

SUMMARY OF RECLAMATION YARD INSPECTION

Week No.: 7

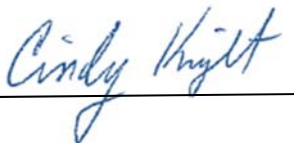
Inspection Date: November 10, 2016

Logical Environmental Solutions, LLC (LES) visited the Reclamation Yard operated by Julian Enterprises located at the end of Richard White Way in Fairfield for the seventh weekly inspection on November 10, 2016. Julian had removed approximately one-half of the pile of screened soil that had been placed along the southern portion of the property. They had moved one screener closer to the base of this pile and were running material through the screener prior to loading it into trucks for offsite use. Julian had moved three of the screeners further southeast of the main pile and were processing different material for offsite reuse.

The top of the main pile had several additional piles of newer soil, and a soil sample (S-7) was collected for laboratory analyses of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), petroleum hydrocarbons, polychlorinated biphenyls (PCBs), and leachable (TCLP) CTDEEP 15 metals. Additional new soil along the northeast side of the pile was present and sample S-8 was collected from this material. The table on the following page summarizes the results of the S-7 and S-8 sample analyses and a copy of the laboratory report is included at the end of this memorandum.

The S-7 and S-8 soil samples did not contain detectable concentrations of VOCs, petroleum hydrocarbons, or PCBs. The S-7 sample contained trace concentrations of SVOCs typically associated with asphalt that did not exceed the CTDEEP Remediation Standard Regulation criteria. The S-8 sample did not contain detectable concentrations of SVOCs. Both samples contained trace concentrations of leachable metals at low concentrations that do not exceed any CTDEEP criteria.

Photographs on the following page display the observed changes to the property. Additional soil samples will be collected throughout the duration of Julian's occupation of the site until December 15, 2016. Please let me know if you should have any questions.



Cindy Knight, LEP
Logical Environmental Solutions, LLC
Office: 860-870-1780
Mobile: 860-402-7069
Email: ck@logicalenvironmental.com



Long-stick excavator in background atop smaller pile of previously screened material. Julian is running material from this pile through one screener and has moved the larger screening operation further to the southeast away from the base of the main pile.



New soil piles on the top of the main pile. Location of S-7 sample.



Newer soil piles on the northeast side of the main pile. Location of S-8 sample from gray to dark-brown soil.

**Soil Samples Collected November 10, 2016
Reclamation Yard – Fairfield, Connecticut**

| Sample I.D.: | S-7 | S-8 | CTDEEP PMC GB Groundwater Area | CTDEEP DEC Residential/Commercial & Industrial |
|-----------------------------|--------|--------|--------------------------------------|--|
| CT ETPH - (mg/kg) | < 57 | < 56 | 2,500 mg/kg | 500/2,500 mg/kg |
| VOCs - Method 8260 (mg/kg) | ND | ND | -- | -- |
| SVOCs - Method 8270 (mg/kg) | | | | |
| Chrysene | 0.27 | < 0.26 | 1 mg/kg (APS) | 1,000/2,500 mg/kg |
| Fluoranthene | 0.43 | < 0.26 | 56 mg/kg | /kg |
| Pyrene | 0.4 | < 0.26 | 40 mg/kg | 1,000/2,500 mg/kg |
| All other SVOCs Tested | ND | D | -- | -- |
| PCBs – Method 8082 (mg/kg) | < 0.37 | < 0.37 | Not Applicable | 1/10 mg/kg |
| TCLP DEEP 15 Metals (mg/L) | | | | Not Applicable |
| Barium | 0.019 | 0.039 | 10 mg/L | |
| Vanadium | < 0.01 | 0.011 | 0.5 mg/L | |

ND – Not Detected above laboratory detection limits.

NA – Not Analyzed for this procedure.

PMC – Pollutant Mobility Criteria

DEC – Direct Exposure Criteria

APS – Additional Polluting Substance

The compounds listed above are those that were detected - please see laboratory reports for full lists of compounds and their specific detection limits.



Tuesday, November 15, 2016

Attn: Ms. Cindy Knight
Logical Environmental Solutions
354 South River Road
Tolland CT 06084

Project ID: FAIRFIELD TOWN RECLAMATION YARD
Sample ID#s: BV80302 - BV80303

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller". The signature is written in a cursive style.

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 November 15, 2016

FOR: Attn: Ms. Cindy Knight
 Logical Environmental Solutions
 354 South River Road
 Tolland CT 06084

Sample Information

Matrix: SOIL
 Location Code: LOGICAL
 Rush Request: Standard
 P.O.#:

Custody Information

Collected by: CK
 Received by: LB
 Analyzed by: see "By" below

Date

11/10/16
 11/10/16

Time

7:00
 11:09

Laboratory Data

SDG ID: GBV80302
 Phoenix ID: BV80302

Project ID: FAIRFIELD TOWN RECLAMATION YARD
 Client ID: S-7

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|----------------------------|-----------|------------|-------|----------|-----------|---------|----------------|
| SPLP Silver | < 0.010 | 0.010 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Arsenic | < 0.004 | 0.004 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Barium | 0.019 | 0.010 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Beryllium | < 0.001 | 0.001 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Cadmium | < 0.005 | 0.005 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Chromium | < 0.010 | 0.010 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Copper | < 0.010 | 0.010 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Mercury | < 0.0005 | 0.0005 | mg/L | 1 | 11/11/16 | RS | SW7470A |
| SPLP Nickel | < 0.010 | 0.010 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Lead | < 0.010 | 0.010 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Antimony | < 0.005 | 0.005 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Selenium | < 0.020 | 0.020 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Thallium | < 0.005 | 0.005 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Vanadium | < 0.010 | 0.010 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Zinc | < 0.010 | 0.010 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Metals Digestion | Completed | | | | 11/11/16 | W/W | SW3005A |
| Percent Solid | 87 | | % | | 11/10/16 | W | SW846-%Solid |
| Soil Extraction for PCB | Completed | | | | 11/10/16 | JJ/V | SW3545A |
| Soil Extraction for SVOA | Completed | | | | 11/10/16 | G/J/CKV | SW3545A |
| Extraction of CT ETPH | Completed | | | | 11/10/16 | JC/CKV | SW3545A |
| SPLP Digestion Mercury | Completed | | | | 11/11/16 | W/W | SW1312/SW7470A |
| SPLP Extraction for Metals | Completed | | | | 11/10/16 | W | SW1312 |

TPH by GC (Extractable Products)

| | | | | | | | |
|-------------------|----|----|-------|---|----------|-----|--------------|
| Ext. Petroleum HC | ND | 57 | mg/Kg | 1 | 11/14/16 | JRB | CTETPH 8015D |
| Identification | ND | | mg/Kg | 1 | 11/14/16 | JRB | CTETPH 8015D |

QA/QC Surrogates

| | | | | | | | |
|-----------------|----|--|---|---|----------|-----|------------|
| % n-Pentacosane | 79 | | % | 1 | 11/14/16 | JRB | 50 - 150 % |
|-----------------|----|--|---|---|----------|-----|------------|

Client ID: S-7

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|--------|------------|-------|----------|-----------|----|------------|
| <u>Polychlorinated Biphenyls</u> | | | | | | | |
| PCB-1016 | ND | 370 | ug/Kg | 10 | 11/11/16 | AW | SW8082A |
| PCB-1221 | ND | 370 | ug/Kg | 10 | 11/11/16 | AW | SW8082A |
| PCB-1232 | ND | 370 | ug/Kg | 10 | 11/11/16 | AW | SW8082A |
| PCB-1242 | ND | 370 | ug/Kg | 10 | 11/11/16 | AW | SW8082A |
| PCB-1248 | ND | 370 | ug/Kg | 10 | 11/11/16 | AW | SW8082A |
| PCB-1254 | ND | 370 | ug/Kg | 10 | 11/11/16 | AW | SW8082A |
| PCB-1260 | ND | 370 | ug/Kg | 10 | 11/11/16 | AW | SW8082A |
| PCB-1262 | ND | 370 | ug/Kg | 10 | 11/11/16 | AW | SW8082A |
| PCB-1268 | ND | 370 | ug/Kg | 10 | 11/11/16 | AW | SW8082A |
| <u>QA/QC Surrogates</u> | | | | | | | |
| % DCBP | 92 | | % | 10 | 11/11/16 | AW | 30 - 150 % |
| % TCMX | 79 | | % | 10 | 11/11/16 | AW | 30 - 150 % |
| <u>Semivolatiles</u> | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 1,2,4-Trichlorobenzene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 1,2-Dichlorobenzene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 1,2-Diphenylhydrazine | ND | 380 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 1,3-Dichlorobenzene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 1,4-Dichlorobenzene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2,4,5-Trichlorophenol | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2,4,6-Trichlorophenol | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2,4-Dichlorophenol | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2,4-Dimethylphenol | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2,4-Dinitrophenol | ND | 380 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2,4-Dinitrotoluene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2,6-Dinitrotoluene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2-Chloronaphthalene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2-Chlorophenol | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2-Methylnaphthalene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2-Methylphenol (o-cresol) | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2-Nitroaniline | ND | 380 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2-Nitrophenol | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 3&4-Methylphenol (m&p-cresol) | ND | 380 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 3,3'-Dichlorobenzidine | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 3-Nitroaniline | ND | 380 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 4,6-Dinitro-2-methylphenol | ND | 380 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 4-Bromophenyl phenyl ether | ND | 380 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 4-Chloro-3-methylphenol | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 4-Chloroaniline | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 4-Chlorophenyl phenyl ether | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 4-Nitroaniline | ND | 600 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 4-Nitrophenol | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Acenaphthene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Acenaphthylene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Acetophenone | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Aniline | ND | 380 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Anthracene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |

Client ID: S-7

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|--------------------------------|--------|------------|-------|----------|-----------|----|------------|
| Benz(a)anthracene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Benzidine | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Benzo(a)pyrene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Benzo(b)fluoranthene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Benzo(ghi)perylene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Benzo(k)fluoranthene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Benzoic acid | ND | 750 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Benzyl butyl phthalate | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Bis(2-chloroethyl)ether | ND | 380 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Bis(2-chloroisopropyl)ether | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Carbazole | ND | 380 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Chrysene | 270 | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Dibenz(a,h)anthracene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Dibenzofuran | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Diethyl phthalate | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Dimethylphthalate | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Di-n-butylphthalate | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Di-n-octylphthalate | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Fluoranthene | 430 | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Fluorene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Hexachlorobenzene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Hexachlorobutadiene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Hexachlorocyclopentadiene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Hexachloroethane | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Isophorone | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Naphthalene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Nitrobenzene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| N-Nitrosodimethylamine | ND | 380 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| N-Nitrosodiphenylamine | ND | 380 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Pentachloronitrobenzene | ND | 380 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Pentachlorophenol | ND | 380 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Phenanthrene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Phenol | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Pyrene | 400 | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Pyridine | ND | 380 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| <u>QA/QC Surrogates</u> | | | | | | | |
| % 2,4,6-Tribromophenol | 89 | | % | 1 | 11/11/16 | DD | 30 - 130 % |
| % 2-Fluorobiphenyl | 67 | | % | 1 | 11/11/16 | DD | 30 - 130 % |
| % 2-Fluorophenol | 51 | | % | 1 | 11/11/16 | DD | 30 - 130 % |
| % Nitrobenzene-d5 | 67 | | % | 1 | 11/11/16 | DD | 30 - 130 % |
| % Phenol-d5 | 63 | | % | 1 | 11/11/16 | DD | 30 - 130 % |
| % Terphenyl-d14 | 72 | | % | 1 | 11/11/16 | DD | 30 - 130 % |

