | 100             |
| 2,4-Dimethylphenol          | ND           | ug/kg | 200             |
| Dimethylphthalate           | ND           | ug/kg | 100             |
| 2,4-Dinitrophenol           | ND           | ug/kg | 200             |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

|                            |      |       |          |
|----------------------------|------|-------|----------|
| 2,4-Dinitrotoluene         | ND   | ug/kg | 100      |
| 2,6-Dinitrotoluene         | ND   | ug/kg | 100      |
| 1,4-Dioxane                | ND   | ug/kg | 100      |
| bis(2-Ethylhexyl)phthalate | ND   | ug/kg | 100      |
| Fluoranthene               | ND   | ug/kg | 50.0     |
| Fluorene                   | ND   | ug/kg | 50.0     |
| Hexachlorobenzene          | ND   | ug/kg | 100      |
| Hexachlorobutadiene        | ND   | ug/kg | 100      |
| Hexachlorocyclopentadiene  | ND   | ug/kg | 200      |
| Hexachloroethane           | ND   | ug/kg | 100      |
| Indeno(1,2,3-cd)pyrene     | ND   | ug/kg | 50.0     |
| Isophorone                 | ND   | ug/kg | 100      |
| 2-Methyl-4,6-dinitrophenol | ND   | ug/kg | 200      |
| 2-Methylnaphthalene        | ND   | ug/kg | 100      |
| Naphthalene                | ND   | ug/kg | 50.0     |
| 2-Nitroaniline             | ND   | ug/kg | 200      |
| 3-Nitroaniline             | ND   | ug/kg | 200      |
| 4-Nitroaniline             | ND   | ug/kg | 200      |
| Nitrobenzene               | ND   | ug/kg | 100      |
| 2-Nitrophenol              | ND   | ug/kg | 200      |
| 4-Nitrophenol              | ND   | ug/kg | 200      |
| N-Nitroso-di-n-propylamine | ND   | ug/kg | 100      |
| N-Nitrosodiphenylamine     | ND   | ug/kg | 100      |
| Pentachlorophenol          | ND   | ug/kg | 200      |
| Phenanthrene               | ND   | ug/kg | 50.0     |
| Phenol                     | ND   | ug/kg | 200      |
| Pyrene                     | ND   | ug/kg | 50.0     |
| 1,2,4,5-Tetrachlorobenzene | ND   | ug/kg | 100      |
| 2,3,4,6-Tetrachlorophenol  | ND   | ug/kg | 200      |
| 2,4,5-Trichlorophenol      | ND   | ug/kg | 200      |
| 2,4,6-Trichlorophenol      | ND   | ug/kg | 200      |
| 2,4,6-Tribromophenol (S)   | 85   | %     | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 84   | %     | 40 - 110 |
| 2-Fluorophenol (S)         | 79.5 | %     | 26 - 116 |
| Nitrobenzene-d5 (S)        | 80   | %     | 38 - 112 |
| Phenol-d5 (S)              | 82.2 | %     | 35 - 111 |
| Terphenyl-d14 (S)          | 82.6 | %     | 45 - 126 |

## LABORATORY CONTROL SAMPLE: 2489360

| Parameter      | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | % Rec<br>Limit |
|----------------|--------------|-------|----------------|---------------|----------------|
| Acenaphthene   | 86.5         | ug/kg | 3330           | 2880          | 59 - 115       |
| Acenaphthylene | 88.1         | ug/kg | 3330           | 2940          | 59 - 114       |
| Acetophenone   | 51.3         | ug/kg | 3330           | 1710          | 45 - 87        |
| Anthracene     | 86.6         | ug/kg | 3330           | 2890          | 63 - 112       |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

|                             |      |       |      |      |          |
|-----------------------------|------|-------|------|------|----------|
| Atrazine                    | 83.2 | ug/kg | 3330 | 2770 | 54 - 128 |
| Benzaldehyde                | 69.6 | ug/kg | 3330 | 2320 | 52 - 108 |
| Benzo(a)anthracene          | 87.5 | ug/kg | 3330 | 2920 | 61 - 118 |
| Benzo(a)pyrene              | 87.3 | ug/kg | 3330 | 2910 | 61 - 114 |
| Benzo(b)fluoranthene        | 88.8 | ug/kg | 3330 | 2960 | 64 - 113 |
| Benzo(g,h,i)perylene        | 90.9 | ug/kg | 3330 | 3030 | 61 - 118 |
| Benzo(k)fluoranthene        | 86.9 | ug/kg | 3330 | 2900 | 62 - 113 |
| Biphenyl                    | 81.8 | ug/kg | 3330 | 2730 | 60 - 111 |
| 4-Bromophenyl-phenylether   | 95.1 | ug/kg | 3330 | 3170 | 60 - 111 |
| Butylbenzylphthalate        | 84.7 | ug/kg | 3330 | 2820 | 56 - 126 |
| Caprolactam                 | 89.3 | ug/kg | 3330 | 2980 | 38 - 129 |
| Carbazole                   | 88.5 | ug/kg | 3330 | 2950 | 65 - 117 |
| 4-Chloro-3-methylphenol     | 89.7 | ug/kg | 6670 | 5980 | 65 - 118 |
| 4-Chloroaniline             | 74.6 | ug/kg | 3330 | 2490 | 21 - 115 |
| bis(2-Chloroethoxy)methane  | 88.2 | ug/kg | 3330 | 2940 | 56 - 108 |
| bis(2-Chloroethyl)ether     | 85.6 | ug/kg | 3330 | 2850 | 51 - 105 |
| bis(2-Chloroisopropyl)ether | 82.7 | ug/kg | 3330 | 2760 | 34 - 126 |
| 2-Chloronaphthalene         | 82.6 | ug/kg | 3330 | 2750 | 55 - 111 |
| 2-Chlorophenol              | 86.3 | ug/kg | 6670 | 5750 | 61 - 111 |
| 4-Chlorophenyl-phenylether  | 88.9 | ug/kg | 3330 | 2960 | 58 - 112 |
| Chrysene                    | 92.2 | ug/kg | 3330 | 3070 | 63 - 111 |
| mp-Cresol                   | 86.6 | ug/kg | 6670 | 5770 | 60 - 112 |
| o-Cresol                    | 84.3 | ug/kg | 6670 | 5620 | 62 - 113 |
| Di-n-Butylphthalate         | 89.2 | ug/kg | 3330 | 2970 | 58 - 118 |
| Di-n-Octylphthalate         | 74.9 | ug/kg | 3330 | 2500 | 45 - 128 |
| Dibenzo(a,h)anthracene      | 91.7 | ug/kg | 3330 | 3060 | 64 - 117 |
| Dibenzofuran                | 85.7 | ug/kg | 3330 | 2860 | 61 - 111 |
| 3,3-Dichlorobenzidine       | 69   | ug/kg | 6670 | 4600 | 27 - 106 |
| 2,4-Dichlorophenol          | 86   | ug/kg | 6670 | 5730 | 65 - 111 |
| Diethylphthalate            | 89.8 | ug/kg | 3330 | 2990 | 59 - 112 |
| 2,4-Dimethylphenol          | 86.2 | ug/kg | 6670 | 5750 | 65 - 114 |
| Dimethylphthalate           | 89.9 | ug/kg | 3330 | 3000 | 59 - 111 |
| 2,4-Dinitrophenol           | 94.4 | ug/kg | 6670 | 6290 | 36 - 131 |
| 2,4-Dinitrotoluene          | 90.8 | ug/kg | 3330 | 3030 | 61 - 117 |
| 2,6-Dinitrotoluene          | 92   | ug/kg | 3330 | 3070 | 61 - 115 |
| 1,4-Dioxane                 | 57.6 | ug/kg | 3330 | 1920 | 37 - 98  |
| bis(2-Ethylhexyl)phthalate  | 77.4 | ug/kg | 3330 | 2580 | 51 - 126 |
| Fluoranthene                | 82.9 | ug/kg | 3330 | 2760 | 61 - 116 |
| Fluorene                    | 88.2 | ug/kg | 3330 | 2940 | 61 - 112 |
| Hexachlorobenzene           | 94.5 | ug/kg | 3330 | 3150 | 59 - 109 |
| Hexachlorobutadiene         | 96.3 | ug/kg | 3330 | 3210 | 58 - 123 |
| Hexachlorocyclopentadiene   | 70.2 | ug/kg | 3330 | 2340 | 33 - 109 |
| Hexachloroethane            | 83.5 | ug/kg | 3330 | 2780 | 50 - 103 |
| Indeno(1,2,3-cd)pyrene      | 90.7 | ug/kg | 3330 | 3020 | 62 - 113 |
| Isophorone                  | 84.5 | ug/kg | 3330 | 2820 | 51 - 112 |
| 2-Methyl-4,6-dinitrophenol  | 104  | ug/kg | 6670 | 6900 | 53 - 131 |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

|                            |      |       |      |      |          |
|----------------------------|------|-------|------|------|----------|
| 2-Methylnaphthalene        | 81.5 | ug/kg | 3330 | 2720 | 58 - 96  |
| Naphthalene                | 84   | ug/kg | 3330 | 2800 | 56 - 105 |
| 2-Nitroaniline             | 89.9 | ug/kg | 3330 | 3000 | 61 - 120 |
| 3-Nitroaniline             | 87.1 | ug/kg | 3330 | 2900 | 52 - 115 |
| 4-Nitroaniline             | 85.3 | ug/kg | 3330 | 2840 | 50 - 106 |
| Nitrobenzene               | 85.6 | ug/kg | 3330 | 2850 | 53 - 108 |
| 2-Nitrophenol              | 85.1 | ug/kg | 6670 | 5670 | 61 - 114 |
| 4-Nitrophenol              | 87   | ug/kg | 6670 | 5800 | 49 - 134 |
| N-Nitroso-di-n-propylamine | 84.5 | ug/kg | 3330 | 2820 | 55 - 109 |
| N-Nitrosodiphenylamine     | 108  | ug/kg | 3330 | 3590 | 65 - 134 |
| Pentachlorophenol          | 113  | ug/kg | 6670 | 7530 | 60 - 145 |
| Phenanthrene               | 88.5 | ug/kg | 3330 | 2950 | 62 - 109 |
| Phenol                     | 84.7 | ug/kg | 6670 | 5650 | 53 - 118 |
| Pyrene                     | 92.2 | ug/kg | 3330 | 3070 | 60 - 114 |
| 1,2,4,5-Tetrachlorobenzene | 80.7 | ug/kg | 3330 | 2690 | 56 - 107 |
| 2,3,4,6-Tetrachlorophenol  | 73.2 | ug/kg | 6670 | 4880 | 60 - 111 |
| 2,4,5-Trichlorophenol      | 86.3 | ug/kg | 6670 | 5760 | 68 - 121 |
| 2,4,6-Trichlorophenol      | 88.2 | ug/kg | 6670 | 5880 | 68 - 119 |
| 2,4,6-Tribromophenol (S)   | 92.2 | %     |      |      | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 82   | %     |      |      | 40 - 110 |
| 2-Fluorophenol (S)         | 82.3 | %     |      |      | 26 - 116 |
| Nitrobenzene-d5 (S)        | 80.7 | %     |      |      | 38 - 112 |
| Phenol-d5 (S)              | 83.7 | %     |      |      | 35 - 111 |
| Terphenyl-d14 (S)          | 86.9 | %     |      |      | 45 - 126 |

MATRIX SPIKE: 2489361 DUPLICATE: 2489362 ORIGINAL: 2209651001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                  | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|----------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Acenaphthene               | 258.557         | ug/kg | 3290        | 2722.56   | 2688.43    | 74.9     | 74.4      | 59 - 115    | 1.26 | 17      |
| Acenaphthylene             | 0               | ug/kg | 3290        | 2547.11   | 2525.32    | 77.4     | 77.3      | 59 - 114    | .86  | 17      |
| Anthracene                 | 681.882         | ug/kg | 3290        | 3318.55   | 3226.54    | 80.2     | 77.9      | 63 - 112    | 2.81 | 20      |
| Benzo(a)anthracene         | 1324.98         | ug/kg | 3290        | 4651.22   | 4102.84    | 101      | 85        | 61 - 118    | 12.5 | 22      |
| Benzo(a)pyrene             | 1311.21         | ug/kg | 3290        | 4602.89   | 4071.43    | 100      | 84.5      | 61 - 114    | 12.3 | 24      |
| Benzo(b)fluoranthene       | 1552.82         | ug/kg | 3290        | 5030.23   | 4682.66    | 106      | 95.8      | 64 - 113    | 7.16 | 28      |
| Benzo(g,h,i)perylene       | 783.555         | ug/kg | 3290        | 3653.73   | 3474.34    | 87.3     | 82.3      | 61 - 118    | 5.03 | 30      |
| Benzo(k)fluoranthene       | 606.96          | ug/kg | 3290        | 3461.15   | 3323.02    | 86.8     | 83.1      | 62 - 113    | 4.07 | 22      |
| 4-Bromophenyl-phenylether  | 0               | ug/kg | 3290        | 2504.07   | 2488.47    | 76.1     | 76.1      | 60 - 111    | .62  | 21      |
| Butylbenzylphthalate       | 0               | ug/kg | 3290        | 2267.12   | 2276.87    | 68.9     | 69.7      | 56 - 126    | .43  | 18      |
| Carbazole                  | 166.471         | ug/kg | 3290        | 2670.53   | 2633.76    | 76.1     | 75.5      | 65 - 117    | 1.39 | 20      |
| 4-Chloro-3-methylphenol    | 0               | ug/kg | 6580        | 4585.63   | 4686.4     | 69.7     | 71.7      | 65 - 118    | 2.17 | 20      |
| 4-Chloroaniline            | 0               | ug/kg | 3290        | 1878.57   | 1731.44    | 57.1     | 53        | 21 - 115    | 8.15 | 22      |
| bis(2-Chloroethoxy)methane | 0               | ug/kg | 3290        | 2363.27   | 2389.28    | 71.8     | 73.1      | 56 - 108    | 1.09 | 18      |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

|                             |         |       |      |         |         |       |       |          |      |    |
|-----------------------------|---------|-------|------|---------|---------|-------|-------|----------|------|----|
| bis(2-Chloroethyl)ether     | 0       | ug/kg | 3290 | 2242    | 2307.84 | 68.2  | 70.6  | 51 - 105 | 2.89 | 24 |
| bis(2-Chloroisopropyl)ether | 0       | ug/kg | 3290 | 2064.06 | 2095.22 | 62.7  | 64.1  | 34 - 126 | 1.5  | 22 |
| 2-Chloronaphthalene         | 0       | ug/kg | 3290 | 2358.12 | 2341.44 | 71.7  | 71.6  | 55 - 111 | .71  | 19 |
| 2-Chlorophenol              | 0       | ug/kg | 6580 | 4476.94 | 4568.74 | 68    | 69.9  | 61 - 111 | 2.03 | 22 |
| 4-Chlorophenyl-phenylether  | 0       | ug/kg | 3290 | 2406.52 | 2410.82 | 73.2  | 73.8  | 58 - 112 | .18  | 18 |
| Chrysene                    | 1346.72 | ug/kg | 3290 | 4738.22 | 4280.44 | 103   | 89.8  | 63 - 111 | 10.2 | 20 |
| mp-Cresol                   | 0       | ug/kg | 6580 | 4306.55 | 4548.85 | 65.5  | 69.6  | 60 - 112 | 5.47 | 20 |
| o-Cresol                    | 0       | ug/kg | 6580 | 4233.23 | 4496.91 | 64.3  | 68.8  | 62 - 113 | 6.04 | 21 |
| Di-n-Butylphthalate         | 0       | ug/kg | 3290 | 2394.21 | 2361.91 | 72.8  | 72.3  | 58 - 118 | 1.36 | 20 |
| Di-n-Octylphthalate         | 0       | ug/kg | 3290 | 2253.83 | 2162.35 | 68.5  | 66.2  | 45 - 128 | 4.14 | 20 |
| Dibenzo(a,h)anthracene      | 197.138 | ug/kg | 3290 | 2711.52 | 2689.97 | 76.4  | 76.3  | 64 - 117 | .8   | 28 |
| Dibenzofuran                | 195.881 | ug/kg | 3290 | 2578.61 | 2547.72 | 72.4  | 72    | 61 - 111 | 1.21 | 18 |
| 3,3-Dichlorobenzidine       | 0       | ug/kg | 6580 | 3553.61 | 3677.92 | 54    | 56.3  | 27 - 106 | 3.44 | 26 |
| 2,4-Dichlorophenol          | 0       | ug/kg | 6580 | 4621.82 | 4672.89 | 70.3  | 71.5  | 65 - 111 | 1.1  | 20 |
| Diethylphthalate            | 0       | ug/kg | 3290 | 2385.35 | 2393.43 | 72.5  | 73.2  | 59 - 112 | .34  | 18 |
| 2,4-Dimethylphenol          | 0       | ug/kg | 6580 | 4608.74 | 4649.52 | 70.1  | 71.1  | 65 - 114 | .88  | 23 |
| Dimethylphthalate           | 0       | ug/kg | 3290 | 2457.78 | 2453.41 | 74.7  | 75.1  | 59 - 111 | .18  | 18 |
| 2,4-Dinitrophenol           | 0       | ug/kg | 6580 | 3083.73 | 2371.11 | 46.9  | 36.3  | 36 - 131 | 26.1 | 30 |
| 2,4-Dinitrotoluene          | 0       | ug/kg | 3290 | 2468.33 | 2523.4  | 75    | 77.2  | 61 - 117 | 2.21 | 21 |
| 2,6-Dinitrotoluene          | 0       | ug/kg | 3290 | 2439.21 | 2448.83 | 74.2  | 74.9  | 61 - 115 | .39  | 20 |
| bis(2-Ethylhexyl)phthalate  | 0       | ug/kg | 3290 | 2249.04 | 2119.84 | 68.4  | 64.9  | 51 - 126 | 5.91 | 21 |
| Fluoranthene                | 3102.84 | ug/kg | 3290 | 7420.41 | 6317.34 | 131*  | 98.4  | 61 - 116 | 16.1 | 21 |
| Fluorene                    | 382.966 | ug/kg | 3290 | 2939.35 | 2829.56 | 77.7  | 74.9  | 61 - 112 | 3.81 | 16 |
| Hexachlorobenzene           | 0       | ug/kg | 3290 | 2496.95 | 2562.37 | 75.9  | 78.4  | 59 - 109 | 2.59 | 21 |
| Hexachlorobutadiene         | 0       | ug/kg | 3290 | 2649.9  | 2630.91 | 80.6  | 80.5  | 58 - 123 | .72  | 22 |
| Hexachlorocyclopentadiene   | 0       | ug/kg | 3290 | 1064.46 | 609.564 | 32.4* | 18.7* | 33 - 109 | 54.3 | 29 |
| Hexachloroethane            | 0       | ug/kg | 3290 | 2170.45 | 2083.73 | 66    | 63.8  | 50 - 103 | 4.08 | 28 |
| Indeno(1,2,3-cd)pyrene      | 842.078 | ug/kg | 3290 | 3845    | 3570.12 | 91.3  | 83.5  | 62 - 113 | 7.41 | 30 |
| Isophorone                  | 0       | ug/kg | 3290 | 2201.48 | 2202.94 | 66.9  | 67.4  | 51 - 112 | .07  | 19 |
| 2-Methyl-4,6-dinitrophenol  | 0       | ug/kg | 6580 | 4250.36 | 3589.49 | 64.6  | 54.9  | 53 - 131 | 16.9 | 30 |
| 2-Methylnaphthalene         | 208.289 | ug/kg | 3290 | 2458.46 | 2405.01 | 68.4  | 67.2  | 58 - 96  | 2.2  | 21 |
| Naphthalene                 | 82.3639 | ug/kg | 3290 | 2366.33 | 2393.95 | 69.4  | 70.7  | 56 - 105 | 1.16 | 21 |
| 2-Nitroaniline              | 0       | ug/kg | 3290 | 2521.76 | 2528.43 | 76.7  | 77.4  | 61 - 120 | .26  | 19 |
| 3-Nitroaniline              | 0       | ug/kg | 3290 | 2324.1  | 2289.17 | 70.7  | 70    | 52 - 115 | 1.51 | 22 |
| 4-Nitroaniline              | 0       | ug/kg | 3290 | 2355.73 | 2334.04 | 71.6  | 71.4  | 50 - 106 | .92  | 19 |
| Nitrobenzene                | 0       | ug/kg | 3290 | 2303.03 | 2312.82 | 70    | 70.8  | 53 - 108 | .42  | 20 |
| 2-Nitrophenol               | 0       | ug/kg | 6580 | 4643.49 | 4617.62 | 70.6  | 70.6  | 61 - 114 | .56  | 23 |
| 4-Nitrophenol               | 0       | ug/kg | 6580 | 4802.58 | 4737.24 | 73    | 72.5  | 49 - 134 | 1.37 | 21 |
| N-Nitroso-di-n-propylamine  | 0       | ug/kg | 3290 | 2092.83 | 2120.83 | 63.6  | 64.9  | 55 - 109 | 1.33 | 20 |
| N-Nitrosodiphenylamine      | 0       | ug/kg | 3290 | 3025.32 | 2936.27 | 92    | 89.8  | 65 - 134 | 2.99 | 21 |
| Pentachlorophenol           | 0       | ug/kg | 6580 | 5547.39 | 5402.39 | 84.3  | 82.7  | 60 - 145 | 2.65 | 25 |
| Phenanthrene                | 2106.62 | ug/kg | 3290 | 5281.3  | 4769.46 | 96.5  | 81.5  | 62 - 109 | 10.2 | 20 |
| Phenol                      | 0       | ug/kg | 6580 | 4221.92 | 4384.4  | 64.2  | 67.1  | 53 - 118 | 3.78 | 23 |
| Pyrene                      | 2581.81 | ug/kg | 3290 | 6422.24 | 5666.2  | 117*  | 94.4  | 60 - 114 | 12.5 | 20 |
| 2,4,5-Trichlorophenol       | 0       | ug/kg | 6580 | 4686.06 | 4708.85 | 71.2  | 72    | 68 - 121 | .49  | 22 |
| 2,4,6-Trichlorophenol       | 0       | ug/kg | 6580 | 4954.08 | 4950.05 | 75.3  | 75.7  | 68 - 119 | .08  | 20 |
| 2,4,6-Tribromophenol (S)    | 74.4    | %     |      |         |         | 74.4  | 74.2  | 19 - 132 |      |    |



### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

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|                      |      |   |      |      |          |
|----------------------|------|---|------|------|----------|
| 2-Fluorobiphenyl (S) | 70.7 | % | 70.7 | 72.2 | 40 - 110 |
| 2-Fluorophenol (S)   | 63.5 | % | 63.5 | 64.9 | 26 - 116 |
| Nitrobenzene-d5 (S)  | 67.7 | % | 67.7 | 69.9 | 38 - 112 |
| Phenol-d5 (S)        | 64.3 | % | 64.3 | 67.9 | 35 - 111 |
| Terphenyl-d14 (S)    | 65.8 | % | 65.8 | 66.9 | 45 - 126 |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

**QC Batch:** EXTR/46818 **Analysis Method:** SW846 8081B

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2209155002, 2209155003, 2209155004, 2209155005, 2209155006

#### METHOD BLANK: 2490182

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aldrin                   | ND           | ug/kg | 1.7             |
| alpha-BHC                | ND           | ug/kg | 1.7             |
| beta-BHC                 | ND           | ug/kg | 1.7             |
| delta-BHC                | ND           | ug/kg | 1.7             |
| gamma-BHC                | ND           | ug/kg | 1.7             |
| alpha-Chlordane          | ND           | ug/kg | 1.7             |
| gamma-Chlordane          | ND           | ug/kg | 1.7             |
| 4,4'-DDD                 | ND           | ug/kg | 3.3             |
| 4,4'-DDE                 | ND           | ug/kg | 3.3             |
| 4,4'-DDT                 | ND           | ug/kg | 3.3             |
| Dieldrin                 | ND           | ug/kg | 3.3             |
| Endosulfan I             | ND           | ug/kg | 1.7             |
| Endosulfan II            | ND           | ug/kg | 3.3             |
| Endosulfan Sulfate       | ND           | ug/kg | 3.3             |
| Endrin                   | ND           | ug/kg | 3.3             |
| Endrin Aldehyde          | 0.98J        | ug/kg | 3.3             |
| Endrin Ketone            | ND           | ug/kg | 3.3             |
| Heptachlor               | ND           | ug/kg | 1.7             |
| Heptachlor Epoxide       | ND           | ug/kg | 1.7             |
| Methoxychlor             | ND           | ug/kg | 3.3             |
| Toxaphene                | ND           | ug/kg | 35.0            |
| Decachlorobiphenyls (S)  | 64.6         | %     | 30 - 135        |
| Tetrachloro-m-xylene (S) | 54           | %     | 30 - 111        |

#### LABORATORY CONTROL SAMPLE: 2490183

| Parameter       | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-----------------|-----------|-------|-------------|------------|-------------|
| Aldrin          | 80.8      | ug/kg | 33.3        | 26.9       | 58 - 103    |
| alpha-BHC       | 80.9      | ug/kg | 33.3        | 27.0       | 57 - 105    |
| beta-BHC        | 70.2      | ug/kg | 33.3        | 23.4       | 53 - 106    |
| delta-BHC       | 83.3      | ug/kg | 33.3        | 27.8       | 60 - 103    |
| gamma-BHC       | 79.8      | ug/kg | 33.3        | 26.6       | 59 - 102    |
| alpha-Chlordane | 77.5      | ug/kg | 33.3        | 25.8       | 62 - 98     |
| gamma-Chlordane | 78.5      | ug/kg | 33.3        | 26.2       | 58 - 103    |
| 4,4'-DDD        | 93.4      | ug/kg | 33.3        | 31.1       | 57 - 111    |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

|                          |      |       |      |      |          |
|--------------------------|------|-------|------|------|----------|
| 4,4'-DDE                 | 83.9 | ug/kg | 33.3 | 28.0 | 63 - 112 |
| 4,4'-DDT                 | 77.7 | ug/kg | 33.3 | 25.9 | 60 - 122 |
| Dieldrin                 | 81.2 | ug/kg | 33.3 | 27.1 | 62 - 109 |
| Endosulfan I             | 75.2 | ug/kg | 33.3 | 25.1 | 57 - 98  |
| Endosulfan II            | 78.1 | ug/kg | 33.3 | 26.0 | 59 - 112 |
| Endosulfan Sulfate       | 85.8 | ug/kg | 33.3 | 28.6 | 27 - 96  |
| Endrin                   | 77.7 | ug/kg | 33.3 | 25.9 | 63 - 108 |
| Endrin Aldehyde          | 71.3 | ug/kg | 33.3 | 23.8 | 21 - 92  |
| Endrin Ketone            | 82.2 | ug/kg | 33.3 | 27.4 | 32 - 103 |
| Heptachlor               | 96.2 | ug/kg | 33.3 | 32.1 | 51 - 105 |
| Heptachlor Epoxide       | 77.8 | ug/kg | 33.3 | 25.9 | 62 - 99  |
| Methoxychlor             | 72.7 | ug/kg | 33.3 | 24.2 | 50 - 114 |
| Toxaphene                |      | ug/kg |      | ND   |          |
| Decachlorobiphenyls (S)  | 68.5 | %     |      |      | 30 - 135 |
| Tetrachloro-m-xylene (S) | 54.3 | %     |      |      | 30 - 111 |

SAMPLE DUPLICATE: 2490185 ORIGINAL: 2209651001

| Parameter          | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------------|-----------------|-------|------------|-----|---------|
| Aldrin             | 0               | ug/kg | 0          | NC  | 40      |
| alpha-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| beta-BHC           | 0               | ug/kg | 0          | NC  | 40      |
| delta-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| gamma-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDD           | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDE           | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDT           | 0               | ug/kg | 0          | NC  | 40      |
| Dieldrin           | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan I       | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan II      | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan Sulfate | 0               | ug/kg | 0          | NC  | 40      |
| Endrin             | 0               | ug/kg | 0          | NC  | 40      |
| Endrin Aldehyde    | 0               | ug/kg | 0          | NC  | 40      |
| Endrin Ketone      | 0               | ug/kg | 0          | NC  | 40      |
| Heptachlor         | 0               | ug/kg | 0          | NC  | 40      |
| Heptachlor Epoxide | 0               | ug/kg | 0          | NC  | 35      |
| Methoxychlor       | 0               | ug/kg | 0          | NC  | 40      |
| Toxaphene          | 0               | ug/kg | 0          | NC  | 40      |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

**QC Batch:** EXTR/46819

**Analysis Method:** SW846 8082A

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2209155002, 2209155003, 2209155004, 2209155005, 2209155006

#### METHOD BLANK: 2490186

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aroclor-1016             | ND           | mg/kg | 0.033           |
| Aroclor-1221             | ND           | mg/kg | 0.033           |
| Aroclor-1232             | ND           | mg/kg | 0.033           |
| Aroclor-1242             | ND           | mg/kg | 0.033           |
| Aroclor-1248             | ND           | mg/kg | 0.033           |
| Aroclor-1254             | ND           | mg/kg | 0.033           |
| Aroclor-1260             | ND           | mg/kg | 0.033           |
| Aroclor-1262             | ND           | mg/kg | 0.033           |
| Aroclor-1268             | ND           | mg/kg | 0.033           |
| Decachlorobiphenyls (S)  | 106          | %     | 49 - 115        |
| Tetrachloro-m-xylene (S) | 98.9         | %     | 27 - 137        |

#### LABORATORY CONTROL SAMPLE: 2490187

| Parameter                | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|--------------------------|-----------|-------|-------------|------------|-------------|
| Aroclor-1016             | 93.5      | mg/kg | .33         | 0.31       | 43 - 132    |
| Aroclor-1221             |           | mg/kg |             | ND         |             |
| Aroclor-1232             |           | mg/kg |             | ND         |             |
| Aroclor-1242             |           | mg/kg |             | ND         |             |
| Aroclor-1248             |           | mg/kg |             | ND         |             |
| Aroclor-1254             |           | mg/kg |             | ND         |             |
| Aroclor-1260             | 98.4      | mg/kg | .33         | 0.33       | 53 - 134    |
| Aroclor-1262             |           | mg/kg |             | ND         |             |
| Aroclor-1268             |           | mg/kg |             | ND         |             |
| Decachlorobiphenyls (S)  | 103       | %     |             |            | 49 - 115    |
| Tetrachloro-m-xylene (S) | 93.8      | %     |             |            | 27 - 137    |

#### SAMPLE DUPLICATE: 2490188 ORIGINAL: 2209651001

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Aroclor-1016 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1221 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1232 | 0               | mg/kg | 0          | NC  | 40      |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

|              |   |       |   |    |    |
|--------------|---|-------|---|----|----|
| Aroclor-1242 | 0 | mg/kg | 0 | NC | 40 |
| Aroclor-1248 | 0 | mg/kg | 0 | NC | 40 |
| Aroclor-1254 | 0 | mg/kg | 0 | NC | 40 |
| Aroclor-1260 | 0 | mg/kg | 0 | NC | 40 |

MATRIX SPIKE SAMPLE: 2490189 ORIGINAL: 2209845001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|--------------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Aroclor-1016             | 0               | mg/kg | .33         | .26901    | 81.8     | 43 - 132    |
| Aroclor-1260             | 0               | mg/kg | .33         | .26091    | 79.3     | 53 - 134    |
| Decachlorobiphenyls (S)  | 75.4            | %     |             |           |          | 49 - 115    |
| Tetrachloro-m-xylene (S) | 85.6            | %     |             |           |          | 27 - 137    |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

**QC Batch:** EXTR/46820      **Analysis Method:** SW846 8015D  
**QC Batch Method:** SW846 3546  
**Associated Lab Samples:** 2209155002, 2209155003, 2209155004, 2209155005, 2209155006

#### METHOD BLANK: 2490190

| Parameter                     | Blank Result | Units | Reporting Limit |
|-------------------------------|--------------|-------|-----------------|
| Diesel Range Organics C10-C28 | 2.6J         | mg/kg | 10.6            |
| o-Terphenyl (S)               | 102          | %     | 38 - 118        |

#### LABORATORY CONTROL SAMPLE: 2490191

| Parameter                     | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-------------------------------|-----------|-------|-------------|------------|-------------|
| Diesel Range Organics C10-C28 | 86.8      | mg/kg | 33.3        | 28.9       | 38 - 132    |
| o-Terphenyl (S)               | 78.7      | %     |             |            | 38 - 118    |

#### MATRIX SPIKE: 2490192 DUPLICATE: 2490193 ORIGINAL: 2208873003

**\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.**

| Parameter                     | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|-------------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Diesel Range Organics C10-C28 | 3.36215         | mg/kg | 31.8        | 27.1049   | 30.3733    | 74.6     | 81.6      | 38 - 132    | 11.4 | 30      |
| o-Terphenyl (S)               | 79.4            | %     |             |           |            | 79.4     | 76        | 38 - 118    |      |         |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

**QC Batch:** EXTR/46830      **Analysis Method:** SW846 8270D  
**QC Batch Method:** SW846 3546  
**Associated Lab Samples:** 2209155005, 2209155006

METHOD BLANK: 2490996

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acenaphthene                | ND           | ug/kg | 50.0            |
| Acenaphthylene              | ND           | ug/kg | 50.0            |
| Acetophenone                | ND           | ug/kg | 100             |
| Anthracene                  | ND           | ug/kg | 50.0            |
| Atrazine                    | ND           | ug/kg | 100             |
| Benzaldehyde                | ND           | ug/kg | 200             |
| Benzo(a)anthracene          | 7.2J         | ug/kg | 50.0            |
| Benzo(a)pyrene              | ND           | ug/kg | 50.0            |
| Benzo(b)fluoranthene        | ND           | ug/kg | 50.0            |
| Benzo(g,h,i)perylene        | ND           | ug/kg | 50.0            |
| Benzo(k)fluoranthene        | ND           | ug/kg | 50.0            |
| Biphenyl                    | ND           | ug/kg | 100             |
| 4-Bromophenyl-phenylether   | ND           | ug/kg | 100             |
| Butylbenzylphthalate        | ND           | ug/kg | 100             |
| Caprolactam                 | ND           | ug/kg | 200             |
| Carbazole                   | ND           | ug/kg | 100             |
| 4-Chloro-3-methylphenol     | ND           | ug/kg | 200             |
| 4-Chloroaniline             | ND           | ug/kg | 200             |
| bis(2-Chloroethoxy)methane  | ND           | ug/kg | 100             |
| bis(2-Chloroethyl)ether     | ND           | ug/kg | 100             |
| bis(2-Chloroisopropyl)ether | ND           | ug/kg | 100             |
| 2-Chloronaphthalene         | ND           | ug/kg | 200             |
| 2-Chlorophenol              | ND           | ug/kg | 200             |
| 4-Chlorophenyl-phenylether  | ND           | ug/kg | 100             |
| Chrysene                    | ND           | ug/kg | 50.0            |
| mp-Cresol                   | ND           | ug/kg | 200             |
| o-Cresol                    | ND           | ug/kg | 200             |
| Di-n-Butylphthalate         | ND           | ug/kg | 100             |
| Di-n-Octylphthalate         | ND           | ug/kg | 100             |
| Dibenzo(a,h)anthracene      | ND           | ug/kg | 50.0            |
| Dibenzofuran                | ND           | ug/kg | 100             |
| 3,3-Dichlorobenzidine       | ND           | ug/kg | 200             |
| 2,4-Dichlorophenol          | ND           | ug/kg | 200             |
| Diethylphthalate            | ND           | ug/kg | 100             |
| 2,4-Dimethylphenol          | ND           | ug/kg | 200             |
| Dimethylphthalate           | ND           | ug/kg | 100             |
| 2,4-Dinitrophenol           | ND           | ug/kg | 200             |



### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

|                            |      |       |          |
|----------------------------|------|-------|----------|
| 2,4-Dinitrotoluene         | ND   | ug/kg | 100      |
| 2,6-Dinitrotoluene         | ND   | ug/kg | 100      |
| 1,4-Dioxane                | ND   | ug/kg | 100      |
| bis(2-Ethylhexyl)phthalate | ND   | ug/kg | 100      |
| Fluoranthene               | ND   | ug/kg | 50.0     |
| Fluorene                   | ND   | ug/kg | 50.0     |
| Hexachlorobenzene          | ND   | ug/kg | 100      |
| Hexachlorobutadiene        | ND   | ug/kg | 100      |
| Hexachlorocyclopentadiene  | ND   | ug/kg | 200      |
| Hexachloroethane           | ND   | ug/kg | 100      |
| Indeno(1,2,3-cd)pyrene     | ND   | ug/kg | 50.0     |
| Isophorone                 | ND   | ug/kg | 100      |
| 2-Methyl-4,6-dinitrophenol | ND   | ug/kg | 200      |
| 2-Methylnaphthalene        | ND   | ug/kg | 100      |
| Naphthalene                | ND   | ug/kg | 50.0     |
| 2-Nitroaniline             | ND   | ug/kg | 200      |
| 3-Nitroaniline             | ND   | ug/kg | 200      |
| 4-Nitroaniline             | ND   | ug/kg | 200      |
| Nitrobenzene               | ND   | ug/kg | 100      |
| 2-Nitrophenol              | ND   | ug/kg | 200      |
| 4-Nitrophenol              | ND   | ug/kg | 200      |
| N-Nitroso-di-n-propylamine | ND   | ug/kg | 100      |
| N-Nitrosodiphenylamine     | ND   | ug/kg | 100      |
| Pentachlorophenol          | ND   | ug/kg | 200      |
| Phenanthrene               | ND   | ug/kg | 50.0     |
| Phenol                     | ND   | ug/kg | 200      |
| Pyrene                     | ND   | ug/kg | 50.0     |
| 1,2,4,5-Tetrachlorobenzene | ND   | ug/kg | 100      |
| 2,3,4,6-Tetrachlorophenol  | ND   | ug/kg | 200      |
| 2,4,5-Trichlorophenol      | ND   | ug/kg | 200      |
| 2,4,6-Trichlorophenol      | ND   | ug/kg | 200      |
| 2,4,6-Tribromophenol (S)   | 72   | %     | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 71.5 | %     | 40 - 110 |
| 2-Fluorophenol (S)         | 71.3 | %     | 26 - 116 |
| Nitrobenzene-d5 (S)        | 66.3 | %     | 38 - 112 |
| Phenol-d5 (S)              | 76.1 | %     | 35 - 111 |
| Terphenyl-d14 (S)          | 71.9 | %     | 45 - 126 |

## LABORATORY CONTROL SAMPLE: 2490997

| Parameter      | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | % Rec<br>Limit |
|----------------|--------------|-------|----------------|---------------|----------------|
| Acenaphthene   | 77           | ug/kg | 3330           | 2570          | 59 - 115       |
| Acenaphthylene | 80.3         | ug/kg | 3330           | 2680          | 59 - 114       |
| Acetophenone   | 44.5*        | ug/kg | 3330           | 1480          | 45 - 87        |
| Anthracene     | 83.2         | ug/kg | 3330           | 2770          | 63 - 112       |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

|                             |      |       |      |      |          |
|-----------------------------|------|-------|------|------|----------|
| Atrazine                    | 81.5 | ug/kg | 3330 | 2720 | 54 - 128 |
| Benzaldehyde                | 58.6 | ug/kg | 3330 | 1950 | 52 - 108 |
| Benzo(a)anthracene          | 79.5 | ug/kg | 3330 | 2650 | 61 - 118 |
| Benzo(a)pyrene              | 82.3 | ug/kg | 3330 | 2740 | 61 - 114 |
| Benzo(b)fluoranthene        | 85   | ug/kg | 3330 | 2830 | 64 - 113 |
| Benzo(g,h,i)perylene        | 80   | ug/kg | 3330 | 2670 | 61 - 118 |
| Benzo(k)fluoranthene        | 86.9 | ug/kg | 3330 | 2900 | 62 - 113 |
| Biphenyl                    | 76.2 | ug/kg | 3330 | 2540 | 60 - 111 |
| 4-Bromophenyl-phenylether   | 89.9 | ug/kg | 3330 | 3000 | 60 - 111 |
| Butylbenzylphthalate        | 82.1 | ug/kg | 3330 | 2740 | 56 - 126 |
| Caprolactam                 | 77.2 | ug/kg | 3330 | 2570 | 38 - 129 |
| Carbazole                   | 84.3 | ug/kg | 3330 | 2810 | 65 - 117 |
| 4-Chloro-3-methylphenol     | 82.4 | ug/kg | 6670 | 5490 | 65 - 118 |
| 4-Chloroaniline             | 74.8 | ug/kg | 3330 | 2490 | 21 - 115 |
| bis(2-Chloroethoxy)methane  | 90.2 | ug/kg | 3330 | 3010 | 56 - 108 |
| bis(2-Chloroethyl)ether     | 83.6 | ug/kg | 3330 | 2790 | 51 - 105 |
| bis(2-Chloroisopropyl)ether | 78.2 | ug/kg | 3330 | 2610 | 34 - 126 |
| 2-Chloronaphthalene         | 80.7 | ug/kg | 3330 | 2690 | 55 - 111 |
| 2-Chlorophenol              | 75.7 | ug/kg | 6670 | 5050 | 61 - 111 |
| 4-Chlorophenyl-phenylether  | 86.4 | ug/kg | 3330 | 2880 | 58 - 112 |
| Chrysene                    | 84.2 | ug/kg | 3330 | 2810 | 63 - 111 |
| mp-Cresol                   | 76   | ug/kg | 6670 | 5060 | 60 - 112 |
| o-Cresol                    | 75.2 | ug/kg | 6670 | 5020 | 62 - 113 |
| Di-n-Butylphthalate         | 88.2 | ug/kg | 3330 | 2940 | 58 - 118 |
| Di-n-Octylphthalate         | 69.6 | ug/kg | 3330 | 2320 | 45 - 128 |
| Dibenzo(a,h)anthracene      | 81.9 | ug/kg | 3330 | 2730 | 64 - 117 |
| Dibenzofuran                | 81.1 | ug/kg | 3330 | 2700 | 61 - 111 |
| 3,3-Dichlorobenzidine       | 76   | ug/kg | 6670 | 5070 | 27 - 106 |
| 2,4-Dichlorophenol          | 85.9 | ug/kg | 6670 | 5720 | 65 - 111 |
| Diethylphthalate            | 83.6 | ug/kg | 3330 | 2790 | 59 - 112 |
| 2,4-Dimethylphenol          | 82.6 | ug/kg | 6670 | 5500 | 65 - 114 |
| Dimethylphthalate           | 83.1 | ug/kg | 3330 | 2770 | 59 - 111 |
| 2,4-Dinitrophenol           | 77.1 | ug/kg | 6670 | 5140 | 36 - 131 |
| 2,4-Dinitrotoluene          | 85.3 | ug/kg | 3330 | 2840 | 61 - 117 |
| 2,6-Dinitrotoluene          | 82.9 | ug/kg | 3330 | 2760 | 61 - 115 |
| 1,4-Dioxane                 | 42.1 | ug/kg | 3330 | 1400 | 37 - 98  |
| bis(2-Ethylhexyl)phthalate  | 82.9 | ug/kg | 3330 | 2760 | 51 - 126 |
| Fluoranthene                | 88.8 | ug/kg | 3330 | 2960 | 61 - 116 |
| Fluorene                    | 82.9 | ug/kg | 3330 | 2760 | 61 - 112 |
| Hexachlorobenzene           | 85   | ug/kg | 3330 | 2830 | 59 - 109 |
| Hexachlorobutadiene         | 99.1 | ug/kg | 3330 | 3300 | 58 - 123 |
| Hexachlorocyclopentadiene   | 44.9 | ug/kg | 3330 | 1500 | 33 - 109 |
| Hexachloroethane            | 68   | ug/kg | 3330 | 2270 | 50 - 103 |
| Indeno(1,2,3-cd)pyrene      | 79.7 | ug/kg | 3330 | 2660 | 62 - 113 |
| Isophorone                  | 83.5 | ug/kg | 3330 | 2780 | 51 - 112 |
| 2-Methyl-4,6-dinitrophenol  | 83.1 | ug/kg | 6670 | 5540 | 53 - 131 |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

|                            |      |       |      |      |          |
|----------------------------|------|-------|------|------|----------|
| 2-Methylnaphthalene        | 72.9 | ug/kg | 3330 | 2430 | 58 - 96  |
| Naphthalene                | 75.4 | ug/kg | 3330 | 2510 | 56 - 105 |
| 2-Nitroaniline             | 84.8 | ug/kg | 3330 | 2830 | 61 - 120 |
| 3-Nitroaniline             | 88.9 | ug/kg | 3330 | 2960 | 52 - 115 |
| 4-Nitroaniline             | 75.3 | ug/kg | 3330 | 2510 | 50 - 106 |
| Nitrobenzene               | 89.1 | ug/kg | 3330 | 2970 | 53 - 108 |
| 2-Nitrophenol              | 80   | ug/kg | 6670 | 5330 | 61 - 114 |
| 4-Nitrophenol              | 72.4 | ug/kg | 6670 | 4830 | 49 - 134 |
| N-Nitroso-di-n-propylamine | 77.9 | ug/kg | 3330 | 2600 | 55 - 109 |
| N-Nitrosodiphenylamine     | 96.6 | ug/kg | 3330 | 3220 | 65 - 134 |
| Pentachlorophenol          | 79.2 | ug/kg | 6670 | 5280 | 60 - 145 |
| Phenanthrene               | 83.7 | ug/kg | 3330 | 2790 | 62 - 109 |
| Phenol                     | 80.4 | ug/kg | 6670 | 5360 | 53 - 118 |
| Pyrene                     | 82.8 | ug/kg | 3330 | 2760 | 60 - 114 |
| 1,2,4,5-Tetrachlorobenzene | 81.7 | ug/kg | 3330 | 2720 | 56 - 107 |
| 2,3,4,6-Tetrachlorophenol  | 63   | ug/kg | 6670 | 4200 | 60 - 111 |
| 2,4,5-Trichlorophenol      | 82   | ug/kg | 6670 | 5460 | 68 - 121 |
| 2,4,6-Trichlorophenol      | 82.2 | ug/kg | 6670 | 5480 | 68 - 119 |
| 2,4,6-Tribromophenol (S)   | 85   | %     |      |      | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 77.9 | %     |      |      | 40 - 110 |
| 2-Fluorophenol (S)         | 74.8 | %     |      |      | 26 - 116 |
| Nitrobenzene-d5 (S)        | 73.9 | %     |      |      | 38 - 112 |
| Phenol-d5 (S)              | 81.8 | %     |      |      | 35 - 111 |
| Terphenyl-d14 (S)          | 79.3 | %     |      |      | 45 - 126 |

SAMPLE DUPLICATE: 2490998 ORIGINAL: 2209260006

| Parameter              | Original Result | Units | DUP Result | RPD   | Max RPD |
|------------------------|-----------------|-------|------------|-------|---------|
| Acenaphthene           | 51520.8         | ug/kg | 54534.6    | 5.68  | 17      |
| Acenaphthylene         | 0               | ug/kg | 1133.14    | NC    | 17      |
| Anthracene             | 21259           | ug/kg | 27746      | 26.5* | 20      |
| Benzo(a)anthracene     | 13733.5         | ug/kg | 13459      | 2.02  | 22      |
| Benzo(a)pyrene         | 7522.93         | ug/kg | 7337.09    | 2.5   | 24      |
| Benzo(b)fluoranthene   | 10862.1         | ug/kg | 10635.4    | 2.11  | 28      |
| Benzo(g,h,i)perylene   | 2656.19         | ug/kg | 2636.59    | .74   | 30      |
| Benzo(k)fluoranthene   | 4330.94         | ug/kg | 4348.36    | .4    | 22      |
| Chrysene               | 21025.8         | ug/kg | 20292.9    | 3.55  | 20      |
| Dibenzo(a,h)anthracene | 893.084         | ug/kg | 907.039    | 1.55  | 28      |
| Fluoranthene           | 75020.9         | ug/kg | 73521.4    | 2.02  | 21      |
| Fluorene               | 47765.8         | ug/kg | 49423.8    | 3.41  | 16      |
| Indeno(1,2,3-cd)pyrene | 3059.16         | ug/kg | 3061.1     | .06   | 30      |
| 2-Methylnaphthalene    | 39141           | ug/kg | 41824.2    | 6.63  | 21      |
| Naphthalene            | 114935          | ug/kg | 132733     | 14.4  | 21      |
| Phenanthrene           | 143230          | ug/kg | 150401     | 4.88  | 20      |
| Pyrene                 | 44302.2         | ug/kg | 48949.6    | 9.97  | 20      |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

MATRIX SPIKE SAMPLE: 2490999 ORIGINAL: 2209412007

\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                   | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|-----------------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Acenaphthene                | 0               | ug/kg | 3290        | 2098.21   | 63.8     | 59 - 115    |
| Acenaphthylene              | 0               | ug/kg | 3290        | 2201.86   | 66.9     | 59 - 114    |
| Acetophenone                | 0               | ug/kg | 3290        | 1902.97   | 57.9     | 45 - 87     |
| Anthracene                  | 0               | ug/kg | 3290        | 2258.93   | 68.7     | 63 - 112    |
| Atrazine                    | 0               | ug/kg | 3290        | 2106.01   | 64       | 54 - 128    |
| Benzaldehyde                | 96.9482         | ug/kg | 3290        | 1746.43   | 50.1*    | 52 - 108    |
| Benzo(a)anthracene          | 0               | ug/kg | 3290        | 2147.99   | 65.3     | 61 - 118    |
| Benzo(a)pyrene              | 0               | ug/kg | 3290        | 2217.52   | 67.4     | 61 - 114    |
| Benzo(b)fluoranthene        | 0               | ug/kg | 3290        | 2311.47   | 70.3     | 64 - 113    |
| Benzo(g,h,i)perylene        | 0               | ug/kg | 3290        | 2204.87   | 67       | 61 - 118    |
| Benzo(k)fluoranthene        | 0               | ug/kg | 3290        | 2258.1    | 68.6     | 62 - 113    |
| Biphenyl                    | 0               | ug/kg | 3290        | 2071.76   | 63       | 60 - 111    |
| 4-Bromophenyl-phenylether   | 0               | ug/kg | 3290        | 2525.56   | 76.8     | 60 - 111    |
| Butylbenzylphthalate        | 0               | ug/kg | 3290        | 2246.8    | 68.3     | 56 - 126    |
| Caprolactam                 | 0               | ug/kg | 3290        | 1249.99   | 38       | 38 - 129    |
| Carbazole                   | 0               | ug/kg | 3290        | 2243.96   | 68.2     | 65 - 117    |
| 4-Chloro-3-methylphenol     | 0               | ug/kg | 6580        | 4584.52   | 69.7     | 65 - 118    |
| 4-Chloroaniline             | 0               | ug/kg | 3290        | 968.397   | 29.4     | 21 - 115    |
| bis(2-Chloroethoxy)methane  | 0               | ug/kg | 3290        | 2431.05   | 73.9     | 56 - 108    |
| bis(2-Chloroethyl)ether     | 0               | ug/kg | 3290        | 2201.5    | 66.9     | 51 - 105    |
| bis(2-Chloroisopropyl)ether | 0               | ug/kg | 3290        | 2153.83   | 65.5     | 34 - 126    |
| 2-Chloronaphthalene         | 0               | ug/kg | 3290        | 2239.59   | 68.1     | 55 - 111    |
| 2-Chlorophenol              | 0               | ug/kg | 6580        | 4165.26   | 63.3     | 61 - 111    |
| 4-Chlorophenyl-phenylether  | 0               | ug/kg | 3290        | 2395.75   | 72.8     | 58 - 112    |
| Chrysene                    | 0               | ug/kg | 3290        | 2292.39   | 69.7     | 63 - 111    |
| mp-Cresol                   | 0               | ug/kg | 6580        | 4328.53   | 65.8     | 60 - 112    |
| o-Cresol                    | 0               | ug/kg | 6580        | 4255.11   | 64.7     | 62 - 113    |
| Di-n-Butylphthalate         | 0               | ug/kg | 3290        | 2410.28   | 73.3     | 58 - 118    |
| Di-n-Octylphthalate         | 0               | ug/kg | 3290        | 2018.4    | 61.4     | 45 - 128    |
| Dibenzo(a,h)anthracene      | 0               | ug/kg | 3290        | 2217.13   | 67.4     | 64 - 117    |
| Dibenzofuran                | 0               | ug/kg | 3290        | 2223.94   | 67.6     | 61 - 111    |
| 3,3-Dichlorobenzidine       | 0               | ug/kg | 6580        | 576.511   | 8.76*    | 27 - 106    |
| 2,4-Dichlorophenol          | 0               | ug/kg | 6580        | 4720.56   | 71.8     | 65 - 111    |
| Diethylphthalate            | 0               | ug/kg | 3290        | 2285.72   | 69.5     | 59 - 112    |
| 2,4-Dimethylphenol          | 0               | ug/kg | 6580        | 4624.03   | 70.3     | 65 - 114    |
| Dimethylphthalate           | 0               | ug/kg | 3290        | 2319.52   | 70.5     | 59 - 111    |
| 2,4-Dinitrophenol           | 0               | ug/kg | 6580        | 5392.84   | 82       | 36 - 131    |
| 2,4-Dinitrotoluene          | 0               | ug/kg | 3290        | 2296.9    | 69.8     | 61 - 117    |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

|                            |         |       |      |         |       |          |
|----------------------------|---------|-------|------|---------|-------|----------|
| 2,6-Dinitrotoluene         | 0       | ug/kg | 3290 | 2299.62 | 69.9  | 61 - 115 |
| 1,4-Dioxane                | 0       | ug/kg | 3290 | 725.741 | 22.1* | 37 - 98  |
| bis(2-Ethylhexyl)phthalate | 0       | ug/kg | 3290 | 2235.59 | 68    | 51 - 126 |
| Fluoranthene               | 5.05817 | ug/kg | 3290 | 2379.74 | 72.2  | 61 - 116 |
| Fluorene                   | 0       | ug/kg | 3290 | 2298.55 | 69.9  | 61 - 112 |
| Hexachlorobenzene          | 0       | ug/kg | 3290 | 2385.63 | 72.5  | 59 - 109 |
| Hexachlorobutadiene        | 0       | ug/kg | 3290 | 2514.97 | 76.5  | 58 - 123 |
| Hexachlorocyclopentadiene  | 0       | ug/kg | 3290 | 587.369 | 17.9* | 33 - 109 |
| Hexachloroethane           | 0       | ug/kg | 3290 | 1585.9  | 48.2* | 50 - 103 |
| Indeno(1,2,3-cd)pyrene     | 0       | ug/kg | 3290 | 2239.87 | 68.1  | 62 - 113 |
| Isophorone                 | 0       | ug/kg | 3290 | 2326.89 | 70.7  | 51 - 112 |
| 2-Methyl-4,6-dinitrophenol | 0       | ug/kg | 6580 | 4658.98 | 70.8  | 53 - 131 |
| 2-Methylnaphthalene        | 0       | ug/kg | 3290 | 2023.17 | 61.5  | 58 - 96  |
| Naphthalene                | 0       | ug/kg | 3290 | 2032.81 | 61.8  | 56 - 105 |
| 2-Nitroaniline             | 0       | ug/kg | 3290 | 2353.39 | 71.5  | 61 - 120 |
| 3-Nitroaniline             | 0       | ug/kg | 3290 | 1500.47 | 45.6* | 52 - 115 |
| 4-Nitroaniline             | 0       | ug/kg | 3290 | 1571.38 | 47.8* | 50 - 106 |
| Nitrobenzene               | 0       | ug/kg | 3290 | 2391.25 | 72.7  | 53 - 108 |
| 2-Nitrophenol              | 0       | ug/kg | 6580 | 4360.06 | 66.3  | 61 - 114 |
| 4-Nitrophenol              | 0       | ug/kg | 6580 | 185.919 | 2.83* | 49 - 134 |
| N-Nitroso-di-n-propylamine | 0       | ug/kg | 3290 | 2204.98 | 67    | 55 - 109 |
| N-Nitrosodiphenylamine     | 0       | ug/kg | 3290 | 2677.24 | 81.4  | 65 - 134 |
| Pentachlorophenol          | 0       | ug/kg | 6580 | 4972.75 | 75.6  | 60 - 145 |
| Phenanthrene               | 0       | ug/kg | 3290 | 2299.04 | 69.9  | 62 - 109 |
| Phenol                     | 0       | ug/kg | 6580 | 4466.26 | 67.9  | 53 - 118 |
| Pyrene                     | 0       | ug/kg | 3290 | 2198.42 | 66.8  | 60 - 114 |
| 1,2,4,5-Tetrachlorobenzene | 0       | ug/kg | 3290 | 2207.97 | 67.1  | 56 - 107 |
| 2,3,4,6-Tetrachlorophenol  | 0       | ug/kg | 6580 | 3728.15 | 56.7* | 60 - 111 |
| 2,4,5-Trichlorophenol      | 0       | ug/kg | 6580 | 4647.39 | 70.6  | 68 - 121 |
| 2,4,6-Trichlorophenol      | 0       | ug/kg | 6580 | 4697.78 | 71.4  | 68 - 119 |
| 2,4,6-Tribromophenol (S)   | 73.9    | %     |      |         |       | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 64.6    | %     |      |         |       | 40 - 110 |
| 2-Fluorophenol (S)         | 60.3    | %     |      |         |       | 26 - 116 |
| Nitrobenzene-d5 (S)        | 61.2    | %     |      |         |       | 38 - 112 |
| Phenol-d5 (S)              | 69.1    | %     |      |         |       | 35 - 111 |
| Terphenyl-d14 (S)          | 63.5    | %     |      |         |       | 45 - 126 |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

