

WPXENERGY Sample Location Map

Clough 2-A

39.505732 -107.897825
Section 21, Township 6 South, Range 94 West

| <p>● Sample Location</p> <p>▨ Impacted Area</p> <p>PLSS</p> <p>▭ Township</p> <p>▭ Section</p> | Transportation | Hydrography |
|--|---|---|
| | <p>— CO Highways</p> <p>— County Roads</p> <p>— Local Streets</p> <p>— WPX Access</p> | <p>— Ditch</p> <p>— Intermittent Stream</p> <p>— Perennial Stream</p> <p>— Waterbody</p> <p>— Watershed</p> |



Author: B. Hall

Revision: 0

Date: 6/4/2014



30-May-2014

Mark Mumby
HRL Compliance Solutions, Inc
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **Clough 2-A Confirmation Sample 5.20.14**

Work Order: **14051129**

Dear Mark,

ALS Environmental received 1 sample on 22-May-2014 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 23.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: Clough 2-A Confirmation Sample 5.20.14
Work Order: 14051129

Work Order Sample Summary

| <u>Lab Samp ID</u> | <u>Client Sample ID</u> | <u>Matrix</u> | <u>Tag Number</u> | <u>Collection Date</u> | <u>Date Received</u> | <u>Hold</u> |
|--------------------|-------------------------|---------------|-------------------|------------------------|----------------------|--------------------------|
| 14051129-01 | Impacted Area | Soil | | 5/20/2014 12:20 | 5/22/2014 09:30 | <input type="checkbox"/> |

Client: HRL Compliance Solutions, Inc
Project: Clough 2-A Confirmation Sample 5.20.14
Work Order: 14051129

Case Narrative

Batch 58934 MS/MSD data for Metals is not related to this project's samples. No data requires qualification.

Batch 58945 MS/MSD data for Hexavalent Chromium is not related to this project's samples. No data requires qualification.

| <u>Qualifier</u> | <u>Description</u> |
|-------------------------|---|
| * | Value exceeds Regulatory Limit |
| a | Not accredited |
| B | Analyte detected in the associated Method Blank above the Reporting Limit |
| E | Value above quantitation range |
| H | Analyzed outside of Holding Time |
| J | Analyte is present at an estimated concentration between the MDL and Report Limit |
| n | Not offered for accreditation |
| ND | Not Detected at the Reporting Limit |
| O | Sample amount is > 4 times amount spiked |
| P | Dual Column results percent difference > 40% |
| R | RPD above laboratory control limit |
| S | Spike Recovery outside laboratory control limits |
| U | Analyzed but not detected above the MDL |

| <u>Acronym</u> | <u>Description</u> |
|-----------------------|-------------------------------------|
| DUP | Method Duplicate |
| LCS | Laboratory Control Sample |
| LCSD | Laboratory Control Sample Duplicate |
| LOD | Limit of Detection (see MDL) |
| LOQ | Limit of Quantitation (see PQL) |
| MBLK | Method Blank |
| MDL | Method Detection Limit |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| PQL | Practical Quantitation Limit |
| RPD | Relative Percent Difference |
| TDL | Target Detection Limit |
| TNTC | Too Numerous To Count |
| A | APHA Standard Methods |
| D | ASTM |
| E | EPA |
| SW | SW-846 Update III |

| <u>Units Reported</u> | <u>Description</u> |
|------------------------------|--|
| % of sample | Percent of Sample |
| µg/Kg-dry | Micrograms per Kilogram Dry Weight |
| mg/Kg-dry | Milligrams per Kilogram Dry Weight |
| mg/L | Milligrams per Liter |
| mmhos/cm @25°C | Millimhos-Centimeter at 25 Degrees Celcius |
| none | |
| s.u. | Standard Units |

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: Clough 2-A Confirmation Sample 5.20.14
Sample ID: Impacted Area
Collection Date: 5/20/2014 12:20 PM

Work Order: 14051129
Lab ID: 14051129-01
Matrix: SOIL

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|--|--------------|------|-----------------------|------------------|---------------------------------|---------------------------|
| DIESEL RANGE ORGANICS BY GC-FID | | | | | | |
| DRO (C10-C28) | 240 | | SW8015M | | Prep: SW3541 / 5/27/14 | Analyst: IT |
| <i>Surr: 4-Terphenyl-d14</i> | <i>94.0</i> | | <i>39-133</i> | <i>%REC</i> | <i>1</i> | <i>5/28/2014 03:09 AM</i> |
| GASOLINE RANGE ORGANICS BY GC-FID | | | | | | |
| GRO (C6-C10) | ND | | SW8015 | | Prep: SW5035 / 5/22/14 | Analyst: IT |
| <i>Surr: Toluene-d8</i> | <i>109</i> | | <i>50-150</i> | <i>%REC</i> | <i>1</i> | <i>5/29/2014 12:40 PM</i> |
| MERCURY BY CVAA | | | | | | |
| Mercury | 0.064 | | SW7471 | | Prep: SW7471 / 5/27/14 | Analyst: LR |
| METALS BY ICP-MS | | | | | | |
| Arsenic | 7.2 | | SW6020A | | Prep: SW3050B / 5/22/14 | Analyst: ML |
| Barium | 4,100 | | 2.0 | mg/Kg-dry | 5 | 5/24/2014 03:59 AM |
| Cadmium | ND | | 20 | mg/Kg-dry | 50 | 5/25/2014 12:34 AM |
| Chromium | 11 | | 0.79 | mg/Kg-dry | 5 | 5/24/2014 03:59 AM |
| Copper | 14 | | 2.0 | mg/Kg-dry | 5 | 5/24/2014 03:59 AM |
| Lead | 10 | | 2.0 | mg/Kg-dry | 5 | 5/24/2014 03:59 AM |
| Nickel | 13 | | 2.0 | mg/Kg-dry | 5 | 5/24/2014 03:59 AM |
| Selenium | ND | | 2.0 | mg/Kg-dry | 5 | 5/24/2014 03:59 AM |
| Silver | ND | | 2.0 | mg/Kg-dry | 5 | 5/24/2014 03:59 AM |
| Zinc | 58 | | 40 | mg/Kg-dry | 50 | 5/25/2014 12:34 AM |
| SOLUBLE CATIONS FOR SAR | | | | | | |
| | | | SW6020A | | Prep: USDA Method 20B / 5/27/14 | Analyst: RH |
| Calcium | 560 | | 10 | mg/L | 20 | 5/28/2014 01:43 AM |
| Magnesium | 190 | | 4.0 | mg/L | 20 | 5/28/2014 01:43 AM |
| Sodium | 530 | | 4.0 | mg/L | 20 | 5/28/2014 01:43 AM |
| SODIUM ADSORPTION RATIO | | | | | | |
| | | | USDA H60 METHO | | Prep: USDA Method 20B / 5/27/14 | Analyst: RH |
| Sodium Adsorption Ratio | 5.0 | | 0.010 | none | 1 | 5/27/2014 |
| SEMI-VOLATILE ORGANIC COMPOUNDS | | | | | | |
| | | | SW8270 | | Prep: SW3541 / 5/27/14 | Analyst: RM |
| Acenaphthene | ND | | 6.9 | µg/Kg-dry | 1 | 5/28/2014 06:35 PM |
| Acenaphthylene | ND | | 6.9 | µg/Kg-dry | 1 | 5/28/2014 06:35 PM |
| Anthracene | ND | | 6.9 | µg/Kg-dry | 1 | 5/28/2014 06:35 PM |
| Benzo(a)anthracene | ND | | 6.9 | µg/Kg-dry | 1 | 5/28/2014 06:35 PM |
| Benzo(a)pyrene | ND | | 6.9 | µg/Kg-dry | 1 | 5/28/2014 06:35 PM |
| Benzo(b)fluoranthene | ND | | 6.9 | µg/Kg-dry | 1 | 5/28/2014 06:35 PM |
| Benzo(g,h,i)perylene | ND | | 6.9 | µg/Kg-dry | 1 | 5/28/2014 06:35 PM |
| Benzo(k)fluoranthene | ND | | 6.9 | µg/Kg-dry | 1 | 5/28/2014 06:35 PM |
| Chrysene | ND | | 6.9 | µg/Kg-dry | 1 | 5/28/2014 06:35 PM |

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 30-May-14

Client: HRL Compliance Solutions, Inc
Project: Clough 2-A Confirmation Sample 5.20.14
Sample ID: Impacted Area
Collection Date: 5/20/2014 12:20 PM

