ZUVIC · CARR
AND ASSOCIATES
CONSULTING ENGINEERS

Technical Memorandum

To: Capital Region Development Authority (CRDA), Mr. Robert Saint

From: Zuvic, Carr and Associates, Inc. (Zuvic Carr)
Victoria L. Man, LEP, Director of Environmental Services

Date: May 31, 2019

Project: No. 1885-06

Subject: Environmental and Geotechnical Subsurface Investigation
Riverside Drive Storm Sewer Outlet, East Hartford, CT

On behalf of CRDA, Zuvic, Carr and Associates, Inc. (Zuvic Carr) completed an evaluation of subsurface conditions along the alignment of the proposed storm sewer and drainage system at 125 Riverside Drive (the "Site"). The work was conducted to evaluate the environmental quality of soil in the project area, and to provide information to contractors pertinent to design of shoring systems.

On May 22, 2019 two soil borings (SB1 and SB2) were advanced to 32 feet below ground surface (fbg) and one soil boring (SB3) was advanced to 52 fbg. Borings were located along the proposed alignment of the drainage system at locations shown on the attached figure.

Prior to drilling activities, the boring locations were marked on the ground by Zuvic Carr personnel, and underground utilities were marked out by a public utility-locating service (Call Before You Dig, Ticket No. 20192003751).

Cisco Geotechnical, LLC of Glastonbury, CT was contracted to conduct drilling operations using a skid steer mounted Geoprobe™ Model 3230DT-2. Borings were advanced using drive and wash and open-hole drilling techniques with the boreholes stabilized using drilling mud. Semi-continuous soil samples were collected from borings SB1 and SB2 to twenty fbg, using a 24-inch long, 2-inch diameter split spoon. Below 20 ft., one sample was collected for every 5 ft. drilled to a total depth of 32 fbg. Samples were collected semi-continuously to 10 fbg from SB3, then one sample was collected for every 5 feet drilled to a total depth of 52 fbg.

The Test Boring Logs are attached.

Fill material encountered in the borings consisted of orange brown to brown fine sand with trace asphalt and black fine gravel at depths ranging from 0.5 to 8.7 fbg. Below the fill, native fluvial

deposits consisted of yellow brown sand extending as deep as 20 fbg. Below the sand, soft grey silty varved clay was encountered at depths as shallow as 17.5 fbg to the bottom of the borings. During drilling and soil sampling, stained, discolored and/or odorous soil was not encountered.

Samples of fill and fluvial deposits were screened in the field using a photoionization detector (PID). The PID screening results ranged from 0.7 to 8.4 vapor parts per million (vppm).

One soil sample from each boring was selected for laboratory analyses based upon the PID results and tested for the following: volatile organic compounds (VOCs) by EPA Method 8260, semi-volatile organic compounds (SVOCs) by EPA Method 8270, extractable total petroleum hydrocarbons (ETPH) by the Connecticut ETPH Method, polychlorinated biphenyls (PCBs) by EPA Method 8082, total mass 8 RCRA metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver), corrosivity (pH), reactivity, conductivity, ignitability (flashpoint) and paint filter test (for free draining liquids). The soil samples were submitted to Complete Environmental Testing, Inc. of Stratford, Connecticut, a CT certified laboratory, under proper chain-of-custody procedures. A copy of the laboratory analytical report, including the chain-of-custody, is attached.

Based on our review of the analytical results, VOCs, SVOCs, ETPH and PCBs were not detected in the samples and the metals and conductivity concentrations were within the ranges of naturally-occurring levels present in uncontaminated soil. The results of the corrosivity, reactivity and flashpoint testing indicate that the soil would not be characterized as a hazardous waste upon its generation. Free liquids were not present in the samples.

GNCB Consulting Engineers, P.C. (GNCB) reviewed the samples for geotechnical purposes on May 22 and 23, 2019 and submitted selected samples to Geo Testing Express of Acton, Massachusetts to confirm field identification and establish engineering characteristics. The GNCB report is attached.

Attachments: Site Layout Plan, SP-1
Soil Boring Logs
Laboratory Analytical Results
GNCB Subsurface Data Report, Riverside Drive Outfall, 125 Riverside Drive, East Hartford, CT

RIVERSIDE DRIVE

INSTALL BIT. CURB

INSTALL GRANITE CURB

INSTALL CONCRETE RAMP

REMOVE EXISTING BULKHEAD

11' OF 36" RCP @ S=0.4%

INSTALL BIT. CONC. PAVEMENT (TYP.)

189' of 54" RCP @ 0.50%

INSTALL 50LF~15" RCP; S=2.0%

INSTALL GRANITE CURB (TYP.)

256' of 36" RCP @ 0.50%

DMH 101
7'X7' CONCRETE VAULT
W/4' DIA. MH ACCESS
TF: 38.8± (MATCH EX.)
54"INV.IN: 18.55
54"INV.OUT: 18.55

DMH 102
7' DIA. W/RED. TO 4' DIA.
TF: 37.00
36"INV.IN(E): 19.55±
36"INV.IN(S): 24.30
15"INV.IN(W): 29.75
54"INV.OUT(N): 19.50

PROP.15"INV.OUT(E): 30.75

DMH 103
6' DIA. W/RED. TO 4' DIA.
TF: 37.95± MATCH EX.
36"INV.IN(E): 25.50
36"INV.OUT(N): 25.50

INSTALL (PREVIOUSLY SALVAGED) EMERGENCY PHONE TOWER

200' WATERCOURSE BUFFER 4/29/05

200' of 54" RCP @ 0.50%

500-YEAR FLOOD LIMIT

100-YEAR FLOOD LIMIT/ LIMIT OF FLOODWAY

INSTALL DECORATIVE FENCE

CHANNEL ENCROACHMENT LINE

33' WIDE SEWER AND DRAINAGE RIGHT OF WAY IN FAVOR OF THE TOWN OF EAST HARTFORD - SEE NOTE #7

EXISTING BUILDING 125 RIVERSIDE DRIVE

EXISTING BUILDING 133 RIVERSIDE DRIVE

EXISTING ONE STORY WOOD FRAME BUILDING F.F.=40.0 BSMT. EL.=29.0

20' R.O.W. UNITED AIRCRAFT (PRATT & WHITNEY)

N/F CANOE CLUB

BITUMINOUS PARKING AREA

BITUMINOUS AREA

PAVER PATIO

OUTDOOR BAR

WOOD DECK

WASTE WATER PUMP

CONC. STEPS

CONC. DUMPSTER PAD

CONC. WALK

CONC. RAMP

CONC. LANDING

PAVERS

STONE PAD

STONE DUST WALK

EXISTING ACCESS ROAD (UNPAVED)

BITUMINOUS DRIVE

APPROX. LIMIT OF FEMA FLOODWAY

APPROX. LIMIT OF INLAND WETLANDS (NOT FIELD-VERIFIED)

LIMIT OF INLAND WETLAND (STATE DEFINITION) AS FLAGGED ON 4/19/16 BY REMA ECOLOGICAL SERVICES

LIMITS OF INLAND WETLAND (FEDERAL DEFINITION) DATED 11/22/10

LIMITS OF INLAND WETLAND (STATE DEFINITION) DATED 11/22/10

LIMITS OF INLAND WETLAND (FEDERAL DEFINITION) DATED 8/3/12 BY GEI

Wood Ballard (Typical)

Flag Pole

WATER SERVICE PIPES, WASTE WATER PIPES & ELECTRIC LINES

CONCRETE ENDWALL
72" FL: 5.20

TYPE-A INTERMEDIATE RIP RAP APRON
Lo=28'; W2=38'

SEE SHEET SP-4 FOR ENLARGED PLAN VIEW OF THE OUTFALL

CONNECTICUT RIVER

MHW = 3.2'

MLW = 1.3'

CULT/HTL = 4.7'

OUTLET ELEVATION UNKNOWN

WOOD PIER

FLOW

SB1 SB2 SB3

WL A1 WL A2 WL A3 WL A4 WL A5

WF-A9 WF-A10 WF-A11

RES-A1 RES-A2 RES-A3 RES-A4

AC-RES-1 AC-RES-2 AC-RES-3 AC-RES-4

LEGEND:

SB1 LOCATION AND DESIGNATION OF SOIL BORING

TIDAL DATUM PLANE

4.7' — HIGH TIDE LINE (HTL) & COASTAL JURISDICTION LINE (CJL) = EL +4.7'

3.2' — MEAN HIGH WATER (MHW) = EL +3.2'

1.3' — MEAN LOW WATER (MLW) = EL 1.3'

NGVD 29 = EL 0.0'

NOTE:
THE EXISTING TOPOGRAPHY IS BASED ON NGVD 29 DATUM. THE 100-YEAR AND 500-YEAR FLOOD LIMITS PROVIDED BY FEMA FLOOD INSURANCE RATE MAPS (FIRM) DATED SEPTEMBER 16, 2011 ARE BASED ON NAVD 88 DATUM. THE 100-YEAR AND 500-YEAR FLOOD ELEVATIONS DEPICTED ON THIS PLAN HAVE BEEN CONVERTED TO NGVD 29 BY APPLYING THE CONVERSION FACTOR OF +0.84 FEET. (EXAMPLE: EL. 29.0 (NAVD 88) + 0.84 = 29.84 (NGVD 29))

NOTES:

THE DEVELOPER SHALL NOTIFY THE TOWN OF EAST HARTFORD ENGINEERING DIVISION 24 HOURS PRIOR TO BEGINNING ANY STORM DRAINAGE, ROADWAY PREPARATION, PAVING, SIDEWALK, CURBING, STREET LINE MONUMENTATION, PROPERTY CORNER PINS, ETC., TO SCHEDULE INSPECTIONS. THE DIVISION CAN BE REACHED BETWEEN 8:30 A.M. - 4:30 P.M. AT 860-291-7380.

THE TOWN SHALL BE NOTIFIED IN WRITING AT LEAST 2 DAYS IN ADVANCE OF THE PRE-CONSTRUCTION MEETING BETWEEN THE CONTRACTOR AND THE ENGINEER.

1 **PLAN VIEW**
SCALE: 1"=20'

20 0 10 20 40
SCALE: 1" = 20'

REV. NO.	DATE	DRWN	CHKD	REMARKS
	6-7-17	KMI	GBS	ADDRESS TOWN STAFF COMMENTS

PROJECT NO.: 1885
DESIGNED BY: GBS
DRAWN BY: LMP
SHEET CHK'D BY: VLM
CROSS CHK'D BY: VLM
APPROVED BY:
DATE: MAY 28, 2019

PREPARED FOR:
GOODWIN COLLEGE
ONE RIVERSIDE DRIVE
EAST HARTFORD, CONNECTICUT

PREPARED BY:
ZUVIC-CARR AND ASSOCIATES CONSULTING ENGINEERS
40 Cold Spring Road • Rocky Hill, CT 06067
Phone 860.436.4901 • Fax 860.436.4953

RIVERSIDE DRIVE OUTFALL

125 RIVERSIDE DRIVE
EAST HARTFORD, CONNECTICUT

SITE LAYOUT PLAN

SHEET NO.
SP-1

FILE PATH: H:\Projects\Goodwin College\1885 - Riverside Drive Outfall\AutoCAD\EN\1885- Site Plan.dwg PLOT DATE: 5/30/2019 PLOT TIME: 10:10 PM

ZUVIC · CARR AND ASSOCIATES CONSULTING ENGINEERS

BORING NUMBER SB1

CLIENT Capital Region Development Authority
PROJECT NAME Subsurface Geotechnical and Environmental Investigation
PROJECT NUMBER 1885-06
PROJECT LOCATION 125 Riverside Drive, East Hartford
DATE STARTED 5/22/19 **COMPLETED** 5/22/19
GROUND ELEVATION Approx. 37 **HOLE SIZE** 2.5"
DRILLING CONTRACTOR Cisco Geotechnical, LLC
GROUND WATER LEVELS:
DRILLING METHOD Rotary Mud
▽ **AT TIME OF DRILLING** 10.00 ft All depths and elevations are approx.
LOGGED BY LMP **CHECKED BY** SB/ VLM
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (in.)	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0							
	SS 0-2	12	8-7-5-5 (12)	SP		0.5 (SP) Topsoil (dark brown medium SAND) and organics 1.0 ASPHALT, some gravel, trace dark brown medium sand	PID = 2.4
				SP		2.0 (SP) Brown fine to medium SAND	
	SS 2-4	14	3-2-2-1 (4)	SM		(SM) Brown silty fine SAND	PID = 4.6
5						5.0	
	SS 5-7	22	7-7-7-6 (14)	SW		(SW) Yellow brown fine to coarse SAND, moist 6.5	PID = 2.6
				GP		6.7 (GP) Black fine GRAVEL, tr yellow brown medium to coarse sand	
	SS 7-9	17	5-4-3-3 (7)	SW		(SW) Yellow brown fine to medium SAND, trace silt, moist 8.5	PID = 4
				GP		8.7 (GP) Black fine GRAVEL, tr yellow brown medium to coarse sand	
10				SW		-FILL- 10.0 (SW) Yellow brown fine to coarse SAND, moist	
	SS 10-12	8	5-6-5-5 (11)			(SW) Yellow brown fine to coarse SAND, trace silt, wet	PID = 1.3
	SS 12-14	10	5-5-5-5 (10)	SW			PID = 4
15							
	SS 15-17	11	5-5-4-4 (9)				PID = 4.7
	SS 17-19	20	3-4-3-2 (7)			-FLUVIAL DEPOSIT- 17.5 (CH) Soft yellow grey silty CLAY	PID = 8.4
20				CH		20.0	
	SS 20-22	24	1-0-1-1 (1)			(CH) Very soft alternating layers of grey silty CLAY (1/2 in. thick) and very thin layers of reddish fine sand and silt (varved clay) Moisture Content 42.8%	
25							
	SS 25-27	24	1-0-0-1 (0)	CH			
30							
	SS 30-32	24	1-0-0-1 (0)			-GLACIOLACUSTRINE DEPOSIT- 32.0	

Bottom of borehole at 32.0 feet.

