SUMMARY OF RECLAMATION YARD INSPECTION

Week No.: 6 Inspection Date: November 3, 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 sixth weekly inspection on November 3, 2016. Since the previous inspection, Julian had processed and moved a significant amount of screened soil and piled it up to approximately twenty-five feet in height along the southern end of the property. They were in the process of loading the screened material into trucks for offsite use. Julian had two front loaders, two excavators, and five screeners set up and working to process, screen, and load the material. The top of the main soil appeared lower in height compared to the previous week.

The top of the main pile also had several smaller piles of asphalt and newer soil, and a soil sample (S-6) 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. The table on the following page summarizes the results of the sample analyses and a copy of the laboratory report is included at the end of this memorandum. The S-6 soil sample did not contain detectable concentrations of VOCs, petroleum hydrocarbons, or PCBs. The sample contained a low concentration of leachable barium that does not exceed any CTDEEP Remediation Standard Regulation criteria. The sample had slightly elevated concentrations of several SVOCs that exceed the CTDEEP Remediation Standard Regulation criteria and are typically associated with soil either containing asphalt fragments or being overlain by asphalt pavement.

Julian had also re-worked some of the soil along the northeastern side of the main pile, but no additional soil that had not already been previously sampled was exposed. There was also a significant amount of asphalt chunks along the northern and northeastern side of the main pile. 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

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 large pile of screened material. The soil is being loaded into trucks for offsite use. In foreground, Komatsu excavator is loading material from the southern end of the main pile into the screener.

Screening and loading operations

Top of the main pile with new piles of asphalt and soil. Sample S-6 was collected from the dark brown soil shown in the right of the photograph.

Large pieces of asphalt and concrete along northern and northeastern faces of the main pile.

Soil Sample Collected November 3, 2016
Reclamation Yard – Fairfield, Connecticut

Sample I.D.:	S-6	CTDEEP PMC GB Groundwater Area	CTDEEP DEC Residential/Commercial & Industrial
CT ETPH - (mg/kg)	< 300	2,500 mg/kg	500/2,500 mg/kg
VOCs - Method 8260 (mg/kg)	ND	--	--
SVOCs - Method 8270 (mg/kg)			
Anthracene	0.34	400 mg/kg	1,000/2,500 mg/kg
Benzo(a)anthracene	***1.3***	**1 mg/kg**	**1**/7.8 mg/kg
Benzo(a)pyrene	***1.5***	**1 mg/kg**	**1/1 mg/kg**
Benzo(b)fluoranthene	***1.7***	**1 mg/kg**	**1**/7.8 mg/kg
Benzo(g,h,i)perylene	0.85	1 mg/kg (APS)	8.4/78 mg/kg (APS)
Benzo(k)fluoranthene	***1.4***	**1 mg/kg**	8.4/78 mg/kg
Chrysene	***1.9***	**1 mg/kg (APS)**	84/780 mg/kg (APS)
Fluoranthene	3.3	56 mg/kg	1,000/2,500 mg/kg
Indeno(1,2,3-cd)pyrene	0.96	1 mg/kg (APS)	1/7.8 mg/kg (APS)
Phenanthrene	2.0	40 mg/kg	1,000/2,500 mg/kg
Pyrene	2.7	40 mg/kg	1,000/2,500 mg/kg
All other SVOCs Tested	ND	--	--
PCBs – Method 8082 (mg/kg)	< 0.39	Not Applicable	1/10 mg/kg
TCLP DEEP 15 Metals (mg/L)			Not Applicable
Barium	0.21	10 mg/L	
Zinc	0.49	50 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.

PHOENIX
Environmental Laboratories, Inc.

Friday, November 11, 2016

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

Project ID: FAIRFIELD TOWN RECLAMATION YARD
Sample ID#s: BV74467

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,

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 11, 2016

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

Sample Information		Custody Information		Date	Time
Matrix:	SOIL	Collected by:		11/03/16	7:40
Location Code:	LOGIC-DAS	Received by:	B	11/03/16	13:18
Rush Request:	Standard	Analyzed by:	see "By" below		
P.O.#:					

Laboratory Data

SDG ID: GBV74467
Phoenix ID: BV74467

Project ID: FAIRFIELD TOWN RECLAMATION YARD
Client ID: S-6

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
TCLP Silver	< 0.10	0.10	mg/L	1	11/08/16	LK	SW6010C
TCLP Arsenic	< 0.10	0.10	mg/L	1	11/08/16	LK	SW6010C
TCLP Barium	0.21	0.10	mg/L	1	11/08/16	LK	SW6010C
TCLP Beryllium	< 0.040	0.040	mg/L	1	11/08/16	LK	SW6010C
TCLP Cadmium	< 0.050	0.050	mg/L	1	11/08/16	LK	SW6010C
TCLP Chromium	< 0.10	0.10	mg/L	1	11/08/16	LK	SW6010C
TCLP Copper	< 0.10	0.10	mg/L	1	11/08/16	LK	SW6010C
TCLP Mercury	< 0.0002	0.0002	mg/L	1	11/04/16	RS	SW7470A
TCLP Nickel	< 0.10	0.10	mg/L	1	11/08/16	LK	SW6010C
TCLP Lead	< 0.10	0.10	mg/L	1	11/08/16	LK	SW6010C
TCLP Antimony	< 0.060	0.060	mg/L	1	11/08/16	LK	SW6010C
TCLP Selenium	< 0.10	0.10	mg/L	1	11/08/16	LK	SW6010C
TCLP Thallium	< 0.050	0.050	mg/L	1	11/08/16	LK	SW6010C
TCLP Vanadium	< 0.10	0.10	mg/L	1	11/08/16	LK	SW6010C
TCLP Zinc	0.49	0.10	mg/L	1	11/08/16	LK	SW6010C
TCLP Metals Digestion	Completed				11/04/16	W/W	SW3005A
Percent Solid	83		%		11/03/16	W	SW846-%Solid
Soil Extraction for PCB	Completed				11/03/16	JJ/V	SW3545A
Soil Extraction for SVOA	Completed				11/03/16	JJ/CKV	SW3545A
Extraction of CT ETPH	Completed				11/03/16	JC/CKV	SW3545A
TCLP Digestion Mercury	Completed				11/04/16	W/W	SW7470A
TCLP Extraction for Metals	Completed				11/03/16	W	SW1311
Field Extraction	Completed				11/03/16		SW5035A