Work Order: 14051129
Lab ID: 14051129-01
Matrix: SOIL

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|--------------------------------------|--------|------|----------------|---------------------------------|-----------------|--------------------|
| Dibenzo(a,h)anthracene | ND | | 6.9 | µg/Kg-dry | 1 | 5/28/2014 06:35 PM |
| Fluoranthene | ND | | 6.9 | µg/Kg-dry | 1 | 5/28/2014 06:35 PM |
| Fluorene | ND | | 6.9 | µg/Kg-dry | 1 | 5/28/2014 06:35 PM |
| Indeno(1,2,3-cd)pyrene | ND | | 6.9 | µg/Kg-dry | 1 | 5/28/2014 06:35 PM |
| Naphthalene | ND | | 6.9 | µg/Kg-dry | 1 | 5/28/2014 06:35 PM |
| Pyrene | ND | | 6.9 | µg/Kg-dry | 1 | 5/28/2014 06:35 PM |
| Surr: 2-Fluorobiphenyl | 71.2 | | 12-100 | %REC | 1 | 5/28/2014 06:35 PM |
| Surr: 4-Terphenyl-d14 | 78.0 | | 25-137 | %REC | 1 | 5/28/2014 06:35 PM |
| Surr: Nitrobenzene-d5 | 61.6 | | 37-107 | %REC | 1 | 5/28/2014 06:35 PM |
| VOLATILE ORGANIC COMPOUNDS | | | SW8260B | Prep: SW5035 / 5/22/14 | | Analyst: RS |
| Benzene | ND | | 32 | µg/Kg-dry | 1 | 5/29/2014 04:42 AM |
| Ethylbenzene | ND | | 32 | µg/Kg-dry | 1 | 5/29/2014 04:42 AM |
| m,p-Xylene | 130 | | 63 | µg/Kg-dry | 1 | 5/29/2014 04:42 AM |
| o-Xylene | ND | | 32 | µg/Kg-dry | 1 | 5/29/2014 04:42 AM |
| Toluene | 42 | | 32 | µg/Kg-dry | 1 | 5/29/2014 04:42 AM |
| Xylenes, Total | 130 | | 95 | µg/Kg-dry | 1 | 5/29/2014 04:42 AM |
| Surr: 1,2-Dichloroethane-d4 | 97.6 | | 70-130 | %REC | 1 | 5/29/2014 04:42 AM |
| Surr: 4-Bromofluorobenzene | 99.4 | | 70-130 | %REC | 1 | 5/29/2014 04:42 AM |
| Surr: Dibromofluoromethane | 97.5 | | 70-130 | %REC | 1 | 5/29/2014 04:42 AM |
| Surr: Toluene-d8 | 98.8 | | 70-130 | %REC | 1 | 5/29/2014 04:42 AM |
| ELECTRICAL CONDUCTIVITY (SAR) | | | USDA H60 METHO | Prep: USDA Method 20B / 5/27/14 | | Analyst: JB |
| Electrical Conductivity @ Saturation | 7.6 | | 0.050 | mmhos/cm @25 | 10 | 5/28/2014 12:15 PM |
| CHROMIUM, TRIVALENT | | | CALCULATION | | | Analyst: JJG |
| Chromium, Trivalent | 10 | | 0.53 | mg/Kg-dry | 1 | 5/27/2014 08:01 AM |
| CHROMIUM, HEXAVALENT | | | SW7196A | Prep: SW3060A / 5/23/14 | | Analyst: JI |
| Chromium, Hexavalent | ND | | 0.53 | mg/Kg-dry | 1 | 5/23/2014 12:00 PM |
| MOISTURE | | | A2540 G | | | Analyst: AT |
| Moisture | 5.4 | | 0.050 | % of sample | 1 | 5/22/2014 04:52 PM |
| PH | | | SW9045D | Prep: EXTRACT / 5/23/14 | | Analyst: AT |
| pH | 8.2 | | | s.u. | 1 | 5/23/2014 03:00 PM |

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: HRL Compliance Solutions, Inc

Work Order: 14051129

Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: 59015

Instrument ID GC8

Method: SW8015M

| | | | | | | | | | | |
|-----------------------|--------|--------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MBLK | | Sample ID: DBLKS1-59015-59015 | | | | Units: mg/Kg | | Analysis Date: 5/27/2014 09:40 PM | | |
| Client ID: | | Run ID: GC8_140527A | | | | SeqNo: 2782274 | | Prep Date: 5/27/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| DRO (C10-C28) | ND | 4.2 | | | | | | | | |
| Surr: 4-Terphenyl-d14 | 1.688 | 0 | 1.667 | 0 | 101 | 39-133 | 0 | | | |

| | | | | | | | | | | |
|-----------------------|--------|--------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| LCS | | Sample ID: DLCSS1-59015-59015 | | | | Units: mg/Kg | | Analysis Date: 5/27/2014 10:10 PM | | |
| Client ID: | | Run ID: GC8_140527A | | | | SeqNo: 2782275 | | Prep Date: 5/27/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| DRO (C10-C28) | 143 | 4.2 | 166.7 | 0 | 85.8 | 61-109 | 0 | | | |
| Surr: 4-Terphenyl-d14 | 1.37 | 0 | 1.667 | 0 | 82.2 | 39-133 | 0 | | | |

| | | | | | | | | | | |
|-----------------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MS | | Sample ID: 14051288-01B MS | | | | Units: mg/Kg | | Analysis Date: 5/27/2014 10:40 PM | | |
| Client ID: | | Run ID: GC8_140527A | | | | SeqNo: 2782276 | | Prep Date: 5/27/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| DRO (C10-C28) | 300.8 | 8.0 | 319.8 | 30.4 | 84.5 | 48-110 | 0 | | | |
| Surr: 4-Terphenyl-d14 | 3.026 | 0 | 3.198 | 0 | 94.6 | 39-133 | 0 | | | |

| | | | | | | | | | | |
|-----------------------|--------|------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MSD | | Sample ID: 14051288-01B MSD | | | | Units: mg/Kg | | Analysis Date: 5/27/2014 11:10 PM | | |
| Client ID: | | Run ID: GC8_140527A | | | | SeqNo: 2782277 | | Prep Date: 5/27/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| DRO (C10-C28) | 265.6 | 7.9 | 314 | 30.4 | 74.9 | 48-110 | 300.8 | 12.4 | 30 | |
| Surr: 4-Terphenyl-d14 | 2.707 | 0 | 3.14 | 0 | 86.2 | 39-133 | 3.026 | 11.1 | 30 | |

The following samples were analyzed in this batch:

14051129-01B

Client: HRL Compliance Solutions, Inc
Work Order: 14051129
Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: **58905** Instrument ID **GC9** Method: **SW8015**

| | | | | | | | | | | |
|-------------------------|-------------|------------------------------------|-------------|---------------|------------|-----------------------|---------------|--|-----------|--------------|
| MBLK | | Sample ID: MBLK-58905-58905 | | | | Units: µg/Kg | | Analysis Date: 5/22/2014 05:19 PM | | |
| Client ID: | | Run ID: GC9_140522A | | | | SeqNo: 2776313 | | Prep Date: 5/22/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| GRO (C6-C10) | ND | 2,500 | | | | | | | | |
| <i>Surr: Toluene-d8</i> | <i>5004</i> | <i>0</i> | <i>5000</i> | <i>0</i> | <i>100</i> | <i>50-150</i> | <i>0</i> | | | |

| | | | | | | | | | | |
|-------------------------|-------------|-----------------------------------|-------------|---------------|------------|-----------------------|---------------|--|-----------|--------------|
| LCS | | Sample ID: LCS-58905-58905 | | | | Units: µg/Kg | | Analysis Date: 5/22/2014 04:03 PM | | |
| Client ID: | | Run ID: GC9_140522A | | | | SeqNo: 2776312 | | Prep Date: 5/22/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| GRO (C6-C10) | 517200 | 2,500 | 500000 | 0 | 103 | 70-130 | 0 | | | |
| <i>Surr: Toluene-d8</i> | <i>6152</i> | <i>0</i> | <i>5000</i> | <i>0</i> | <i>123</i> | <i>50-150</i> | <i>0</i> | | | |

| | | | | | | | | | | |
|-------------------------|-------------|-----------------------------------|-------------|---------------|------------|-----------------------|---------------|--|-----------|--------------|
| MS | | Sample ID: 14051082-01A MS | | | | Units: µg/Kg | | Analysis Date: 5/22/2014 09:59 PM | | |
| Client ID: | | Run ID: GC9_140522A | | | | SeqNo: 2779863 | | Prep Date: 5/22/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| GRO (C6-C10) | 514200 | 2,500 | 500000 | 0 | 103 | 70-130 | 0 | | | |
| <i>Surr: Toluene-d8</i> | <i>5673</i> | <i>0</i> | <i>5000</i> | <i>0</i> | <i>113</i> | <i>50-150</i> | <i>0</i> | | | |

| | | | | | | | | | | |
|-------------------------|-------------|------------------------------------|-------------|---------------|------------|-----------------------|---------------|--|-----------|--------------|
| MSD | | Sample ID: 14051082-01A MSD | | | | Units: µg/Kg | | Analysis Date: 5/22/2014 10:25 PM | | |
| Client ID: | | Run ID: GC9_140522A | | | | SeqNo: 2779864 | | Prep Date: 5/22/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| GRO (C6-C10) | 495900 | 2,500 | 500000 | 0 | 99.2 | 70-130 | 514200 | 3.62 | 30 | |
| <i>Surr: Toluene-d8</i> | <i>5144</i> | <i>0</i> | <i>5000</i> | <i>0</i> | <i>103</i> | <i>50-150</i> | <i>5673</i> | <i>9.78</i> | <i>30</i> | |