**QC Batch:** MDIG/62761 **Analysis Method:** SW846 6020A

**QC Batch Method:** SW846 3051

**Associated Lab Samples:** 2209155002, 2209155003, 2209155004, 2209155005, 2209155006

#### METHOD BLANK: 2489561

| Parameter        | Blank Result | Units | Reporting Limit |
|------------------|--------------|-------|-----------------|
| Antimony, Total  | ND           | mg/kg | 1.0             |
| Arsenic, Total   | ND           | mg/kg | 1.5             |
| Beryllium, Total | ND           | mg/kg | 0.50            |
| Cadmium, Total   | ND           | mg/kg | 0.50            |
| Chromium, Total  | ND           | mg/kg | 1.0             |
| Copper, Total    | ND           | mg/kg | 2.5             |
| Lead, Total      | ND           | mg/kg | 1.0             |
| Nickel, Total    | ND           | mg/kg | 2.5             |
| Selenium, Total  | ND           | mg/kg | 2.5             |
| Silver, Total    | ND           | mg/kg | 1.0             |
| Thallium, Total  | ND           | mg/kg | 0.50            |
| Zinc, Total      | ND           | mg/kg | 2.5             |

#### LABORATORY CONTROL SAMPLE: 2489562

| Parameter        | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|------------------|-----------|-------|-------------|------------|-------------|
| Antimony, Total  | 99.9      | mg/kg | 20          | 20.0       | 80 - 120    |
| Arsenic, Total   | 97.2      | mg/kg | 20          | 19.4       | 80 - 120    |
| Beryllium, Total | 92.7      | mg/kg | 20          | 18.5       | 80 - 120    |
| Cadmium, Total   | 96.2      | mg/kg | 20          | 19.2       | 80 - 120    |
| Chromium, Total  | 101       | mg/kg | 20          | 20.2       | 80 - 120    |
| Copper, Total    | 103       | mg/kg | 20          | 20.7       | 80 - 120    |
| Lead, Total      | 96.5      | mg/kg | 20          | 19.3       | 80 - 120    |
| Nickel, Total    | 103       | mg/kg | 20          | 20.5       | 80 - 120    |
| Selenium, Total  | 91.5      | mg/kg | 20          | 18.3       | 80 - 120    |
| Silver, Total    | 102       | mg/kg | 10          | 10.2       | 80 - 120    |
| Thallium, Total  | 94.8      | mg/kg | 20          | 19.0       | 80 - 120    |
| Zinc, Total      | 94.6      | mg/kg | 200         | 189        | 80 - 120    |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

MATRIX SPIKE: 2489563 DUPLICATE: 2489564 ORIGINAL: 2209460001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter       | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|-----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Arsenic, Total  | 4.4245          | mg/kg | 19.2        | 15.43125  | 16.69327   | 57.2*    | 63.8*     | 75 - 125    | 7.86 | 20      |
| Cadmium, Total  | .0975           | mg/kg | 19.2        | 11.08894  | 13.03317   | 57.2*    | 67.3*     | 75 - 125    | 16.1 | 20      |
| Chromium, Total | 21.755          | mg/kg | 19.2        | 40.82885  | 47.11971   | 99.2     | 132*      | 75 - 125    | 14.3 | 20      |
| Lead, Total     | 18.26           | mg/kg | 19.2        | 30.30769  | 35.58942   | 62.6*    | 90.1      | 75 - 125    | 16   | 20      |
| Selenium, Total | 1.9935          | mg/kg | 19.2        | 11.65096  | 13.40144   | 50.2*    | 59.3*     | 75 - 125    | 14   | 20      |
| Silver, Total   | .0215           | mg/kg | 9.6         | 5.89808   | 7.00721    | 61.1*    | 72.7*     | 75 - 125    | 17.2 | 20      |



### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

**QC Batch:** MDIG/62775      **Analysis Method:** SW846 7471B  
**QC Batch Method:** SW846 7471B  
**Associated Lab Samples:** 2209155002, 2209155003, 2209155004, 2209155005, 2209155006

#### METHOD BLANK: 2489825

| Parameter      | Blank Result | Units | Reporting Limit |
|----------------|--------------|-------|-----------------|
| Mercury, Total | ND           | mg/kg | 0.050           |

#### LABORATORY CONTROL SAMPLE: 2489826

| Parameter      | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|----------------|-----------|-------|-------------|------------|-------------|
| Mercury, Total | 93.5      | mg/kg | .4          | 0.37       | 80 - 120    |

#### MATRIX SPIKE: 2489827 DUPLICATE: 2489828 ORIGINAL: 2209155004

\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter      | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Mercury, Total | .02588          | mg/kg | 1           | 1         | .92778     | 97.4     | 97.4      | 80 - 120    | 7.49 | 20      |

#### MATRIX SPIKE: 2489829 DUPLICATE: 2489830 ORIGINAL: 2209412007

\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter      | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Mercury, Total | .03             | mg/kg | .94         | 1         | 1.02745    | 103      | 102       | 80 - 120    | 2.71 | 20      |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

**QC Batch:** VOGC/9390 **Analysis Method:** SW846 8015D  
**QC Batch Method:** SW846 5035  
**Associated Lab Samples:** 2209155002, 2209155003, 2209155004, 2209155005, 2209155006

#### METHOD BLANK: 2487653

| Parameter                  | Blank Result | Units | Reporting Limit |
|----------------------------|--------------|-------|-----------------|
| Gasoline Range Organics    | 4350J        | ug/kg | 10000           |
| a,a,a-Trifluorotoluene (S) | 116          | %     | 72 - 134        |

#### LABORATORY CONTROL SAMPLE: 2487654

| Parameter                  | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|----------------------------|-----------|-------|-------------|------------|-------------|
| Gasoline Range Organics    | 99.7      | ug/kg | 100000      | 99700      | 73 - 133    |
| a,a,a-Trifluorotoluene (S) | 103       | %     |             |            | 72 - 134    |

#### MATRIX SPIKE: 2487663 DUPLICATE: 2487664 ORIGINAL: 2205202002

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                  | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|----------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Gasoline Range Organics    | 11940.6         | ug/kg | 129000      | 138891    | 146114     | 98.8     | 104       | 73 - 133    | 5.07 | 18      |
| a,a,a-Trifluorotoluene (S) | 120             | %     |             |           |            | 120      | 126       | 72 - 134    |      |         |

## QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

**QC Batch:** VOMS/42484 **Analysis Method:** SW846 8260B  
**QC Batch Method:** SW846 8260B  
**Associated Lab Samples:** 2209155001

### METHOD BLANK: 2487407

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acetone                     | 9.3J         | ug/L  | 10.0            |
| tert-Amyl methyl ether      | ND           | ug/L  | 1.0             |
| tert-Amyl Alcohol           | ND           | ug/L  | 10.0            |
| tert-Amyl Ethylether        | ND           | ug/L  | 1.0             |
| Benzene                     | ND           | ug/L  | 1.0             |
| Bromochloromethane          | ND           | ug/L  | 1.0             |
| Bromodichloromethane        | ND           | ug/L  | 1.0             |
| Bromoform                   | ND           | ug/L  | 1.0             |
| Bromomethane                | 0.75J        | ug/L  | 1.0             |
| 2-Butanone                  | ND           | ug/L  | 10.0            |
| tert-Butyl Alcohol          | ND           | ug/L  | 10.0            |
| Carbon Disulfide            | 0.33J        | ug/L  | 1.0             |
| Carbon Tetrachloride        | ND           | ug/L  | 1.0             |
| Chlorobenzene               | ND           | ug/L  | 1.0             |
| Chlorodibromomethane        | ND           | ug/L  | 1.0             |
| Chloroethane                | ND           | ug/L  | 1.0             |
| Chloroform                  | 0.65J        | ug/L  | 1.0             |
| Chloromethane               | 0.78J        | ug/L  | 1.0             |
| 1,2-Dibromo-3-chloropropane | ND           | ug/L  | 7.0             |
| 1,2-Dibromoethane           | ND           | ug/L  | 1.0             |
| 1,1-Dichloroethane          | ND           | ug/L  | 1.0             |
| 1,2-Dichloroethane          | ND           | ug/L  | 1.0             |
| 1,1-Dichloroethene          | ND           | ug/L  | 1.0             |
| cis-1,2-Dichloroethene      | ND           | ug/L  | 1.0             |
| trans-1,2-Dichloroethene    | ND           | ug/L  | 1.0             |
| 1,2-Dichloropropane         | ND           | ug/L  | 1.0             |
| cis-1,3-Dichloropropene     | ND           | ug/L  | 1.0             |
| trans-1,3-Dichloropropene   | ND           | ug/L  | 1.0             |
| Diisopropyl ether           | ND           | ug/L  | 1.0             |
| Ethyl tert-butyl ether      | ND           | ug/L  | 1.0             |
| Ethylbenzene                | ND           | ug/L  | 1.0             |
| 2-Hexanone                  | ND           | ug/L  | 5.0             |
| Methyl t-Butyl Ether        | ND           | ug/L  | 1.0             |
| 4-Methyl-2-Pentanone(MIBK)  | 1.9J         | ug/L  | 5.0             |
| Methylene Chloride          | ND           | ug/L  | 1.0             |
| Styrene                     | ND           | ug/L  | 1.0             |
| 1,1,1,2-Tetrachloroethane   | ND           | ug/L  | 1.0             |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

|                           |      |      |          |
|---------------------------|------|------|----------|
| 1,1,2,2-Tetrachloroethane | ND   | ug/L | 1.0      |
| Tetrachloroethene         | ND   | ug/L | 1.0      |
| Toluene                   | ND   | ug/L | 1.0      |
| Total Xylenes             | ND   | ug/L | 3.0      |
| 1,1,1-Trichloroethane     | ND   | ug/L | 1.0      |
| 1,1,2-Trichloroethane     | ND   | ug/L | 1.0      |
| Trichloroethene           | ND   | ug/L | 1.0      |
| Vinyl Chloride            | ND   | ug/L | 1.0      |
| o-Xylene                  | ND   | ug/L | 1.0      |
| mp-Xylene                 | ND   | ug/L | 2.0      |
| 1,2-Dichloroethane-d4 (S) | 95.2 | %    | 62 - 133 |
| 4-Bromofluorobenzene (S)  | 95.1 | %    | 79 - 114 |
| Dibromofluoromethane (S)  | 97.9 | %    | 78 - 116 |
| Toluene-d8 (S)            | 94.6 | %    | 76 - 127 |

#### LABORATORY CONTROL SAMPLE: 2487408

| Parameter                   | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | % Rec<br>Limit |
|-----------------------------|--------------|-------|----------------|---------------|----------------|
| Acetone                     | 107          | ug/L  | 100            | 107           | 40 - 151       |
| tert-Amyl methyl ether      | 87           | ug/L  | 20             | 17.4          | 75 - 121       |
| tert-Amyl Alcohol           | 88           | ug/L  | 100            | 88.0          | 70 - 130       |
| tert-Amyl Ethylether        | 117          | ug/L  | 20             | 23.4          | 70 - 130       |
| Benzene                     | 106          | ug/L  | 20             | 21.1          | 80 - 124       |
| Bromochloromethane          | 109          | ug/L  | 20             | 21.8          | 73 - 117       |
| Bromodichloromethane        | 102          | ug/L  | 20             | 20.5          | 79 - 126       |
| Bromoform                   | 95.9         | ug/L  | 20             | 19.2          | 70 - 123       |
| Bromomethane                | 103          | ug/L  | 20             | 20.5          | 45 - 148       |
| 2-Butanone                  | 96.5         | ug/L  | 100            | 96.5          | 50 - 152       |
| tert-Butyl Alcohol          | 97.9         | ug/L  | 100            | 97.9          | 17 - 168       |
| Carbon Disulfide            | 117          | ug/L  | 20             | 23.4          | 57 - 131       |
| Carbon Tetrachloride        | 107          | ug/L  | 20             | 21.5          | 62 - 132       |
| Chlorobenzene               | 101          | ug/L  | 20             | 20.3          | 85 - 117       |
| Chlorodibromomethane        | 92.5         | ug/L  | 20             | 18.5          | 77 - 122       |
| Chloroethane                | 93.7         | ug/L  | 20             | 18.7          | 51 - 142       |
| Chloroform                  | 103          | ug/L  | 20             | 20.6          | 78 - 122       |
| Chloromethane               | 116          | ug/L  | 20             | 23.2          | 38 - 156       |
| 1,2-Dibromo-3-chloropropane | 82           | ug/L  | 20             | 16.4          | 59 - 133       |
| 1,2-Dibromoethane           | 103          | ug/L  | 20             | 20.6          | 80 - 124       |
| 1,1-Dichloroethane          | 105          | ug/L  | 20             | 21.1          | 78 - 124       |
| 1,2-Dichloroethane          | 104          | ug/L  | 20             | 20.8          | 70 - 133       |
| 1,1-Dichloroethene          | 116          | ug/L  | 20             | 23.2          | 63 - 128       |
| cis-1,2-Dichloroethene      | 106          | ug/L  | 20             | 21.2          | 78 - 125       |
| trans-1,2-Dichloroethene    | 116          | ug/L  | 20             | 23.1          | 71 - 122       |
| 1,2-Dichloropropane         | 107          | ug/L  | 20             | 21.3          | 81 - 127       |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

|                            |      |      |     |      |          |
|----------------------------|------|------|-----|------|----------|
| cis-1,3-Dichloropropene    | 85.9 | ug/L | 20  | 17.2 | 81 - 121 |
| trans-1,3-Dichloropropene  | 85.8 | ug/L | 20  | 17.2 | 78 - 126 |
| Diisopropyl ether          | 111  | ug/L | 20  | 22.1 | 74 - 131 |
| Ethyl tert-butyl ether     | 90.3 | ug/L | 20  | 18.1 | 75 - 123 |
| Ethylbenzene               | 87.7 | ug/L | 20  | 17.5 | 80 - 124 |
| 2-Hexanone                 | 75.2 | ug/L | 100 | 75.2 | 65 - 154 |
| Methyl t-Butyl Ether       | 105  | ug/L | 20  | 21.0 | 69 - 115 |
| 4-Methyl-2-Pentanone(MIBK) | 84.7 | ug/L | 100 | 84.7 | 71 - 146 |
| Methylene Chloride         | 117  | ug/L | 20  | 23.3 | 76 - 121 |
| Styrene                    | 82.7 | ug/L | 20  | 16.5 | 79 - 123 |
| 1,1,1,2-Tetrachloroethane  | 105  | ug/L | 20  | 21.1 | 78 - 121 |
| 1,1,2,2-Tetrachloroethane  | 92.2 | ug/L | 20  | 18.4 | 74 - 135 |
| Tetrachloroethene          | 90.1 | ug/L | 20  | 18.0 | 72 - 124 |
| Toluene                    | 109  | ug/L | 20  | 21.9 | 80 - 125 |
| Total Xylenes              | 83.3 | ug/L | 60  | 50.0 | 79 - 125 |
| 1,1,1-Trichloroethane      | 104  | ug/L | 20  | 20.7 | 66 - 130 |
| 1,1,2-Trichloroethane      | 97.7 | ug/L | 20  | 19.5 | 82 - 126 |
| Trichloroethene            | 101  | ug/L | 20  | 20.3 | 77 - 124 |
| Vinyl Chloride             | 95.2 | ug/L | 20  | 19.0 | 27 - 138 |
| o-Xylene                   | 83.8 | ug/L | 20  | 16.8 | 79 - 124 |
| mp-Xylene                  | 83   | ug/L | 40  | 33.2 | 79 - 125 |
| 1,2-Dichloroethane-d4 (S)  | 92   | %    |     |      | 62 - 133 |
| 4-Bromofluorobenzene (S)   | 91.1 | %    |     |      | 79 - 114 |
| Dibromofluoromethane (S)   | 94.5 | %    |     |      | 78 - 116 |
| Toluene-d8 (S)             | 94.6 | %    |     |      | 76 - 127 |

MATRIX SPIKE: 2487645 DUPLICATE: 2487646 ORIGINAL: 2209082002

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                 | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD |
|---------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|
| 1,2-Dichloroethane-d4 (S) | 90.5            | %     |             |           |            | 90.5     | 91.8      | 62 - 133    |     |         |
| 4-Bromofluorobenzene (S)  | 95.5            | %     |             |           |            | 95.5     | 98.7      | 79 - 114    |     |         |
| Dibromofluoromethane (S)  | 92.3            | %     |             |           |            | 92.3     | 92.4      | 78 - 116    |     |         |
| Toluene-d8 (S)            | 96.6            | %     |             |           |            | 96.6     | 97.7      | 76 - 127    |     |         |

## QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

**QC Batch:** VOMS/42495 **Analysis Method:** SW846 8260B

**QC Batch Method:** SW846 5035

**Associated Lab Samples:** 2209155002, 2209155003, 2209155004, 2209155005, 2209155006

METHOD BLANK: 2488622

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acetone                     | ND           | ug/kg | 10.0            |
| tert-Amyl methyl ether      | ND           | ug/kg | 2.0             |
| tert-Amyl Alcohol           | ND           | ug/kg | 10.0            |
| tert-Amyl Ethylether        | ND           | ug/kg | 2.0             |
| Benzene                     | ND           | ug/kg | 2.0             |
| Bromochloromethane          | ND           | ug/kg | 2.0             |
| Bromodichloromethane        | ND           | ug/kg | 2.0             |
| Bromoform                   | ND           | ug/kg | 2.0             |
| Bromomethane                | ND           | ug/kg | 2.0             |
| 2-Butanone                  | ND           | ug/kg | 10.0            |
| tert-Butyl Alcohol          | ND           | ug/kg | 10.0            |
| Carbon Disulfide            | ND           | ug/kg | 2.0             |
| Carbon Tetrachloride        | ND           | ug/kg | 2.0             |
| Chlorobenzene               | ND           | ug/kg | 2.0             |
| Chlorodibromomethane        | ND           | ug/kg | 2.0             |
| Chloroethane                | ND           | ug/kg | 5.0             |
| Chloroform                  | ND           | ug/kg | 2.0             |
| Chloromethane               | ND           | ug/kg | 2.0             |
| 1,2-Dibromo-3-chloropropane | ND           | ug/kg | 5.0             |
| 1,2-Dibromoethane           | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,2-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethene          | ND           | ug/kg | 2.0             |
| cis-1,2-Dichloroethene      | ND           | ug/kg | 2.0             |
| trans-1,2-Dichloroethene    | ND           | ug/kg | 2.0             |
| 1,2-Dichloropropane         | ND           | ug/kg | 2.0             |
| cis-1,3-Dichloropropene     | ND           | ug/kg | 2.0             |
| trans-1,3-Dichloropropene   | ND           | ug/kg | 2.0             |
| Diisopropyl ether           | ND           | ug/kg | 2.0             |
| Ethyl tert-butyl ether      | ND           | ug/kg | 2.0             |
| Ethylbenzene                | ND           | ug/kg | 2.0             |
| 2-Hexanone                  | ND           | ug/kg | 10.0            |
| Methyl t-Butyl Ether        | ND           | ug/kg | 2.0             |
| 4-Methyl-2-Pentanone(MIBK)  | ND           | ug/kg | 10.0            |
| Methylene Chloride          | 9.7          | ug/kg | 2.0             |
| Naphthalene                 | ND           | ug/kg | 2.0             |
| Styrene                     | ND           | ug/kg | 2.0             |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

|                           |      |       |          |
|---------------------------|------|-------|----------|
| 1,1,2,2-Tetrachloroethane | ND   | ug/kg | 2.0      |
| Tetrachloroethene         | ND   | ug/kg | 2.0      |
| Toluene                   | ND   | ug/kg | 2.0      |
| Total Xylenes             | ND   | ug/kg | 6.0      |
| 1,1,1-Trichloroethane     | ND   | ug/kg | 2.0      |
| 1,1,2-Trichloroethane     | ND   | ug/kg | 2.0      |
| Trichloroethene           | ND   | ug/kg | 2.0      |
| Vinyl Chloride            | ND   | ug/kg | 2.0      |
| o-Xylene                  | ND   | ug/kg | 2.0      |
| mp-Xylene                 | ND   | ug/kg | 4.0      |
| 1,2-Dichloroethane-d4 (S) | 75   | %     | 56 - 124 |
| 4-Bromofluorobenzene (S)  | 83.8 | %     | 51 - 128 |
| Dibromofluoromethane (S)  | 91.4 | %     | 62 - 123 |
| Toluene-d8 (S)            | 83.2 | %     | 59 - 131 |

LABORATORY CONTROL SAMPLE: 2488623 DUPLICATE: 2488624

| Parameter                   | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | LCSD<br>Result | LCSD %<br>Rec | % Rec<br>Limit | RPD  | Max |
|-----------------------------|--------------|-------|----------------|---------------|----------------|---------------|----------------|------|-----|
| Acetone                     | 125          | ug/kg | 100            | 125           | 120            | 120           | 58 - 146       | 4.4  | 40  |
| tert-Amyl methyl ether      | 122          | ug/kg | 20             | 24.5          | 25.8           | 129*          | 79 - 123       | 5.2  | 40  |
| tert-Amyl Alcohol           | 98.1         | ug/kg | 100            | 98.1          | 97.5           | 97.5          | 70 - 130       | .59  | 40  |
| tert-Amyl Ethylether        | 104          | ug/kg | 20             | 20.8          | 22.3           | 112           | 70 - 130       | 6.9  | 40  |
| Benzene                     | 103          | ug/kg | 20             | 20.5          | 21.4           | 107           | 75 - 132       | 4.2  | 40  |
| Bromochloromethane          | 113          | ug/kg | 20             | 22.6          | 23.1           | 116           | 71 - 120       | 2.3  | 40  |
| Bromodichloromethane        | 109          | ug/kg | 20             | 21.7          | 22.5           | 113           | 74 - 127       | 3.5  | 40  |
| Bromoform                   | 90.6         | ug/kg | 20             | 18.1          | 19.1           | 95.7          | 68 - 131       | 5.5  | 40  |
| Bromomethane                | 78.7         | ug/kg | 20             | 15.7          | 17.6           | 87.9          | 43 - 148       | 11.1 | 40  |
| 2-Butanone                  | 108          | ug/kg | 100            | 108           | 108            | 108           | 64 - 148       | .53  | 40  |
| tert-Butyl Alcohol          | 117          | ug/kg | 100            | 117           | 121            | 121           | 51 - 152       | 3.2  | 40  |
| Carbon Disulfide            | 108          | ug/kg | 20             | 21.6          | 22.5           | 112           | 47 - 144       | 4.2  | 40  |
| Carbon Tetrachloride        | 107          | ug/kg | 20             | 21.4          | 22.4           | 112           | 64 - 136       | 4.2  | 40  |
| Chlorobenzene               | 98.4         | ug/kg | 20             | 19.7          | 20.1           | 100           | 76 - 125       | 1.9  | 40  |
| Chlorodibromomethane        | 105          | ug/kg | 20             | 21.0          | 21.5           | 108           | 75 - 124       | 2.7  | 40  |
| Chloroethane                | 84.6         | ug/kg | 20             | 16.9          | 17.6           | 87.9          | 1 - 141        | 3.8  | 40  |
| Chloroform                  | 105          | ug/kg | 20             | 21.1          | 22.0           | 110           | 73 - 126       | 4.5  | 40  |
| Chloromethane               | 109          | ug/kg | 20             | 21.8          | 22.2           | 111           | 44 - 139       | 1.8  | 40  |
| 1,2-Dibromo-3-chloropropane | 71           | ug/kg | 20             | 14.2          | 15.8           | 79.1          | 52 - 151       | 10.9 | 40  |
| 1,2-Dibromoethane           | 104          | ug/kg | 20             | 20.9          | 21.2           | 106           | 76 - 127       | 1.7  | 40  |
| 1,1-Dichloroethane          | 104          | ug/kg | 20             | 20.7          | 21.5           | 107           | 74 - 131       | 3.7  | 40  |
| 1,2-Dichloroethane          | 99.7         | ug/kg | 20             | 19.9          | 20.0           | 100           | 69 - 132       | .31  | 40  |
| 1,1-Dichloroethene          | 113          | ug/kg | 20             | 22.6          | 23.2           | 116           | 59 - 139       | 2.6  | 40  |
| cis-1,2-Dichloroethene      | 107          | ug/kg | 20             | 21.4          | 22.4           | 112           | 75 - 128       | 4.4  | 40  |
| trans-1,2-Dichloroethene    | 114          | ug/kg | 20             | 22.9          | 23.6           | 118           | 66 - 133       | 3    | 40  |
| 1,2-Dichloropropane         | 104          | ug/kg | 20             | 20.8          | 21.7           | 109           | 78 - 131       | 4.2  | 40  |



### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

|                            |      |       |     |      |      |      |          |      |    |
|----------------------------|------|-------|-----|------|------|------|----------|------|----|
| cis-1,3-Dichloropropene    | 80.1 | ug/kg | 20  | 16.0 | 16.9 | 84.4 | 76 - 123 | 5.2  | 40 |
| trans-1,3-Dichloropropene  | 104  | ug/kg | 20  | 20.7 | 21.1 | 106  | 77 - 123 | 2.1  | 40 |
| Diisopropyl ether          | 99.1 | ug/kg | 20  | 19.8 | 20.6 | 103  | 71 - 128 | 4    | 40 |
| Ethyl tert-butyl ether     | 92.4 | ug/kg | 20  | 18.5 | 19.9 | 99.6 | 75 - 121 | 7.6  | 40 |
| Ethylbenzene               | 95.6 | ug/kg | 20  | 19.1 | 19.6 | 98.1 | 73 - 133 | 2.5  | 40 |
| 2-Hexanone                 | 70   | ug/kg | 100 | 70.0 | 71.8 | 71.8 | 62 - 147 | 2.6  | 40 |
| Methyl t-Butyl Ether       | 117  | ug/kg | 20  | 23.5 | 24.4 | 122* | 70 - 118 | 3.9  | 40 |
| 4-Methyl-2-Pentanone(MIBK) | 74.8 | ug/kg | 100 | 74.8 | 74.6 | 74.6 | 64 - 143 | .35  | 40 |
| Methylene Chloride         | 199* | ug/kg | 20  | 39.9 | 41.0 | 205* | 68 - 133 | 2.8  | 40 |
| Naphthalene                | 76.7 | ug/kg | 20  | 15.3 | 17.1 | 85.6 | 60 - 146 | 10.9 | 40 |
| Styrene                    | 84   | ug/kg | 20  | 16.8 | 18.0 | 89.8 | 77 - 130 | 6.7  | 40 |
| 1,1,2,2-Tetrachloroethane  | 81.9 | ug/kg | 20  | 16.4 | 17.2 | 85.8 | 72 - 134 | 4.7  | 40 |
| Tetrachloroethene          | 103  | ug/kg | 20  | 20.7 | 21.4 | 107  | 58 - 137 | 3.4  | 40 |
| Toluene                    | 99.5 | ug/kg | 20  | 19.9 | 20.0 | 99.8 | 73 - 129 | .39  | 40 |
| Total Xylenes              | 99.7 | ug/kg | 60  | 59.8 | 61.3 | 102  | 73 - 130 | 2.5  | 40 |
| 1,1,1-Trichloroethane      | 98.9 | ug/kg | 20  | 19.8 | 21.3 | 106  | 68 - 131 | 7.3  | 40 |
| 1,1,2-Trichloroethane      | 94.9 | ug/kg | 20  | 19.0 | 19.1 | 95.6 | 79 - 123 | .7   | 40 |
| Trichloroethene            | 106  | ug/kg | 20  | 21.2 | 22.3 | 111  | 72 - 129 | 4.6  | 40 |
| Vinyl Chloride             | 108  | ug/kg | 20  | 21.7 | 22.6 | 113  | 53 - 141 | 4.1  | 40 |
| o-Xylene                   | 99.5 | ug/kg | 20  | 19.9 | 20.4 | 102  | 75 - 129 | 2.5  | 40 |
| mp-Xylene                  | 99.8 | ug/kg | 40  | 39.9 | 40.9 | 102  | 72 - 130 | 2.5  | 40 |
| 1,2-Dichloroethane-d4 (S)  | 78.5 | %     |     |      | 78.5 |      | 56 - 124 |      |    |
| 4-Bromofluorobenzene (S)   | 80.3 | %     |     |      | 80.3 |      | 51 - 128 |      |    |
| Dibromofluoromethane (S)   | 91   | %     |     |      | 91   |      | 62 - 123 |      |    |
| Toluene-d8 (S)             | 81.8 | %     |     |      | 81.8 |      | 59 - 131 |      |    |

MATRIX SPIKE SAMPLE: 2488803 ORIGINAL: 2209462002

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter            | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|----------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Acetone              | 7.26807         | ug/kg | 120         | 127.933   | 101      | 58 - 146    |
| Benzene              | 0               | ug/kg | 23.9        | 16.7717   | 70.1*    | 75 - 132    |
| Bromochloromethane   | 0               | ug/kg | 23.9        | 18.0162   | 75.3     | 71 - 120    |
| Bromodichloromethane | 0               | ug/kg | 23.9        | 15.7779   | 66*      | 74 - 127    |
| Bromoform            | 0               | ug/kg | 23.9        | 10.5606   | 44.1*    | 68 - 131    |
| Bromomethane         | 0               | ug/kg | 23.9        | 14.6711   | 61.3     | 43 - 148    |
| 2-Butanone           | 0               | ug/kg | 120         | 112.647   | 94.2     | 64 - 148    |
| Carbon Disulfide     | 0               | ug/kg | 23.9        | 15.5839   | 65.1     | 47 - 144    |
| Carbon Tetrachloride | 0               | ug/kg | 23.9        | 13.3198   | 55.7*    | 64 - 136    |
| Chlorobenzene        | 0               | ug/kg | 23.9        | 9.06702   | 37.9*    | 76 - 125    |
| Chlorodibromomethane | 0               | ug/kg | 23.9        | 13.1725   | 55.1*    | 75 - 124    |
| Chloroethane         | 0               | ug/kg | 23.9        | 18.0885   | 75.6     | 1 - 141     |
| Chloroform           | 0               | ug/kg | 23.9        | 17.6453   | 73.8     | 73 - 126    |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

|                             |         |       |      |         |       |          |
|-----------------------------|---------|-------|------|---------|-------|----------|
| Chloromethane               | 0       | ug/kg | 23.9 | 23.6862 | 99    | 44 - 139 |
| 1,2-Dibromo-3-chloropropane | 0       | ug/kg | 23.9 | 7.12564 | 29.8* | 52 - 151 |
| 1,2-Dibromoethane           | 0       | ug/kg | 23.9 | 13.1591 | 55*   | 76 - 127 |
| 1,1-Dichloroethane          | 0       | ug/kg | 23.9 | 19.2939 | 80.6  | 74 - 131 |
| 1,2-Dichloroethane          | 0       | ug/kg | 23.9 | 16.2467 | 67.9* | 69 - 132 |
| 1,1-Dichloroethene          | 0       | ug/kg | 23.9 | 20.0533 | 83.8  | 59 - 139 |
| cis-1,2-Dichloroethene      | 0       | ug/kg | 23.9 | 15.9436 | 66.6* | 75 - 128 |
| trans-1,2-Dichloroethene    | 0       | ug/kg | 23.9 | 17.3581 | 72.6  | 66 - 133 |
| 1,2-Dichloropropane         | 0       | ug/kg | 23.9 | 16.6247 | 69.5* | 78 - 131 |
| cis-1,3-Dichloropropene     | 0       | ug/kg | 23.9 | 10.0912 | 42.2* | 76 - 123 |
| trans-1,3-Dichloropropene   | 0       | ug/kg | 23.9 | 10.8306 | 45.3* | 77 - 123 |
| Ethylbenzene                | 0       | ug/kg | 23.9 | 8.8889  | 37.2* | 73 - 133 |
| 2-Hexanone                  | 0       | ug/kg | 120  | 64.1091 | 53.6* | 62 - 147 |
| 4-Methyl-2-Pentanone(MIBK)  | 0       | ug/kg | 120  | 72.463  | 60.6* | 64 - 143 |
| Methylene Chloride          | 6.16605 | ug/kg | 23.9 | 29.0165 | 95.5  | 68 - 133 |
| Styrene                     | 0       | ug/kg | 23.9 | 6.82164 | 28.5* | 77 - 130 |
| 1,1,2,2-Tetrachloroethane   | 0       | ug/kg | 23.9 | 3.02094 | 12.6* | 72 - 134 |
| Tetrachloroethene           | 0       | ug/kg | 23.9 | 15.3345 | 64.1  | 58 - 137 |
| Toluene                     | 0       | ug/kg | 23.9 | 12.1962 | 51*   | 73 - 129 |
| Total Xylenes               | 0       | ug/kg | 71.8 | 25.9774 | 36.2* | 73 - 130 |
| 1,1,1-Trichloroethane       | 0       | ug/kg | 23.9 | 16.428  | 68.7  | 68 - 131 |
| 1,1,2-Trichloroethane       | 0       | ug/kg | 23.9 | 14.5412 | 60.8* | 79 - 123 |
| Trichloroethene             | 0       | ug/kg | 23.9 | 20.2887 | 84.8  | 72 - 129 |
| Vinyl Chloride              | 0       | ug/kg | 23.9 | 22.3571 | 93.5  | 53 - 141 |
| o-Xylene                    | 0       | ug/kg | 23.9 | 8.6699  | 36.2* | 75 - 129 |
| mp-Xylene                   | 0       | ug/kg | 47.8 | 17.3075 | 36.2* | 72 - 130 |
| 1,2-Dichloroethane-d4 (S)   | 78      | %     |      |         |       | 56 - 124 |
| 4-Bromofluorobenzene (S)    | 85.3    | %     |      |         |       | 51 - 128 |
| Dibromofluoromethane (S)    | 91.6    | %     |      |         |       | 62 - 123 |
| Toluene-d8 (S)              | 83.3    | %     |      |         |       | 59 - 131 |

## QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

**QC Batch:** VOMS/42505 **Analysis Method:** SW846 8260B  
**QC Batch Method:** SW846 5035  
**Associated Lab Samples:** 2209155002

METHOD BLANK: 2489016

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acetone                     | ND           | ug/kg | 10.0            |
| tert-Amyl methyl ether      | ND           | ug/kg | 2.0             |
| tert-Amyl Alcohol           | ND           | ug/kg | 10.0            |
| tert-Amyl Ethylether        | ND           | ug/kg | 2.0             |
| Benzene                     | ND           | ug/kg | 2.0             |
| Bromochloromethane          | ND           | ug/kg | 2.0             |
| Bromodichloromethane        | ND           | ug/kg | 2.0             |
| Bromoform                   | ND           | ug/kg | 2.0             |
| Bromomethane                | ND           | ug/kg | 2.0             |
| 2-Butanone                  | ND           | ug/kg | 10.0            |
| tert-Butyl Alcohol          | ND           | ug/kg | 10.0            |
| Carbon Disulfide            | ND           | ug/kg | 2.0             |
| Carbon Tetrachloride        | ND           | ug/kg | 2.0             |
| Chlorobenzene               | ND           | ug/kg | 2.0             |
| Chlorodibromomethane        | ND           | ug/kg | 2.0             |
| Chloroethane                | ND           | ug/kg | 5.0             |
| Chloroform                  | ND           | ug/kg | 2.0             |
| Chloromethane               | ND           | ug/kg | 2.0             |
| 1,2-Dibromo-3-chloropropane | ND           | ug/kg | 5.0             |
| 1,2-Dibromoethane           | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,2-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethene          | ND           | ug/kg | 2.0             |
| cis-1,2-Dichloroethene      | ND           | ug/kg | 2.0             |
| trans-1,2-Dichloroethene    | ND           | ug/kg | 2.0             |
| 1,2-Dichloropropane         | ND           | ug/kg | 2.0             |
| cis-1,3-Dichloropropene     | ND           | ug/kg | 2.0             |
| trans-1,3-Dichloropropene   | ND           | ug/kg | 2.0             |
| Diisopropyl ether           | ND           | ug/kg | 2.0             |
| Ethyl tert-butyl ether      | ND           | ug/kg | 2.0             |
| Ethylbenzene                | ND           | ug/kg | 2.0             |
| 2-Hexanone                  | ND           | ug/kg | 10.0            |
| Methyl t-Butyl Ether        | ND           | ug/kg | 2.0             |
| 4-Methyl-2-Pentanone(MIBK)  | ND           | ug/kg | 10.0            |
| Methylene Chloride          | 4.3          | ug/kg | 2.0             |
| Naphthalene                 | ND           | ug/kg | 2.0             |
| Styrene                     | ND           | ug/kg | 2.0             |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

|                           |      |       |          |
|---------------------------|------|-------|----------|
| 1,1,2,2-Tetrachloroethane | ND   | ug/kg | 2.0      |
| Tetrachloroethene         | ND   | ug/kg | 2.0      |
| Toluene                   | ND   | ug/kg | 2.0      |
| Total Xylenes             | ND   | ug/kg | 6.0      |
| 1,1,1-Trichloroethane     | ND   | ug/kg | 2.0      |
| 1,1,2-Trichloroethane     | ND   | ug/kg | 2.0      |
| Trichloroethene           | ND   | ug/kg | 2.0      |
| Vinyl Chloride            | ND   | ug/kg | 2.0      |
| o-Xylene                  | ND   | ug/kg | 2.0      |
| mp-Xylene                 | ND   | ug/kg | 4.0      |
| 1,2-Dichloroethane-d4 (S) | 72.3 | %     | 56 - 124 |
| 4-Bromofluorobenzene (S)  | 82.5 | %     | 51 - 128 |
| Dibromofluoromethane (S)  | 91.3 | %     | 62 - 123 |
| Toluene-d8 (S)            | 82.7 | %     | 59 - 131 |

LABORATORY CONTROL SAMPLE: 2489017 DUPLICATE: 2489018

| Parameter                   | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | LCSD<br>Result | LCSD %<br>Rec | % Rec<br>Limit | RPD | Max |
|-----------------------------|--------------|-------|----------------|---------------|----------------|---------------|----------------|-----|-----|
| Acetone                     | 110          | ug/kg | 100            | 110           | 113            | 113           | 58 - 146       | 2.8 | 40  |
| tert-Amyl methyl ether      | 132*         | ug/kg | 20             | 26.4          | 27.0           | 135*          | 79 - 123       | 2.4 | 40  |
| tert-Amyl Alcohol           | 117          | ug/kg | 100            | 117           | 118            | 118           | 70 - 130       | .69 | 40  |
| tert-Amyl Ethylether        | 117          | ug/kg | 20             | 23.3          | 24.8           | 124           | 70 - 130       | 5.9 | 40  |
| Benzene                     | 104          | ug/kg | 20             | 20.9          | 21.3           | 106           | 75 - 132       | 1.9 | 40  |
| Bromochloromethane          | 118          | ug/kg | 20             | 23.6          | 24.0           | 120           | 71 - 120       | 1.8 | 40  |
| Bromodichloromethane        | 111          | ug/kg | 20             | 22.2          | 22.9           | 114           | 74 - 127       | 2.9 | 40  |
| Bromoform                   | 91.3         | ug/kg | 20             | 18.3          | 19.0           | 94.8          | 68 - 131       | 3.7 | 40  |
| Bromomethane                | 78.1         | ug/kg | 20             | 15.6          | 16.1           | 80.3          | 43 - 148       | 2.7 | 40  |
| 2-Butanone                  | 109          | ug/kg | 100            | 109           | 114            | 114           | 64 - 148       | 4.6 | 40  |
| tert-Butyl Alcohol          | 135          | ug/kg | 100            | 135           | 146            | 146           | 51 - 152       | 7.6 | 40  |
| Carbon Disulfide            | 108          | ug/kg | 20             | 21.5          | 21.8           | 109           | 47 - 144       | 1.2 | 40  |
| Carbon Tetrachloride        | 110          | ug/kg | 20             | 21.9          | 22.3           | 111           | 64 - 136       | 1.5 | 40  |
| Chlorobenzene               | 93.1         | ug/kg | 20             | 18.6          | 19.8           | 98.8          | 76 - 125       | 6   | 40  |
| Chlorodibromomethane        | 100          | ug/kg | 20             | 20.1          | 21.7           | 108           | 75 - 124       | 7.6 | 40  |
| Chloroethane                | 84.4         | ug/kg | 20             | 16.9          | 16.9           | 84.7          | 1 - 141        | .38 | 40  |
| Chloroform                  | 105          | ug/kg | 20             | 21.1          | 22.0           | 110           | 73 - 126       | 4.1 | 40  |
| Chloromethane               | 103          | ug/kg | 20             | 20.7          | 21.0           | 105           | 44 - 139       | 1.5 | 40  |
| 1,2-Dibromo-3-chloropropane | 74.3         | ug/kg | 20             | 14.9          | 15.9           | 79.3          | 52 - 151       | 6.5 | 40  |
| 1,2-Dibromoethane           | 103          | ug/kg | 20             | 20.7          | 22.2           | 111           | 76 - 127       | 7   | 40  |
| 1,1-Dichloroethane          | 104          | ug/kg | 20             | 20.9          | 21.8           | 109           | 74 - 131       | 4.4 | 40  |
| 1,2-Dichloroethane          | 103          | ug/kg | 20             | 20.5          | 20.6           | 103           | 69 - 132       | .4  | 40  |
| 1,1-Dichloroethene          | 112          | ug/kg | 20             | 22.4          | 22.7           | 113           | 59 - 139       | 1.1 | 40  |
| cis-1,2-Dichloroethene      | 110          | ug/kg | 20             | 21.9          | 21.6           | 108           | 75 - 128       | 1.7 | 40  |
| trans-1,2-Dichloroethene    | 113          | ug/kg | 20             | 22.6          | 22.7           | 114           | 66 - 133       | .62 | 40  |
| 1,2-Dichloropropane         | 106          | ug/kg | 20             | 21.2          | 22.3           | 111           | 78 - 131       | 4.8 | 40  |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

|                            |      |       |     |      |      |      |          |     |    |
|----------------------------|------|-------|-----|------|------|------|----------|-----|----|
| cis-1,3-Dichloropropene    | 78.5 | ug/kg | 20  | 15.7 | 17.1 | 85.5 | 76 - 123 | 8.6 | 40 |
| trans-1,3-Dichloropropene  | 102  | ug/kg | 20  | 20.5 | 22.2 | 111  | 77 - 123 | 8.4 | 40 |
| Diisopropyl ether          | 102  | ug/kg | 20  | 20.4 | 21.2 | 106  | 71 - 128 | 3.7 | 40 |
| Ethyl tert-butyl ether     | 98.8 | ug/kg | 20  | 19.8 | 21.1 | 105  | 75 - 121 | 6.4 | 40 |
| Ethylbenzene               | 90.3 | ug/kg | 20  | 18.1 | 19.2 | 96   | 73 - 133 | 6.1 | 40 |
| 2-Hexanone                 | 70.2 | ug/kg | 100 | 70.2 | 76.1 | 76.1 | 62 - 147 | 8.1 | 40 |
| Methyl t-Butyl Ether       | 123* | ug/kg | 20  | 24.7 | 26.4 | 132* | 70 - 118 | 6.6 | 40 |
| 4-Methyl-2-Pentanone(MIBK) | 75.2 | ug/kg | 100 | 75.2 | 80.0 | 80   | 64 - 143 | 6.2 | 40 |
| Methylene Chloride         | 185* | ug/kg | 20  | 37.1 | 40.9 | 204* | 68 - 133 | 9.7 | 40 |
| Naphthalene                | 78.1 | ug/kg | 20  | 15.6 | 17.0 | 85.2 | 60 - 146 | 8.7 | 40 |
| Styrene                    | 79.6 | ug/kg | 20  | 15.9 | 16.5 | 82.3 | 77 - 130 | 3.3 | 40 |
| 1,1,2,2-Tetrachloroethane  | 81   | ug/kg | 20  | 16.2 | 16.7 | 83.6 | 72 - 134 | 3.2 | 40 |
| Tetrachloroethene          | 96.9 | ug/kg | 20  | 19.4 | 20.5 | 103  | 58 - 137 | 5.8 | 40 |
| Toluene                    | 92.5 | ug/kg | 20  | 18.5 | 19.7 | 98.3 | 73 - 129 | 6.1 | 40 |
| Total Xylenes              | 93   | ug/kg | 60  | 55.8 | 59.9 | 99.8 | 73 - 130 | 7.1 | 40 |
| 1,1,1-Trichloroethane      | 103  | ug/kg | 20  | 20.7 | 21.4 | 107  | 68 - 131 | 3.3 | 40 |
| 1,1,2-Trichloroethane      | 91.2 | ug/kg | 20  | 18.2 | 19.6 | 97.8 | 79 - 123 | 7   | 40 |
| Trichloroethene            | 108  | ug/kg | 20  | 21.7 | 22.3 | 111  | 72 - 129 | 2.6 | 40 |
| Vinyl Chloride             | 105  | ug/kg | 20  | 21.0 | 21.3 | 106  | 53 - 141 | 1.1 | 40 |
| o-Xylene                   | 93.5 | ug/kg | 20  | 18.7 | 19.9 | 99.7 | 75 - 129 | 6.3 | 40 |
| mp-Xylene                  | 92.7 | ug/kg | 40  | 37.1 | 40.0 | 99.9 | 72 - 130 | 7.5 | 40 |
| 1,2-Dichloroethane-d4 (S)  | 81.9 | %     |     |      | 81.9 |      | 56 - 124 |     |    |
| 4-Bromofluorobenzene (S)   | 80.7 | %     |     |      | 80.7 |      | 51 - 128 |     |    |
| Dibromofluoromethane (S)   | 92.3 | %     |     |      | 92.3 |      | 62 - 123 |     |    |
| Toluene-d8 (S)             | 79   | %     |     |      | 79   |      | 59 - 131 |     |    |

MATRIX SPIKE SAMPLE: 2489444 ORIGINAL: 2209675001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter            | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|----------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Acetone              | 4.84731         | ug/kg | 88.8        | 110.826   | 119      | 58 - 146    |
| Benzene              | 0               | ug/kg | 17.8        | 13.428    | 75.6     | 75 - 132    |
| Bromochloromethane   | 0               | ug/kg | 17.8        | 13.0855   | 73.7     | 71 - 120    |
| Bromodichloromethane | 0               | ug/kg | 17.8        | 13.694    | 77.1     | 74 - 127    |
| Bromoform            | 0               | ug/kg | 17.8        | 11.3233   | 63.8*    | 68 - 131    |
| Bromomethane         | 0               | ug/kg | 17.8        | 11.5139   | 64.8     | 43 - 148    |
| 2-Butanone           | 0               | ug/kg | 88.8        | 91.8876   | 103      | 64 - 148    |
| Carbon Disulfide     | 0               | ug/kg | 17.8        | 6.76715   | 38.1*    | 47 - 144    |
| Carbon Tetrachloride | 0               | ug/kg | 17.8        | 13.4587   | 75.8     | 64 - 136    |
| Chlorobenzene        | 0               | ug/kg | 17.8        | 6.57209   | 37*      | 76 - 125    |
| Chlorodibromomethane | 0               | ug/kg | 17.8        | 11.6896   | 65.8*    | 75 - 124    |
| Chloroethane         | 0               | ug/kg | 17.8        | 13.2068   | 74.4     | 1 - 141     |
| Chloroform           | 0               | ug/kg | 17.8        | 14.0647   | 79.2     | 73 - 126    |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

|                             |         |       |      |         |       |          |
|-----------------------------|---------|-------|------|---------|-------|----------|
| Chloromethane               | 0       | ug/kg | 17.8 | 18.144  | 102   | 44 - 139 |
| 1,2-Dibromo-3-chloropropane | 0       | ug/kg | 17.8 | 8.69265 | 48.9* | 52 - 151 |
| 1,2-Dibromoethane           | 0       | ug/kg | 17.8 | 9.11535 | 51.3* | 76 - 127 |
| 1,1-Dichloroethane          | 0       | ug/kg | 17.8 | 15.3901 | 86.6  | 74 - 131 |
| 1,2-Dichloroethane          | 0       | ug/kg | 17.8 | 12.1807 | 68.6* | 69 - 132 |
| 1,1-Dichloroethene          | 0       | ug/kg | 17.8 | 13.1893 | 74.3  | 59 - 139 |
| cis-1,2-Dichloroethene      | 0       | ug/kg | 17.8 | 10.4604 | 58.9* | 75 - 128 |
| trans-1,2-Dichloroethene    | 0       | ug/kg | 17.8 | 9.10263 | 51.2* | 66 - 133 |
| 1,2-Dichloropropane         | 0       | ug/kg | 17.8 | 14.72   | 82.9  | 78 - 131 |
| cis-1,3-Dichloropropene     | 0       | ug/kg | 17.8 | 6.59229 | 37.1* | 76 - 123 |
| trans-1,3-Dichloropropene   | 0       | ug/kg | 17.8 | 6.36634 | 35.8* | 77 - 123 |
| Ethylbenzene                | 0       | ug/kg | 17.8 | 7.38241 | 41.6* | 73 - 133 |
| 2-Hexanone                  | 0       | ug/kg | 88.8 | 51.6421 | 58.1* | 62 - 147 |
| Methyl t-Butyl Ether        | 0       | ug/kg | 17.8 | 21.4354 | 121*  | 70 - 118 |
| 4-Methyl-2-Pentanone(MIBK)  | 0       | ug/kg | 88.8 | 62.4798 | 70.4  | 64 - 143 |
| Methylene Chloride          | 8.13647 | ug/kg | 17.8 | 19.1908 | 62.2* | 68 - 133 |
| Styrene                     | 0       | ug/kg | 17.8 | 5.46864 | 30.8* | 77 - 130 |
| 1,1,2,2-Tetrachloroethane   | 0       | ug/kg | 17.8 | 12.4428 | 70.1* | 72 - 134 |
| Tetrachloroethene           | 0       | ug/kg | 17.8 | 8.48601 | 47.8* | 58 - 137 |
| Toluene                     | 0       | ug/kg | 17.8 | 9.74432 | 54.9* | 73 - 129 |
| Total Xylenes               | 0       | ug/kg | 53.3 | 23.866  | 44.8* | 73 - 130 |
| 1,1,1-Trichloroethane       | 0       | ug/kg | 17.8 | 15.5196 | 87.4  | 68 - 131 |
| 1,1,2-Trichloroethane       | 0       | ug/kg | 17.8 | 12.2358 | 68.9* | 79 - 123 |
| Trichloroethene             | 0       | ug/kg | 17.8 | 8.93432 | 50.3* | 72 - 129 |
| Vinyl Chloride              | 0       | ug/kg | 17.8 | 15.6955 | 88.4  | 53 - 141 |
| o-Xylene                    | 0       | ug/kg | 17.8 | 9.22821 | 52*   | 75 - 129 |
| mp-Xylene                   | 0       | ug/kg | 35.5 | 14.6378 | 41.2* | 72 - 130 |
| 1,2-Dichloroethane-d4 (S)   | 78.6    | %     |      |         |       | 56 - 124 |
| 4-Bromofluorobenzene (S)    | 92.8    | %     |      |         |       | 51 - 128 |
| Dibromofluoromethane (S)    | 92.2    | %     |      |         |       | 62 - 123 |
| Toluene-d8 (S)              | 83.3    | %     |      |         |       | 59 - 131 |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