Client ID: S-7

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|-----------|--------|------------|-------|----------|-----------|----|-----------|
|-----------|--------|------------|-------|----------|-----------|----|-----------|

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

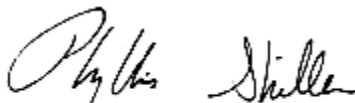
Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

November 15, 2016

Reviewed and Released by: Ethan Lee, Project Manager



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823

Analysis Report
 November 15, 2016

FOR: Attn: Ms. Cindy Knight
 Logical Environmental Solutions
 354 South River Road
 Tolland CT 06084

Sample Information

Matrix: SOIL
 Location Code: LOGICAL
 Rush Request: Standard
 P.O.#:

Custody Information

Collected by: CK
 Received by: LB
 Analyzed by: see "By" below

Date

11/10/16
 11/10/16

Time

7:05
 11:09

Laboratory Data

SDG ID: GBV80302
 Phoenix ID: BV80303

Project ID: FAIRFIELD TOWN RECLAMATION YARD
 Client ID: S-8

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|----------------------------|-----------|------------|-------|----------|-----------|---------|----------------|
| SPLP Silver | < 0.010 | 0.010 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Arsenic | < 0.004 | 0.004 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Barium | 0.039 | 0.010 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Beryllium | < 0.001 | 0.001 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Cadmium | < 0.005 | 0.005 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Chromium | < 0.010 | 0.010 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Copper | < 0.010 | 0.010 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Mercury | < 0.0005 | 0.0005 | mg/L | 1 | 11/11/16 | RS | SW7470A |
| SPLP Nickel | < 0.010 | 0.010 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Lead | < 0.010 | 0.010 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Antimony | < 0.005 | 0.005 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Selenium | < 0.020 | 0.020 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Thallium | < 0.005 | 0.005 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Vanadium | 0.011 | 0.010 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Zinc | < 0.010 | 0.010 | mg/L | 1 | 11/12/16 | LK | SW6010C |
| SPLP Metals Digestion | Completed | | | | 11/11/16 | W/W | SW3005A |
| Percent Solid | 88 | | % | | 11/10/16 | W | SW846-%Solid |
| Soil Extraction for PCB | Completed | | | | 11/10/16 | JJ/V | SW3545A |
| Soil Extraction for SVOA | Completed | | | | 11/10/16 | G/J/CKV | SW3545A |
| Extraction of CT ETPH | Completed | | | | 11/10/16 | JC/CKV | SW3545A |
| SPLP Digestion Mercury | Completed | | | | 11/11/16 | W/W | SW1312/SW7470A |
| SPLP Extraction for Metals | Completed | | | | 11/10/16 | W | SW1312 |

TPH by GC (Extractable Products)

| | | | | | | | |
|-------------------|----|----|-------|---|----------|-----|--------------|
| Ext. Petroleum HC | ND | 56 | mg/Kg | 1 | 11/11/16 | JRB | CTETPH 8015D |
| Identification | ND | | mg/Kg | 1 | 11/11/16 | JRB | CTETPH 8015D |

QA/QC Surrogates

| | | | | | | | |
|-----------------|----|--|---|---|----------|-----|------------|
| % n-Pentacosane | 67 | | % | 1 | 11/11/16 | JRB | 50 - 150 % |
|-----------------|----|--|---|---|----------|-----|------------|

Client ID: S-8

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|--------|------------|-------|----------|-----------|----|------------|
| <u>Polychlorinated Biphenyls</u> | | | | | | | |
| PCB-1016 | ND | 370 | ug/Kg | 10 | 11/11/16 | AW | SW8082A |
| PCB-1221 | ND | 370 | ug/Kg | 10 | 11/11/16 | AW | SW8082A |
| PCB-1232 | ND | 370 | ug/Kg | 10 | 11/11/16 | AW | SW8082A |
| PCB-1242 | ND | 370 | ug/Kg | 10 | 11/11/16 | AW | SW8082A |
| PCB-1248 | ND | 370 | ug/Kg | 10 | 11/11/16 | AW | SW8082A |
| PCB-1254 | ND | 370 | ug/Kg | 10 | 11/11/16 | AW | SW8082A |
| PCB-1260 | ND | 370 | ug/Kg | 10 | 11/11/16 | AW | SW8082A |
| PCB-1262 | ND | 370 | ug/Kg | 10 | 11/11/16 | AW | SW8082A |
| PCB-1268 | ND | 370 | ug/Kg | 10 | 11/11/16 | AW | SW8082A |
| <u>QA/QC Surrogates</u> | | | | | | | |
| % DCBP | 82 | | % | 10 | 11/11/16 | AW | 30 - 150 % |
| % TCMX | 72 | | % | 10 | 11/11/16 | AW | 30 - 150 % |
| <u>Semivolatiles</u> | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 1,2,4-Trichlorobenzene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 1,2-Dichlorobenzene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 1,2-Diphenylhydrazine | ND | 370 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 1,3-Dichlorobenzene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 1,4-Dichlorobenzene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2,4,5-Trichlorophenol | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2,4,6-Trichlorophenol | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2,4-Dichlorophenol | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2,4-Dimethylphenol | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2,4-Dinitrophenol | ND | 370 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2,4-Dinitrotoluene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2,6-Dinitrotoluene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2-Chloronaphthalene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2-Chlorophenol | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2-Methylnaphthalene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2-Methylphenol (o-cresol) | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2-Nitroaniline | ND | 370 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 2-Nitrophenol | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 3&4-Methylphenol (m&p-cresol) | ND | 370 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 3,3'-Dichlorobenzidine | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 3-Nitroaniline | ND | 370 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 4,6-Dinitro-2-methylphenol | ND | 370 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 4-Bromophenyl phenyl ether | ND | 370 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 4-Chloro-3-methylphenol | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 4-Chloroaniline | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 4-Chlorophenyl phenyl ether | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 4-Nitroaniline | ND | 600 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| 4-Nitrophenol | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Acenaphthene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Acenaphthylene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Acetophenone | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Aniline | ND | 370 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Anthracene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |

Client ID: S-8

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|--------------------------------|--------|------------|-------|----------|-----------|----|------------|
| Benz(a)anthracene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Benzidine | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Benzo(a)pyrene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Benzo(b)fluoranthene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Benzo(ghi)perylene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Benzo(k)fluoranthene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Benzoic acid | ND | 750 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Benzyl butyl phthalate | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Bis(2-chloroethoxy)methane | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Bis(2-chloroethyl)ether | ND | 370 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Bis(2-chloroisopropyl)ether | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Bis(2-ethylhexyl)phthalate | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Carbazole | ND | 370 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Chrysene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Dibenz(a,h)anthracene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Dibenzofuran | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Diethyl phthalate | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Dimethylphthalate | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Di-n-butylphthalate | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Di-n-octylphthalate | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Fluoranthene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Fluorene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Hexachlorobenzene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Hexachlorobutadiene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Hexachlorocyclopentadiene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Hexachloroethane | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Indeno(1,2,3-cd)pyrene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Isophorone | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Naphthalene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Nitrobenzene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| N-Nitrosodimethylamine | ND | 370 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| N-Nitrosodi-n-propylamine | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| N-Nitrosodiphenylamine | ND | 370 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Pentachloronitrobenzene | ND | 370 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Pentachlorophenol | ND | 370 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Phenanthrene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Phenol | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Pyrene | ND | 260 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| Pyridine | ND | 370 | ug/Kg | 1 | 11/11/16 | DD | SW8270D |
| <u>QA/QC Surrogates</u> | | | | | | | |
| % 2,4,6-Tribromophenol | 83 | | % | 1 | 11/11/16 | DD | 30 - 130 % |
| % 2-Fluorobiphenyl | 58 | | % | 1 | 11/11/16 | DD | 30 - 130 % |
| % 2-Fluorophenol | 43 | | % | 1 | 11/11/16 | DD | 30 - 130 % |
| % Nitrobenzene-d5 | 61 | | % | 1 | 11/11/16 | DD | 30 - 130 % |
| % Phenol-d5 | 54 | | % | 1 | 11/11/16 | DD | 30 - 130 % |
| % Terphenyl-d14 | 64 | | % | 1 | 11/11/16 | DD | 30 - 130 % |

Client ID: S-8

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|-----------|--------|------------|-------|----------|-----------|----|-----------|
|-----------|--------|------------|-------|----------|-----------|----|-----------|

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

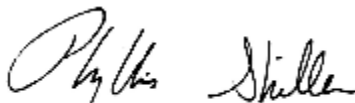
Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

This report must not be reproduced except in full as defined by the attached chain of custody.



Phyllis Shiller, Laboratory Director

November 15, 2016

Reviewed and Released by: Ethan Lee, Project Manager



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QA/QC Report

November 15, 2016

QA/QC Data

SDG I.D.: GBV80302

| Parameter | Blank | Blk RL | Sample Result | Dup Result | Dup RPD | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|-------|-----------|------------------|---------------|------------|----------|-----------|------------|---------|----------|-----------|--------------------|--------------------|
| QA/QC Batch 366109 (mg/L), QC Sample No: BV70780 (BV80302, BV80303) | | | | | | | | | | | | | |
| <u>ICP Metals - SPLP Extraction</u> | | | | | | | | | | | | | |
| Antimony | BRL | 0.005 | <0.005 | <0.005 | NC | 99.1 | | | 97.9 | | | 75 - 125 | 20 |
| Arsenic | BRL | 0.004 | <0.004 | <0.004 | NC | 103 | | | 102 | | | 75 - 125 | 20 |
| Barium | BRL | 0.010 | 0.023 | 0.023 | NC | 108 | | | 107 | | | 75 - 125 | 20 |
| Beryllium | BRL | 0.001 | <0.001 | <0.001 | NC | 108 | | | 107 | | | 75 - 125 | 20 |
| Cadmium | BRL | 0.005 | <0.005 | <0.005 | NC | 105 | | | 103 | | | 75 - 125 | 20 |
| Chromium | BRL | 0.010 | <0.010 | <0.010 | NC | 107 | | | 105 | | | 75 - 125 | 20 |
| Copper | BRL | 0.010 | <0.010 | <0.010 | NC | 105 | | | 105 | | | 75 - 125 | 20 |
| Lead | BRL | 0.010 | <0.010 | <0.010 | NC | 106 | | | 106 | | | 75 - 125 | 20 |
| Nickel | BRL | 0.010 | <0.010 | <0.010 | NC | 106 | | | 106 | | | 75 - 125 | 20 |
| Selenium | BRL | 0.020 | <0.020 | <0.020 | NC | 105 | | | 105 | | | 75 - 125 | 20 |
| Silver | BRL | 0.010 | <0.010 | <0.010 | NC | 104 | | | 104 | | | 75 - 125 | 20 |
| Thallium | BRL | 0.005 | <0.005 | <0.005 | NC | 105 | | | 105 | | | 75 - 125 | 20 |
| Vanadium | BRL | 0.010 | <0.010 | <0.010 | NC | 105 | | | 104 | | | 75 - 125 | 20 |
| Zinc | BRL | 0.010 | <0.010 | <0.010 | NC | 105 | | | 105 | | | 75 - 125 | 20 |
| QA/QC Batch 366461 (mg/L), QC Sample No: BV80278 (BV80302, BV80303) | | | | | | | | | | | | | |
| Mercury - Water | BRL | 0.0002 | <0.0002 | <0.0002 | NC | 106 | | | 95.0 | | | 70 - 130 | 20 |
| Comment: | | | | | | | | | | | | | |
| Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%. | | | | | | | | | | | | | |