ZUVIC · CARR AND ASSOCIATES CONSULTING ENGINEERS

BORING NUMBER SB2

CLIENT Capital Region Development Authority
PROJECT NAME Subsurface Geotechnical and Environmental Investigation
PROJECT NUMBER 1885-06
PROJECT LOCATION 125 Riverside Drive, East Hartford
DATE STARTED 5/22/19 **COMPLETED** 5/22/19
GROUND ELEVATION Approx. 38 **HOLE SIZE** 2.5"
DRILLING CONTRACTOR Cisco Geotechnical, LLC
GROUND WATER LEVELS:
DRILLING METHOD Rotary Mud
▽ **AT TIME OF DRILLING** 12.00 ft All depths and elevations are approx
LOGGED BY LMP **CHECKED BY** SB/ VLM
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (in.)	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0						0.2 Degraded ASPHALT and dark brown fine sand, some gravel	
	SS 0-2	14	12-5-3-3 (8)	SP		(SP) Orange brown fine to medium SAND 1.5 -FILL-	PID = 1.8
				SP		2.0 (SP) Yellow brown fine to medium SAND	
	SS 2-4	11	7-5-4-5 (9)	SP		(SP) Yellow brown fine to medium SAND, some orange mottling	PID = 2.1
5						5.0 (SP) Dark yellow brown fine SAND, little medium sand, trace coarse sand and silt	
	SS 5-7	15	5-4-5-5 (9)	SP		6.5	PID = 0.8
				SP		7.0 (SP) Yellow brown fine to medium SAND, some bands of orange mottling	
	SS 7-9	13	5-8-9-6 (17)	SP		8.0 (SP) Dark yellow brown fine to medium SAND, trace coarse sand	PID = 1.9
				SP		(SP) Dark yellow brown fine to medium SAND, some bands of orange mottling	
10						10.0 (SW) Dark yellow brown fine to coarse SAND, trace gravel, wet at 12'	
	SS 10-12	8	5-4-7-6 (11)			▽	PID = 1.5
	SS 12-14	12	5-5-4-5 (9)	SW			PID = 1.7
15							
	SS 15-17	12	5-5-5-5 (10)				PID = 3.2
	SS 17-19	15	4-4-3-3 (7)			18.0 -FLUVIAL DEPOSIT-	PID = 1.5
				CH		(CH) Grey brown to grey silty clay (dessicated)	
20						20.0	
	SS 20-22	14	1-1-2-1 (3)	CH		20.5 (CH) Yellow brown silty clay (dessicated) (CH) Very soft alternating layers of grey silty CLAY (1/2 in. thick) and very thin layers of red brown silt (varved clay)	
25						Moisture Content = 45.5%	
	SS 25-27	24	1-0-0-2 (0)	CH			
30						Moisture Content = 49.8%	
	SS 30-32	24	1-0-0-2 (0)			32.0 -GLACIOLACUSTRINE DEPOSIT-	

Bottom of borehole at 32.0 feet.

ZUVIC · CARR AND ASSOCIATES CONSULTING ENGINEERS

BORING NUMBER SB3

CLIENT Capital Region Development Authority
PROJECT NAME Subsurface Geotechnical and Environmental Investigation
PROJECT NUMBER 1885-06
PROJECT LOCATION 125 Riverside Drive, East Hartford
DATE STARTED 5/22/19 **COMPLETED** 5/22/19
GROUND ELEVATION Approx. 38 **HOLE SIZE** 2.5"
DRILLING CONTRACTOR Cisco Geotechnical, LLC
GROUND WATER LEVELS:
DRILLING METHOD Rotary Mud
▽ **AT TIME OF DRILLING** 12.00 ft All depths and elevations are approx
LOGGED BY LMP **CHECKED BY** SB/ VLM
AT END OF DRILLING ---
NOTES
AFTER DRILLING ---

DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (in.)	BLOW COUNTS (N VALUE)	U.S.C.S.	GRAPHIC LOG	MATERIAL DESCRIPTION	Environmental Data
0						0.5 ASPHALT (fine to coarse gravel), trace brown fine sand. -FILL-	
	SS 0-2	12	8-5-3-4 (8)	SP		2.0 (SP) Yellow brown fine to medium SAND	PID = 2.2
	SS 2-4	20	3-3-4-3 (7)	SP		(SP) Yellow brown fine to medium SAND. Trace gravel at 2.5'	PID = 1.3
						5.0	
	SS 5-7	14	5-4-4-6 (8)	SP		(SP) Yellow brown fine to medium SAND	PID = 2.3
	SS 7-9	16	7-6-5-6 (11)	SP		7.0 (SP) Yellow brown fine to medium SAND, orange mottling	PID = 1.9
10						8.5 (SW) Yellow brown fine to medium SAND, trace silt, wet at 12'	
	SS 10-12	12	7-7-6-6 (13)	SW		▽	PID = 1.3
						15.0	
	SS 15-17	13	5-4-4-3 (8)	SW		(SW) Yellow brown fine to medium SAND, trace gravel and coarse sand	PID = 3.8
20						-FLUVIAL DEPOSIT- 20.0	
	SS 20-22	21	1-0-0-0 (0)			(CH) Very soft alternating layers of grey silty CLAY (1/2 in. thick) and very thin layers of red brown silt (varved clay) Moisture Content = 23.2%, LL = 37%; PL = 24%; PI = 13%	PID = 0.7
	SS 25-27	24	1-0-0-2 (0)				
30							
	SS 30-32	18	1-0-0-2 (0)				
	SS 35-37	24	1-0-0-2 (0)	CH		Moisture Content = 56.0%, LL = 54%; PL = 25%; PI = 29%	
40							
	SS 40-42	24	1-0-0-2 (0)				
	SS 45-47	24	1-0-0-3 (0)				
50						-GLACIOLACUSTRINE DEPOSIT-	
	SS 50-52	24	0-1-0-2 (1)			52.0	

Bottom of borehole at 52.0 feet.

80 Lupes Drive
Stratford, CT 06615

Tel: (203) 377-9984
Fax: (203) 377-9952
e-mail: cet1@cetlabs.com

Client: Ms. Tory Man
Zuvic-Carr and Associates, Inc
40 Cold Spring Road
Rocky Hill, CT 06067

Analytical Report

CET# 9050701

Report Date:May 28, 2019
Project: 125 Riverside Dr, E Hartford
Project Number: 1885-06, Waste Characterization

Connecticut Laboratory Certificate: PH 0116
Massachusetts Laboratory Certificate: M-CT903
Rhode Island Laboratory Certificate: 199

New York NELAP Accreditation: 11982
Pennsylvania Laboratory Certificate: 68-02927

SAMPLE SUMMARY

The sample(s) were received at 5.0°C.

This report contains analytical data associated with following samples only.

Sample ID	Laboratory ID	Matrix	Collection Date/Time	Receipt Date
SB1 17-19ft	9050701-01	Soil	5/22/2019 13:30	05/23/2019
SB2 15-17ft	9050701-02	Soil	5/22/2019 11:40	05/23/2019
SB3 15-17ft	9050701-03	Soil	5/22/2019 9:10	05/23/2019

Analyte: Percent Solids [SM 2540 G]

Analyst: RAJ

Matrix: Soil

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
9050701-01	SB1 17-19ft	68	1.0	%	1	B9E2402	05/24/2019	05/24/2019 11:47	
9050701-02	SB2 15-17ft	78	1.0	%	1	B9E2402	05/24/2019	05/24/2019 11:47	
9050701-03	SB3 15-17ft	81	1.0	%	1	B9E2402	05/24/2019	05/24/2019 11:47	

Analyte: Flashpoint [EPA 1010A]

Analyst: MTL

Matrix: Soil

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
9050701-01	SB1 17-19ft	>200 F	NA	°F	1	B9E2807	05/28/2019	05/28/2019 15:17	
9050701-02	SB2 15-17ft	>200 F	NA	°F	1	B9E2807	05/28/2019	05/28/2019 15:17	
9050701-03	SB3 15-17ft	>200 F	NA	°F	1	B9E2807	05/28/2019	05/28/2019 15:17	

Analyte: Reactive Sulfide [SW 846 Ch. 7]

Analyst: MLG

Matrix: Soil

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
9050701-01	SB1 17-19ft	ND	29	mg/kg dry	1	B9E2833	05/28/2019	05/28/2019 15:44	
9050701-02	SB2 15-17ft	ND	26	mg/kg dry	1	B9E2833	05/28/2019	05/28/2019 15:44	
9050701-03	SB3 15-17ft	ND	25	mg/kg dry	1	B9E2833	05/28/2019	05/28/2019 15:44	

Analyte: Reactive Cyanide [SW 846 Ch. 7]

Analyst: MLG

Matrix: Soil

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
9050701-01	SB1 17-19ft	ND	7.3	mg/kg dry	1	B9E2832	05/28/2019	05/28/2019 15:43	
9050701-02	SB2 15-17ft	ND	6.4	mg/kg dry	1	B9E2832	05/28/2019	05/28/2019 15:43	
9050701-03	SB3 15-17ft	ND	6.2	mg/kg dry	1	B9E2832	05/28/2019	05/28/2019 15:43	

Analyte: pH [EPA 9045D]

Analyst: DRH

Matrix: Soil

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
9050701-01	SB1 17-19ft	7.33 @20.9°C	NA	pH Units	1	B9E2818	05/24/2019	05/24/2019 16:09	
9050701-02	SB2 15-17ft	6.94 @21.1°C	NA	pH Units	1	B9E2818	05/24/2019	05/24/2019 16:12	
9050701-03	SB3 15-17ft	7.25 @20.9°C	NA	pH Units	1	B9E2818	05/24/2019	05/24/2019 16:15	

Analyte: Paint Filter Test [EPA 9095B]

Analyst: LMW

Matrix: Soil

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
9050701-01	SB1 17-19ft	No Free Liquid	1.0	units	1	B9E2347	05/23/2019	05/23/2019 16:52	
9050701-02	SB2 15-17ft	No Free Liquid	1.0	units	1	B9E2347	05/23/2019	05/23/2019 16:52	
9050701-03	SB3 15-17ft	No Free Liquid	1.0	units	1	B9E2347	05/23/2019	05/23/2019 16:52	

Analyte: Conductivity [SM 2510 B Mod.]

Analyst: LMW

Matrix: Soil

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
9050701-01	SB1 17-19ft	320	2.0	umhos/cm	1	B9E2438	05/24/2019	05/24/2019 12:29	
9050701-02	SB2 15-17ft	470	2.0	umhos/cm	1	B9E2438	05/24/2019	05/24/2019 12:29	
9050701-03	SB3 15-17ft	560	2.0	umhos/cm	1	B9E2438	05/24/2019	05/24/2019 12:29	

Analyte: Mercury [EPA 7471B]

Analyst: PJB

Matrix: Soil

Laboratory ID	Client Sample ID	Result	RL	Units	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
9050701-01	SB1 17-19ft	ND	0.091	mg/kg dry	1	B9E2412	05/24/2019	05/24/2019 15:34	
9050701-02	SB2 15-17ft	ND	0.080	mg/kg dry	1	B9E2412	05/24/2019	05/24/2019 15:36	
9050701-03	SB3 15-17ft	ND	0.15	mg/kg dry	1	B9E2412	05/24/2019	05/24/2019 15:38	

Client Sample ID SB1 17-19ft

Lab ID: 9050701-01

Total Metals **Analyst: SS**

Method: EPA 6010C **Matrix: Soil**

Analyte	Result (mg/kg dry)	RL (mg/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
Lead	**5.3**	2.9	1	EPA 3051A	B9E2430	05/24/2019	05/24/2019 21:49	
Selenium	**2.9**	1.5	1	EPA 3051A	B9E2430	05/24/2019	05/24/2019 21:49	
Cadmium	ND	0.73	1	EPA 3051A	B9E2430	05/24/2019	05/24/2019 21:49	
Chromium	**16**	2.9	1	EPA 3051A	B9E2430	05/24/2019	05/24/2019 21:49	
Arsenic	**2.6**	1.5	1	EPA 3051A	B9E2430	05/24/2019	05/24/2019 21:49	
Barium	**66**	2.9	1	EPA 3051A	B9E2430	05/24/2019	05/24/2019 21:49	
Silver	ND	2.9	1	EPA 3051A	B9E2430	05/24/2019	05/24/2019 21:49	

Conn. Extractable TPH **Analyst: KER**

Method: CT-ETPH **Matrix: Soil**

Analyte	Result (mg/kg dry)	RL (mg/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
ETPH	ND	73	1	EPA 3550C	B9E2351	05/23/2019	05/25/2019 18:52	
Surrogate: Octacosane	*83.5 %*	*50 - 150*			B9E2351	05/23/2019	*05/25/2019 18:52*	

PCBs by ASE **Analyst: JRO**

Method: EPA 8082A **Matrix: Soil**

Analyte	Result (mg/kg dry)	RL (mg/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
PCB-1016	ND	0.14	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 18:33	
PCB-1221	ND	0.14	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 18:33	
PCB-1232	ND	0.14	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 18:33	
PCB-1242	ND	0.14	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 18:33	
PCB-1248	ND	0.14	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 18:33	
PCB-1254	ND	0.14	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 18:33	
PCB-1260	ND	0.14	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 18:33	

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Lab ID: 9050701-01

PCBs by ASE **Analyst: JRO**

Method: EPA 8082A **Matrix: Soil**

Analyte	Result (mg/kg dry)	RL (mg/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
PCB-1268	ND	0.14	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 18:33	
PCB-1262	ND	0.14	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 18:33	
Surrogate: TCMX [1C]	*96.3 %*	*30 - 150*			B9E2419	05/24/2019	*05/24/2019 18:33*	
Surrogate: TCMX [2C]	*99.5 %*	*30 - 150*			B9E2419	05/24/2019	*05/24/2019 18:33*	
Surrogate: DCB [1C]	*74.3 %*	*30 - 150*			B9E2419	05/24/2019	*05/24/2019 18:33*	
Surrogate: DCB [2C]	*81.5 %*	*30 - 150*			B9E2419	05/24/2019	*05/24/2019 18:33*	

Semivolatile Organics **Analyst: EAS**

Method: EPA 8270D **Matrix: Soil**

Analyte	Result (ug/kg dry)	RL (ug/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
Phenol	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
1,3-Dichlorobenzene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
n-Nitroso-di-n-propylamine	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Pyridine	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
n-Nitroso-dimethylamine	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
bis(2-Chloroethyl)ether	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Aniline	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
2-Chlorophenol	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
1,4-Dichlorobenzene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Benzyl Alcohol	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
1,2-Dichlorobenzene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
bis(2-Chloroisopropyl)ether	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Hexachloroethane	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
2-Methyl Phenol	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
3+4 Methyl Phenol	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Naphthalene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
2-Nitrophenol	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
2,4-Dichlorophenol	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Hexachlorobutadiene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
4-Chloro-3-methylphenol	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	