**QC Batch:** WCPR/39237      **Analysis Method:** SW846 7196A  
**QC Batch Method:** SW846 3060A  
**Associated Lab Samples:** 2209155005

#### METHOD BLANK: 2491892

| Parameter           | Blank Result | Units | Reporting Limit |
|---------------------|--------------|-------|-----------------|
| Hexavalent Chromium | ND           | mg/kg | 2.0             |

#### LABORATORY CONTROL SAMPLE: 2491893

| Parameter           | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|---------------------|-----------|-------|-------------|------------|-------------|
| Hexavalent Chromium | 93.6      | mg/kg | 19.7        | 18.4       | 80 - 120    |

#### SAMPLE DUPLICATE: 2491894 ORIGINAL: 2210416006

| Parameter           | Original Result | Units | DUP Result | RPD | Max RPD |
|---------------------|-----------------|-------|------------|-----|---------|
| Hexavalent Chromium | 0               | mg/kg | 0          | NC  | 20      |

#### MATRIX SPIKE SAMPLE: 2491895 ORIGINAL: 2210416006

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter           | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|---------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Hexavalent Chromium | 0               | mg/kg | 39.8        | 33.15538  | 83.2     | 75 - 125    |

#### MATRIX SPIKE SAMPLE: 2491896 ORIGINAL: 2210416006

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter           | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|---------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Hexavalent Chromium | 0               | mg/kg | 635         | 674.9682  | 106      | 75 - 125    |



### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

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MATRIX SPIKE SAMPLE: 2491897 ORIGINAL: 2210416006

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter           | Original<br>Result | Units | Spike<br>Conc. | MS<br>Result | MS %<br>Rec | % Rec<br>Limit |
|---------------------|--------------------|-------|----------------|--------------|-------------|----------------|
| Hexavalent Chromium | 0                  | mg/kg | 39.8           | 45.59363     | 114         | 85 - 115       |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

**QC Batch:** WETC/183208 **Analysis Method:** S2540G-11

**QC Batch Method:** S2540G-11

**Associated Lab Samples:** 2209155002, 2209155003, 2209155004, 2209155005, 2209155006

SAMPLE DUPLICATE: 2488423 ORIGINAL: 2208763001

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 10.033          | %     | 10.9643    | 8.87 | 10      |
| Total Solids | 89.9669         | %     | 89.0356    | 1.04 | 5       |

SAMPLE DUPLICATE: 2488424 ORIGINAL: 2208873005

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Moisture     | 10.8108         | %     | 10.8247    | .13 | 10      |
| Total Solids | 89.1891         | %     | 89.1752    | .02 | 5       |

SAMPLE DUPLICATE: 2488425 ORIGINAL: 2208966005

| Parameter    | Original Result | Units | DUP Result | RPD   | Max RPD |
|--------------|-----------------|-------|------------|-------|---------|
| Moisture     | 99.8939         | %     | 99.7867    | .11   | 10      |
| Total Solids | .106            | %     | .2132      | 67.2* | 5       |

SAMPLE DUPLICATE: 2488426 ORIGINAL: 2208986002

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 98.7777         | %     | 98.8051    | .03  | 10      |
| Total Solids | 1.2222          | %     | 1.1948     | 2.27 | 5       |

SAMPLE DUPLICATE: 2488427 ORIGINAL: 2209045004

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 25.5114         | %     | 26.3513    | 3.24 | 10      |
| Total Solids | 74.4885         | %     | 73.6486    | 1.13 | 5       |

### QUALITY CONTROL DATA

Workorder: 2209155 Chase Lands Phase II

SAMPLE DUPLICATE: 2488428 ORIGINAL: 2209087001

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Moisture     | 84.7826         | %     | 85.232     | .53 | 10      |
| Total Solids | 15.2173         | %     | 14.7679    | 3   | 5       |

SAMPLE DUPLICATE: 2488429 ORIGINAL: 2209173002

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 76.5625         | %     | 76.8267    | .34  | 10      |
| Total Solids | 23.4375         | %     | 23.1732    | 1.13 | 5       |

SAMPLE DUPLICATE: 2488430 ORIGINAL: 2209395009

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 7.9663          | %     | 7.6755     | 3.72 | 10      |
| Total Solids | 92.0336         | %     | 92.3244    | .32  | 5       |

SAMPLE DUPLICATE: 2488431 ORIGINAL: 2209395019

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Moisture     | 12.8267         | %     | 12.4726    | 2.8 | 10      |
| Total Solids | 87.1732         | %     | 87.5273    | .41 | 5       |

SAMPLE DUPLICATE: 2488432 ORIGINAL: 2209395029

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 8.4989          | %     | 8.0988     | 4.82 | 10      |
| Total Solids | 91.501          | %     | 91.9011    | .44  | 5       |

## QUALITY CONTROL DATA QUALIFIERS

Workorder: 2209155 Chase Lands Phase II

### QUALITY CONTROL PARAMETER QUALIFIERS

| Lab ID                                                                                                                                                                                         | # | Sample Type          | Analytical Method | Analyte                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|----------------------|-------------------|------------------------|
| <b>2488622</b>                                                                                                                                                                                 | 1 | Method Blank         | SW846 8260B       | Methylene Chloride     |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                  |   |                      |                   |                        |
| <b>2488623</b>                                                                                                                                                                                 | 2 | Lab Control Standard | SW846 8260B       | Methylene Chloride     |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 199 and the control limits were 68 to 133.     |   |                      |                   |                        |
| <b>2489016</b>                                                                                                                                                                                 | 3 | Method Blank         | SW846 8260B       | Methylene Chloride     |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                  |   |                      |                   |                        |
| <b>2489017</b>                                                                                                                                                                                 | 4 | Lab Control Standard | SW846 8260B       | tert-Amyl methyl ether |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte tert-Amyl methyl ether. The % Recovery was reported as 132 and the control limits were 79 to 123. |   |                      |                   |                        |
| <b>2489017</b>                                                                                                                                                                                 | 5 | Lab Control Standard | SW846 8260B       | Methyl t-Butyl Ether   |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methyl t-Butyl Ether. The % Recovery was reported as 123 and the control limits were 70 to 118.   |   |                      |                   |                        |
| <b>2489017</b>                                                                                                                                                                                 | 6 | Lab Control Standard | SW846 8260B       | Methylene Chloride     |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 185 and the control limits were 68 to 133.     |   |                      |                   |                        |
| <b>2490997</b>                                                                                                                                                                                 | 7 | Lab Control Standard | SW846 8270D       | Acetophenone           |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.5 and the control limits were 45 to 87.           |   |                      |                   |                        |

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

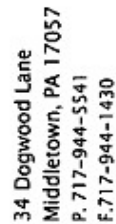
Workorder: 2209155 Chase Lands Phase II

| Lab ID     | Sample ID   | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|-------------|-------------|------------|-----------------|----------------|
| 2209155001 | TB-06       |             |            | SW846 8260B     | VOMS/42484     |
| 2209155002 | CL-GS-S-02  | SW846 5035  | VOGC/9390  | SW846 8015D     | VOGC/9391      |
| 2209155003 | CL-GS-S-07  | SW846 5035  | VOGC/9390  | SW846 8015D     | VOGC/9391      |
| 2209155004 | CL-SAW-S-C3 | SW846 5035  | VOGC/9390  | SW846 8015D     | VOGC/9391      |
| 2209155005 | CL-ISM-S-C1 | SW846 5035  | VOGC/9390  | SW846 8015D     | VOGC/9391      |
| 2209155006 | CL-GS-S-08  | SW846 5035  | VOGC/9390  | SW846 8015D     | VOGC/9391      |
| 2209155002 | CL-GS-S-02  |             |            | S2540G-11       | WETC/183208    |
| 2209155003 | CL-GS-S-07  |             |            | S2540G-11       | WETC/183208    |
| 2209155004 | CL-SAW-S-C3 |             |            | S2540G-11       | WETC/183208    |
| 2209155005 | CL-ISM-S-C1 |             |            | S2540G-11       | WETC/183208    |
| 2209155006 | CL-GS-S-08  |             |            | S2540G-11       | WETC/183208    |
| 2209155003 | CL-GS-S-07  | SW846 5035  | VOMS/42495 | SW846 8260B     | VOMS/42496     |
| 2209155004 | CL-SAW-S-C3 | SW846 5035  | VOMS/42495 | SW846 8260B     | VOMS/42496     |
| 2209155005 | CL-ISM-S-C1 | SW846 5035  | VOMS/42495 | SW846 8260B     | VOMS/42496     |
| 2209155006 | CL-GS-S-08  | SW846 5035  | VOMS/42495 | SW846 8260B     | VOMS/42496     |
| 2209155002 | CL-GS-S-02  | SW846 5035  | VOMS/42505 | SW846 8260B     | VOMS/42506     |
| 2209155002 | CL-GS-S-02  | SW846 3546  | EXTR/46803 | SW846 8270D     | SVMS/27623     |
| 2209155003 | CL-GS-S-07  | SW846 3546  | EXTR/46803 | SW846 8270D     | SVMS/27623     |
| 2209155004 | CL-SAW-S-C3 | SW846 3546  | EXTR/46803 | SW846 8270D     | SVMS/27623     |
| 2209155002 | CL-GS-S-02  | SW846 3051  | MDIG/62761 | SW846 6020A     | META/56219     |
| 2209155003 | CL-GS-S-07  | SW846 3051  | MDIG/62761 | SW846 6020A     | META/56219     |
| 2209155004 | CL-SAW-S-C3 | SW846 3051  | MDIG/62761 | SW846 6020A     | META/56219     |
| 2209155005 | CL-ISM-S-C1 | SW846 3051  | MDIG/62761 | SW846 6020A     | META/56219     |
| 2209155006 | CL-GS-S-08  | SW846 3051  | MDIG/62761 | SW846 6020A     | META/56219     |

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

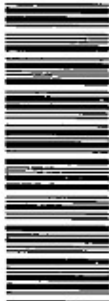
Workorder: 2209155 Chase Lands Phase II

| Lab ID     | Sample ID   | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|-------------|-------------|------------|-----------------|----------------|
| 2209155002 | CL-GS-S-02  | SW846 7471B | MDIG/62775 | SW846 7471B     | META/56230     |
| 2209155003 | CL-GS-S-07  | SW846 7471B | MDIG/62775 | SW846 7471B     | META/56230     |
| 2209155004 | CL-SAW-S-C3 | SW846 7471B | MDIG/62775 | SW846 7471B     | META/56230     |
| 2209155005 | CL-ISM-S-C1 | SW846 7471B | MDIG/62775 | SW846 7471B     | META/56230     |
| 2209155006 | CL-GS-S-08  | SW846 7471B | MDIG/62775 | SW846 7471B     | META/56230     |
| 2209155002 | CL-GS-S-02  | SW846 3546  | EXTR/46818 | SW846 8081B     | SVGC/44597     |
| 2209155003 | CL-GS-S-07  | SW846 3546  | EXTR/46818 | SW846 8081B     | SVGC/44597     |
| 2209155004 | CL-SAW-S-C3 | SW846 3546  | EXTR/46818 | SW846 8081B     | SVGC/44597     |
| 2209155005 | CL-ISM-S-C1 | SW846 3546  | EXTR/46818 | SW846 8081B     | SVGC/44597     |
| 2209155006 | CL-GS-S-08  | SW846 3546  | EXTR/46818 | SW846 8081B     | SVGC/44597     |
| 2209155002 | CL-GS-S-02  | SW846 3546  | EXTR/46819 | SW846 8082A     | SVGC/44589     |
| 2209155003 | CL-GS-S-07  | SW846 3546  | EXTR/46819 | SW846 8082A     | SVGC/44589     |
| 2209155004 | CL-SAW-S-C3 | SW846 3546  | EXTR/46819 | SW846 8082A     | SVGC/44589     |
| 2209155005 | CL-ISM-S-C1 | SW846 3546  | EXTR/46819 | SW846 8082A     | SVGC/44589     |
| 2209155006 | CL-GS-S-08  | SW846 3546  | EXTR/46819 | SW846 8082A     | SVGC/44589     |
| 2209155002 | CL-GS-S-02  | SW846 3546  | EXTR/46820 | SW846 8015D     | SVGC/44594     |
| 2209155003 | CL-GS-S-07  | SW846 3546  | EXTR/46820 | SW846 8015D     | SVGC/44594     |
| 2209155004 | CL-SAW-S-C3 | SW846 3546  | EXTR/46820 | SW846 8015D     | SVGC/44594     |
| 2209155005 | CL-ISM-S-C1 | SW846 3546  | EXTR/46820 | SW846 8015D     | SVGC/44594     |
| 2209155006 | CL-GS-S-08  | SW846 3546  | EXTR/46820 | SW846 8015D     | SVGC/44594     |
| 2209155005 | CL-ISM-S-C1 | SW846 3546  | EXTR/46830 | SW846 8270D     | SVMS/27646     |
| 2209155006 | CL-GS-S-08  | SW846 3546  | EXTR/46830 | SW846 8270D     | SVMS/27646     |
| 2209155005 | CL-ISM-S-C1 | SW846 3060A | WCPR/39237 | SW846 7196A     | WETC/183506    |



**CHAIN OF CUSTODY/  
REQUEST FOR ANALYSIS**

Page 1 of 1  
 Court: \_\_\_\_\_  
 Tracking #: \_\_\_\_\_



\* 2 2 0 9 1 5 5 \*

[illegible]

\*\*Matrix: Al=Alr; DW=Drinking Water; GW=Groundwater; O=Oil; OL=Other Liquid; SL=Sludge; SD=Soil; WP=Wipe; WW=Wastewater  
 \* G=Grb; C=Composite  
 \*\*\*Container Type: AG=Amber Glass; CG=Clear Glass, PL=Plastic. Container Size: 250ml, 500ml, 1L, Box, etc. Preservative: HCl, HNO<sub>3</sub>, NaOH, etc.  
 Cores: WHITE - ORIGINAL CANARY - CUSTOMER COPY  
 Rev 01-2013



February 27, 2017

Ms. Tara Lamond  
EA Engineering-MD  
225 Schilling Circle  
Hunt Valley, MD 21031

## Certificate of Analysis

|                                            |                                           |
|--------------------------------------------|-------------------------------------------|
| Project Name: <b>2017-REV2-MDE SOIL/GW</b> | Workorder: <b>2209412</b>                 |
| Purchase Order:                            | Workorder ID: <b>Chase Lands Phase II</b> |

Dear Ms. Lamond:

Enclosed are the analytical results for samples received by the laboratory on Friday, February 17, 2017.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Ms. Susan J Scherer (Project Coordinator) at (717) 944-5541.

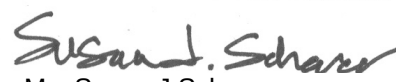
Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at [www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads](http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads).

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Mr. Michael Thornton , Mr. Hugh Murphy , Mr. Nelson Brooks , Ms. Niti Blackwell

*This page is included as part of the Analytical Report and must be retained as a permanent record thereof.*

  
Ms. Susan J Scherer  
Project Coordinator

### SAMPLE SUMMARY

Workorder: 2209412 Chase Lands Phase II

| Lab ID     | Sample ID   | Matrix | Date Collected  | Date Received   | Collected By |
|------------|-------------|--------|-----------------|-----------------|--------------|
| 2209412001 | TB-07       | Water  | 2/17/2017 21:00 | 2/17/2017 21:00 | Mr. Michael  |
| 2209412002 | DUP-05      | Solid  | 2/17/2017 00:00 | 2/17/2017 21:00 | Mr. Michael  |
| 2209412003 | DUP-06      | Solid  | 2/17/2017 00:00 | 2/17/2017 21:00 | Mr. Michael  |
| 2209412004 | DUP-07      | Solid  | 2/17/2017 00:00 | 2/17/2017 21:00 | Mr. Michael  |
| 2209412005 | CL-SAW-S-A1 | Solid  | 2/17/2017 08:50 | 2/17/2017 21:00 | Mr. Michael  |
| 2209412006 | CL-SAW-S-A2 | Solid  | 2/17/2017 08:20 | 2/17/2017 21:00 | Mr. Michael  |
| 2209412007 | CL-SAW-S-B2 | Solid  | 2/17/2017 09:00 | 2/17/2017 21:00 | Mr. Michael  |
| 2209412008 | CL-SAW-S-C1 | Solid  | 2/17/2017 09:50 | 2/17/2017 21:00 | Mr. Michael  |
| 2209412009 | CL-SAW-S-C2 | Solid  | 2/17/2017 09:15 | 2/17/2017 21:00 | Mr. Michael  |
| 2209412010 | CL-ISM-S-A1 | Solid  | 2/17/2017 10:30 | 2/17/2017 21:00 | Mr. Michael  |
| 2209412011 | CL-ISM-S-B5 | Solid  | 2/17/2017 10:00 | 2/17/2017 21:00 | Mr. Michael  |
| 2209412012 | CL-ISM-S-D2 | Solid  | 2/17/2017 10:10 | 2/17/2017 21:00 | Mr. Michael  |

## SAMPLE SUMMARY

Workorder: 2209412 Chase Lands Phase II

### Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are performed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix "S" followed by a method number (such as S2310B-97) refer to methods from "Standard Methods for the Examination of Water and Wastewater".
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.

### Standard Acronyms/Flags

|        |                                                                                                                                      |
|--------|--------------------------------------------------------------------------------------------------------------------------------------|
| J      | Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte     |
| U      | Indicates that the analyte was Not Detected (ND)                                                                                     |
| N      | Indicates presumptive evidence of the presence of a compound                                                                         |
| MDL    | Method Detection Limit                                                                                                               |
| PQL    | Practical Quantitation Limit                                                                                                         |
| RDL    | Reporting Detection Limit                                                                                                            |
| ND     | Not Detected - indicates that the analyte was Not Detected at the RDL                                                                |
| Cntr   | Analysis was performed using this container                                                                                          |
| RegLmt | Regulatory Limit                                                                                                                     |
| LCS    | Laboratory Control Sample                                                                                                            |
| MS     | Matrix Spike                                                                                                                         |
| MSD    | Matrix Spike Duplicate                                                                                                               |
| DUP    | Sample Duplicate                                                                                                                     |
| %Rec   | Percent Recovery                                                                                                                     |
| RPD    | Relative Percent Difference                                                                                                          |
| LOD    | DoD Limit of Detection                                                                                                               |
| LOQ    | DoD Limit of Quantitation                                                                                                            |
| DL     | DoD Detection Limit                                                                                                                  |
| I      | Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL) |
| (S)    | Surrogate Compound                                                                                                                   |
| NC     | Not Calculated                                                                                                                       |
| *      | Result outside of QC limits                                                                                                          |

**PROJECT SUMMARY**

Workorder: 2209412 Chase Lands Phase II

**Sample Comments**

|                                                                                                                                                                                                                                                                                                                             |                               |                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------------------------|
| <b>Lab ID:</b> 2209412002                                                                                                                                                                                                                                                                                                   | <b>Sample ID:</b> DUP-05      | <b>Sample Type:</b> SAMPLE |
| This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.                                                                                                                                                                        |                               |                            |
| <b>Lab ID:</b> 2209412003                                                                                                                                                                                                                                                                                                   | <b>Sample ID:</b> DUP-06      | <b>Sample Type:</b> SAMPLE |
| This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.                                                                                                                                                                        |                               |                            |
| <b>Lab ID:</b> 2209412004                                                                                                                                                                                                                                                                                                   | <b>Sample ID:</b> DUP-07      | <b>Sample Type:</b> SAMPLE |
| This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.                                                                                                                                                                        |                               |                            |
| <b>Lab ID:</b> 2209412005                                                                                                                                                                                                                                                                                                   | <b>Sample ID:</b> CL-SAW-S-A1 | <b>Sample Type:</b> SAMPLE |
| This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.                                                                                                                                                                        |                               |                            |
| <b>Lab ID:</b> 2209412006                                                                                                                                                                                                                                                                                                   | <b>Sample ID:</b> CL-SAW-S-A2 | <b>Sample Type:</b> SAMPLE |
| This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.                                                                                                                                                                        |                               |                            |
| <b>Lab ID:</b> 2209412007                                                                                                                                                                                                                                                                                                   | <b>Sample ID:</b> CL-SAW-S-B2 | <b>Sample Type:</b> SAMPLE |
| This sample was analyzed at a dilution in the 8015 diesel range organics analysis due to the level of analyte detected. Reporting limits were adjusted accordingly.<br>This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly. |                               |                            |
| <b>Lab ID:</b> 2209412008                                                                                                                                                                                                                                                                                                   | <b>Sample ID:</b> CL-SAW-S-C1 | <b>Sample Type:</b> SAMPLE |
| This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.                                                                                                                                                                        |                               |                            |
| <b>Lab ID:</b> 2209412009                                                                                                                                                                                                                                                                                                   | <b>Sample ID:</b> CL-SAW-S-C2 | <b>Sample Type:</b> SAMPLE |
| This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.                                                                                                                                                                        |                               |                            |
| <b>Lab ID:</b> 2209412010                                                                                                                                                                                                                                                                                                   | <b>Sample ID:</b> CL-ISM-S-A1 | <b>Sample Type:</b> SAMPLE |
| This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.                                                                                                                                                                        |                               |                            |
| <b>Lab ID:</b> 2209412011                                                                                                                                                                                                                                                                                                   | <b>Sample ID:</b> CL-ISM-S-B5 | <b>Sample Type:</b> SAMPLE |
| This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.                                                                                                                                                                        |                               |                            |
| <b>Lab ID:</b> 2209412012                                                                                                                                                                                                                                                                                                   | <b>Sample ID:</b> CL-ISM-S-D2 | <b>Sample Type:</b> SAMPLE |
| This sample was analyzed at a dilution in the 8081 Pesticide analysis due to sample matrix interference. Reporting limits were adjusted accordingly.                                                                                                                                                                        |                               |                            |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412001**

Date Collected: 2/17/2017 21:00

Matrix: Water

Sample ID: **TB-07**

Date Received: 2/17/2017 21:00

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------|---------------|-----|------|
| <b>VOLATILE ORGANICS</b>    |         |      |       |      |      |             |             |               |     |      |
| Acetone                     | 5.1J    | J    | ug/L  | 10.0 | 3.1  | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| tert-Amyl methyl ether      | ND      | 1    | ug/L  | 1.0  | 0.20 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| tert-Amyl Alcohol           | ND      |      | ug/L  | 10.0 | 6.6  | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| tert-Amyl Ethylether        | ND      |      | ug/L  | 1.0  | 0.29 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| Benzene                     | ND      |      | ug/L  | 1.0  | 0.23 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| Bromochloromethane          | ND      |      | ug/L  | 1.0  | 0.32 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| Bromodichloromethane        | ND      |      | ug/L  | 1.0  | 0.27 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| Bromoform                   | ND      |      | ug/L  | 1.0  | 0.40 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| Bromomethane                | 0.60J   | J    | ug/L  | 1.0  | 0.39 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| 2-Butanone                  | ND      |      | ug/L  | 10.0 | 1.8  | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| tert-Butyl Alcohol          | ND      |      | ug/L  | 10.0 | 2.2  | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| Carbon Disulfide            | ND      |      | ug/L  | 1.0  | 0.23 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| Carbon Tetrachloride        | ND      |      | ug/L  | 1.0  | 0.31 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| Chlorobenzene               | ND      |      | ug/L  | 1.0  | 0.19 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| Chlorodibromomethane        | ND      |      | ug/L  | 1.0  | 0.45 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| Chloroethane                | ND      |      | ug/L  | 1.0  | 0.33 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| Chloroform                  | ND      |      | ug/L  | 1.0  | 0.21 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| Chloromethane               | 0.90J   | J    | ug/L  | 1.0  | 0.31 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| 1,2-Dibromo-3-chloropropane | ND      |      | ug/L  | 7.0  | 1.5  | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| 1,2-Dibromoethane           | ND      |      | ug/L  | 1.0  | 0.28 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| 1,1-Dichloroethane          | ND      |      | ug/L  | 1.0  | 0.28 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| 1,2-Dichloroethane          | ND      |      | ug/L  | 1.0  | 0.32 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| 1,1-Dichloroethene          | ND      |      | ug/L  | 1.0  | 0.29 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| cis-1,2-Dichloroethene      | ND      |      | ug/L  | 1.0  | 0.32 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| trans-1,2-Dichloroethene    | ND      |      | ug/L  | 1.0  | 0.26 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| 1,2-Dichloropropane         | ND      |      | ug/L  | 1.0  | 0.24 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| cis-1,3-Dichloropropene     | ND      |      | ug/L  | 1.0  | 0.31 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| trans-1,3-Dichloropropene   | ND      |      | ug/L  | 1.0  | 0.29 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| Diisopropyl ether           | ND      |      | ug/L  | 1.0  | 0.25 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| Ethyl tert-butyl ether      | ND      |      | ug/L  | 1.0  | 0.19 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| Ethylbenzene                | ND      |      | ug/L  | 1.0  | 0.34 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| 2-Hexanone                  | ND      |      | ug/L  | 5.0  | 1.3  | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| Methyl t-Butyl Ether        | ND      |      | ug/L  | 1.0  | 0.33 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| 4-Methyl-2-Pentanone(MIBK)  | ND      |      | ug/L  | 5.0  | 1.5  | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| Methylene Chloride          | ND      |      | ug/L  | 1.0  | 0.45 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |
| Styrene                     | ND      |      | ug/L  | 1.0  | 0.24 | SW846 8260B |             | 2/22/17 01:51 | SYB | A    |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412001**

Date Collected: 2/17/2017 21:00

Matrix: Water

Sample ID: **TB-07**

Date Received: 2/17/2017 21:00

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By     | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-----------------|---------------|-----------------|-----------------------|
| 1,1,1,2-Tetrachloroethane   | ND             |             | ug/L         | 1.0           | 0.35 | SW846 8260B   |                 | 2/22/17 01:51 | SYB             | A                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/L         | 1.0           | 0.34 | SW846 8260B   |                 | 2/22/17 01:51 | SYB             | A                     |
| Tetrachloroethene           | ND             |             | ug/L         | 1.0           | 0.35 | SW846 8260B   |                 | 2/22/17 01:51 | SYB             | A                     |
| Toluene                     | ND             |             | ug/L         | 1.0           | 0.23 | SW846 8260B   |                 | 2/22/17 01:51 | SYB             | A                     |
| Total Xylenes               | ND             |             | ug/L         | 3.0           | 0.66 | SW846 8260B   |                 | 2/22/17 01:51 | SYB             | A                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/L         | 1.0           | 0.22 | SW846 8260B   |                 | 2/22/17 01:51 | SYB             | A                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/22/17 01:51 | SYB             | A                     |
| Trichloroethene             | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/22/17 01:51 | SYB             | A                     |
| Vinyl Chloride              | ND             |             | ug/L         | 1.0           | 0.30 | SW846 8260B   |                 | 2/22/17 01:51 | SYB             | A                     |
| o-Xylene                    | ND             |             | ug/L         | 1.0           | 0.33 | SW846 8260B   |                 | 2/22/17 01:51 | SYB             | A                     |
| mp-Xylene                   | ND             |             | ug/L         | 2.0           | 0.52 | SW846 8260B   |                 | 2/22/17 01:51 | SYB             | A                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i> | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 96.1           |             | %            | 62 - 133      |      | SW846 8260B   |                 | 2/22/17 01:51 | SYB             | A                     |
| 4-Bromofluorobenzene (S)    | 97.9           |             | %            | 79 - 114      |      | SW846 8260B   |                 | 2/22/17 01:51 | SYB             | A                     |
| Dibromofluoromethane (S)    | 101            |             | %            | 78 - 116      |      | SW846 8260B   |                 | 2/22/17 01:51 | SYB             | A                     |
| Toluene-d8 (S)              | 94.1           |             | %            | 76 - 127      |      | SW846 8260B   |                 | 2/22/17 01:51 | SYB             | A                     |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412002**

Date Collected: 2/17/2017 00:00

Matrix: Solid

Sample ID: **DUP-05**

Date Received: 2/17/2017 21:00

| Parameters                  | Results | Flag  | Units | RDL  | MDL  | Method      | Prepared By   | Analyzed | By            | Cntr  |
|-----------------------------|---------|-------|-------|------|------|-------------|---------------|----------|---------------|-------|
| <b>VOLATILE ORGANICS</b>    |         |       |       |      |      |             |               |          |               |       |
| Acetone                     | 71.3    |       | ug/kg | 10.5 | 4.8  | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| tert-Amyl methyl ether      | ND      |       | ug/kg | 2.1  | 0.62 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| tert-Amyl Alcohol           | ND      |       | ug/kg | 10.5 | 3.7  | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| tert-Amyl Ethylether        | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| Benzene                     | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| Bromochloromethane          | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| Bromodichloromethane        | ND      |       | ug/kg | 2.1  | 0.75 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| Bromoform                   | ND      |       | ug/kg | 2.1  | 0.55 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| Bromomethane                | ND      |       | ug/kg | 2.1  | 0.55 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| 2-Butanone                  | ND      |       | ug/kg | 10.5 | 3.4  | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| tert-Butyl Alcohol          | ND      |       | ug/kg | 10.5 | 3.7  | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| Carbon Disulfide            | ND      |       | ug/kg | 2.1  | 0.66 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| Carbon Tetrachloride        | ND      |       | ug/kg | 2.1  | 0.54 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| Chlorobenzene               | ND      |       | ug/kg | 2.1  | 0.54 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| Chlorodibromomethane        | ND      |       | ug/kg | 2.1  | 0.71 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| Chloroethane                | ND      |       | ug/kg | 5.2  | 0.89 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| Chloroform                  | ND      |       | ug/kg | 2.1  | 0.56 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| Chloromethane               | ND      |       | ug/kg | 2.1  | 0.58 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| 1,2-Dibromo-3-chloropropane | ND      |       | ug/kg | 5.2  | 3.0  | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| 1,2-Dibromoethane           | ND      |       | ug/kg | 2.1  | 0.57 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| 1,1-Dichloroethane          | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| 1,2-Dichloroethane          | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| 1,1-Dichloroethene          | ND      |       | ug/kg | 2.1  | 0.55 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| cis-1,2-Dichloroethene      | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| trans-1,2-Dichloroethene    | ND      |       | ug/kg | 2.1  | 0.55 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| 1,2-Dichloropropane         | ND      |       | ug/kg | 2.1  | 0.63 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| cis-1,3-Dichloropropene     | ND      |       | ug/kg | 2.1  | 0.58 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| trans-1,3-Dichloropropene   | ND      |       | ug/kg | 2.1  | 0.61 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| Diisopropyl ether           | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| Ethyl tert-butyl ether      | ND      |       | ug/kg | 2.1  | 0.55 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| Ethylbenzene                | ND      |       | ug/kg | 2.1  | 0.71 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| 2-Hexanone                  | ND      |       | ug/kg | 10.5 | 2.9  | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| Methyl t-Butyl Ether        | ND      |       | ug/kg | 2.1  | 0.52 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| 4-Methyl-2-Pentanone(MIBK)  | ND      |       | ug/kg | 10.5 | 4.0  | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |
| Methylene Chloride          | 11.7    | 1,2,3 | ug/kg | 2.1  | 0.82 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:34 | SYB B |



## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412002**

Date Collected: 2/17/2017 00:00

Matrix: Solid

Sample ID: **DUP-05**

Date Received: 2/17/2017 21:00

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| Naphthalene                 | 0.61J          | J           | ug/kg        | 2.1           | 0.52 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:34 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.1           | 0.52 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:34 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.1           | 0.59 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:34 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.1           | 0.63 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:34 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.1           | 0.70 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:34 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 6.3           | 1.5  | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:34 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.1           | 0.65 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:34 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.1           | 0.59 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:34 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.1           | 0.52 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:34 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.1           | 0.52 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:34 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.1           | 0.61 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:34 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.2           | 0.87 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:34 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 77.1           |             | %            | 56 - 124      |      | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:34 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 84.1           |             | %            | 51 - 128      |      | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:34 | SYB             | B                     |
| Dibromofluoromethane (S)    | 94.8           |             | %            | 62 - 123      |      | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:34 | SYB             | B                     |
| Toluene-d8 (S)              | 81.8           |             | %            | 59 - 131      |      | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:34 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 53.7          | 6.4  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 53.7          | 7.5  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| Acetophenone                | ND             | 4           | ug/kg        | 107           | 8.6  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 53.7          | 8.6  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 107           | 11.8 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 215           | 18.3 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| Benzo(a)anthracene          | 10.1J          | J           | ug/kg        | 53.7          | 5.4  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| Benzo(a)pyrene              | 5.5J           | J           | ug/kg        | 53.7          | 4.3  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 53.7          | 5.4  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 53.7          | 5.4  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| Benzo(k)fluoranthene        | ND             |             | ug/kg        | 53.7          | 5.4  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| Biphenyl                    | ND             |             | ug/kg        | 107           | 7.5  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| 4-Bromophenyl-phenylether   | ND             |             | ug/kg        | 107           | 9.7  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| Butylbenzylphthalate        | ND             |             | ug/kg        | 107           | 7.5  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| Caprolactam                 | ND             |             | ug/kg        | 215           | 19.3 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| Carbazole                   | ND             |             | ug/kg        | 107           | 7.5  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| 4-Chloro-3-methylphenol     | ND             |             | ug/kg        | 215           | 10.7 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| 4-Chloroaniline             | ND             |             | ug/kg        | 215           | 12.9 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| bis(2-Chloroethoxy)methane  | ND             |             | ug/kg        | 107           | 9.7  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412002**

Date Collected: 2/17/2017 00:00

Matrix: Solid

Sample ID: **DUP-05**

Date Received: 2/17/2017 21:00

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 107  | 14.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 107  | 16.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 107  | 6.4  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 215  | 8.6  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 107  | 8.6  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| Chrysene                    | 7.8J    | J    | ug/kg | 53.7 | 5.4  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 215  | 8.6  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 215  | 11.8 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 107  | 8.6  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 107  | 7.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 53.7 | 6.4  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 107  | 8.6  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 215  | 40.8 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 215  | 8.6  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 107  | 8.6  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 215  | 16.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 107  | 7.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 215  | 43.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 107  | 9.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 107  | 12.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 107  | 52.7 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 107  | 7.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| Fluoranthene                | 12.3J   | J    | ug/kg | 53.7 | 5.4  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 53.7 | 6.4  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 107  | 11.8 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 107  | 10.7 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 215  | 11.8 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 107  | 9.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 53.7 | 7.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| Isophorone                  | ND      |      | ug/kg | 107  | 6.4  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| 2-Methyl-4,6-dinitrophenol  | ND      |      | ug/kg | 215  | 27.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| 2-Methylnaphthalene         | ND      |      | ug/kg | 107  | 5.4  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| Naphthalene                 | 7.5J    | J    | ug/kg | 53.7 | 6.4  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| 2-Nitroaniline              | ND      |      | ug/kg | 215  | 12.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| 3-Nitroaniline              | ND      |      | ug/kg | 215  | 21.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| 4-Nitroaniline              | ND      |      | ug/kg | 215  | 8.6  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| Nitrobenzene                | ND      |      | ug/kg | 107  | 12.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |
| 2-Nitrophenol               | ND      |      | ug/kg | 215  | 11.8 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412002**

Date Collected: 2/17/2017 00:00

Matrix: Solid

Sample ID: **DUP-05**

Date Received: 2/17/2017 21:00

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| 4-Nitrophenol                  | ND             |             | ug/kg        | 215           | 15.0   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 107           | 8.6    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 107           | 8.6    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 215           | 27.9   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| Phenanthrene                   | 9.7J           | J           | ug/kg        | 53.7          | 5.4    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 215           | 10.7   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| Pyrene                         | 8.6J           | J           | ug/kg        | 53.7          | 5.4    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 107           | 7.5    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 215           | 12.9   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 215           | 12.9   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 215           | 12.9   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 86.6           |             | %            | 19 - 132      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 79.3           |             | %            | 40 - 110      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| 2-Fluorophenol (S)             | 73.1           |             | %            | 26 - 116      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 71.8           |             | %            | 38 - 112      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| Phenol-d5 (S)                  | 81.9           |             | %            | 35 - 111      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| Terphenyl-d14 (S)              | 81.3           |             | %            | 45 - 126      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:12 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.035         | 0.0032 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:30 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.035         | 0.0064 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:30 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.035         | 0.0032 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:30 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.035         | 0.0064 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:30 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.035         | 0.0096 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:30 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.035         | 0.0064 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:30 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.035         | 0.0064 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:30 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.035         | 0.0064 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:30 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.035         | 0.0074 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:30 | EGO             | F                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.035         | 0.0096 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:30 | EGO             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)        | 85.4           |             | %            | 49 - 115      |        | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:30 | EGO             | F                     |
| Tetrachloro-m-xylene (S)       | 93.7           |             | %            | 27 - 137      |        | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:30 | EGO             | F                     |
| <b>PESTICIDES</b>              |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                         | ND             |             | ug/kg        | 9.0           | 2.9    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |
| alpha-BHC                      | ND             |             | ug/kg        | 9.0           | 0.80   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |
| beta-BHC                       | ND             |             | ug/kg        | 9.0           | 0.96   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412002**  
Sample ID: **DUP-05**

Date Collected: 2/17/2017 00:00 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| delta-BHC                     | ND             |             | ug/kg        | 9.0           | 0.69 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |
| gamma-BHC                     | ND             |             | ug/kg        | 9.0           | 0.74 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |
| alpha-Chlordane               | ND             |             | ug/kg        | 9.0           | 0.96 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |
| gamma-Chlordane               | ND             |             | ug/kg        | 9.0           | 1.5  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |
| 4,4'-DDD                      | ND             |             | ug/kg        | 17.5          | 1.4  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |
| 4,4'-DDE                      | 2.9J           | J           | ug/kg        | 17.5          | 2.4  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |
| 4,4'-DDT                      | 2.9J           | J           | ug/kg        | 17.5          | 2.0  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |
| Dieldrin                      | ND             |             | ug/kg        | 17.5          | 2.0  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |
| Endosulfan I                  | ND             |             | ug/kg        | 9.0           | 1.1  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |
| Endosulfan II                 | ND             |             | ug/kg        | 17.5          | 3.7  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |
| Endosulfan Sulfate            | ND             |             | ug/kg        | 17.5          | 1.2  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |
| Endrin                        | ND             |             | ug/kg        | 17.5          | 1.3  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |
| Endrin Aldehyde               | ND             |             | ug/kg        | 17.5          | 1.9  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |
| Endrin Ketone                 | ND             |             | ug/kg        | 17.5          | 2.4  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |
| Heptachlor                    | ND             |             | ug/kg        | 9.0           | 0.90 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |
| Heptachlor Epoxide            | ND             |             | ug/kg        | 9.0           | 0.90 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |
| Methoxychlor                  | ND             |             | ug/kg        | 17.5          | 2.3  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |
| Toxaphene                     | ND             |             | ug/kg        | 186           | 30.8 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)       | 69.4           |             | %            | 30 - 135      |      | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |
| Tetrachloro-m-xylene (S)      | 62.2           |             | %            | 30 - 111      |      | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:11 | RWS             | F                     |
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 91.3           |             | mg/kg        | 11.3          | 2.7  | SW846 8015D   | 2/23/17 02:00 VLM | 2/24/17 02:25 | BS              | F                     |
| Gasoline Range Organics       | 1000J          | J           | ug/kg        | 6300          | 876  | SW846 8015D   | 2/17/17 00:00 DD  | 2/21/17 02:31 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 92             |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 02:00 VLM | 2/24/17 02:25 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 116            |             | %            | 72 - 134      |      | SW846 8015D   | 2/17/17 00:00 DD  | 2/21/17 02:31 | DD              | D                     |
| <b>WET CHEMISTRY</b>          |                |             |              |               |      |               |                   |               |                 |                       |
| Moisture                      | 11.1           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/21/17 11:19 | VKB             | F                     |
| Total Solids                  | 88.9           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/21/17 11:19 | VKB             | F                     |
| <b>METALS</b>                 |                |             |              |               |      |               |                   |               |                 |                       |
| Antimony, Total               | ND             |             | mg/kg        | 1.1           | 0.37 | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 02:02 | ZMC             | F2                    |
| Arsenic, Total                | 1.9            |             | mg/kg        | 1.7           | 0.56 | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 02:02 | ZMC             | F2                    |
| Beryllium, Total              | ND             |             | mg/kg        | 0.56          | 0.19 | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 02:02 | ZMC             | F2                    |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412002**  
Sample ID: **DUP-05**

Date Collected: 2/17/2017 00:00 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.56  | 0.19  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:02 | ZMC | F2   |
| Chromium, Total | 6.8     |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:02 | ZMC | F2   |
| Copper, Total   | 5.5     |      | mg/kg | 2.8   | 0.90  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:02 | ZMC | F2   |
| Lead, Total     | 7.4     |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:02 | ZMC | F2   |
| Mercury, Total  | 0.022J  | J    | mg/kg | 0.053 | 0.017 | SW846 7471B | 2/22/17 11:55 AXC | 2/23/17 13:04 | MNP | F1   |
| Nickel, Total   | 2.6J    | J    | mg/kg | 2.8   | 0.90  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:02 | ZMC | F2   |
| Selenium, Total | ND      |      | mg/kg | 2.8   | 0.90  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:02 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:02 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.56  | 0.19  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:02 | ZMC | F2   |
| Zinc, Total     | 52.5    |      | mg/kg | 2.8   | 0.90  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:02 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator



## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412003**

Date Collected: 2/17/2017 00:00

Matrix: Solid

Sample ID: **DUP-06**

Date Received: 2/17/2017 21:00

| Parameters                  | Results | Flag  | Units | RDL  | MDL  | Method      | Prepared By   | Analyzed | By            | Cntr  |
|-----------------------------|---------|-------|-------|------|------|-------------|---------------|----------|---------------|-------|
| <b>VOLATILE ORGANICS</b>    |         |       |       |      |      |             |               |          |               |       |
| Acetone                     | 144     |       | ug/kg | 11.5 | 5.3  | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| tert-Amyl methyl ether      | ND      |       | ug/kg | 2.3  | 0.68 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| tert-Amyl Alcohol           | ND      |       | ug/kg | 11.5 | 4.0  | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| tert-Amyl Ethylether        | ND      |       | ug/kg | 2.3  | 0.58 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| Benzene                     | ND      |       | ug/kg | 2.3  | 0.58 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| Bromochloromethane          | ND      |       | ug/kg | 2.3  | 0.58 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| Bromodichloromethane        | ND      |       | ug/kg | 2.3  | 0.82 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| Bromoform                   | ND      |       | ug/kg | 2.3  | 0.60 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| Bromomethane                | ND      |       | ug/kg | 2.3  | 0.60 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| 2-Butanone                  | ND      |       | ug/kg | 11.5 | 3.7  | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| tert-Butyl Alcohol          | ND      |       | ug/kg | 11.5 | 4.0  | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| Carbon Disulfide            | ND      |       | ug/kg | 2.3  | 0.73 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| Carbon Tetrachloride        | ND      |       | ug/kg | 2.3  | 0.59 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| Chlorobenzene               | ND      |       | ug/kg | 2.3  | 0.59 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| Chlorodibromomethane        | ND      |       | ug/kg | 2.3  | 0.78 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| Chloroethane                | ND      |       | ug/kg | 5.8  | 0.98 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| Chloroform                  | ND      |       | ug/kg | 2.3  | 0.61 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| Chloromethane               | ND      |       | ug/kg | 2.3  | 0.63 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| 1,2-Dibromo-3-chloropropane | ND      |       | ug/kg | 5.8  | 3.3  | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| 1,2-Dibromoethane           | ND      |       | ug/kg | 2.3  | 0.62 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| 1,1-Dichloroethane          | ND      |       | ug/kg | 2.3  | 0.58 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| 1,2-Dichloroethane          | ND      |       | ug/kg | 2.3  | 0.58 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| 1,1-Dichloroethene          | ND      |       | ug/kg | 2.3  | 0.60 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| cis-1,2-Dichloroethene      | ND      |       | ug/kg | 2.3  | 0.58 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| trans-1,2-Dichloroethene    | ND      |       | ug/kg | 2.3  | 0.60 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| 1,2-Dichloropropane         | ND      |       | ug/kg | 2.3  | 0.69 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| cis-1,3-Dichloropropene     | ND      |       | ug/kg | 2.3  | 0.63 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| trans-1,3-Dichloropropene   | ND      |       | ug/kg | 2.3  | 0.67 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| Diisopropyl ether           | ND      |       | ug/kg | 2.3  | 0.58 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| Ethyl tert-butyl ether      | ND      |       | ug/kg | 2.3  | 0.60 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| Ethylbenzene                | ND      |       | ug/kg | 2.3  | 0.78 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| 2-Hexanone                  | ND      |       | ug/kg | 11.5 | 3.2  | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| Methyl t-Butyl Ether        | ND      |       | ug/kg | 2.3  | 0.58 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| 4-Methyl-2-Pentanone(MIBK)  | ND      |       | ug/kg | 11.5 | 4.4  | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |
| Methylene Chloride          | 12.0    | 1,2,3 | ug/kg | 2.3  | 0.90 | SW846 8260B | 2/17/17 00:00 | SYB      | 2/22/17 02:57 | SYB B |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412003**

Date Collected: 2/17/2017 00:00

Matrix: Solid

Sample ID: **DUP-06**

Date Received: 2/17/2017 21:00

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| Naphthalene                 | ND             |             | ug/kg        | 2.3           | 0.58 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:57 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.3           | 0.58 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:57 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.3           | 0.65 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:57 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.3           | 0.69 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:57 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.3           | 0.77 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:57 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 6.9           | 1.6  | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:57 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.3           | 0.71 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:57 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.3           | 0.65 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:57 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.3           | 0.58 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:57 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.3           | 0.58 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:57 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.3           | 0.67 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:57 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.6           | 0.96 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:57 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 78.2           |             | %            | 56 - 124      |      | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:57 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 82.5           |             | %            | 51 - 128      |      | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:57 | SYB             | B                     |
| Dibromofluoromethane (S)    | 94.4           |             | %            | 62 - 123      |      | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:57 | SYB             | B                     |
| Toluene-d8 (S)              | 80.5           |             | %            | 59 - 131      |      | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 02:57 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 58.2          | 7.0  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 58.2          | 8.2  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| Acetophenone                | ND             | 4           | ug/kg        | 116           | 9.3  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 58.2          | 9.3  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 116           | 12.8 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 233           | 19.8 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| Benzo(a)anthracene          | 11.7J          | J           | ug/kg        | 58.2          | 5.8  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 58.2          | 4.7  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| Benzo(b)fluoranthene        | 6.7J           | J           | ug/kg        | 58.2          | 5.8  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 58.2          | 5.8  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| Benzo(k)fluoranthene        | ND             |             | ug/kg        | 58.2          | 5.8  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| Biphenyl                    | ND             |             | ug/kg        | 116           | 8.2  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| 4-Bromophenyl-phenylether   | ND             |             | ug/kg        | 116           | 10.5 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| Butylbenzylphthalate        | ND             |             | ug/kg        | 116           | 8.2  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| Caprolactam                 | ND             |             | ug/kg        | 233           | 21.0 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| Carbazole                   | ND             |             | ug/kg        | 116           | 8.2  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| 4-Chloro-3-methylphenol     | ND             |             | ug/kg        | 233           | 11.6 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| 4-Chloroaniline             | ND             |             | ug/kg        | 233           | 14.0 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| bis(2-Chloroethoxy)methane  | ND             |             | ug/kg        | 116           | 10.5 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |



## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412003**

Date Collected: 2/17/2017 00:00

Matrix: Solid

Sample ID: **DUP-06**

Date Received: 2/17/2017 21:00

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 116  | 15.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 116  | 17.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 116  | 7.0  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 233  | 9.3  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 116  | 9.3  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 58.2 | 5.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 233  | 9.3  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 233  | 12.8 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 116  | 9.3  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 116  | 8.2  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 58.2 | 7.0  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 116  | 9.3  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 233  | 44.3 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 233  | 9.3  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 116  | 9.3  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 233  | 17.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 116  | 8.2  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 233  | 46.6 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 116  | 10.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 116  | 14.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 116  | 57.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 116  | 8.2  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| Fluoranthene                | ND      |      | ug/kg | 58.2 | 5.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 58.2 | 7.0  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 116  | 12.8 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 116  | 11.6 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 233  | 12.8 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 116  | 10.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 58.2 | 8.2  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| Isophorone                  | ND      |      | ug/kg | 116  | 7.0  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| 2-Methyl-4,6-dinitrophenol  | ND      |      | ug/kg | 233  | 30.3 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| 2-Methylnaphthalene         | ND      |      | ug/kg | 116  | 5.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| Naphthalene                 | ND      |      | ug/kg | 58.2 | 7.0  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| 2-Nitroaniline              | ND      |      | ug/kg | 233  | 14.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| 3-Nitroaniline              | ND      |      | ug/kg | 233  | 23.3 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| 4-Nitroaniline              | ND      |      | ug/kg | 233  | 9.3  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| Nitrobenzene                | ND      |      | ug/kg | 116  | 14.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |
| 2-Nitrophenol               | ND      |      | ug/kg | 233  | 12.8 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412003**

Date Collected: 2/17/2017 00:00

Matrix: Solid

Sample ID: **DUP-06**

Date Received: 2/17/2017 21:00

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| 4-Nitrophenol                  | ND             |             | ug/kg        | 233           | 16.3   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 116           | 9.3    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 116           | 9.3    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 233           | 30.3   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| Phenanthrene                   | 7.6J           | J           | ug/kg        | 58.2          | 5.8    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 233           | 11.6   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| Pyrene                         | 12.4J          | J           | ug/kg        | 58.2          | 5.8    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 116           | 8.2    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 233           | 14.0   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 233           | 14.0   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 233           | 14.0   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 75.8           |             | %            | 19 - 132      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 69.2           |             | %            | 40 - 110      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| 2-Fluorophenol (S)             | 63.7           |             | %            | 26 - 116      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 63.4           |             | %            | 38 - 112      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| Phenol-d5 (S)                  | 71.2           |             | %            | 35 - 111      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| Terphenyl-d14 (S)              | 69.4           |             | %            | 45 - 126      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 11:38 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.038         | 0.0034 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:42 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.038         | 0.0069 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:42 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.038         | 0.0034 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:42 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.038         | 0.0069 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:42 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.038         | 0.010  | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:42 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.038         | 0.0069 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:42 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.038         | 0.0069 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:42 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.038         | 0.0069 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:42 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.038         | 0.0080 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:42 | EGO             | F                     |
| Aroclor-1268                   | ND             |             | mg/kg        | 0.038         | 0.010  | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:42 | EGO             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)        | 95.3           |             | %            | 49 - 115      |        | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:42 | EGO             | F                     |
| Tetrachloro-m-xylene (S)       | 96.4           |             | %            | 27 - 137      |        | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:42 | EGO             | F                     |
| <b>PESTICIDES</b>              |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                         | ND             |             | ug/kg        | 9.8           | 3.2    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |
| alpha-BHC                      | ND             |             | ug/kg        | 9.8           | 0.86   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |
| beta-BHC                       | ND             |             | ug/kg        | 9.8           | 1.0    | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412003**

Date Collected: 2/17/2017 00:00

Matrix: Solid

Sample ID: **DUP-06**

Date Received: 2/17/2017 21:00

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| delta-BHC                     | ND             |             | ug/kg        | 9.8           | 0.75 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |
| gamma-BHC                     | ND             |             | ug/kg        | 9.8           | 0.80 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |
| alpha-Chlordane               | ND             |             | ug/kg        | 9.8           | 1.0  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |
| gamma-Chlordane               | ND             |             | ug/kg        | 9.8           | 1.7  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |
| 4,4'-DDD                      | ND             |             | ug/kg        | 19.0          | 1.6  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |
| 4,4'-DDE                      | ND             |             | ug/kg        | 19.0          | 2.6  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |
| 4,4'-DDT                      | ND             |             | ug/kg        | 19.0          | 2.2  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |
| Dieldrin                      | ND             |             | ug/kg        | 19.0          | 2.2  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |
| Endosulfan I                  | ND             |             | ug/kg        | 9.8           | 1.2  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |
| Endosulfan II                 | ND             |             | ug/kg        | 19.0          | 4.0  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |
| Endosulfan Sulfate            | ND             |             | ug/kg        | 19.0          | 1.3  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |
| Endrin                        | ND             |             | ug/kg        | 19.0          | 1.4  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |
| Endrin Aldehyde               | ND             |             | ug/kg        | 19.0          | 2.1  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |
| Endrin Ketone                 | ND             |             | ug/kg        | 19.0          | 2.6  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |
| Heptachlor                    | ND             |             | ug/kg        | 9.8           | 0.98 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |
| Heptachlor Epoxide            | ND             |             | ug/kg        | 9.8           | 0.98 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |
| Methoxychlor                  | ND             |             | ug/kg        | 19.0          | 2.5  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |
| Toxaphene                     | ND             |             | ug/kg        | 201           | 33.3 | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)       | 78.1           |             | %            | 30 - 135      |      | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |
| Tetrachloro-m-xylene (S)      | 61             |             | %            | 30 - 111      |      | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:27 | RWS             | F                     |
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 86.1           |             | mg/kg        | 12.3          | 2.9  | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 19:38 | BS              | F                     |
| Gasoline Range Organics       | 3480J          | J           | ug/kg        | 9720          | 1350 | SW846 8015D   | 2/17/17 00:00 DD  | 2/21/17 03:05 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 86.5           |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 19:38 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 115            |             | %            | 72 - 134      |      | SW846 8015D   | 2/17/17 00:00 DD  | 2/21/17 03:05 | DD              | D                     |
| <b>WET CHEMISTRY</b>          |                |             |              |               |      |               |                   |               |                 |                       |
| Moisture                      | 16.9           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/21/17 11:19 | VKB             | F                     |
| Total Solids                  | 83.1           |             | %            | 0.1           | 0.01 | S2540G-11     |                   | 2/21/17 11:19 | VKB             | F                     |
| <b>METALS</b>                 |                |             |              |               |      |               |                   |               |                 |                       |
| Antimony, Total               | ND             |             | mg/kg        | 1.1           | 0.37 | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 02:06 | ZMC             | F2                    |
| Arsenic, Total                | 2.7            |             | mg/kg        | 1.7           | 0.57 | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 02:06 | ZMC             | F2                    |
| Beryllium, Total              | ND             |             | mg/kg        | 0.57          | 0.19 | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 02:06 | ZMC             | F2                    |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412003**  
Sample ID: **DUP-06**