The following samples were analyzed in this batch:

14051129-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14051129
Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: **59040** Instrument ID **HG1** Method: **SW7471**

| | | | | | | | | | | | |
|------------|--------|-----------------------------|---------------------|---------------|------|---------------|----------------|------|-----------------------------------|------|-------|
| MBLK | | Sample ID: MBLK-59040-59040 | | | | | Units: mg/Kg | | Analysis Date: 5/27/2014 06:57 PM | | |
| Client ID: | | | Run ID: HG1_140527A | | | | SeqNo: 2782041 | | Prep Date: 5/27/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual | |

Mercury 0.001167 0.020 J

| | | | | | | | | | | |
|------------|--------|----------------------------|---------|---------------|------|----------------|---------------|-----------------------------------|-----------|-------|
| LCS | | Sample ID: LCS-59040-59040 | | | | Units: mg/Kg | | Analysis Date: 5/27/2014 07:00 PM | | |
| Client ID: | | Run ID: HG1_140527A | | | | SeqNo: 2782042 | | Prep Date: 5/27/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Mercury 0.1636 0.020 0.1665 0 98.2 80-120 0

| | | | | | | | | | | | |
|------------|--------|---------------------------|---------------------|---------------|------|----------------|---------------|----------------------|-----------------------------------|-------|--|
| MS | | Sample ID: 14051306-02BMS | | | | | Units: mg/Kg | | Analysis Date: 5/28/2014 04:42 PM | | |
| Client ID: | | | Run ID: HG1_140528B | | | SeqNo: 2784058 | | Prep Date: 5/27/2014 | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual | |

Mercury 0.1298 0.014 0.1173 0.008509 103 75-125 0

| | | | | | | | | | | | |
|------------|--------|----------------------------|---------------------|---------------|------|----------------|---------------|----------------------|-----------------------------------|-------|--|
| MSD | | Sample ID: 14051306-02BMSD | | | | | Units: mg/Kg | | Analysis Date: 5/28/2014 04:44 PM | | |
| Client ID: | | | Run ID: HG1_140528B | | | SeqNo: 2784059 | | Prep Date: 5/27/2014 | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual | |

Mercury 0.138 0.014 0.1196 0.008509 108 75-125 0.1298 6.13 35

The following samples were analyzed in this batch:

14051129-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14051129
Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: **58934** Instrument ID **ICPMS1** Method: **SW6020A**

| MBLK | | Sample ID: MBLK-58934-58934 | | | | Units: mg/Kg | | Analysis Date: 5/24/2014 01:01 AM | | |
|-------------|---------|------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| Client ID: | | Run ID: ICPMS1_140523A | | | | SeqNo: 2778963 | | Prep Date: 5/22/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Arsenic | ND | 0.25 | | | | | | | | |
| Cadmium | ND | 0.10 | | | | | | | | |
| Chromium | ND | 0.25 | | | | | | | | |
| Copper | ND | 0.25 | | | | | | | | |
| Lead | ND | 0.25 | | | | | | | | |
| Nickel | ND | 0.25 | | | | | | | | |
| Selenium | ND | 0.25 | | | | | | | | |
| Silver | ND | 0.25 | | | | | | | | |
| Zinc | 0.02773 | 0.50 | | | | | | | | J |

| MBLK | | Sample ID: MBLK-58934-58934 | | | | Units: mg/Kg | | Analysis Date: 5/25/2014 12:08 AM | | |
|-------------|--------|------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| Client ID: | | Run ID: ICPMS1_140524A | | | | SeqNo: 2779617 | | Prep Date: 5/22/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Barium | 0.1674 | 0.25 | | | | | | | | J |

| LCS | | Sample ID: LCS-58934-58934 | | | | Units: mg/Kg | | Analysis Date: 5/24/2014 01:08 AM | | |
|------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| Client ID: | | Run ID: ICPMS1_140523A | | | | SeqNo: 2778964 | | Prep Date: 5/22/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Arsenic | 4.298 | 0.25 | 5 | 0 | 86 | 80-120 | 0 | | | |
| Barium | 5.05 | 0.25 | 5 | 0 | 101 | 80-120 | 0 | | | B |
| Cadmium | 4.58 | 0.10 | 5 | 0 | 91.6 | 80-120 | 0 | | | |
| Chromium | 5.04 | 0.25 | 5 | 0 | 101 | 80-120 | 0 | | | |
| Copper | 5.045 | 0.25 | 5 | 0 | 101 | 80-120 | 0 | | | |
| Lead | 4.854 | 0.25 | 5 | 0 | 97.1 | 80-120 | 0 | | | |
| Nickel | 5.05 | 0.25 | 5 | 0 | 101 | 80-120 | 0 | | | |
| Selenium | 4.074 | 0.25 | 5 | 0 | 81.5 | 80-120 | 0 | | | |
| Silver | 4.996 | 0.25 | 5 | 0 | 99.9 | 80-120 | 0 | | | |
| Zinc | 4.15 | 0.50 | 5 | 0 | 83 | 80-120 | 0 | | | |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14051129
Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: **58934** Instrument ID **ICPMS1** Method: **SW6020A**

| MS | | | | Sample ID: 14051131-01AMS | | | Units: mg/Kg | | Analysis Date: 5/24/2014 04:17 AM | | |
|------------|--------|------|------------------------|---------------------------|------|----------------|---------------|----------------------|-----------------------------------|-------|--|
| Client ID: | | | Run ID: ICPMS1_140523A | | | SeqNo: 2778992 | | Prep Date: 5/22/2014 | | DF: 5 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual | |
| Arsenic | 11.67 | 1.8 | 7.112 | 5.756 | 83.2 | 75-125 | 0 | | | | |
| Barium | 362.4 | 1.8 | 7.112 | 410.3 | -673 | 75-125 | 0 | | | BSO | |
| Cadmium | 7.429 | 0.71 | 7.112 | 0.8057 | 93.1 | 75-125 | 0 | | | | |
| Chromium | 19.16 | 1.8 | 7.112 | 10.6 | 120 | 75-125 | 0 | | | | |
| Copper | 19.84 | 1.8 | 7.112 | 13.8 | 85 | 75-125 | 0 | | | | |
| Lead | 28.97 | 1.8 | 7.112 | 23.21 | 80.9 | 75-125 | 0 | | | | |
| Nickel | 17.65 | 1.8 | 7.112 | 11.21 | 90.6 | 75-125 | 0 | | | | |
| Selenium | 8.08 | 1.8 | 7.112 | 1.994 | 85.6 | 75-125 | 0 | | | | |
| Silver | 6.476 | 1.8 | 7.112 | 0.06483 | 90.1 | 75-125 | 0 | | | | |

| MS | | | | Sample ID: 14051131-01AMS | | | Units: mg/Kg | | Analysis Date: 5/26/2014 09:54 PM | | |
|------------|--------|-----|------------------------|---------------------------|------|----------------|---------------|----------------------|-----------------------------------|-------|--|
| Client ID: | | | Run ID: ICPMS1_140526A | | | SeqNo: 2781092 | | Prep Date: 5/22/2014 | | DF: 5 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual | |
| Zinc | 78.38 | 3.6 | 7.112 | 77.28 | 15.5 | 75-125 | 0 | | | SO | |

| MSD | | | | Sample ID: 14051131-01AMSD | | | Units: mg/Kg | | Analysis Date: 5/24/2014 04:23 AM | | |
|------------|--------|------|------------------------|----------------------------|------|----------------|---------------|----------------------|-----------------------------------|-------|--|
| Client ID: | | | Run ID: ICPMS1_140523A | | | SeqNo: 2778993 | | Prep Date: 5/22/2014 | | DF: 5 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual | |
| Arsenic | 13.14 | 1.8 | 7.174 | 5.756 | 103 | 75-125 | 11.67 | 11.8 | 25 | | |
| Barium | 373 | 1.8 | 7.174 | 410.3 | -519 | 75-125 | 362.4 | 2.9 | 25 | BSO | |
| Cadmium | 7.837 | 0.72 | 7.174 | 0.8057 | 98 | 75-125 | 7.429 | 5.35 | 25 | | |
| Chromium | 20.22 | 1.8 | 7.174 | 10.6 | 134 | 75-125 | 19.16 | 5.37 | 25 | S | |
| Copper | 20.45 | 1.8 | 7.174 | 13.8 | 92.7 | 75-125 | 19.84 | 3 | 25 | | |
| Lead | 30.62 | 1.8 | 7.174 | 23.21 | 103 | 75-125 | 28.97 | 5.54 | 25 | | |
| Nickel | 18.63 | 1.8 | 7.174 | 11.21 | 104 | 75-125 | 17.65 | 5.42 | 25 | | |
| Selenium | 9.024 | 1.8 | 7.174 | 1.994 | 98 | 75-125 | 8.08 | 11 | 25 | | |
| Silver | 6.775 | 1.8 | 7.174 | 0.06483 | 93.5 | 75-125 | 6.476 | 4.52 | 25 | | |

| | | | | | | | | | | | |
|------------|--------|----------------------------|---------|---------------|----------------|---------------|----------------------|------|-----------------------------------|------|--|
| MSD | | Sample ID: 14051131-01AMSD | | | | | Units: mg/Kg | | Analysis Date: 5/26/2014 11:37 PM | | |
| Client ID: | | Run ID: ICPMS1_140526A | | | SeqNo: 2781108 | | Prep Date: 5/22/2014 | | DF: 5 | | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual | |
| Zinc | 85.08 | 3.6 | 7.174 | 77.28 | 109 | 75-125 | 78.38 | 8.2 | 25 | O | |