TPH by GC (Extractable Products)

Ext. Petroleum HC	ND	300	mg/Kg	5	11/04/16	JRB	CTETPH 8015D
Identification	ND		mg/Kg	5	11/04/16	JRB	CTETPH 8015D

QA/QC Surrogates

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
% n-Pentacosane	80		%	5	11/04/16	JRB	50 - 150 %
Polychlorinated Biphenyls							
PCB-1016	ND	390	ug/Kg	10	11/04/16	AW	SW8082A
PCB-1221	ND	390	ug/Kg	10	11/04/16	AW	SW8082A
PCB-1232	ND	390	ug/Kg	10	11/04/16	AW	SW8082A
PCB-1242	ND	390	ug/Kg	10	11/04/16	AW	SW8082A
PCB-1248	ND	390	ug/Kg	10	11/04/16	AW	SW8082A
PCB-1254	ND	390	ug/Kg	10	11/04/16	AW	SW8082A
PCB-1260	ND	390	ug/Kg	10	11/04/16	AW	SW8082A
PCB-1262	ND	390	ug/Kg	10	11/04/16	AW	SW8082A
PCB-1268	ND	390	ug/Kg	10	11/04/16	AW	SW8082A
QA/QC Surrogates							
% DCBP	77		%	10	11/04/16	AW	30 - 150 %
% TCMX	72		%	10	11/04/16	AW	30 - 150 %
Volatiles							
1,1,1,2-Tetrachloroethane	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
1,1,1-Trichloroethane	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
1,1,2,2-Tetrachloroethane	ND	2.7	ug/Kg	1	11/04/16	JLI	SW8260C
1,1,2-Trichloroethane	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
1,1-Dichloroethane	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
1,1-Dichloroethene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
1,1-Dichloropropene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
1,2,3-Trichlorobenzene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
1,2,3-Trichloropropane	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
1,2,4-Trichlorobenzene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
1,2,4-Trimethylbenzene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
1,2-Dibromo-3-chloropropane	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
1,2-Dibromoethane	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
1,2-Dichlorobenzene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
1,2-Dichloroethane	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
1,2-Dichloropropane	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
1,3,5-Trimethylbenzene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
1,3-Dichlorobenzene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
1,3-Dichloropropane	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
1,4-Dichlorobenzene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
2,2-Dichloropropane	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
2-Chlorotoluene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
2-Hexanone	ND	23	ug/Kg	1	11/04/16	JLI	SW8260C
2-Isopropyltoluene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
4-Chlorotoluene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
4-Methyl-2-pentanone	ND	23	ug/Kg	1	11/04/16	JLI	SW8260C
Acetone	ND	230	ug/Kg	1	11/04/16	JLI	SW8260C
Acrylonitrile	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Benzene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Bromobenzene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Bromochloromethane	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Bromodichloromethane	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Bromoform	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Bromomethane	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Carbon Disulfide	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Carbon tetrachloride	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Chlorobenzene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Chloroethane	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Chloroform	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Chloromethane	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
cis-1,2-Dichloroethene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
cis-1,3-Dichloropropene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Dibromochloromethane	ND	2.7	ug/Kg	1	11/04/16	JLI	SW8260C
Dibromomethane	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Dichlorodifluoromethane	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Ethylbenzene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Hexachlorobutadiene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Isopropylbenzene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
m&p-Xylene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Methyl Ethyl Ketone	ND	27	ug/Kg	1	11/04/16	JLI	SW8260C
Methyl t-butyl ether (MTBE)	ND	9.0	ug/Kg	1	11/04/16	JLI	SW8260C
Methylene chloride	ND	9.0	ug/Kg	1	11/04/16	JLI	SW8260C
Naphthalene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
n-Butylbenzene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
n-Propylbenzene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
o-Xylene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
p-Isopropyltoluene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
sec-Butylbenzene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Styrene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
tert-Butylbenzene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Tetrachloroethene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Tetrahydrofuran (THF)	ND	9.0	ug/Kg	1	11/04/16	JLI	SW8260C
Toluene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Total Xylenes	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
trans-1,2-Dichloroethene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
trans-1,3-Dichloropropene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
trans-1,4-dichloro-2-butene	ND	9.0	ug/Kg	1	11/04/16	JLI	SW8260C
Trichloroethene	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Trichlorofluoromethane	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Trichlorotrifluoroethane	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
Vinyl chloride	ND	4.5	ug/Kg	1	11/04/16	JLI	SW8260C
QA/QC Surrogates							
% 1,2-dichlorobenzene-d4	89		%	1	11/04/16	JLI	70 - 130 %
% Bromofluorobenzene	95		%	1	11/04/16	JLI	70 - 130 %
% Dibromofluoromethane	103		%	1	11/04/16	JLI	70 - 130 %
% Toluene-d8	92		%	1	11/04/16	JLI	70 - 130 %
Semivolatiles							
1,2,4,5-Tetrachlorobenzene	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
1,2,4-Trichlorobenzene	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
1,2-Dichlorobenzene	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
1,2-Diphenylhydrazine	ND	400	ug/Kg	1	11/03/16	DD	SW8270D
1,3-Dichlorobenzene	ND	280	ug/Kg	1	11/03/16	DD	SW8270D