Date Collected: 2/17/2017 00:00 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.57  | 0.19  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:06 | ZMC | F2   |
| Chromium, Total | 5.5     |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:06 | ZMC | F2   |
| Copper, Total   | 3.5     |      | mg/kg | 2.8   | 0.91  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:06 | ZMC | F2   |
| Lead, Total     | 22.4    |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:06 | ZMC | F2   |
| Mercury, Total  | 0.025J  | J    | mg/kg | 0.057 | 0.018 | SW846 7471B | 2/22/17 11:55 AXC | 2/23/17 13:05 | MNP | F1   |
| Nickel, Total   | 1.6J    | J    | mg/kg | 2.8   | 0.91  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:06 | ZMC | F2   |
| Selenium, Total | ND      |      | mg/kg | 2.8   | 0.91  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:06 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:06 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.57  | 0.19  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:06 | ZMC | F2   |
| Zinc, Total     | 8.0     |      | mg/kg | 2.8   | 0.91  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:06 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412004**

Date Collected: 2/17/2017 00:00

Matrix: Solid

Sample ID: **DUP-07**

Date Received: 2/17/2017 21:00

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 68.9           |             | mg/kg        | 12.1          | 2.9  | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 20:15 | BS              | F                     |
| Gasoline Range Organics       | ND             |             | ug/kg        | 10100         | 1410 | SW846 8015D   | 2/17/17 00:00 DD  | 2/21/17 03:38 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 89.7           |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 20:15 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 113            |             | %            | 72 - 134      |      | SW846 8015D   | 2/17/17 00:00 DD  | 2/21/17 03:38 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | 40.2           |             | ug/kg        | 10.3          | 4.7  | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.1           | 0.61 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 10.3          | 3.6  | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.1           | 0.51 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| Benzene                       | ND             |             | ug/kg        | 2.1           | 0.51 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 2.1           | 0.51 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.1           | 0.73 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| Bromoform                     | ND             | 13          | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| 2-Butanone                    | ND             |             | ug/kg        | 10.3          | 3.3  | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 10.3          | 3.6  | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.1           | 0.65 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.1           | 0.52 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| Chlorobenzene                 | ND             | 10          | ug/kg        | 2.1           | 0.52 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| Chlorodibromomethane          | ND             | 8           | ug/kg        | 2.1           | 0.70 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 5.1           | 0.87 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 2.1           | 0.54 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 2.1           | 0.56 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             | 18          | ug/kg        | 5.1           | 3.0  | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             | 9           | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.1           | 0.51 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.1           | 0.51 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.1           | 0.51 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.1           | 0.62 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             | 2           | ug/kg        | 2.1           | 0.56 | SW846 8260B   | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB             | B                     |



## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412004**

Date Collected: 2/17/2017 00:00

Matrix: Solid

Sample ID: **DUP-07**

Date Received: 2/17/2017 21:00

| Parameters                 | Results | Flag         | Units | RDL      | MDL  | Method      | Prepared By       | Analyzed      | By       | Cntr |      |
|----------------------------|---------|--------------|-------|----------|------|-------------|-------------------|---------------|----------|------|------|
| trans-1,3-Dichloropropene  | ND      | 4            | ug/kg | 2.1      | 0.60 | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| Diisopropyl ether          | ND      |              | ug/kg | 2.1      | 0.51 | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| Ethyl tert-butyl ether     | ND      | 1            | ug/kg | 2.1      | 0.53 | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| Ethylbenzene               | ND      | 11           | ug/kg | 2.1      | 0.70 | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| 2-Hexanone                 | ND      | 7            | ug/kg | 10.3     | 2.9  | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| Methyl t-Butyl Ether       | ND      |              | ug/kg | 2.1      | 0.51 | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| 4-Methyl-2-Pentanone(MIBK) | ND      | 3            | ug/kg | 10.3     | 3.9  | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| Methylene Chloride         | 8.2     | 20,2<br>1,22 | ug/kg | 2.1      | 0.80 | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| Naphthalene                | ND      | 19           | ug/kg | 2.1      | 0.51 | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| Styrene                    | ND      | 14           | ug/kg | 2.1      | 0.51 | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| 1,1,2,2-Tetrachloroethane  | ND      | 15           | ug/kg | 2.1      | 0.57 | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| Tetrachloroethene          | ND      |              | ug/kg | 2.1      | 0.62 | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| Toluene                    | ND      | 6            | ug/kg | 2.1      | 0.69 | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| Total Xylenes              | ND      | 17           | ug/kg | 6.2      | 1.4  | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| 1,1,1-Trichloroethane      | ND      |              | ug/kg | 2.1      | 0.64 | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| 1,1,2-Trichloroethane      | ND      | 5            | ug/kg | 2.1      | 0.57 | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| Trichloroethene            | ND      |              | ug/kg | 2.1      | 0.51 | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| Vinyl Chloride             | ND      |              | ug/kg | 2.1      | 0.51 | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| o-Xylene                   | ND      | 16           | ug/kg | 2.1      | 0.60 | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| mp-Xylene                  | ND      | 12           | ug/kg | 4.1      | 0.85 | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| Surrogate Recoveries       | Results | Flag         | Units | Limits   |      | Method      | Prepared          | By            | Analyzed | By   | Cntr |
| 1,2-Dichloroethane-d4 (S)  | 77.8    |              | %     | 56 - 124 |      | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| 4-Bromofluorobenzene (S)   | 82.8    |              | %     | 51 - 128 |      | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| Dibromofluoromethane (S)   | 95.8    |              | %     | 62 - 123 |      | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| Toluene-d8 (S)             | 80.1    |              | %     | 59 - 131 |      | SW846 8260B | 2/17/17 00:00 SYB | 2/22/17 03:20 | SYB      | B    |      |
| SEMIVOLATILES              |         |              |       |          |      |             |                   |               |          |      |      |
| Acenaphthene               | ND      |              | ug/kg | 56.7     | 6.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS      | F    |      |
| Acenaphthylene             | ND      |              | ug/kg | 56.7     | 7.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS      | F    |      |
| Acetophenone               | ND      | 23           | ug/kg | 113      | 9.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS      | F    |      |
| Anthracene                 | ND      |              | ug/kg | 56.7     | 9.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS      | F    |      |
| Atrazine                   | ND      |              | ug/kg | 113      | 12.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS      | F    |      |
| Benzaldehyde               | ND      |              | ug/kg | 227      | 19.3 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS      | F    |      |
| Benzo(a)anthracene         | 8.9J    | J            | ug/kg | 56.7     | 5.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS      | F    |      |
| Benzo(a)pyrene             | ND      |              | ug/kg | 56.7     | 4.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS      | F    |      |
| Benzo(b)fluoranthene       | ND      |              | ug/kg | 56.7     | 5.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS      | F    |      |
| Benzo(g,h,i)perylene       | ND      |              | ug/kg | 56.7     | 5.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS      | F    |      |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412004**

Date Collected: 2/17/2017 00:00

Matrix: Solid

Sample ID: **DUP-07**

Date Received: 2/17/2017 21:00

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 56.7 | 5.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 113  | 7.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 113  | 10.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| Butylbenzylphthalate        | 10J     | J    | ug/kg | 113  | 7.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 227  | 20.4 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 113  | 7.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 227  | 11.3 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 227  | 13.6 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 113  | 10.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 113  | 14.7 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 113  | 17.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 113  | 6.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 227  | 9.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 113  | 9.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 56.7 | 5.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 227  | 9.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 227  | 12.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 113  | 9.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 113  | 7.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 56.7 | 6.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 113  | 9.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 227  | 43.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 227  | 9.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 113  | 9.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 227  | 17.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 113  | 7.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 227  | 45.3 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 113  | 10.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 113  | 13.6 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 113  | 55.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 113  | 7.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| Fluoranthene                | 7.8J    | J    | ug/kg | 56.7 | 5.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 56.7 | 6.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 113  | 12.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 113  | 11.3 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 227  | 12.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 113  | 10.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 56.7 | 7.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS | F    |



## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412004**

Date Collected: 2/17/2017 00:00

Matrix: Solid

Sample ID: **DUP-07**

Date Received: 2/17/2017 21:00

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 113           | 6.8    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 227           | 29.5   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 113           | 5.7    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 56.7          | 6.8    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 227           | 13.6   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 227           | 22.7   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 227           | 9.1    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 113           | 13.6   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 227           | 12.5   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 227           | 15.9   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 113           | 9.1    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 113           | 9.1    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 227           | 29.5   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| Phenanthrene                   | 6.1J           | J           | ug/kg        | 56.7          | 5.7    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 227           | 11.3   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| Pyrene                         | ND             |             | ug/kg        | 56.7          | 5.7    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 113           | 7.9    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 227           | 13.6   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 227           | 13.6   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 227           | 13.6   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 81.2           |             | %            | 19 - 132      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 73.8           |             | %            | 40 - 110      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| 2-Fluorophenol (S)             | 68.4           |             | %            | 26 - 116      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 67.6           |             | %            | 38 - 112      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| Phenol-d5 (S)                  | 76.5           |             | %            | 35 - 111      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| Terphenyl-d14 (S)              | 75             |             | %            | 45 - 126      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:04 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.037         | 0.0034 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:53 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.037         | 0.0068 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:53 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.037         | 0.0034 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:53 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.037         | 0.0068 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:53 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.037         | 0.010  | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:53 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.037         | 0.0068 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:53 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.037         | 0.0068 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:53 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.037         | 0.0068 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:53 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.037         | 0.0079 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:53 | EGO             | F                     |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412004**

Date Collected: 2/17/2017 00:00

Matrix: Solid

Sample ID: **DUP-07**

Date Received: 2/17/2017 21:00

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.037         | 0.010 | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:53 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 72.4           |             | %            | 49 - 115      |       | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:53 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 83.2           |             | %            | 27 - 137      |       | SW846 8082A   | 2/23/17 00:15 CMA | 2/23/17 09:53 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 9.6           | 3.1   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 9.6           | 0.85  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 9.6           | 1.0   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 9.6           | 0.74  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 9.6           | 0.79  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 9.6           | 1.0   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 9.6           | 1.6   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 18.7          | 1.5   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 18.7          | 2.6   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 18.7          | 2.2   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 18.7          | 2.2   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 9.6           | 1.2   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 18.7          | 3.9   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 18.7          | 1.2   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 18.7          | 1.4   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 18.7          | 2.0   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 18.7          | 2.6   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 9.6           | 0.96  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 9.6           | 0.96  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 18.7          | 2.5   | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 198           | 32.9  | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 55.2           |             | %            | 30 - 135      |       | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 54.9           |             | %            | 30 - 111      |       | SW846 8081B   | 2/23/17 00:15 CMA | 2/23/17 19:42 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Moisture                    | 12.4           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/21/17 11:19 | VKB             | F                     |
| Total Solids                | 87.6           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/21/17 11:19 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.1           | 0.36  | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 02:10 | ZMC             | F2                    |
| Arsenic, Total              | 3.4            |             | mg/kg        | 1.6           | 0.55  | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 02:10 | ZMC             | F2                    |
| Beryllium, Total            | 0.36J          | J           | mg/kg        | 0.55          | 0.18  | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 02:10 | ZMC             | F2                    |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412004**

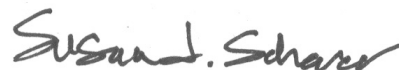
Date Collected: 2/17/2017 00:00

Matrix: Solid

Sample ID: **DUP-07**

Date Received: 2/17/2017 21:00

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.55  | 0.18  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:10 | ZMC | F2   |
| Chromium, Total | 14.3    |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:10 | ZMC | F2   |
| Copper, Total   | 7.4     |      | mg/kg | 2.7   | 0.88  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:10 | ZMC | F2   |
| Lead, Total     | 32.1    |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:10 | ZMC | F2   |
| Mercury, Total  | ND      |      | mg/kg | 0.055 | 0.018 | SW846 7471B | 2/22/17 11:55 AXG | 2/23/17 13:06 | MNP | F1   |
| Nickel, Total   | 4.8     |      | mg/kg | 2.7   | 0.88  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:10 | ZMC | F2   |
| Selenium, Total | 1.4J    | J    | mg/kg | 2.7   | 0.88  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:10 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.36  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:10 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.55  | 0.18  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:10 | ZMC | F2   |
| Zinc, Total     | 19.2    |      | mg/kg | 2.7   | 0.88  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:10 | ZMC | F2   |



Ms. Susan J Scherer

Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412005**  
Sample ID: **CL-SAW-S-A1**

Date Collected: 2/17/2017 08:50 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 58.8           |             | mg/kg        | 11.6          | 2.7  | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 20:52 | BS              | F                     |
| Gasoline Range Organics       | 2620J          | J           | ug/kg        | 5480          | 762  | SW846 8015D   | 2/17/17 08:50 DD  | 2/21/17 04:12 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 104            |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 20:52 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 115            |             | %            | 72 - 134      |      | SW846 8015D   | 2/17/17 08:50 DD  | 2/21/17 04:12 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | 144            |             | ug/kg        | 11.0          | 5.1  | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.2           | 0.65 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 11.0          | 3.9  | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Benzene                       | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.2           | 0.78 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 2.2           | 0.57 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 2.2           | 0.57 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| 2-Butanone                    | 3.6J           | J           | ug/kg        | 11.0          | 3.5  | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 11.0          | 3.9  | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.2           | 0.70 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.2           | 0.56 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.2           | 0.56 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.2           | 0.75 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 5.5           | 0.94 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 2.2           | 0.59 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 2.2           | 0.61 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 5.5           | 3.2  | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.2           | 0.60 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.2           | 0.57 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.2           | 0.57 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.2           | 0.66 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.2           | 0.61 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412005**  
Sample ID: **CL-SAW-S-A1**

Date Collected: 2/17/2017 08:50 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 2.2           | 0.64 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 2.2           | 0.57 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 2.2           | 0.75 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 11.0          | 3.1  | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 11.0          | 4.2  | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Methylene Chloride          | 11.9           | 1,2,3       | ug/kg        | 2.2           | 0.86 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.2           | 0.62 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.2           | 0.66 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.2           | 0.74 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 6.6           | 1.5  | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.2           | 0.68 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.2           | 0.62 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.2           | 0.55 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.2           | 0.64 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.4           | 0.92 | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 77.1           |             | %            | 56 - 124      |      | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 83.1           |             | %            | 51 - 128      |      | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Dibromofluoromethane (S)    | 93.5           |             | %            | 62 - 123      |      | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| Toluene-d8 (S)              | 79.5           |             | %            | 59 - 131      |      | SW846 8260B   | 2/17/17 08:50 SYB | 2/22/17 03:44 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 55.0          | 6.6  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 55.0          | 7.7  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| Acetophenone                | ND             | 4           | ug/kg        | 110           | 8.8  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 55.0          | 8.8  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 110           | 12.1 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 220           | 18.7 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| Benzo(a)anthracene          | 13.6J          | J           | ug/kg        | 55.0          | 5.5  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| Benzo(a)pyrene              | 7.8J           | J           | ug/kg        | 55.0          | 4.4  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| Benzo(b)fluoranthene        | 11.0J          | J           | ug/kg        | 55.0          | 5.5  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| Benzo(g,h,i)perylene        | 7.4J           | J           | ug/kg        | 55.0          | 5.5  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |



## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412005**  
Sample ID: **CL-SAW-S-A1**

Date Collected: 2/17/2017 08:50 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 55.0 | 5.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 110  | 7.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 110  | 9.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| Butylbenzylphthalate        | 14.1J   | J    | ug/kg | 110  | 7.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 220  | 19.8 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 110  | 7.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 220  | 11.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 220  | 13.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 110  | 9.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 110  | 14.3 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 110  | 16.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 110  | 6.6  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 220  | 8.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 110  | 8.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| Chrysene                    | 6.0J    | J    | ug/kg | 55.0 | 5.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 220  | 8.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 220  | 12.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 110  | 8.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 110  | 7.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 55.0 | 6.6  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 110  | 8.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 220  | 41.8 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 220  | 8.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 110  | 8.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 220  | 16.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 110  | 7.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 220  | 44.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 110  | 9.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 110  | 13.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 110  | 53.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | 12.2J   | J    | ug/kg | 110  | 7.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| Fluoranthene                | 14.3J   | J    | ug/kg | 55.0 | 5.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 55.0 | 6.6  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 110  | 12.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 110  | 11.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 220  | 12.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 110  | 9.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 55.0 | 7.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412005**  
Sample ID: **CL-SAW-S-A1**

Date Collected: 2/17/2017 08:50 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 110           | 6.6    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 220           | 28.6   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 110           | 5.5    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 55.0          | 6.6    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 220           | 13.2   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 220           | 22.0   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 220           | 8.8    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 110           | 13.2   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 220           | 12.1   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 220           | 15.4   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 110           | 8.8    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 110           | 8.8    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 220           | 28.6   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| Phenanthrene                   | 8.5J           | J           | ug/kg        | 55.0          | 5.5    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 220           | 11.0   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| Pyrene                         | 10.2J          | J           | ug/kg        | 55.0          | 5.5    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 110           | 7.7    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 220           | 13.2   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 220           | 13.2   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 220           | 13.2   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 78.4           |             | %            | 19 - 132      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 68.6           |             | %            | 40 - 110      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| 2-Fluorophenol (S)             | 65.3           |             | %            | 26 - 116      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 64.9           |             | %            | 38 - 112      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| Phenol-d5 (S)                  | 74             |             | %            | 35 - 111      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| Terphenyl-d14 (S)              | 72.6           |             | %            | 45 - 126      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:29 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.035         | 0.0032 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 03:42 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.035         | 0.0063 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 03:42 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.035         | 0.0032 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 03:42 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.035         | 0.0063 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 03:42 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.035         | 0.0095 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 03:42 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.035         | 0.0063 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 03:42 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.035         | 0.0063 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 03:42 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.035         | 0.0063 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 03:42 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.035         | 0.0074 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 03:42 | EGO             | F                     |



## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412005**  
Sample ID: **CL-SAW-S-A1**

Date Collected: 2/17/2017 08:50 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.035         | 0.0095 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 03:42 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 83.1           |             | %            | 49 - 115      |        | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 03:42 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 93.1           |             | %            | 27 - 137      |        | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 03:42 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 9.0           | 2.9    | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 9.0           | 0.79   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 9.0           | 0.95   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 9.0           | 0.69   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 9.0           | 0.74   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 9.0           | 0.95   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 9.0           | 1.5    | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 17.4          | 1.4    | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 17.4          | 2.4    | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 17.4          | 2.0    | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 17.4          | 2.0    | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 9.0           | 1.1    | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 17.4          | 3.6    | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 17.4          | 1.2    | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 17.4          | 1.3    | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 17.4          | 1.9    | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 17.4          | 2.4    | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 9.0           | 0.90   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 9.0           | 0.90   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 17.4          | 2.3    | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 185           | 30.7   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 69.1           |             | %            | 30 - 135      |        | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 69.3           |             | %            | 30 - 111      |        | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:29 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |        |               |                   |               |                 |                       |
| Moisture                    | 9.6            |             | %            | 0.1           | 0.01   | S2540G-11     |                   | 2/21/17 11:19 | VKB             | F                     |
| Total Solids                | 90.4           |             | %            | 0.1           | 0.01   | S2540G-11     |                   | 2/21/17 11:19 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |        |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.1           | 0.37   | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 02:14 | ZMC             | F2                    |
| Arsenic, Total              | 0.60J          | J           | mg/kg        | 1.7           | 0.55   | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 02:14 | ZMC             | F2                    |
| Beryllium, Total            | ND             |             | mg/kg        | 0.55          | 0.18   | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 02:14 | ZMC             | F2                    |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412005**  
Sample ID: **CL-SAW-S-A1**

Date Collected: 2/17/2017 08:50 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.55  | 0.18  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:14 | ZMC | F2   |
| Chromium, Total | 2.2     |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:14 | ZMC | F2   |
| Copper, Total   | 0.96J   | J    | mg/kg | 2.8   | 0.89  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:14 | ZMC | F2   |
| Lead, Total     | 2.7     |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:14 | ZMC | F2   |
| Mercury, Total  | 0.021J  | J    | mg/kg | 0.049 | 0.016 | SW846 7471B | 2/22/17 11:55 AXC | 2/23/17 13:07 | MNP | F1   |
| Nickel, Total   | 1.6J    | J    | mg/kg | 2.8   | 0.89  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:14 | ZMC | F2   |
| Selenium, Total | ND      |      | mg/kg | 2.8   | 0.89  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:14 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:14 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.55  | 0.18  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:14 | ZMC | F2   |
| Zinc, Total     | 2.7J    | J    | mg/kg | 2.8   | 0.89  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:14 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412006**  
Sample ID: **CL-SAW-S-A2**

Date Collected: 2/17/2017 08:20 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 44.7           |             | mg/kg        | 11.6          | 2.7  | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 21:28 | BS              | F                     |
| Gasoline Range Organics       | 1980J          | J           | ug/kg        | 10800         | 1510 | SW846 8015D   | 2/17/17 08:20 DD  | 2/21/17 04:45 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 94.4           |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 21:28 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 116            |             | %            | 72 - 134      |      | SW846 8015D   | 2/17/17 08:20 DD  | 2/21/17 04:45 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | 101            |             | ug/kg        | 11.1          | 5.1  | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.2           | 0.66 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 11.1          | 3.9  | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.2           | 0.56 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Benzene                       | ND             |             | ug/kg        | 2.2           | 0.56 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 2.2           | 0.56 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.2           | 0.79 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 2.2           | 0.58 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 2.2           | 0.58 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| 2-Butanone                    | ND             |             | ug/kg        | 11.1          | 3.6  | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 11.1          | 3.9  | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.2           | 0.70 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.2           | 0.57 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.2           | 0.57 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.2           | 0.76 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 5.6           | 0.94 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 2.2           | 0.59 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 2.2           | 0.61 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 5.6           | 3.2  | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.2           | 0.60 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.2           | 0.56 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.2           | 0.56 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.2           | 0.58 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.2           | 0.56 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.2           | 0.58 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.2           | 0.67 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.2           | 0.61 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412006**  
Sample ID: **CL-SAW-S-A2**

Date Collected: 2/17/2017 08:20 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 2.2           | 0.64 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 2.2           | 0.56 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 2.2           | 0.58 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 2.2           | 0.76 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 11.1          | 3.1  | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 2.2           | 0.56 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 11.1          | 4.2  | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Methylene Chloride          | 14.2           | 1,2,3       | ug/kg        | 2.2           | 0.87 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 2.2           | 0.56 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.2           | 0.56 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.2           | 0.62 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.2           | 0.67 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.2           | 0.74 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 6.7           | 1.6  | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.2           | 0.69 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.2           | 0.62 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.2           | 0.56 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.2           | 0.56 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.2           | 0.64 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.4           | 0.92 | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 77.5           |             | %            | 56 - 124      |      | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 78.7           |             | %            | 51 - 128      |      | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Dibromofluoromethane (S)    | 93.9           |             | %            | 62 - 123      |      | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| Toluene-d8 (S)              | 79             |             | %            | 59 - 131      |      | SW846 8260B   | 2/17/17 08:20 SYB | 2/22/17 04:07 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 56.7          | 6.8  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 56.7          | 7.9  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| Acetophenone                | ND             | 4           | ug/kg        | 113           | 9.1  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 56.7          | 9.1  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 113           | 12.5 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 227           | 19.3 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| Benzo(a)anthracene          | ND             |             | ug/kg        | 56.7          | 5.7  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| Benzo(a)pyrene              | 5.5J           | J           | ug/kg        | 56.7          | 4.5  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| Benzo(b)fluoranthene        | 8.5J           | J           | ug/kg        | 56.7          | 5.7  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 56.7          | 5.7  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412006**  
Sample ID: **CL-SAW-S-A2**

Date Collected: 2/17/2017 08:20 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 56.7 | 5.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 113  | 7.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 113  | 10.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| Butylbenzylphthalate        | ND      |      | ug/kg | 113  | 7.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 227  | 20.4 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 113  | 7.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 227  | 11.3 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 227  | 13.6 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 113  | 10.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 113  | 14.7 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 113  | 17.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 113  | 6.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 227  | 9.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 113  | 9.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 56.7 | 5.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 227  | 9.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 227  | 12.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 113  | 9.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 113  | 7.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 56.7 | 6.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 113  | 9.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 227  | 43.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 227  | 9.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 113  | 9.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 227  | 17.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 113  | 7.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 227  | 45.4 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 113  | 10.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 113  | 13.6 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 113  | 55.6 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 113  | 7.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| Fluoranthene                | 11.7J   | J    | ug/kg | 56.7 | 5.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 56.7 | 6.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 113  | 12.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 113  | 11.3 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 227  | 12.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 113  | 10.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 56.7 | 7.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS | F    |



## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412006**  
Sample ID: **CL-SAW-S-A2**

Date Collected: 2/17/2017 08:20 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 113           | 6.8    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 227           | 29.5   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 113           | 5.7    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 56.7          | 6.8    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 227           | 13.6   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 227           | 22.7   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 227           | 9.1    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 113           | 13.6   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 227           | 12.5   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 227           | 15.9   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 113           | 9.1    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 113           | 9.1    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 227           | 29.5   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| Phenanthrene                   | 8.4J           | J           | ug/kg        | 56.7          | 5.7    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 227           | 11.3   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| Pyrene                         | 9.7J           | J           | ug/kg        | 56.7          | 5.7    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 113           | 7.9    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 227           | 13.6   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 227           | 13.6   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 227           | 13.6   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 82.9           |             | %            | 19 - 132      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 73.1           |             | %            | 40 - 110      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| 2-Fluorophenol (S)             | 67.6           |             | %            | 26 - 116      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 67.4           |             | %            | 38 - 112      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| Phenol-d5 (S)                  | 74.7           |             | %            | 35 - 111      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| Terphenyl-d14 (S)              | 76.4           |             | %            | 45 - 126      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 12:55 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.037         | 0.0034 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:05 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.037         | 0.0068 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:05 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.037         | 0.0034 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:05 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.037         | 0.0068 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:05 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.037         | 0.010  | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:05 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.037         | 0.0068 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:05 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.037         | 0.0068 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:05 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.037         | 0.0068 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:05 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.037         | 0.0079 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:05 | EGO             | F                     |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412006**  
Sample ID: **CL-SAW-S-A2**

Date Collected: 2/17/2017 08:20 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.037         | 0.010 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:05 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 80.9           |             | %            | 49 - 115      |       | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:05 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 91             |             | %            | 27 - 137      |       | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:05 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 9.6           | 3.1   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 9.6           | 0.84  | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 9.6           | 1.0   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 9.6           | 0.73  | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 9.6           | 0.79  | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 9.6           | 1.0   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 9.6           | 1.6   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 18.6          | 1.5   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| 4,4'-DDE                    | 5.4J           | J           | ug/kg        | 18.6          | 2.5   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| 4,4'-DDT                    | 8.4J           | J           | ug/kg        | 18.6          | 2.1   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 18.6          | 2.1   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 9.6           | 1.2   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 18.6          | 3.9   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 18.6          | 1.2   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 18.6          | 1.4   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 18.6          | 2.0   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 18.6          | 2.6   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 9.6           | 0.96  | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 9.6           | 0.96  | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 18.6          | 2.5   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 197           | 32.7  | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 70.1           |             | %            | 30 - 135      |       | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 61.8           |             | %            | 30 - 111      |       | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 17:44 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Moisture                    | 12.4           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/21/17 11:19 | VKB             | F                     |
| Total Solids                | 87.6           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/21/17 11:19 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.1           | 0.38  | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 02:18 | ZMC             | F2                    |
| Arsenic, Total              | 3.7            |             | mg/kg        | 1.7           | 0.57  | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 02:18 | ZMC             | F2                    |
| Beryllium, Total            | 0.21J          | J           | mg/kg        | 0.57          | 0.19  | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 02:18 | ZMC             | F2                    |



## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412006**  
Sample ID: **CL-SAW-S-A2**

Date Collected: 2/17/2017 08:20 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.57  | 0.19  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:18 | ZMC | F2   |
| Chromium, Total | 11.3    |      | mg/kg | 1.1   | 0.38  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:18 | ZMC | F2   |
| Copper, Total   | 8.4     |      | mg/kg | 2.9   | 0.91  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:18 | ZMC | F2   |
| Lead, Total     | 20.8    |      | mg/kg | 1.1   | 0.38  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:18 | ZMC | F2   |
| Mercury, Total  | ND      |      | mg/kg | 0.052 | 0.017 | SW846 7471B | 2/22/17 11:55 AXC | 2/23/17 13:11 | MNP | F1   |
| Nickel, Total   | 4.4     |      | mg/kg | 2.9   | 0.91  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:18 | ZMC | F2   |
| Selenium, Total | 0.98J   | J    | mg/kg | 2.9   | 0.91  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:18 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.38  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:18 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.57  | 0.19  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:18 | ZMC | F2   |
| Zinc, Total     | 97.7    |      | mg/kg | 2.9   | 0.91  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:18 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412007**  
Sample ID: **CL-SAW-S-B2**

Date Collected: 2/17/2017 09:00 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 595            |             | mg/kg        | 59.2          | 14.0 | SW846 8015D   | 2/23/17 02:00 VLM | 2/24/17 01:46 | BS              | F                     |
| Gasoline Range Organics       | 2050J          | J           | ug/kg        | 12300         | 1710 | SW846 8015D   | 2/17/17 09:00 DD  | 2/21/17 05:19 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 89.7           |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 02:00 VLM | 2/24/17 01:46 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 115            |             | %            | 72 - 134      |      | SW846 8015D   | 2/17/17 09:00 DD  | 2/21/17 05:19 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | 77.9           |             | ug/kg        | 12.4          | 5.7  | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.5           | 0.73 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 12.4          | 4.3  | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Benzene                       | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.5           | 0.88 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| 2-Butanone                    | ND             |             | ug/kg        | 12.4          | 4.0  | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 12.4          | 4.3  | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.5           | 0.78 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.5           | 0.63 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.5           | 0.63 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.5           | 0.84 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 6.2           | 1.1  | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 2.5           | 0.65 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 2.5           | 0.68 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 6.2           | 3.6  | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.5           | 0.67 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.5           | 0.74 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.5           | 0.68 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412007**  
Sample ID: **CL-SAW-S-B2**

Date Collected: 2/17/2017 09:00 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 2.5           | 0.72 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 2.5           | 0.64 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 2.5           | 0.84 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 12.4          | 3.5  | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 12.4          | 4.7  | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Methylene Chloride          | 15.4           | 1,2,3       | ug/kg        | 2.5           | 0.96 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.5           | 0.69 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.5           | 0.74 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.5           | 0.83 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 7.4           | 1.7  | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.5           | 0.77 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.5           | 0.69 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.5           | 0.62 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.5           | 0.72 | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.9           | 1.0  | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 78.2           |             | %            | 56 - 124      |      | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 85.2           |             | %            | 51 - 128      |      | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Dibromofluoromethane (S)    | 94.9           |             | %            | 62 - 123      |      | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| Toluene-d8 (S)              | 81.6           |             | %            | 59 - 131      |      | SW846 8260B   | 2/17/17 09:00 SYB | 2/22/17 04:30 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 56.2          | 6.7  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 56.2          | 7.9  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| Acetophenone                | ND             | 7           | ug/kg        | 112           | 9.0  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 56.2          | 9.0  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 112           | 12.4 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| Benzaldehyde                | 110J           | J,6         | ug/kg        | 225           | 19.1 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| Benzo(a)anthracene          | ND             |             | ug/kg        | 56.2          | 5.6  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 56.2          | 4.5  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| Benzo(b)fluoranthene        | ND             |             | ug/kg        | 56.2          | 5.6  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 56.2          | 5.6  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412007**  
Sample ID: **CL-SAW-S-B2**

Date Collected: 2/17/2017 09:00 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 56.2 | 5.6  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 112  | 7.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 112  | 10.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| Butylbenzylphthalate        | ND      |      | ug/kg | 112  | 7.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 225  | 20.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 112  | 7.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 225  | 11.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 225  | 13.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 112  | 10.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 112  | 14.6 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 112  | 16.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 112  | 6.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 225  | 9.0  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 112  | 9.0  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 56.2 | 5.6  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 225  | 9.0  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 225  | 12.4 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 112  | 9.0  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 112  | 7.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 56.2 | 6.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 112  | 9.0  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      | 14   | ug/kg | 225  | 42.7 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 225  | 9.0  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 112  | 9.0  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 225  | 16.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 112  | 7.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 225  | 45.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 112  | 10.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 112  | 13.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| 1,4-Dioxane                 | ND      | 5    | ug/kg | 112  | 55.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 112  | 7.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| Fluoranthene                | 5.8J    | J    | ug/kg | 56.2 | 5.6  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 56.2 | 6.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 112  | 12.4 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 112  | 11.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      | 9    | ug/kg | 225  | 12.4 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| Hexachloroethane            | ND      | 8    | ug/kg | 112  | 10.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 56.2 | 7.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412007**  
Sample ID: **CL-SAW-S-B2**

Date Collected: 2/17/2017 09:00 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 112           | 6.7    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 225           | 29.2   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 112           | 5.6    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 56.2          | 6.7    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 225           | 13.5   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| 3-Nitroaniline                 | ND             | 10          | ug/kg        | 225           | 22.5   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| 4-Nitroaniline                 | ND             | 13          | ug/kg        | 225           | 9.0    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 112           | 13.5   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 225           | 12.4   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| 4-Nitrophenol                  | ND             | 11          | ug/kg        | 225           | 15.7   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 112           | 9.0    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 112           | 9.0    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 225           | 29.2   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 56.2          | 5.6    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 225           | 11.2   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| Pyrene                         | ND             |             | ug/kg        | 56.2          | 5.6    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 112           | 7.9    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             | 12          | ug/kg        | 225           | 13.5   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 225           | 13.5   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 225           | 13.5   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 47.7           |             | %            | 19 - 132      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 42.1           |             | %            | 40 - 110      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| 2-Fluorophenol (S)             | 39.4           |             | %            | 26 - 116      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 40             |             | %            | 38 - 112      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| Phenol-d5 (S)                  | 44.1           |             | %            | 35 - 111      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| Terphenyl-d14 (S)              | 43.7           | 4           | %            | 45 - 126      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 13:20 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.037         | 0.0034 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:28 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:28 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.037         | 0.0034 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:28 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:28 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.037         | 0.010  | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:28 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:28 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:28 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:28 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.037         | 0.0078 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:28 | EGO             | F                     |



## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412007**  
Sample ID: **CL-SAW-S-B2**

Date Collected: 2/17/2017 09:00 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.037         | 0.010 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:28 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 89.4           |             | %            | 49 - 115      |       | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:28 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 95.5           |             | %            | 27 - 137      |       | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:28 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 9.5           | 3.1   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 9.5           | 0.84  | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 9.5           | 1.0   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 9.5           | 0.73  | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 9.5           | 0.78  | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 9.5           | 1.0   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 9.5           | 1.6   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 18.4          | 1.5   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 18.4          | 2.5   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 18.4          | 2.1   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 18.4          | 2.1   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 9.5           | 1.2   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 18.4          | 3.9   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 18.4          | 1.2   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 18.4          | 1.3   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 18.4          | 2.0   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 18.4          | 2.6   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 9.5           | 0.95  | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 9.5           | 0.95  | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 18.4          | 2.5   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 195           | 32.4  | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 61.6           |             | %            | 30 - 135      |       | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 54.8           |             | %            | 30 - 111      |       | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:15 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Moisture                    | 12.2           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/21/17 11:19 | VKB             | F                     |
| Total Solids                | 87.8           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/21/17 11:19 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.1           | 0.38  | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 02:22 | ZMC             | F2                    |
| Arsenic, Total              | 1.1J           | J           | mg/kg        | 1.7           | 0.57  | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 02:22 | ZMC             | F2                    |
| Beryllium, Total            | ND             |             | mg/kg        | 0.57          | 0.19  | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 02:22 | ZMC             | F2                    |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412007**  
Sample ID: **CL-SAW-S-B2**

Date Collected: 2/17/2017 09:00 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.57  | 0.19  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:22 | ZMC | F2   |
| Chromium, Total | 1.5     |      | mg/kg | 1.1   | 0.38  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:22 | ZMC | F2   |
| Copper, Total   | 1.7J    | J    | mg/kg | 2.8   | 0.91  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:22 | ZMC | F2   |
| Lead, Total     | 3.1     |      | mg/kg | 1.1   | 0.38  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:22 | ZMC | F2   |
| Mercury, Total  | 0.034J  | J    | mg/kg | 0.054 | 0.017 | SW846 7471B | 2/22/17 11:55 AXC | 2/23/17 13:12 | MNP | F1   |
| Nickel, Total   | ND      |      | mg/kg | 2.8   | 0.91  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:22 | ZMC | F2   |
| Selenium, Total | ND      |      | mg/kg | 2.8   | 0.91  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:22 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.38  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:22 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.57  | 0.19  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:22 | ZMC | F2   |
| Zinc, Total     | 1.7J    | J    | mg/kg | 2.8   | 0.91  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:22 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator



## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412008**  
Sample ID: **CL-SAW-S-C1**

Date Collected: 2/17/2017 09:50 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 147            |             | mg/kg        | 11.9          | 2.8  | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 22:41 | BS              | F                     |
| Gasoline Range Organics       | 50600          |             | ug/kg        | 10500         | 1450 | SW846 8015D   | 2/17/17 09:50 DD  | 2/21/17 05:53 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 87.7           |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 22:41 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 112            |             | %            | 72 - 134      |      | SW846 8015D   | 2/17/17 09:50 DD  | 2/21/17 05:53 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | 177            |             | ug/kg        | 10.6          | 4.9  | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.1           | 0.63 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 10.6          | 3.7  | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Benzene                       | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.1           | 0.76 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| 2-Butanone                    | 5.4J           | J           | ug/kg        | 10.6          | 3.4  | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 10.6          | 3.7  | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.1           | 0.67 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.1           | 0.54 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.1           | 0.54 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.1           | 0.72 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 5.3           | 0.90 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 2.1           | 0.56 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 2.1           | 0.58 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 5.3           | 3.1  | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.1           | 0.57 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.1           | 0.64 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.1           | 0.58 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412008**  
Sample ID: **CL-SAW-S-C1**

Date Collected: 2/17/2017 09:50 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 2.1           | 0.62 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 2.1           | 0.55 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 2.1           | 0.72 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 10.6          | 3.0  | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 10.6          | 4.0  | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Methylene Chloride          | 17.5           | 1,2,3       | ug/kg        | 2.1           | 0.83 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.1           | 0.60 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.1           | 0.64 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Toluene                     | 2.6            |             | ug/kg        | 2.1           | 0.71 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 6.4           | 1.5  | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.1           | 0.66 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.1           | 0.60 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.1           | 0.62 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.3           | 0.88 | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 76             |             | %            | 56 - 124      |      | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 82             |             | %            | 51 - 128      |      | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Dibromofluoromethane (S)    | 94.1           |             | %            | 62 - 123      |      | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| Toluene-d8 (S)              | 80.5           |             | %            | 59 - 131      |      | SW846 8260B   | 2/17/17 09:50 SYB | 2/22/17 04:53 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 57.9          | 6.9  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 57.9          | 8.1  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| Acetophenone                | ND             | 4           | ug/kg        | 116           | 9.3  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 57.9          | 9.3  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 116           | 12.7 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 231           | 19.7 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| Benzo(a)anthracene          | 13.6J          | J           | ug/kg        | 57.9          | 5.8  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| Benzo(a)pyrene              | 9.9J           | J           | ug/kg        | 57.9          | 4.6  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| Benzo(b)fluoranthene        | 14.4J          | J           | ug/kg        | 57.9          | 5.8  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| Benzo(g,h,i)perylene        | 6.5J           | J           | ug/kg        | 57.9          | 5.8  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412008**  
Sample ID: **CL-SAW-S-C1**

Date Collected: 2/17/2017 09:50 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 57.9 | 5.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 116  | 8.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 116  | 10.4 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| Butylbenzylphthalate        | 9.3J    | J    | ug/kg | 116  | 8.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 231  | 20.8 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 116  | 8.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 231  | 11.6 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 231  | 13.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 116  | 10.4 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 116  | 15.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 116  | 17.4 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 116  | 6.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 231  | 9.3  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 116  | 9.3  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| Chrysene                    | 8.1J    | J    | ug/kg | 57.9 | 5.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 231  | 9.3  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 231  | 12.7 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 116  | 9.3  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 116  | 8.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 57.9 | 6.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 116  | 9.3  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 231  | 44.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 231  | 9.3  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 116  | 9.3  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 231  | 17.4 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 116  | 8.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 231  | 46.3 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 116  | 10.4 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 116  | 13.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 116  | 56.7 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | 14.5J   | J    | ug/kg | 116  | 8.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| Fluoranthene                | 14.4J   | J    | ug/kg | 57.9 | 5.8  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 57.9 | 6.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 116  | 12.7 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 116  | 11.6 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 231  | 12.7 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 116  | 10.4 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 57.9 | 8.1  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412008**  
Sample ID: **CL-SAW-S-C1**

Date Collected: 2/17/2017 09:50 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 116           | 6.9    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 231           | 30.1   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 116           | 5.8    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 57.9          | 6.9    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 231           | 13.9   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 231           | 23.1   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 231           | 9.3    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 116           | 13.9   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 231           | 12.7   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 231           | 16.2   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 116           | 9.3    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 116           | 9.3    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 231           | 30.1   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| Phenanthrene                   | 7.7J           | J           | ug/kg        | 57.9          | 5.8    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| Phenol                         | 29.5J          | J           | ug/kg        | 231           | 11.6   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| Pyrene                         | 13.4J          | J           | ug/kg        | 57.9          | 5.8    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 116           | 8.1    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 231           | 13.9   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 231           | 13.9   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 231           | 13.9   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 77.2           |             | %            | 19 - 132      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 67.3           |             | %            | 40 - 110      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| 2-Fluorophenol (S)             | 62.6           |             | %            | 26 - 116      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 63.4           |             | %            | 38 - 112      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| Phenol-d5 (S)                  | 71.7           |             | %            | 35 - 111      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| Terphenyl-d14 (S)              | 68.7           |             | %            | 45 - 126      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:11 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.037         | 0.0033 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:40 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:40 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.037         | 0.0033 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:40 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:40 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.037         | 0.010  | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:40 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:40 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:40 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.037         | 0.0067 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:40 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.037         | 0.0078 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:40 | EGO             | F                     |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412008**  
Sample ID: **CL-SAW-S-C1**

Date Collected: 2/17/2017 09:50 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.037         | 0.010 | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:40 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 95.8           |             | %            | 49 - 115      |       | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:40 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 99.3           |             | %            | 27 - 137      |       | SW846 8082A   | 2/23/17 10:05 JTH | 2/24/17 04:40 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 9.5           | 3.1   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 9.5           | 0.83  | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 9.5           | 1.0   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 9.5           | 0.72  | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 9.5           | 0.78  | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 9.5           | 1.0   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 9.5           | 1.6   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 18.4          | 1.5   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 18.4          | 2.5   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 18.4          | 2.1   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 18.4          | 2.1   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 9.5           | 1.2   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 18.4          | 3.8   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 18.4          | 1.2   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 18.4          | 1.3   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 18.4          | 2.0   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 18.4          | 2.6   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 9.5           | 0.95  | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 9.5           | 0.95  | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 18.4          | 2.4   | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 195           | 32.3  | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 80.3           |             | %            | 30 - 135      |       | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 65.4           |             | %            | 30 - 111      |       | SW846 8081B   | 2/23/17 10:05 JTH | 2/24/17 18:31 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Moisture                    | 13.6           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/21/17 11:19 | VKB             | F                     |
| Total Solids                | 86.4           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/21/17 11:19 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.1           | 0.37  | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 02:26 | ZMC             | F2                    |
| Arsenic, Total              | 4.1            |             | mg/kg        | 1.7           | 0.56  | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 02:26 | ZMC             | F2                    |
| Beryllium, Total            | 0.30J          | J           | mg/kg        | 0.56          | 0.18  | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 02:26 | ZMC             | F2                    |



## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412008**  
Sample ID: **CL-SAW-S-C1**

Date Collected: 2/17/2017 09:50 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.56  | 0.18  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:26 | ZMC | F2   |
| Chromium, Total | 12.6    |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:26 | ZMC | F2   |
| Copper, Total   | 7.1     |      | mg/kg | 2.8   | 0.89  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:26 | ZMC | F2   |
| Lead, Total     | 44.1    |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:26 | ZMC | F2   |
| Mercury, Total  | 0.033J  | J    | mg/kg | 0.050 | 0.016 | SW846 7471B | 2/22/17 11:55 AXC | 2/23/17 13:15 | MNP | F1   |
| Nickel, Total   | 4.8     |      | mg/kg | 2.8   | 0.89  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:26 | ZMC | F2   |
| Selenium, Total | 1.1J    | J    | mg/kg | 2.8   | 0.89  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:26 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.37  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:26 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.56  | 0.18  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:26 | ZMC | F2   |
| Zinc, Total     | 22.0    |      | mg/kg | 2.8   | 0.89  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 02:26 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412009**  
Sample ID: **CL-SAW-S-C2**

Date Collected: 2/17/2017 09:15 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 101            |             | mg/kg        | 11.4          | 2.7  | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 23:20 | BS              | F                     |
| Gasoline Range Organics       | 4800J          | J           | ug/kg        | 9990          | 1390 | SW846 8015D   | 2/17/17 09:15 DD  | 2/21/17 06:26 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 89.9           |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 02:00 VLM | 2/23/17 23:20 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 111            |             | %            | 72 - 134      |      | SW846 8015D   | 2/17/17 09:15 DD  | 2/21/17 06:26 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | 80.8           |             | ug/kg        | 10.7          | 4.9  | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.1           | 0.63 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 10.7          | 3.7  | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Benzene                       | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.1           | 0.76 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 2.1           | 0.56 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 2.1           | 0.56 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| 2-Butanone                    | ND             |             | ug/kg        | 10.7          | 3.4  | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 10.7          | 3.7  | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.1           | 0.67 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.1           | 0.54 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.1           | 0.54 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.1           | 0.73 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 5.3           | 0.91 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 2.1           | 0.57 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 2.1           | 0.59 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 5.3           | 3.1  | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.1           | 0.58 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.1           | 0.56 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.1           | 0.56 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.1           | 0.64 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.1           | 0.59 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |



## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412009**  
Sample ID: **CL-SAW-S-C2**

Date Collected: 2/17/2017 09:15 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 2.1           | 0.62 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 2.1           | 0.56 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 2.1           | 0.73 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 10.7          | 3.0  | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 10.7          | 4.1  | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Methylene Chloride          | 15.8           | 1,2,3       | ug/kg        | 2.1           | 0.83 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.1           | 0.60 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.1           | 0.64 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.1           | 0.72 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 6.4           | 1.5  | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.1           | 0.66 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.1           | 0.60 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.1           | 0.53 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.1           | 0.62 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.3           | 0.89 | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 76.1           |             | %            | 56 - 124      |      | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 82.1           |             | %            | 51 - 128      |      | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Dibromofluoromethane (S)    | 92.8           |             | %            | 62 - 123      |      | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| Toluene-d8 (S)              | 80.2           |             | %            | 59 - 131      |      | SW846 8260B   | 2/17/17 09:15 SYB | 2/22/17 05:17 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 54.8          | 6.6  | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 54.8          | 7.7  | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| Acetophenone                | ND             | 4           | ug/kg        | 110           | 8.8  | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 54.8          | 8.8  | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 110           | 12.0 | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 219           | 18.6 | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| Benzo(a)anthracene          | 16.3J          | J           | ug/kg        | 54.8          | 5.5  | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| Benzo(a)pyrene              | 12.6J          | J           | ug/kg        | 54.8          | 4.4  | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| Benzo(b)fluoranthene        | 14.3J          | J           | ug/kg        | 54.8          | 5.5  | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| Benzo(g,h,i)perylene        | 12.8J          | J           | ug/kg        | 54.8          | 5.5  | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412009**  
Sample ID: **CL-SAW-S-C2**

Date Collected: 2/17/2017 09:15 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | 9.4J    | J    | ug/kg | 54.8 | 5.5  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 110  | 7.7  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 110  | 9.9  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| Butylbenzylphthalate        | 10.8J   | J    | ug/kg | 110  | 7.7  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 219  | 19.7 | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 110  | 7.7  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 219  | 11.0 | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 219  | 13.1 | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 110  | 9.9  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 110  | 14.2 | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 110  | 16.4 | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 110  | 6.6  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 219  | 8.8  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 110  | 8.8  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| Chrysene                    | 10.5J   | J    | ug/kg | 54.8 | 5.5  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 219  | 8.8  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 219  | 12.0 | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 110  | 8.8  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| Di-n-Octylphthalate         | 13.3J   | J    | ug/kg | 110  | 7.7  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 54.8 | 6.6  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 110  | 8.8  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 219  | 41.6 | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 219  | 8.8  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 110  | 8.8  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 219  | 16.4 | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 110  | 7.7  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 219  | 43.8 | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 110  | 9.9  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 110  | 13.1 | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 110  | 53.7 | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 110  | 7.7  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| Fluoranthene                | ND      |      | ug/kg | 54.8 | 5.5  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 54.8 | 6.6  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 110  | 12.0 | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 110  | 11.0 | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 219  | 12.0 | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 110  | 9.9  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | 10.8J   | J    | ug/kg | 54.8 | 7.7  | SW846 8270D | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412009**  
Sample ID: **CL-SAW-S-C2**

Date Collected: 2/17/2017 09:15 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 110           | 6.6    | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 219           | 28.5   | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 110           | 5.5    | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 54.8          | 6.6    | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 219           | 13.1   | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 219           | 21.9   | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 219           | 8.8    | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 110           | 13.1   | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 219           | 12.0   | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 219           | 15.3   | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 110           | 8.8    | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 110           | 8.8    | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 219           | 28.5   | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 54.8          | 5.5    | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 219           | 11.0   | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| Pyrene                         | 23.3J          | J           | ug/kg        | 54.8          | 5.5    | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 110           | 7.7    | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 219           | 13.1   | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 219           | 13.1   | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 219           | 13.1   | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 81.1           |             | %            | 19 - 132      |        | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 71.9           |             | %            | 40 - 110      |        | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| 2-Fluorophenol (S)             | 67.2           |             | %            | 26 - 116      |        | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 68.8           |             | %            | 38 - 112      |        | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| Phenol-d5 (S)                  | 68.8           |             | %            | 35 - 111      |        | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| Terphenyl-d14 (S)              | 68             |             | %            | 45 - 126      |        | SW846 8270D   | 2/23/17 23:25 CMA | 2/24/17 18:23 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.036         | 0.0033 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:47 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:47 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.036         | 0.0033 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:47 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:47 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.036         | 0.0098 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:47 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:47 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:47 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.036         | 0.0065 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:47 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.036         | 0.0076 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:47 | EGO             | F                     |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412009**  
Sample ID: **CL-SAW-S-C2**

Date Collected: 2/17/2017 09:15 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.036         | 0.0098 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:47 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 73.1           |             | %            | 49 - 115      |        | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:47 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 89.1           |             | %            | 27 - 137      |        | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:47 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |        |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 9.2           | 3.0    | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 9.2           | 0.82   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 9.2           | 0.98   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 9.2           | 0.71   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 9.2           | 0.76   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 9.2           | 0.98   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 9.2           | 1.6    | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 18.0          | 1.5    | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 18.0          | 2.4    | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 18.0          | 2.1    | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 18.0          | 2.1    | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 9.2           | 1.1    | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 18.0          | 3.8    | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 18.0          | 1.2    | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 18.0          | 1.3    | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 18.0          | 2.0    | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 18.0          | 2.5    | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 9.2           | 0.92   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 9.2           | 0.92   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 18.0          | 2.4    | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 190           | 31.6   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 59.4           |             | %            | 30 - 135      |        | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 61.8           |             | %            | 30 - 111      |        | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 15:24 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |        |               |                   |               |                 |                       |
| Moisture                    | 12.2           |             | %            | 0.1           | 0.01   | S2540G-11     |                   | 2/21/17 11:19 | VKB             | F                     |
| Total Solids                | 87.8           |             | %            | 0.1           | 0.01   | S2540G-11     |                   | 2/21/17 11:19 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |        |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.1           | 0.35   | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 03:31 | ZMC             | F2                    |
| Arsenic, Total              | 2.3            |             | mg/kg        | 1.6           | 0.54   | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 03:31 | ZMC             | F2                    |
| Beryllium, Total            | ND             |             | mg/kg        | 0.54          | 0.18   | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 03:31 | ZMC             | F2                    |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412009**  
Sample ID: **CL-SAW-S-C2**