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QA/QC Report

November 15, 2016

QA/QC Data

SDG I.D.: GBV80302

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|-------|-----------|----------|-----------|------------|---------|----------|-----------|--------------------|--------------------|
| QA/QC Batch 366273 (ug/Kg), QC Sample No: BV80162 2X (BV80302, BV80303) | | | | | | | | | | |
| <u>Polychlorinated Biphenyls - Soil</u> | | | | | | | | | | |
| PCB-1016 | ND | 33 | 72 | 70 | 2.8 | 67 | 52 | 25.2 | 40 - 140 | 30 |
| PCB-1221 | ND | 33 | | | | | | | 40 - 140 | 30 |
| PCB-1232 | ND | 33 | | | | | | | 40 - 140 | 30 |
| PCB-1242 | ND | 33 | | | | | | | 40 - 140 | 30 |
| PCB-1248 | ND | 33 | | | | | | | 40 - 140 | 30 |
| PCB-1254 | ND | 33 | | | | | | | 40 - 140 | 30 |
| PCB-1260 | ND | 33 | 74 | 71 | 4.1 | 65 | 60 | 8.0 | 40 - 140 | 30 |
| PCB-1262 | ND | 33 | | | | | | | 40 - 140 | 30 |
| PCB-1268 | ND | 33 | | | | | | | 40 - 140 | 30 |
| % DCBP (Surrogate Rec) | 83 | % | 95 | 89 | 6.5 | 80 | 73 | 9.2 | 30 - 150 | 30 |
| % TCMX (Surrogate Rec) | 68 | % | 82 | 78 | 5.0 | 74 | 61 | 19.3 | 30 - 150 | 30 |
| QA/QC Batch 366390 (mg/Kg), QC Sample No: BV80162 (BV80302, BV80303) | | | | | | | | | | |
| <u>TPH by GC (Extractable Products) - Soil</u> | | | | | | | | | | |
| Ext. Petroleum H.C. | ND | 50 | 77 | 71 | 8.1 | 91 | 88 | 3.4 | 60 - 120 | 30 |
| % n-Pentacosane | 84 | % | 88 | 82 | 7.1 | 107 | 102 | 4.8 | 50 - 150 | 30 |
| Comment: | | | | | | | | | | |
| Additional criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%. | | | | | | | | | | |
| QA/QC Batch 366272 (ug/Kg), QC Sample No: BV80162 (BV80302, BV80303) | | | | | | | | | | |
| <u>Semivolatiles - Soil</u> | | | | | | | | | | |
| 1,2,4,5-Tetrachlorobenzene | ND | 230 | 54 | 63 | 15.4 | 59 | 58 | 1.7 | 30 - 130 | 30 |
| 1,2,4-Trichlorobenzene | ND | 230 | 54 | 64 | 16.9 | 63 | 59 | 6.6 | 30 - 130 | 30 |
| 1,2-Dichlorobenzene | ND | 180 | 49 | 58 | 16.8 | 58 | 53 | 9.0 | 30 - 130 | 30 |
| 1,2-Diphenylhydrazine | ND | 230 | 57 | 73 | 24.6 | 71 | 67 | 5.8 | 30 - 130 | 30 |
| 1,3-Dichlorobenzene | ND | 230 | 46 | 55 | 17.8 | 53 | 49 | 7.8 | 30 - 130 | 30 |
| 1,4-Dichlorobenzene | ND | 230 | 47 | 56 | 17.5 | 56 | 51 | 9.3 | 30 - 130 | 30 |
| 2,4,5-Trichlorophenol | ND | 230 | 65 | 74 | 12.9 | 69 | 68 | 1.5 | 30 - 130 | 30 |
| 2,4,6-Trichlorophenol | ND | 130 | 65 | 74 | 12.9 | 67 | 68 | 1.5 | 30 - 130 | 30 |
| 2,4-Dichlorophenol | ND | 130 | 62 | 71 | 13.5 | 66 | 66 | 0.0 | 30 - 130 | 30 |
| 2,4-Dimethylphenol | ND | 230 | 60 | 68 | 12.5 | 61 | 60 | 1.7 | 30 - 130 | 30 |
| 2,4-Dinitrophenol | ND | 230 | <10 | <10 | NC | 10 | <10 | NC | 30 - 130 | 30 |
| 2,4-Dinitrotoluene | ND | 130 | 72 | 81 | 11.8 | 75 | 77 | 2.6 | 30 - 130 | 30 |
| 2,6-Dinitrotoluene | ND | 130 | 72 | 80 | 10.5 | 73 | 74 | 1.4 | 30 - 130 | 30 |
| 2-Chloronaphthalene | ND | 230 | 62 | 70 | 12.1 | 66 | 66 | 0.0 | 30 - 130 | 30 |
| 2-Chlorophenol | ND | 230 | 56 | 66 | 16.4 | 65 | 61 | 6.3 | 30 - 130 | 30 |
| 2-Methylnaphthalene | ND | 230 | 57 | 65 | 13.1 | 63 | 61 | 3.2 | 30 - 130 | 30 |
| 2-Methylphenol (o-cresol) | ND | 230 | 61 | 72 | 16.5 | 68 | 65 | 4.5 | 30 - 130 | 30 |
| 2-Nitroaniline | ND | 330 | 53 | 69 | 26.2 | 67 | 63 | 6.2 | 30 - 130 | 30 |
| 2-Nitrophenol | ND | 230 | 55 | 64 | 15.1 | 62 | 60 | 3.3 | 30 - 130 | 30 |
| 3&4-Methylphenol (m&p-cresol) | ND | 230 | 64 | 73 | 13.1 | 70 | 68 | 2.9 | 30 - 130 | 30 |
| 3,3'-Dichlorobenzidine | ND | 130 | 56 | 62 | 10.2 | 57 | 55 | 3.6 | 30 - 130 | 30 |