The following samples were analyzed in this batch:

14051129-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14051129
Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: **58939** Instrument ID **ICPMS2** Method: **SW6020A**

| | | | | | | | | | | |
|------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|---------------|
| DUP | | Sample ID: 14051131-03BDUP | | | | Units: mg/L | | Analysis Date: 5/28/2014 02:01 AM | | |
| Client ID: | | Run ID: ICPMS2_140527A | | | | SeqNo: 2782400 | | Prep Date: 5/27/2014 | | DF: 20 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Calcium | 44.9 | 10 | 0 | 0 | 0 | 0-0 | 46.9 | 4.36 | | |
| Magnesium | 11.67 | 4.0 | 0 | 0 | 0 | 0-0 | 12.4 | 6.02 | | |
| Sodium | 47.98 | 4.0 | 0 | 0 | 0 | 0-0 | 57.48 | 18 | | |

| | | | | | | | | | | |
|-------------------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|---------------------------------|-----------|--------------|
| DUP | | Sample ID: 14051131-03BDUP | | | | Units: none | | Analysis Date: 5/27/2014 | | |
| Client ID: | | Run ID: SAR_140527A | | | | SeqNo: 2782921 | | Prep Date: 5/27/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Sodium Adsorption Ratio | 1.65 | 0.010 | 0 | 0 | 0 | | 1.929 | 15.6 | 50 | |

The following samples were analyzed in this batch:

14051129-01C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14051129
Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: **59014** Instrument ID **SVMS8** Method: **SW8270**

| MBLK | | Sample ID: SBLKS1-59014-59014 | | | | Units: µg/Kg | | Analysis Date: 5/28/2014 10:42 AM | | |
|-------------------------------|--------|--------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| Client ID: | | Run ID: SVMS8_140528A | | | | SeqNo: 2783941 | | Prep Date: 5/27/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Acenaphthene | ND | 6.7 | | | | | | | | |
| Acenaphthylene | ND | 6.7 | | | | | | | | |
| Anthracene | ND | 6.7 | | | | | | | | |
| Benzo(a)anthracene | ND | 6.7 | | | | | | | | |
| Benzo(a)pyrene | ND | 6.7 | | | | | | | | |
| Benzo(b)fluoranthene | ND | 6.7 | | | | | | | | |
| Benzo(g,h,i)perylene | ND | 6.7 | | | | | | | | |
| Benzo(k)fluoranthene | ND | 6.7 | | | | | | | | |
| Chrysene | ND | 6.7 | | | | | | | | |
| Dibenzo(a,h)anthracene | ND | 6.7 | | | | | | | | |
| Fluoranthene | ND | 6.7 | | | | | | | | |
| Fluorene | ND | 6.7 | | | | | | | | |
| Indeno(1,2,3-cd)pyrene | ND | 6.7 | | | | | | | | |
| Naphthalene | ND | 6.7 | | | | | | | | |
| Pyrene | ND | 6.7 | | | | | | | | |
| <i>Surr: 2-Fluorobiphenyl</i> | 1295 | 0 | 1667 | 0 | 77.7 | 12-100 | 0 | | | |
| <i>Surr: 4-Terphenyl-d14</i> | 1727 | 0 | 1667 | 0 | 104 | 25-137 | 0 | | | |
| <i>Surr: Nitrobenzene-d5</i> | 1369 | 0 | 1667 | 0 | 82.2 | 37-107 | 0 | | | |

| LCS | | Sample ID: SLCSS1-59014-59014 | | | | Units: µg/Kg | | Analysis Date: 5/28/2014 11:03 AM | | |
|-------------------------------|--------|--------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| Client ID: | | Run ID: SVMS8_140528A | | | | SeqNo: 2783942 | | Prep Date: 5/27/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Acenaphthene | 546.7 | 6.7 | 666.7 | 0 | 82 | 45-110 | 0 | | | |
| Acenaphthylene | 540.3 | 6.7 | 666.7 | 0 | 81 | 45-105 | 0 | | | |
| Anthracene | 597.3 | 6.7 | 666.7 | 0 | 89.6 | 55-105 | 0 | | | |
| Benzo(a)anthracene | 612 | 6.7 | 666.7 | 0 | 91.8 | 50-110 | 0 | | | |
| Benzo(a)pyrene | 650.3 | 6.7 | 666.7 | 0 | 97.5 | 50-110 | 0 | | | |
| Benzo(b)fluoranthene | 627 | 6.7 | 666.7 | 0 | 94 | 45-115 | 0 | | | |
| Benzo(g,h,i)perylene | 572 | 6.7 | 666.7 | 0 | 85.8 | 40-125 | 0 | | | |
| Benzo(k)fluoranthene | 611.3 | 6.7 | 666.7 | 0 | 91.7 | 45-115 | 0 | | | |
| Chrysene | 601.3 | 6.7 | 666.7 | 0 | 90.2 | 55-110 | 0 | | | |
| Dibenzo(a,h)anthracene | 581.3 | 6.7 | 666.7 | 0 | 87.2 | 40-125 | 0 | | | |
| Fluoranthene | 608.7 | 6.7 | 666.7 | 0 | 91.3 | 55-115 | 0 | | | |
| Fluorene | 540.7 | 6.7 | 666.7 | 0 | 81.1 | 50-110 | 0 | | | |
| Indeno(1,2,3-cd)pyrene | 617.3 | 6.7 | 666.7 | 0 | 92.6 | 40-120 | 0 | | | |
| Naphthalene | 514.7 | 6.7 | 666.7 | 0 | 77.2 | 40-105 | 0 | | | |
| Pyrene | 617.3 | 6.7 | 666.7 | 0 | 92.6 | 45-125 | 0 | | | |
| <i>Surr: 2-Fluorobiphenyl</i> | 1281 | 0 | 1667 | 0 | 76.8 | 12-100 | 0 | | | |
| <i>Surr: 4-Terphenyl-d14</i> | 1701 | 0 | 1667 | 0 | 102 | 25-137 | 0 | | | |
| <i>Surr: Nitrobenzene-d5</i> | 1474 | 0 | 1667 | 0 | 88.4 | 37-107 | 0 | | | |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14051129
Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: **59014** Instrument ID **SVMS8** Method: **SW8270**

| MS | | | | Sample ID: 14051221-01A MS | | | Units: µg/Kg | | Analysis Date: 5/28/2014 12:53 PM | |
|------------------------|--------|-----------------------|---------|----------------------------|----------------|---------------|----------------------|------|-----------------------------------|------|
| Client ID: | | Run ID: SVMS8_140528A | | | SeqNo: 2783945 | | Prep Date: 5/27/2014 | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Acenaphthene | 1062 | 13 | 1272 | 0 | 83.5 | 45-110 | 0 | | | |
| Acenaphthylene | 1050 | 13 | 1272 | 0 | 82.5 | 45-105 | 0 | | | |
| Anthracene | 1166 | 13 | 1272 | 0 | 91.7 | 55-105 | 0 | | | |
| Benzo(a)anthracene | 1219 | 13 | 1272 | 10.53 | 95.1 | 50-110 | 0 | | | |
| Benzo(a)pyrene | 1265 | 13 | 1272 | 9.218 | 98.7 | 50-110 | 0 | | | |
| Benzo(b)fluoranthene | 1192 | 13 | 1272 | 10.21 | 92.9 | 45-115 | 0 | | | |
| Benzo(g,h,i)perylene | 1214 | 13 | 1272 | 8.889 | 94.7 | 40-125 | 0 | | | |
| Benzo(k)fluoranthene | 1236 | 13 | 1272 | 4.938 | 96.8 | 45-115 | 0 | | | |
| Chrysene | 1187 | 13 | 1272 | 6.584 | 92.8 | 55-110 | 0 | | | |
| Dibenzo(a,h)anthracene | 1188 | 13 | 1272 | 0 | 93.4 | 40-125 | 0 | | | |
| Fluoranthene | 1169 | 13 | 1272 | 13.17 | 90.9 | 55-115 | 0 | | | |
| Fluorene | 1035 | 13 | 1272 | 0 | 81.4 | 50-110 | 0 | | | |
| Indeno(1,2,3-cd)pyrene | 1244 | 13 | 1272 | 8.889 | 97.1 | 40-120 | 0 | | | |
| Naphthalene | 977.2 | 13 | 1272 | 0 | 76.8 | 40-105 | 0 | | | |
| Pyrene | 1252 | 13 | 1272 | 12.84 | 97.4 | 45-125 | 0 | | | |
| Surr: 2-Fluorobiphenyl | 2482 | 0 | 3179 | 0 | 78.1 | 12-100 | 0 | | | |
| Surr: 4-Terphenyl-d14 | 3399 | 0 | 3179 | 0 | 107 | 25-137 | 0 | | | |
| Surr: Nitrobenzene-d5 | 2748 | 0 | 3179 | 0 | 86.4 | 37-107 | 0 | | | |