Date Collected: 2/17/2017 09:15 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.54  | 0.18  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:31 | ZMC | F2   |
| Chromium, Total | 5.0     |      | mg/kg | 1.1   | 0.35  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:31 | ZMC | F2   |
| Copper, Total   | 3.2     |      | mg/kg | 2.7   | 0.86  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:31 | ZMC | F2   |
| Lead, Total     | 19.1    |      | mg/kg | 1.1   | 0.35  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:31 | ZMC | F2   |
| Mercury, Total  | 0.035J  | J    | mg/kg | 0.049 | 0.016 | SW846 7471B | 2/22/17 11:55 AXC | 2/23/17 13:16 | MNP | F1   |
| Nickel, Total   | 1.7J    | J    | mg/kg | 2.7   | 0.86  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:31 | ZMC | F2   |
| Selenium, Total | ND      |      | mg/kg | 2.7   | 0.86  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:31 | ZMC | F2   |
| Silver, Total   | ND      |      | mg/kg | 1.1   | 0.35  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:31 | ZMC | F2   |
| Thallium, Total | ND      |      | mg/kg | 0.54  | 0.18  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:31 | ZMC | F2   |
| Zinc, Total     | 6.7     |      | mg/kg | 2.7   | 0.86  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:31 | ZMC | F2   |

  
Ms. Susan J Scherer  
Project Coordinator



## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412010**  
Sample ID: **CL-ISM-S-A1**

Date Collected: 2/17/2017 10:30 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 28.6           |             | mg/kg        | 12.1          | 2.8  | SW846 8015D   | 2/23/17 15:20 JTH | 2/24/17 16:24 | EGO             | F                     |
| Gasoline Range Organics       | 2840J          | J           | ug/kg        | 10200         | 1420 | SW846 8015D   | 2/17/17 10:30 DD  | 2/21/17 07:00 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 81.4           |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 15:20 JTH | 2/24/17 16:24 | EGO             | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 114            |             | %            | 72 - 134      |      | SW846 8015D   | 2/17/17 10:30 DD  | 2/21/17 07:00 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | 30.2           |             | ug/kg        | 9.6           | 4.4  | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 1.9           | 0.57 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 9.6           | 3.4  | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Benzene                       | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 1.9           | 0.68 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 1.9           | 0.50 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 1.9           | 0.50 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| 2-Butanone                    | ND             |             | ug/kg        | 9.6           | 3.1  | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 9.6           | 3.4  | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 1.9           | 0.61 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 1.9           | 0.49 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 1.9           | 0.49 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 1.9           | 0.66 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 4.8           | 0.82 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 1.9           | 0.51 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 1.9           | 0.53 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 4.8           | 2.8  | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 1.9           | 0.52 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 1.9           | 0.50 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 1.9           | 0.50 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 1.9           | 0.58 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 1.9           | 0.53 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412010**  
Sample ID: **CL-ISM-S-A1**

Date Collected: 2/17/2017 10:30 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 1.9           | 0.56 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 1.9           | 0.50 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 1.9           | 0.66 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 9.6           | 2.7  | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 9.6           | 3.7  | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Methylene Chloride          | 8.5            | 1,2,3       | ug/kg        | 1.9           | 0.75 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 1.9           | 0.54 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 1.9           | 0.58 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 1.9           | 0.65 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 5.8           | 1.3  | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 1.9           | 0.60 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 1.9           | 0.54 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 1.9           | 0.48 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 1.9           | 0.56 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 3.9           | 0.80 | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 76.6           |             | %            | 56 - 124      |      | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 80.6           |             | %            | 51 - 128      |      | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Dibromofluoromethane (S)    | 94.6           |             | %            | 62 - 123      |      | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| Toluene-d8 (S)              | 81             |             | %            | 59 - 131      |      | SW846 8260B   | 2/17/17 10:30 SYB | 2/22/17 05:40 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 57.3          | 6.9  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 57.3          | 8.0  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| Acetophenone                | ND             | 4           | ug/kg        | 115           | 9.2  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 57.3          | 9.2  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 115           | 12.6 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 229           | 19.5 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| Benzo(a)anthracene          | ND             |             | ug/kg        | 57.3          | 5.7  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 57.3          | 4.6  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| Benzo(b)fluoranthene        | 5.8J           | J           | ug/kg        | 57.3          | 5.7  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 57.3          | 5.7  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |



## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412010**  
Sample ID: **CL-ISM-S-A1**

Date Collected: 2/17/2017 10:30 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 57.3 | 5.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 115  | 8.0  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 115  | 10.3 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| Butylbenzylphthalate        | ND      |      | ug/kg | 115  | 8.0  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 229  | 20.6 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 115  | 8.0  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 229  | 11.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 229  | 13.7 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 115  | 10.3 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 115  | 14.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 115  | 17.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 115  | 6.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 229  | 9.2  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 115  | 9.2  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| Chrysene                    | ND      |      | ug/kg | 57.3 | 5.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 229  | 9.2  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 229  | 12.6 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 115  | 9.2  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 115  | 8.0  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 57.3 | 6.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 115  | 9.2  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 229  | 43.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 229  | 9.2  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 115  | 9.2  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 229  | 17.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 115  | 8.0  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 229  | 45.8 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 115  | 10.3 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 115  | 13.7 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 115  | 56.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 115  | 8.0  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| Fluoranthene                | 7.3J    | J    | ug/kg | 57.3 | 5.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 57.3 | 6.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 115  | 12.6 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 115  | 11.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 229  | 12.6 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 115  | 10.3 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 57.3 | 8.0  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412010**  
Sample ID: **CL-ISM-S-A1**

Date Collected: 2/17/2017 10:30 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 115           | 6.9    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 229           | 29.8   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 115           | 5.7    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 57.3          | 6.9    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 229           | 13.7   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 229           | 22.9   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 229           | 9.2    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 115           | 13.7   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 229           | 12.6   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 229           | 16.0   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 115           | 9.2    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 115           | 9.2    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 229           | 29.8   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| Phenanthrene                   | ND             |             | ug/kg        | 57.3          | 5.7    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| Phenol                         | ND             |             | ug/kg        | 229           | 11.5   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| Pyrene                         | 6.3J           | J           | ug/kg        | 57.3          | 5.7    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 115           | 8.0    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 229           | 13.7   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 229           | 13.7   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 229           | 13.7   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 88             |             | %            | 19 - 132      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 78.8           |             | %            | 40 - 110      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| 2-Fluorophenol (S)             | 73.1           |             | %            | 26 - 116      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 71.7           |             | %            | 38 - 112      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| Phenol-d5 (S)                  | 81.7           |             | %            | 35 - 111      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| Terphenyl-d14 (S)              | 77.9           |             | %            | 45 - 126      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 14:37 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.038         | 0.0035 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:59 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.038         | 0.0069 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:59 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.038         | 0.0035 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:59 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.038         | 0.0069 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:59 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.038         | 0.010  | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:59 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.038         | 0.0069 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:59 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.038         | 0.0069 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:59 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.038         | 0.0069 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:59 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.038         | 0.0081 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:59 | EGO             | F                     |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412010**  
Sample ID: **CL-ISM-S-A1**

Date Collected: 2/17/2017 10:30 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.038         | 0.010 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:59 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 70.7           |             | %            | 49 - 115      |       | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:59 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 83.9           |             | %            | 27 - 137      |       | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 06:59 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 9.8           | 3.2   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 9.8           | 0.86  | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 9.8           | 1.0   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 9.8           | 0.75  | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 9.8           | 0.81  | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 9.8           | 1.0   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 9.8           | 1.7   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 19.0          | 1.6   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 19.0          | 2.6   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 19.0          | 2.2   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 19.0          | 2.2   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 9.8           | 1.2   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 19.0          | 4.0   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 19.0          | 1.3   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 19.0          | 1.4   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 19.0          | 2.1   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 19.0          | 2.7   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 9.8           | 0.98  | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 9.8           | 0.98  | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 19.0          | 2.5   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 202           | 33.4  | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 65.3           |             | %            | 30 - 135      |       | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 56.9           |             | %            | 30 - 111      |       | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:11 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Moisture                    | 16.6           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/21/17 11:19 | VKB             | F                     |
| Total Solids                | 83.4           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/21/17 11:19 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |
| Antimony, Total             | ND             |             | mg/kg        | 1.2           | 0.40  | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 03:35 | ZMC             | F1                    |
| Arsenic, Total              | 3.0            |             | mg/kg        | 1.8           | 0.60  | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 03:35 | ZMC             | F1                    |
| Beryllium, Total            | 0.23J          | J           | mg/kg        | 0.60          | 0.20  | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 03:35 | ZMC             | F1                    |

**ANALYTICAL RESULTS**

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412010**  
Sample ID: **CL-ISM-S-A1**Date Collected: 2/17/2017 10:30 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.60  | 0.20  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:35 | ZMC | F1   |
| Chromium, Total | 9.4     |      | mg/kg | 1.2   | 0.40  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:35 | ZMC | F1   |
| Copper, Total   | 5.1     |      | mg/kg | 3.0   | 0.96  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:35 | ZMC | F1   |
| Lead, Total     | 27.5    |      | mg/kg | 1.2   | 0.40  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:35 | ZMC | F1   |
| Mercury, Total  | 0.035J  | J    | mg/kg | 0.056 | 0.018 | SW846 7471B | 2/24/17 08:00 MNP | 2/24/17 10:59 | MNP | F2   |
| Nickel, Total   | 2.6J    | J    | mg/kg | 3.0   | 0.96  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:35 | ZMC | F1   |
| Selenium, Total | ND      |      | mg/kg | 3.0   | 0.96  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:35 | ZMC | F1   |
| Silver, Total   | ND      |      | mg/kg | 1.2   | 0.40  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:35 | ZMC | F1   |
| Thallium, Total | ND      |      | mg/kg | 0.60  | 0.20  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:35 | ZMC | F1   |
| Zinc, Total     | 10.6    |      | mg/kg | 3.0   | 0.96  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:35 | ZMC | F1   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412011**  
Sample ID: **CL-ISM-S-B5**

Date Collected: 2/17/2017 10:00 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 47.8           |             | mg/kg        | 13.3          | 3.1  | SW846 8015D   | 2/23/17 15:20 JTH | 2/24/17 17:00 | EGO             | F                     |
| Gasoline Range Organics       | 5320J          | J           | ug/kg        | 11900         | 1650 | SW846 8015D   | 2/17/17 10:00 DD  | 2/21/17 07:33 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 79.8           |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 15:20 JTH | 2/24/17 17:00 | EGO             | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 117            |             | %            | 72 - 134      |      | SW846 8015D   | 2/17/17 10:00 DD  | 2/21/17 07:33 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | 15.8           |             | ug/kg        | 11.3          | 5.2  | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.3           | 0.67 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 11.3          | 4.0  | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Benzene                       | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.3           | 0.80 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 2.3           | 0.59 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 2.3           | 0.59 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| 2-Butanone                    | ND             |             | ug/kg        | 11.3          | 3.6  | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 11.3          | 4.0  | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.3           | 0.71 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.3           | 0.58 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.3           | 0.58 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.3           | 0.77 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 5.7           | 0.96 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 2.3           | 0.60 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 2.3           | 0.62 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 5.7           | 3.3  | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.3           | 0.61 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.3           | 0.59 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.3           | 0.59 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.3           | 0.68 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.3           | 0.62 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |



## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412011**  
Sample ID: **CL-ISM-S-B5**

Date Collected: 2/17/2017 10:00 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 2.3           | 0.66 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 2.3           | 0.59 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 2.3           | 0.77 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 11.3          | 3.2  | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 11.3          | 4.3  | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Methylene Chloride          | 13.9           | 1,2,3       | ug/kg        | 2.3           | 0.88 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.3           | 0.63 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.3           | 0.68 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.3           | 0.76 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 6.8           | 1.6  | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.3           | 0.70 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.3           | 0.63 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.3           | 0.66 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.5           | 0.94 | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 78.6           |             | %            | 56 - 124      |      | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 80.9           |             | %            | 51 - 128      |      | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Dibromofluoromethane (S)    | 92.5           |             | %            | 62 - 123      |      | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| Toluene-d8 (S)              | 80.8           |             | %            | 59 - 131      |      | SW846 8260B   | 2/17/17 10:00 SYB | 2/22/17 06:03 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 62.1          | 7.5  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 62.1          | 8.7  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| Acetophenone                | ND             | 4           | ug/kg        | 124           | 9.9  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 62.1          | 9.9  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 124           | 13.7 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 249           | 21.1 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| Benzo(a)anthracene          | 17.9J          | J           | ug/kg        | 62.1          | 6.2  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| Benzo(a)pyrene              | 8.6J           | J           | ug/kg        | 62.1          | 5.0  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| Benzo(b)fluoranthene        | 15.8J          | J           | ug/kg        | 62.1          | 6.2  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| Benzo(g,h,i)perylene        | ND             |             | ug/kg        | 62.1          | 6.2  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412011**  
Sample ID: **CL-ISM-S-B5**

Date Collected: 2/17/2017 10:00 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 62.1 | 6.2  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 124  | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 124  | 11.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| Butylbenzylphthalate        | 9.2J    | J    | ug/kg | 124  | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 249  | 22.4 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 124  | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 249  | 12.4 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 249  | 14.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 124  | 11.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 124  | 16.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 124  | 18.6 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 124  | 7.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 249  | 9.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 124  | 9.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| Chrysene                    | 7.3J    | J    | ug/kg | 62.1 | 6.2  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 249  | 9.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 249  | 13.7 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| Di-n-Butylphthalate         | 10J     | J    | ug/kg | 124  | 9.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 124  | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 62.1 | 7.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 124  | 9.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 249  | 47.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 249  | 9.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 124  | 9.9  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 249  | 18.6 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 124  | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 249  | 49.7 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 124  | 11.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 124  | 14.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 124  | 60.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | 9.4J    | J    | ug/kg | 124  | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| Fluoranthene                | 16.5J   | J    | ug/kg | 62.1 | 6.2  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 62.1 | 7.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 124  | 13.7 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 124  | 12.4 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 249  | 13.7 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 124  | 11.2 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 62.1 | 8.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS | F    |



## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412011**  
Sample ID: **CL-ISM-S-B5**

Date Collected: 2/17/2017 10:00 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                     | Results        | Flag        | Units        | RDL           | MDL    | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|--------------------------------|----------------|-------------|--------------|---------------|--------|---------------|-------------------|---------------|-----------------|-----------------------|
| Isophorone                     | ND             |             | ug/kg        | 124           | 7.5    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| 2-Methyl-4,6-dinitrophenol     | ND             |             | ug/kg        | 249           | 32.3   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| 2-Methylnaphthalene            | ND             |             | ug/kg        | 124           | 6.2    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| Naphthalene                    | ND             |             | ug/kg        | 62.1          | 7.5    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| 2-Nitroaniline                 | ND             |             | ug/kg        | 249           | 14.9   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| 3-Nitroaniline                 | ND             |             | ug/kg        | 249           | 24.9   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| 4-Nitroaniline                 | ND             |             | ug/kg        | 249           | 9.9    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| Nitrobenzene                   | ND             |             | ug/kg        | 124           | 14.9   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| 2-Nitrophenol                  | ND             |             | ug/kg        | 249           | 13.7   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| 4-Nitrophenol                  | ND             |             | ug/kg        | 249           | 17.4   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| N-Nitroso-di-n-propylamine     | ND             |             | ug/kg        | 124           | 9.9    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| N-Nitrosodiphenylamine         | ND             |             | ug/kg        | 124           | 9.9    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| Pentachlorophenol              | ND             |             | ug/kg        | 249           | 32.3   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| Phenanthrene                   | 11.1J          | J           | ug/kg        | 62.1          | 6.2    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| Phenol                         | 33.4J          | J           | ug/kg        | 249           | 12.4   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| Pyrene                         | 15.3J          | J           | ug/kg        | 62.1          | 6.2    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| 1,2,4,5-Tetrachlorobenzene     | ND             |             | ug/kg        | 124           | 8.7    | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| 2,3,4,6-Tetrachlorophenol      | ND             |             | ug/kg        | 249           | 14.9   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| 2,4,5-Trichlorophenol          | ND             |             | ug/kg        | 249           | 14.9   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| 2,4,6-Trichlorophenol          | ND             |             | ug/kg        | 249           | 14.9   | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| <i>Surrogate Recoveries</i>    | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |        | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 2,4,6-Tribromophenol (S)       | 90             |             | %            | 19 - 132      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| 2-Fluorobiphenyl (S)           | 79.4           |             | %            | 40 - 110      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| 2-Fluorophenol (S)             | 74.9           |             | %            | 26 - 116      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| Nitrobenzene-d5 (S)            | 76             |             | %            | 38 - 112      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| Phenol-d5 (S)                  | 82.4           |             | %            | 35 - 111      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| Terphenyl-d14 (S)              | 78.4           |             | %            | 45 - 126      |        | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:03 | CGS             | F                     |
| <b>PCBs</b>                    |                |             |              |               |        |               |                   |               |                 |                       |
| Total Polychlorinated Biphenyl | ND             |             | mg/kg        | 0.042         | 0.0038 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 07:10 | EGO             | F                     |
| Aroclor-1016                   | ND             |             | mg/kg        | 0.042         | 0.0076 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 07:10 | EGO             | F                     |
| Aroclor-1221                   | ND             |             | mg/kg        | 0.042         | 0.0038 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 07:10 | EGO             | F                     |
| Aroclor-1232                   | ND             |             | mg/kg        | 0.042         | 0.0076 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 07:10 | EGO             | F                     |
| Aroclor-1242                   | ND             |             | mg/kg        | 0.042         | 0.011  | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 07:10 | EGO             | F                     |
| Aroclor-1248                   | ND             |             | mg/kg        | 0.042         | 0.0076 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 07:10 | EGO             | F                     |
| Aroclor-1254                   | ND             |             | mg/kg        | 0.042         | 0.0076 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 07:10 | EGO             | F                     |
| Aroclor-1260                   | ND             |             | mg/kg        | 0.042         | 0.0076 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 07:10 | EGO             | F                     |
| Aroclor-1262                   | ND             |             | mg/kg        | 0.042         | 0.0088 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 07:10 | EGO             | F                     |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412011**  
Sample ID: **CL-ISM-S-B5**

Date Collected: 2/17/2017 10:00 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.042         | 0.011 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 07:10 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 65.7           |             | %            | 49 - 115      |       | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 07:10 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 79.9           |             | %            | 27 - 137      |       | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 07:10 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 10.7          | 3.5   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 10.7          | 0.94  | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 10.7          | 1.1   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 10.7          | 0.82  | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 10.7          | 0.88  | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 10.7          | 1.1   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 10.7          | 1.8   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 20.8          | 1.7   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 20.8          | 2.8   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 20.8          | 2.4   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 20.8          | 2.4   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 10.7          | 1.3   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 20.8          | 4.3   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 20.8          | 1.4   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 20.8          | 1.5   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 20.8          | 2.3   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 20.8          | 2.9   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 10.7          | 1.1   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 10.7          | 1.1   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 20.8          | 2.8   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 220           | 36.5  | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 63.2           |             | %            | 30 - 135      |       | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 57.8           |             | %            | 30 - 111      |       | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:26 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Moisture                    | 22.6           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/21/17 11:19 | VKB             | F                     |
| Total Solids                | 77.4           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/21/17 11:19 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |
| Antimony, Total             | 0.49J          | J           | mg/kg        | 1.2           | 0.41  | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 03:39 | ZMC             | F1                    |
| Arsenic, Total              | 6.7            |             | mg/kg        | 1.9           | 0.62  | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 03:39 | ZMC             | F1                    |
| Beryllium, Total            | 0.78           |             | mg/kg        | 0.62          | 0.21  | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 03:39 | ZMC             | F1                    |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412011**  
Sample ID: **CL-ISM-S-B5**

Date Collected: 2/17/2017 10:00 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.62  | 0.21  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:39 | ZMC | F1   |
| Chromium, Total | 20.5    |      | mg/kg | 1.2   | 0.41  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:39 | ZMC | F1   |
| Copper, Total   | 12.7    |      | mg/kg | 3.1   | 0.99  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:39 | ZMC | F1   |
| Lead, Total     | 32.2    |      | mg/kg | 1.2   | 0.41  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:39 | ZMC | F1   |
| Mercury, Total  | 0.061   |      | mg/kg | 0.057 | 0.018 | SW846 7471B | 2/24/17 08:00 MNP | 2/24/17 11:00 | MNP | F2   |
| Nickel, Total   | 10.7    |      | mg/kg | 3.1   | 0.99  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:39 | ZMC | F1   |
| Selenium, Total | 2.5J    | J    | mg/kg | 3.1   | 0.99  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:39 | ZMC | F1   |
| Silver, Total   | ND      |      | mg/kg | 1.2   | 0.41  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:39 | ZMC | F1   |
| Thallium, Total | ND      |      | mg/kg | 0.62  | 0.21  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:39 | ZMC | F1   |
| Zinc, Total     | 43.2    |      | mg/kg | 3.1   | 0.99  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:39 | ZMC | F1   |

  
Ms. Susan J Scherer  
Project Coordinator

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412012**  
Sample ID: **CL-ISM-S-D2**

Date Collected: 2/17/2017 10:10 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                    | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-------------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| <b>PETROLEUM HC's</b>         |                |             |              |               |      |               |                   |               |                 |                       |
| Diesel Range Organics C10-C28 | 33.0           |             | mg/kg        | 12.8          | 3.0  | SW846 8015D   | 2/23/17 15:20 JTH | 2/27/17 01:15 | BS              | F                     |
| Gasoline Range Organics       | 19300          |             | ug/kg        | 12900         | 1790 | SW846 8015D   | 2/17/17 10:10 DD  | 2/21/17 08:07 | DD              | D                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| o-Terphenyl (S)               | 75             |             | %            | 38 - 118      |      | SW846 8015D   | 2/23/17 15:20 JTH | 2/27/17 01:15 | BS              | F                     |
| <i>Surrogate Recoveries</i>   | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| a,a,a-Trifluorotoluene (S)    | 115            |             | %            | 72 - 134      |      | SW846 8015D   | 2/17/17 10:10 DD  | 2/21/17 08:07 | DD              | D                     |
| <b>VOLATILE ORGANICS</b>      |                |             |              |               |      |               |                   |               |                 |                       |
| Acetone                       | 113            |             | ug/kg        | 11.4          | 5.3  | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| tert-Amyl methyl ether        | ND             |             | ug/kg        | 2.3           | 0.67 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| tert-Amyl Alcohol             | ND             |             | ug/kg        | 11.4          | 4.0  | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| tert-Amyl Ethylether          | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Benzene                       | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Bromochloromethane            | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Bromodichloromethane          | ND             |             | ug/kg        | 2.3           | 0.81 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Bromoform                     | ND             |             | ug/kg        | 2.3           | 0.59 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Bromomethane                  | ND             |             | ug/kg        | 2.3           | 0.59 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| 2-Butanone                    | 5.5J           | J           | ug/kg        | 11.4          | 3.7  | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| tert-Butyl Alcohol            | ND             |             | ug/kg        | 11.4          | 4.0  | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Carbon Disulfide              | ND             |             | ug/kg        | 2.3           | 0.72 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Carbon Tetrachloride          | ND             |             | ug/kg        | 2.3           | 0.58 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Chlorobenzene                 | ND             |             | ug/kg        | 2.3           | 0.58 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Chlorodibromomethane          | ND             |             | ug/kg        | 2.3           | 0.78 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Chloroethane                  | ND             |             | ug/kg        | 5.7           | 0.97 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Chloroform                    | ND             |             | ug/kg        | 2.3           | 0.61 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Chloromethane                 | ND             |             | ug/kg        | 2.3           | 0.63 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| 1,2-Dibromo-3-chloropropane   | ND             |             | ug/kg        | 5.7           | 3.3  | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| 1,2-Dibromoethane             | ND             |             | ug/kg        | 2.3           | 0.62 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| 1,1-Dichloroethane            | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| 1,2-Dichloroethane            | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| 1,1-Dichloroethene            | ND             |             | ug/kg        | 2.3           | 0.59 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| cis-1,2-Dichloroethene        | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| trans-1,2-Dichloroethene      | ND             |             | ug/kg        | 2.3           | 0.59 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| 1,2-Dichloropropane           | ND             |             | ug/kg        | 2.3           | 0.69 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| cis-1,3-Dichloropropene       | ND             |             | ug/kg        | 2.3           | 0.63 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412012**  
Sample ID: **CL-ISM-S-D2**

Date Collected: 2/17/2017 10:10 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL  | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|------|---------------|-------------------|---------------|-----------------|-----------------------|
| trans-1,3-Dichloropropene   | ND             |             | ug/kg        | 2.3           | 0.66 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Diisopropyl ether           | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Ethyl tert-butyl ether      | ND             |             | ug/kg        | 2.3           | 0.59 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Ethylbenzene                | ND             |             | ug/kg        | 2.3           | 0.78 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| 2-Hexanone                  | ND             |             | ug/kg        | 11.4          | 3.2  | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Methyl t-Butyl Ether        | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| 4-Methyl-2-Pentanone(MIBK)  | ND             |             | ug/kg        | 11.4          | 4.3  | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Methylene Chloride          | 12.9           | 1,2,3       | ug/kg        | 2.3           | 0.89 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Naphthalene                 | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Styrene                     | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| 1,1,2,2-Tetrachloroethane   | ND             |             | ug/kg        | 2.3           | 0.64 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Tetrachloroethene           | ND             |             | ug/kg        | 2.3           | 0.69 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Toluene                     | ND             |             | ug/kg        | 2.3           | 0.77 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Total Xylenes               | ND             |             | ug/kg        | 6.9           | 1.6  | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| 1,1,1-Trichloroethane       | ND             |             | ug/kg        | 2.3           | 0.71 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| 1,1,2-Trichloroethane       | ND             |             | ug/kg        | 2.3           | 0.64 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Trichloroethene             | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Vinyl Chloride              | ND             |             | ug/kg        | 2.3           | 0.57 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| o-Xylene                    | ND             |             | ug/kg        | 2.3           | 0.66 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| mp-Xylene                   | ND             |             | ug/kg        | 4.6           | 0.95 | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |      | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| 1,2-Dichloroethane-d4 (S)   | 79.4           |             | %            | 56 - 124      |      | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| 4-Bromofluorobenzene (S)    | 82.8           |             | %            | 51 - 128      |      | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Dibromofluoromethane (S)    | 95.2           |             | %            | 62 - 123      |      | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| Toluene-d8 (S)              | 80.2           |             | %            | 59 - 131      |      | SW846 8260B   | 2/17/17 10:10 SYB | 2/22/17 06:26 | SYB             | B                     |
| <b>SEMIVOLATILES</b>        |                |             |              |               |      |               |                   |               |                 |                       |
| Acenaphthene                | ND             |             | ug/kg        | 60.5          | 7.3  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS             | F                     |
| Acenaphthylene              | ND             |             | ug/kg        | 60.5          | 8.5  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS             | F                     |
| Acetophenone                | ND             | 4           | ug/kg        | 121           | 9.7  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS             | F                     |
| Anthracene                  | ND             |             | ug/kg        | 60.5          | 9.7  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS             | F                     |
| Atrazine                    | ND             |             | ug/kg        | 121           | 13.3 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS             | F                     |
| Benzaldehyde                | ND             |             | ug/kg        | 242           | 20.6 | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS             | F                     |
| Benzo(a)anthracene          | 18.0J          | J           | ug/kg        | 60.5          | 6.0  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS             | F                     |
| Benzo(a)pyrene              | ND             |             | ug/kg        | 60.5          | 4.8  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS             | F                     |
| Benzo(b)fluoranthene        | 12.6J          | J           | ug/kg        | 60.5          | 6.0  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS             | F                     |
| Benzo(g,h,i)perylene        | 8.9J           | J           | ug/kg        | 60.5          | 6.0  | SW846 8270D   | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS             | F                     |



## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412012**  
Sample ID: **CL-ISM-S-D2**

Date Collected: 2/17/2017 10:10 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results | Flag | Units | RDL  | MDL  | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------------------|---------|------|-------|------|------|-------------|-------------------|---------------|-----|------|
| Benzo(k)fluoranthene        | ND      |      | ug/kg | 60.5 | 6.0  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| Biphenyl                    | ND      |      | ug/kg | 121  | 8.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| 4-Bromophenyl-phenylether   | ND      |      | ug/kg | 121  | 10.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| Butylbenzylphthalate        | ND      |      | ug/kg | 121  | 8.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| Caprolactam                 | ND      |      | ug/kg | 242  | 21.8 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| Carbazole                   | ND      |      | ug/kg | 121  | 8.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| 4-Chloro-3-methylphenol     | ND      |      | ug/kg | 242  | 12.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| 4-Chloroaniline             | ND      |      | ug/kg | 242  | 14.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| bis(2-Chloroethoxy)methane  | ND      |      | ug/kg | 121  | 10.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| bis(2-Chloroethyl)ether     | ND      |      | ug/kg | 121  | 15.7 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| bis(2-Chloroisopropyl)ether | ND      |      | ug/kg | 121  | 18.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| 2-Chloronaphthalene         | ND      |      | ug/kg | 121  | 7.3  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| 2-Chlorophenol              | ND      |      | ug/kg | 242  | 9.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| 4-Chlorophenyl-phenylether  | ND      |      | ug/kg | 121  | 9.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| Chrysene                    | 9.1J    | J    | ug/kg | 60.5 | 6.0  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| mp-Cresol                   | ND      |      | ug/kg | 242  | 9.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| o-Cresol                    | ND      |      | ug/kg | 242  | 13.3 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| Di-n-Butylphthalate         | ND      |      | ug/kg | 121  | 9.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| Di-n-Octylphthalate         | ND      |      | ug/kg | 121  | 8.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| Dibenzo(a,h)anthracene      | ND      |      | ug/kg | 60.5 | 7.3  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| Dibenzofuran                | ND      |      | ug/kg | 121  | 9.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| 3,3-Dichlorobenzidine       | ND      |      | ug/kg | 242  | 46.0 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| 2,4-Dichlorophenol          | ND      |      | ug/kg | 242  | 9.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| Diethylphthalate            | ND      |      | ug/kg | 121  | 9.7  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| 2,4-Dimethylphenol          | ND      |      | ug/kg | 242  | 18.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| Dimethylphthalate           | ND      |      | ug/kg | 121  | 8.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| 2,4-Dinitrophenol           | ND      |      | ug/kg | 242  | 48.4 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| 2,4-Dinitrotoluene          | ND      |      | ug/kg | 121  | 10.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| 2,6-Dinitrotoluene          | ND      |      | ug/kg | 121  | 14.5 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| 1,4-Dioxane                 | ND      |      | ug/kg | 121  | 59.3 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| bis(2-Ethylhexyl)phthalate  | ND      |      | ug/kg | 121  | 8.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| Fluoranthene                | 21.0J   | J    | ug/kg | 60.5 | 6.0  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| Fluorene                    | ND      |      | ug/kg | 60.5 | 7.3  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| Hexachlorobenzene           | ND      |      | ug/kg | 121  | 13.3 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| Hexachlorobutadiene         | ND      |      | ug/kg | 121  | 12.1 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| Hexachlorocyclopentadiene   | ND      |      | ug/kg | 242  | 13.3 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| Hexachloroethane            | ND      |      | ug/kg | 121  | 10.9 | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |
| Indeno(1,2,3-cd)pyrene      | ND      |      | ug/kg | 60.5 | 8.5  | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS | F    |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412012**  
Sample ID: **CL-ISM-S-D2**

Date Collected: 2/17/2017 10:10 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                     | Results | Flag | Units | RDL      | MDL    | Method      | Prepared By       | Analyzed      | By       | Cntr    |
|--------------------------------|---------|------|-------|----------|--------|-------------|-------------------|---------------|----------|---------|
| Isophorone                     | ND      |      | ug/kg | 121      | 7.3    | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| 2-Methyl-4,6-dinitrophenol     | ND      |      | ug/kg | 242      | 31.4   | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| 2-Methylnaphthalene            | ND      |      | ug/kg | 121      | 6.0    | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| Naphthalene                    | ND      |      | ug/kg | 60.5     | 7.3    | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| 2-Nitroaniline                 | ND      |      | ug/kg | 242      | 14.5   | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| 3-Nitroaniline                 | ND      |      | ug/kg | 242      | 24.2   | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| 4-Nitroaniline                 | ND      |      | ug/kg | 242      | 9.7    | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| Nitrobenzene                   | ND      |      | ug/kg | 121      | 14.5   | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| 2-Nitrophenol                  | ND      |      | ug/kg | 242      | 13.3   | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| 4-Nitrophenol                  | ND      |      | ug/kg | 242      | 16.9   | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| N-Nitroso-di-n-propylamine     | ND      |      | ug/kg | 121      | 9.7    | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| N-Nitrosodiphenylamine         | ND      |      | ug/kg | 121      | 9.7    | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| Pentachlorophenol              | ND      |      | ug/kg | 242      | 31.4   | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| Phenanthrene                   | 9.2J    | J    | ug/kg | 60.5     | 6.0    | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| Phenol                         | 983     |      | ug/kg | 242      | 12.1   | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| Pyrene                         | 18.6J   | J    | ug/kg | 60.5     | 6.0    | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| 1,2,4,5-Tetrachlorobenzene     | ND      |      | ug/kg | 121      | 8.5    | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| 2,3,4,6-Tetrachlorophenol      | ND      |      | ug/kg | 242      | 14.5   | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| 2,4,5-Trichlorophenol          | ND      |      | ug/kg | 242      | 14.5   | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| 2,4,6-Trichlorophenol          | ND      |      | ug/kg | 242      | 14.5   | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| Surrogate Recoveries           | Results | Flag | Units | Limits   |        | Method      | Prepared          | By            | Analyzed | By Cntr |
| 2,4,6-Tribromophenol (S)       | 76      |      | %     | 19 - 132 |        | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| 2-Fluorobiphenyl (S)           | 68.8    |      | %     | 40 - 110 |        | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| 2-Fluorophenol (S)             | 63      |      | %     | 26 - 116 |        | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| Nitrobenzene-d5 (S)            | 65.5    |      | %     | 38 - 112 |        | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| Phenol-d5 (S)                  | 73.7    |      | %     | 35 - 111 |        | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| Terphenyl-d14 (S)              | 67.1    |      | %     | 45 - 126 |        | SW846 8270D | 2/23/17 18:10 ACD | 2/24/17 15:28 | CGS      | F       |
| PCBs                           |         |      |       |          |        |             |                   |               |          |         |
| Total Polychlorinated Biphenyl | ND      |      | mg/kg | 0.039    | 0.0036 | SW846 8082A | 2/24/17 02:05 CMA | 2/24/17 07:22 | EGO      | F       |
| Aroclor-1016                   | ND      |      | mg/kg | 0.039    | 0.0071 | SW846 8082A | 2/24/17 02:05 CMA | 2/24/17 07:22 | EGO      | F       |
| Aroclor-1221                   | ND      |      | mg/kg | 0.039    | 0.0036 | SW846 8082A | 2/24/17 02:05 CMA | 2/24/17 07:22 | EGO      | F       |
| Aroclor-1232                   | ND      |      | mg/kg | 0.039    | 0.0071 | SW846 8082A | 2/24/17 02:05 CMA | 2/24/17 07:22 | EGO      | F       |
| Aroclor-1242                   | ND      |      | mg/kg | 0.039    | 0.011  | SW846 8082A | 2/24/17 02:05 CMA | 2/24/17 07:22 | EGO      | F       |
| Aroclor-1248                   | ND      |      | mg/kg | 0.039    | 0.0071 | SW846 8082A | 2/24/17 02:05 CMA | 2/24/17 07:22 | EGO      | F       |
| Aroclor-1254                   | ND      |      | mg/kg | 0.039    | 0.0071 | SW846 8082A | 2/24/17 02:05 CMA | 2/24/17 07:22 | EGO      | F       |
| Aroclor-1260                   | ND      |      | mg/kg | 0.039    | 0.0071 | SW846 8082A | 2/24/17 02:05 CMA | 2/24/17 07:22 | EGO      | F       |
| Aroclor-1262                   | ND      |      | mg/kg | 0.039    | 0.0083 | SW846 8082A | 2/24/17 02:05 CMA | 2/24/17 07:22 | EGO      | F       |



## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412012**  
Sample ID: **CL-ISM-S-D2**

Date Collected: 2/17/2017 10:10 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters                  | Results        | Flag        | Units        | RDL           | MDL   | Method        | Prepared By       | Analyzed      | By              | Cntr                  |
|-----------------------------|----------------|-------------|--------------|---------------|-------|---------------|-------------------|---------------|-----------------|-----------------------|
| Aroclor-1268                | ND             |             | mg/kg        | 0.039         | 0.011 | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 07:22 | EGO             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 72.5           |             | %            | 49 - 115      |       | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 07:22 | EGO             | F                     |
| Tetrachloro-m-xylene (S)    | 87.9           |             | %            | 27 - 137      |       | SW846 8082A   | 2/24/17 02:05 CMA | 2/24/17 07:22 | EGO             | F                     |
| <b>PESTICIDES</b>           |                |             |              |               |       |               |                   |               |                 |                       |
| Aldrin                      | ND             |             | ug/kg        | 10.1          | 3.3   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| alpha-BHC                   | ND             |             | ug/kg        | 10.1          | 0.89  | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| beta-BHC                    | ND             |             | ug/kg        | 10.1          | 1.1   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| delta-BHC                   | ND             |             | ug/kg        | 10.1          | 0.77  | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| gamma-BHC                   | ND             |             | ug/kg        | 10.1          | 0.83  | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| alpha-Chlordane             | ND             |             | ug/kg        | 10.1          | 1.1   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| gamma-Chlordane             | ND             |             | ug/kg        | 10.1          | 1.7   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| 4,4'-DDD                    | ND             |             | ug/kg        | 19.6          | 1.6   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| 4,4'-DDE                    | ND             |             | ug/kg        | 19.6          | 2.7   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| 4,4'-DDT                    | ND             |             | ug/kg        | 19.6          | 2.3   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| Dieldrin                    | ND             |             | ug/kg        | 19.6          | 2.3   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| Endosulfan I                | ND             |             | ug/kg        | 10.1          | 1.2   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| Endosulfan II               | ND             |             | ug/kg        | 19.6          | 4.1   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| Endosulfan Sulfate          | ND             |             | ug/kg        | 19.6          | 1.3   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| Endrin                      | ND             |             | ug/kg        | 19.6          | 1.4   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| Endrin Aldehyde             | ND             |             | ug/kg        | 19.6          | 2.1   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| Endrin Ketone               | ND             |             | ug/kg        | 19.6          | 2.7   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| Heptachlor                  | ND             |             | ug/kg        | 10.1          | 1.0   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| Heptachlor Epoxide          | ND             |             | ug/kg        | 10.1          | 1.0   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| Methoxychlor                | ND             |             | ug/kg        | 19.6          | 2.6   | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| Toxaphene                   | ND             |             | ug/kg        | 208           | 34.4  | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| <i>Surrogate Recoveries</i> | <i>Results</i> | <i>Flag</i> | <i>Units</i> | <i>Limits</i> |       | <i>Method</i> | <i>Prepared</i>   | <i>By</i>     | <i>Analyzed</i> | <i>By</i> <i>Cntr</i> |
| Decachlorobiphenyls (S)     | 71.7           |             | %            | 30 - 135      |       | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| Tetrachloro-m-xylene (S)    | 57.3           |             | %            | 30 - 111      |       | SW846 8081B   | 2/24/17 02:05 CMA | 2/24/17 16:42 | RWS             | F                     |
| <b>WET CHEMISTRY</b>        |                |             |              |               |       |               |                   |               |                 |                       |
| Moisture                    | 18.9           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/21/17 11:19 | VKB             | F                     |
| Total Solids                | 81.1           |             | %            | 0.1           | 0.01  | S2540G-11     |                   | 2/21/17 11:19 | VKB             | F                     |
| <b>METALS</b>               |                |             |              |               |       |               |                   |               |                 |                       |
| Antimony, Total             | 0.56J          | J           | mg/kg        | 1.2           | 0.38  | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 03:43 | ZMC             | F1                    |
| Arsenic, Total              | 6.2            |             | mg/kg        | 1.7           | 0.58  | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 03:43 | ZMC             | F1                    |
| Beryllium, Total            | 0.62           |             | mg/kg        | 0.58          | 0.19  | SW846 6020A   | 2/23/17 10:03 TRR | 2/24/17 03:43 | ZMC             | F1                    |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

Lab ID: **2209412012**  
Sample ID: **CL-ISM-S-D2**

Date Collected: 2/17/2017 10:10 Matrix: Solid  
Date Received: 2/17/2017 21:00

| Parameters      | Results | Flag | Units | RDL   | MDL   | Method      | Prepared By       | Analyzed      | By  | Cntr |
|-----------------|---------|------|-------|-------|-------|-------------|-------------------|---------------|-----|------|
| Cadmium, Total  | ND      |      | mg/kg | 0.58  | 0.19  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:43 | ZMC | F1   |
| Chromium, Total | 18.2    |      | mg/kg | 1.2   | 0.38  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:43 | ZMC | F1   |
| Copper, Total   | 14.8    |      | mg/kg | 2.9   | 0.93  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:43 | ZMC | F1   |
| Lead, Total     | 41.2    |      | mg/kg | 1.2   | 0.38  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:43 | ZMC | F1   |
| Mercury, Total  | 0.068   |      | mg/kg | 0.060 | 0.019 | SW846 7471B | 2/24/17 08:00 MNP | 2/24/17 11:04 | MNP | F2   |
| Nickel, Total   | 9.9     |      | mg/kg | 2.9   | 0.93  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:43 | ZMC | F1   |
| Selenium, Total | 2.1J    | J    | mg/kg | 2.9   | 0.93  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:43 | ZMC | F1   |
| Silver, Total   | ND      |      | mg/kg | 1.2   | 0.38  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:43 | ZMC | F1   |
| Thallium, Total | ND      |      | mg/kg | 0.58  | 0.19  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:43 | ZMC | F1   |
| Zinc, Total     | 33.5    |      | mg/kg | 2.9   | 0.93  | SW846 6020A | 2/23/17 10:03 TRR | 2/24/17 03:43 | ZMC | F1   |

  
Ms. Susan J Scherer  
Project Coordinator

**PARAMETER QUALIFIERS**

| Lab ID                                                                                                                                                                                             | # | Sample ID | Analytical Method | Analyte                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----------|-------------------|----------------------------|
| <b>2209412001</b>                                                                                                                                                                                  | 1 | TB-07     | SW846 8260B       | tert-Amyl methyl ether     |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte tert-Amyl methyl ether. The % Recovery was reported as 71.3 and the control limits were 75 to 121.    |   |           |                   |                            |
| <b>2209412002</b>                                                                                                                                                                                  | 1 | DUP-05    | SW846 8260B       | Methylene Chloride         |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                      |   |           |                   |                            |
| <b>2209412002</b>                                                                                                                                                                                  | 2 | DUP-05    | SW846 8260B       | Methylene Chloride         |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 171 and the control limits were 68 to 133.         |   |           |                   |                            |
| <b>2209412002</b>                                                                                                                                                                                  | 3 | DUP-05    | SW846 8260B       | Methylene Chloride         |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 178 and the control limits were 68 to 133.        |   |           |                   |                            |
| <b>2209412002</b>                                                                                                                                                                                  | 4 | DUP-05    | SW846 8270D       | Acetophenone               |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.5 and the control limits were 45 to 87.               |   |           |                   |                            |
| <b>2209412003</b>                                                                                                                                                                                  | 1 | DUP-06    | SW846 8260B       | Methylene Chloride         |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                      |   |           |                   |                            |
| <b>2209412003</b>                                                                                                                                                                                  | 2 | DUP-06    | SW846 8260B       | Methylene Chloride         |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 171 and the control limits were 68 to 133.         |   |           |                   |                            |
| <b>2209412003</b>                                                                                                                                                                                  | 3 | DUP-06    | SW846 8260B       | Methylene Chloride         |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 178 and the control limits were 68 to 133.        |   |           |                   |                            |
| <b>2209412003</b>                                                                                                                                                                                  | 4 | DUP-06    | SW846 8270D       | Acetophenone               |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.5 and the control limits were 45 to 87.               |   |           |                   |                            |
| <b>2209412004</b>                                                                                                                                                                                  | 1 | DUP-07    | SW846 8260B       | Ethyl tert-butyl ether     |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Ethyl tert-butyl ether. The % Recovery was reported as 74.8 and the control limits were 75 to 121.     |   |           |                   |                            |
| <b>2209412004</b>                                                                                                                                                                                  | 2 | DUP-07    | SW846 8260B       | cis-1,3-Dichloropropene    |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte cis-1,3-Dichloropropene. The % Recovery was reported as 49.3 and the control limits were 76 to 123.    |   |           |                   |                            |
| <b>2209412004</b>                                                                                                                                                                                  | 3 | DUP-07    | SW846 8260B       | 4-Methyl-2-Pentanone(MIBK) |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 4-Methyl-2-Pentanone(MIBK). The % Recovery was reported as 48.6 and the control limits were 64 to 143. |   |           |                   |                            |
| <b>2209412004</b>                                                                                                                                                                                  | 4 | DUP-07    | SW846 8260B       | trans-1,3-Dichloropropene  |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte trans-1,3-Dichloropropene. The % Recovery was reported as 58.5 and the control limits were 77 to 123.  |   |           |                   |                            |
| <b>2209412004</b>                                                                                                                                                                                  | 5 | DUP-07    | SW846 8260B       | 1,1,2-Trichloroethane      |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,1,2-Trichloroethane. The % Recovery was reported as 58.8 and the control limits were 79 to 123.      |   |           |                   |                            |
| <b>2209412004</b>                                                                                                                                                                                  | 6 | DUP-07    | SW846 8260B       | Toluene                    |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Toluene. The % Recovery was reported as 62.4 and the control limits were 73 to 129.                    |   |           |                   |                            |
| <b>2209412004</b>                                                                                                                                                                                  | 7 | DUP-07    | SW846 8260B       | 2-Hexanone                 |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 2-Hexanone. The % Recovery was reported as 35.7 and the control limits were 62 to 147.                 |   |           |                   |                            |
| <b>2209412004</b>                                                                                                                                                                                  | 8 | DUP-07    | SW846 8260B       | Chlorodibromomethane       |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Chlorodibromomethane. The % Recovery was reported as 58.9 and the control limits were 75 to 124.       |   |           |                   |                            |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

|                                                                                                                                                                                                     |    |             |             |                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------------|-------------|-----------------------------|
| <b>2209412004</b>                                                                                                                                                                                   | 9  | DUP-07      | SW846 8260B | 1,2-Dibromoethane           |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,2-Dibromoethane. The % Recovery was reported as 61.9 and the control limits were 76 to 127.           |    |             |             |                             |
| <b>2209412004</b>                                                                                                                                                                                   | 10 | DUP-07      | SW846 8260B | Chlorobenzene               |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Chlorobenzene. The % Recovery was reported as 47.2 and the control limits were 76 to 125.               |    |             |             |                             |
| <b>2209412004</b>                                                                                                                                                                                   | 11 | DUP-07      | SW846 8260B | Ethylbenzene                |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Ethylbenzene. The % Recovery was reported as 53.9 and the control limits were 73 to 133.                |    |             |             |                             |
| <b>2209412004</b>                                                                                                                                                                                   | 12 | DUP-07      | SW846 8260B | mp-Xylene                   |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte mp-Xylene. The % Recovery was reported as 49.6 and the control limits were 72 to 130.                   |    |             |             |                             |
| <b>2209412004</b>                                                                                                                                                                                   | 13 | DUP-07      | SW846 8260B | Bromoform                   |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Bromoform. The % Recovery was reported as 47.5 and the control limits were 68 to 131.                   |    |             |             |                             |
| <b>2209412004</b>                                                                                                                                                                                   | 14 | DUP-07      | SW846 8260B | Styrene                     |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Styrene. The % Recovery was reported as 33 and the control limits were 77 to 130.                       |    |             |             |                             |
| <b>2209412004</b>                                                                                                                                                                                   | 15 | DUP-07      | SW846 8260B | 1,1,2,2-Tetrachloroethane   |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,1,2,2-Tetrachloroethane. The % Recovery was reported as 43 and the control limits were 72 to 134.     |    |             |             |                             |
| <b>2209412004</b>                                                                                                                                                                                   | 16 | DUP-07      | SW846 8260B | o-Xylene                    |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte o-Xylene. The % Recovery was reported as 50 and the control limits were 75 to 129.                      |    |             |             |                             |
| <b>2209412004</b>                                                                                                                                                                                   | 17 | DUP-07      | SW846 8260B | Total Xylenes               |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Total Xylenes. The % Recovery was reported as 49.7 and the control limits were 73 to 130.               |    |             |             |                             |
| <b>2209412004</b>                                                                                                                                                                                   | 18 | DUP-07      | SW846 8260B | 1,2-Dibromo-3-chloropropane |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte 1,2-Dibromo-3-chloropropane. The % Recovery was reported as 32.3 and the control limits were 52 to 151. |    |             |             |                             |
| <b>2209412004</b>                                                                                                                                                                                   | 19 | DUP-07      | SW846 8260B | Naphthalene                 |
| The QC sample type MS for method SW846 8260B was outside the control limits for the analyte Naphthalene. The % Recovery was reported as 11.7 and the control limits were 60 to 146.                 |    |             |             |                             |
| <b>2209412004</b>                                                                                                                                                                                   | 20 | DUP-07      | SW846 8260B | Methylene Chloride          |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                       |    |             |             |                             |
| <b>2209412004</b>                                                                                                                                                                                   | 21 | DUP-07      | SW846 8260B | Methylene Chloride          |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 171 and the control limits were 68 to 133.          |    |             |             |                             |
| <b>2209412004</b>                                                                                                                                                                                   | 22 | DUP-07      | SW846 8260B | Methylene Chloride          |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 178 and the control limits were 68 to 133.         |    |             |             |                             |
| <b>2209412004</b>                                                                                                                                                                                   | 23 | DUP-07      | SW846 8270D | Acetophenone                |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.5 and the control limits were 45 to 87.                |    |             |             |                             |
| <b>2209412005</b>                                                                                                                                                                                   | 1  | CL-SAW-S-A1 | SW846 8260B | Methylene Chloride          |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                       |    |             |             |                             |

## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

|                                                                                                                                                                                                           |   |             |             |                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|-------------|---------------------------|
| <b>2209412005</b>                                                                                                                                                                                         | 2 | CL-SAW-S-A1 | SW846 8260B | Methylene Chloride        |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 171 and the control limits were 68 to 133.                |   |             |             |                           |
| <b>2209412005</b>                                                                                                                                                                                         | 3 | CL-SAW-S-A1 | SW846 8260B | Methylene Chloride        |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 178 and the control limits were 68 to 133.               |   |             |             |                           |
| <b>2209412005</b>                                                                                                                                                                                         | 4 | CL-SAW-S-A1 | SW846 8270D | Acetophenone              |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.5 and the control limits were 45 to 87.                      |   |             |             |                           |
| <b>2209412006</b>                                                                                                                                                                                         | 1 | CL-SAW-S-A2 | SW846 8260B | Methylene Chloride        |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                             |   |             |             |                           |
| <b>2209412006</b>                                                                                                                                                                                         | 2 | CL-SAW-S-A2 | SW846 8260B | Methylene Chloride        |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 171 and the control limits were 68 to 133.                |   |             |             |                           |
| <b>2209412006</b>                                                                                                                                                                                         | 3 | CL-SAW-S-A2 | SW846 8260B | Methylene Chloride        |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 178 and the control limits were 68 to 133.               |   |             |             |                           |
| <b>2209412006</b>                                                                                                                                                                                         | 4 | CL-SAW-S-A2 | SW846 8270D | Acetophenone              |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.5 and the control limits were 45 to 87.                      |   |             |             |                           |
| <b>2209412007</b>                                                                                                                                                                                         | 1 | CL-SAW-S-B2 | SW846 8260B | Methylene Chloride        |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                             |   |             |             |                           |
| <b>2209412007</b>                                                                                                                                                                                         | 2 | CL-SAW-S-B2 | SW846 8260B | Methylene Chloride        |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 171 and the control limits were 68 to 133.                |   |             |             |                           |
| <b>2209412007</b>                                                                                                                                                                                         | 3 | CL-SAW-S-B2 | SW846 8260B | Methylene Chloride        |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 178 and the control limits were 68 to 133.               |   |             |             |                           |
| <b>2209412007</b>                                                                                                                                                                                         | 4 | CL-SAW-S-B2 | SW846 8270D | Terphenyl-d14             |
| The surrogate Terphenyl-d14 for method SW846 8270D was outside of control limits. The % Recovery was reported as 43.7 and the control limits were 45 to 126. This result was reported at a dilution of 1. |   |             |             |                           |
| <b>2209412007</b>                                                                                                                                                                                         | 5 | CL-SAW-S-B2 | SW846 8270D | 1,4-Dioxane               |
| The QC sample type MS for method SW846 8270D was outside the control limits for the analyte 1,4-Dioxane. The % Recovery was reported as 22.1 and the control limits were 37 to 98.                        |   |             |             |                           |
| <b>2209412007</b>                                                                                                                                                                                         | 6 | CL-SAW-S-B2 | SW846 8270D | Benzaldehyde              |
| The QC sample type MS for method SW846 8270D was outside the control limits for the analyte Benzaldehyde. The % Recovery was reported as 50.1 and the control limits were 52 to 108.                      |   |             |             |                           |
| <b>2209412007</b>                                                                                                                                                                                         | 7 | CL-SAW-S-B2 | SW846 8270D | Acetophenone              |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.5 and the control limits were 45 to 87.                      |   |             |             |                           |
| <b>2209412007</b>                                                                                                                                                                                         | 8 | CL-SAW-S-B2 | SW846 8270D | Hexachloroethane          |
| The QC sample type MS for method SW846 8270D was outside the control limits for the analyte Hexachloroethane. The % Recovery was reported as 48.2 and the control limits were 50 to 103.                  |   |             |             |                           |
| <b>2209412007</b>                                                                                                                                                                                         | 9 | CL-SAW-S-B2 | SW846 8270D | Hexachlorocyclopentadiene |
| The QC sample type MS for method SW846 8270D was outside the control limits for the analyte Hexachlorocyclopentadiene. The % Recovery was reported as 17.9 and the control limits were 33 to 109.         |   |             |             |                           |