Project ID: FAIRFIELD TOWN RECLAMATION YARD
Client ID: S-6

Phoenix I.D.: BV74467

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
1,4-Dichlorobenzene	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
2,4,5-Trichlorophenol	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
2,4,6-Trichlorophenol	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
2,4-Dichlorophenol	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
2,4-Dimethylphenol	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
2,4-Dinitrophenol	ND	400	ug/Kg	1	11/03/16	DD	SW8270D
2,4-Dinitrotoluene	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
2,6-Dinitrotoluene	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
2-Chloronaphthalene	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
2-Chlorophenol	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
2-Methylnaphthalene	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
2-Methylphenol (o-cresol)	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
2-Nitroaniline	ND	400	ug/Kg	1	11/03/16	DD	SW8270D
2-Nitrophenol	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
3&4-Methylphenol (m&p-cresol)	ND	400	ug/Kg	1	11/03/16	DD	SW8270D
3,3'-Dichlorobenzidine	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
3-Nitroaniline	ND	400	ug/Kg	1	11/03/16	DD	SW8270D
4,6-Dinitro-2-methylphenol	ND	400	ug/Kg	1	11/03/16	DD	SW8270D
4-Bromophenyl phenyl ether	ND	400	ug/Kg	1	11/03/16	DD	SW8270D
4-Chloro-3-methylphenol	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
4-Chloroaniline	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
4-Chlorophenyl phenyl ether	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
4-Nitroaniline	ND	640	ug/Kg	1	11/03/16	DD	SW8270D
4-Nitrophenol	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
Acenaphthene	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
Acenaphthylene	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
Acetophenone	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
Aniline	ND	400	ug/Kg	1	11/03/16	DD	SW8270D
Anthracene	340	280	ug/Kg	1	11/03/16	DD	SW8270D
Benz(a)anthracene	1300	280	ug/Kg	1	11/03/16	DD	SW8270D
Benzidine	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
Benzo(a)pyrene	1500	280	ug/Kg	1	11/03/16	DD	SW8270D
Benzo(b)fluoranthene	1700	280	ug/Kg	1	11/03/16	DD	SW8270D
Benzo(ghi)perylene	850	280	ug/Kg	1	11/03/16	DD	SW8270D
Benzo(k)fluoranthene	1400	280	ug/Kg	1	11/03/16	DD	SW8270D
Benzoic acid	ND	800	ug/Kg	1	11/03/16	DD	SW8270D
Benzyl butyl phthalate	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
Bis(2-chloroethoxy)methane	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
Bis(2-chloroethyl)ether	ND	400	ug/Kg	1	11/03/16	DD	SW8270D
Bis(2-chloroisopropyl)ether	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
Bis(2-ethylhexyl)phthalate	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
Carbazole	ND	400	ug/Kg	1	11/03/16	DD	SW8270D
Chrysene	1900	280	ug/Kg	1	11/03/16	DD	SW8270D
Dibenz(a,h)anthracene	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
Dibenzofuran	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
Diethyl phthalate	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
Dimethylphthalate	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
Di-n-butylphthalate	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
Di-n-octylphthalate	ND	280	ug/Kg	1	11/03/16	DD	SW8270D

Project ID: FAIRFIELD TOWN RECLAMATION YARD
Client ID: S-6

Phoenix I.D.: BV74467

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	By	Reference
Fluoranthene	3300	280	ug/Kg	1	11/03/16	DD	SW8270D
Fluorene	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
Hexachlorobenzene	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
Hexachlorobutadiene	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
Hexachlorocyclopentadiene	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
Hexachloroethane	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
Indeno(1,2,3-cd)pyrene	960	280	ug/Kg	1	11/03/16	DD	SW8270D
Isophorone	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
Naphthalene	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
Nitrobenzene	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
N-Nitrosodimethylamine	ND	400	ug/Kg	1	11/03/16	DD	SW8270D
N-Nitrosodi-n-propylamine	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
N-Nitrosodiphenylamine	ND	400	ug/Kg	1	11/03/16	DD	SW8270D
Pentachloronitrobenzene	ND	400	ug/Kg	1	11/03/16	DD	SW8270D
Pentachlorophenol	ND	400	ug/Kg	1	11/03/16	DD	SW8270D
Phenanthrene	2000	280	ug/Kg	1	11/03/16	DD	SW8270D
Phenol	ND	280	ug/Kg	1	11/03/16	DD	SW8270D
Pyrene	2700	280	ug/Kg	1	11/03/16	DD	SW8270D
Pyridine	ND	400	ug/Kg	1	11/03/16	DD	SW8270D
QA/QC Surrogates							
% 2,4,6-Tribromophenol	72		%	1	11/03/16	DD	30 - 130 %
% 2-Fluorobiphenyl	64		%	1	11/03/16	DD	30 - 130 %
% 2-Fluorophenol	47		%	1	11/03/16	DD	30 - 130 %
% Nitrobenzene-d5	62		%	1	11/03/16	DD	30 - 130 %
% Phenol-d5	59		%	1	11/03/16	DD	30 - 130 %
% Terphenyl-d14	57		%	1	11/03/16	DD	30 - 130 %