| MSD | | | | Sample ID: 14051221-01A MSD | | | Units: µg/Kg | | Analysis Date: 5/28/2014 01:13 PM | |
|------------------------|--------|-----------------------|---------|-----------------------------|----------------|---------------|----------------------|-------|-----------------------------------|------|
| Client ID: | | Run ID: SVMS8_140528A | | | SeqNo: 2783946 | | Prep Date: 5/27/2014 | | DF: 1 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Acenaphthene | 1083 | 13 | 1295 | 0 | 83.6 | 45-110 | 1062 | 1.95 | 30 | |
| Acenaphthylene | 1070 | 13 | 1295 | 0 | 82.6 | 45-105 | 1050 | 1.96 | 30 | |
| Anthracene | 1164 | 13 | 1295 | 0 | 89.8 | 55-105 | 1166 | 0.203 | 30 | |
| Benzo(a)anthracene | 1228 | 13 | 1295 | 10.53 | 94 | 50-110 | 1219 | 0.681 | 30 | |
| Benzo(a)pyrene | 1278 | 13 | 1295 | 9.218 | 98 | 50-110 | 1265 | 1.08 | 30 | |
| Benzo(b)fluoranthene | 1231 | 13 | 1295 | 10.21 | 94.3 | 45-115 | 1192 | 3.27 | 30 | |
| Benzo(g,h,i)perylene | 1222 | 13 | 1295 | 8.889 | 93.7 | 40-125 | 1214 | 0.676 | 30 | |
| Benzo(k)fluoranthene | 1208 | 13 | 1295 | 4.938 | 92.9 | 45-115 | 1236 | 2.31 | 30 | |
| Chrysene | 1178 | 13 | 1295 | 6.584 | 90.4 | 55-110 | 1187 | 0.769 | 30 | |
| Dibenzo(a,h)anthracene | 1276 | 13 | 1295 | 0 | 98.5 | 40-125 | 1188 | 7.1 | 30 | |
| Fluoranthene | 1173 | 13 | 1295 | 13.17 | 89.5 | 55-115 | 1169 | 0.355 | 30 | |
| Fluorene | 1074 | 13 | 1295 | 0 | 82.9 | 50-110 | 1035 | 3.72 | 30 | |
| Indeno(1,2,3-cd)pyrene | 1260 | 13 | 1295 | 8.889 | 96.6 | 40-120 | 1244 | 1.27 | 30 | |
| Naphthalene | 986.9 | 13 | 1295 | 0 | 76.2 | 40-105 | 977.2 | 0.986 | 30 | |
| Pyrene | 1256 | 13 | 1295 | 12.84 | 96 | 45-125 | 1252 | 0.3 | 30 | |
| Surr: 2-Fluorobiphenyl | 2573 | 0 | 3238 | 0 | 79.5 | 12-100 | 2482 | 3.59 | 40 | |
| Surr: 4-Terphenyl-d14 | 3422 | 0 | 3238 | 0 | 106 | 25-137 | 3399 | 0.688 | 40 | |
| Surr: Nitrobenzene-d5 | 2831 | 0 | 3238 | 0 | 87.4 | 37-107 | 2748 | 2.99 | 40 | |

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14051129
Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: **59014** Instrument ID **SVMS8** Method: **SW8270**

The following samples were analyzed in this batch:

| |
|------------------|
| 14051129- 01B |
|------------------|

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14051129
Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: **58904** Instrument ID **VMS6** Method: **SW8260B**

| MBLK | | Sample ID: MBLK-58904-58904 | | | | Units: µg/Kg | | Analysis Date: 5/22/2014 03:54 PM | | |
|------------------------------------|--------------|------------------------------------|-------------|---------------|-------------|-----------------------|---------------|--|-----------|--------------|
| Client ID: | | Run ID: VMS6_140522A | | | | SeqNo: 2777015 | | Prep Date: 5/22/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Benzene | ND | 30 | | | | | | | | |
| Ethylbenzene | ND | 30 | | | | | | | | |
| m,p-Xylene | ND | 60 | | | | | | | | |
| o-Xylene | ND | 30 | | | | | | | | |
| Toluene | ND | 30 | | | | | | | | |
| Xylenes, Total | ND | 90 | | | | | | | | |
| <i>Surr: 1,2-Dichloroethane-d4</i> | <i>1048</i> | <i>0</i> | <i>1000</i> | <i>0</i> | <i>105</i> | <i>70-130</i> | <i>0</i> | | | |
| <i>Surr: 4-Bromofluorobenzene</i> | <i>995.5</i> | <i>0</i> | <i>1000</i> | <i>0</i> | <i>99.6</i> | <i>70-130</i> | <i>0</i> | | | |
| <i>Surr: Dibromofluoromethane</i> | <i>929</i> | <i>0</i> | <i>1000</i> | <i>0</i> | <i>92.9</i> | <i>70-130</i> | <i>0</i> | | | |
| <i>Surr: Toluene-d8</i> | <i>992</i> | <i>0</i> | <i>1000</i> | <i>0</i> | <i>99.2</i> | <i>70-130</i> | <i>0</i> | | | |

| LCS | | Sample ID: LCS-58904-58904 | | | | Units: µg/Kg | | Analysis Date: 5/22/2014 02:36 PM | | |
|------------------------------------|-------------|-----------------------------------|-------------|---------------|------------|-----------------------|---------------|--|-----------|--------------|
| Client ID: | | Run ID: VMS6_140522A | | | | SeqNo: 2777014 | | Prep Date: 5/22/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Benzene | 1022 | 30 | 1000 | 0 | 102 | 75-125 | 0 | | | |
| Ethylbenzene | 1030 | 30 | 1000 | 0 | 103 | 75-125 | 0 | | | |
| m,p-Xylene | 2038 | 60 | 2000 | 0 | 102 | 80-125 | 0 | | | |
| o-Xylene | 1003 | 30 | 1000 | 0 | 100 | 75-125 | 0 | | | |
| Toluene | 992 | 30 | 1000 | 0 | 99.2 | 70-125 | 0 | | | |
| Xylenes, Total | 3041 | 90 | 3000 | 0 | 101 | 75-125 | 0 | | | |
| <i>Surr: 1,2-Dichloroethane-d4</i> | <i>1018</i> | <i>0</i> | <i>1000</i> | <i>0</i> | <i>102</i> | <i>70-130</i> | <i>0</i> | | | |
| <i>Surr: 4-Bromofluorobenzene</i> | <i>1016</i> | <i>0</i> | <i>1000</i> | <i>0</i> | <i>102</i> | <i>70-130</i> | <i>0</i> | | | |
| <i>Surr: Dibromofluoromethane</i> | <i>1012</i> | <i>0</i> | <i>1000</i> | <i>0</i> | <i>101</i> | <i>70-130</i> | <i>0</i> | | | |
| <i>Surr: Toluene-d8</i> | <i>1004</i> | <i>0</i> | <i>1000</i> | <i>0</i> | <i>100</i> | <i>70-130</i> | <i>0</i> | | | |

The following samples were analyzed in this batch:

14051129-01A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14051129
Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: **58939** Instrument ID **WETCHEM** Method: **USDA H60 Method**

| | | | | | | | | | | |
|--------------------------------------|------------------------------------|-------|---------|---------------|-----------------------|------------------------------|-----------------------------|--|---------------|------|
| Dup | Sample ID: 14051131-03B DUP | | | | | Units: mmhos/cm @25°C | | Analysis Date: 5/28/2014 12:15 PM | | |
| Client ID: | Run ID: WETCHEM_140528B | | | | SeqNo: 2782946 | | Prep Date: 5/27/2014 | | DF: 10 | |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Electrical Conductivity @ Saturation | 0.564 | 0.050 | 0 | 0 | 0 | | 0.606 | 7.18 | 50 | |

The following samples were analyzed in this batch:

14051129-01C

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14051129
Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: **58945** Instrument ID **WETCHEM** Method: **SW7196A**

| | | | | | | | | | | |
|-------------|--------|------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MBLK | | Sample ID: MBLK-58945-58945 | | | | Units: mg/Kg | | Analysis Date: 5/23/2014 12:00 PM | | |
| Client ID: | | Run ID: WETCHEM_140523A | | | | SeqNo: 2777166 | | Prep Date: 5/23/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Chromium, Hexavalent ND 0.50

| | | | | | | | | | | |
|------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| LCS | | Sample ID: LCS-58945-58945 | | | | Units: mg/Kg | | Analysis Date: 5/23/2014 12:00 PM | | |
| Client ID: | | Run ID: WETCHEM_140523A | | | | SeqNo: 2777167 | | Prep Date: 5/23/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Chromium, Hexavalent 1.701 0.50 1.992 0 85.4 80-120 0

| | | | | | | | | | | |
|------------|--------|----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MS | | Sample ID: 14051124-01BMS | | | | Units: mg/Kg | | Analysis Date: 5/23/2014 12:00 PM | | |
| Client ID: | | Run ID: WETCHEM_140523A | | | | SeqNo: 2777174 | | Prep Date: 5/23/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Chromium, Hexavalent 1.808 0.50 2 0.336 73.6 75-125 0 S

| | | | | | | | | | | |
|------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|----------------|
| MS | | Sample ID: 14051124-01BMSI | | | | Units: mg/Kg | | Analysis Date: 5/23/2014 12:00 PM | | |
| Client ID: | | Run ID: WETCHEM_140523A | | | | SeqNo: 2777176 | | Prep Date: 5/23/2014 | | DF: 100 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Chromium, Hexavalent 882 50 1043 0.336 84.5 75-125 0

| | | | | | | | | | | |
|------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MSD | | Sample ID: 14051124-01BMSD | | | | Units: mg/Kg | | Analysis Date: 5/23/2014 12:00 PM | | |
| Client ID: | | Run ID: WETCHEM_140523A | | | | SeqNo: 2777175 | | Prep Date: 5/23/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Chromium, Hexavalent 1.756 0.50 2 0.336 71 75-125 1.808 2.92 20 S

The following samples were analyzed in this batch:

14051129-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14051129
Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: **58981** Instrument ID **WETCHEM** Method: **SW9045D**

| | | | | | | | | | | | | | | | | | |
|------------|--|--|--|--|----------------------------|--|-----|---------|---------------|----------------|--|---------------|-----------------------------------|------|--|-----------|------|
| LCS | | | | | Sample ID: LCS-58981-58981 | | | | | Units: s.u. | | | Analysis Date: 5/23/2014 03:00 PM | | | | |
| Client ID: | | | | | Run ID: WETCHEM_140523L | | | | | SeqNo: 2778211 | | | Prep Date: 5/23/2014 | | | DF: 1 | |
| Analyte | | | | | Result | | PQL | SPK Val | SPK Ref Value | %REC | | Control Limit | RPD Ref Value | %RPD | | RPD Limit | Qual |
| pH | | | | | 4 | | 0 | 4 | 0 | 100 | | 90-110 | 0 | | | | |

| | | | | | | | | | | | | | | |
|------------|--|--------|-----|-------------------------|-----------------------------|------|---------------|----------------|------|----------------------|------|-----------------------------------|--|--|
| DUP | | | | | Sample ID: 14051124-01B DUP | | | | | Units: s.u. | | Analysis Date: 5/23/2014 03:00 PM | | |
| Client ID: | | | | Run ID: WETCHEM_140523L | | | | SeqNo: 2778213 | | Prep Date: 5/23/2014 | | DF: 1 | | |
| Analyte | | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual | | | |
| pH | | 8.03 | 0 | 0 | 0 | 0 | 0-0 | 7.95 | 1 | 20 | | | | |

The following samples were analyzed in this batch:

14051129-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14051129
Project: Clough 2-A Confirmation Sample 5.20.14

QC BATCH REPORT

Batch ID: **R141309** Instrument ID **MOIST** Method: **A2540 G**

| | | | | | | | | | | |
|-------------|--------|---------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MBLK | | Sample ID: WBLKS-R141309 | | | | Units: % of sample | | Analysis Date: 5/22/2014 04:52 PM | | |
| Client ID: | | Run ID: MOIST_140522C | | | | SeqNo: 2776941 | | Prep Date: | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Moisture ND 0.050

| | | | | | | | | | | |
|------------|--------|-------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| LCS | | Sample ID: LCS-R141309 | | | | Units: % of sample | | Analysis Date: 5/22/2014 04:52 PM | | |
| Client ID: | | Run ID: MOIST_140522C | | | | SeqNo: 2776940 | | Prep Date: | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Moisture 100 0.050 100 0 100 99.5-100.5 0

| | | | | | | | | | | |
|------------|--------|------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| DUP | | Sample ID: 14051122-03B DUP | | | | Units: % of sample | | Analysis Date: 5/22/2014 04:52 PM | | |
| Client ID: | | Run ID: MOIST_140522C | | | | SeqNo: 2776923 | | Prep Date: | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Moisture 2.23 0.050 0 0 0 0-0 2.21 0.901 20

| | | | | | | | | | | |
|------------|--------|------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| DUP | | Sample ID: 14051122-10B DUP | | | | Units: % of sample | | Analysis Date: 5/22/2014 04:52 PM | | |
| Client ID: | | Run ID: MOIST_140522C | | | | SeqNo: 2776932 | | Prep Date: | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Moisture 3.07 0.050 0 0 0 0-0 2.67 13.9 20

The following samples were analyzed in this batch:

14051129-01B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Chain-of-Custody

Form 202rdr

WORKORDER
#

14051129

PAGE

1 of 1


DISPOSAL

By Lab or Return to Client

[illegible]

Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

| | | |
|--|-------------------------------------|--------------------------------------|
| Comments: <div style="text-align: right; margin-right: 50px;"> <i>2.4^{0c}</i>  </div> | QC PACKAGE (check below) | |
| | <input checked="" type="checkbox"/> | LEVEL II (Standard QC) |
| | <input type="checkbox"/> | LEVEL III (Std QC + forms) |
| | <input type="checkbox"/> | LEVEL IV (Std QC + forms + raw data) |
| | <input type="checkbox"/> | |
| Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035 | | |

| | SIGNATURE | PRINTED NAME | DATE | TIME |
|-----------------|-----------|----------------|---------|------|
| RELINQUISHED BY | | Reed V. O. | 5/21/14 | 4:00 |
| RECEIVED BY | | W. M. | 5-21-14 | 6:10 |
| RELINQUISHED BY | | W. M. | 5-21-14 | 4:00 |
| RECEIVED BY | | KEITH WIERENGA | 5/22/14 | 0930 |
| RELINQUISHED BY | | | | |
| RECEIVED BY | | | | |

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **22-May-14 09:30**

Work Order: **14051129**

Received by: **KRW**

Checklist completed by Keith Wurenga 22-May-14 Reviewed by: Ann Preston 22-May-14
eSignature Date eSignature Date

Matrices: **Soil**

Carrier name: **FedEx**

| | | | |
|---|---|-----------------------------|--|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| Custody seals intact on shipping container/cooler? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Custody seals intact on sample bottles? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Container/Temp Blank temperature in compliance? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sample(s) received on ice? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Temperature(s)/Thermometer(s): | <u>2.4 C</u> | | |
| Cooler(s)/Kit(s): | | | |
| Date/Time sample(s) sent to storage: | <u>5/22/2014 12:22:22 PM</u> | | |
| Water - VOA vials have zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No VOA vials submitted <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| pH adjusted? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| pH adjusted by: | | | |

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

From: (616) 399-6070
 Sample Receiving
 ALS Laboratory Group
 3352 128th Avenue
 Holland, MI 49424

Origin ID: GRRR



Ship Date: 21MAY14
 ActWgt: 72.9 LB
 CAD: 2284840/NET3490

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code



SHIP TO: (616) 399-6070
 sample receiving
 ALS Laboratory Group
 3352 128TH AVE

BILL SENDER

HOLLAND, MI 49424

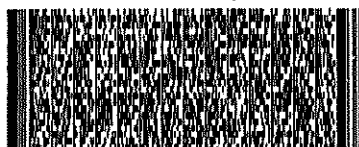
Ref # 052114-2
 Invoice #
 PO # Parachute
 Dept #

THU - 22 MAY 10:30A
 PRIORITY OVERNIGHT

TRK# 7700 5970 9173
 9261

68 GRRR

49424
 MI-US
 GRR



922G140207F220

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
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3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.



29-May-2014

Mark Mumby
HRL Compliance Solutions, Inc
2385 F 1/2 Road
Grand Junction, CO 81505

Re: **WPX Clough 2-A Backgrounds 5.20.14**

Work Order: **14051131**

Dear Mark,

ALS Environmental received 3 samples on 22-May-2014 09:30 AM for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with NELAP standard requirements and QC results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 13.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Ann Preston".