## ANALYTICAL RESULTS

Workorder: 2209412 Chase Lands Phase II

|                                                                                                                                                                                                   |    |             |             |                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------------|-------------|---------------------------|
| <b>2209412007</b>                                                                                                                                                                                 | 10 | CL-SAW-S-B2 | SW846 8270D | 3-Nitroaniline            |
| The QC sample type MS for method SW846 8270D was outside the control limits for the analyte 3-Nitroaniline. The % Recovery was reported as 45.6 and the control limits were 52 to 115.            |    |             |             |                           |
| <b>2209412007</b>                                                                                                                                                                                 | 11 | CL-SAW-S-B2 | SW846 8270D | 4-Nitrophenol             |
| The QC sample type MS for method SW846 8270D was outside the control limits for the analyte 4-Nitrophenol. The % Recovery was reported as 2.83 and the control limits were 49 to 134.             |    |             |             |                           |
| <b>2209412007</b>                                                                                                                                                                                 | 12 | CL-SAW-S-B2 | SW846 8270D | 2,3,4,6-Tetrachlorophenol |
| The QC sample type MS for method SW846 8270D was outside the control limits for the analyte 2,3,4,6-Tetrachlorophenol. The % Recovery was reported as 56.7 and the control limits were 60 to 111. |    |             |             |                           |
| <b>2209412007</b>                                                                                                                                                                                 | 13 | CL-SAW-S-B2 | SW846 8270D | 4-Nitroaniline            |
| The QC sample type MS for method SW846 8270D was outside the control limits for the analyte 4-Nitroaniline. The % Recovery was reported as 47.8 and the control limits were 50 to 106.            |    |             |             |                           |
| <b>2209412007</b>                                                                                                                                                                                 | 14 | CL-SAW-S-B2 | SW846 8270D | 3,3-Dichlorobenzidine     |
| The QC sample type MS for method SW846 8270D was outside the control limits for the analyte 3,3-Dichlorobenzidine. The % Recovery was reported as 8.76 and the control limits were 27 to 106.     |    |             |             |                           |
| <b>2209412008</b>                                                                                                                                                                                 | 1  | CL-SAW-S-C1 | SW846 8260B | Methylene Chloride        |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                     |    |             |             |                           |
| <b>2209412008</b>                                                                                                                                                                                 | 2  | CL-SAW-S-C1 | SW846 8260B | Methylene Chloride        |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 171 and the control limits were 68 to 133.        |    |             |             |                           |
| <b>2209412008</b>                                                                                                                                                                                 | 3  | CL-SAW-S-C1 | SW846 8260B | Methylene Chloride        |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 178 and the control limits were 68 to 133.       |    |             |             |                           |
| <b>2209412008</b>                                                                                                                                                                                 | 4  | CL-SAW-S-C1 | SW846 8270D | Acetophenone              |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.5 and the control limits were 45 to 87.              |    |             |             |                           |
| <b>2209412009</b>                                                                                                                                                                                 | 1  | CL-SAW-S-C2 | SW846 8260B | Methylene Chloride        |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                     |    |             |             |                           |
| <b>2209412009</b>                                                                                                                                                                                 | 2  | CL-SAW-S-C2 | SW846 8260B | Methylene Chloride        |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 171 and the control limits were 68 to 133.        |    |             |             |                           |
| <b>2209412009</b>                                                                                                                                                                                 | 3  | CL-SAW-S-C2 | SW846 8260B | Methylene Chloride        |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 178 and the control limits were 68 to 133.       |    |             |             |                           |
| <b>2209412009</b>                                                                                                                                                                                 | 4  | CL-SAW-S-C2 | SW846 8270D | Acetophenone              |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 43.6 and the control limits were 45 to 87.              |    |             |             |                           |
| <b>2209412010</b>                                                                                                                                                                                 | 1  | CL-ISM-S-A1 | SW846 8260B | Methylene Chloride        |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                     |    |             |             |                           |
| <b>2209412010</b>                                                                                                                                                                                 | 2  | CL-ISM-S-A1 | SW846 8260B | Methylene Chloride        |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 171 and the control limits were 68 to 133.        |    |             |             |                           |
| <b>2209412010</b>                                                                                                                                                                                 | 3  | CL-ISM-S-A1 | SW846 8260B | Methylene Chloride        |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 178 and the control limits were 68 to 133.       |    |             |             |                           |

**ANALYTICAL RESULTS**

Workorder: 2209412 Chase Lands Phase II

|                                                                                                                                                                                             |   |             |             |                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-------------|-------------|--------------------|
| <b>2209412010</b>                                                                                                                                                                           | 4 | CL-ISM-S-A1 | SW846 8270D | Acetophenone       |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.5 and the control limits were 45 to 87.        |   |             |             |                    |
| <b>2209412011</b>                                                                                                                                                                           | 1 | CL-ISM-S-B5 | SW846 8260B | Methylene Chloride |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                               |   |             |             |                    |
| <b>2209412011</b>                                                                                                                                                                           | 2 | CL-ISM-S-B5 | SW846 8260B | Methylene Chloride |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 171 and the control limits were 68 to 133.  |   |             |             |                    |
| <b>2209412011</b>                                                                                                                                                                           | 3 | CL-ISM-S-B5 | SW846 8260B | Methylene Chloride |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 178 and the control limits were 68 to 133. |   |             |             |                    |
| <b>2209412011</b>                                                                                                                                                                           | 4 | CL-ISM-S-B5 | SW846 8270D | Acetophenone       |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.5 and the control limits were 45 to 87.        |   |             |             |                    |
| <b>2209412012</b>                                                                                                                                                                           | 1 | CL-ISM-S-D2 | SW846 8260B | Methylene Chloride |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                               |   |             |             |                    |
| <b>2209412012</b>                                                                                                                                                                           | 2 | CL-ISM-S-D2 | SW846 8260B | Methylene Chloride |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 171 and the control limits were 68 to 133.  |   |             |             |                    |
| <b>2209412012</b>                                                                                                                                                                           | 3 | CL-ISM-S-D2 | SW846 8260B | Methylene Chloride |
| The QC sample type LCSD for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 178 and the control limits were 68 to 133. |   |             |             |                    |
| <b>2209412012</b>                                                                                                                                                                           | 4 | CL-ISM-S-D2 | SW846 8270D | Acetophenone       |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.5 and the control limits were 45 to 87.        |   |             |             |                    |



### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

**QC Batch:** EXTR/46818      **Analysis Method:** SW846 8081B  
**QC Batch Method:** SW846 3546  
**Associated Lab Samples:** 2209412002, 2209412003, 2209412004

#### METHOD BLANK: 2490182

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aldrin                   | ND           | ug/kg | 1.7             |
| alpha-BHC                | ND           | ug/kg | 1.7             |
| beta-BHC                 | ND           | ug/kg | 1.7             |
| delta-BHC                | ND           | ug/kg | 1.7             |
| gamma-BHC                | ND           | ug/kg | 1.7             |
| alpha-Chlordane          | ND           | ug/kg | 1.7             |
| gamma-Chlordane          | ND           | ug/kg | 1.7             |
| 4,4'-DDD                 | ND           | ug/kg | 3.3             |
| 4,4'-DDE                 | ND           | ug/kg | 3.3             |
| 4,4'-DDT                 | ND           | ug/kg | 3.3             |
| Dieldrin                 | ND           | ug/kg | 3.3             |
| Endosulfan I             | ND           | ug/kg | 1.7             |
| Endosulfan II            | ND           | ug/kg | 3.3             |
| Endosulfan Sulfate       | ND           | ug/kg | 3.3             |
| Endrin                   | ND           | ug/kg | 3.3             |
| Endrin Aldehyde          | 0.98J        | ug/kg | 3.3             |
| Endrin Ketone            | ND           | ug/kg | 3.3             |
| Heptachlor               | ND           | ug/kg | 1.7             |
| Heptachlor Epoxide       | ND           | ug/kg | 1.7             |
| Methoxychlor             | ND           | ug/kg | 3.3             |
| Toxaphene                | ND           | ug/kg | 35.0            |
| Decachlorobiphenyls (S)  | 64.6         | %     | 30 - 135        |
| Tetrachloro-m-xylene (S) | 54           | %     | 30 - 111        |

#### LABORATORY CONTROL SAMPLE: 2490183

| Parameter       | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-----------------|-----------|-------|-------------|------------|-------------|
| Aldrin          | 80.8      | ug/kg | 33.3        | 26.9       | 58 - 103    |
| alpha-BHC       | 80.9      | ug/kg | 33.3        | 27.0       | 57 - 105    |
| beta-BHC        | 70.2      | ug/kg | 33.3        | 23.4       | 53 - 106    |
| delta-BHC       | 83.3      | ug/kg | 33.3        | 27.8       | 60 - 103    |
| gamma-BHC       | 79.8      | ug/kg | 33.3        | 26.6       | 59 - 102    |
| alpha-Chlordane | 77.5      | ug/kg | 33.3        | 25.8       | 62 - 98     |
| gamma-Chlordane | 78.5      | ug/kg | 33.3        | 26.2       | 58 - 103    |
| 4,4'-DDD        | 93.4      | ug/kg | 33.3        | 31.1       | 57 - 111    |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

|                          |      |       |      |      |          |
|--------------------------|------|-------|------|------|----------|
| 4,4'-DDE                 | 83.9 | ug/kg | 33.3 | 28.0 | 63 - 112 |
| 4,4'-DDT                 | 77.7 | ug/kg | 33.3 | 25.9 | 60 - 122 |
| Dieldrin                 | 81.2 | ug/kg | 33.3 | 27.1 | 62 - 109 |
| Endosulfan I             | 75.2 | ug/kg | 33.3 | 25.1 | 57 - 98  |
| Endosulfan II            | 78.1 | ug/kg | 33.3 | 26.0 | 59 - 112 |
| Endosulfan Sulfate       | 85.8 | ug/kg | 33.3 | 28.6 | 27 - 96  |
| Endrin                   | 77.7 | ug/kg | 33.3 | 25.9 | 63 - 108 |
| Endrin Aldehyde          | 71.3 | ug/kg | 33.3 | 23.8 | 21 - 92  |
| Endrin Ketone            | 82.2 | ug/kg | 33.3 | 27.4 | 32 - 103 |
| Heptachlor               | 96.2 | ug/kg | 33.3 | 32.1 | 51 - 105 |
| Heptachlor Epoxide       | 77.8 | ug/kg | 33.3 | 25.9 | 62 - 99  |
| Methoxychlor             | 72.7 | ug/kg | 33.3 | 24.2 | 50 - 114 |
| Toxaphene                |      | ug/kg |      | ND   |          |
| Decachlorobiphenyls (S)  | 68.5 | %     |      |      | 30 - 135 |
| Tetrachloro-m-xylene (S) | 54.3 | %     |      |      | 30 - 111 |

SAMPLE DUPLICATE: 2490185 ORIGINAL: 2209651001

| Parameter          | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------------|-----------------|-------|------------|-----|---------|
| Aldrin             | 0               | ug/kg | 0          | NC  | 40      |
| alpha-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| beta-BHC           | 0               | ug/kg | 0          | NC  | 40      |
| delta-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| gamma-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDD           | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDE           | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDT           | 0               | ug/kg | 0          | NC  | 40      |
| Dieldrin           | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan I       | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan II      | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan Sulfate | 0               | ug/kg | 0          | NC  | 40      |
| Endrin             | 0               | ug/kg | 0          | NC  | 40      |
| Endrin Aldehyde    | 0               | ug/kg | 0          | NC  | 40      |
| Endrin Ketone      | 0               | ug/kg | 0          | NC  | 40      |
| Heptachlor         | 0               | ug/kg | 0          | NC  | 40      |
| Heptachlor Epoxide | 0               | ug/kg | 0          | NC  | 35      |
| Methoxychlor       | 0               | ug/kg | 0          | NC  | 40      |
| Toxaphene          | 0               | ug/kg | 0          | NC  | 40      |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

**QC Batch:** EXTR/46819      **Analysis Method:** SW846 8082A  
**QC Batch Method:** SW846 3546  
**Associated Lab Samples:** 2209412002, 2209412003, 2209412004

#### METHOD BLANK: 2490186

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aroclor-1016             | ND           | mg/kg | 0.033           |
| Aroclor-1221             | ND           | mg/kg | 0.033           |
| Aroclor-1232             | ND           | mg/kg | 0.033           |
| Aroclor-1242             | ND           | mg/kg | 0.033           |
| Aroclor-1248             | ND           | mg/kg | 0.033           |
| Aroclor-1254             | ND           | mg/kg | 0.033           |
| Aroclor-1260             | ND           | mg/kg | 0.033           |
| Aroclor-1262             | ND           | mg/kg | 0.033           |
| Aroclor-1268             | ND           | mg/kg | 0.033           |
| Decachlorobiphenyls (S)  | 106          | %     | 49 - 115        |
| Tetrachloro-m-xylene (S) | 98.9         | %     | 27 - 137        |

#### LABORATORY CONTROL SAMPLE: 2490187

| Parameter                | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|--------------------------|-----------|-------|-------------|------------|-------------|
| Aroclor-1016             | 93.5      | mg/kg | .33         | 0.31       | 43 - 132    |
| Aroclor-1221             |           | mg/kg |             | ND         |             |
| Aroclor-1232             |           | mg/kg |             | ND         |             |
| Aroclor-1242             |           | mg/kg |             | ND         |             |
| Aroclor-1248             |           | mg/kg |             | ND         |             |
| Aroclor-1254             |           | mg/kg |             | ND         |             |
| Aroclor-1260             | 98.4      | mg/kg | .33         | 0.33       | 53 - 134    |
| Aroclor-1262             |           | mg/kg |             | ND         |             |
| Aroclor-1268             |           | mg/kg |             | ND         |             |
| Decachlorobiphenyls (S)  | 103       | %     |             |            | 49 - 115    |
| Tetrachloro-m-xylene (S) | 93.8      | %     |             |            | 27 - 137    |

#### SAMPLE DUPLICATE: 2490188 ORIGINAL: 2209651001

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Aroclor-1016 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1221 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1232 | 0               | mg/kg | 0          | NC  | 40      |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

|              |   |       |   |    |    |
|--------------|---|-------|---|----|----|
| Aroclor-1242 | 0 | mg/kg | 0 | NC | 40 |
| Aroclor-1248 | 0 | mg/kg | 0 | NC | 40 |
| Aroclor-1254 | 0 | mg/kg | 0 | NC | 40 |
| Aroclor-1260 | 0 | mg/kg | 0 | NC | 40 |

MATRIX SPIKE SAMPLE: 2490189 ORIGINAL: 2209845001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|--------------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Aroclor-1016             | 0               | mg/kg | .33         | .26901    | 81.8     | 43 - 132    |
| Aroclor-1260             | 0               | mg/kg | .33         | .26091    | 79.3     | 53 - 134    |
| Decachlorobiphenyls (S)  | 75.4            | %     |             |           |          | 49 - 115    |
| Tetrachloro-m-xylene (S) | 85.6            | %     |             |           |          | 27 - 137    |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

**QC Batch:** EXTR/46820

**Analysis Method:** SW846 8015D

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2209412002, 2209412003, 2209412004, 2209412005, 2209412006, 2209412007, 2209412008, 2209412009

#### METHOD BLANK: 2490190

| Parameter                     | Blank Result | Units | Reporting Limit |
|-------------------------------|--------------|-------|-----------------|
| Diesel Range Organics C10-C28 | 2.6J         | mg/kg | 10.6            |
| o-Terphenyl (S)               | 102          | %     | 38 - 118        |

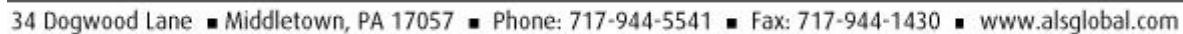
#### LABORATORY CONTROL SAMPLE: 2490191

| Parameter                     | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-------------------------------|-----------|-------|-------------|------------|-------------|
| Diesel Range Organics C10-C28 | 86.8      | mg/kg | 33.3        | 28.9       | 38 - 132    |
| o-Terphenyl (S)               | 78.7      | %     |             |            | 38 - 118    |

#### MATRIX SPIKE: 2490192 DUPLICATE: 2490193 ORIGINAL: 2208873003

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                     | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|-------------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Diesel Range Organics C10-C28 | 3.36215         | mg/kg | 31.8        | 27.1049   | 30.3733    | 74.6     | 81.6      | 38 - 132    | 11.4 | 30      |
| o-Terphenyl (S)               | 79.4            | %     |             |           |            | 79.4     | 76        | 38 - 118    |      |         |



NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01  
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

Workorder: 2209412 Chase Lands Phase II

OC Batch: EXTR/46824

**Analysis Method:** SW846 8015D

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2209412010, 2209412011, 2209412012

METHOD BLANK: 2490424

| Parameter                     | Blank Result | Units | Reporting Limit |
|-------------------------------|--------------|-------|-----------------|
| Diesel Range Organics C10-C28 | 4.7J         | mg/kg | 10.6            |
| o-Terphenyl (S)               | 94.2         | %     | 38 - 118        |

LABORATORY CONTROL SAMPLE: 2490425

| Parameter                        | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | % Rec<br>Limit |
|----------------------------------|--------------|-------|----------------|---------------|----------------|
| Diesel Range Organics<br>C10-C28 | 82.1         | mg/kg | 33.3           | 27.4          | 38 - 132       |
| o-Terphenyl (S)                  | 90.9         | %     |                |               | 38 - 118       |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

**QC Batch:** EXTR/46827      **Analysis Method:** SW846 8082A  
**QC Batch Method:** SW846 3546  
**Associated Lab Samples:** 2209412005, 2209412006, 2209412007, 2209412008

#### METHOD BLANK: 2490624

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aroclor-1016             | ND           | mg/kg | 0.033           |
| Aroclor-1221             | ND           | mg/kg | 0.033           |
| Aroclor-1232             | ND           | mg/kg | 0.033           |
| Aroclor-1242             | ND           | mg/kg | 0.033           |
| Aroclor-1248             | ND           | mg/kg | 0.033           |
| Aroclor-1254             | ND           | mg/kg | 0.033           |
| Aroclor-1260             | ND           | mg/kg | 0.033           |
| Aroclor-1262             | ND           | mg/kg | 0.033           |
| Aroclor-1268             | ND           | mg/kg | 0.033           |
| Decachlorobiphenyls (S)  | 94.2         | %     | 49 - 115        |
| Tetrachloro-m-xylene (S) | 100          | %     | 27 - 137        |

#### LABORATORY CONTROL SAMPLE: 2490625

| Parameter                | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|--------------------------|-----------|-------|-------------|------------|-------------|
| Aroclor-1016             | 83.5      | mg/kg | .33         | 0.28       | 43 - 132    |
| Aroclor-1221             |           | mg/kg |             | ND         |             |
| Aroclor-1232             |           | mg/kg |             | ND         |             |
| Aroclor-1242             |           | mg/kg |             | ND         |             |
| Aroclor-1248             |           | mg/kg |             | ND         |             |
| Aroclor-1254             |           | mg/kg |             | ND         |             |
| Aroclor-1260             | 83.9      | mg/kg | .33         | 0.28       | 53 - 134    |
| Aroclor-1262             |           | mg/kg |             | ND         |             |
| Aroclor-1268             |           | mg/kg |             | ND         |             |
| Decachlorobiphenyls (S)  | 82        | %     |             |            | 49 - 115    |
| Tetrachloro-m-xylene (S) | 88.7      | %     |             |            | 27 - 137    |

#### MATRIX SPIKE SAMPLE: 2490626 ORIGINAL: 2209412005

\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter    | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|--------------|-----------------|-------|-------------|-----------|----------|-------------|
| Aroclor-1016 | 0               | mg/kg | .33         | .28352    | 85.6     | 43 - 132    |



### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

|                          |      |       |     |        |     |          |
|--------------------------|------|-------|-----|--------|-----|----------|
| Aroclor-1260             | 0    | mg/kg | .33 | .35066 | 106 | 53 - 134 |
| Decachlorobiphenyls (S)  | 83.3 | %     |     |        |     | 49 - 115 |
| Tetrachloro-m-xylene (S) | 93.6 | %     |     |        |     | 27 - 137 |

SAMPLE DUPLICATE: 2490627 ORIGINAL: 2209412006

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Aroclor-1016 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1221 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1232 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1242 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1248 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1254 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1260 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1262 | 0               | mg/kg | 0          | NC  |         |
| Aroclor-1268 | 0               | mg/kg | 0          | NC  |         |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

**QC Batch:** EXTR/46828 **Analysis Method:** SW846 8081B

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2209412005, 2209412006, 2209412007, 2209412008

#### METHOD BLANK: 2490631

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aldrin                   | ND           | ug/kg | 1.7             |
| alpha-BHC                | ND           | ug/kg | 1.7             |
| beta-BHC                 | ND           | ug/kg | 1.7             |
| delta-BHC                | ND           | ug/kg | 1.7             |
| gamma-BHC                | ND           | ug/kg | 1.7             |
| alpha-Chlordane          | ND           | ug/kg | 1.7             |
| gamma-Chlordane          | ND           | ug/kg | 1.7             |
| 4,4'-DDD                 | ND           | ug/kg | 3.3             |
| 4,4'-DDE                 | ND           | ug/kg | 3.3             |
| 4,4'-DDT                 | ND           | ug/kg | 3.3             |
| Dieldrin                 | ND           | ug/kg | 3.3             |
| Endosulfan I             | ND           | ug/kg | 1.7             |
| Endosulfan II            | ND           | ug/kg | 3.3             |
| Endosulfan Sulfate       | ND           | ug/kg | 3.3             |
| Endrin                   | ND           | ug/kg | 3.3             |
| Endrin Aldehyde          | ND           | ug/kg | 3.3             |
| Endrin Ketone            | ND           | ug/kg | 3.3             |
| Heptachlor               | ND           | ug/kg | 1.7             |
| Heptachlor Epoxide       | ND           | ug/kg | 1.7             |
| Methoxychlor             | ND           | ug/kg | 3.3             |
| Toxaphene                | ND           | ug/kg | 35.0            |
| Decachlorobiphenyls (S)  | 83.2         | %     | 30 - 135        |
| Tetrachloro-m-xylene (S) | 64.4         | %     | 30 - 111        |

#### LABORATORY CONTROL SAMPLE: 2490632

| Parameter       | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-----------------|-----------|-------|-------------|------------|-------------|
| Aldrin          | 66.8      | ug/kg | 33.3        | 22.3       | 58 - 103    |
| alpha-BHC       | 67        | ug/kg | 33.3        | 22.3       | 57 - 105    |
| beta-BHC        | 60.3      | ug/kg | 33.3        | 20.1       | 53 - 106    |
| delta-BHC       | 64.7      | ug/kg | 33.3        | 21.6       | 60 - 103    |
| gamma-BHC       | 67.4      | ug/kg | 33.3        | 22.5       | 59 - 102    |
| alpha-Chlordane | 65.8      | ug/kg | 33.3        | 21.9       | 62 - 98     |
| gamma-Chlordane | 65.4      | ug/kg | 33.3        | 21.8       | 58 - 103    |
| 4,4'-DDD        | 65.4      | ug/kg | 33.3        | 21.8       | 57 - 111    |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

|                          |      |       |      |      |          |
|--------------------------|------|-------|------|------|----------|
| 4,4'-DDE                 | 68.6 | ug/kg | 33.3 | 22.9 | 63 - 112 |
| 4,4'-DDT                 | 65.9 | ug/kg | 33.3 | 22.0 | 60 - 122 |
| Dieldrin                 | 66.2 | ug/kg | 33.3 | 22.1 | 62 - 109 |
| Endosulfan I             | 60.3 | ug/kg | 33.3 | 20.1 | 57 - 98  |
| Endosulfan II            | 61.9 | ug/kg | 33.3 | 20.6 | 59 - 112 |
| Endosulfan Sulfate       | 64.1 | ug/kg | 33.3 | 21.4 | 27 - 96  |
| Endrin                   | 67.5 | ug/kg | 33.3 | 22.5 | 63 - 108 |
| Endrin Aldehyde          | 50.9 | ug/kg | 33.3 | 17.0 | 21 - 92  |
| Endrin Ketone            | 66.7 | ug/kg | 33.3 | 22.2 | 32 - 103 |
| Heptachlor               | 81.5 | ug/kg | 33.3 | 27.2 | 51 - 105 |
| Heptachlor Epoxide       | 65.8 | ug/kg | 33.3 | 21.9 | 62 - 99  |
| Methoxychlor             | 61.9 | ug/kg | 33.3 | 20.6 | 50 - 114 |
| Toxaphene                |      | ug/kg |      | ND   |          |
| Decachlorobiphenyls (S)  | 59.5 | %     |      |      | 30 - 135 |
| Tetrachloro-m-xylene (S) | 46.1 | %     |      |      | 30 - 111 |

SAMPLE DUPLICATE: 2490633 ORIGINAL: 2209412006

| Parameter          | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------------|-----------------|-------|------------|------|---------|
| Aldrin             | 0               | ug/kg | 0          | NC   | 40      |
| alpha-BHC          | 0               | ug/kg | 0          | NC   | 40      |
| beta-BHC           | 0               | ug/kg | 0          | NC   | 40      |
| delta-BHC          | 0               | ug/kg | 0          | NC   | 40      |
| gamma-BHC          | 0               | ug/kg | 0          | NC   | 40      |
| alpha-Chlordane    | 0               | ug/kg | 0          | NC   | 40      |
| gamma-Chlordane    | 0               | ug/kg | 0          | NC   | 40      |
| 4,4'-DDD           | 0               | ug/kg | 1.4332     | NC   | 40      |
| 4,4'-DDE           | 4.7249          | ug/kg | 3.4254     | 31.9 | 40      |
| 4,4'-DDT           | 7.329           | ug/kg | 4.3995     | 50*  | 40      |
| Dieldrin           | 0               | ug/kg | 0          | NC   | 40      |
| Endosulfan I       | 0               | ug/kg | 0          | NC   | 40      |
| Endosulfan II      | 0               | ug/kg | 0          | NC   | 40      |
| Endosulfan Sulfate | 0               | ug/kg | 0          | NC   | 40      |
| Endrin             | 0               | ug/kg | 0          | NC   | 40      |
| Endrin Aldehyde    | 0               | ug/kg | 0          | NC   | 40      |
| Endrin Ketone      | 0               | ug/kg | 0          | NC   | 40      |
| Heptachlor         | 0               | ug/kg | 0          | NC   | 40      |
| Heptachlor Epoxide | 0               | ug/kg | 0          | NC   | 35      |
| Methoxychlor       | 0               | ug/kg | 0          | NC   | 40      |
| Toxaphene          | 0               | ug/kg | 0          | NC   | 40      |

## QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

**QC Batch:** EXTR/46830

**Analysis Method:** SW846 8270D

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2209412002, 2209412003, 2209412004, 2209412005, 2209412006, 2209412007, 2209412008, 2209412010, 2209412011, 2209412012

METHOD BLANK: 2490996

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acenaphthene                | ND           | ug/kg | 50.0            |
| Acenaphthylene              | ND           | ug/kg | 50.0            |
| Acetophenone                | ND           | ug/kg | 100             |
| Anthracene                  | ND           | ug/kg | 50.0            |
| Atrazine                    | ND           | ug/kg | 100             |
| Benzaldehyde                | ND           | ug/kg | 200             |
| Benzo(a)anthracene          | 7.2J         | ug/kg | 50.0            |
| Benzo(a)pyrene              | ND           | ug/kg | 50.0            |
| Benzo(b)fluoranthene        | ND           | ug/kg | 50.0            |
| Benzo(g,h,i)perylene        | ND           | ug/kg | 50.0            |
| Benzo(k)fluoranthene        | ND           | ug/kg | 50.0            |
| Biphenyl                    | ND           | ug/kg | 100             |
| 4-Bromophenyl-phenylether   | ND           | ug/kg | 100             |
| Butylbenzylphthalate        | ND           | ug/kg | 100             |
| Caprolactam                 | ND           | ug/kg | 200             |
| Carbazole                   | ND           | ug/kg | 100             |
| 4-Chloro-3-methylphenol     | ND           | ug/kg | 200             |
| 4-Chloroaniline             | ND           | ug/kg | 200             |
| bis(2-Chloroethoxy)methane  | ND           | ug/kg | 100             |
| bis(2-Chloroethyl)ether     | ND           | ug/kg | 100             |
| bis(2-Chloroisopropyl)ether | ND           | ug/kg | 100             |
| 2-Chloronaphthalene         | ND           | ug/kg | 100             |
| 2-Chlorophenol              | ND           | ug/kg | 200             |
| 4-Chlorophenyl-phenylether  | ND           | ug/kg | 100             |
| Chrysene                    | ND           | ug/kg | 50.0            |
| mp-Cresol                   | ND           | ug/kg | 200             |
| o-Cresol                    | ND           | ug/kg | 200             |
| Di-n-Butylphthalate         | ND           | ug/kg | 100             |
| Di-n-Octylphthalate         | ND           | ug/kg | 100             |
| Dibenzo(a,h)anthracene      | ND           | ug/kg | 50.0            |
| Dibenzofuran                | ND           | ug/kg | 100             |
| 3,3-Dichlorobenzidine       | ND           | ug/kg | 200             |
| 2,4-Dichlorophenol          | ND           | ug/kg | 200             |
| Diethylphthalate            | ND           | ug/kg | 100             |
| 2,4-Dimethylphenol          | ND           | ug/kg | 200             |
| Dimethylphthalate           | ND           | ug/kg | 100             |
| 2,4-Dinitrophenol           | ND           | ug/kg | 200             |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

|                            |      |       |          |
|----------------------------|------|-------|----------|
| 2,4-Dinitrotoluene         | ND   | ug/kg | 100      |
| 2,6-Dinitrotoluene         | ND   | ug/kg | 100      |
| 1,4-Dioxane                | ND   | ug/kg | 100      |
| bis(2-Ethylhexyl)phthalate | ND   | ug/kg | 100      |
| Fluoranthene               | ND   | ug/kg | 50.0     |
| Fluorene                   | ND   | ug/kg | 50.0     |
| Hexachlorobenzene          | ND   | ug/kg | 100      |
| Hexachlorobutadiene        | ND   | ug/kg | 100      |
| Hexachlorocyclopentadiene  | ND   | ug/kg | 200      |
| Hexachloroethane           | ND   | ug/kg | 100      |
| Indeno(1,2,3-cd)pyrene     | ND   | ug/kg | 50.0     |
| Isophorone                 | ND   | ug/kg | 100      |
| 2-Methyl-4,6-dinitrophenol | ND   | ug/kg | 200      |
| 2-Methylnaphthalene        | ND   | ug/kg | 100      |
| Naphthalene                | ND   | ug/kg | 50.0     |
| 2-Nitroaniline             | ND   | ug/kg | 200      |
| 3-Nitroaniline             | ND   | ug/kg | 200      |
| 4-Nitroaniline             | ND   | ug/kg | 200      |
| Nitrobenzene               | ND   | ug/kg | 100      |
| 2-Nitrophenol              | ND   | ug/kg | 200      |
| 4-Nitrophenol              | ND   | ug/kg | 200      |
| N-Nitroso-di-n-propylamine | ND   | ug/kg | 100      |
| N-Nitrosodiphenylamine     | ND   | ug/kg | 100      |
| Pentachlorophenol          | ND   | ug/kg | 200      |
| Phenanthrene               | ND   | ug/kg | 50.0     |
| Phenol                     | ND   | ug/kg | 200      |
| Pyrene                     | ND   | ug/kg | 50.0     |
| 1,2,4,5-Tetrachlorobenzene | ND   | ug/kg | 100      |
| 2,3,4,6-Tetrachlorophenol  | ND   | ug/kg | 200      |
| 2,4,5-Trichlorophenol      | ND   | ug/kg | 200      |
| 2,4,6-Trichlorophenol      | ND   | ug/kg | 200      |
| 2,4,6-Tribromophenol (S)   | 72   | %     | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 71.5 | %     | 40 - 110 |
| 2-Fluorophenol (S)         | 71.3 | %     | 26 - 116 |
| Nitrobenzene-d5 (S)        | 66.3 | %     | 38 - 112 |
| Phenol-d5 (S)              | 76.1 | %     | 35 - 111 |
| Terphenyl-d14 (S)          | 71.9 | %     | 45 - 126 |

## LABORATORY CONTROL SAMPLE: 2490997

| Parameter      | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | % Rec<br>Limit |
|----------------|--------------|-------|----------------|---------------|----------------|
| Acenaphthene   | 77           | ug/kg | 3330           | 2570          | 59 - 115       |
| Acenaphthylene | 80.3         | ug/kg | 3330           | 2680          | 59 - 114       |
| Acetophenone   | 44.5*        | ug/kg | 3330           | 1480          | 45 - 87        |
| Anthracene     | 83.2         | ug/kg | 3330           | 2770          | 63 - 112       |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

|                             |      |       |      |      |          |
|-----------------------------|------|-------|------|------|----------|
| Atrazine                    | 81.5 | ug/kg | 3330 | 2720 | 54 - 128 |
| Benzaldehyde                | 58.6 | ug/kg | 3330 | 1950 | 52 - 108 |
| Benzo(a)anthracene          | 79.5 | ug/kg | 3330 | 2650 | 61 - 118 |
| Benzo(a)pyrene              | 82.3 | ug/kg | 3330 | 2740 | 61 - 114 |
| Benzo(b)fluoranthene        | 85   | ug/kg | 3330 | 2830 | 64 - 113 |
| Benzo(g,h,i)perylene        | 80   | ug/kg | 3330 | 2670 | 61 - 118 |
| Benzo(k)fluoranthene        | 86.9 | ug/kg | 3330 | 2900 | 62 - 113 |
| Biphenyl                    | 76.2 | ug/kg | 3330 | 2540 | 60 - 111 |
| 4-Bromophenyl-phenylether   | 89.9 | ug/kg | 3330 | 3000 | 60 - 111 |
| Butylbenzylphthalate        | 82.1 | ug/kg | 3330 | 2740 | 56 - 126 |
| Caprolactam                 | 77.2 | ug/kg | 3330 | 2570 | 38 - 129 |
| Carbazole                   | 84.3 | ug/kg | 3330 | 2810 | 65 - 117 |
| 4-Chloro-3-methylphenol     | 82.4 | ug/kg | 6670 | 5490 | 65 - 118 |
| 4-Chloroaniline             | 74.8 | ug/kg | 3330 | 2490 | 21 - 115 |
| bis(2-Chloroethoxy)methane  | 90.2 | ug/kg | 3330 | 3010 | 56 - 108 |
| bis(2-Chloroethyl)ether     | 83.6 | ug/kg | 3330 | 2790 | 51 - 105 |
| bis(2-Chloroisopropyl)ether | 78.2 | ug/kg | 3330 | 2610 | 34 - 126 |
| 2-Chloronaphthalene         | 80.7 | ug/kg | 3330 | 2690 | 55 - 111 |
| 2-Chlorophenol              | 75.7 | ug/kg | 6670 | 5050 | 61 - 111 |
| 4-Chlorophenyl-phenylether  | 86.4 | ug/kg | 3330 | 2880 | 58 - 112 |
| Chrysene                    | 84.2 | ug/kg | 3330 | 2810 | 63 - 111 |
| mp-Cresol                   | 76   | ug/kg | 6670 | 5060 | 60 - 112 |
| o-Cresol                    | 75.2 | ug/kg | 6670 | 5020 | 62 - 113 |
| Di-n-Butylphthalate         | 88.2 | ug/kg | 3330 | 2940 | 58 - 118 |
| Di-n-Octylphthalate         | 69.6 | ug/kg | 3330 | 2320 | 45 - 128 |
| Dibenzo(a,h)anthracene      | 81.9 | ug/kg | 3330 | 2730 | 64 - 117 |
| Dibenzofuran                | 81.1 | ug/kg | 3330 | 2700 | 61 - 111 |
| 3,3-Dichlorobenzidine       | 76   | ug/kg | 6670 | 5070 | 27 - 106 |
| 2,4-Dichlorophenol          | 85.9 | ug/kg | 6670 | 5720 | 65 - 111 |
| Diethylphthalate            | 83.6 | ug/kg | 3330 | 2790 | 59 - 112 |
| 2,4-Dimethylphenol          | 82.6 | ug/kg | 6670 | 5500 | 65 - 114 |
| Dimethylphthalate           | 83.1 | ug/kg | 3330 | 2770 | 59 - 111 |
| 2,4-Dinitrophenol           | 77.1 | ug/kg | 6670 | 5140 | 36 - 131 |
| 2,4-Dinitrotoluene          | 85.3 | ug/kg | 3330 | 2840 | 61 - 117 |
| 2,6-Dinitrotoluene          | 82.9 | ug/kg | 3330 | 2760 | 61 - 115 |
| 1,4-Dioxane                 | 42.1 | ug/kg | 3330 | 1400 | 37 - 98  |
| bis(2-Ethylhexyl)phthalate  | 82.9 | ug/kg | 3330 | 2760 | 51 - 126 |
| Fluoranthene                | 88.8 | ug/kg | 3330 | 2960 | 61 - 116 |
| Fluorene                    | 82.9 | ug/kg | 3330 | 2760 | 61 - 112 |
| Hexachlorobenzene           | 85   | ug/kg | 3330 | 2830 | 59 - 109 |
| Hexachlorobutadiene         | 99.1 | ug/kg | 3330 | 3300 | 58 - 123 |
| Hexachlorocyclopentadiene   | 44.9 | ug/kg | 3330 | 1500 | 33 - 109 |
| Hexachloroethane            | 68   | ug/kg | 3330 | 2270 | 50 - 103 |
| Indeno(1,2,3-cd)pyrene      | 79.7 | ug/kg | 3330 | 2660 | 62 - 113 |
| Isophorone                  | 83.5 | ug/kg | 3330 | 2780 | 51 - 112 |
| 2-Methyl-4,6-dinitrophenol  | 83.1 | ug/kg | 6670 | 5540 | 53 - 131 |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

|                            |      |       |      |      |          |
|----------------------------|------|-------|------|------|----------|
| 2-Methylnaphthalene        | 72.9 | ug/kg | 3330 | 2430 | 58 - 96  |
| Naphthalene                | 75.4 | ug/kg | 3330 | 2510 | 56 - 105 |
| 2-Nitroaniline             | 84.8 | ug/kg | 3330 | 2830 | 61 - 120 |
| 3-Nitroaniline             | 88.9 | ug/kg | 3330 | 2960 | 52 - 115 |
| 4-Nitroaniline             | 75.3 | ug/kg | 3330 | 2510 | 50 - 106 |
| Nitrobenzene               | 89.1 | ug/kg | 3330 | 2970 | 53 - 108 |
| 2-Nitrophenol              | 80   | ug/kg | 6670 | 5330 | 61 - 114 |
| 4-Nitrophenol              | 72.4 | ug/kg | 6670 | 4830 | 49 - 134 |
| N-Nitroso-di-n-propylamine | 77.9 | ug/kg | 3330 | 2600 | 55 - 109 |
| N-Nitrosodiphenylamine     | 96.6 | ug/kg | 3330 | 3220 | 65 - 134 |
| Pentachlorophenol          | 79.2 | ug/kg | 6670 | 5280 | 60 - 145 |
| Phenanthrene               | 83.7 | ug/kg | 3330 | 2790 | 62 - 109 |
| Phenol                     | 80.4 | ug/kg | 6670 | 5360 | 53 - 118 |
| Pyrene                     | 82.8 | ug/kg | 3330 | 2760 | 60 - 114 |
| 1,2,4,5-Tetrachlorobenzene | 81.7 | ug/kg | 3330 | 2720 | 56 - 107 |
| 2,3,4,6-Tetrachlorophenol  | 63   | ug/kg | 6670 | 4200 | 60 - 111 |
| 2,4,5-Trichlorophenol      | 82   | ug/kg | 6670 | 5460 | 68 - 121 |
| 2,4,6-Trichlorophenol      | 82.2 | ug/kg | 6670 | 5480 | 68 - 119 |
| 2,4,6-Tribromophenol (S)   | 85   | %     |      |      | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 77.9 | %     |      |      | 40 - 110 |
| 2-Fluorophenol (S)         | 74.8 | %     |      |      | 26 - 116 |
| Nitrobenzene-d5 (S)        | 73.9 | %     |      |      | 38 - 112 |
| Phenol-d5 (S)              | 81.8 | %     |      |      | 35 - 111 |
| Terphenyl-d14 (S)          | 79.3 | %     |      |      | 45 - 126 |

SAMPLE DUPLICATE: 2490998 ORIGINAL: 2209260006

| Parameter              | Original Result | Units | DUP Result | RPD   | Max RPD |
|------------------------|-----------------|-------|------------|-------|---------|
| Acenaphthene           | 51520.8         | ug/kg | 54534.6    | 5.68  | 17      |
| Acenaphthylene         | 0               | ug/kg | 1133.14    | NC    | 17      |
| Anthracene             | 21259           | ug/kg | 27746      | 26.5* | 20      |
| Benzo(a)anthracene     | 13733.5         | ug/kg | 13459      | 2.02  | 22      |
| Benzo(a)pyrene         | 7522.93         | ug/kg | 7337.09    | 2.5   | 24      |
| Benzo(b)fluoranthene   | 10862.1         | ug/kg | 10635.4    | 2.11  | 28      |
| Benzo(g,h,i)perylene   | 2656.19         | ug/kg | 2636.59    | .74   | 30      |
| Benzo(k)fluoranthene   | 4330.94         | ug/kg | 4348.36    | .4    | 22      |
| Chrysene               | 21025.8         | ug/kg | 20292.9    | 3.55  | 20      |
| Dibenzo(a,h)anthracene | 893.084         | ug/kg | 907.039    | 1.55  | 28      |
| Fluoranthene           | 75020.9         | ug/kg | 73521.4    | 2.02  | 21      |
| Fluorene               | 47765.8         | ug/kg | 49423.8    | 3.41  | 16      |
| Indeno(1,2,3-cd)pyrene | 3059.16         | ug/kg | 3061.1     | .06   | 30      |
| 2-Methylnaphthalene    | 39141           | ug/kg | 41824.2    | 6.63  | 21      |
| Naphthalene            | 114935          | ug/kg | 132733     | 14.4  | 21      |
| Phenanthrene           | 143230          | ug/kg | 150401     | 4.88  | 20      |
| Pyrene                 | 44302.2         | ug/kg | 48949.6    | 9.97  | 20      |



### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

MATRIX SPIKE SAMPLE: 2490999 ORIGINAL: 2209412007

\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                   | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|-----------------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Acenaphthene                | 0               | ug/kg | 3290        | 2098.21   | 63.8     | 59 - 115    |
| Acenaphthylene              | 0               | ug/kg | 3290        | 2201.86   | 66.9     | 59 - 114    |
| Acetophenone                | 0               | ug/kg | 3290        | 1902.97   | 57.9     | 45 - 87     |
| Anthracene                  | 0               | ug/kg | 3290        | 2258.93   | 68.7     | 63 - 112    |
| Atrazine                    | 0               | ug/kg | 3290        | 2106.01   | 64       | 54 - 128    |
| Benzaldehyde                | 96.9482         | ug/kg | 3290        | 1746.43   | 50.1*    | 52 - 108    |
| Benzo(a)anthracene          | 0               | ug/kg | 3290        | 2147.99   | 65.3     | 61 - 118    |
| Benzo(a)pyrene              | 0               | ug/kg | 3290        | 2217.52   | 67.4     | 61 - 114    |
| Benzo(b)fluoranthene        | 0               | ug/kg | 3290        | 2311.47   | 70.3     | 64 - 113    |
| Benzo(g,h,i)perylene        | 0               | ug/kg | 3290        | 2204.87   | 67       | 61 - 118    |
| Benzo(k)fluoranthene        | 0               | ug/kg | 3290        | 2258.1    | 68.6     | 62 - 113    |
| Biphenyl                    | 0               | ug/kg | 3290        | 2071.76   | 63       | 60 - 111    |
| 4-Bromophenyl-phenylether   | 0               | ug/kg | 3290        | 2525.56   | 76.8     | 60 - 111    |
| Butylbenzylphthalate        | 0               | ug/kg | 3290        | 2246.8    | 68.3     | 56 - 126    |
| Caprolactam                 | 0               | ug/kg | 3290        | 1249.99   | 38       | 38 - 129    |
| Carbazole                   | 0               | ug/kg | 3290        | 2243.96   | 68.2     | 65 - 117    |
| 4-Chloro-3-methylphenol     | 0               | ug/kg | 6580        | 4584.52   | 69.7     | 65 - 118    |
| 4-Chloroaniline             | 0               | ug/kg | 3290        | 968.397   | 29.4     | 21 - 115    |
| bis(2-Chloroethoxy)methane  | 0               | ug/kg | 3290        | 2431.05   | 73.9     | 56 - 108    |
| bis(2-Chloroethyl)ether     | 0               | ug/kg | 3290        | 2201.5    | 66.9     | 51 - 105    |
| bis(2-Chloroisopropyl)ether | 0               | ug/kg | 3290        | 2153.83   | 65.5     | 34 - 126    |
| 2-Chloronaphthalene         | 0               | ug/kg | 3290        | 2239.59   | 68.1     | 55 - 111    |
| 2-Chlorophenol              | 0               | ug/kg | 6580        | 4165.26   | 63.3     | 61 - 111    |
| 4-Chlorophenyl-phenylether  | 0               | ug/kg | 3290        | 2395.75   | 72.8     | 58 - 112    |
| Chrysene                    | 0               | ug/kg | 3290        | 2292.39   | 69.7     | 63 - 111    |
| mp-Cresol                   | 0               | ug/kg | 6580        | 4328.53   | 65.8     | 60 - 112    |
| o-Cresol                    | 0               | ug/kg | 6580        | 4255.11   | 64.7     | 62 - 113    |
| Di-n-Butylphthalate         | 0               | ug/kg | 3290        | 2410.28   | 73.3     | 58 - 118    |
| Di-n-Octylphthalate         | 0               | ug/kg | 3290        | 2018.4    | 61.4     | 45 - 128    |
| Dibenzo(a,h)anthracene      | 0               | ug/kg | 3290        | 2217.13   | 67.4     | 64 - 117    |
| Dibenzofuran                | 0               | ug/kg | 3290        | 2223.94   | 67.6     | 61 - 111    |
| 3,3-Dichlorobenzidine       | 0               | ug/kg | 6580        | 576.511   | 8.76*    | 27 - 106    |
| 2,4-Dichlorophenol          | 0               | ug/kg | 6580        | 4720.56   | 71.8     | 65 - 111    |
| Diethylphthalate            | 0               | ug/kg | 3290        | 2285.72   | 69.5     | 59 - 112    |
| 2,4-Dimethylphenol          | 0               | ug/kg | 6580        | 4624.03   | 70.3     | 65 - 114    |
| Dimethylphthalate           | 0               | ug/kg | 3290        | 2319.52   | 70.5     | 59 - 111    |
| 2,4-Dinitrophenol           | 0               | ug/kg | 6580        | 5392.84   | 82       | 36 - 131    |
| 2,4-Dinitrotoluene          | 0               | ug/kg | 3290        | 2296.9    | 69.8     | 61 - 117    |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

|                            |         |       |      |         |       |          |
|----------------------------|---------|-------|------|---------|-------|----------|
| 2,6-Dinitrotoluene         | 0       | ug/kg | 3290 | 2299.62 | 69.9  | 61 - 115 |
| 1,4-Dioxane                | 0       | ug/kg | 3290 | 725.741 | 22.1* | 37 - 98  |
| bis(2-Ethylhexyl)phthalate | 0       | ug/kg | 3290 | 2235.59 | 68    | 51 - 126 |
| Fluoranthene               | 5.05817 | ug/kg | 3290 | 2379.74 | 72.2  | 61 - 116 |
| Fluorene                   | 0       | ug/kg | 3290 | 2298.55 | 69.9  | 61 - 112 |
| Hexachlorobenzene          | 0       | ug/kg | 3290 | 2385.63 | 72.5  | 59 - 109 |
| Hexachlorobutadiene        | 0       | ug/kg | 3290 | 2514.97 | 76.5  | 58 - 123 |
| Hexachlorocyclopentadiene  | 0       | ug/kg | 3290 | 587.369 | 17.9* | 33 - 109 |
| Hexachloroethane           | 0       | ug/kg | 3290 | 1585.9  | 48.2* | 50 - 103 |
| Indeno(1,2,3-cd)pyrene     | 0       | ug/kg | 3290 | 2239.87 | 68.1  | 62 - 113 |
| Isophorone                 | 0       | ug/kg | 3290 | 2326.89 | 70.7  | 51 - 112 |
| 2-Methyl-4,6-dinitrophenol | 0       | ug/kg | 6580 | 4658.98 | 70.8  | 53 - 131 |
| 2-Methylnaphthalene        | 0       | ug/kg | 3290 | 2023.17 | 61.5  | 58 - 96  |
| Naphthalene                | 0       | ug/kg | 3290 | 2032.81 | 61.8  | 56 - 105 |
| 2-Nitroaniline             | 0       | ug/kg | 3290 | 2353.39 | 71.5  | 61 - 120 |
| 3-Nitroaniline             | 0       | ug/kg | 3290 | 1500.47 | 45.6* | 52 - 115 |
| 4-Nitroaniline             | 0       | ug/kg | 3290 | 1571.38 | 47.8* | 50 - 106 |
| Nitrobenzene               | 0       | ug/kg | 3290 | 2391.25 | 72.7  | 53 - 108 |
| 2-Nitrophenol              | 0       | ug/kg | 6580 | 4360.06 | 66.3  | 61 - 114 |
| 4-Nitrophenol              | 0       | ug/kg | 6580 | 185.919 | 2.83* | 49 - 134 |
| N-Nitroso-di-n-propylamine | 0       | ug/kg | 3290 | 2204.98 | 67    | 55 - 109 |
| N-Nitrosodiphenylamine     | 0       | ug/kg | 3290 | 2677.24 | 81.4  | 65 - 134 |
| Pentachlorophenol          | 0       | ug/kg | 6580 | 4972.75 | 75.6  | 60 - 145 |
| Phenanthrene               | 0       | ug/kg | 3290 | 2299.04 | 69.9  | 62 - 109 |
| Phenol                     | 0       | ug/kg | 6580 | 4466.26 | 67.9  | 53 - 118 |
| Pyrene                     | 0       | ug/kg | 3290 | 2198.42 | 66.8  | 60 - 114 |
| 1,2,4,5-Tetrachlorobenzene | 0       | ug/kg | 3290 | 2207.97 | 67.1  | 56 - 107 |
| 2,3,4,6-Tetrachlorophenol  | 0       | ug/kg | 6580 | 3728.15 | 56.7* | 60 - 111 |
| 2,4,5-Trichlorophenol      | 0       | ug/kg | 6580 | 4647.39 | 70.6  | 68 - 121 |
| 2,4,6-Trichlorophenol      | 0       | ug/kg | 6580 | 4697.78 | 71.4  | 68 - 119 |
| 2,4,6-Tribromophenol (S)   | 73.9    | %     |      |         |       | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 64.6    | %     |      |         |       | 40 - 110 |
| 2-Fluorophenol (S)         | 60.3    | %     |      |         |       | 26 - 116 |
| Nitrobenzene-d5 (S)        | 61.2    | %     |      |         |       | 38 - 112 |
| Phenol-d5 (S)              | 69.1    | %     |      |         |       | 35 - 111 |
| Terphenyl-d14 (S)          | 63.5    | %     |      |         |       | 45 - 126 |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