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded 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.
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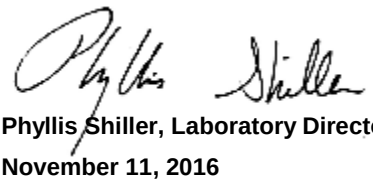

Phyllis Shiller, Laboratory Director
November 11, 2016
Reviewed and Released by: Ethan Lee, Project Manager

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

QA/QC Report

November 11, 2016

QA/QC Data

SDG I.D.: GBV74467

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 365552 (mg/L), QC Sample No: BV74450 (BV74467)														
ICP Metals - TCLP Extraction														
Antimony	BRL	0.060	<0.060	<0.060	NC	107			119			75 - 125	20	
Arsenic	BRL	0.10	<0.10	<0.10	NC	110			115			75 - 125	20	
Barium	BRL	0.10	0.18	0.12	NC	94.1			112			75 - 125	20	
Beryllium	BRL	0.040	<0.040	<0.040	NC	108			116			75 - 125	20	
Cadmium	BRL	0.050	6.15	4.10	40.0	110			119			75 - 125	20	r
Chromium	BRL	0.10	<0.10	<0.10	NC	107			114			75 - 125	20	
Copper	BRL	0.10	0.25	0.12	NC	108			114			75 - 125	20	
Lead	BRL	0.10	<0.10	<0.10	NC	110			116			75 - 125	20	
Nickel	BRL	0.10	1.82	1.23	38.7	107			115			75 - 125	20	r
Selenium	BRL	0.10	<0.10	<0.10	NC	110			118			75 - 125	20	
Silver	BRL	0.10	<0.10	<0.10	NC	104			113			75 - 125	20	
Thallium	BRL	0.050	<0.050	<0.050	NC	113			118			75 - 125	20	
Vanadium	BRL	0.10	<0.10	<0.10	NC	105			113			75 - 125	20	
Zinc	BRL	0.010	0.34	0.12	NC	108			113			75 - 125	20	
QA/QC Batch 365547 (mg/L), QC Sample No: BV74464 (BV74467)														
Mercury - Water	BRL	0.0002	<0.0002	<0.0002	NC	94.5			95.4			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%.

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

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QA/QC Report

November 11, 2016

QA/QC Data

SDG I.D.: GBV74467

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
QA/QC Batch 365297 (ug/Kg), QC Sample No: BV74135 (BV74467)											
Semivolatiles - Soil											
1,2,4,5-Tetrachlorobenzene	ND	230	57			58	53	9.0	30 - 130	30	
1,2,4-Trichlorobenzene	ND	230	56			62	57	8.4	30 - 130	30	
1,2-Dichlorobenzene	ND	180	49			51	46	10.3	30 - 130	30	
1,2-Diphenylhydrazine	ND	230	66			58	51	12.8	30 - 130	30	
1,3-Dichlorobenzene	ND	230	46			48	44	8.7	30 - 130	30	
1,4-Dichlorobenzene	ND	230	47			49	44	10.8	30 - 130	30	
2,4,5-Trichlorophenol	ND	230	69			66	59	11.2	30 - 130	30	
2,4,6-Trichlorophenol	ND	130	66			65	58	11.4	30 - 130	30	
2,4-Dichlorophenol	ND	130	63			66	60	9.5	30 - 130	30	
2,4-Dimethylphenol	ND	230	59			63	57	10.0	30 - 130	30	
2,4-Dinitrophenol	ND	230	<10			13	13	0.0	30 - 130	30	l,m
2,4-Dinitrotoluene	ND	130	72			69	60	14.0	30 - 130	30	
2,6-Dinitrotoluene	ND	130	72			63	56	11.8	30 - 130	30	
2-Chloronaphthalene	ND	230	66			64	57	11.6	30 - 130	30	
2-Chlorophenol	ND	230	56			57	52	9.2	30 - 130	30	
2-Methylnaphthalene	ND	230	58			61	55	10.3	30 - 130	30	
2-Methylphenol (o-cresol)	ND	230	61			60	54	10.5	30 - 130	30	
2-Nitroaniline	ND	330	60			65	56	14.9	30 - 130	30	
2-Nitrophenol	ND	230	59			55	51	7.5	30 - 130	30	
3&4-Methylphenol (m&p-cresol)	ND	230	61			59	54	8.8	30 - 130	30	
3,3'-Dichlorobenzidine	ND	130	61			59	56	5.2	30 - 130	30	
3-Nitroaniline	ND	330	59			68	62	9.2	30 - 130	30	
4,6-Dinitro-2-methylphenol	ND	230	14			35	29	18.8	30 - 130	30	l,m
4-Bromophenyl phenyl ether	ND	230	70			69	60	14.0	30 - 130	30	
4-Chloro-3-methylphenol	ND	230	67			68	60	12.5	30 - 130	30	
4-Chloroaniline	ND	230	64			59	53	10.7	30 - 130	30	
4-Chlorophenyl phenyl ether	ND	230	65			63	56	11.8	30 - 130	30	
4-Nitroaniline	ND	230	72			64	57	11.6	30 - 130	30	
4-Nitrophenol	ND	230	67			58	51	12.8	30 - 130	30	
Acenaphthene	ND	230	65			63	57	10.0	30 - 130	30	
Acenaphthylene	ND	130	62			61	55	10.3	30 - 130	30	
Acetophenone	ND	230	52			50	46	8.3	30 - 130	30	
Aniline	ND	330	44			46	42	9.1	30 - 130	30	
Anthracene	ND	230	70			68	60	12.5	30 - 130	30	
Benz(a)anthracene	ND	230	70			63	56	11.8	30 - 130	30	
Benzidine	ND	330	13			11	<10	NC	30 - 130	30	l,m
Benzo(a)pyrene	ND	130	70			63	55	13.6	30 - 130	30	
Benzo(b)fluoranthene	ND	160	72			68	57	17.6	30 - 130	30	
Benzo(ghi)perylene	ND	230	73			69	60	14.0	30 - 130	30	
Benzo(k)fluoranthene	ND	230	71			63	59	6.6	30 - 130	30	
Benzoic Acid	ND	330	<10			<10	12	NC	30 - 130	30	l,m