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Lab ID: 9050701-01

Semivolatile Organics

Analyst: EAS

Method: EPA 8270D

Matrix: Soil

Analyte	Result (ug/kg dry)	RL (ug/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
Nitrobenzene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Isophorone	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
2,4-Dimethylphenol	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
bis(2-Chloroethoxy)methane	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Benzoic Acid	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
1,2,4-Trichlorobenzene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
2,6-Dichlorophenol	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
4-Chloroaniline	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	*I
1,2,4,5-Tetrachlorobenzene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
2-Methyl Naphthalene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Acenaphthylene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Acenaphthene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Dibenzofuran	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Fluorene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Hexachlorocyclopentadiene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
2,4,6-Trichlorophenol	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
2,4,5-Trichlorophenol	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
2,4-Dinitrophenol	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
4-Nitrophenol	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
2-Chloronaphthalene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
2-Nitroaniline	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Dimethylphthalate	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
2,6-Dinitrotoluene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
4-Nitroaniline	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
2,4-Dinitrotoluene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
2,3,4,6-Tetrachlorophenol	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
4-Chlorophenyl-phenylether	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Diethylphthalate	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Phenanthrene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Anthracene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Carbazole	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	*I
Fluoranthene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Pyrene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	

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Lab ID: 9050701-01

Semivolatile Organics

Analyst: EAS

Method: EPA 8270D

Matrix: Soil

Analyte	Result (ug/kg dry)	RL (ug/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
n-Nitrosodiphenylamine	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	*C1
Pentachlorophenol	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
3-Nitroaniline	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
4,6-Dinitro-2-methylphenol	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
1,2-Diphenylhydrazine	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
4-Bromophenyl-phenylether	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Hexachlorobenzene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Di-n-butylphthalate	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Pentachloronitrobenzene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Benzo[a]anthracene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Chrysene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Butylbenzylphthalate	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
3,3-Dichlorobenzidine	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
bis(2-Ethylhexyl)phthalate	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Di-n-octylphthalate	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Benzo[b]fluoranthene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Benzo[k]fluoranthene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Benzo[a]pyrene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Indeno[1,2,3-cd]pyrene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Dibenz[a,h]anthracene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Benzo[g,h,i]perylene	ND	440	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:05	
Surrogate: 2-Fluorophenol	*57.2 %*	*30 - 130*			B9E2333	05/23/2019	*05/24/2019 20:05*	
Surrogate: Phenol-d6	*58.0 %*	*30 - 130*			B9E2333	05/23/2019	*05/24/2019 20:05*	
Surrogate: Nitrobenzene-d5	*59.2 %*	*30 - 130*			B9E2333	05/23/2019	*05/24/2019 20:05*	
Surrogate: 2-Fluorobiphenyl	*57.6 %*	*30 - 130*			B9E2333	05/23/2019	*05/24/2019 20:05*	
Surrogate: 2,4,6-Tribromophenol	*67.2 %*	*30 - 130*			B9E2333	05/23/2019	*05/24/2019 20:05*	
Surrogate: Terphenyl-d14	*62.6 %*	*30 - 130*			B9E2333	05/23/2019	*05/24/2019 20:05*	

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Lab ID: 9050701-01

Volatile Organics **Analyst: ALM**

Method: EPA 8260C **Matrix: Soil**

Analyte	Result (ug/kg dry)	RL (ug/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
Dichlorodifluoromethane	ND	13	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	*I
Chloromethane	ND	8.5	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	*I
Vinyl Chloride	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	*I
Bromomethane	ND	8.5	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Chloroethane	ND	8.5	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Trichlorofluoromethane	ND	34	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Acetone	ND	130	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	*C1
Acrylonitrile	ND	6.8	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Trichlorotrifluoroethane	ND	34	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
1,1-Dichloroethene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Methylene Chloride	ND	51	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Carbon Disulfide	ND	8.5	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Methyl-t-Butyl Ether (MTBE)	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
trans-1,2-Dichloroethene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
1,1-Dichloroethane	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
2-Butanone (MEK)	ND	21	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
2,2-Dichloropropane	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
cis-1,2-Dichloroethene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Bromochloromethane	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Chloroform	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Tetrahydrofuran	ND	21	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	*I
1,1,1-Trichloroethane	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Carbon Tetrachloride	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
1,1-Dichloropropene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Benzene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
1,2-Dichloroethane	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Trichloroethene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
1,2-Dichloropropane	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Dibromomethane	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Bromodichloromethane	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Methyl Isobutyl Ketone	ND	21	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
cis-1,3-Dichloropropene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Toluene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	

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Lab ID: 9050701-01

Volatile Organics **Analyst: ALM**

Method: EPA 8260C **Matrix: Soil**

Analyte	Result (ug/kg dry)	RL (ug/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
trans-1,3-Dichloropropene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
2-Hexanone	ND	21	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
1,1,2-Trichloroethane	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Tetrachloroethene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
1,3-Dichloropropane	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Dibromochloromethane	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
1,2-Dibromoethane	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
trans-1,4-Dichloro-2-Butene	ND	21	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Chlorobenzene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
1,1,1,2-Tetrachloroethane	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Ethylbenzene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
m+p Xylenes	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
o-Xylene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Styrene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Bromoform	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Isopropylbenzene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
1,1,2,2-Tetrachloroethane	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Bromobenzene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
1,2,3-Trichloropropane	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
n-Propylbenzene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
2-Chlorotoluene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
4-Chlorotoluene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
1,3,5-Trimethylbenzene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
tert-Butylbenzene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
1,2,4-Trimethylbenzene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
sec-Butylbenzene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
1,3-Dichlorobenzene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
4-Isopropyltoluene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
1,4-Dichlorobenzene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
1,2-Dichlorobenzene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
n-Butylbenzene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
1,2-Dibromo-3-Chloropropane	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
1,2,4-Trichlorobenzene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	

Client Sample ID SB1 17-19ft

Lab ID: 9050701-01

Volatile Organics **Analyst: ALM**

Method: EPA 8260C **Matrix: Soil**

Analyte	Result (ug/kg dry)	RL (ug/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorobutadiene	ND	4.2	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	*C2
Naphthalene	ND	8.5	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
1,2,3-Trichlorobenzene	ND	8.5	1.16	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 16:52	
Surrogate: 1,2-Dichloroethane-d4	*110 %*		*70 - 130*		B9E2501	05/24/2019	*05/24/2019 16:52*	
Surrogate: Toluene-d8	*98.2 %*		*70 - 130*		B9E2501	05/24/2019	*05/24/2019 16:52*	
Surrogate: 4-Bromofluorobenzene	*104 %*		*70 - 130*		B9E2501	05/24/2019	*05/24/2019 16:52*	

Client Sample ID SB2 15-17ft

Lab ID: 9050701-02

Total Metals **Analyst: SS**

Method: EPA 6010C **Matrix: Soil**

Analyte	Result (mg/kg dry)	RL (mg/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	2.6	1	EPA 3051A	B9E2430	05/24/2019	05/24/2019 21:53	
Selenium	**1.8**	1.3	1	EPA 3051A	B9E2430	05/24/2019	05/24/2019 21:53	
Cadmium	ND	0.64	1	EPA 3051A	B9E2430	05/24/2019	05/24/2019 21:53	
Chromium	**4.7**	2.6	1	EPA 3051A	B9E2430	05/24/2019	05/24/2019 21:53	
Arsenic	ND	1.3	1	EPA 3051A	B9E2430	05/24/2019	05/24/2019 21:53	
Barium	**15**	2.6	1	EPA 3051A	B9E2430	05/24/2019	05/24/2019 21:53	
Silver	ND	2.6	1	EPA 3051A	B9E2430	05/24/2019	05/24/2019 21:53	

Conn. Extractable TPH **Analyst: KER**

Method: CT-ETPH **Matrix: Soil**

Analyte	Result (mg/kg dry)	RL (mg/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
ETPH	ND	62	1	EPA 3550C	B9E2351	05/23/2019	05/25/2019 19:15	
Surrogate: Octacosane	*104 %*	*50 - 150*			B9E2351	05/23/2019	*05/25/2019 19:15*	

PCBs by ASE **Analyst: JRO**

Method: EPA 8082A **Matrix: Soil**

Analyte	Result (mg/kg dry)	RL (mg/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
PCB-1016	ND	0.13	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 18:51	
PCB-1221	ND	0.13	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 18:51	
PCB-1232	ND	0.13	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 18:51	
PCB-1242	ND	0.13	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 18:51	
PCB-1248	ND	0.13	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 18:51	
PCB-1254	ND	0.13	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 18:51	
PCB-1260	ND	0.13	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 18:51	

Client Sample ID SB2 15-17ft

Lab ID: 9050701-02

PCBs by ASE **Analyst: JRO**

Method: EPA 8082A **Matrix: Soil**

Analyte	Result (mg/kg dry)	RL (mg/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
PCB-1268	ND	0.13	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 18:51	
PCB-1262	ND	0.13	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 18:51	
Surrogate: TCMX [1C]	*96.2 %*	*30 - 150*			B9E2419	05/24/2019	*05/24/2019 18:51*	
Surrogate: TCMX [2C]	*99.9 %*	*30 - 150*			B9E2419	05/24/2019	*05/24/2019 18:51*	
Surrogate: DCB [1C]	*90.1 %*	*30 - 150*			B9E2419	05/24/2019	*05/24/2019 18:51*	
Surrogate: DCB [2C]	*91.7 %*	*30 - 150*			B9E2419	05/24/2019	*05/24/2019 18:51*	

Semivolatile Organics **Analyst: EAS**

Method: EPA 8270D **Matrix: Soil**

Analyte	Result (ug/kg dry)	RL (ug/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
Phenol	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
1,3-Dichlorobenzene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
n-Nitroso-di-n-propylamine	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Pyridine	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
n-Nitroso-dimethylamine	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
bis(2-Chloroethyl)ether	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Aniline	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
2-Chlorophenol	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
1,4-Dichlorobenzene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Benzyl Alcohol	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
1,2-Dichlorobenzene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
bis(2-Chloroisopropyl)ether	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Hexachloroethane	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
2-Methyl Phenol	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
3+4 Methyl Phenol	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Naphthalene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
2-Nitrophenol	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
2,4-Dichlorophenol	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Hexachlorobutadiene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
4-Chloro-3-methylphenol	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	

Client Sample ID SB2 15-17ft

Lab ID: 9050701-02

Semivolatile Organics

Method: EPA 8270D

Analyst: EAS

Matrix: Soil

Analyte	Result (ug/kg dry)	RL (ug/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
Nitrobenzene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Isophorone	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
2,4-Dimethylphenol	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
bis(2-Chloroethoxy)methane	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Benzoic Acid	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
1,2,4-Trichlorobenzene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
2,6-Dichlorophenol	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
4-Chloroaniline	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	*I
1,2,4,5-Tetrachlorobenzene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
2-Methyl Naphthalene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Acenaphthylene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Acenaphthene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Dibenzofuran	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Fluorene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Hexachlorocyclopentadiene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
2,4,6-Trichlorophenol	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
2,4,5-Trichlorophenol	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
2,4-Dinitrophenol	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
4-Nitrophenol	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
2-Chloronaphthalene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
2-Nitroaniline	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Dimethylphthalate	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
2,6-Dinitrotoluene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
4-Nitroaniline	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
2,4-Dinitrotoluene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
2,3,4,6-Tetrachlorophenol	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
4-Chlorophenyl-phenylether	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Diethylphthalate	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Phenanthrene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Anthracene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Carbazole	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	*I
Fluoranthene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Pyrene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	

Client Sample ID SB2 15-17ft

Lab ID: 9050701-02

Semivolatile Organics

Analyst: EAS

Method: EPA 8270D

Matrix: Soil

Analyte	Result (ug/kg dry)	RL (ug/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
n-Nitrosodiphenylamine	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	*C1
Pentachlorophenol	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
3-Nitroaniline	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
4,6-Dinitro-2-methylphenol	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
1,2-Diphenylhydrazine	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
4-Bromophenyl-phenylether	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Hexachlorobenzene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Di-n-butylphthalate	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Pentachloronitrobenzene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Benzo[a]anthracene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Chrysene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Butylbenzylphthalate	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
3,3-Dichlorobenzidine	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
bis(2-Ethylhexyl)phthalate	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Di-n-octylphthalate	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Benzo[b]fluoranthene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Benzo[k]fluoranthene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Benzo[a]pyrene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Indeno[1,2,3-cd]pyrene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Dibenz[a,h]anthracene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Benzo[g,h,i]perylene	ND	380	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 20:38	
Surrogate: 2-Fluorophenol	*58.4 %*	*30 - 130*			B9E2333	05/23/2019	*05/24/2019 20:38*	
Surrogate: Phenol-d6	*58.0 %*	*30 - 130*			B9E2333	05/23/2019	*05/24/2019 20:38*	
Surrogate: Nitrobenzene-d5	*59.8 %*	*30 - 130*			B9E2333	05/23/2019	*05/24/2019 20:38*	
Surrogate: 2-Fluorobiphenyl	*58.2 %*	*30 - 130*			B9E2333	05/23/2019	*05/24/2019 20:38*	
Surrogate: 2,4,6-Tribromophenol	*66.9 %*	*30 - 130*			B9E2333	05/23/2019	*05/24/2019 20:38*	
Surrogate: Terphenyl-d14	*68.5 %*	*30 - 130*			B9E2333	05/23/2019	*05/24/2019 20:38*	