**QC Batch:** EXTR/46832

**Analysis Method:** SW846 8270D

**QC Batch Method:** SW846 3546

**Associated Lab Samples:** 2209412009

METHOD BLANK: 2491176

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acenaphthene                | ND           | ug/kg | 50.0            |
| Acenaphthylene              | ND           | ug/kg | 50.0            |
| Acetophenone                | ND           | ug/kg | 100             |
| Anthracene                  | ND           | ug/kg | 50.0            |
| Atrazine                    | ND           | ug/kg | 100             |
| Benzaldehyde                | ND           | ug/kg | 200             |
| Benzo(a)anthracene          | 5.6J         | ug/kg | 50.0            |
| Benzo(a)pyrene              | ND           | ug/kg | 50.0            |
| Benzo(b)fluoranthene        | ND           | ug/kg | 50.0            |
| Benzo(g,h,i)perylene        | ND           | ug/kg | 50.0            |
| Benzo(k)fluoranthene        | ND           | ug/kg | 50.0            |
| Biphenyl                    | ND           | ug/kg | 100             |
| 4-Bromophenyl-phenylether   | ND           | ug/kg | 100             |
| Butylbenzylphthalate        | 13.4J        | ug/kg | 100             |
| Caprolactam                 | ND           | ug/kg | 200             |
| Carbazole                   | ND           | ug/kg | 100             |
| 4-Chloro-3-methylphenol     | ND           | ug/kg | 200             |
| 4-Chloroaniline             | ND           | ug/kg | 200             |
| bis(2-Chloroethoxy)methane  | ND           | ug/kg | 100             |
| bis(2-Chloroethyl)ether     | ND           | ug/kg | 100             |
| bis(2-Chloroisopropyl)ether | ND           | ug/kg | 100             |
| 2-Chloronaphthalene         | ND           | ug/kg | 200             |
| 2-Chlorophenol              | ND           | ug/kg | 200             |
| 4-Chlorophenyl-phenylether  | ND           | ug/kg | 100             |
| Chrysene                    | ND           | ug/kg | 50.0            |
| mp-Cresol                   | ND           | ug/kg | 200             |
| o-Cresol                    | ND           | ug/kg | 200             |
| Di-n-Butylphthalate         | ND           | ug/kg | 100             |
| Di-n-Octylphthalate         | ND           | ug/kg | 100             |
| Dibenzo(a,h)anthracene      | ND           | ug/kg | 50.0            |
| Dibenzofuran                | ND           | ug/kg | 100             |
| 3,3-Dichlorobenzidine       | ND           | ug/kg | 200             |
| 2,4-Dichlorophenol          | ND           | ug/kg | 200             |
| Diethylphthalate            | ND           | ug/kg | 100             |
| 2,4-Dimethylphenol          | ND           | ug/kg | 200             |
| Dimethylphthalate           | ND           | ug/kg | 100             |
| 2,4-Dinitrophenol           | ND           | ug/kg | 200             |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

|                            |      |       |          |
|----------------------------|------|-------|----------|
| 2,4-Dinitrotoluene         | ND   | ug/kg | 100      |
| 2,6-Dinitrotoluene         | ND   | ug/kg | 100      |
| 1,4-Dioxane                | ND   | ug/kg | 100      |
| bis(2-Ethylhexyl)phthalate | ND   | ug/kg | 100      |
| Fluoranthene               | ND   | ug/kg | 50.0     |
| Fluorene                   | ND   | ug/kg | 50.0     |
| Hexachlorobenzene          | ND   | ug/kg | 100      |
| Hexachlorobutadiene        | ND   | ug/kg | 100      |
| Hexachlorocyclopentadiene  | ND   | ug/kg | 200      |
| Hexachloroethane           | ND   | ug/kg | 100      |
| Indeno(1,2,3-cd)pyrene     | ND   | ug/kg | 50.0     |
| Isophorone                 | ND   | ug/kg | 100      |
| 2-Methyl-4,6-dinitrophenol | ND   | ug/kg | 200      |
| 2-Methylnaphthalene        | ND   | ug/kg | 100      |
| Naphthalene                | ND   | ug/kg | 50.0     |
| 2-Nitroaniline             | ND   | ug/kg | 200      |
| 3-Nitroaniline             | ND   | ug/kg | 200      |
| 4-Nitroaniline             | ND   | ug/kg | 200      |
| Nitrobenzene               | ND   | ug/kg | 100      |
| 2-Nitrophenol              | ND   | ug/kg | 200      |
| 4-Nitrophenol              | ND   | ug/kg | 200      |
| N-Nitroso-di-n-propylamine | ND   | ug/kg | 100      |
| N-Nitrosodiphenylamine     | ND   | ug/kg | 100      |
| Pentachlorophenol          | ND   | ug/kg | 200      |
| Phenanthrene               | ND   | ug/kg | 50.0     |
| Phenol                     | ND   | ug/kg | 200      |
| Pyrene                     | ND   | ug/kg | 50.0     |
| 1,2,4,5-Tetrachlorobenzene | ND   | ug/kg | 100      |
| 2,3,4,6-Tetrachlorophenol  | ND   | ug/kg | 200      |
| 2,4,5-Trichlorophenol      | ND   | ug/kg | 200      |
| 2,4,6-Trichlorophenol      | ND   | ug/kg | 200      |
| 2,4,6-Tribromophenol (S)   | 90.1 | %     | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 81.8 | %     | 40 - 110 |
| 2-Fluorophenol (S)         | 77.1 | %     | 26 - 116 |
| Nitrobenzene-d5 (S)        | 80.9 | %     | 38 - 112 |
| Phenol-d5 (S)              | 80.8 | %     | 35 - 111 |
| Terphenyl-d14 (S)          | 81.2 | %     | 45 - 126 |

## LABORATORY CONTROL SAMPLE: 2491177

| Parameter      | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | % Rec<br>Limit |
|----------------|--------------|-------|----------------|---------------|----------------|
| Acenaphthene   | 77.7         | ug/kg | 3330           | 2590          | 59 - 115       |
| Acenaphthylene | 78.6         | ug/kg | 3330           | 2620          | 59 - 114       |
| Acetophenone   | 43.6*        | ug/kg | 3330           | 1450          | 45 - 87        |
| Anthracene     | 77.3         | ug/kg | 3330           | 2580          | 63 - 112       |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

|                             |      |       |      |      |          |
|-----------------------------|------|-------|------|------|----------|
| Atrazine                    | 79.8 | ug/kg | 3330 | 2660 | 54 - 128 |
| Benzaldehyde                | 67.6 | ug/kg | 3330 | 2250 | 52 - 108 |
| Benzo(a)anthracene          | 78.5 | ug/kg | 3330 | 2620 | 61 - 118 |
| Benzo(a)pyrene              | 78.9 | ug/kg | 3330 | 2630 | 61 - 114 |
| Benzo(b)fluoranthene        | 78.3 | ug/kg | 3330 | 2610 | 64 - 113 |
| Benzo(g,h,i)perylene        | 83.7 | ug/kg | 3330 | 2790 | 61 - 118 |
| Benzo(k)fluoranthene        | 78.9 | ug/kg | 3330 | 2630 | 62 - 113 |
| Biphenyl                    | 72.2 | ug/kg | 3330 | 2410 | 60 - 111 |
| 4-Bromophenyl-phenylether   | 80.9 | ug/kg | 3330 | 2700 | 60 - 111 |
| Butylbenzylphthalate        | 83   | ug/kg | 3330 | 2770 | 56 - 126 |
| Caprolactam                 | 76.8 | ug/kg | 3330 | 2560 | 38 - 129 |
| Carbazole                   | 82.6 | ug/kg | 3330 | 2750 | 65 - 117 |
| 4-Chloro-3-methylphenol     | 75.6 | ug/kg | 6670 | 5040 | 65 - 118 |
| 4-Chloroaniline             | 67.1 | ug/kg | 3330 | 2240 | 21 - 115 |
| bis(2-Chloroethoxy)methane  | 77.3 | ug/kg | 3330 | 2580 | 56 - 108 |
| bis(2-Chloroethyl)ether     | 75.6 | ug/kg | 3330 | 2520 | 51 - 105 |
| bis(2-Chloroisopropyl)ether | 70.7 | ug/kg | 3330 | 2360 | 34 - 126 |
| 2-Chloronaphthalene         | 75.6 | ug/kg | 3330 | 2520 | 55 - 111 |
| 2-Chlorophenol              | 75.2 | ug/kg | 6670 | 5020 | 61 - 111 |
| 4-Chlorophenyl-phenylether  | 80.4 | ug/kg | 3330 | 2680 | 58 - 112 |
| Chrysene                    | 84.6 | ug/kg | 3330 | 2820 | 63 - 111 |
| mp-Cresol                   | 72.5 | ug/kg | 6670 | 4830 | 60 - 112 |
| o-Cresol                    | 71.9 | ug/kg | 6670 | 4790 | 62 - 113 |
| Di-n-Butylphthalate         | 86.3 | ug/kg | 3330 | 2880 | 58 - 118 |
| Di-n-Octylphthalate         | 78.8 | ug/kg | 3330 | 2630 | 45 - 128 |
| Dibenzo(a,h)anthracene      | 83   | ug/kg | 3330 | 2770 | 64 - 117 |
| Dibenzofuran                | 76.6 | ug/kg | 3330 | 2550 | 61 - 111 |
| 3,3-Dichlorobenzidine       | 65   | ug/kg | 6670 | 4330 | 27 - 106 |
| 2,4-Dichlorophenol          | 75.9 | ug/kg | 6670 | 5060 | 65 - 111 |
| Diethylphthalate            | 82.5 | ug/kg | 3330 | 2750 | 59 - 112 |
| 2,4-Dimethylphenol          | 75.6 | ug/kg | 6670 | 5040 | 65 - 114 |
| Dimethylphthalate           | 81   | ug/kg | 3330 | 2700 | 59 - 111 |
| 2,4-Dinitrophenol           | 86.8 | ug/kg | 6670 | 5790 | 36 - 131 |
| 2,4-Dinitrotoluene          | 81.7 | ug/kg | 3330 | 2720 | 61 - 117 |
| 2,6-Dinitrotoluene          | 82.2 | ug/kg | 3330 | 2740 | 61 - 115 |
| 1,4-Dioxane                 | 51.1 | ug/kg | 3330 | 1700 | 37 - 98  |
| bis(2-Ethylhexyl)phthalate  | 81   | ug/kg | 3330 | 2700 | 51 - 126 |
| Fluoranthene                | 83.8 | ug/kg | 3330 | 2790 | 61 - 116 |
| Fluorene                    | 79.7 | ug/kg | 3330 | 2660 | 61 - 112 |
| Hexachlorobenzene           | 83   | ug/kg | 3330 | 2770 | 59 - 109 |
| Hexachlorobutadiene         | 88.6 | ug/kg | 3330 | 2950 | 58 - 123 |
| Hexachlorocyclopentadiene   | 51.4 | ug/kg | 3330 | 1710 | 33 - 109 |
| Hexachloroethane            | 74.8 | ug/kg | 3330 | 2490 | 50 - 103 |
| Indeno(1,2,3-cd)pyrene      | 82.7 | ug/kg | 3330 | 2760 | 62 - 113 |
| Isophorone                  | 73.9 | ug/kg | 3330 | 2460 | 51 - 112 |
| 2-Methyl-4,6-dinitrophenol  | 93.7 | ug/kg | 6670 | 6240 | 53 - 131 |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

|                            |      |       |      |      |          |
|----------------------------|------|-------|------|------|----------|
| 2-Methylnaphthalene        | 71.5 | ug/kg | 3330 | 2380 | 58 - 96  |
| Naphthalene                | 75.9 | ug/kg | 3330 | 2530 | 56 - 105 |
| 2-Nitroaniline             | 80.2 | ug/kg | 3330 | 2670 | 61 - 120 |
| 3-Nitroaniline             | 78.7 | ug/kg | 3330 | 2620 | 52 - 115 |
| 4-Nitroaniline             | 77   | ug/kg | 3330 | 2570 | 50 - 106 |
| Nitrobenzene               | 76.5 | ug/kg | 3330 | 2550 | 53 - 108 |
| 2-Nitrophenol              | 75.1 | ug/kg | 6670 | 5010 | 61 - 114 |
| 4-Nitrophenol              | 80.3 | ug/kg | 6670 | 5360 | 49 - 134 |
| N-Nitroso-di-n-propylamine | 73.1 | ug/kg | 3330 | 2440 | 55 - 109 |
| N-Nitrosodiphenylamine     | 91   | ug/kg | 3330 | 3030 | 65 - 134 |
| Pentachlorophenol          | 101  | ug/kg | 6670 | 6760 | 60 - 145 |
| Phenanthrene               | 79.2 | ug/kg | 3330 | 2640 | 62 - 109 |
| Phenol                     | 71.7 | ug/kg | 6670 | 4780 | 53 - 118 |
| Pyrene                     | 79.2 | ug/kg | 3330 | 2640 | 60 - 114 |
| 1,2,4,5-Tetrachlorobenzene | 75.3 | ug/kg | 3330 | 2510 | 56 - 107 |
| 2,3,4,6-Tetrachlorophenol  | 64.4 | ug/kg | 6670 | 4290 | 60 - 111 |
| 2,4,5-Trichlorophenol      | 74.9 | ug/kg | 6670 | 4990 | 68 - 121 |
| 2,4,6-Trichlorophenol      | 78.4 | ug/kg | 6670 | 5230 | 68 - 119 |
| 2,4,6-Tribromophenol (S)   | 79.1 | %     |      |      | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 73.2 | %     |      |      | 40 - 110 |
| 2-Fluorophenol (S)         | 71.1 | %     |      |      | 26 - 116 |
| Nitrobenzene-d5 (S)        | 72.6 | %     |      |      | 38 - 112 |
| Phenol-d5 (S)              | 71.6 | %     |      |      | 35 - 111 |
| Terphenyl-d14 (S)          | 78.3 | %     |      |      | 45 - 126 |

MATRIX SPIKE SAMPLE: 2491178 ORIGINAL: 2210083001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                 | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|---------------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Acenaphthene              | 85.1655         | ug/kg | 3290        | 2474.25   | 72.6     | 59 - 115    |
| Acenaphthylene            | 57.098          | ug/kg | 3290        | 2483.27   | 73.8     | 59 - 114    |
| Acetophenone              | 0               | ug/kg | 3290        | 1335.03   | 40.6*    | 45 - 87     |
| Anthracene                | 248.667         | ug/kg | 3290        | 2586.82   | 71.1     | 63 - 112    |
| Atrazine                  | 0               | ug/kg | 3290        | 2315.07   | 70.4     | 54 - 128    |
| Benzaldehyde              | 0               | ug/kg | 3290        | 2109.97   | 64.1     | 52 - 108    |
| Benzo(a)anthracene        | 673.937         | ug/kg | 3290        | 2942.22   | 69       | 61 - 118    |
| Benzo(a)pyrene            | 633.427         | ug/kg | 3290        | 2909.77   | 69.2     | 61 - 114    |
| Benzo(b)fluoranthene      | 819.186         | ug/kg | 3290        | 3182.86   | 71.9     | 64 - 113    |
| Benzo(g,h,i)perylene      | 335.623         | ug/kg | 3290        | 2440.83   | 64       | 61 - 118    |
| Benzo(k)fluoranthene      | 299.021         | ug/kg | 3290        | 2646.88   | 71.4     | 62 - 113    |
| Biphenyl                  | 0               | ug/kg | 3290        | 2280.76   | 69.3     | 60 - 111    |
| 4-Bromophenyl-phenylether | 0               | ug/kg | 3290        | 2521.63   | 76.7     | 60 - 111    |
| Butylbenzylphthalate      | 0               | ug/kg | 3290        | 2371.27   | 72.1     | 56 - 126    |
| Caprolactam               | 0               | ug/kg | 3290        | 2308.81   | 70.2     | 38 - 129    |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

|                             |         |       |      |         |       |          |
|-----------------------------|---------|-------|------|---------|-------|----------|
| Carbazole                   | 112.097 | ug/kg | 3290 | 2589.2  | 75.3  | 65 - 117 |
| 4-Chloro-3-methylphenol     | 0       | ug/kg | 6580 | 4727.43 | 71.9  | 65 - 118 |
| 4-Chloroaniline             | 0       | ug/kg | 3290 | 1921.66 | 58.4  | 21 - 115 |
| bis(2-Chloroethoxy)methane  | 0       | ug/kg | 3290 | 2333.61 | 70.9  | 56 - 108 |
| bis(2-Chloroethyl)ether     | 0       | ug/kg | 3290 | 2270.33 | 69    | 51 - 105 |
| bis(2-Chloroisopropyl)ether | 0       | ug/kg | 3290 | 2129.34 | 64.7  | 34 - 126 |
| 2-Chloronaphthalene         | 0       | ug/kg | 3290 | 2341.67 | 71.2  | 55 - 111 |
| 2-Chlorophenol              | 0       | ug/kg | 6580 | 4560.36 | 69.3  | 61 - 111 |
| 4-Chlorophenyl-phenylether  | 0       | ug/kg | 3290 | 2486.35 | 75.6  | 58 - 112 |
| Chrysene                    | 678.904 | ug/kg | 3290 | 3096.17 | 73.5  | 63 - 111 |
| mp-Cresol                   | 0       | ug/kg | 6580 | 4285.46 | 65.1  | 60 - 112 |
| o-Cresol                    | 0       | ug/kg | 6580 | 4313.34 | 65.6  | 62 - 113 |
| Di-n-Butylphthalate         | 10.4376 | ug/kg | 3290 | 2549.14 | 77.2  | 58 - 118 |
| Di-n-Octylphthalate         | 0       | ug/kg | 3290 | 2439.5  | 74.2  | 45 - 128 |
| Dibenzo(a,h)anthracene      | 117.064 | ug/kg | 3290 | 2413.65 | 69.8  | 64 - 117 |
| Dibenzofuran                | 63.8854 | ug/kg | 3290 | 2401.81 | 71.1  | 61 - 111 |
| 3,3-Dichlorobenzidine       | 0       | ug/kg | 6580 | 4529.47 | 68.8  | 27 - 106 |
| 2,4-Dichlorophenol          | 0       | ug/kg | 6580 | 4601.57 | 69.9  | 65 - 111 |
| Diethylphthalate            | 0       | ug/kg | 3290 | 2514.54 | 76.4  | 59 - 112 |
| 2,4-Dimethylphenol          | 0       | ug/kg | 6580 | 4034.28 | 61.3* | 65 - 114 |
| Dimethylphthalate           | 0       | ug/kg | 3290 | 2519.42 | 76.6  | 59 - 111 |
| 2,4-Dinitrophenol           | 0       | ug/kg | 6580 | 131.581 | 2*    | 36 - 131 |
| 2,4-Dinitrotoluene          | 0       | ug/kg | 3290 | 2450.68 | 74.5  | 61 - 117 |
| 2,6-Dinitrotoluene          | 0       | ug/kg | 3290 | 2490.95 | 75.7  | 61 - 115 |
| 1,4-Dioxane                 | 0       | ug/kg | 3290 | 1588.49 | 48.3  | 37 - 98  |
| bis(2-Ethylhexyl)phthalate  | 9.18409 | ug/kg | 3290 | 2313.82 | 70.1  | 51 - 126 |
| Fluoranthene                | 1154.28 | ug/kg | 3290 | 3549.41 | 72.8  | 61 - 116 |
| Fluorene                    | 96.9775 | ug/kg | 3290 | 2543.12 | 74.4  | 61 - 112 |
| Hexachlorobenzene           | 0       | ug/kg | 3290 | 2619.88 | 79.6  | 59 - 109 |
| Hexachlorobutadiene         | 0       | ug/kg | 3290 | 2556.07 | 77.7  | 58 - 123 |
| Hexachlorocyclopentadiene   | 0       | ug/kg | 3290 | 452.642 | 13.8* | 33 - 109 |
| Hexachloroethane            | 0       | ug/kg | 3290 | 2097.95 | 63.8  | 50 - 103 |
| Indeno(1,2,3-cd)pyrene      | 372.716 | ug/kg | 3290 | 2610.23 | 68    | 62 - 113 |
| Isophorone                  | 0       | ug/kg | 3290 | 2160.11 | 65.7  | 51 - 112 |
| 2-Methyl-4,6-dinitrophenol  | 0       | ug/kg | 6580 | 717.621 | 10.9* | 53 - 131 |
| 2-Methylnaphthalene         | 39.6138 | ug/kg | 3290 | 2192.33 | 65.4  | 58 - 96  |
| Naphthalene                 | 63.113  | ug/kg | 3290 | 2287.83 | 67.6  | 56 - 105 |
| 2-Nitroaniline              | 0       | ug/kg | 3290 | 2620.22 | 79.7  | 61 - 120 |
| 3-Nitroaniline              | 0       | ug/kg | 3290 | 2555.42 | 77.7  | 52 - 115 |
| 4-Nitroaniline              | 0       | ug/kg | 3290 | 2532.68 | 77    | 50 - 106 |
| Nitrobenzene                | 0       | ug/kg | 3290 | 2289.32 | 69.6  | 53 - 108 |
| 2-Nitrophenol               | 0       | ug/kg | 6580 | 4296.5  | 65.3  | 61 - 114 |
| 4-Nitrophenol               | 0       | ug/kg | 6580 | 4417.31 | 67.1  | 49 - 134 |
| N-Nitroso-di-n-propylamine  | 0       | ug/kg | 3290 | 2152.16 | 65.4  | 55 - 109 |
| N-Nitrosodiphenylamine      | 0       | ug/kg | 3290 | 2827.46 | 86    | 65 - 134 |
| Pentachlorophenol           | 0       | ug/kg | 6580 | 4559.44 | 69.3  | 60 - 145 |



### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

|                            |         |       |      |         |       |          |
|----------------------------|---------|-------|------|---------|-------|----------|
| Phenanthrene               | 924.08  | ug/kg | 3290 | 3060.42 | 64.9  | 62 - 109 |
| Phenol                     | 0       | ug/kg | 6580 | 4307.29 | 65.5  | 53 - 118 |
| Pyrene                     | 986.124 | ug/kg | 3290 | 3125.84 | 65    | 60 - 114 |
| 1,2,4,5-Tetrachlorobenzene | 0       | ug/kg | 3290 | 2340.44 | 71.1  | 56 - 107 |
| 2,3,4,6-Tetrachlorophenol  | 0       | ug/kg | 6580 | 3608.46 | 54.8* | 60 - 111 |
| 2,4,5-Trichlorophenol      | 0       | ug/kg | 6580 | 4782.04 | 72.7  | 68 - 121 |
| 2,4,6-Trichlorophenol      | 0       | ug/kg | 6580 | 4812.06 | 73.1  | 68 - 119 |
| 2,4,6-Tribromophenol (S)   | 72.4    | %     |      |         |       | 19 - 132 |
| 2-Fluorobiphenyl (S)       | 69.8    | %     |      |         |       | 40 - 110 |
| 2-Fluorophenol (S)         | 62.8    | %     |      |         |       | 26 - 116 |
| Nitrobenzene-d5 (S)        | 67.1    | %     |      |         |       | 38 - 112 |
| Phenol-d5 (S)              | 65.7    | %     |      |         |       | 35 - 111 |
| Terphenyl-d14 (S)          | 66.4    | %     |      |         |       | 45 - 126 |

SAMPLE DUPLICATE: 2491179 ORIGINAL: 2210083002

| Parameter                   | Original Result | Units | DUP Result | RPD   | Max RPD |
|-----------------------------|-----------------|-------|------------|-------|---------|
| Acenaphthene                | 7.06584         | ug/kg | 7.25007    | 2.57  | 17      |
| Acenaphthylene              | 9.6498          | ug/kg | 16.4692    | 52.2* | 17      |
| Acetophenone                | 0               | ug/kg | 0          | NC    | 21      |
| Anthracene                  | 23.1444         | ug/kg | 37.8393    | 48.2* | 20      |
| Atrazine                    | 0               | ug/kg | 0          | NC    | 22      |
| Benzaldehyde                | 0               | ug/kg | 0          | NC    | 30      |
| Benzo(a)anthracene          | 85.0943         | ug/kg | 94.0296    | 9.98  | 22      |
| Benzo(a)pyrene              | 96.9393         | ug/kg | 113.003    | 15.3  | 24      |
| Benzo(b)fluoranthene        | 119.324         | ug/kg | 160.533    | 29.5* | 28      |
| Benzo(g,h,i)perylene        | 55.7495         | ug/kg | 74.7636    | 29.1  | 30      |
| Benzo(k)fluoranthene        | 51.0286         | ug/kg | 61.355     | 18.4  | 22      |
| Biphenyl                    | 0               | ug/kg | 0          | NC    | 14      |
| 4-Bromophenyl-phenylether   | 0               | ug/kg | 0          | NC    | 21      |
| Butylbenzylphthalate        | 0               | ug/kg | 0          | NC    | 18      |
| Caprolactam                 | 0               | ug/kg | 0          | NC    | 23      |
| Carbazole                   | 14.9254         | ug/kg | 14.55      | 2.55  | 20      |
| 4-Chloro-3-methylphenol     | 0               | ug/kg | 0          | NC    | 20      |
| 4-Chloroaniline             | 0               | ug/kg | 0          | NC    | 22      |
| bis(2-Chloroethoxy)methane  | 0               | ug/kg | 0          | NC    | 18      |
| bis(2-Chloroethyl)ether     | 0               | ug/kg | 0          | NC    | 24      |
| bis(2-Chloroisopropyl)ether | 0               | ug/kg | 0          | NC    | 22      |
| 2-Chloronaphthalene         | 0               | ug/kg | 0          | NC    | 19      |
| 2-Chlorophenol              | 0               | ug/kg | 0          | NC    | 22      |
| 4-Chlorophenyl-phenylether  | 0               | ug/kg | 0          | NC    | 18      |
| Chrysene                    | 95.274          | ug/kg | 108.035    | 12.6  | 20      |
| mp-Cresol                   | 0               | ug/kg | 0          | NC    | 20      |
| o-Cresol                    | 0               | ug/kg | 0          | NC    | 21      |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

|                            |         |       |         |       |    |
|----------------------------|---------|-------|---------|-------|----|
| Di-n-Butylphthalate        | 0       | ug/kg | 0       | NC    | 20 |
| Di-n-Octylphthalate        | 0       | ug/kg | 0       | NC    | 20 |
| Dibenzo(a,h)anthracene     | 21.7937 | ug/kg | 28.015  | 25    | 28 |
| Dibenzofuran               | 11.8916 | ug/kg | 12.0966 | 1.71  | 18 |
| 3,3-Dichlorobenzidine      | 0       | ug/kg | 0       | NC    | 26 |
| 2,4-Dichlorophenol         | 0       | ug/kg | 0       | NC    | 20 |
| Diethylphthalate           | 0       | ug/kg | 0       | NC    | 18 |
| 2,4-Dimethylphenol         | 0       | ug/kg | 0       | NC    | 23 |
| Dimethylphthalate          | 0       | ug/kg | 0       | NC    | 18 |
| 2,4-Dinitrophenol          | 0       | ug/kg | 0       | NC    | 30 |
| 2,4-Dinitrotoluene         | 0       | ug/kg | 0       | NC    | 21 |
| 2,6-Dinitrotoluene         | 0       | ug/kg | 0       | NC    | 20 |
| 1,4-Dioxane                | 0       | ug/kg | 0       | NC    | 30 |
| bis(2-Ethylhexyl)phthalate | 0       | ug/kg | 0       | NC    | 21 |
| Fluoranthene               | 125.281 | ug/kg | 114.881 | 8.66  | 21 |
| Fluorene                   | 8.24584 | ug/kg | 9.9077  | 18.3* | 16 |
| Hexachlorobenzene          | 0       | ug/kg | 0       | NC    | 21 |
| Hexachlorobutadiene        | 0       | ug/kg | 0       | NC    | 22 |
| Hexachlorocyclopentadiene  | 0       | ug/kg | 0       | NC    | 29 |
| Hexachloroethane           | 0       | ug/kg | 0       | NC    | 28 |
| Indeno(1,2,3-cd)pyrene     | 64.2102 | ug/kg | 75.8155 | 16.6  | 30 |
| Isophorone                 | 0       | ug/kg | 0       | NC    | 19 |
| 2-Methyl-4,6-dinitrophenol | 0       | ug/kg | 0       | NC    | 30 |
| 2-Methylnaphthalene        | 14.4146 | ug/kg | 12.413  | 14.9  | 21 |
| Naphthalene                | 18.1354 | ug/kg | 18.4525 | 1.73  | 21 |
| 2-Nitroaniline             | 0       | ug/kg | 0       | NC    | 19 |
| 3-Nitroaniline             | 0       | ug/kg | 0       | NC    | 22 |
| 4-Nitroaniline             | 0       | ug/kg | 0       | NC    | 19 |
| Nitrobenzene               | 0       | ug/kg | 0       | NC    | 20 |
| 2-Nitrophenol              | 0       | ug/kg | 0       | NC    | 23 |
| 4-Nitrophenol              | 0       | ug/kg | 0       | NC    | 21 |
| N-Nitroso-di-n-propylamine | 0       | ug/kg | 0       | NC    | 20 |
| N-Nitrosodiphenylamine     | 0       | ug/kg | 0       | NC    | 21 |
| Pentachlorophenol          | 0       | ug/kg | 0       | NC    | 25 |
| Phenanthrene               | 96.1628 | ug/kg | 85.8799 | 11.3  | 20 |
| Phenol                     | 0       | ug/kg | 0       | NC    | 23 |
| Pyrene                     | 101.219 | ug/kg | 110.806 | 9.04  | 20 |
| 1,2,4,5-Tetrachlorobenzene | 0       | ug/kg | 0       | NC    | 19 |
| 2,3,4,6-Tetrachlorophenol  | 0       | ug/kg | 0       | NC    | 20 |
| 2,4,5-Trichlorophenol      | 0       | ug/kg | 0       | NC    | 22 |
| 2,4,6-Trichlorophenol      | 0       | ug/kg | 0       | NC    | 20 |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

**QC Batch:** EXTR/46835      **Analysis Method:** SW846 8082A  
**QC Batch Method:** SW846 3546  
**Associated Lab Samples:** 2209412009, 2209412010, 2209412011, 2209412012

#### METHOD BLANK: 2491242

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aroclor-1016             | ND           | mg/kg | 0.033           |
| Aroclor-1221             | ND           | mg/kg | 0.033           |
| Aroclor-1232             | ND           | mg/kg | 0.033           |
| Aroclor-1242             | ND           | mg/kg | 0.033           |
| Aroclor-1248             | ND           | mg/kg | 0.033           |
| Aroclor-1254             | ND           | mg/kg | 0.033           |
| Aroclor-1260             | ND           | mg/kg | 0.033           |
| Aroclor-1262             | ND           | mg/kg | 0.033           |
| Aroclor-1268             | ND           | mg/kg | 0.033           |
| Decachlorobiphenyls (S)  | 64.8         | %     | 49 - 115        |
| Tetrachloro-m-xylene (S) | 84.7         | %     | 27 - 137        |

#### LABORATORY CONTROL SAMPLE: 2491243

| Parameter                | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|--------------------------|-----------|-------|-------------|------------|-------------|
| Aroclor-1016             | 97.1      | mg/kg | .33         | 0.32       | 43 - 132    |
| Aroclor-1221             |           | mg/kg |             | ND         |             |
| Aroclor-1232             |           | mg/kg |             | ND         |             |
| Aroclor-1242             |           | mg/kg |             | ND         |             |
| Aroclor-1248             |           | mg/kg |             | ND         |             |
| Aroclor-1254             |           | mg/kg |             | ND         |             |
| Aroclor-1260             | 85.4      | mg/kg | .33         | 0.28       | 53 - 134    |
| Aroclor-1262             |           | mg/kg |             | ND         |             |
| Aroclor-1268             |           | mg/kg |             | ND         |             |
| Decachlorobiphenyls (S)  | 83        | %     |             |            | 49 - 115    |
| Tetrachloro-m-xylene (S) | 94.5      | %     |             |            | 27 - 137    |

#### MATRIX SPIKE SAMPLE: 2491244 ORIGINAL: 2210243001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter    | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|--------------|-----------------|-------|-------------|-----------|----------|-------------|
| Aroclor-1016 | 0               | mg/kg | .32         | .25667    | 79.6     | 43 - 132    |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

|                          |      |       |     |        |      |          |
|--------------------------|------|-------|-----|--------|------|----------|
| Aroclor-1260             | 0    | mg/kg | .32 | .24166 | 74.9 | 53 - 134 |
| Decachlorobiphenyls (S)  | 78.6 | %     |     |        |      | 49 - 115 |
| Tetrachloro-m-xylene (S) | 81.8 | %     |     |        |      | 27 - 137 |

SAMPLE DUPLICATE: 2491245 ORIGINAL: 2210570002

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Aroclor-1016 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1221 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1232 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1242 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1248 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1254 | 0               | mg/kg | 0          | NC  | 40      |
| Aroclor-1260 | 0               | mg/kg | 0          | NC  | 40      |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

**QC Batch:** EXTR/46836 **Analysis Method:** SW846 8081B  
**QC Batch Method:** SW846 3546  
**Associated Lab Samples:** 2209412009, 2209412010, 2209412011, 2209412012

#### METHOD BLANK: 2491246

| Parameter                | Blank Result | Units | Reporting Limit |
|--------------------------|--------------|-------|-----------------|
| Aldrin                   | ND           | ug/kg | 1.7             |
| alpha-BHC                | ND           | ug/kg | 1.7             |
| beta-BHC                 | ND           | ug/kg | 1.7             |
| delta-BHC                | ND           | ug/kg | 1.7             |
| gamma-BHC                | ND           | ug/kg | 1.7             |
| alpha-Chlordane          | ND           | ug/kg | 1.7             |
| gamma-Chlordane          | ND           | ug/kg | 1.7             |
| 4,4'-DDD                 | ND           | ug/kg | 3.3             |
| 4,4'-DDE                 | ND           | ug/kg | 3.3             |
| 4,4'-DDT                 | ND           | ug/kg | 3.3             |
| Dieldrin                 | ND           | ug/kg | 3.3             |
| Endosulfan I             | ND           | ug/kg | 1.7             |
| Endosulfan II            | ND           | ug/kg | 3.3             |
| Endosulfan Sulfate       | ND           | ug/kg | 3.3             |
| Endrin                   | ND           | ug/kg | 3.3             |
| Endrin Aldehyde          | 0.68J        | ug/kg | 3.3             |
| Endrin Ketone            | ND           | ug/kg | 3.3             |
| Heptachlor               | ND           | ug/kg | 1.7             |
| Heptachlor Epoxide       | ND           | ug/kg | 1.7             |
| Methoxychlor             | ND           | ug/kg | 3.3             |
| Toxaphene                | ND           | ug/kg | 35.0            |
| Decachlorobiphenyls (S)  | 57.5         | %     | 30 - 135        |
| Tetrachloro-m-xylene (S) | 53.6         | %     | 30 - 111        |

#### LABORATORY CONTROL SAMPLE: 2491247

| Parameter       | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|-----------------|-----------|-------|-------------|------------|-------------|
| Aldrin          | 79        | ug/kg | 33.3        | 26.3       | 58 - 103    |
| alpha-BHC       | 82.5      | ug/kg | 33.3        | 27.5       | 57 - 105    |
| beta-BHC        | 76.3      | ug/kg | 33.3        | 25.4       | 53 - 106    |
| delta-BHC       | 85.2      | ug/kg | 33.3        | 28.4       | 60 - 103    |
| gamma-BHC       | 81.6      | ug/kg | 33.3        | 27.2       | 59 - 102    |
| alpha-Chlordane | 76.9      | ug/kg | 33.3        | 25.6       | 62 - 98     |
| gamma-Chlordane | 79.1      | ug/kg | 33.3        | 26.4       | 58 - 103    |
| 4,4'-DDD        | 89.6      | ug/kg | 33.3        | 29.9       | 57 - 111    |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

|                          |      |       |      |      |          |
|--------------------------|------|-------|------|------|----------|
| 4,4'-DDE                 | 85   | ug/kg | 33.3 | 28.3 | 63 - 112 |
| 4,4'-DDT                 | 78.5 | ug/kg | 33.3 | 26.2 | 60 - 122 |
| Dieldrin                 | 82.8 | ug/kg | 33.3 | 27.6 | 62 - 109 |
| Endosulfan I             | 75.3 | ug/kg | 33.3 | 25.1 | 57 - 98  |
| Endosulfan II            | 76.3 | ug/kg | 33.3 | 25.4 | 59 - 112 |
| Endosulfan Sulfate       | 77.7 | ug/kg | 33.3 | 25.9 | 27 - 96  |
| Endrin                   | 80.6 | ug/kg | 33.3 | 26.9 | 63 - 108 |
| Endrin Aldehyde          | 72.9 | ug/kg | 33.3 | 24.3 | 21 - 92  |
| Endrin Ketone            | 80.8 | ug/kg | 33.3 | 26.9 | 32 - 103 |
| Heptachlor               | 99.4 | ug/kg | 33.3 | 33.1 | 51 - 105 |
| Heptachlor Epoxide       | 78.4 | ug/kg | 33.3 | 26.1 | 62 - 99  |
| Methoxychlor             | 70.2 | ug/kg | 33.3 | 23.4 | 50 - 114 |
| Toxaphene                |      | ug/kg |      | ND   |          |
| Decachlorobiphenyls (S)  | 60.1 | %     |      |      | 30 - 135 |
| Tetrachloro-m-xylene (S) | 56.8 | %     |      |      | 30 - 111 |

SAMPLE DUPLICATE: 2491248 ORIGINAL: 2210570002

| Parameter          | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------------|-----------------|-------|------------|-----|---------|
| Aldrin             | 0               | ug/kg | 0          | NC  | 40      |
| alpha-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| beta-BHC           | 0               | ug/kg | 0          | NC  | 40      |
| delta-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| gamma-BHC          | 0               | ug/kg | 0          | NC  | 40      |
| alpha-Chlordane    | 0               | ug/kg | 0          | NC  | 40      |
| gamma-Chlordane    | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDD           | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDE           | 0               | ug/kg | 0          | NC  | 40      |
| 4,4'-DDT           | 0               | ug/kg | 0          | NC  | 40      |
| Dieldrin           | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan I       | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan II      | 0               | ug/kg | 0          | NC  | 40      |
| Endosulfan Sulfate | 0               | ug/kg | 0          | NC  | 40      |
| Endrin             | 0               | ug/kg | 0          | NC  | 40      |
| Endrin Aldehyde    | 0               | ug/kg | 0          | NC  | 40      |
| Endrin Ketone      | 0               | ug/kg | 0          | NC  | 40      |
| Heptachlor         | 0               | ug/kg | 0          | NC  | 40      |
| Heptachlor Epoxide | 0               | ug/kg | 0          | NC  | 35      |
| Methoxychlor       | 0               | ug/kg | 0          | NC  | 40      |
| Toxaphene          | 0               | ug/kg | 0          | NC  | 40      |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

**QC Batch:** MDIG/62775

**Analysis Method:** SW846 7471B

**QC Batch Method:** SW846 7471B

**Associated Lab Samples:** 2209412002, 2209412003, 2209412004, 2209412005, 2209412006, 2209412007, 2209412008, 2209412009

#### METHOD BLANK: 2489825

| Parameter      | Blank Result | Units | Reporting Limit |
|----------------|--------------|-------|-----------------|
| Mercury, Total | ND           | mg/kg | 0.050           |

#### LABORATORY CONTROL SAMPLE: 2489826

| Parameter      | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|----------------|-----------|-------|-------------|------------|-------------|
| Mercury, Total | 93.5      | mg/kg | .4          | 0.37       | 80 - 120    |

#### MATRIX SPIKE: 2489827 DUPLICATE: 2489828 ORIGINAL: 2209155004

\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter      | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Mercury, Total | .02588          | mg/kg | 1           | 1         | .92778     | 97.4     | 97.4      | 80 - 120    | 7.49 | 20      |

#### MATRIX SPIKE: 2489829 DUPLICATE: 2489830 ORIGINAL: 2209412007

\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter      | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Mercury, Total | .03             | mg/kg | .94         | 1         | 1.02745    | 103      | 102       | 80 - 120    | 2.71 | 20      |



### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

**QC Batch:** MDIG/62808 **Analysis Method:** SW846 6020A

**QC Batch Method:** SW846 3051

**Associated Lab Samples:** 2209412002, 2209412003, 2209412004, 2209412005, 2209412006, 2209412007, 2209412008, 2209412009, 2209412010, 2209412011, 2209412012

#### METHOD BLANK: 2490467

| Parameter        | Blank Result | Units | Reporting Limit |
|------------------|--------------|-------|-----------------|
| Antimony, Total  | ND           | mg/kg | 1.0             |
| Arsenic, Total   | ND           | mg/kg | 1.5             |
| Beryllium, Total | ND           | mg/kg | 0.50            |
| Cadmium, Total   | ND           | mg/kg | 0.50            |
| Chromium, Total  | ND           | mg/kg | 1.0             |
| Copper, Total    | ND           | mg/kg | 2.5             |
| Lead, Total      | ND           | mg/kg | 1.0             |
| Nickel, Total    | ND           | mg/kg | 2.5             |
| Selenium, Total  | ND           | mg/kg | 2.5             |
| Silver, Total    | ND           | mg/kg | 1.0             |
| Thallium, Total  | ND           | mg/kg | 0.50            |
| Zinc, Total      | ND           | mg/kg | 2.5             |

#### LABORATORY CONTROL SAMPLE: 2490468

| Parameter        | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|------------------|-----------|-------|-------------|------------|-------------|
| Antimony, Total  | 104       | mg/kg | 20          | 20.8       | 80 - 120    |
| Arsenic, Total   | 97.9      | mg/kg | 20          | 19.6       | 80 - 120    |
| Beryllium, Total | 96.6      | mg/kg | 20          | 19.3       | 80 - 120    |
| Cadmium, Total   | 101       | mg/kg | 20          | 20.1       | 80 - 120    |
| Chromium, Total  | 105       | mg/kg | 20          | 20.9       | 80 - 120    |
| Copper, Total    | 106       | mg/kg | 20          | 21.1       | 80 - 120    |
| Lead, Total      | 103       | mg/kg | 20          | 20.6       | 80 - 120    |
| Nickel, Total    | 105       | mg/kg | 20          | 21.0       | 80 - 120    |
| Selenium, Total  | 88.3      | mg/kg | 20          | 17.7       | 80 - 120    |
| Silver, Total    | 113       | mg/kg | 10          | 11.3       | 80 - 120    |
| Thallium, Total  | 102       | mg/kg | 20          | 20.5       | 80 - 120    |
| Zinc, Total      | 99        | mg/kg | 200         | 198        | 80 - 120    |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

MATRIX SPIKE: 2490469 DUPLICATE: 2490470 ORIGINAL: 2210222001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter       | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|-----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Arsenic, Total  | 3.743           | mg/kg | 19.2        | 21.59231  | 24.1835    | 92.8     | 102       | 75 - 125    | 11.3 | 20      |
| Cadmium, Total  | .0345           | mg/kg | 19.2        | 17.24375  | 16.034     | 89.5     | 80        | 75 - 125    | 7.27 | 20      |
| Chromium, Total | 12.33           | mg/kg | 19.2        | 45.36635  | 35         | 172*     | 113       | 75 - 125    | 25.8 | 20      |
| Lead, Total     | 5.4755          | mg/kg | 19.2        | 29.0625   | 26.0045    | 123      | 103       | 75 - 125    | 11.1 | 20      |
| Selenium, Total | .5795           | mg/kg | 19.2        | 16.15048  | 15.724     | 81       | 75.7      | 75 - 125    | 2.68 | 20      |
| Silver, Total   | .0405           | mg/kg | 9.6         | 9.39087   | 8.601      | 97.2     | 85.6      | 75 - 125    | 8.78 | 20      |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

**QC Batch:** MDIG/62820      **Analysis Method:** SW846 7471B  
**QC Batch Method:** SW846 7471B  
**Associated Lab Samples:** 2209412010, 2209412011, 2209412012

#### METHOD BLANK: 2490663

| Parameter      | Blank Result | Units | Reporting Limit |
|----------------|--------------|-------|-----------------|
| Mercury, Total | ND           | mg/kg | 0.050           |

#### LABORATORY CONTROL SAMPLE: 2490664

| Parameter      | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|----------------|-----------|-------|-------------|------------|-------------|
| Mercury, Total | 105       | mg/kg | .4          | 0.42       | 80 - 120    |

#### MATRIX SPIKE: 2490665 DUPLICATE: 2490666 ORIGINAL: 2210198005

\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter      | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD  | Max RPD |
|----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|------|---------|
| Mercury, Total | .06865          | mg/kg | .93         | 1         | .96667     | 101      | 97        | 80 - 120    | 3.39 | 20      |

#### MATRIX SPIKE: 2490667 DUPLICATE: 2490668 ORIGINAL: 2209412011

\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter      | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD |
|----------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|
| Mercury, Total | .04702          | mg/kg | .88         | .92456    | .92281     | 100      | 99.8      | 80 - 120    | .19 | 20      |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

**QC Batch:** VOGC/9394

**Analysis Method:** SW846 8015D

**QC Batch Method:** SW846 5035

**Associated Lab Samples:** 2209412002, 2209412003, 2209412004, 2209412005, 2209412006, 2209412007, 2209412008, 2209412009, 2209412010, 2209412011, 2209412012

#### METHOD BLANK: 2488484

| Parameter                  | Blank Result | Units | Reporting Limit |
|----------------------------|--------------|-------|-----------------|
| Gasoline Range Organics    | 3870J        | ug/kg | 10000           |
| a,a,a-Trifluorotoluene (S) | 118          | %     | 72 - 134        |

#### LABORATORY CONTROL SAMPLE: 2488485

| Parameter                  | LCS % Rec | Units | Spike Conc. | LCS Result | % Rec Limit |
|----------------------------|-----------|-------|-------------|------------|-------------|
| Gasoline Range Organics    | 85.7      | ug/kg | 100000      | 85700      | 73 - 133    |
| a,a,a-Trifluorotoluene (S) | 104       | %     |             |            | 72 - 134    |

#### MATRIX SPIKE: 2488528 DUPLICATE: 2488529 ORIGINAL: 2208873009

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                  | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD |
|----------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|
| Gasoline Range Organics    | 1127.36         | ug/kg | 50400       | 44964.5   | 45111.7    | 87       | 87.3      | 73 - 133    | .33 | 18      |
| a,a,a-Trifluorotoluene (S) | 120             | %     |             |           |            | 120      | 115       | 72 - 134    |     |         |

## QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

**QC Batch:** VOMS/42515 **Analysis Method:** SW846 8260B

**QC Batch Method:** SW846 5035

**Associated Lab Samples:** 2209412002, 2209412003, 2209412004, 2209412005, 2209412006, 2209412007, 2209412008, 2209412009, 2209412010, 2209412011, 2209412012

METHOD BLANK: 2489517

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acetone                     | ND           | ug/kg | 10.0            |
| tert-Amyl methyl ether      | ND           | ug/kg | 2.0             |
| tert-Amyl Alcohol           | ND           | ug/kg | 10.0            |
| tert-Amyl Ethylether        | ND           | ug/kg | 2.0             |
| Benzene                     | ND           | ug/kg | 2.0             |
| Bromochloromethane          | ND           | ug/kg | 2.0             |
| Bromodichloromethane        | ND           | ug/kg | 2.0             |
| Bromoform                   | ND           | ug/kg | 2.0             |
| Bromomethane                | ND           | ug/kg | 2.0             |
| 2-Butanone                  | ND           | ug/kg | 10.0            |
| tert-Butyl Alcohol          | ND           | ug/kg | 10.0            |
| Carbon Disulfide            | ND           | ug/kg | 2.0             |
| Carbon Tetrachloride        | ND           | ug/kg | 2.0             |
| Chlorobenzene               | ND           | ug/kg | 2.0             |
| Chlorodibromomethane        | ND           | ug/kg | 2.0             |
| Chloroethane                | ND           | ug/kg | 5.0             |
| Chloroform                  | 0.92J        | ug/kg | 2.0             |
| Chloromethane               | ND           | ug/kg | 2.0             |
| 1,2-Dibromo-3-chloropropane | ND           | ug/kg | 5.0             |
| 1,2-Dibromoethane           | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,2-Dichloroethane          | ND           | ug/kg | 2.0             |
| 1,1-Dichloroethene          | ND           | ug/kg | 2.0             |
| cis-1,2-Dichloroethene      | ND           | ug/kg | 2.0             |
| trans-1,2-Dichloroethene    | ND           | ug/kg | 2.0             |
| 1,2-Dichloropropane         | ND           | ug/kg | 2.0             |
| cis-1,3-Dichloropropene     | ND           | ug/kg | 2.0             |
| trans-1,3-Dichloropropene   | ND           | ug/kg | 2.0             |
| Diisopropyl ether           | ND           | ug/kg | 2.0             |
| Ethyl tert-butyl ether      | ND           | ug/kg | 2.0             |
| Ethylbenzene                | ND           | ug/kg | 2.0             |
| 2-Hexanone                  | ND           | ug/kg | 10.0            |
| Methyl t-Butyl Ether        | ND           | ug/kg | 2.0             |
| 4-Methyl-2-Pentanone(MIBK)  | ND           | ug/kg | 10.0            |
| Methylene Chloride          | 9.9          | ug/kg | 2.0             |
| Naphthalene                 | ND           | ug/kg | 2.0             |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

|                           |      |       |          |
|---------------------------|------|-------|----------|
| Styrene                   | ND   | ug/kg | 2.0      |
| 1,1,2,2-Tetrachloroethane | ND   | ug/kg | 2.0      |
| Tetrachloroethene         | ND   | ug/kg | 2.0      |
| Toluene                   | ND   | ug/kg | 2.0      |
| Total Xylenes             | ND   | ug/kg | 6.0      |
| 1,1,1-Trichloroethane     | ND   | ug/kg | 2.0      |
| 1,1,2-Trichloroethane     | ND   | ug/kg | 2.0      |
| Trichloroethene           | ND   | ug/kg | 2.0      |
| Vinyl Chloride            | ND   | ug/kg | 2.0      |
| o-Xylene                  | ND   | ug/kg | 2.0      |
| mp-Xylene                 | ND   | ug/kg | 4.0      |
| 1,2-Dichloroethane-d4 (S) | 75.7 | %     | 56 - 124 |
| 4-Bromofluorobenzene (S)  | 79.8 | %     | 51 - 128 |
| Dibromofluoromethane (S)  | 92.4 | %     | 62 - 123 |
| Toluene-d8 (S)            | 80.2 | %     | 59 - 131 |

LABORATORY CONTROL SAMPLE: 2489518 DUPLICATE: 2489519

| Parameter                   | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | LCSD<br>Result | LCSD %<br>Rec | % Rec<br>Limit | RPD | Max |
|-----------------------------|--------------|-------|----------------|---------------|----------------|---------------|----------------|-----|-----|
| Acetone                     | 127          | ug/kg | 100            | 127           | 127            | 127           | 58 - 146       | .15 | 40  |
| tert-Amyl methyl ether      | 152*         | ug/kg | 20             | 30.4          | 30.7           | 154*          | 79 - 123       | 1.1 | 40  |
| tert-Amyl Alcohol           | 128          | ug/kg | 100            | 128           | 137            | 137*          | 70 - 130       | 6.9 | 40  |
| tert-Amyl Ethylether        | 136*         | ug/kg | 20             | 27.3          | 27.9           | 139*          | 70 - 130       | 2.2 | 40  |
| Benzene                     | 115          | ug/kg | 20             | 22.9          | 23.4           | 117           | 75 - 132       | 1.9 | 40  |
| Bromochloromethane          | 127*         | ug/kg | 20             | 25.4          | 25.8           | 129*          | 71 - 120       | 1.5 | 40  |
| Bromodichloromethane        | 123          | ug/kg | 20             | 24.5          | 25.0           | 125           | 74 - 127       | 1.9 | 40  |
| Bromoform                   | 97.4         | ug/kg | 20             | 19.5          | 19.3           | 96.7          | 68 - 131       | .68 | 40  |
| Bromomethane                | 89.5         | ug/kg | 20             | 17.9          | 17.7           | 88.7          | 43 - 148       | .98 | 40  |
| 2-Butanone                  | 120          | ug/kg | 100            | 120           | 124            | 124           | 64 - 148       | 3.5 | 40  |
| tert-Butyl Alcohol          | 155*         | ug/kg | 100            | 155           | 154            | 154*          | 51 - 152       | .75 | 40  |
| Carbon Disulfide            | 116          | ug/kg | 20             | 23.2          | 23.6           | 118           | 47 - 144       | 1.6 | 40  |
| Carbon Tetrachloride        | 116          | ug/kg | 20             | 23.3          | 24.1           | 121           | 64 - 136       | 3.7 | 40  |
| Chlorobenzene               | 100          | ug/kg | 20             | 20.0          | 20.3           | 101           | 76 - 125       | 1.1 | 40  |
| Chlorodibromomethane        | 109          | ug/kg | 20             | 21.8          | 22.1           | 110           | 75 - 124       | 1.3 | 40  |
| Chloroethane                | 90.8         | ug/kg | 20             | 18.2          | 18.7           | 93.4          | 1 - 141        | 2.8 | 40  |
| Chloroform                  | 120          | ug/kg | 20             | 23.9          | 24.1           | 120           | 73 - 126       | .62 | 40  |
| Chloromethane               | 117          | ug/kg | 20             | 23.3          | 23.8           | 119           | 44 - 139       | 2   | 40  |
| 1,2-Dibromo-3-chloropropane | 78           | ug/kg | 20             | 15.6          | 16.5           | 82.5          | 52 - 151       | 5.6 | 40  |
| 1,2-Dibromoethane           | 111          | ug/kg | 20             | 22.3          | 22.1           | 111           | 76 - 127       | .66 | 40  |
| 1,1-Dichloroethane          | 116          | ug/kg | 20             | 23.1          | 23.5           | 118           | 74 - 131       | 1.7 | 40  |
| 1,2-Dichloroethane          | 111          | ug/kg | 20             | 22.2          | 22.6           | 113           | 69 - 132       | 1.7 | 40  |
| 1,1-Dichloroethene          | 117          | ug/kg | 20             | 23.3          | 23.9           | 120           | 59 - 139       | 2.6 | 40  |
| cis-1,2-Dichloroethene      | 119          | ug/kg | 20             | 23.8          | 24.2           | 121           | 75 - 128       | 1.8 | 40  |
| trans-1,2-Dichloroethene    | 123          | ug/kg | 20             | 24.5          | 25.0           | 125           | 66 - 133       | 2   | 40  |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

|                            |      |       |     |      |      |      |          |     |    |
|----------------------------|------|-------|-----|------|------|------|----------|-----|----|
| 1,2-Dichloropropane        | 117  | ug/kg | 20  | 23.5 | 24.0 | 120  | 78 - 131 | 2.3 | 40 |
| cis-1,3-Dichloropropene    | 87.7 | ug/kg | 20  | 17.5 | 18.0 | 90   | 76 - 123 | 2.5 | 40 |
| trans-1,3-Dichloropropene  | 114  | ug/kg | 20  | 22.8 | 23.6 | 118  | 77 - 123 | 3.4 | 40 |
| Diisopropyl ether          | 113  | ug/kg | 20  | 22.5 | 23.2 | 116  | 71 - 128 | 2.7 | 40 |
| Ethyl tert-butyl ether     | 116  | ug/kg | 20  | 23.1 | 23.5 | 118  | 75 - 121 | 1.6 | 40 |
| Ethylbenzene               | 96.9 | ug/kg | 20  | 19.4 | 19.8 | 99   | 73 - 133 | 2.2 | 40 |
| 2-Hexanone                 | 76.4 | ug/kg | 100 | 76.4 | 77.6 | 77.6 | 62 - 147 | 1.6 | 40 |
| Methyl t-Butyl Ether       | 136* | ug/kg | 20  | 27.3 | 28.0 | 140* | 70 - 118 | 2.9 | 40 |
| 4-Methyl-2-Pentanone(MIBK) | 78.3 | ug/kg | 100 | 78.3 | 80.0 | 80   | 64 - 143 | 2.2 | 40 |
| Methylene Chloride         | 171* | ug/kg | 20  | 34.3 | 35.7 | 178* | 68 - 133 | 4   | 40 |
| Naphthalene                | 83.4 | ug/kg | 20  | 16.7 | 17.2 | 86.2 | 60 - 146 | 3.2 | 40 |
| Styrene                    | 86.9 | ug/kg | 20  | 17.4 | 17.4 | 87.1 | 77 - 130 | .32 | 40 |
| 1,1,2,2-Tetrachloroethane  | 84.6 | ug/kg | 20  | 16.9 | 17.0 | 84.9 | 72 - 134 | .43 | 40 |
| Tetrachloroethene          | 103  | ug/kg | 20  | 20.5 | 21.1 | 105  | 58 - 137 | 2.5 | 40 |
| Toluene                    | 100  | ug/kg | 20  | 20.1 | 20.4 | 102  | 73 - 129 | 1.6 | 40 |
| Total Xylenes              | 100  | ug/kg | 60  | 60.2 | 61.5 | 102  | 73 - 130 | 2.1 | 40 |
| 1,1,1-Trichloroethane      | 112  | ug/kg | 20  | 22.4 | 22.6 | 113  | 68 - 131 | .5  | 40 |
| 1,1,2-Trichloroethane      | 97.6 | ug/kg | 20  | 19.5 | 19.8 | 99.1 | 79 - 123 | 1.5 | 40 |
| Trichloroethene            | 118  | ug/kg | 20  | 23.6 | 23.7 | 118  | 72 - 129 | .59 | 40 |
| Vinyl Chloride             | 110  | ug/kg | 20  | 22.1 | 22.7 | 113  | 53 - 141 | 2.6 | 40 |
| o-Xylene                   | 99.6 | ug/kg | 20  | 19.9 | 20.5 | 103  | 75 - 129 | 3   | 40 |
| mp-Xylene                  | 101  | ug/kg | 40  | 40.3 | 41.0 | 102  | 72 - 130 | 1.6 | 40 |
| 1,2-Dichloroethane-d4 (S)  | 79.6 | %     |     |      | 79.6 |      | 56 - 124 |     |    |
| 4-Bromofluorobenzene (S)   | 79.8 | %     |     |      | 79.8 |      | 51 - 128 |     |    |
| Dibromofluoromethane (S)   | 94   | %     |     |      | 94   |      | 62 - 123 |     |    |
| Toluene-d8 (S)             | 78   | %     |     |      | 78   |      | 59 - 131 |     |    |