QA/QC Data

SDG I.D.: GBV74467

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Benzyl butyl phthalate	ND	230	74			67	60	11.0	30 - 130	30
Bis(2-chloroethoxy)methane	ND	230	62			63	58	8.3	30 - 130	30
Bis(2-chloroethyl)ether	ND	130	48			46	43	6.7	30 - 130	30
Bis(2-chloroisopropyl)ether	ND	230	49			43	39	9.8	30 - 130	30
Bis(2-ethylhexyl)phthalate	ND	230	77			70	63	10.5	30 - 130	30
Carbazole	ND	230	74			65	59	9.7	30 - 130	30
Chrysene	ND	230	74			68	62	9.2	30 - 130	30
Dibenz(a,h)anthracene	ND	130	78			67	59	12.7	30 - 130	30
Dibenzofuran	ND	230	66			63	56	11.8	30 - 130	30
Diethyl phthalate	ND	230	73			68	59	14.2	30 - 130	30
Dimethylphthalate	ND	230	67			68	58	15.9	30 - 130	30
Di-n-butylphthalate	ND	230	77			70	62	12.1	30 - 130	30
Di-n-octylphthalate	ND	230	78			70	62	12.1	30 - 130	30
Fluoranthene	ND	230	74			66	58	12.9	30 - 130	30
Fluorene	ND	230	66			61	55	10.3	30 - 130	30
Hexachlorobenzene	ND	130	66			67	59	12.7	30 - 130	30
Hexachlorobutadiene	ND	230	53			60	54	10.5	30 - 130	30
Hexachlorocyclopentadiene	ND	230	56			57	53	7.3	30 - 130	30
Hexachloroethane	ND	130	49			48	43	11.0	30 - 130	30
Indeno(1,2,3-cd)pyrene	ND	230	73			66	59	11.2	30 - 130	30
Isophorone	ND	130	55			56	51	9.3	30 - 130	30
Naphthalene	ND	230	57			63	57	10.0	30 - 130	30
Nitrobenzene	ND	130	55			53	49	7.8	30 - 130	30
N-Nitrosodimethylamine	ND	230	50			45	41	9.3	30 - 130	30
N-Nitrosodi-n-propylamine	ND	130	63			57	52	9.2	30 - 130	30
N-Nitrosodiphenylamine	ND	130	72			68	59	14.2	30 - 130	30
Pentachloronitrobenzene	ND	230	71			64	56	13.3	30 - 130	30
Pentachlorophenol	ND	230	57			59	52	12.6	30 - 130	30
Phenanthrene	ND	130	69			67	60	11.0	30 - 130	30
Phenol	ND	230	57			63	57	10.0	30 - 130	30
Pyrene	ND	230	75			67	60	11.0	30 - 130	30
Pyridine	ND	230	40			34	32	6.1	30 - 130	30
% 2,4,6-Tribromophenol	64	%	72			70	61	13.7	30 - 130	30
% 2-Fluorobiphenyl	60	%	62			59	54	8.8	30 - 130	30
% 2-Fluorophenol	49	%	49			58	53	9.0	30 - 130	30
% Nitrobenzene-d5	60	%	57			54	49	9.7	30 - 130	30
% Phenol-d5	60	%	61			60	55	8.7	30 - 130	30
% Terphenyl-d14	70	%	73			66	58	12.9	30 - 130	30

Comment:

LCSD not reported for this batch.

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%)

QA/QC Batch 365333 (ug/Kg), QC Sample No: BV74137 2X (BV74467)

Polychlorinated Biphenyls - Soil

PCB-1016	ND	33	77	79	2.6	61	64	4.8	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	75	74	1.3	57	64	11.6	40 - 140	30
PCB-1262	ND	33							40 - 140	30