QA/QC Data

SDG I.D.: GBV80302

| Parameter | Blk | | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|-----------------------------|-------|-----|----------|-----------|------------|---------|----------|-----------|--------------------|--------------------|-------|
| | Blank | RL | | | | | | | | | |
| 3-Nitroaniline | ND | 330 | 60 | 68 | 12.5 | 62 | 63 | 1.6 | 30 - 130 | 30 | |
| 4,6-Dinitro-2-methylphenol | ND | 230 | 20 | 18 | 10.5 | 23 | 20 | 14.0 | 30 - 130 | 30 | I,m |
| 4-Bromophenyl phenyl ether | ND | 230 | 70 | 77 | 9.5 | 71 | 73 | 2.8 | 30 - 130 | 30 | |
| 4-Chloro-3-methylphenol | ND | 230 | 68 | 75 | 9.8 | 72 | 70 | 2.8 | 30 - 130 | 30 | |
| 4-Chloroaniline | ND | 230 | 60 | 67 | 11.0 | 65 | 62 | 4.7 | 30 - 130 | 30 | |
| 4-Chlorophenyl phenyl ether | ND | 230 | 62 | 72 | 14.9 | 67 | 67 | 0.0 | 30 - 130 | 30 | |
| 4-Nitroaniline | ND | 230 | 72 | 79 | 9.3 | 73 | 74 | 1.4 | 30 - 130 | 30 | |
| 4-Nitrophenol | ND | 230 | 62 | 71 | 13.5 | 65 | 63 | 3.1 | 30 - 130 | 30 | |
| Acenaphthene | ND | 230 | 65 | 73 | 11.6 | 69 | 68 | 1.5 | 30 - 130 | 30 | |
| Acenaphthylene | ND | 130 | 66 | 74 | 11.4 | 69 | 70 | 1.4 | 30 - 130 | 30 | |
| Acetophenone | ND | 230 | 57 | 67 | 16.1 | 65 | 61 | 6.3 | 30 - 130 | 30 | |
| Aniline | ND | 330 | 47 | 54 | 13.9 | 52 | 48 | 8.0 | 30 - 130 | 30 | |
| Anthracene | ND | 230 | 68 | 77 | 12.4 | 71 | 74 | 4.1 | 30 - 130 | 30 | |
| Benz(a)anthracene | ND | 230 | 71 | 79 | 10.7 | 75 | 76 | 1.3 | 30 - 130 | 30 | |
| Benzidine | ND | 330 | 10 | 12 | 18.2 | <10 | <10 | NC | 30 - 130 | 30 | I,m |
| Benzo(a)pyrene | ND | 130 | 65 | 74 | 12.9 | 68 | 69 | 1.5 | 30 - 130 | 30 | |
| Benzo(b)fluoranthene | ND | 160 | 70 | 76 | 8.2 | 70 | 72 | 2.8 | 30 - 130 | 30 | |
| Benzo(ghi)perylene | ND | 230 | 70 | 81 | 14.6 | 76 | 75 | 1.3 | 30 - 130 | 30 | |
| Benzo(k)fluoranthene | ND | 230 | 66 | 76 | 14.1 | 70 | 70 | 0.0 | 30 - 130 | 30 | |
| Benzoic Acid | ND | 330 | <10 | <10 | NC | 17 | 11 | 42.9 | 30 - 130 | 30 | I,m,r |
| Benzyl butyl phthalate | ND | 230 | 72 | 83 | 14.2 | 77 | 83 | 7.5 | 30 - 130 | 30 | |
| Bis(2-chloroethoxy)methane | ND | 230 | 63 | 73 | 14.7 | 68 | 66 | 3.0 | 30 - 130 | 30 | |
| Bis(2-chloroethyl)ether | ND | 130 | 57 | 68 | 17.6 | 63 | 58 | 8.3 | 30 - 130 | 30 | |
| Bis(2-chloroisopropyl)ether | ND | 230 | 47 | 56 | 17.5 | 54 | 51 | 5.7 | 30 - 130 | 30 | |
| Bis(2-ethylhexyl)phthalate | ND | 230 | 69 | 79 | 13.5 | 74 | 74 | 0.0 | 30 - 130 | 30 | |
| Carbazole | ND | 230 | 67 | 75 | 11.3 | 69 | 72 | 4.3 | 30 - 130 | 30 | |
| Chrysene | ND | 230 | 71 | 79 | 10.7 | 74 | 76 | 2.7 | 30 - 130 | 30 | |
| Dibenz(a,h)anthracene | ND | 130 | 68 | 77 | 12.4 | 72 | 72 | 0.0 | 30 - 130 | 30 | |
| Dibenzofuran | ND | 230 | 65 | 73 | 11.6 | 69 | 69 | 0.0 | 30 - 130 | 30 | |
| Diethyl phthalate | ND | 230 | 69 | 78 | 12.2 | 73 | 75 | 2.7 | 30 - 130 | 30 | |