MATRIX SPIKE SAMPLE: 2489723 ORIGINAL: 2209412004

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter              | Original Result | Units | Spike Conc. | MS Result | MS % Rec | % Rec Limit |
|------------------------|-----------------|-------|-------------|-----------|----------|-------------|
| Acetone                | 35.2068         | ug/kg | 91.9        | 125.701   | 98.5     | 58 - 146    |
| tert-Amyl methyl ether | 0               | ug/kg | 18.4        | 18.4734   | 100      | 79 - 123    |
| tert-Amyl Alcohol      | 0               | ug/kg | 91.9        | 83.5064   | 90.9     | 70 - 130    |
| tert-Amyl Ethylether   | 0               | ug/kg | 18.4        | 16.1227   | 87.7     | 70 - 130    |
| Benzene                | 0               | ug/kg | 18.4        | 14.9688   | 81.4     | 75 - 132    |
| Bromochloromethane     | 0               | ug/kg | 18.4        | 16.0161   | 87.1     | 71 - 120    |
| Bromodichloromethane   | 0               | ug/kg | 18.4        | 14.0364   | 76.4     | 74 - 127    |
| Bromoform              | 0               | ug/kg | 18.4        | 8.7358    | 47.5*    | 68 - 131    |
| Bromomethane           | 0               | ug/kg | 18.4        | 13.3786   | 72.8     | 43 - 148    |
| 2-Butanone             | 0               | ug/kg | 91.9        | 74.7243   | 81.3     | 64 - 148    |
| tert-Butyl Alcohol     | 0               | ug/kg | 91.9        | 112.044   | 122      | 51 - 152    |
| Carbon Disulfide       | 0               | ug/kg | 18.4        | 16.7336   | 91       | 47 - 144    |



### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

|                             |        |       |      |         |       |          |
|-----------------------------|--------|-------|------|---------|-------|----------|
| Carbon Tetrachloride        | 0      | ug/kg | 18.4 | 17.3811 | 94.6  | 64 - 136 |
| Chlorobenzene               | 0      | ug/kg | 18.4 | 8.68374 | 47.2* | 76 - 125 |
| Chlorodibromomethane        | 0      | ug/kg | 18.4 | 10.8181 | 58.9* | 75 - 124 |
| Chloroethane                | 0      | ug/kg | 18.4 | 15.3196 | 83.3  | 1 - 141  |
| Chloroform                  | 0      | ug/kg | 18.4 | 15.2249 | 82.8  | 73 - 126 |
| Chloromethane               | 0      | ug/kg | 18.4 | 18.2735 | 99.4  | 44 - 139 |
| 1,2-Dibromo-3-chloropropane | 0      | ug/kg | 18.4 | 5.94303 | 32.3* | 52 - 151 |
| 1,2-Dibromoethane           | 0      | ug/kg | 18.4 | 11.3862 | 61.9* | 76 - 127 |
| 1,1-Dichloroethane          | 0      | ug/kg | 18.4 | 16.3874 | 89.1  | 74 - 131 |
| 1,2-Dichloroethane          | 0      | ug/kg | 18.4 | 13.5407 | 73.7  | 69 - 132 |
| 1,1-Dichloroethene          | 0      | ug/kg | 18.4 | 18.6892 | 102   | 59 - 139 |
| cis-1,2-Dichloroethene      | 0      | ug/kg | 18.4 | 15.1797 | 82.6  | 75 - 128 |
| trans-1,2-Dichloroethene    | 0      | ug/kg | 18.4 | 17.4308 | 94.8  | 66 - 133 |
| 1,2-Dichloropropane         | 0      | ug/kg | 18.4 | 14.6002 | 79.4  | 78 - 131 |
| cis-1,3-Dichloropropene     | 0      | ug/kg | 18.4 | 9.06824 | 49.3* | 76 - 123 |
| trans-1,3-Dichloropropene   | 0      | ug/kg | 18.4 | 10.7554 | 58.5* | 77 - 123 |
| Diisopropyl ether           | 0      | ug/kg | 18.4 | 15.2023 | 82.7  | 71 - 128 |
| Ethyl tert-butyl ether      | 0      | ug/kg | 18.4 | 13.7517 | 74.8* | 75 - 121 |
| Ethylbenzene                | 0      | ug/kg | 18.4 | 9.90146 | 53.9* | 73 - 133 |
| 2-Hexanone                  | 0      | ug/kg | 91.9 | 32.798  | 35.7* | 62 - 147 |
| Methyl t-Butyl Ether        | 0      | ug/kg | 18.4 | 17.7554 | 96.6  | 70 - 118 |
| 4-Methyl-2-Pentanone(MIBK)  | 0      | ug/kg | 91.9 | 44.6281 | 48.6* | 64 - 143 |
| Methylene Chloride          | 7.2015 | ug/kg | 18.4 | 26.1284 | 103   | 68 - 133 |
| Naphthalene                 | 0      | ug/kg | 18.4 | 2.14847 | 11.7* | 60 - 146 |
| Styrene                     | 0      | ug/kg | 18.4 | 6.06823 | 33*   | 77 - 130 |
| 1,1,2,2-Tetrachloroethane   | 0      | ug/kg | 18.4 | 7.89581 | 43*   | 72 - 134 |
| Tetrachloroethene           | 0      | ug/kg | 18.4 | 12.2845 | 66.8  | 58 - 137 |
| Toluene                     | 0      | ug/kg | 18.4 | 11.4659 | 62.4* | 73 - 129 |
| Total Xylenes               | 0      | ug/kg | 55.1 | 27.4264 | 49.7* | 73 - 130 |
| 1,1,1-Trichloroethane       | 0      | ug/kg | 18.4 | 16.7154 | 90.9  | 68 - 131 |
| 1,1,2-Trichloroethane       | 0      | ug/kg | 18.4 | 10.8035 | 58.8* | 79 - 123 |
| Trichloroethene             | 0      | ug/kg | 18.4 | 14.8612 | 80.8  | 72 - 129 |
| Vinyl Chloride              | 0      | ug/kg | 18.4 | 18.8702 | 103   | 53 - 141 |
| o-Xylene                    | 0      | ug/kg | 18.4 | 9.18525 | 50*   | 75 - 129 |
| mp-Xylene                   | 0      | ug/kg | 36.8 | 18.2412 | 49.6* | 72 - 130 |
| 1,2-Dichloroethane-d4 (S)   | 82     | %     |      |         |       | 56 - 124 |
| 4-Bromofluorobenzene (S)    | 81.4   | %     |      |         |       | 51 - 128 |
| Dibromofluoromethane (S)    | 93.3   | %     |      |         |       | 62 - 123 |
| Toluene-d8 (S)              | 79.5   | %     |      |         |       | 59 - 131 |

## QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

**QC Batch:** VOMS/42519 **Analysis Method:** SW846 8260B  
**QC Batch Method:** SW846 8260B  
**Associated Lab Samples:** 2209412001

METHOD BLANK: 2489522

| Parameter                   | Blank Result | Units | Reporting Limit |
|-----------------------------|--------------|-------|-----------------|
| Acetone                     | ND           | ug/L  | 10.0            |
| tert-Amyl methyl ether      | ND           | ug/L  | 1.0             |
| tert-Amyl Alcohol           | ND           | ug/L  | 10.0            |
| tert-Amyl Ethylether        | ND           | ug/L  | 1.0             |
| Benzene                     | ND           | ug/L  | 1.0             |
| Bromochloromethane          | ND           | ug/L  | 1.0             |
| Bromodichloromethane        | ND           | ug/L  | 1.0             |
| Bromoform                   | ND           | ug/L  | 1.0             |
| Bromomethane                | ND           | ug/L  | 1.0             |
| 2-Butanone                  | ND           | ug/L  | 10.0            |
| tert-Butyl Alcohol          | ND           | ug/L  | 10.0            |
| Carbon Disulfide            | ND           | ug/L  | 1.0             |
| Carbon Tetrachloride        | ND           | ug/L  | 1.0             |
| Chlorobenzene               | ND           | ug/L  | 1.0             |
| Chlorodibromomethane        | ND           | ug/L  | 1.0             |
| Chloroethane                | ND           | ug/L  | 1.0             |
| Chloroform                  | 0.72J        | ug/L  | 1.0             |
| Chloromethane               | 0.69J        | ug/L  | 1.0             |
| 1,2-Dibromo-3-chloropropane | ND           | ug/L  | 7.0             |
| 1,2-Dibromoethane           | ND           | ug/L  | 1.0             |
| 1,1-Dichloroethane          | ND           | ug/L  | 1.0             |
| 1,2-Dichloroethane          | ND           | ug/L  | 1.0             |
| 1,1-Dichloroethene          | ND           | ug/L  | 1.0             |
| cis-1,2-Dichloroethene      | ND           | ug/L  | 1.0             |
| trans-1,2-Dichloroethene    | ND           | ug/L  | 1.0             |
| 1,2-Dichloropropane         | ND           | ug/L  | 1.0             |
| cis-1,3-Dichloropropene     | ND           | ug/L  | 1.0             |
| trans-1,3-Dichloropropene   | ND           | ug/L  | 1.0             |
| Diisopropyl ether           | ND           | ug/L  | 1.0             |
| Ethyl tert-butyl ether      | ND           | ug/L  | 1.0             |
| Ethylbenzene                | ND           | ug/L  | 1.0             |
| 2-Hexanone                  | ND           | ug/L  | 5.0             |
| Methyl t-Butyl Ether        | ND           | ug/L  | 1.0             |
| 4-Methyl-2-Pentanone(MIBK)  | ND           | ug/L  | 5.0             |
| Methylene Chloride          | ND           | ug/L  | 1.0             |
| Styrene                     | ND           | ug/L  | 1.0             |
| 1,1,1,2-Tetrachloroethane   | ND           | ug/L  | 1.0             |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

|                           |      |      |          |
|---------------------------|------|------|----------|
| 1,1,2,2-Tetrachloroethane | ND   | ug/L | 1.0      |
| Tetrachloroethene         | ND   | ug/L | 1.0      |
| Toluene                   | ND   | ug/L | 1.0      |
| Total Xylenes             | ND   | ug/L | 3.0      |
| 1,1,1-Trichloroethane     | ND   | ug/L | 1.0      |
| 1,1,2-Trichloroethane     | ND   | ug/L | 1.0      |
| Trichloroethene           | ND   | ug/L | 1.0      |
| Vinyl Chloride            | ND   | ug/L | 1.0      |
| o-Xylene                  | ND   | ug/L | 1.0      |
| mp-Xylene                 | ND   | ug/L | 2.0      |
| 1,2-Dichloroethane-d4 (S) | 94.6 | %    | 62 - 133 |
| 4-Bromofluorobenzene (S)  | 101  | %    | 79 - 114 |
| Dibromofluoromethane (S)  | 99   | %    | 78 - 116 |
| Toluene-d8 (S)            | 90.5 | %    | 76 - 127 |

#### LABORATORY CONTROL SAMPLE: 2489523

| Parameter                   | LCS %<br>Rec | Units | Spike<br>Conc. | LCS<br>Result | % Rec<br>Limit |
|-----------------------------|--------------|-------|----------------|---------------|----------------|
| Acetone                     | 102          | ug/L  | 100            | 102           | 40 - 151       |
| tert-Amyl methyl ether      | 71.3*        | ug/L  | 20             | 14.3          | 75 - 121       |
| tert-Amyl Alcohol           | 78.1         | ug/L  | 100            | 78.1          | 70 - 130       |
| tert-Amyl Ethylether        | 73           | ug/L  | 20             | 14.6          | 70 - 130       |
| Benzene                     | 103          | ug/L  | 20             | 20.6          | 80 - 124       |
| Bromochloromethane          | 106          | ug/L  | 20             | 21.3          | 73 - 117       |
| Bromodichloromethane        | 103          | ug/L  | 20             | 20.5          | 79 - 126       |
| Bromoform                   | 96.1         | ug/L  | 20             | 19.2          | 70 - 123       |
| Bromomethane                | 88.2         | ug/L  | 20             | 17.6          | 45 - 148       |
| 2-Butanone                  | 84.2         | ug/L  | 100            | 84.2          | 50 - 152       |
| tert-Butyl Alcohol          | 94.7         | ug/L  | 100            | 94.7          | 17 - 168       |
| Carbon Disulfide            | 119          | ug/L  | 20             | 23.8          | 57 - 131       |
| Carbon Tetrachloride        | 106          | ug/L  | 20             | 21.2          | 62 - 132       |
| Chlorobenzene               | 103          | ug/L  | 20             | 20.6          | 85 - 117       |
| Chlorodibromomethane        | 87.5         | ug/L  | 20             | 17.5          | 77 - 122       |
| Chloroethane                | 96.2         | ug/L  | 20             | 19.2          | 51 - 142       |
| Chloroform                  | 104          | ug/L  | 20             | 20.8          | 78 - 122       |
| Chloromethane               | 127          | ug/L  | 20             | 25.4          | 38 - 156       |
| 1,2-Dibromo-3-chloropropane | 74.7         | ug/L  | 20             | 14.9          | 59 - 133       |
| 1,2-Dibromoethane           | 97.6         | ug/L  | 20             | 19.5          | 80 - 124       |
| 1,1-Dichloroethane          | 109          | ug/L  | 20             | 21.7          | 78 - 124       |
| 1,2-Dichloroethane          | 102          | ug/L  | 20             | 20.5          | 70 - 133       |
| 1,1-Dichloroethene          | 117          | ug/L  | 20             | 23.3          | 63 - 128       |
| cis-1,2-Dichloroethene      | 104          | ug/L  | 20             | 20.7          | 78 - 125       |
| trans-1,2-Dichloroethene    | 114          | ug/L  | 20             | 22.9          | 71 - 122       |
| 1,2-Dichloropropane         | 106          | ug/L  | 20             | 21.1          | 81 - 127       |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

|                            |      |      |     |      |          |
|----------------------------|------|------|-----|------|----------|
| cis-1,3-Dichloropropene    | 85.2 | ug/L | 20  | 17.0 | 81 - 121 |
| trans-1,3-Dichloropropene  | 85.4 | ug/L | 20  | 17.1 | 78 - 126 |
| Diisopropyl ether          | 109  | ug/L | 20  | 21.8 | 74 - 131 |
| Ethyl tert-butyl ether     | 76.9 | ug/L | 20  | 15.4 | 75 - 123 |
| Ethylbenzene               | 85.7 | ug/L | 20  | 17.1 | 80 - 124 |
| 2-Hexanone                 | 69.9 | ug/L | 100 | 69.9 | 65 - 154 |
| Methyl t-Butyl Ether       | 96.7 | ug/L | 20  | 19.3 | 69 - 115 |
| 4-Methyl-2-Pentanone(MIBK) | 76.3 | ug/L | 100 | 76.3 | 71 - 146 |
| Methylene Chloride         | 116  | ug/L | 20  | 23.3 | 76 - 121 |
| Styrene                    | 83.2 | ug/L | 20  | 16.6 | 79 - 123 |
| 1,1,1,2-Tetrachloroethane  | 106  | ug/L | 20  | 21.3 | 78 - 121 |
| 1,1,2,2-Tetrachloroethane  | 88.3 | ug/L | 20  | 17.7 | 74 - 135 |
| Tetrachloroethene          | 89.3 | ug/L | 20  | 17.9 | 72 - 124 |
| Toluene                    | 111  | ug/L | 20  | 22.2 | 80 - 125 |
| Total Xylenes              | 85.7 | ug/L | 60  | 51.4 | 79 - 125 |
| 1,1,1-Trichloroethane      | 107  | ug/L | 20  | 21.4 | 66 - 130 |
| 1,1,2-Trichloroethane      | 95.6 | ug/L | 20  | 19.1 | 82 - 126 |
| Trichloroethene            | 99.1 | ug/L | 20  | 19.8 | 77 - 124 |
| Vinyl Chloride             | 97.9 | ug/L | 20  | 19.6 | 27 - 138 |
| o-Xylene                   | 84   | ug/L | 20  | 16.8 | 79 - 124 |
| mp-Xylene                  | 86.5 | ug/L | 40  | 34.6 | 79 - 125 |
| 1,2-Dichloroethane-d4 (S)  | 89   | %    |     |      | 62 - 133 |
| 4-Bromofluorobenzene (S)   | 93   | %    |     |      | 79 - 114 |
| Dibromofluoromethane (S)   | 94.9 | %    |     |      | 78 - 116 |
| Toluene-d8 (S)             | 93.6 | %    |     |      | 76 - 127 |

MATRIX SPIKE: 2489702 DUPLICATE: 2489703 ORIGINAL: 2209604001

\*\*\*\*NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

| Parameter                | Original Result | Units | Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limit | RPD | Max RPD |
|--------------------------|-----------------|-------|-------------|-----------|------------|----------|-----------|-------------|-----|---------|
| Benzene                  | 0               | ug/L  | 20          | 22.6114   | 21.6402    | 113      | 108       | 80 - 124    | 4.4 | 26      |
| 1,2-Dibromoethane        | 0               | ug/L  | 20          | 20.1769   | 19.8121    | 101      | 99.1      | 80 - 124    | 1.8 | 19      |
| 1,1-Dichloroethane       | 0               | ug/L  | 20          | 23.5679   | 22.5146    | 118      | 113       | 78 - 124    | 4.6 | 15      |
| 1,2-Dichloroethane       | 0               | ug/L  | 20          | 21.609    | 20.2946    | 108      | 101       | 70 - 133    | 6.3 | 19      |
| 1,1-Dichloroethene       | 0               | ug/L  | 20          | 26.674    | 26.0639    | 133*     | 130*      | 63 - 128    | 2.3 | 21      |
| cis-1,2-Dichloroethene   | 0               | ug/L  | 20          | 22.3816   | 21.406     | 112      | 107       | 78 - 125    | 4.5 | 21      |
| trans-1,2-Dichloroethene | 0               | ug/L  | 20          | 25.4597   | 24.2866    | 127*     | 121       | 71 - 122    | 4.7 | 22      |
| Ethylbenzene             | 0               | ug/L  | 20          | 18.3044   | 19.1831    | 91.5     | 95.9      | 80 - 124    | 4.7 | 19      |
| Methylene Chloride       | 0               | ug/L  | 20          | 23.1702   | 21.877     | 116      | 109       | 76 - 121    | 5.7 | 17      |
| Tetrachloroethene        | 0               | ug/L  | 20          | 19.7242   | 20.3722    | 98.6     | 102       | 72 - 124    | 3.2 | 38      |
| Toluene                  | 0               | ug/L  | 20          | 22.796    | 23.2579    | 114      | 116       | 80 - 125    | 2   | 20      |
| Total Xylenes            | 0               | ug/L  | 60          | 53.2877   | 54.4594    | 88.8     | 90.8      | 79 - 125    | 2.2 | 35      |
| 1,1,1-Trichloroethane    | 0               | ug/L  | 20          | 23.6953   | 22.7652    | 118      | 114       | 66 - 130    | 4   | 20      |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

|                           |      |      |    |         |         |      |      |          |     |    |
|---------------------------|------|------|----|---------|---------|------|------|----------|-----|----|
| Trichloroethene           | 0    | ug/L | 20 | 22.137  | 21.6557 | 111  | 108  | 77 - 124 | 2.2 | 18 |
| Vinyl Chloride            | 0    | ug/L | 20 | 21.9785 | 21.5915 | 110  | 108  | 27 - 138 | 1.8 | 40 |
| 1,2-Dichloroethane-d4 (S) | 92.7 | %    |    |         |         | 92.7 | 89.5 | 62 - 133 |     |    |
| 4-Bromofluorobenzene (S)  | 92.1 | %    |    |         |         | 92.1 | 94   | 79 - 114 |     |    |
| Dibromofluoromethane (S)  | 95.1 | %    |    |         |         | 95.1 | 94.3 | 78 - 116 |     |    |
| Toluene-d8 (S)            | 90.8 | %    |    |         |         | 90.8 | 94.6 | 76 - 127 |     |    |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

**QC Batch:** WETC/183274 **Analysis Method:** S2540G-11

**QC Batch Method:** S2540G-11

**Associated Lab Samples:** 2209412002, 2209412003, 2209412004, 2209412005, 2209412006, 2209412007, 2209412008, 2209412009, 2209412010, 2209412011, 2209412012

SAMPLE DUPLICATE: 2489174 ORIGINAL: 2208864001

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 28.6428         | %     | 27.8852    | 2.68 | 10      |
| Total Solids | 71.3571         | %     | 72.1147    | 1.06 | 5       |

SAMPLE DUPLICATE: 2489175 ORIGINAL: 2209233001

| Parameter    | Original Result | Units | DUP Result | RPD   | Max RPD |
|--------------|-----------------|-------|------------|-------|---------|
| Moisture     | 12.5693         | %     | 15.0693    | 18.1* | 10      |
| Total Solids | 87.4306         | %     | 84.9306    | 2.9   | 5       |

SAMPLE DUPLICATE: 2489176 ORIGINAL: 2209322002

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Moisture     | 7.7343          | %     | 8.1307     | 5   | 10      |
| Total Solids | 92.2656         | %     | 91.8692    | .43 | 5       |

SAMPLE DUPLICATE: 2489177 ORIGINAL: 2209389001

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 6.4987          | %     | 6.4935     | .08  | 10      |
| Total Solids | 93.5012         | %     | 93.5064    | .006 | 5       |

SAMPLE DUPLICATE: 2489178 ORIGINAL: 2209397003

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 7.8216          | %     | 8.2361     | 5.16 | 10      |
| Total Solids | 92.1783         | %     | 91.7638    | .45  | 5       |

### QUALITY CONTROL DATA

Workorder: 2209412 Chase Lands Phase II

SAMPLE DUPLICATE: 2489179 ORIGINAL: 2209400006

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 17.6864         | %     | 16.5915    | 6.39 | 10      |
| Total Solids | 82.3135         | %     | 83.4084    | 1.32 | 5       |

SAMPLE DUPLICATE: 2489180 ORIGINAL: 2209410001

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 23.2084         | %     | 24.0761    | 3.67 | 10      |
| Total Solids | 76.7915         | %     | 75.9238    | 1.14 | 5       |

SAMPLE DUPLICATE: 2489181 ORIGINAL: 2209410011

| Parameter    | Original Result | Units | DUP Result | RPD   | Max RPD |
|--------------|-----------------|-------|------------|-------|---------|
| Moisture     | 15.8857         | %     | 17.5784    | 10.1* | 10      |
| Total Solids | 84.1142         | %     | 82.4215    | 2.03  | 5       |

SAMPLE DUPLICATE: 2489182 ORIGINAL: 2209412010

| Parameter    | Original Result | Units | DUP Result | RPD  | Max RPD |
|--------------|-----------------|-------|------------|------|---------|
| Moisture     | 16.6126         | %     | 15.1568    | 9.16 | 10      |
| Total Solids | 83.3873         | %     | 84.8431    | 1.73 | 5       |

SAMPLE DUPLICATE: 2489183 ORIGINAL: 2209437006

| Parameter    | Original Result | Units | DUP Result | RPD | Max RPD |
|--------------|-----------------|-------|------------|-----|---------|
| Moisture     | 24.2829         | %     | 24.4854    | .83 | 10      |
| Total Solids | 75.717          | %     | 75.5145    | .27 | 5       |



## QUALITY CONTROL DATA QUALIFIERS

Workorder: 2209412 Chase Lands Phase II

### QUALITY CONTROL PARAMETER QUALIFIERS

| Lab ID                                                                                                                                                                                          | #  | Sample Type          | Analytical Method | Analyte                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----------------------|-------------------|------------------------|
| <b>2489517</b>                                                                                                                                                                                  | 1  | Method Blank         | SW846 8260B       | Methylene Chloride     |
| The Method Blank for method SW846 8260B reported a value greater than the reporting level for the analyte Methylene Chloride.                                                                   |    |                      |                   |                        |
| <b>2489518</b>                                                                                                                                                                                  | 2  | Lab Control Standard | SW846 8260B       | tert-Butyl Alcohol     |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte tert-Butyl Alcohol. The % Recovery was reported as 155 and the control limits were 51 to 152.      |    |                      |                   |                        |
| <b>2489518</b>                                                                                                                                                                                  | 3  | Lab Control Standard | SW846 8260B       | Methylene Chloride     |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 171 and the control limits were 68 to 133.      |    |                      |                   |                        |
| <b>2489518</b>                                                                                                                                                                                  | 4  | Lab Control Standard | SW846 8260B       | Bromochloromethane     |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Bromochloromethane. The % Recovery was reported as 127 and the control limits were 71 to 120.      |    |                      |                   |                        |
| <b>2489518</b>                                                                                                                                                                                  | 5  | Lab Control Standard | SW846 8260B       | Methyl t-Butyl Ether   |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte Methyl t-Butyl Ether. The % Recovery was reported as 136 and the control limits were 70 to 118.    |    |                      |                   |                        |
| <b>2489518</b>                                                                                                                                                                                  | 6  | Lab Control Standard | SW846 8260B       | tert-Amyl Ethylether   |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte tert-Amyl Ethylether. The % Recovery was reported as 136 and the control limits were 70 to 130.    |    |                      |                   |                        |
| <b>2489518</b>                                                                                                                                                                                  | 7  | Lab Control Standard | SW846 8260B       | tert-Amyl methyl ether |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte tert-Amyl methyl ether. The % Recovery was reported as 152 and the control limits were 79 to 123.  |    |                      |                   |                        |
| <b>2489523</b>                                                                                                                                                                                  | 8  | Lab Control Standard | SW846 8260B       | tert-Amyl methyl ether |
| The QC sample type LCS for method SW846 8260B was outside the control limits for the analyte tert-Amyl methyl ether. The % Recovery was reported as 71.3 and the control limits were 75 to 121. |    |                      |                   |                        |
| <b>2490997</b>                                                                                                                                                                                  | 9  | Lab Control Standard | SW846 8270D       | Acetophenone           |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 44.5 and the control limits were 45 to 87.            |    |                      |                   |                        |
| <b>2491177</b>                                                                                                                                                                                  | 10 | Lab Control Standard | SW846 8270D       | Acetophenone           |
| The QC sample type LCS for method SW846 8270D was outside the control limits for the analyte Acetophenone. The % Recovery was reported as 43.6 and the control limits were 45 to 87.            |    |                      |                   |                        |

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2209412 Chase Lands Phase II

| Lab ID     | Sample ID   | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|-------------|-------------|------------|-----------------|----------------|
| 2209412002 | DUP-05      | SW846 5035  | VOGC/9394  | SW846 8015D     | VOGC/9395      |
| 2209412003 | DUP-06      | SW846 5035  | VOGC/9394  | SW846 8015D     | VOGC/9395      |
| 2209412004 | DUP-07      | SW846 5035  | VOGC/9394  | SW846 8015D     | VOGC/9395      |
| 2209412005 | CL-SAW-S-A1 | SW846 5035  | VOGC/9394  | SW846 8015D     | VOGC/9395      |
| 2209412006 | CL-SAW-S-A2 | SW846 5035  | VOGC/9394  | SW846 8015D     | VOGC/9395      |
| 2209412007 | CL-SAW-S-B2 | SW846 5035  | VOGC/9394  | SW846 8015D     | VOGC/9395      |
| 2209412008 | CL-SAW-S-C1 | SW846 5035  | VOGC/9394  | SW846 8015D     | VOGC/9395      |
| 2209412009 | CL-SAW-S-C2 | SW846 5035  | VOGC/9394  | SW846 8015D     | VOGC/9395      |
| 2209412010 | CL-ISM-S-A1 | SW846 5035  | VOGC/9394  | SW846 8015D     | VOGC/9395      |
| 2209412011 | CL-ISM-S-B5 | SW846 5035  | VOGC/9394  | SW846 8015D     | VOGC/9395      |
| 2209412012 | CL-ISM-S-D2 | SW846 5035  | VOGC/9394  | SW846 8015D     | VOGC/9395      |
| 2209412002 | DUP-05      |             |            | S2540G-11       | WETC/183274    |
| 2209412003 | DUP-06      |             |            | S2540G-11       | WETC/183274    |
| 2209412004 | DUP-07      |             |            | S2540G-11       | WETC/183274    |
| 2209412005 | CL-SAW-S-A1 |             |            | S2540G-11       | WETC/183274    |
| 2209412006 | CL-SAW-S-A2 |             |            | S2540G-11       | WETC/183274    |
| 2209412007 | CL-SAW-S-B2 |             |            | S2540G-11       | WETC/183274    |
| 2209412008 | CL-SAW-S-C1 |             |            | S2540G-11       | WETC/183274    |
| 2209412009 | CL-SAW-S-C2 |             |            | S2540G-11       | WETC/183274    |
| 2209412010 | CL-ISM-S-A1 |             |            | S2540G-11       | WETC/183274    |
| 2209412011 | CL-ISM-S-B5 |             |            | S2540G-11       | WETC/183274    |
| 2209412012 | CL-ISM-S-D2 |             |            | S2540G-11       | WETC/183274    |
| 2209412002 | DUP-05      | SW846 5035  | VOMS/42515 | SW846 8260B     | VOMS/42516     |
| 2209412003 | DUP-06      | SW846 5035  | VOMS/42515 | SW846 8260B     | VOMS/42516     |
| 2209412004 | DUP-07      | SW846 5035  | VOMS/42515 | SW846 8260B     | VOMS/42516     |
| 2209412005 | CL-SAW-S-A1 | SW846 5035  | VOMS/42515 | SW846 8260B     | VOMS/42516     |
| 2209412006 | CL-SAW-S-A2 | SW846 5035  | VOMS/42515 | SW846 8260B     | VOMS/42516     |
| 2209412007 | CL-SAW-S-B2 | SW846 5035  | VOMS/42515 | SW846 8260B     | VOMS/42516     |
| 2209412008 | CL-SAW-S-C1 | SW846 5035  | VOMS/42515 | SW846 8260B     | VOMS/42516     |
| 2209412009 | CL-SAW-S-C2 | SW846 5035  | VOMS/42515 | SW846 8260B     | VOMS/42516     |

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2209412 Chase Lands Phase II

| Lab ID     | Sample ID   | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|-------------|-------------|------------|-----------------|----------------|
| 2209412010 | CL-ISM-S-A1 | SW846 5035  | VOMS/42515 | SW846 8260B     | VOMS/42516     |
| 2209412011 | CL-ISM-S-B5 | SW846 5035  | VOMS/42515 | SW846 8260B     | VOMS/42516     |
| 2209412012 | CL-ISM-S-D2 | SW846 5035  | VOMS/42515 | SW846 8260B     | VOMS/42516     |
| 2209412001 | TB-07       |             |            | SW846 8260B     | VOMS/42519     |
| 2209412002 | DUP-05      | SW846 7471B | MDIG/62775 | SW846 7471B     | META/56230     |
| 2209412003 | DUP-06      | SW846 7471B | MDIG/62775 | SW846 7471B     | META/56230     |
| 2209412004 | DUP-07      | SW846 7471B | MDIG/62775 | SW846 7471B     | META/56230     |
| 2209412005 | CL-SAW-S-A1 | SW846 7471B | MDIG/62775 | SW846 7471B     | META/56230     |
| 2209412006 | CL-SAW-S-A2 | SW846 7471B | MDIG/62775 | SW846 7471B     | META/56230     |
| 2209412007 | CL-SAW-S-B2 | SW846 7471B | MDIG/62775 | SW846 7471B     | META/56230     |
| 2209412008 | CL-SAW-S-C1 | SW846 7471B | MDIG/62775 | SW846 7471B     | META/56230     |
| 2209412009 | CL-SAW-S-C2 | SW846 7471B | MDIG/62775 | SW846 7471B     | META/56230     |
| 2209412002 | DUP-05      | SW846 3546  | EXTR/46818 | SW846 8081B     | SVGC/44597     |
| 2209412003 | DUP-06      | SW846 3546  | EXTR/46818 | SW846 8081B     | SVGC/44597     |
| 2209412004 | DUP-07      | SW846 3546  | EXTR/46818 | SW846 8081B     | SVGC/44597     |
| 2209412002 | DUP-05      | SW846 3546  | EXTR/46819 | SW846 8082A     | SVGC/44589     |
| 2209412003 | DUP-06      | SW846 3546  | EXTR/46819 | SW846 8082A     | SVGC/44589     |
| 2209412004 | DUP-07      | SW846 3546  | EXTR/46819 | SW846 8082A     | SVGC/44589     |
| 2209412002 | DUP-05      | SW846 3546  | EXTR/46820 | SW846 8015D     | SVGC/44594     |
| 2209412003 | DUP-06      | SW846 3546  | EXTR/46820 | SW846 8015D     | SVGC/44594     |
| 2209412004 | DUP-07      | SW846 3546  | EXTR/46820 | SW846 8015D     | SVGC/44594     |
| 2209412005 | CL-SAW-S-A1 | SW846 3546  | EXTR/46820 | SW846 8015D     | SVGC/44594     |
| 2209412006 | CL-SAW-S-A2 | SW846 3546  | EXTR/46820 | SW846 8015D     | SVGC/44594     |
| 2209412007 | CL-SAW-S-B2 | SW846 3546  | EXTR/46820 | SW846 8015D     | SVGC/44594     |
| 2209412008 | CL-SAW-S-C1 | SW846 3546  | EXTR/46820 | SW846 8015D     | SVGC/44594     |
| 2209412009 | CL-SAW-S-C2 | SW846 3546  | EXTR/46820 | SW846 8015D     | SVGC/44594     |

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2209412 Chase Lands Phase II

| Lab ID     | Sample ID   | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|-------------|-------------|------------|-----------------|----------------|
| 2209412010 | CL-ISM-S-A1 | SW846 3546  | EXTR/46824 | SW846 8015D     | SVGC/44600     |
| 2209412011 | CL-ISM-S-B5 | SW846 3546  | EXTR/46824 | SW846 8015D     | SVGC/44600     |
| 2209412012 | CL-ISM-S-D2 | SW846 3546  | EXTR/46824 | SW846 8015D     | SVGC/44600     |
| 2209412002 | DUP-05      | SW846 3051  | MDIG/62808 | SW846 6020A     | META/56239     |
| 2209412003 | DUP-06      | SW846 3051  | MDIG/62808 | SW846 6020A     | META/56239     |
| 2209412004 | DUP-07      | SW846 3051  | MDIG/62808 | SW846 6020A     | META/56239     |
| 2209412005 | CL-SAW-S-A1 | SW846 3051  | MDIG/62808 | SW846 6020A     | META/56239     |
| 2209412006 | CL-SAW-S-A2 | SW846 3051  | MDIG/62808 | SW846 6020A     | META/56239     |
| 2209412007 | CL-SAW-S-B2 | SW846 3051  | MDIG/62808 | SW846 6020A     | META/56239     |
| 2209412008 | CL-SAW-S-C1 | SW846 3051  | MDIG/62808 | SW846 6020A     | META/56239     |
| 2209412009 | CL-SAW-S-C2 | SW846 3051  | MDIG/62808 | SW846 6020A     | META/56239     |
| 2209412010 | CL-ISM-S-A1 | SW846 3051  | MDIG/62808 | SW846 6020A     | META/56239     |
| 2209412011 | CL-ISM-S-B5 | SW846 3051  | MDIG/62808 | SW846 6020A     | META/56239     |
| 2209412012 | CL-ISM-S-D2 | SW846 3051  | MDIG/62808 | SW846 6020A     | META/56239     |
| 2209412005 | CL-SAW-S-A1 | SW846 3546  | EXTR/46827 | SW846 8082A     | SVGC/44599     |
| 2209412006 | CL-SAW-S-A2 | SW846 3546  | EXTR/46827 | SW846 8082A     | SVGC/44599     |
| 2209412007 | CL-SAW-S-B2 | SW846 3546  | EXTR/46827 | SW846 8082A     | SVGC/44599     |
| 2209412008 | CL-SAW-S-C1 | SW846 3546  | EXTR/46827 | SW846 8082A     | SVGC/44599     |
| 2209412005 | CL-SAW-S-A1 | SW846 3546  | EXTR/46828 | SW846 8081B     | SVGC/44598     |
| 2209412006 | CL-SAW-S-A2 | SW846 3546  | EXTR/46828 | SW846 8081B     | SVGC/44598     |
| 2209412007 | CL-SAW-S-B2 | SW846 3546  | EXTR/46828 | SW846 8081B     | SVGC/44598     |
| 2209412008 | CL-SAW-S-C1 | SW846 3546  | EXTR/46828 | SW846 8081B     | SVGC/44598     |
| 2209412010 | CL-ISM-S-A1 | SW846 7471B | MDIG/62820 | SW846 7471B     | META/56248     |
| 2209412011 | CL-ISM-S-B5 | SW846 7471B | MDIG/62820 | SW846 7471B     | META/56248     |
| 2209412012 | CL-ISM-S-D2 | SW846 7471B | MDIG/62820 | SW846 7471B     | META/56248     |
| 2209412002 | DUP-05      | SW846 3546  | EXTR/46830 | SW846 8270D     | SVMS/27646     |

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2209412 Chase Lands Phase II

| Lab ID     | Sample ID   | Prep Method | Prep Batch | Analysis Method | Analysis Batch |
|------------|-------------|-------------|------------|-----------------|----------------|
| 2209412003 | DUP-06      | SW846 3546  | EXTR/46830 | SW846 8270D     | SVMS/27646     |
| 2209412004 | DUP-07      | SW846 3546  | EXTR/46830 | SW846 8270D     | SVMS/27646     |
| 2209412005 | CL-SAW-S-A1 | SW846 3546  | EXTR/46830 | SW846 8270D     | SVMS/27646     |
| 2209412006 | CL-SAW-S-A2 | SW846 3546  | EXTR/46830 | SW846 8270D     | SVMS/27646     |
| 2209412007 | CL-SAW-S-B2 | SW846 3546  | EXTR/46830 | SW846 8270D     | SVMS/27646     |
| 2209412008 | CL-SAW-S-C1 | SW846 3546  | EXTR/46830 | SW846 8270D     | SVMS/27646     |
| 2209412010 | CL-ISM-S-A1 | SW846 3546  | EXTR/46830 | SW846 8270D     | SVMS/27646     |
| 2209412011 | CL-ISM-S-B5 | SW846 3546  | EXTR/46830 | SW846 8270D     | SVMS/27646     |
| 2209412012 | CL-ISM-S-D2 | SW846 3546  | EXTR/46830 | SW846 8270D     | SVMS/27646     |
| 2209412009 | CL-SAW-S-C2 | SW846 3546  | EXTR/46832 | SW846 8270D     | SVMS/27641     |
| 2209412009 | CL-SAW-S-C2 | SW846 3546  | EXTR/46835 | SW846 8082A     | SVGC/44605     |
| 2209412010 | CL-ISM-S-A1 | SW846 3546  | EXTR/46835 | SW846 8082A     | SVGC/44605     |
| 2209412011 | CL-ISM-S-B5 | SW846 3546  | EXTR/46835 | SW846 8082A     | SVGC/44605     |
| 2209412012 | CL-ISM-S-D2 | SW846 3546  | EXTR/46835 | SW846 8082A     | SVGC/44605     |
| 2209412009 | CL-SAW-S-C2 | SW846 3546  | EXTR/46836 | SW846 8081B     | SVGC/44613     |
| 2209412010 | CL-ISM-S-A1 | SW846 3546  | EXTR/46836 | SW846 8081B     | SVGC/44613     |
| 2209412011 | CL-ISM-S-B5 | SW846 3546  | EXTR/46836 | SW846 8081B     | SVGC/44613     |
| 2209412012 | CL-ISM-S-D2 | SW846 3546  | EXTR/46836 | SW846 8081B     | SVGC/44613     |



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# Environmetal

## CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT /  
SAMPLER. INSTRUCTIONS ON THE BACK.

Page 1 of 2

Counter:

Tracking #:



Co. Name: Howard County DPW (EA Engineering)  
Contact (Report to): Nick Blackwell Phone: 410-343-3440  
Address: Nelson Brooks

3430 Courthouse Dr  
Ellicott City, MD 21043

Bill to (if different than Report to): Nick Blackwell PO#: \_\_\_\_\_

Project Name/ID: Chase Lands Phase II - ALS Quote #:

TAT: ☒ Normal-Standard TAT is 10-12 business days. Date Required: \_\_\_\_\_  
☐ Rush-Subject to ALS approval and surcharges. Approved By: \_\_\_\_\_

Email? ☒ Y ☐ N Fax? ☐ Y ☐ N  
Y nickblackwell@howardcountymd.gov/nbrooks@easest.com

| Sample Description/Location<br>(as it will appear on the lab report) | COC Comments | Sample Date | Military Time |
|----------------------------------------------------------------------|--------------|-------------|---------------|
| 1 TB-07                                                              |              | -           | -             |
| 2 DUP-05                                                             |              | 2/17/17     | 0850          |
| 3 DUP-06                                                             |              |             | 0850          |
| 4 DUP-07                                                             |              |             | 0900          |
| 5 CL-SAW-S-A1                                                        |              |             | 0950          |
| 6 CL-SAW-S-A2                                                        |              |             |               |
| 7 CL-SAW-S-B2                                                        |              |             |               |
| 8 CL-SAW-S-C1                                                        |              |             |               |

| Relinquished By / Company Name | Date    | Time | Received By / Company Name | Date    | Time |
|--------------------------------|---------|------|----------------------------|---------|------|
| Michael Thornton               | 2/17/17 | 1200 | EA                         | 2/17/17 | 1200 |
| EA                             | 2/17    |      | ALS                        | 2/17/17 | 1200 |
| ALS                            |         |      |                            | 2/17/17 | 2100 |
|                                |         |      |                            | 2/17/17 | 2100 |
|                                |         |      |                            | 2/17/17 | 2100 |
|                                |         |      |                            | 2/17/17 | 2100 |
|                                |         |      |                            | 2/17/17 | 2100 |
|                                |         |      |                            | 2/17/17 | 2100 |

Project Comments: \_\_\_\_\_

| Container ID: <u>8260-VOC</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Container Type: <u>8260-VOC</u> | Container Size: <u>40ml</u> | Container Material: <u>HDPE</u>                | Container Color: <u>White</u> | Container Label: <u>8260-VOC</u> | Container Seal: <u>Sealed</u> | Container Date: <u>2/17/17</u> | Container Time: <u>1200</u> | Container Location: <u>8260-VOC</u> | Container Remarks: <u>8260-VOC</u> |                                         |                                                                                                                                                                                                  |                       |                                                |                               |                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-----------------------------|------------------------------------------------|-------------------------------|----------------------------------|-------------------------------|--------------------------------|-----------------------------|-------------------------------------|------------------------------------|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------------------------------------|-------------------------------|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANALYSES/METHOD REQUESTED                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                 |                             |                                                |                               |                                  |                               |                                |                             |                                     |                                    |                                         |                                                                                                                                                                                                  |                       |                                                |                               |                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <table border="1"> <tr> <th>Enter Number of Containers Per Analysis</th> <th>8260-VOC</th> <th>TPH GRO</th> <th>8270-SVOC, TPH/DRO, PCBs, PP Metals, BOD, P-PH</th> </tr> <tr> <td>1</td> <td>4</td> <td>1</td> <td>1</td> </tr> <tr> <td>2</td> <td>4</td> <td>1</td> <td>1</td> </tr> <tr> <td>3</td> <td>4</td> <td>1</td> <td>1</td> </tr> <tr> <td>4</td> <td>4</td> <td>1</td> <td>1</td> </tr> <tr> <td>5</td> <td>4</td> <td>1</td> <td>1</td> </tr> <tr> <td>6</td> <td>4</td> <td>1</td> <td>1</td> </tr> <tr> <td>7</td> <td>4</td> <td>1</td> <td>1</td> </tr> <tr> <td>8</td> <td>4</td> <td>1</td> <td>1</td> </tr> </table> |                                 |                             |                                                |                               |                                  |                               |                                |                             |                                     |                                    | Enter Number of Containers Per Analysis | 8260-VOC                                                                                                                                                                                         | TPH GRO               | 8270-SVOC, TPH/DRO, PCBs, PP Metals, BOD, P-PH | 1                             | 4                            | 1 | 1 | 2 | 4 | 1 | 1 | 3 | 4 | 1 | 1 | 4 | 4 | 1 | 1 | 5 | 4 | 1 | 1 | 6 | 4 | 1 | 1 | 7 | 4 | 1 | 1 | 8 | 4 | 1 | 1 |
| Enter Number of Containers Per Analysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 8260-VOC                        | TPH GRO                     | 8270-SVOC, TPH/DRO, PCBs, PP Metals, BOD, P-PH |                               |                                  |                               |                                |                             |                                     |                                    |                                         |                                                                                                                                                                                                  |                       |                                                |                               |                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4                               | 1                           | 1                                              |                               |                                  |                               |                                |                             |                                     |                                    |                                         |                                                                                                                                                                                                  |                       |                                                |                               |                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4                               | 1                           | 1                                              |                               |                                  |                               |                                |                             |                                     |                                    |                                         |                                                                                                                                                                                                  |                       |                                                |                               |                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4                               | 1                           | 1                                              |                               |                                  |                               |                                |                             |                                     |                                    |                                         |                                                                                                                                                                                                  |                       |                                                |                               |                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4                               | 1                           | 1                                              |                               |                                  |                               |                                |                             |                                     |                                    |                                         |                                                                                                                                                                                                  |                       |                                                |                               |                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4                               | 1                           | 1                                              |                               |                                  |                               |                                |                             |                                     |                                    |                                         |                                                                                                                                                                                                  |                       |                                                |                               |                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4                               | 1                           | 1                                              |                               |                                  |                               |                                |                             |                                     |                                    |                                         |                                                                                                                                                                                                  |                       |                                                |                               |                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4                               | 1                           | 1                                              |                               |                                  |                               |                                |                             |                                     |                                    |                                         |                                                                                                                                                                                                  |                       |                                                |                               |                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 4                               | 1                           | 1                                              |                               |                                  |                               |                                |                             |                                     |                                    |                                         |                                                                                                                                                                                                  |                       |                                                |                               |                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <table border="1"> <tr> <th>Correct containers?</th> <th>Correct sample volume?</th> <th>Correct preservation?</th> <th>Headspace/Volatiles?</th> <th>COC/Labels complete/accurate?</th> <th>Container in good condition?</th> </tr> <tr> <td>Y</td> <td>Y</td> <td>Y</td> <td>Y</td> <td>Y</td> <td>Y</td> </tr> </table>                                                                                                                                                                                                                                                                                                                 |                                 |                             |                                                |                               |                                  |                               |                                |                             |                                     |                                    | Correct containers?                     | Correct sample volume?                                                                                                                                                                           | Correct preservation? | Headspace/Volatiles?                           | COC/Labels complete/accurate? | Container in good condition? | Y | Y | Y | Y | Y | Y |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Correct containers?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Correct sample volume?          | Correct preservation?       | Headspace/Volatiles?                           | COC/Labels complete/accurate? | Container in good condition?     |                               |                                |                             |                                     |                                    |                                         |                                                                                                                                                                                                  |                       |                                                |                               |                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Y                               | Y                           | Y                                              | Y                             | Y                                |                               |                                |                             |                                     |                                    |                                         |                                                                                                                                                                                                  |                       |                                                |                               |                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <table border="1"> <tr> <th>ALS FIELD SERVICES</th> </tr> <tr> <td> <input type="checkbox"/> Pickup<br/> <input type="checkbox"/> Labor<br/> <input type="checkbox"/> Composite Sampling<br/> <input type="checkbox"/> Rental Equipment<br/> <input type="checkbox"/> Other:         </td> </tr> </table>                                                                                                                                                                                                                                                                                                                                  |                                 |                             |                                                |                               |                                  |                               |                                |                             |                                     |                                    | ALS FIELD SERVICES                      | <input type="checkbox"/> Pickup<br><input type="checkbox"/> Labor<br><input type="checkbox"/> Composite Sampling<br><input type="checkbox"/> Rental Equipment<br><input type="checkbox"/> Other: |                       |                                                |                               |                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| ALS FIELD SERVICES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                 |                             |                                                |                               |                                  |                               |                                |                             |                                     |                                    |                                         |                                                                                                                                                                                                  |                       |                                                |                               |                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <input type="checkbox"/> Pickup<br><input type="checkbox"/> Labor<br><input type="checkbox"/> Composite Sampling<br><input type="checkbox"/> Rental Equipment<br><input type="checkbox"/> Other:                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                 |                             |                                                |                               |                                  |                               |                                |                             |                                     |                                    |                                         |                                                                                                                                                                                                  |                       |                                                |                               |                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |





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# Environmetal

## CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT/  
SAMPLER. INSTRUCTIONS ON THE BACK.

Courier: SW  
Tracking #: UN

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COC# UN

Co. Name: Howard County DPW (EA Engineering)  
Contact (Report to): Nr. Blackwell Phone: 410-343-3440  
Address: Nelson Brooks 3440 Courthouse Dr  
Elkton City, MD 21043  
PO#: Nr. Blackwell

Project Name/ID: Chase Layds Phase II ALS Quote #:

TAT: ☒ Normal-Standard TAT is 10-12 business days. Date Required:  
☐ Rush-Subject to ALS approval and surcharges. Approved By:

Email? ☒ Y ☐ N Fax? ☐ Y ☐ N  
Email: nblackwell@howardcountyind.gov / nbrooks@easest.com

Sample Description/Location (as it will appear on the lab report)

| Sample Date | Sample Time | COC Comments |
|-------------|-------------|--------------|
| 2/17/17     | 0915        | 650          |
| 1030        | 1           | 1            |
| 1000        | 4           | 1            |
| 1010        | 4           | 1            |

|   |  |  |
|---|--|--|
| 5 |  |  |
| 6 |  |  |
| 7 |  |  |
| 8 |  |  |

Project Comments:

SAMPLED BY (Please Print): Michael Thorat

Relinquished By / Company Name

| Date    | Time | Received By / Company Name | Date      | Time |
|---------|------|----------------------------|-----------|------|
| 2/17/17 | 1200 | 2 <u>EA</u>                | 2/17/2008 |      |
| 2/17    |      | 4 <u>EA</u>                | 2/17/1910 |      |
| 2/17    | 2100 | 6 <u>EA</u>                | 2/17/2100 |      |
|         |      | 8                          |           |      |
|         |      | 10                         |           |      |

\* G-Grab; C-Composite

\*\* Matrix: Air=Air; DW=Drinking Water; GW=Groundwater; OL=Oil; OL-Other Liquid; SL=Sludge; SO=Soil; WP=Wipe; WW=Wastewater

\*\*\* Container Type: AG=Amber Glass; CG=Clear Glass; PL=Plastic. Container Size: 250ml, 500ml, 1L, 8oz., etc. Preservative: HCl, HNO3, NaOH, etc.

|                                                       |            |                              |                               |
|-------------------------------------------------------|------------|------------------------------|-------------------------------|
| Receipt Information (Completed by Service Technician) |            | Container Information        |                               |
| Performed by                                          | Initials   | Container ID                 | Container Type                |
| Cooler Temp:                                          | Therm. ID: | Correct container?           | Correct sample volume?        |
| No. of Coolers:                                       | Notes:     | Correct preservation?        | Headspace/Volatiles?          |
|                                                       |            | Container in good condition? | COC/Labets complete/accurate? |
|                                                       |            | (If present) Seals intact?   | Received on ice?              |
|                                                       |            | Custody seals Present?       |                               |

|                    |                  |
|--------------------|------------------|
| ALS FIELD SERVICES |                  |
| Pickup             | Labor            |
| Composite Sampling | Rental Equipment |
| Other:             |                  |

|                   |                                           |
|-------------------|-------------------------------------------|
| Data Deliverables |                                           |
| Standard          | SDWA                                      |
| CLP-like          | Form? <input checked="" type="checkbox"/> |
| NJ-Reduced        | yes <input type="checkbox"/>              |
| NJ-Full           | yes <input type="checkbox"/>              |
| Other             | yes <input type="checkbox"/>              |
| EDS Required?     | if yes, format type:                      |
|                   | Enter EDS ID#                             |

|                                                 |   |
|-------------------------------------------------|---|
| Enter Number of Containers Per Analysis         |   |
| 8260-VOC + Organics                             | 4 |
| 8270-SVOC, TPAPRO, PCBs, PFM, Hx, B, O, P, F, S | 1 |
| TPH GRO                                         | 1 |
| ANALYSES/METHOD REQUESTED                       |   |