QA/QC Data

SDG I.D.: GBV74467

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
PCB-1268	ND	33							40 - 140	30	
% DCBP (Surrogate Rec)	75	%	83	87	4.7	80	86	7.2	30 - 150	30	
% TCMX (Surrogate Rec)	74	%	79	80	1.3	79	80	1.3	30 - 150	30	
QA/QC Batch 365467 (mg/Kg), QC Sample No: BV74470 (BV74467)											
TPH by GC (Extractable Products) - Soil											
Ext. Petroleum H.C.	ND	50	61	59	3.3	67	65	3.0	60 - 120	30	l
% n-Pentacosane	52	%	72	67	7.2	76	79	3.9	50 - 150	30	
Comment:											
Additional criteria: LCS acceptance range is 60-120% MS acceptance range 50-150%.											
QA/QC Batch 365655 (ug/kg), QC Sample No: BV75227 (BV74467)											
Volatiles - Soil											
1,1,1,2-Tetrachloroethane	ND	5.0	94	94	0.0	89	90	1.1	70 - 130	30	
1,1,1-Trichloroethane	ND	5.0	90	90	0.0	90	89	1.1	70 - 130	30	
1,1,2,2-Tetrachloroethane	ND	3.0	92	94	2.2	86	86	0.0	70 - 130	30	
1,1,2-Trichloroethane	ND	5.0	91	91	0.0	87	87	0.0	70 - 130	30	
1,1-Dichloroethane	ND	5.0	95	92	3.2	87	86	1.2	70 - 130	30	
1,1-Dichloroethene	ND	5.0	96	93	3.2	83	81	2.4	70 - 130	30	
1,1-Dichloropropene	ND	5.0	89	91	2.2	90	88	2.2	70 - 130	30	
1,2,3-Trichlorobenzene	ND	5.0	92	88	4.4	87	88	1.1	70 - 130	30	
1,2,3-Trichloropropane	ND	5.0	87	87	0.0	85	82	3.6	70 - 130	30	
1,2,4-Trichlorobenzene	ND	5.0	84	82	2.4	86	85	1.2	70 - 130	30	
1,2,4-Trimethylbenzene	ND	1.0	87	86	1.2	89	87	2.3	70 - 130	30	
1,2-Dibromo-3-chloropropane	ND	5.0	100	100	0.0	87	88	1.1	70 - 130	30	
1,2-Dibromoethane	ND	5.0	91	92	1.1	88	88	0.0	70 - 130	30	
1,2-Dichlorobenzene	ND	5.0	92	92	0.0	91	91	0.0	70 - 130	30	
1,2-Dichloroethane	ND	5.0	94	94	0.0	94	94	0.0	70 - 130	30	
1,2-Dichloropropane	ND	5.0	90	92	2.2	88	90	2.2	70 - 130	30	
1,3,5-Trimethylbenzene	ND	1.0	89	88	1.1	91	89	2.2	70 - 130	30	
1,3-Dichlorobenzene	ND	5.0	85	84	1.2	84	84	0.0	70 - 130	30	
1,3-Dichloropropane	ND	5.0	87	88	1.1	86	86	0.0	70 - 130	30	
1,4-Dichlorobenzene	ND	5.0	87	87	0.0	88	88	0.0	70 - 130	30	
2,2-Dichloropropane	ND	5.0	94	93	1.1	90	88	2.2	70 - 130	30	
2-Chlorotoluene	ND	5.0	91	90	1.1	89	89	0.0	70 - 130	30	
2-Hexanone	ND	25	88	92	4.4	82	81	1.2	70 - 130	30	
2-Isopropyltoluene	ND	5.0	98	97	1.0	99	96	3.1	70 - 130	30	
4-Chlorotoluene	ND	5.0	87	86	1.2	85	86	1.2	70 - 130	30	
4-Methyl-2-pentanone	ND	25	100	102	2.0	93	93	0.0	70 - 130	30	
Acetone	ND	10	83	84	1.2	82	87	5.9	70 - 130	30	
Acrylonitrile	ND	5.0	101	103	2.0	91	93	2.2	70 - 130	30	
Benzene	ND	1.0	90	90	0.0	88	86	2.3	70 - 130	30	
Bromobenzene	ND	5.0	95	94	1.1	93	90	3.3	70 - 130	30	
Bromochloromethane	ND	5.0	89	86	3.4	82	84	2.4	70 - 130	30	
Bromodichloromethane	ND	5.0	96	96	0.0	95	93	2.1	70 - 130	30	
Bromoform	ND	5.0	92	91	1.1	79	79	0.0	70 - 130	30	
Bromomethane	ND	5.0	100	98	2.0	77	83	7.5	70 - 130	30	
Carbon Disulfide	ND	5.0	115	115	0.0	103	100	3.0	70 - 130	30	
Carbon tetrachloride	ND	5.0	96	95	1.0	88	88	0.0	70 - 130	30	
Chlorobenzene	ND	5.0	90	90	0.0	90	91	1.1	70 - 130	30	
Chloroethane	ND	5.0	103	101	2.0	54	53	1.9	70 - 130	30	m
Chloroform	ND	5.0	86	86	0.0	80	79	1.3	70 - 130	30	
Chloromethane	ND	5.0	104	103	1.0	102	95	7.1	70 - 130	30	