Client Sample ID SB2 15-17ft

Lab ID: 9050701-02

Volatile Organics **Analyst: ALM**

Method: EPA 8260C **Matrix: Soil**

Analyte	Result (ug/kg dry)	RL (ug/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
Dichlorodifluoromethane	ND	12	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	*I
Chloromethane	ND	7.7	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	*I
Vinyl Chloride	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	*I
Bromomethane	ND	7.7	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Chloroethane	ND	7.7	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Trichlorofluoromethane	ND	31	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Acetone	ND	120	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	*C1
Acrylonitrile	ND	6.2	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Trichlorotrifluoroethane	ND	31	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
1,1-Dichloroethene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Methylene Chloride	ND	46	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Carbon Disulfide	ND	7.7	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Methyl-t-Butyl Ether (MTBE)	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
trans-1,2-Dichloroethene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
1,1-Dichloroethane	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
2-Butanone (MEK)	ND	19	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
2,2-Dichloropropane	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
cis-1,2-Dichloroethene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Bromochloromethane	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Chloroform	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Tetrahydrofuran	ND	19	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	*I
1,1,1-Trichloroethane	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Carbon Tetrachloride	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
1,1-Dichloropropene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Benzene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
1,2-Dichloroethane	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Trichloroethene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
1,2-Dichloropropane	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Dibromomethane	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Bromodichloromethane	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Methyl Isobutyl Ketone	ND	19	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
cis-1,3-Dichloropropene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Toluene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	

Client Sample ID SB2 15-17ft

Lab ID: 9050701-02

Volatile Organics **Analyst: ALM**

Method: EPA 8260C **Matrix: Soil**

Analyte	Result (ug/kg dry)	RL (ug/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
trans-1,3-Dichloropropene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
2-Hexanone	ND	19	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
1,1,2-Trichloroethane	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Tetrachloroethene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
1,3-Dichloropropane	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Dibromochloromethane	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
1,2-Dibromoethane	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
trans-1,4-Dichloro-2-Butene	ND	19	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Chlorobenzene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
1,1,1,2-Tetrachloroethane	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Ethylbenzene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
m+p Xylenes	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
o-Xylene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Styrene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Bromoform	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Isopropylbenzene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
1,1,2,2-Tetrachloroethane	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Bromobenzene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
1,2,3-Trichloropropane	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
n-Propylbenzene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
2-Chlorotoluene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
4-Chlorotoluene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
1,3,5-Trimethylbenzene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
tert-Butylbenzene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
1,2,4-Trimethylbenzene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
sec-Butylbenzene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
1,3-Dichlorobenzene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
4-Isopropyltoluene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
1,4-Dichlorobenzene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
1,2-Dichlorobenzene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
n-Butylbenzene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
1,2-Dibromo-3-Chloropropane	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
1,2,4-Trichlorobenzene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	

Client Sample ID SB2 15-17ft

Lab ID: 9050701-02

Volatile Organics **Analyst: ALM**

Method: EPA 8260C **Matrix: Soil**

Analyte	Result (ug/kg dry)	RL (ug/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorobutadiene	ND	3.8	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	*C2
Naphthalene	ND	7.7	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
1,2,3-Trichlorobenzene	ND	7.7	1.2	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:14	
Surrogate: 1,2-Dichloroethane-d4	*113 %*		*70 - 130*		B9E2501	05/24/2019	*05/24/2019 17:14*	
Surrogate: Toluene-d8	*99.5 %*		*70 - 130*		B9E2501	05/24/2019	*05/24/2019 17:14*	
Surrogate: 4-Bromofluorobenzene	*106 %*		*70 - 130*		B9E2501	05/24/2019	*05/24/2019 17:14*	

Client Sample ID SB3 15-17ft

Lab ID: 9050701-03

Total Metals **Analyst: SS**

Method: EPA 6010C **Matrix: Soil**

Analyte	Result (mg/kg dry)	RL (mg/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
Lead	ND	2.5	1	EPA 3051A	B9E2430	05/24/2019	05/24/2019 21:57	
Selenium	**1.8**	1.2	1	EPA 3051A	B9E2430	05/24/2019	05/24/2019 21:57	
Cadmium	ND	0.62	1	EPA 3051A	B9E2430	05/24/2019	05/24/2019 21:57	
Chromium	**4.9**	2.5	1	EPA 3051A	B9E2430	05/24/2019	05/24/2019 21:57	
Arsenic	**1.2**	1.2	1	EPA 3051A	B9E2430	05/24/2019	05/24/2019 21:57	
Barium	**13**	2.5	1	EPA 3051A	B9E2430	05/24/2019	05/24/2019 21:57	
Silver	ND	2.5	1	EPA 3051A	B9E2430	05/24/2019	05/24/2019 21:57	

Conn. Extractable TPH **Analyst: KER**

Method: CT-ETPH **Matrix: Soil**

Analyte	Result (mg/kg dry)	RL (mg/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
ETPH	ND	61	1	EPA 3550C	B9E2351	05/23/2019	05/25/2019 19:37	
Surrogate: Octacosane	*92.3 %*	*50 - 150*			B9E2351	05/23/2019	*05/25/2019 19:37*	

PCBs by ASE **Analyst: JRO**

Method: EPA 8082A **Matrix: Soil**

Analyte	Result (mg/kg dry)	RL (mg/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
PCB-1016	ND	0.12	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 19:09	
PCB-1221	ND	0.12	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 19:09	
PCB-1232	ND	0.12	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 19:09	
PCB-1242	ND	0.12	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 19:09	
PCB-1248	ND	0.12	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 19:09	
PCB-1254	ND	0.12	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 19:09	
PCB-1260	ND	0.12	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 19:09	

Client Sample ID SB3 15-17ft

Lab ID: 9050701-03

PCBs by ASE **Analyst: JRO**

Method: EPA 8082A **Matrix: Soil**

Analyte	Result (mg/kg dry)	RL (mg/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
PCB-1268	ND	0.12	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 19:09	
PCB-1262	ND	0.12	1	EPA 3545A	B9E2419	05/24/2019	05/24/2019 19:09	
Surrogate: TCMX [1C]	*102 %*	*30 - 150*			B9E2419	05/24/2019	*05/24/2019 19:09*	
Surrogate: TCMX [2C]	*104 %*	*30 - 150*			B9E2419	05/24/2019	*05/24/2019 19:09*	
Surrogate: DCB [1C]	*78.6 %*	*30 - 150*			B9E2419	05/24/2019	*05/24/2019 19:09*	
Surrogate: DCB [2C]	*82.0 %*	*30 - 150*			B9E2419	05/24/2019	*05/24/2019 19:09*	

Semivolatile Organics **Analyst: EAS**

Method: EPA 8270D **Matrix: Soil**

Analyte	Result (ug/kg dry)	RL (ug/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
Phenol	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
1,3-Dichlorobenzene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
n-Nitroso-di-n-propylamine	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Pyridine	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
n-Nitroso-dimethylamine	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
bis(2-Chloroethyl)ether	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Aniline	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
2-Chlorophenol	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
1,4-Dichlorobenzene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Benzyl Alcohol	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
1,2-Dichlorobenzene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
bis(2-Chloroisopropyl)ether	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Hexachloroethane	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
2-Methyl Phenol	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
3+4 Methyl Phenol	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Naphthalene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
2-Nitrophenol	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
2,4-Dichlorophenol	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Hexachlorobutadiene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
4-Chloro-3-methylphenol	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	

Client Sample ID SB3 15-17ft

Lab ID: 9050701-03

Semivolatile Organics **Analyst: EAS**

Method: EPA 8270D **Matrix: Soil**

Analyte	Result (ug/kg dry)	RL (ug/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
Nitrobenzene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Isophorone	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
2,4-Dimethylphenol	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
bis(2-Chloroethoxy)methane	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Benzoic Acid	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
1,2,4-Trichlorobenzene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
2,6-Dichlorophenol	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
4-Chloroaniline	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	*I
1,2,4,5-Tetrachlorobenzene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
2-Methyl Naphthalene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Acenaphthylene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Acenaphthene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Dibenzofuran	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Fluorene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Hexachlorocyclopentadiene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
2,4,6-Trichlorophenol	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
2,4,5-Trichlorophenol	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
2,4-Dinitrophenol	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
4-Nitrophenol	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
2-Chloronaphthalene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
2-Nitroaniline	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Dimethylphthalate	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
2,6-Dinitrotoluene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
4-Nitroaniline	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
2,4-Dinitrotoluene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
2,3,4,6-Tetrachlorophenol	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
4-Chlorophenyl-phenylether	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Diethylphthalate	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Phenanthrene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Anthracene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Carbazole	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	*I
Fluoranthene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Pyrene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	

Client Sample ID SB3 15-17ft

Lab ID: 9050701-03

Semivolatile Organics

Method: EPA 8270D

Analyst: EAS

Matrix: Soil

Analyte	Result (ug/kg dry)	RL (ug/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
n-Nitrosodiphenylamine	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	*C1
Pentachlorophenol	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
3-Nitroaniline	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
4,6-Dinitro-2-methylphenol	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
1,2-Diphenylhydrazine	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
4-Bromophenyl-phenylether	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Hexachlorobenzene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Di-n-butylphthalate	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Pentachloronitrobenzene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Benzo[a]anthracene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Chrysene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Butylbenzylphthalate	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
3,3-Dichlorobenzidine	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
bis(2-Ethylhexyl)phthalate	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Di-n-octylphthalate	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Benzo[b]fluoranthene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Benzo[k]fluoranthene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Benzo[a]pyrene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Indeno[1,2,3-cd]pyrene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Dibenz[a,h]anthracene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Benzo[g,h,i]perylene	ND	370	1	EPA 3545A	B9E2333	05/23/2019	05/24/2019 21:12	
Surrogate: 2-Fluorophenol	*51.9 %*	*30 - 130*			B9E2333	05/23/2019	*05/24/2019 21:12*	
Surrogate: Phenol-d6	*52.8 %*	*30 - 130*			B9E2333	05/23/2019	*05/24/2019 21:12*	
Surrogate: Nitrobenzene-d5	*53.7 %*	*30 - 130*			B9E2333	05/23/2019	*05/24/2019 21:12*	
Surrogate: 2-Fluorobiphenyl	*53.5 %*	*30 - 130*			B9E2333	05/23/2019	*05/24/2019 21:12*	
Surrogate: 2,4,6-Tribromophenol	*58.5 %*	*30 - 130*			B9E2333	05/23/2019	*05/24/2019 21:12*	
Surrogate: Terphenyl-d14	*64.0 %*	*30 - 130*			B9E2333	05/23/2019	*05/24/2019 21:12*	

Client Sample ID SB3 15-17ft

Lab ID: 9050701-03

Volatile Organics **Analyst: ALM**

Method: EPA 8260C **Matrix: Soil**

Analyte	Result (ug/kg dry)	RL (ug/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
Dichlorodifluoromethane	ND	11	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	*I
Chloromethane	ND	7.2	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	*I
Vinyl Chloride	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	*I
Bromomethane	ND	7.2	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Chloroethane	ND	7.2	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Trichlorofluoromethane	ND	29	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Acetone	ND	110	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	*C1
Acrylonitrile	ND	5.8	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Trichlorotrifluoroethane	ND	29	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
1,1-Dichloroethene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Methylene Chloride	ND	43	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Carbon Disulfide	ND	7.2	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Methyl-t-Butyl Ether (MTBE)	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
trans-1,2-Dichloroethene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
1,1-Dichloroethane	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
2-Butanone (MEK)	ND	18	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
2,2-Dichloropropane	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
cis-1,2-Dichloroethene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Bromochloromethane	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Chloroform	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Tetrahydrofuran	ND	18	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	*I
1,1,1-Trichloroethane	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Carbon Tetrachloride	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
1,1-Dichloropropene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Benzene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
1,2-Dichloroethane	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Trichloroethene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
1,2-Dichloropropane	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Dibromomethane	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Bromodichloromethane	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Methyl Isobutyl Ketone	ND	18	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
cis-1,3-Dichloropropene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Toluene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	

Client Sample ID SB3 15-17ft

Lab ID: 9050701-03

Volatile Organics **Analyst: ALM**

Method: EPA 8260C **Matrix: Soil**

Analyte	Result (ug/kg dry)	RL (ug/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
trans-1,3-Dichloropropene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
2-Hexanone	ND	18	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
1,1,2-Trichloroethane	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Tetrachloroethene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
1,3-Dichloropropane	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Dibromochloromethane	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
1,2-Dibromoethane	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
trans-1,4-Dichloro-2-Butene	ND	18	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Chlorobenzene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
1,1,1,2-Tetrachloroethane	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Ethylbenzene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
m+p Xylenes	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
o-Xylene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Styrene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Bromoform	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Isopropylbenzene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
1,1,2,2-Tetrachloroethane	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Bromobenzene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
1,2,3-Trichloropropane	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
n-Propylbenzene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
2-Chlorotoluene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
4-Chlorotoluene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
1,3,5-Trimethylbenzene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
tert-Butylbenzene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
1,2,4-Trimethylbenzene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
sec-Butylbenzene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
1,3-Dichlorobenzene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
4-Isopropyltoluene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
1,4-Dichlorobenzene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
1,2-Dichlorobenzene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
n-Butylbenzene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
1,2-Dibromo-3-Chloropropane	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
1,2,4-Trichlorobenzene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	

Client Sample ID SB3 15-17ft

Lab ID: 9050701-03

Volatile Organics **Analyst: ALM**

Method: EPA 8260C **Matrix: Soil**

Analyte	Result (ug/kg dry)	RL (ug/kg dry)	Dilution	Prep Method	Batch	Prepared	Date/Time Analyzed	Notes
Hexachlorobutadiene	ND	3.6	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	*C2
Naphthalene	ND	7.2	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
1,2,3-Trichlorobenzene	ND	7.2	1.17	EPA 5035A-L	B9E2501	05/24/2019	05/24/2019 17:36	
Surrogate: 1,2-Dichloroethane-d4	*102 %*		*70 - 130*		B9E2501	05/24/2019	*05/24/2019 17:36*	
Surrogate: Toluene-d8	*99.5 %*		*70 - 130*		B9E2501	05/24/2019	*05/24/2019 17:36*	
Surrogate: 4-Bromofluorobenzene	*104 %*		*70 - 130*		B9E2501	05/24/2019	*05/24/2019 17:36*	