Electronically approved by: Ann Preston

Ann Preston
Project Manager



Certificate No: MN 532786

Report of Laboratory Analysis

ADDRESS 3352 128th Avenue Holland, Michigan 49424-9263 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

www.alsglobal.com

RIGHT SOLUTIONS RIGHT PARTNER

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 2-A Backgrounds 5.20.14
Work Order: 14051131

Work Order Sample Summary

| <u>Lab Samp ID</u> | <u>Client Sample ID</u> | <u>Matrix</u> | <u>Tag Number</u> | <u>Collection Date</u> | <u>Date Received</u> | <u>Hold</u> |
|--------------------|-------------------------|---------------|-------------------|------------------------|----------------------|--------------------------|
| 14051131-01 | Clough 2-A B-1 | Soil | | 5/20/2014 12:30 | 5/22/2014 09:30 | <input type="checkbox"/> |
| 14051131-02 | Clough 2-A B-2 | Soil | | 5/20/2014 12:35 | 5/22/2014 09:30 | <input type="checkbox"/> |
| 14051131-03 | Clough 2-A B-3 | Soil | | 5/20/2014 12:45 | 5/22/2014 09:30 | <input type="checkbox"/> |

| <u>Qualifier</u> | <u>Description</u> |
|-------------------------|---|
| * | Value exceeds Regulatory Limit |
| a | Not accredited |
| B | Analyte detected in the associated Method Blank above the Reporting Limit |
| E | Value above quantitation range |
| H | Analyzed outside of Holding Time |
| J | Analyte is present at an estimated concentration between the MDL and Report Limit |
| n | Not offered for accreditation |
| ND | Not Detected at the Reporting Limit |
| O | Sample amount is > 4 times amount spiked |
| P | Dual Column results percent difference > 40% |
| R | RPD above laboratory control limit |
| S | Spike Recovery outside laboratory control limits |
| U | Analyzed but not detected above the MDL |

| <u>Acronym</u> | <u>Description</u> |
|-----------------------|-------------------------------------|
| DUP | Method Duplicate |
| LCS | Laboratory Control Sample |
| LCSD | Laboratory Control Sample Duplicate |
| LOD | Limit of Detection (see MDL) |
| LOQ | Limit of Quantitation (see PQL) |
| MBLK | Method Blank |
| MDL | Method Detection Limit |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| PQL | Practical Quantitation Limit |
| RPD | Relative Percent Difference |
| TDL | Target Detection Limit |
| TNTC | Too Numerous To Count |
| A | APHA Standard Methods |
| D | ASTM |
| E | EPA |
| SW | SW-846 Update III |

| <u>Units Reported</u> | <u>Description</u> |
|------------------------------|--|
| % of sample | Percent of Sample |
| mg/Kg-dry | Milligrams per Kilogram Dry Weight |
| mg/L | Milligrams per Liter |
| mmhos/cm @25°C | Millimhos-Centimeter at 25 Degrees Celcius |
| none | |
| s.u. | Standard Units |

ALS Group USA, Corp

Date: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 2-A Backgrounds 5.20.14
Sample ID: Clough 2-A B-1
Collection Date: 5/20/2014 12:30 PM

Work Order: 14051131
Lab ID: 14051131-01
Matrix: SOIL

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|-------------------------|--------|------|----------------|-------------|-------------------------|--------------------|
| METALS BY ICP-MS | | | SW6020A | | Prep: SW3050B / 5/22/14 | Analyst: ML |
| Arsenic | 5.8 | | 1.8 | mg/Kg-dry | 5 | 5/24/2014 04:11 AM |
| MOISTURE | | | A2540 G | | | Analyst: AT |
| Moisture | 1.3 | | 0.050 | % of sample | 1 | 5/22/2014 04:52 PM |

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 2-A Backgrounds 5.20.14
Sample ID: Clough 2-A B-2
Collection Date: 5/20/2014 12:35 PM

Work Order: 14051131
Lab ID: 14051131-02
Matrix: SOIL

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|-------------------------|--------|------|----------------|-------------|-------------------------|--------------------|
| METALS BY ICP-MS | | | SW6020A | | Prep: SW3050B / 5/22/14 | Analyst: ML |
| Arsenic | 8.4 | | 2.0 | mg/Kg-dry | 5 | 5/24/2014 04:35 AM |
| MOISTURE | | | A2540 G | | | Analyst: AT |
| Moisture | 7.1 | | 0.050 | % of sample | 1 | 5/22/2014 04:52 PM |

Note: See Qualifiers page for a list of qualifiers and their definitions.

ALS Group USA, Corp

Date: 29-May-14

Client: HRL Compliance Solutions, Inc
Project: WPX Clough 2-A Backgrounds 5.20.14
Sample ID: Clough 2-A B-3
Collection Date: 5/20/2014 12:45 PM

Work Order: 14051131
Lab ID: 14051131-03
Matrix: SOIL

| Analyses | Result | Qual | Report Limit | Units | Dilution Factor | Date Analyzed |
|--------------------------------------|--------|------|-----------------------|--------------|---------------------------------|--------------------|
| METALS BY ICP-MS | | | SW6020A | | Prep: SW3050B / 5/22/14 | Analyst: ML |
| Arsenic | 7.6 | | 2.0 | mg/Kg-dry | 5 | 5/24/2014 04:41 AM |
| SOLUBLE CATIONS FOR SAR | | | SW6020A | | Prep: USDA Method 20B / 5/27/14 | Analyst: RH |
| Calcium | 47 | | 10 | mg/L | 20 | 5/28/2014 01:55 AM |
| Magnesium | 12 | | 4.0 | mg/L | 20 | 5/28/2014 01:55 AM |
| Sodium | 57 | | 4.0 | mg/L | 20 | 5/28/2014 01:55 AM |
| SODIUM ADSORPTION RATIO | | | USDA H60 METHO | | Prep: USDA Method 20B / 5/27/14 | Analyst: RH |
| Sodium Adsorption Ratio | 1.9 | | 0.010 | none | 1 | 5/27/2014 |
| ELECTRICAL CONDUCTIVITY (SAR) | | | USDA H60 METHO | | Prep: USDA Method 20B / 5/27/14 | Analyst: JB |
| Electrical Conductivity @ Saturation | 0.61 | | 0.050 | mmhos/cm @25 | 10 | 5/28/2014 12:15 PM |
| MOISTURE | | | A2540 G | | | Analyst: AT |
| Moisture | 10 | | 0.050 | % of sample | 1 | 5/22/2014 04:52 PM |
| PH | | | SW9045D | | Prep: EXTRACT / 5/23/14 | Analyst: AT |
| pH | 8.6 | | | s.u. | 1 | 5/23/2014 03:00 PM |

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: HRL Compliance Solutions, Inc
 Work Order: 14051131
 Project: WPX Clough 2-A Backgrounds 5.20.14

QC BATCH REPORT

Batch ID: 58934 Instrument ID ICPMS1 Method: SW6020A

| | | | | | | | | | | |
|-------------|--------|------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MBLK | | Sample ID: MBLK-58934-58934 | | | | Units: mg/Kg | | Analysis Date: 5/24/2014 01:01 AM | | |
| Client ID: | | Run ID: ICPMS1_140523A | | | | SeqNo: 2778963 | | Prep Date: 5/22/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Arsenic | ND | 0.25 | | | | | | | | |

| | | | | | | | | | | |
|------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| LCS | | Sample ID: LCS-58934-58934 | | | | Units: mg/Kg | | Analysis Date: 5/24/2014 01:08 AM | | |
| Client ID: | | Run ID: ICPMS1_140523A | | | | SeqNo: 2778964 | | Prep Date: 5/22/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Arsenic | 4.298 | 0.25 | 5 | 0 | 86 | 80-120 | 0 | | | |

| | | | | | | | | | | |
|----------------------------------|--------|----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MS | | Sample ID: 14051131-01AMS | | | | Units: mg/Kg | | Analysis Date: 5/24/2014 04:17 AM | | |
| Client ID: Clough 2-A B-1 | | Run ID: ICPMS1_140523A | | | | SeqNo: 2778992 | | Prep Date: 5/22/2014 | | DF: 5 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Arsenic | 11.67 | 1.8 | 7.112 | 5.756 | 83.2 | 75-125 | 0 | | | |

| | | | | | | | | | | |
|----------------------------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MSD | | Sample ID: 14051131-01AMSD | | | | Units: mg/Kg | | Analysis Date: 5/24/2014 04:23 AM | | |
| Client ID: Clough 2-A B-1 | | Run ID: ICPMS1_140523A | | | | SeqNo: 2778993 | | Prep Date: 5/22/2014 | | DF: 5 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Arsenic | 13.14 | 1.8 | 7.174 | 5.756 | 103 | 75-125 | 11.67 | 11.8 | 25 | |

| | | | | |
|--|--|--------------|--------------|--------------|
| The following samples were analyzed in this batch: | | 14051131-01A | 14051131-02A | 14051131-03A |
|--|--|--------------|--------------|--------------|

Client: HRL Compliance Solutions, Inc
Work Order: 14051131
Project: WPX Clough 2-A Backgrounds 5.20.14