QA/QC Data

SDG I.D.: GBV74467

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
cis-1,2-Dichloroethene	ND	5.0	95	90	5.4	87	87	0.0	70 - 130	30	
cis-1,3-Dichloropropene	ND	5.0	93	95	2.1	92	90	2.2	70 - 130	30	
Dibromochloromethane	ND	3.0	96	96	0.0	87	88	1.1	70 - 130	30	
Dibromomethane	ND	5.0	94	91	3.2	89	90	1.1	70 - 130	30	
Dichlorodifluoromethane	ND	5.0	144	143	0.7	125	122	2.4	70 - 130	30	l
Ethylbenzene	ND	1.0	89	90	1.1	91	91	0.0	70 - 130	30	
Hexachlorobutadiene	ND	5.0	92	92	0.0	95	92	3.2	70 - 130	30	
Isopropylbenzene	ND	1.0	91	91	0.0	90	89	1.1	70 - 130	30	
m&p-Xylene	ND	2.0	86	86	0.0	86	86	0.0	70 - 130	30	
Methyl ethyl ketone	ND	5.0	89	85	4.6	77	80	3.8	70 - 130	30	
Methyl t-butyl ether (MTBE)	ND	1.0	99	97	2.0	94	95	1.1	70 - 130	30	
Methylene chloride	ND	5.0	91	87	4.5	77	75	2.6	70 - 130	30	
Naphthalene	ND	5.0	97	96	1.0	85	88	3.5	70 - 130	30	
n-Butylbenzene	ND	1.0	91	89	2.2	91	90	1.1	70 - 130	30	
n-Propylbenzene	ND	1.0	89	89	0.0	88	86	2.3	70 - 130	30	
o-Xylene	ND	2.0	87	87	0.0	85	88	3.5	70 - 130	30	
p-Isopropyltoluene	ND	1.0	87	87	0.0	89	88	1.1	70 - 130	30	
sec-Butylbenzene	ND	1.0	93	94	1.1	93	91	2.2	70 - 130	30	
Styrene	ND	5.0	84	86	2.4	85	86	1.2	70 - 130	30	
tert-Butylbenzene	ND	1.0	91	92	1.1	92	90	2.2	70 - 130	30	
Tetrachloroethene	ND	5.0	92	92	0.0	95	93	2.1	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	89	92	3.3	85	84	1.2	70 - 130	30	
Toluene	ND	1.0	95	95	0.0	95	94	1.1	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	95	92	3.2	87	87	0.0	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	92	93	1.1	91	91	0.0	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	99	102	3.0	92	90	2.2	70 - 130	30	
Trichloroethene	ND	5.0	92	94	2.2	90	88	2.2	70 - 130	30	
Trichlorofluoromethane	ND	5.0	99	98	1.0	41	41	0.0	70 - 130	30	m
Trichlorotrifluoroethane	ND	5.0	106	103	2.9	95	92	3.2	70 - 130	30	
Vinyl chloride	ND	5.0	107	104	2.8	102	102	0.0	70 - 130	30	
% 1,2-dichlorobenzene-d4	93	%	102	104	1.9	100	100	0.0	70 - 130	30	
% Bromofluorobenzene	101	%	98	101	3.0	99	103	4.0	70 - 130	30	
% Dibromofluoromethane	102	%	96	102	6.1	94	96	2.1	70 - 130	30	
% Toluene-d8	92	%	103	106	2.9	104	103	1.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.
m = This parameter is outside laboratory MS/MSD 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 11, 2016

Sample Criteria Exceedances Report

GBV74467 - LOGIC-DAS

Criteria: CT: GBM, RC

State: CT

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
BV74467	$8270-SMR	Benzo(k)fluoranthene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg	1400	280	1000	1000	ug/Kg
BV74467	$8270-SMR	Benzo(b)fluoranthene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg	1700	280	1000	1000	ug/Kg
BV74467	$8270-SMR	Benzo(a)pyrene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg	1500	280	1000	1000	ug/Kg
BV74467	$8270-SMR	Benz(a)anthracene	CT / SEMIVOLATILE ORGANIC COMP / GB PMC (mg/kg	1300	280	1000	1000	ug/Kg
BV74467	$8270-SMR	Benzo(b)fluoranthene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/k	1700	280	1000	1000	ug/Kg
BV74467	$8270-SMR	Benzo(a)pyrene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/k	1500	280	1000	1000	ug/Kg
BV74467	$8270-SMR	Benz(a)anthracene	CT / SEMIVOLATILE ORGANIC COMP / RES DEC (mg/k	1300	280	1000	1000	ug/Kg

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence 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): BV74467 ***Sampling Date(s):*** 11/3/2016

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010, 7470/7471, 8082, 8260, 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?**	☑ Yes ☐ No
1A	**Were the method specified preservation and holding time requirements met?**	☑ Yes ☐ No
1B	***VPH and EPH methods only:*** **Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)**	☐ Yes ☐ No ☑ NA
2	**Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?**	☑ Yes ☐ No
3	**Were samples received at an appropriate temperature (< 6 Degrees C)?**	☑ Yes ☐ No ☐ NA
4	**Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents acheived? See Sections: ETPH Narration, ICP Narration, SVOA Narration, VOA Narration.**	☐ Yes ☑ No
5	**a) Were reporting limits specified or referenced on the chain-of-custody?** **b) Were these reporting limits met?**	☑ Yes ☐ No ☑ Yes ☐ 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?**	☑ Yes ☐ No
7	**Are project-specific matrix spikes and laboratory duplicates included in the data set?**	☐ Yes ☑ 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:** Friday, November 11, 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

NY # 11301

RCP Certification Report

November 11, 2016

SDG I.D.: GBV74467

ETPH Narration

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

QC Batch 365467 (Samples: BV74467): -----

The LCS and/or the LCSD recovery is below the method criteria. All of the other QC is acceptable, therefore no significant bias is suspected. (Ext. Petroleum H.C.)

Instrument:

AU-FID1 11/04/16-2 Jeff Bucko, Chemist 11/04/16

BV74467

The initial calibration (ETPHO05I) 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 51.6%L (20%)
The continuing calibration %D for the compound list was less than 30% except for the following compounds:None.

QC (Batch Specific):

Batch 365467 (BV74470)

BV74467

All LCS recoveries were within 60 - 120 with the following exceptions: None.
All LCSD recoveries were within 60 - 120 with the following exceptions: Ext. Petroleum H.C.(59%)
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 11/04/16 08:51 Rick Schweitzer, Chemist 11/04/16

BV74467

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 365547 (BV74464)

BV74467

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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NY # 11301

Certification Report

November 11, 2016

SDG I.D.: GBV74467

ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? No.