| Dimethylphthalate | ND | 230 | 69 | 77 | 11.0 | 72 | 72 | 0.0 | 30 - 130 | 30 | |
| Di-n-butylphthalate | ND | 230 | 72 | 78 | 8.0 | 74 | 77 | 4.0 | 30 - 130 | 30 | |
| Di-n-octylphthalate | ND | 230 | 69 | 79 | 13.5 | 73 | 75 | 2.7 | 30 - 130 | 30 | |
| Fluoranthene | ND | 230 | 68 | 74 | 8.5 | 70 | 73 | 4.2 | 30 - 130 | 30 | |
| Fluorene | ND | 230 | 65 | 76 | 15.6 | 71 | 71 | 0.0 | 30 - 130 | 30 | |
| Hexachlorobenzene | ND | 130 | 66 | 78 | 16.7 | 73 | 73 | 0.0 | 30 - 130 | 30 | |
| Hexachlorobutadiene | ND | 230 | 52 | 60 | 14.3 | 58 | 55 | 5.3 | 30 - 130 | 30 | |
| Hexachlorocyclopentadiene | ND | 230 | 59 | 68 | 14.2 | 63 | 60 | 4.9 | 30 - 130 | 30 | |
| Hexachloroethane | ND | 130 | 46 | 55 | 17.8 | 54 | 49 | 9.7 | 30 - 130 | 30 | |
| Indeno(1,2,3-cd)pyrene | ND | 230 | 68 | 78 | 13.7 | 73 | 73 | 0.0 | 30 - 130 | 30 | |
| Isophorone | ND | 130 | 57 | 65 | 13.1 | 62 | 61 | 1.6 | 30 - 130 | 30 | |
| Naphthalene | ND | 230 | 56 | 65 | 14.9 | 64 | 61 | 4.8 | 30 - 130 | 30 | |
| Nitrobenzene | ND | 130 | 56 | 66 | 16.4 | 64 | 60 | 6.5 | 30 - 130 | 30 | |
| N-Nitrosodimethylamine | ND | 230 | 44 | 53 | 18.6 | 52 | 47 | 10.1 | 30 - 130 | 30 | |
| N-Nitrosodi-n-propylamine | ND | 130 | 61 | 70 | 13.7 | 68 | 65 | 4.5 | 30 - 130 | 30 | |
| N-Nitrosodiphenylamine | ND | 130 | 69 | 81 | 16.0 | 75 | 77 | 2.6 | 30 - 130 | 30 | |
| Pentachloronitrobenzene | ND | 230 | 62 | 72 | 14.9 | 69 | 71 | 2.9 | 30 - 130 | 30 | |
| Pentachlorophenol | ND | 230 | 58 | 61 | 5.0 | 62 | 58 | 6.7 | 30 - 130 | 30 | |
| Phenanthrene | ND | 130 | 66 | 75 | 12.8 | 70 | 71 | 1.4 | 30 - 130 | 30 | |
| Phenol | ND | 230 | 59 | 68 | 14.2 | 65 | 63 | 3.1 | 30 - 130 | 30 | |
| Pyrene | ND | 230 | 69 | 74 | 7.0 | 72 | 73 | 1.4 | 30 - 130 | 30 | |
| Pyridine | ND | 230 | 31 | 37 | 17.6 | 37 | 33 | 11.4 | 30 - 130 | 30 | |
| % 2,4,6-Tribromophenol | 73 | % | 62 | 77 | 21.6 | 79 | 70 | 12.1 | 30 - 130 | 30 | |

QA/QC Data

SDG I.D.: GBV80302

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|--------------------|-------|-----------|----------|-----------|------------|---------|----------|-----------|--------------------|--------------------|
| % 2-Fluorobiphenyl | 61 | % | 61 | 69 | 12.3 | 63 | 63 | 0.0 | 30 - 130 | 30 |
| % 2-Fluorophenol | 50 | % | 54 | 64 | 16.9 | 60 | 57 | 5.1 | 30 - 130 | 30 |
| % Nitrobenzene-d5 | 59 | % | 58 | 68 | 15.9 | 65 | 60 | 8.0 | 30 - 130 | 30 |
| % Phenol-d5 | 59 | % | 63 | 73 | 14.7 | 69 | 66 | 4.4 | 30 - 130 | 30 |
| % Terphenyl-d14 | 66 | % | 67 | 72 | 7.2 | 69 | 70 | 1.4 | 30 - 130 | 30 |

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.

m = This parameter is outside laboratory MS/MSD specified recovery limits.

r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

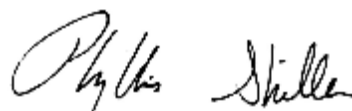
LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference



Phyllis Shiller, Laboratory Director

November 15, 2016

Tuesday, November 15, 2016

Criteria: CT: GAM, RC

State: CT

Sample Criteria Exceedances Report

GBV80302 - LOGICAL

| SampNo | Acode | Phoenix Analyte | Criteria | Result | RL | Criteria | RL Criteria | Analysis Units |
|--------|-------|-----------------|----------|--------|----|----------|----------------|-------------------|
|--------|-------|-----------------|----------|--------|----|----------|----------------|-------------------|

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedances. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedance information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



REASONABLE CONFIDENCE PROTOCOL LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. **Client:** Logical Environmental Solutions

Project Location: FAIRFIELD TOWN RECLAMATION Y **Project Number:**

Laboratory Sample ID(s): BV80302, BV80303 **Sampling Date(s):** 11/10/2016

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010, 7470/7471, 8082, 8270, ETPH

| | | |
|-----------|---|--|
| 1 | For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 1A | Were the method specified preservation and holding time requirements met? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 1B | <u><i>VPH and EPH methods only:</i></u> Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods) | <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA |
| 2 | Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 3 | Were samples received at an appropriate temperature (< 6 Degrees C)? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA |
| 4 | Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? See Section: SVOA Narration. | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 5 | a) Were reporting limits specified or referenced on the chain-of-custody? b) Were these reporting limits met? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 6 | For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 7 | Are project-specific matrix spikes and laboratory duplicates included in the data set? | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.

Authorized Signature: Ethan Lee **Position:** Project Manager

Printed Name: Ethan Lee **Date:** Tuesday, November 15, 2016

Name of Laboratory Phoenix Environmental Labs, Inc.

This certification form is to be used for RCP methods only.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



RCP Certification Report

November 15, 2016

SDG I.D.: GBV80302

ETPH Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

AU-FID11 11/11/16-2 Jeff Bucko, Chemist 11/11/16

BV80303

The initial calibration (ETPHO17I) RSD for the compound list was less than 30% except for the following compounds: None.
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

AU-FID11 11/13/16-2 Jeff Bucko, Chemist 11/13/16

BV80302

The initial calibration (ETPHO17I) RSD for the compound list was less than 30% except for the following compounds: None.
As per section 7.2.3, a discrimination check standard was run and contained the following outliers: C36 28.9%L (20%)
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Batch Specific):

Batch 366390 (BV80162)

BV80302, BV80303

All LCS recoveries were within 60 - 120 with the following exceptions: None.
All LCSD recoveries were within 60 - 120 with the following exceptions: None.
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

Mercury Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

MERLIN 11/11/16 08:30 Rick Schweitzer, Chemist 11/11/16

BV80302, BV80303

The method preparation blank contains all of the acids and reagents as the samples; the instrument blanks do not.

The initial calibration met all criteria including a standard run at or below the reporting level.

All calibration verification standards (ICV, CCV) met criteria.

All calibration blank verification standards (ICB, CCB) met criteria.

The matrix spike sample is used to identify spectral interference for each batch of samples, if within 85-115%, no interference is observed and no further action is taken.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 366461 (BV80278)

BV80302, BV80303

All LCS recoveries were within 70 - 130 with the following exceptions: None.

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

ICP Metals Narration



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Certification Report

November 15, 2016

SDG I.D.: GBV80302

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

Instrument:

ARCOS 11/12/16 05:29 Laura Kinnin, Chemist 11/12/16

BV80302, BV80303

The linear range is defined daily by the calibration range.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

QC (Batch Specific):

Batch 366109 (BV70780)

BV80302, BV80303

All LCS recoveries were within 75 - 125 with the following exceptions: None.

PCB Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? Yes.

Instrument:

AU-ECD48 11/11/16-1 Adam Werner, Chemist 11/11/16

BV80302, BV80303

The initial calibration (PC1018AI) RSD for the compound list was less than 20% except for the following compounds: None.

The initial calibration (PC1018BI) RSD for the compound list was less than 20% except for the following compounds: None.

The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

QC (Batch Specific):

Batch 366273 (BV80162)

BV80302, BV80303

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

SVOA Narration

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 366272 (Samples: BV80302, BV80303): -----

The QC recoveries for one or more analytes is below the method criteria. A slight low bias is likely. (2,4-Dinitrophenol, 4,6-Dinitro-2-methylphenol, Benzidine, Benzoic Acid)

Instrument:

CHEM06 11/10/16-1 Damien Drobinski, Chemist 11/10/16

BV80302, BV80303

The DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in



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RCP Certification Report

November 15, 2016

SDG I.D.: GBV80302

SVOA Narration

control.

Initial Calibration Verification (CHEM06/SV_1110):

98% of target compounds met criteria.

The following compounds had %RSDs >20%: Benzidine 22% (20%)

The following compounds did not meet recommended response factors: 2-Nitrophenol 0.076 (0.1), Hexachlorobenzene 0.097 (0.1)

The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM06/1110_13B-SV_1110):

Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

100% of target compounds met criteria.

The following compounds did not meet % deviation criteria: None.

The following compounds did not meet maximum % deviations: None.

The following compounds did not meet recommended response factors: 2-Nitrophenol 0.078 (0.1), Hexachlorobenzene 0.091 (0.1)

The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 366272 (BV80162)

BV80302, BV80303

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(20%), Benzidine(10%), Benzoic Acid(<10%)

All LCSD recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(18%), Benzidine(12%), Benzoic Acid(<10%)

All LCS/LCSD RPDs were less than 30% with the following exceptions: None.

Temperature Narration

The samples were received at 1C with cooling initiated.

(Note acceptance criteria is above freezing up to 6°C)