QC BATCH REPORT

Batch ID: **58939** Instrument ID **ICPMS2** Method: **SW6020A**

| DUP | | Sample ID: 14051131-03BDUP | | | | Units: mg/L | | Analysis Date: 5/28/2014 02:01 AM | | |
|----------------------------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|---------------|
| Client ID: Clough 2-A B-3 | | Run ID: ICPMS2_140527A | | | | SeqNo: 2782400 | | Prep Date: 5/27/2014 | | DF: 20 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Calcium | 44.9 | 10 | 0 | 0 | 0 | 0-0 | 46.9 | 4.36 | | |
| Magnesium | 11.67 | 4.0 | 0 | 0 | 0 | 0-0 | 12.4 | 6.02 | | |
| Sodium | 47.98 | 4.0 | 0 | 0 | 0 | 0-0 | 57.48 | 18 | | |

| DUP | | Sample ID: 14051131-03BDUP | | | | Units: none | | Analysis Date: 5/27/2014 | | |
|----------------------------------|--------|-----------------------------------|---------|---------------|------|-----------------------|---------------|---------------------------------|-----------|--------------|
| Client ID: Clough 2-A B-3 | | Run ID: SAR_140527A | | | | SeqNo: 2782921 | | Prep Date: 5/27/2014 | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Sodium Adsorption Ratio | 1.65 | 0.010 | 0 | 0 | 0 | | 1.929 | 15.6 | 50 | |

The following samples were analyzed in this batch:

14051131-03B

Batch ID: **58939** Instrument ID **WETCHEM** Method: **USDA H60 Method**

| Dup | | Sample ID: 14051131-03B DUP | | | | Units: mmhos/cm @25°C | | Analysis Date: 5/28/2014 12:15 PM | | |
|--------------------------------------|--------|------------------------------------|---------|---------------|------|------------------------------|---------------|--|-----------|---------------|
| Client ID: Clough 2-A B-3 | | Run ID: WETCHEM_140528B | | | | SeqNo: 2782946 | | Prep Date: 5/27/2014 | | DF: 10 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |
| Electrical Conductivity @ Saturation | 0.564 | 0.050 | 0 | 0 | 0 | | 0.606 | 7.18 | 50 | |

The following samples were analyzed in this batch:

14051131-03B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14051131
Project: WPX Clough 2-A Backgrounds 5.20.14

QC BATCH REPORT

Batch ID: **58981** Instrument ID **WETCHEM** Method: **SW9045D**

| | | | | | | | | | | | | | | | | | |
|------------|--|--|--|--|----------------------------|--|-----|---------|---------------|----------------|--|---------------|-----------------------------------|------|-----------|-------|--|
| LCS | | | | | Sample ID: LCS-58981-58981 | | | | | Units: s.u. | | | Analysis Date: 5/23/2014 03:00 PM | | | | |
| Client ID: | | | | | Run ID: WETCHEM_140523L | | | | | SeqNo: 2778211 | | | Prep Date: 5/23/2014 | | | DF: 1 | |
| Analyte | | | | | Result | | PQL | SPK Val | SPK Ref Value | %REC | | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual | |
| pH | | | | | 4 | | 0 | 4 | 0 | 100 | | 90-110 | 0 | | | | |

| | | | | | | | | | | | | | | |
|------------|--|--------|-----|-------------------------|-----------------------------|------|---------------|----------------|------|----------------------|------|-----------------------------------|--|--|
| DUP | | | | | Sample ID: 14051124-01B DUP | | | | | Units: s.u. | | Analysis Date: 5/23/2014 03:00 PM | | |
| Client ID: | | | | Run ID: WETCHEM_140523L | | | | SeqNo: 2778213 | | Prep Date: 5/23/2014 | | DF: 1 | | |
| Analyte | | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual | | | |
| pH | | 8.03 | 0 | 0 | 0 | 0 | 0-0 | 7.95 | 1 | 20 | | | | |

The following samples were analyzed in this batch:

14051131-03A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: HRL Compliance Solutions, Inc
Work Order: 14051131
Project: WPX Clough 2-A Backgrounds 5.20.14

QC BATCH REPORT

Batch ID: **R141309** Instrument ID **MOIST** Method: **A2540 G**

| | | | | | | | | | | |
|-------------|--------|---------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| MBLK | | Sample ID: WBLKS-R141309 | | | | Units: % of sample | | Analysis Date: 5/22/2014 04:52 PM | | |
| Client ID: | | Run ID: MOIST_140522C | | | | SeqNo: 2776941 | | Prep Date: | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Moisture ND 0.050

| | | | | | | | | | | |
|------------|--------|-------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| LCS | | Sample ID: LCS-R141309 | | | | Units: % of sample | | Analysis Date: 5/22/2014 04:52 PM | | |
| Client ID: | | Run ID: MOIST_140522C | | | | SeqNo: 2776940 | | Prep Date: | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Moisture 100 0.050 100 0 100 99.5-100.5 0

| | | | | | | | | | | |
|------------|--------|------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| DUP | | Sample ID: 14051122-03B DUP | | | | Units: % of sample | | Analysis Date: 5/22/2014 04:52 PM | | |
| Client ID: | | Run ID: MOIST_140522C | | | | SeqNo: 2776923 | | Prep Date: | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Moisture 2.23 0.050 0 0 0 0-0 2.21 0.901 20

| | | | | | | | | | | |
|------------|--------|------------------------------------|---------|---------------|------|-----------------------|---------------|--|-----------|--------------|
| DUP | | Sample ID: 14051122-10B DUP | | | | Units: % of sample | | Analysis Date: 5/22/2014 04:52 PM | | |
| Client ID: | | Run ID: MOIST_140522C | | | | SeqNo: 2776932 | | Prep Date: | | DF: 1 |
| Analyte | Result | PQL | SPK Val | SPK Ref Value | %REC | Control Limit | RPD Ref Value | %RPD | RPD Limit | Qual |

Moisture 3.07 0.050 0 0 0 0-0 2.67 13.9 20

The following samples were analyzed in this batch:

| | | |
|--------------|--------------|--------------|
| 14051131-01A | 14051131-02A | 14051131-03A |
|--------------|--------------|--------------|

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



14051131

Form 2021-0

| | SIGNATURE | PRINTED NAME | DATE | TIME |
|-----------------|--------------------|--------------------|---------|------|
| RELINQUISHED BY | <i>[Signature]</i> | <i>[Signature]</i> | 5/21/14 | 4:00 |
| RECEIVED BY | <i>[Signature]</i> | <i>[Signature]</i> | 5-21-14 | 4:00 |
| RELINQUISHED BY | <i>[Signature]</i> | <i>[Signature]</i> | 5-21-14 | 4:00 |
| RECEIVED BY | <i>[Signature]</i> | <i>[Signature]</i> | 5/22/14 | 0930 |
| RELINQUISHED BY | | | | |
| RECEIVED BY | | | | |

Sample Receipt Checklist

Client Name: **HRL**

Date/Time Received: **22-May-14 09:30**

Work Order: **14051131**

Received by: **KRW**

Checklist completed by Keith Wurenga
eSignature

22-May-14
Date

Reviewed by: Ann Preston
eSignature

22-May-14
Date

Matrices: **Soil**

Carrier name: **FedEx**

| | | | |
|---|---|-----------------------------|--|
| Shipping container/cooler in good condition? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/> |
| Custody seals intact on shipping container/cooler? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Custody seals intact on sample bottles? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| Chain of custody present? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Chain of custody agrees with sample labels? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Samples in proper container/bottle? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sample containers intact? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sufficient sample volume for indicated test? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| All samples received within holding time? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Container/Temp Blank temperature in compliance? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Sample(s) received on ice? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | |
| Temperature(s)/Thermometer(s): | <u>2.4 C</u> | | |
| Cooler(s)/Kit(s): | | | |
| Date/Time sample(s) sent to storage: | <u>5/22/2014 12:26:50 PM</u> | | |
| Water - VOA vials have zero headspace? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No VOA vials submitted <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| pH adjusted? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | N/A <input checked="" type="checkbox"/> |
| pH adjusted by: | | | |

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:

From: (616) 399-6070
 Sample Receiving
 ALS Laboratory Group
 3352 128th Avenue
 Holland, MI 49424

Origin ID: GRRA



Ship Date: 21MAY14
 ActWgt: 72.0 LB
 CAD: 2264840/NET3400

Dims: 24 X 15 X 15 IN

Delivery Address Bar Code



SHIP TO: (616) 399-6070
 sample receiving
 ALS Laboratory Group
 3352 128TH AVE

BILL SENDER

Ref # 052114-2
 Invoice #
 PO # Parachute
 Dept #

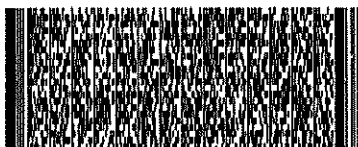
HOLLAND, MI 49424

THU - 22 MAY 10:30A
 PRIORITY OVERNIGHT

TRK# 7700 5970 9173
 0291

68 GRRA

49424
 MI-US
 GRR



022G10203F220

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1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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