QUALITY CONTROL SECTION

Batch B9E2333 - EPA 8270D

Analyte	Result (ug/kg)	RL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Blank (B9E2333-BLK1)					Prepared: 5/23/2019 Analyzed: 5/24/2019				
Phenol	ND	300							
1,3-Dichlorobenzene	ND	300							
n-Nitroso-di-n-propylamine	ND	300							
Pyridine	ND	300							
n-Nitroso-dimethylamine	ND	300							
bis(2-Chloroethyl)ether	ND	300							
Aniline	ND	300							
2-Chlorophenol	ND	300							
1,4-Dichlorobenzene	ND	300							
Benzyl Alcohol	ND	300							
1,2-Dichlorobenzene	ND	300							
bis(2-Chloroisopropyl)ether	ND	300							
Hexachloroethane	ND	300							
2-Methyl Phenol	ND	300							
3+4 Methyl Phenol	ND	300							
Naphthalene	ND	300							
2-Nitrophenol	ND	300							
2,4-Dichlorophenol	ND	300							
Hexachlorobutadiene	ND	300							
4-Chloro-3-methylphenol	ND	300							
Nitrobenzene	ND	300							
Isophorone	ND	300							
2,4-Dimethylphenol	ND	300							
bis(2-Chloroethoxy)methane	ND	300							
Benzoic Acid	ND	300							
1,2,4-Trichlorobenzene	ND	300							
2,6-Dichlorophenol	ND	300							
4-Chloroaniline	ND	300							
1,2,4,5-Tetrachlorobenzene	ND	300							
2-Methyl Naphthalene	ND	300							
Acenaphthylene	ND	300							
Acenaphthene	ND	300							
Dibenzofuran	ND	300							
Fluorene	ND	300							
Hexachlorocyclopentadiene	ND	300							
2,4,6-Trichlorophenol	ND	300							
2,4,5-Trichlorophenol	ND	300							
2,4-Dinitrophenol	ND	300							
4-Nitrophenol	ND	300							
2-Chloronaphthalene	ND	300							
2-Nitroaniline	ND	300							
Dimethylphthalate	ND	300							
2,6-Dinitrotoluene	ND	300							
4-Nitroaniline	ND	300							
2,4-Dinitrotoluene	ND	300							
2,3,4,6-Tetrachlorophenol	ND	300							
4-Chlorophenyl-phenylether	ND	300							
Diethylphthalate	ND	300							
Phenanthrene	ND	300							

Analyte	Result (ug/kg)	RL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Blank (B9E2333-BLK1) - Continued					Prepared: 5/23/2019 Analyzed: 5/24/2019				
Anthracene	ND	300							
Carbazole	ND	300							
Fluoranthene	ND	300							
Pyrene	ND	300							
n-Nitrosodiphenylamine	ND	300							
Pentachlorophenol	ND	300							
3-Nitroaniline	ND	300							
4,6-Dinitro-2-methylphenol	ND	300							
1,2-Diphenylhydrazine	ND	300							
4-Bromophenyl-phenylether	ND	300							
Hexachlorobenzene	ND	300							
Di-n-butylphthalate	ND	300							
Pentachloronitrobenzene	ND	300							
Benzo[a]anthracene	ND	300							
Chrysene	ND	300							
Butylbenzylphthalate	ND	300							
3,3-Dichlorobenzidine	ND	300							
bis(2-Ethylhexyl)phthalate	ND	300							
Di-n-octylphthalate	ND	300							
Benzo[b]fluoranthene	ND	300							
Benzo[k]fluoranthene	ND	300							
Benzo[a]pyrene	ND	300							
Indeno[1,2,3-cd]pyrene	ND	300							
Dibenz[a,h]anthracene	ND	300							
Benzo[g,h,i]perylene	ND	300							
Surrogate: 2-Fluorophenol					*48.8*	*30 - 130*			
Surrogate: Phenol-d6					*48.6*	*30 - 130*			
Surrogate: Nitrobenzene-d5					*48.6*	*30 - 130*			
Surrogate: 2-Fluorobiphenyl					*48.7*	*30 - 130*			
Surrogate: 2,4,6-Tribromophenol					*56.3*	*30 - 130*			
Surrogate: Terphenyl-d14					*64.3*	*30 - 130*			
LCS (B9E2333-BS1)					Prepared: 5/23/2019 Analyzed: 5/24/2019				
Phenol	2070	300	4,000.000		51.8	30 - 130			
1,3-Dichlorobenzene	1790	300	4,000.000		44.8	40 - 140			
n-Nitroso-di-n-propylamine	2130	300	4,000.000		53.3	40 - 140			
Pyridine	3040	300	4,000.000		75.9	40 - 140			
n-Nitroso-dimethylamine	2010	300	4,000.000		50.2	40 - 140			
bis(2-Chloroethyl)ether	1800	300	4,000.000		45.0	40 - 140			
Aniline	2100	300	4,000.000		52.4	40 - 140			
2-Chlorophenol	1990	300	4,000.000		49.7	30 - 130			
1,4-Dichlorobenzene	1770	300	4,000.000		44.2	40 - 140			
Benzyl Alcohol	1930	300	4,000.000		48.4	30 - 130			
1,2-Dichlorobenzene	1800	300	4,000.000		45.1	40 - 140			
bis(2-Chloroisopropyl)ether	1870	300	4,000.000		46.8	40 - 140			
Hexachloroethane	1760	300	4,000.000		43.9	40 - 140			
2-Methyl Phenol	2080	300	4,000.000		51.9	30 - 130			
3+4 Methyl Phenol	2210	300	4,000.000		55.3	30 - 130			
Naphthalene	1890	300	4,000.000		47.1	40 - 140			
2-Nitrophenol	1880	300	4,000.000		46.9	30 - 130			
2,4-Dichlorophenol	2000	300	4,000.000		50.0	30 - 130			
Hexachlorobutadiene	1930	300	4,000.000		48.2	40 - 140			
4-Chloro-3-methylphenol	1910	300	4,000.000		47.8	30 - 130			

Analyte	Result (ug/kg)	RL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
LCS (B9E2333-BS1) - Continued					Prepared: 5/23/2019 Analyzed: 5/24/2019				
Nitrobenzene	1940	300	4,000.000		48.5	40 - 140			
Isophorone	1770	300	4,000.000		44.2	40 - 140			
2,4-Dimethylphenol	2020	300	4,000.000		50.4	30 - 130			
bis(2-Chloroethoxy)methane	1870	300	4,000.000		46.8	40 - 140			
Benzoic Acid	1750	300	4,000.000		43.7	30 - 130			
1,2,4-Trichlorobenzene	1870	300	4,000.000		46.8	40 - 140			
2,6-Dichlorophenol	2110	300	4,000.000		52.6	30 - 130			
4-Chloroaniline	2090	300	4,000.000		52.3	40 - 140			
1,2,4,5-Tetrachlorobenzene	1970	300	4,000.000		49.1	40 - 140			
2-Methyl Naphthalene	1870	300	4,000.000		46.7	40 - 140			
Acenaphthylene	1890	300	4,000.000		47.3	40 - 140			
Acenaphthene	1930	300	4,000.000		48.2	40 - 140			
Dibenzofuran	2100	300	4,000.000		52.4	40 - 140			
Fluorene	1970	300	4,000.000		49.3	40 - 140			
Hexachlorocyclopentadiene	2200	300	4,000.000		55.1	40 - 140			
2,4,6-Trichlorophenol	2100	300	4,000.000		52.4	30 - 130			
2,4,5-Trichlorophenol	2250	300	4,000.000		56.2	30 - 130			
2,4-Dinitrophenol	2130	300	4,000.000		53.3	30 - 130			
4-Nitrophenol	2530	300	4,000.000		63.1	30 - 130			
2-Chloronaphthalene	2100	300	4,000.000		52.5	40 - 140			
2-Nitroaniline	2130	300	4,000.000		53.3	40 - 140			
Dimethylphthalate	1950	300	4,000.000		48.8	40 - 140			
2,6-Dinitrotoluene	1880	300	4,000.000		46.9	40 - 140			
4-Nitroaniline	2780	300	4,000.000		69.5	40 - 140			
2,4-Dinitrotoluene	2080	300	4,000.000		52.1	40 - 140			
2,3,4,6-Tetrachlorophenol	2180	300	4,000.000		54.6	30 - 130			
4-Chlorophenyl-phenylether	1820	300	4,000.000		45.5	40 - 140			
Diethylphthalate	1910	300	4,000.000		47.8	40 - 140			
Phenanthrene	2170	300	4,000.000		54.4	40 - 140			
Anthracene	2200	300	4,000.000		55.1	40 - 140			
Carbazole	4580	300	4,000.000		114	40 - 140			
Fluoranthene	2300	300	4,000.000		57.5	40 - 140			
Pyrene	2410	300	4,000.000		60.3	40 - 140			
n-Nitrosodiphenylamine	2200	300	4,000.000		54.9	40 - 140			
Pentachlorophenol	2330	300	4,000.000		58.2	30 - 130			
3-Nitroaniline	2140	300	4,000.000		53.6	40 - 140			
4,6-Dinitro-2-methylphenol	2010	300	4,000.000		50.1	30 - 130			
1,2-Diphenylhydrazine	2000	300	4,000.000		49.9	40 - 140			
4-Bromophenyl-phenylether	1870	300	4,000.000		46.8	40 - 140			
Hexachlorobenzene	2190	300	4,000.000		54.7	40 - 140			
Di-n-butylphthalate	2120	300	4,000.000		53.1	40 - 140			
Pentachloronitrobenzene	2120	300	4,000.000		52.9	40 - 140			
Benzo[a]anthracene	2280	300	4,000.000		57.0	40 - 140			
Chrysene	2330	300	4,000.000		58.2	40 - 140			
Butylbenzylphthalate	1920	300	4,000.000		48.0	40 - 140			
3,3-Dichlorobenzidine	3420	300	4,000.000		85.6	40 - 140			
bis(2-Ethylhexyl)phthalate	1910	300	4,000.000		47.9	40 - 140			
Di-n-octylphthalate	2130	300	4,000.000		53.2	40 - 140			
Benzo[b]fluoranthene	2060	300	4,000.000		51.5	40 - 140			
Benzo[k]fluoranthene	2220	300	4,000.000		55.6	40 - 140			
Benzo[a]pyrene	2180	300	4,000.000		54.4	40 - 140			
Indeno[1,2,3-cd]pyrene	2190	300	4,000.000		54.8	40 - 140			
Dibenz[a,h]anthracene	2090	300	4,000.000		52.3	40 - 140			

Analyte	Result (ug/kg)	RL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
LCS (B9E2333-BS1) - Continued					Prepared: 5/23/2019 Analyzed: 5/24/2019				
Benzo[g,h,i]perylene	2240	300	4,000.000		56.0	40 - 140			
Surrogate: 2-Fluorophenol					*48.2*	*30 - 130*			
Surrogate: Phenol-d6					*49.0*	*30 - 130*			
Surrogate: Nitrobenzene-d5					*48.7*	*30 - 130*			
Surrogate: 2-Fluorobiphenyl					*48.7*	*30 - 130*			
Surrogate: 2,4,6-Tribromophenol					*58.4*	*30 - 130*			
Surrogate: Terphenyl-d14					*55.4*	*30 - 130*			

Batch B9E2347 - EPA 9095B

Analyte	Result (units)	RL (units)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Duplicate (B9E2347-DUP1)		**Source: 9050701-03**			Prepared: 5/23/2019 Analyzed: 5/23/2019				
Paint Filter Test	No Free Liquid	1.0		o Free Liqui				200	

Batch B9E2351 - CT-ETPH

Analyte	Result (mg/kg)	RL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Blank (B9E2351-BLK1)					Prepared: 5/23/2019 Analyzed: 5/25/2019				
ETPH	ND	50							
Surrogate: Octacosane					*93.2*	*50 - 150*			
LCS (B9E2351-BS1)					Prepared: 5/23/2019 Analyzed: 5/25/2019				
ETPH	1390	50	1,500.000		92.8	60 - 120			
Surrogate: Octacosane					*105*	*50 - 150*			

Batch B9E2412 - EPA 7471B

Analyte	Result (mg/kg)	RL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Blank (B9E2412-BLK1)					Prepared: 5/24/2019 Analyzed: 5/24/2019				
Mercury	ND	0.13							
LCS (B9E2412-BS1)					Prepared: 5/24/2019 Analyzed: 5/24/2019				
Mercury	2.46	0.13	2.500		98.4	80 - 120			

Batch B9E2419 - EPA 8082A

Analyte	Result (mg/kg)	RL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Blank (B9E2419-BLK1)					Prepared: 5/24/2019 Analyzed: 5/24/2019				
PCB-1016	ND	0.10							
PCB-1221	ND	0.10							
PCB-1232	ND	0.10							
PCB-1242	ND	0.10							
PCB-1248	ND	0.10							
PCB-1254	ND	0.10							
PCB-1260	ND	0.10							
PCB-1268	ND	0.10							
PCB-1262	ND	0.10							
Surrogate: TCMX [1C]					*72.9*	*30 - 150*			
Surrogate: TCMX [2C]					*73.0*	*30 - 150*			
Surrogate: DCB [1C]					*54.3*	*30 - 150*			
Surrogate: DCB [2C]					*55.0*	*30 - 150*			
LCS (B9E2419-BS1)					Prepared: 5/24/2019 Analyzed: 5/24/2019				
PCB-1016	0.936	0.10	1.000		93.6	40 - 140			
PCB-1260	0.785	0.10	1.000		78.5	40 - 140			
Surrogate: TCMX [1C]					*85.4*	*30 - 150*			
Surrogate: TCMX [2C]					*84.4*	*30 - 150*			
Surrogate: DCB [1C]					*60.9*	*30 - 150*			
Surrogate: DCB [2C]					*61.8*	*30 - 150*			

Batch B9E2430 - EPA 6010C

Analyte	Result (mg/kg)	RL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Blank (B9E2430-BLK1)					Prepared: 5/24/2019 Analyzed: 5/24/2019				
Lead	ND	2.0							
Selenium	ND	1.0							
Cadmium	ND	0.50							
Chromium	ND	2.0							
Arsenic	ND	1.0							
Barium	ND	2.0							
Silver	ND	2.0							
LCS (B9E2430-BS1)					Prepared: 5/24/2019 Analyzed: 5/24/2019				
Lead	21.1	2.0	25.000		84.2	80 - 120			
Selenium	41.7	1.0	50.000		83.3	80 - 120			
Cadmium	23.4	0.50	25.000		93.6	80 - 120			
Chromium	23.1	2.0	25.000		92.5	80 - 120			
Arsenic	21.9	1.0	25.000		87.8	80 - 120			
Barium	23.5	2.0	25.000		93.8	80 - 120			
Silver	4.52	2.0	5.000		90.4	80 - 120			

Batch B9E2438 - SM 2510 B Mod.