QC Batch 365552 (Samples: BV74467): -----

The Sample/Duplicate RPD exceeds the method criteria for one or more analytes, therefore there may be variability in the reported result. (Cadmium, Nickel)

Instrument:

ARCOS 11/07/16 11:21 Laura Kinnin, Chemist 11/07/16

BV74467

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 365552 (BV74450)

BV74467

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-ECD3 11/04/16-1 Adam Werner, Chemist 11/04/16

BV74467

The initial calibration (PC0912AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PC0912BI) 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 365333 (BV74137)

BV74467

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 365297 (Samples: BV74467): -----

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

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RCP Certification Report

November 11, 2016

SDG I.D.: GBV74467

SVOA Narration

Instrument:

CHEM25 11/03/16-1 Damien Drobinski, Chemist 11/03/16

BV74467

Initial Calibration Verification (CHEM25/SV_1024):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: 4,6-Dinitro-2-methylphenol 21% (20%), Benzoic acid 30% (20%)
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.066 (0.1), Hexachlorobenzene 0.089 (0.1)
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM25/1103_04-SV_1024):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
99% of target compounds met criteria.
The following compounds did not meet % deviation criteria: Benzoic acid 37%H (30%)
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: 2-Nitrophenol 0.075 (0.1), Hexachlorobenzene 0.091 (0.1)
The following compounds did not meet minimum response factors: None.

QC (Batch Specific):

Batch 365297 (BV74135)

BV74467

All LCS recoveries were within 30 - 130 with the following exceptions: 2,4-Dinitrophenol(<10%), 4,6-Dinitro-2-methylphenol(14%), Benzidine(13%), Benzoic Acid(<10%)
LCSD not reported for this batch.

VOA Narration

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

QC Batch 365655 (Samples: BV74467): -----

The LCS and/or the LCSD recovery is above the upper range for one or more analytes that were not reported in the sample(s), therefore no significant bias is suspected. (Dichlorodifluoromethane)

Instrument:

CHEM18 11/03/16-3 Jane Li, Chemist 11/03/16

BV74467

Initial Calibration Verification (CHEM18/VT-M1103):
98% of target compounds met criteria.
The following compounds had %RSDs >20%: Acetone 21% (20%), Methyl Ethyl Ketone 25% (20%)
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM18/1103M36-VT-M1103):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.

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NY # 11301

RCP Certification Report

November 11, 2016

SDG I.D.: GBV74467

VOA Narration

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

QC (Batch Specific):

Batch 365655 (BV75227)

BV74467

All LCS recoveries were within 70 - 130 with the following exceptions: Dichlorodifluoromethane(144%)
All LCSD recoveries were within 70 - 130 with the following exceptions: Dichlorodifluoromethane(143%)
All LCS/LCSD RPDs were less than 30% with the following exceptions: None.
Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%.

Temperature Narration

The samples were received at 6C with cooling initiated.
(Note acceptance criteria is above freezing up to 6°C)

Cooler: Yes [x] No [ ]
Coolant: IPK [ ] ICE [x] No [ ]

PHOENIX
Environmental Laboratories, Inc.

CHAIN OF CUSTODY RECORD

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Client Services (860) 645-8726

Temp 6° C Pg 1 of 1

Contact Options:
[ ] Fax:
[x] Phone: 8604027069
[x] Email: ckn@logicalenvironmental.com

Customer: Logical Environmental Solutions
Address: 354 S. River Rd.
Tolland CT 06084

Project: Fairfield Town Reclamation Yard Project P.O:
Report to: Cindy Knight
Invoice to: Town of Fairfield - DAS Contract
725 Old Post Rd. - Fairfield CT
email: JMichelangelo@fairfieldct.org

This section MUST be completed with Bottle Quantities.

Client Sample - Information - Identification

Sampler's Signature: [signature] Date: 11/3/16

Matrix Code:
DW=Drinking Water **GW**=Ground Water **SW**=Surface Water **WW**=Waste Water
RW=Raw Water **SE**=Sediment **SL**=Sludge **S**=Soil **SD**=Solid **W**=Wipe
OIL=Oil **B**=Bulk **L**=Liquid

Analysis Request

PHOENIX USE ONLY SAMPLE #	Customer Sample Identification	Sample Matrix	Date Sampled	Time Sampled	VOCs 8260	SVOCs 8270	CT ETPH	PCBs 8082	TCLP DEEP 15 Metals	Soil VOA Vials [ ] methanol [2] H2O	GL Soil container (8) oz	GL Soil container ( ) oz	40 ml VOA Vial [ ] As is [ ] HCl	GL Amber 1000ml [ ] As is [ ] H2SO4	PL As is [ ] 250ml [ ] 500ml [ ] 1000ml	PL H2SO4 [ ] 250ml [ ] 500ml	PL HNO3 250ml	PL NaOH 250ml	Bacteria Bottle
74467	S-6	S	11/3/16	7:40am	x	x	x	x	x		1/2	1							

Relinquished by:	Accepted by:	Date:	Time:
[signature]	[signature]	11-3-16	1315

Comments, Special Requirements or Regulations:

Turnaround:
[ ] 1 Day*
[ ] 2 Days*
[ ] 3 Days*
[x] Standard
[ ] Other
* SURCHARGE APPLIES

RI
[ ] Direct Exposure (Residential)
[ ] GW
[ ] Other

CT
[x] RCP Cert
[ ] GW Protection
[ ] SW Protection
[ ] GA Mobility
[x] GB Mobility
[x] Residential DEC
[ ] I/C DEC
[ ] Other

MA
[ ] MCP Certification
[ ] GW-1
[ ] GW-2
[ ] GW-3
[ ] S-1
[ ] S-2
[ ] S-3
[ ] MWRA eSMART
[ ] Other

State where samples were collected: CT

Data Format
[ ] Excel
[x] PDF
[ ] GIS/Key
[ ] EQuIS
[ ] Other

Data Package
[ ] Tier II Checklist
[ ] Full Data Package*
[x] Phoenix Std Report
[ ] Other
* SURCHARGE APPLIES