Analyte	Result (umhos/cm)	RL (umhos/cm)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Blank (B9E2438-BLK1)					Prepared: 5/24/2019 Analyzed: 5/24/2019				
Conductivity	ND	2.0							

Batch B9E2501 - EPA 8260C

Analyte	Result (ug/kg)	RL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Blank (B9E2501-BLK1)					Prepared: 5/24/2019 Analyzed: 5/24/2019				
Dichlorodifluoromethane	ND	7.5							
Chloromethane	ND	5.0							
Vinyl Chloride	ND	2.5							
Bromomethane	ND	5.0							
Chloroethane	ND	5.0							
Trichlorofluoromethane	ND	20							
Acetone	ND	75							
Acrylonitrile	ND	4.0							
Trichlorotrifluoroethane	ND	20							
1,1-Dichloroethene	ND	2.5							
Methylene Chloride	ND	30							
Carbon Disulfide	ND	5.0							
Methyl-t-Butyl Ether (MTBE)	ND	2.5							
trans-1,2-Dichloroethene	ND	2.5							
1,1-Dichloroethane	ND	2.5							
2-Butanone (MEK)	ND	13							
2,2-Dichloropropane	ND	2.5							
cis-1,2-Dichloroethene	ND	2.5							
Bromochloromethane	ND	2.5							
Chloroform	ND	2.5							
Tetrahydrofuran	ND	13							
1,1,1-Trichloroethane	ND	2.5							
Carbon Tetrachloride	ND	2.5							
1,1-Dichloropropene	ND	2.5							
Benzene	ND	2.5							
1,2-Dichloroethane	ND	2.5							
Trichloroethene	ND	2.5							
1,2-Dichloropropane	ND	2.5							
Dibromomethane	ND	2.5							
Bromodichloromethane	ND	2.5							
Methyl Isobutyl Ketone	ND	13							
cis-1,3-Dichloropropene	ND	2.5							
Toluene	ND	2.5							
trans-1,3-Dichloropropene	ND	2.5							
2-Hexanone	ND	13							
1,1,2-Trichloroethane	ND	2.5							
Tetrachloroethene	ND	2.5							
1,3-Dichloropropane	ND	2.5							
Dibromochloromethane	ND	2.5							
1,2-Dibromoethane	ND	2.5							
trans-1,4-Dichloro-2-Butene	ND	13							
Chlorobenzene	ND	2.5							
1,1,1,2-Tetrachloroethane	ND	2.5							
Ethylbenzene	ND	2.5							
m+p Xylenes	ND	2.5							
o-Xylene	ND	2.5							
Styrene	ND	2.5							
Bromoform	ND	2.5							
Isopropylbenzene	ND	2.5							
1,1,2,2-Tetrachloroethane	ND	2.5							
Bromobenzene	ND	2.5							
1,2,3-Trichloropropane	ND	2.5							

Analyte	Result (ug/kg)	RL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Blank (B9E2501-BLK1) - Continued					Prepared: 5/24/2019 Analyzed: 5/24/2019				
n-Propylbenzene	ND	2.5							
2-Chlorotoluene	ND	2.5							
4-Chlorotoluene	ND	2.5							
1,3,5-Trimethylbenzene	ND	2.5							
tert-Butylbenzene	ND	2.5							
1,2,4-Trimethylbenzene	ND	2.5							
sec-Butylbenzene	ND	2.5							
1,3-Dichlorobenzene	ND	2.5							
4-Isopropyltoluene	ND	2.5							
1,4-Dichlorobenzene	ND	2.5							
1,2-Dichlorobenzene	ND	2.5							
n-Butylbenzene	ND	2.5							
1,2-Dibromo-3-Chloropropane	ND	2.5							
1,2,4-Trichlorobenzene	ND	2.5							
Hexachlorobutadiene	ND	2.5							
Naphthalene	ND	5.0							
1,2,3-Trichlorobenzene	ND	5.0							
Surrogate: 1,2-Dichloroethane-d4					*102*	*70 - 130*			
Surrogate: Toluene-d8					*95.5*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene					*105*	*70 - 130*			
LCS (B9E2501-BS1)					Prepared: 5/24/2019 Analyzed: 5/24/2019				
Dichlorodifluoromethane	39.4	7.5	50.000		78.8	70 - 130			
Chloromethane	36.0	5.0	50.000		72.0	70 - 130			
Vinyl Chloride	39.3	2.5	50.000		78.6	70 - 130			
Bromomethane	41.8	5.0	50.000		83.6	70 - 130			
Chloroethane	37.7	5.0	50.000		75.4	70 - 130			
Trichlorofluoromethane	46.1	20	50.000		92.1	70 - 130			
Acetone	93.9	75	100.000		93.9	70 - 130			
Acrylonitrile	53.6	4.0	50.000		107	70 - 130			
Trichlorotrifluoroethane	40.5	20	50.000		81.0	70 - 130			
1,1-Dichloroethene	41.3	2.5	50.000		82.7	70 - 130			
Methylene Chloride	41.6	30	50.000		83.1	70 - 130			
Carbon Disulfide	41.6	5.0	50.000		83.2	70 - 130			
Methyl-t-Butyl Ether (MTBE)	61.5	2.5	50.000		123	70 - 130			
trans-1,2-Dichloroethene	40.5	2.5	50.000		81.0	70 - 130			
1,1-Dichloroethane	43.5	2.5	50.000		86.9	70 - 130			
2-Butanone (MEK)	107	13	100.000		107	70 - 130			
2,2-Dichloropropane	45.8	2.5	50.000		91.5	70 - 130			
cis-1,2-Dichloroethene	47.0	2.5	50.000		93.9	70 - 130			
Bromochloromethane	47.4	2.5	50.000		94.7	70 - 130			
Chloroform	48.1	2.5	50.000		96.2	70 - 130			
Tetrahydrofuran	58.4	13	50.000		117	70 - 130			
1,1,1-Trichloroethane	43.4	2.5	50.000		86.8	70 - 130			
Carbon Tetrachloride	47.1	2.5	50.000		94.1	70 - 130			
1,1-Dichloropropene	45.6	2.5	50.000		91.2	70 - 130			
Benzene	48.3	2.5	50.000		96.6	70 - 130			
1,2-Dichloroethane	55.7	2.5	50.000		111	70 - 130			
Trichloroethene	51.2	2.5	50.000		102	70 - 130			
1,2-Dichloropropane	49.7	2.5	50.000		99.3	70 - 130			
Dibromomethane	64.9	2.5	50.000		130	70 - 130			
Bromodichloromethane	55.0	2.5	50.000		110	70 - 130			
Methyl Isobutyl Ketone	115	13	100.000		115	70 - 130			

Analyte	Result (ug/kg)	RL (ug/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
LCS (B9E2501-BS1) - Continued					Prepared: 5/24/2019 Analyzed: 5/24/2019				
cis-1,3-Dichloropropene	55.9	2.5	50.000		112	70 - 130			
Toluene	49.1	2.5	50.000		98.2	70 - 130			
trans-1,3-Dichloropropene	57.1	2.5	50.000		114	70 - 130			
2-Hexanone	110	13	100.000		110	70 - 130			
1,1,2-Trichloroethane	56.4	2.5	50.000		113	70 - 130			
Tetrachloroethene	53.1	2.5	50.000		106	70 - 130			
1,3-Dichloropropane	55.4	2.5	50.000		111	70 - 130			
Dibromochloromethane	62.1	2.5	50.000		124	70 - 130			
1,2-Dibromoethane	61.8	2.5	50.000		124	70 - 130			
trans-1,4-Dichloro-2-Butene	57.9	13	50.000		116	70 - 130			
Chlorobenzene	52.6	2.5	50.000		105	70 - 130			
1,1,1,2-Tetrachloroethane	55.2	2.5	50.000		110	70 - 130			
Ethylbenzene	48.7	2.5	50.000		97.4	70 - 130			
m+p Xylenes	102	2.5	100.000		102	70 - 130			
o-Xylene	51.6	2.5	50.000		103	70 - 130			
Styrene	54.1	2.5	50.000		108	70 - 130			
Bromoform	64.6	2.5	50.000		129	70 - 130			
Isopropylbenzene	49.3	2.5	50.000		98.7	70 - 130			
1,1,2,2-Tetrachloroethane	55.8	2.5	50.000		112	70 - 130			
Bromobenzene	47.9	2.5	50.000		95.8	70 - 130			
1,2,3-Trichloropropane	57.4	2.5	50.000		115	70 - 130			
n-Propylbenzene	45.0	2.5	50.000		90.1	70 - 130			
2-Chlorotoluene	47.0	2.5	50.000		94.0	70 - 130			
4-Chlorotoluene	46.9	2.5	50.000		93.8	70 - 130			
1,3,5-Trimethylbenzene	47.8	2.5	50.000		95.7	70 - 130			
tert-Butylbenzene	47.5	2.5	50.000		95.1	70 - 130			
1,2,4-Trimethylbenzene	48.1	2.5	50.000		96.2	70 - 130			
sec-Butylbenzene	46.2	2.5	50.000		92.3	70 - 130			
1,3-Dichlorobenzene	50.3	2.5	50.000		101	70 - 130			
4-Isopropyltoluene	47.9	2.5	50.000		95.8	70 - 130			
1,4-Dichlorobenzene	49.6	2.5	50.000		99.2	70 - 130			
1,2-Dichlorobenzene	52.0	2.5	50.000		104	70 - 130			
n-Butylbenzene	45.2	2.5	50.000		90.4	70 - 130			
1,2-Dibromo-3-Chloropropane	65.0	2.5	50.000		130	70 - 130			
1,2,4-Trichlorobenzene	54.3	2.5	50.000		109	70 - 130			
Hexachlorobutadiene	54.2	2.5	50.000		108	70 - 130			
Naphthalene	57.9	5.0	50.000		116	70 - 130			
1,2,3-Trichlorobenzene	56.3	5.0	50.000		113	70 - 130			
Surrogate: 1,2-Dichloroethane-d4					*98.6*	*70 - 130*			
Surrogate: Toluene-d8					*96.0*	*70 - 130*			
Surrogate: 4-Bromofluorobenzene					*110*	*70 - 130*			

Batch B9E2818 - EPA 9045D

Analyte	Result (pH Units)	RL (pH Units)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Blank (B9E2818-BLK1)					Prepared: 5/24/2019 Analyzed: 5/24/2019				
pH	6.40								
Duplicate (B9E2818-DUP1)		**Source: 9050701-01**			Prepared: 5/24/2019 Analyzed: 5/24/2019				
pH	7.25			7.33			1.10	5	

Batch B9E2832 - SW 846 Ch. 7

Analyte	Result (mg/kg)	RL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Blank (B9E2832-BLK1)					Prepared: 5/28/2019 Analyzed: 5/28/2019				
Reactive Cyanide	ND	5.0							
Duplicate (B9E2832-DUP1)		**Source: 9050701-03**			Prepared: 5/28/2019 Analyzed: 5/28/2019				
Reactive Cyanide	ND	6.2		ND				200	

Batch B9E2833 - SW 846 Ch. 7

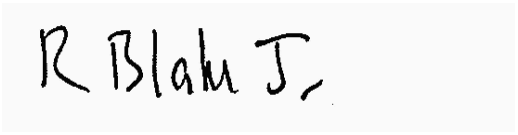
Analyte	Result (mg/kg)	RL (mg/kg)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Blank (B9E2833-BLK1)					Prepared: 5/28/2019 Analyzed: 5/28/2019				
Reactive Sulfide	ND	20							
Duplicate (B9E2833-DUP1)		**Source: 9050701-03**			Prepared: 5/28/2019 Analyzed: 5/28/2019				
Reactive Sulfide	ND	25		ND				200	

All questions related to this report should be directed to David Ditta, Timothy Fusco, or Robert Blake at 203-377-9984.

Sincerely,

David Ditta
Laboratory Director

This technical report was reviewed by Robert Blake



Project Manager

Report Comments:

Sample Result Flags:
E- The result is estimated, above the calibration range.
H- The surrogate recovery is above the control limits.
L- The surrogate recovery is below the control limits.
B- The compound was detected in the laboratory blank.
P- The Relative Percent Difference (RPD) of dual column analyses exceeds 40%.
D- The RPD between the sample and the sample duplicate is high. Sample Homogeneity may be a problem.
+- The Surrogate was diluted out.
*C1- The Continuing Calibration did not meet method specifications and was biased low for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased low.
*C2- The Continuing Calibration did not meet method specifications and was biased high for this analyte. Increased uncertainty is associated with the reported value which is likely to be biased high.
*F1- The Laboratory Control Sample recovery is outside of control limits. Reported value for this analyte is likely to be biased on the low side.
*F2- The Laboratory Control Sample recovery is outside of control limits. Reported value for this analyte is likely to be biased on the high side.
*I- Analyte exceeds method limits from second source standard in Initial Calibration Verification (ICV). No directional bias.

All results met standard operating procedures unless indicated by a data qualifier next to a sample result, or a narration in the QC report.

For Percent Solids, if any of the following prep methods (3050B, 3540C, 3545A, 3550C, 5035 and 9013A) were used for samples pertaining to this report, the percent solids procedure is within that prep method.

Complete Environmental Testing is only responsible for the certified testing and is not directly responsible for the integrity of the sample before laboratory receipt.

ND is None Detected at or above the specified reporting limit
Reporting Limit (RL) is the limit of detection for an analyte after any adjustment made for dilution or percent moisture.
All analyses were performed in house unless a Reference Laboratory is listed.
Samples will be disposed of 30 days after the report date.

80 Lupes Drive
Stratford, CT 06615

COMPLETE ENVIRONMENTAL TESTING, INC.

Tel: (203) 377-9984
Fax: (203) 377-9952
email: cet1@cetlabs.com

Quality Control Definitions and Abbreviations

Internal Standard (IS)	An Analyte added to each sample or sample extract. An internal standard is used to monitor retention time, calculate relative response, and quantify analytes of interest.
Surrogate Recovery	The % recovery for non-target organic compounds that are spiked into all samples. Used to determine method performance.
Continuing Calibration	An analytical standard analyzed with each set of samples to verify initial calibration of the system.
Batch	Samples that are analyzed together with the same method, sequence and lot of reagents within the same time period.
ND	Not detected at or above the specified reporting limit.
RL	RL is the limit of detection for an analyte after any adjustment made for dilution or percent moisture.
Dilution	Multiplier added to detection levels (MDL) and/or sample results due to interferences and/or high concentration of target compounds.
Duplicate	Result from the duplicate analysis of a sample.
Result	Amount of analyte found in a sample.
Spike Level	Amount of analyte added to a sample
Matrix Spike Result	Amount of analyte found including amount that was spiked.
Matrix Spike Dup	Amount of analyte found in duplicate spikes including amount that was spike.
Matrix Spike % Recovery	% Recovery of spiked amount in sample.
Matrix Spike Dup % Recovery	% Recovery of spiked duplicate amount in sample.
RPD	Relative percent difference between Matrix Spike and Matrix Spike Duplicate.
Blank	Method Blank that has been taken through all steps of the analysis.
LCS % Recovery	Laboratory Control Sample percent recovery. The amount of analyte recovered from a fortified sample.
Recovery Limits	A range within which specified measurements results must fall to be compliant.
CC	Calibration Verification

Flags:

- H- Recovery is above the control limits
- L- Recovery is below the control limits
- B- Compound detected in the Blank
- P- RPD of dual column results exceeds 40%
- #- Sample result too high for accurate spike recovery.

NELAP ACCREDITED TNI LABORATORY

Connecticut Laboratory Certification PH0116
Massachussets Laboratory Certification M-CT903

New York NELAP Accreditation 11982
Rhode Island Certification 199

REASONABLE CONFIDENCE PROTOCOL
LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Complete Environmental Testing, Inc.

Client: Zuvic-Carr & Associates, Inc.

Project Location: 125 Riverside Dr, E Hartford

Project Number: 1885-06, Waste Characterization

Laboratory Sample ID(s):

9050701-01 thru 9050701-03

Sample Date(s):

05/22/2019

List RCP Methods Used:

CT-ETPH, EPA 6010C, EPA 7471B, EPA 8082A, EPA 8260C, EPA 8270D

CET #: 9050701

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 CTDEP 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 and EPH method conducted without significant modifications (see Section 11.3 of respective RCP methods)?	☐ Yes ☐ No ☑ N/A
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 ☐ N/A
4	Were all QA/QC performance criteria specified in the CT DEP Reasonable Confidence Protocol documents achieved?	☐ Yes ☑ No
5a	a) Were reporting limits specified or referenced on the chain-of-custody?	☑ Yes ☐ No
5b	b) Were these reporting limits met?	☑ Yes ☐ No
6	For each analytical method referenced in this laboratory report package, were results reported for all consituents 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 with this 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:  **Position:** Laboratory Director

Printed Name: David Ditta **Date:** 05/28/2019

Name of Laboratory: Complete Environmental Testing, Inc.

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

RCP Case Narrative

4- See Exceptions Report Below

6- Client requested a subset of the RCP metals list.

7- Project specific QC not requested by the client.

4- Exceptions Report

Analyte	QC Type	Exception	Result	RPD	Recovery (%)	Batch/Sequence Sample ID
Acetone	CC	Low	78.5		78.5	S9E2806
Hexachlorobutadiene	CC	High	61.7		123	S9E2806
Chloromethane	ICV	Analyte exceeds method limit of second source standard. Non-directional bias				
Dichlorodifluoromethane	ICV	Analyte exceeds method limit of second source standard. Non-directional bias				
Tetrahydrofuran	ICV	Analyte exceeds method limit of second source standard. Non-directional bias				
Vinyl Chloride	ICV	Analyte exceeds method limit of second source standard. Non-directional bias				
n-Nitrosodiphenylamine	CC	Low	29500		59.0	S9E2813
4-Chloroaniline	ICV	Analyte exceeds method limit of second source standard. Non-directional bias				
Carbazole	ICV	Analyte exceeds method limit of second source standard. Non-directional bias				

QC Batch/Sequence Report

Batch	Sequence	CET ID	Sample ID	Specific Method	Matrix	Collection Date
B9E2351	S9E2818	9050701-01	SB1 17-19ft	CT-ETPH	Soil	05/22/2019
B9E2351	S9E2818	9050701-02	SB2 15-17ft	CT-ETPH	Soil	05/22/2019
B9E2351	S9E2818	9050701-03	SB3 15-17ft	CT-ETPH	Soil	05/22/2019
B9E2807		9050701-01	SB1 17-19ft	EPA 1010A	Soil	05/22/2019
B9E2807		9050701-02	SB2 15-17ft	EPA 1010A	Soil	05/22/2019
B9E2807		9050701-03	SB3 15-17ft	EPA 1010A	Soil	05/22/2019
B9E2430	S9E2401	9050701-01	SB1 17-19ft	EPA 6010C	Soil	05/22/2019
B9E2430	S9E2401	9050701-02	SB2 15-17ft	EPA 6010C	Soil	05/22/2019
B9E2430	S9E2401	9050701-03	SB3 15-17ft	EPA 6010C	Soil	05/22/2019
B9E2412		9050701-01	SB1 17-19ft	EPA 7471B	Soil	05/22/2019
B9E2412		9050701-02	SB2 15-17ft	EPA 7471B	Soil	05/22/2019
B9E2412		9050701-03	SB3 15-17ft	EPA 7471B	Soil	05/22/2019
B9E2419	S9E2414	9050701-01	SB1 17-19ft	EPA 8082A	Soil	05/22/2019
B9E2419	S9E2414	9050701-02	SB2 15-17ft	EPA 8082A	Soil	05/22/2019
B9E2419	S9E2414	9050701-03	SB3 15-17ft	EPA 8082A	Soil	05/22/2019
B9E2501	S9E2806	9050701-01	SB1 17-19ft	EPA 8260C	Soil	05/22/2019
B9E2501	S9E2806	9050701-02	SB2 15-17ft	EPA 8260C	Soil	05/22/2019
B9E2501	S9E2806	9050701-03	SB3 15-17ft	EPA 8260C	Soil	05/22/2019
B9E2333	S9E2813	9050701-01	SB1 17-19ft	EPA 8270D	Soil	05/22/2019
B9E2333	S9E2813	9050701-02	SB2 15-17ft	EPA 8270D	Soil	05/22/2019
B9E2333	S9E2813	9050701-03	SB3 15-17ft	EPA 8270D	Soil	05/22/2019
B9E2818		9050701-01	SB1 17-19ft	EPA 9045D	Soil	05/22/2019
B9E2818		9050701-02	SB2 15-17ft	EPA 9045D	Soil	05/22/2019
B9E2818		9050701-03	SB3 15-17ft	EPA 9045D	Soil	05/22/2019
B9E2347		9050701-01	SB1 17-19ft	EPA 9095B	Soil	05/22/2019
B9E2347		9050701-02	SB2 15-17ft	EPA 9095B	Soil	05/22/2019
B9E2347		9050701-03	SB3 15-17ft	EPA 9095B	Soil	05/22/2019
B9E2438		9050701-01	SB1 17-19ft	SM 2510 B Mod.	Soil	05/22/2019
B9E2438		9050701-02	SB2 15-17ft	SM 2510 B Mod.	Soil	05/22/2019
B9E2438		9050701-03	SB3 15-17ft	SM 2510 B Mod.	Soil	05/22/2019
B9E2832		9050701-01	SB1 17-19ft	SW 846 Ch. 7	Soil	05/22/2019
B9E2832		9050701-02	SB2 15-17ft	SW 846 Ch. 7	Soil	05/22/2019
B9E2832		9050701-03	SB3 15-17ft	SW 846 Ch. 7	Soil	05/22/2019
B9E2833		9050701-01	SB1 17-19ft	SW 846 Ch. 7	Soil	05/22/2019
B9E2833		9050701-02	SB2 15-17ft	SW 846 Ch. 7	Soil	05/22/2019
B9E2833		9050701-03	SB3 15-17ft	SW 846 Ch. 7	Soil	05/22/2019

Certified Analyses included in this Report

Analyte	Certifications
CT-ETPH in Soil	
ETPH	CT
EPA 1010A in Soil	
Flashpoint	CT,NY,PA
EPA 6010C in Soil	
Lead	CT,NY,PA
Selenium	CT,NY,PA
Cadmium	CT,NY,PA
Chromium	CT,NY,PA
Arsenic	CT,NY,PA
Barium	CT,NY,PA
Silver	CT,NY,PA
EPA 7471B in Soil	
Mercury	CT,NY,PA
EPA 8082A in Soil	
PCB-1016	CT,NY,PA
PCB-1221	CT,NY,PA
PCB-1232	CT,NY,PA
PCB-1242	CT,NY,PA
PCB-1248	CT,NY,PA
PCB-1254	CT,NY,PA
PCB-1260	CT,NY,PA
PCB-1268	CT,NY,PA
PCB-1262	NY,PA
EPA 8260C in Soil	
Dichlorodifluoromethane	CT,NY,PA
Chloromethane	CT,NY,PA
Vinyl Chloride	CT,NY,PA
Bromomethane	CT,NY,PA
Chloroethane	CT,NY,PA
Trichlorofluoromethane	CT,NY,PA
Acetone	CT,NY,PA
Acrylonitrile	CT
Trichlorotrifluoroethane	CT,NY,PA
1,1-Dichloroethene	CT,NY,PA
Methylene Chloride	CT,NY,PA
Carbon Disulfide	CT,NY,PA
Methyl-t-Butyl Ether (MTBE)	CT,NY,PA
trans-1,2-Dichloroethene	CT,NY,PA
1,1-Dichloroethane	CT,NY,PA
2-Butanone (MEK)	CT,NY,PA
2,2-Dichloropropane	CT,NY,PA
cis-1,2-Dichloroethene	CT,NY,PA
Bromochloromethane	CT,NY,PA
Chloroform	CT,NY,PA
Tetrahydrofuran	CT
1,1,1-Trichloroethane	CT,NY,PA
Carbon Tetrachloride	CT,NY,PA

Certified Analyses included in this Report

Analyte	Certifications
EPA 8260C in Soil	
1,1-Dichloropropene	CT,NY,PA
Benzene	CT,NY,PA
1,2-Dichloroethane	CT,NY,PA
Trichloroethene	CT,NY,PA
1,2-Dichloropropane	CT,NY,PA
Dibromomethane	CT,NY,PA
Bromodichloromethane	CT,NY,PA
Methyl Isobutyl Ketone	CT,NY,PA
cis-1,3-Dichloropropene	CT,NY,PA
Toluene	CT,NY,PA
trans-1,3-Dichloropropene	CT,NY,PA
2-Hexanone	CT,NY,PA
1,1,2-Trichloroethane	CT,NY,PA
Tetrachloroethene	CT,NY,PA
1,3-Dichloropropane	CT,NY,PA
Dibromochloromethane	CT,NY,PA
1,2-Dibromoethane	CT,NY,PA
trans-1,4-Dichloro-2-Butene	CT,NY,PA
Chlorobenzene	CT,NY,PA
1,1,1,2-Tetrachloroethane	CT,NY,PA
Ethylbenzene	CT,NY,PA
m+p Xylenes	CT,NY,PA
o-Xylene	CT,NY,PA
Styrene	CT,NY,PA
Bromoform	CT,NY,PA
Isopropylbenzene	CT,NY,PA
1,1,2,2-Tetrachloroethane	CT,NY,PA
Bromobenzene	CT,NY,PA
1,2,3-Trichloropropane	CT,NY,PA
n-Propylbenzene	CT,NY,PA
2-Chlorotoluene	CT,NY,PA
4-Chlorotoluene	CT,NY,PA
1,3,5-Trimethylbenzene	CT,NY,PA
tert-Butylbenzene	CT,NY,PA
1,2,4-Trimethylbenzene	CT,NY,PA
sec-Butylbenzene	CT,NY,PA
1,3-Dichlorobenzene	CT,NY,PA
4-Isopropyltoluene	CT,NY,PA
1,4-Dichlorobenzene	CT,NY,PA
1,2-Dichlorobenzene	CT,NY,PA
n-Butylbenzene	CT,NY,PA
1,2-Dibromo-3-Chloropropane	CT,NY,PA
1,2,4-Trichlorobenzene	CT,NY,PA
Hexachlorobutadiene	CT,NY,PA
Naphthalene	CT,NY,PA
1,2,3-Trichlorobenzene	CT
EPA 8270D in Soil	
Phenol	CT,NY,PA
1,3-Dichlorobenzene	CT,NY,PA

Certified Analyses included in this Report

Analyte	Certifications
EPA 8270D in Soil	
n-Nitroso-di-n-propylamine	CT,NY,PA
Pyridine	CT,NY,PA
n-Nitroso-dimethylamine	CT,NY,PA
bis(2-Chloroethyl)ether	CT,NY,PA
Aniline	CT,NY,PA
2-Chlorophenol	CT,NY,PA
1,4-Dichlorobenzene	CT,NY,PA
Benzyl Alcohol	CT,NY,PA
1,2-Dichlorobenzene	CT,NY,PA
bis(2-Chloroisopropyl)ether	CT,NY,PA
Hexachloroethane	CT,NY,PA
2-Methyl Phenol	CT,NY,PA
3+4 Methyl Phenol	CT,NY,PA
Naphthalene	CT,NY,PA
2-Nitrophenol	CT,NY,PA
2,4-Dichlorophenol	CT,NY,PA
Hexachlorobutadiene	CT,NY,PA
4-Chloro-3-methylphenol	CT,NY,PA
Nitrobenzene	CT,NY,PA
Isophorone	CT,NY,PA
2,4-Dimethylphenol	CT,NY,PA
bis(2-Chloroethoxy)methane	CT,NY,PA
Benzoic Acid	CT,NY,PA
1,2,4-Trichlorobenzene	CT,NY,PA
2,6-Dichlorophenol	CT,NY,PA
4-Chloroaniline	CT,NY,PA
1,2,4,5-Tetrachlorobenzene	CT,NY,PA
2-Methyl Naphthalene	CT,NY,PA
Acenaphthylene	CT,NY,PA
Acenaphthene	CT,NY,PA
Dibenzofuran	CT,NY,PA
Fluorene	CT,NY,PA
Hexachlorocyclopentadiene	CT,NY,PA
2,4,6-Trichlorophenol	CT,NY,PA
2,4,5-Trichlorophenol	CT,NY,PA
2,4-Dinitrophenol	CT,NY,PA
4-Nitrophenol	CT,NY,PA
2-Chloronaphthalene	CT,NY,PA
2-Nitroaniline	CT,NY,PA
Dimethylphthalate	CT,NY,PA
2,6-Dinitrotoluene	CT,NY,PA
4-Nitroaniline	CT,NY,PA
2,4-Dinitrotoluene	CT,NY,PA
2,3,4,6-Tetrachlorophenol	CT,NY,PA
4-Chlorophenyl-phenylether	CT,NY,PA
Diethylphthalate	CT,NY,PA
Phenanthrene	CT,NY,PA
Anthracene	CT,NY,PA
Carbazole	CT,NY,PA

Certified Analyses included in this Report

Analyte	Certifications
EPA 8270D in Soil	
Fluoranthene	CT,NY,PA
Pyrene	CT,NY,PA
n-Nitrosodiphenylamine	CT,NY,PA
Pentachlorophenol	CT,NY,PA
3-Nitroaniline	CT,NY,PA
4,6-Dinitro-2-methylphenol	CT,NY,PA
1,2-Diphenylhydrazine	CT
4-Bromophenyl-phenylether	CT,NY,PA
Hexachlorobenzene	CT,NY,PA
Di-n-butylphthalate	CT,NY,PA
Pentachloronitrobenzene	CT,NY,PA
Benzo[a]anthracene	CT,NY,PA
Chrysene	CT,NY,PA
Butylbenzylphthalate	CT,NY,PA
3,3-Dichlorobenzidine	CT,NY
bis(2-Ethylhexyl)phthalate	CT,NY,PA
Di-n-octylphthalate	CT,NY,PA
Benzo[b]fluoranthene	CT,NY,PA
Benzo[k]fluoranthene	CT,NY,PA
Benzo[a]pyrene	CT,NY,PA
Indeno[1,2,3-cd]pyrene	CT,NY,PA
Dibenz[a,h]anthracene	CT,NY,PA
Benzo[g,h,i]perylene	CT,NY,PA
EPA 9045D in Soil	
pH	CT,NY,PA
EPA 9095B in Soil	
Paint Filter Test	NY,PA
SM 2540 G in Soil	
Percent Solids	CT
SW 846 Ch. 7 in Soil	
Reactive Cyanide	CT
Reactive Sulfide	CT

Complete Environmental Testing operates under the following certifications and accreditations:

Code	Description	Number	Expires
CT	Connecticut Public Health	PH0116	09/30/2020
NY	New York Certification (NELAC)	11982	04/01/2020
PA	Pennsylvania DEP	68-02927	05/31/2020

9050701

CHAIN OF CUSTODY

COMPLETE ENVIRONMENTAL TESTING, INC.

Volatile Soils Only:
Date and Time in Freezer
Client:
CET:

80 Lupes Drive
Stratford, CT 06615
Tel: (203) 377-9984
Fax: (203) 377-9952
e-mail: cet1@cetlabs.com
Bottle Request e-mail: bottleorders@cetlabs.com

Matrix: A=Air, S=Soil, W=Water, DW=Drinking Water, C=Cassette Solid, Wipe, Other (Specify)

Turnaround Time ** (check one): Same Day *, Next Day *, Two Day *, Three Day *, Std (5-7 Days)

Metals: 8 RCRA, 13 Priority Poll, 15 CT DEP, Total, SPLP, TCLP, Dissolved, Field Filtered, Lab to Filter

Additional Analysis: Flash point, Reactive Sulf., Reactive Cyn., Total Solids, pH, Paint Filter, Conductivity

Sample ID/Sample Depths (include Units for any sample depths provided)	Collection Date/Time	Matrix	Same Day *	Next Day *	Two Day *	Three Day *	Std (5-7 Days)	8260 CT List	8260 Aromatics	8260 Halogens	CT ETPH	8270 CT List	8270 PNAs	PCBs ☐ SOX ☐ ASE	Pesticides	8 RCRA	13 Priority Poll	15 CT DEP	Total	SPLP	TCLP	Dissolved	Field Filtered	Lab to Filter	Flash point	Reactive Sulf.	Reactive Cyn.	Total Solids	pH	Paint Filter	Conductivity			TOTAL # OF CONT.	NOTE #
SB1 17-19 ft.	5/22/19 1330	S	see					X			X	X		X		X									X	X	X	X	X	X	X			5	
SB2 15-17 ft.	↓ 1140	↓		note				↓			↓	↓		↓		↓									↓	↓	↓	↓	↓	↓	↓			5	
SB3 15-17 ft.	↓ 910	↓						↓			↓	↓		↓		↓									↓	↓	↓	↓	↓	↓	↓			5	
PRESERVATIVE (Cl–HCl, N–HNO_3, S–H_2SO_4, Na–NaOH, C=Cool, O–Other)								C			C	C		C		C									C	C	C	C	C	C	C			15	
CONTAINER TYPE (P–Plastic, G–Glass, V–Vial, O–Other)								V			G	G		G		G									G	G	G	G	G	G	G				
Soil VOCs Only (M=MeOH B=Sodium Bisulfate W=Water F=Empty Vial E=Encore)								M F																										

RELINQUISHED BY: LMan DATE/TIME: 5/23/19 RECEIVED BY: UPS

RELINQUISHED BY: DATE/TIME: 5/23/19 1530 RECEIVED BY: m gabo 05/23/19

RELINQUISHED BY: DATE/TIME: RECEIVED BY:

NOTES: need results by wednesday, 5/29

Client / Reporting Information

Company Name: Zuvic Carr and assoc
Address: 40 cold spring rd
City: rocky hill State: CT Zip: 06067
Report To: Tory man (Tory@zuvic.com) laurel pichard (laurel@zuvic.com)
E-mail:
Phone #: Fax #:

Project Information

Project: Waste Characterization PO #:
Location: 125 Riverside Dr Project #: 1885-06
CET Quote # E. Hartford Collector(s): LMP

QA/QC ☐ Std ☐ Site Specific (MS/MSD) * ☐ RCP Pkg * ☐ DQAW *
Data Report ☐ PDF ☒ EDD - Specify Format Waste Char. Other
RSR Reporting Limits (check one) ☒ GA ☐ GB ☐ SWP ☐ Other
Laboratory Certification Needed (check one) ☒ CT ☐ NY ☐ RI ☐ MA
Temp Upon Receipt 5 °C Evidence of Cooling: Y N

PAGE 1 OF 1

*** Additional charge may apply. ** TAT begins when the samples are received at the Lab and all issues are resolved. TAT for samples received after 3 p.m. will start on the next business day. All samples picked up by courier service will be considered next business day receipt for TAT purposes.**

REV. 10/16

GNCB
Consulting Engineers, P.C.
Structural Engineering
Geotechnical Engineering
Historic Preservation

May 30, 2019

Zuvic, Carr and Associates, Inc.
40 Cold Spring Road
Rocky Hill, Connecticut 06067

Attention: Ms. Tory Man

Sent via e-mail: email: tory@zuvic.com

Re: Subsurface Data Report
Riverside Drive Outfall
125 Riverside Drive, East Hartford, Connecticut

Principals
Charles C. Brown, P.E.
James F. Norden, P.E.
Amy Jagaczewski, P.E.

Principal Emeritus
Kenneth Gibble, P.E.

Geotechnical Associate
David L. Freed, P.E.

Structural Associate
Richard A. Centola, P.E.

Dear Tory,

This letter report summarizes the results of recent test borings and laboratory soil tests completed at the Riverside Drive Outfall site in East Hartford, Connecticut. The purpose of this work was to provide prospective bidding contractors with site-specific subsurface data for the purpose of their design of various construction means and methods, such as lateral support system and dewatering. Our work was completed in accordance with your verbal authorization.

BACKGROUND

GNCB was retained by Zuvic, Carr and Associates, Inc. (Zuvic Carr), the project design engineer, to provide the site-specific geotechnical subsurface information. As shown on the Zuvic Carr Site Layout Plan SP-1 (dated May 28, 2017), the Riverside Drive Outfall project consists of an outfall structure that terminates at the Connecticut River, four drainage manholes, and approximately 700 lin. ft. of below ground RCP pipe. This outfall and pipe connect to the Ensign Street Drainage Works, also designed by Zuvic Carr.

The Riverside Drive outfall piping consists of 3 to 4.5 ft. diameter RCP with pipe invert grades up to 20 ft. below ground surface. As such, the installation will require a contractor-designed lateral support system.

1358 Boston Post Road
P.O. Box 802Id Saybrook, CT
06475
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GNCB
Consulting Engineers, P.C.

SUBSURFACE AND LABORATORY INVESTIGATIONS

Test Borings: To determine subsurface soil conditions, Zuvic Carr arranged for and monitored a subsurface exploration program consisting of three test borings (SB1 to SB3). The test boring field work, completed on May 22, 2019, is described in the body of the report, and is briefly summarized below:

- Cisco Geotechnical, LLC drilled the test borings to depths from 32 to 52. ft.
- Utilizing a geoprobe machine, boreholes were advance by open drill hole means stabilized by a heavy drilling mud.
- At each test boring, near-continuous soil samples (ASTM D1586) were obtained within the upper 20 ft. and thereafter at 5 ft. intervals.
- The attached Site Layout Plan shows the locations of the test borings.
- Zuvic Carr prepared test boring logs; refer to Appendix A.

GNCB visited the site on May 22, 2019 to coordinate the start of work and to confirm the drilling procedures. GNCB prepared the attached Table I which summarizes the conditions at each exploration.

Laboratory Soil Testing: Following the test boring work, GNCB reviewed the sample classifications at the Zuvic Carr office. In addition, representative samples were collected and submitted to a testing laboratory, GeoTesting Express of Acton, Massachusetts, to confirm field identification of the soils and to establish engineering characteristics. Tests were completed in general conformance with ASTM standards; test results are attached. The following is a summary of the tests completed.

Grain Size Distributions (ASTM D422): Four grain size analysis tests were completed on the sand overlying the clay. Test results, shown as graphical plots of percent finer by weight for various standard sieve sizes, indicate the tested soils were typically a medium to fine SAND; the natural sand contains rounded particles. We note that the test results for the SB3 (10-12 ft.), a natural rounded sand, show some angular pieces normally associated with the fill; we believe that this sample may have been compromised during the sampling and drilling process with some of the upper fill material.

Moisture Contents (ASTM D2216): Five moisture content tests on the soft varved clay (refer to attached table) generally ranged from 43 to 56 percent, however the surface of the clay at SB3 was at 23 percent.

Atterberg Limits (ASTM D4318): Two Atterberg Limit tests, completed on samples recovered from SB3 at depths of 20 to 22 ft. and 35 to 37 ft., are shown as graphical plots of liquid limit versus plasticity index.

The test results revealed samples were a plastic clay, with a plasticity index ranging from 13 (at the surface of the clay) increasing to 29 (at a depth of 15 ft. below the clay surface).

SUBSURFACE SOIL AND GROUNDWATER CONDITIONS

The subsurface explorations revealed that subsurface conditions consist of three major strata, a surface man-placed fill underlain by sand and further underlain by varved silt and clay. These soil conditions are described below, progressing downward from ground surface:

Thickness (ft.)	General Description
0.5 – 8.7	Medium dense dark brown and brown medium to fine SAND, trace to little gravel, and trace silt (MAN-PLACED FILL)
8.8 – 19.5	Medium dense brown to yellow brown medium to fine SAND, fine SAND, or coarse to fine SAND, trace silt (GLACIO FLUVIAL DEPOSIT)
32.0+ at SB3	Upper thin desiccated stiff grey-brown silty clay underlain by very soft alternating layers of grey silty CLAY (1/2 in, thick) and very thin layers of reddish or grey fine SAND and SILT (i.e., varved clay) (GLACIO LACUSTRINE DEPOSIT)

The surface man placed fill was thin, less than 1.5 ft., at SB2 and SB3, but was as much as 8.7 ft. at SB1. We suspect that this larger fill thickness at SB1 is a localized condition, possibly representing a location where the existing natural sand was removed and used as a borrow material. The natural sand, while thinnest at SB1 because of the man-placed fill, was19.5 ft. thick at SB3.

All test borings terminated within what is believed to be a very thick deposit of glaciolacustrine material composed of varved (alternating layers) of silty clay and silt; readily-available surficial geology maps suggest that this deposit is in excess of 100 ft. thick. The surface of the clay, at SB1 and SB2, consists of a thin hardened desiccated clay which is grey-brown or yellow-brown in color. The top of the clay ranged from El. 20 (at SB2) to El. 18 (at SB3).

Water levels observed at the completion of the test borings were typically 10 to 12 ft. below ground surface, corresponding to water levels between El. 27 and El. 26. These observations, however, were made over a short period of time and may not represent the actual static groundwater level. In any event, water levels vary with precipitation, season, and other factors. As a result, water levels encountered during and after construction may differ from those observed in the explorations.

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Consulting Engineers, P.C.

DISCUSSION

Based on the test boring information, it appears that the pipe inverts are at or a few feet below the top of the clay stratum, such that excavation will be through any surface man-placed fill and the natural sand deposit. The granular soils are medium dense in consistency. We expect that normal backhoe type excavation equipment should be able to readily excavate these granular soils. In view of the anticipate clay surface at the pipe invert, we suggest that backhoe excavation equipment be equipped with a smooth edge bucket, to eliminate disturbance and ridges of soil at pipe bearing grade. As indicated, the excavated soil will mostly consist of granular material consisting of sand, silt, and gravel; the test borings did not encounter any boulders. We expect that the excavated granular soils can be placed and compacted in uniform lifts and will be suitable as trench backfill over the pipe design bedding materials.

Based on the test boring and laboratory results, empirical interpretation of the test boring standard penetration "N" values, and our local experience, we suggest the following soil parameters for design of lateral support systems:

Recommended Soil Design Parameters

MATERIAL	DRY UNIT WEIGHT (PCF)	ANGLE INTERNAL FRICTION (Ø)	UNDRAINED SHEAR STRENGTH (PSF)
FILL	115	32	0
SAND	125	34	0
SOFT VARVED CLAY	100	0	600

Based on the laboratory grain size analysis test of the granular soils, we would estimate that these granular soils have a soil permeability in the range of 0.05 ft. per minute.

Please call if you have any questions or require additional information.

Very truly yours,

David L. Freed, P.E.
Geotechnical Associate

Enclosures: Table I – Summary of Test Borings
Laboratory Soil Test Results

GNCB
Consulting Engineers, P.C.

TABLE I

SUMMARY OF TEST BORINGS

RIVERSIDE DRIVE OUTFALL
EAST HARTFORD, CONNECTICUT

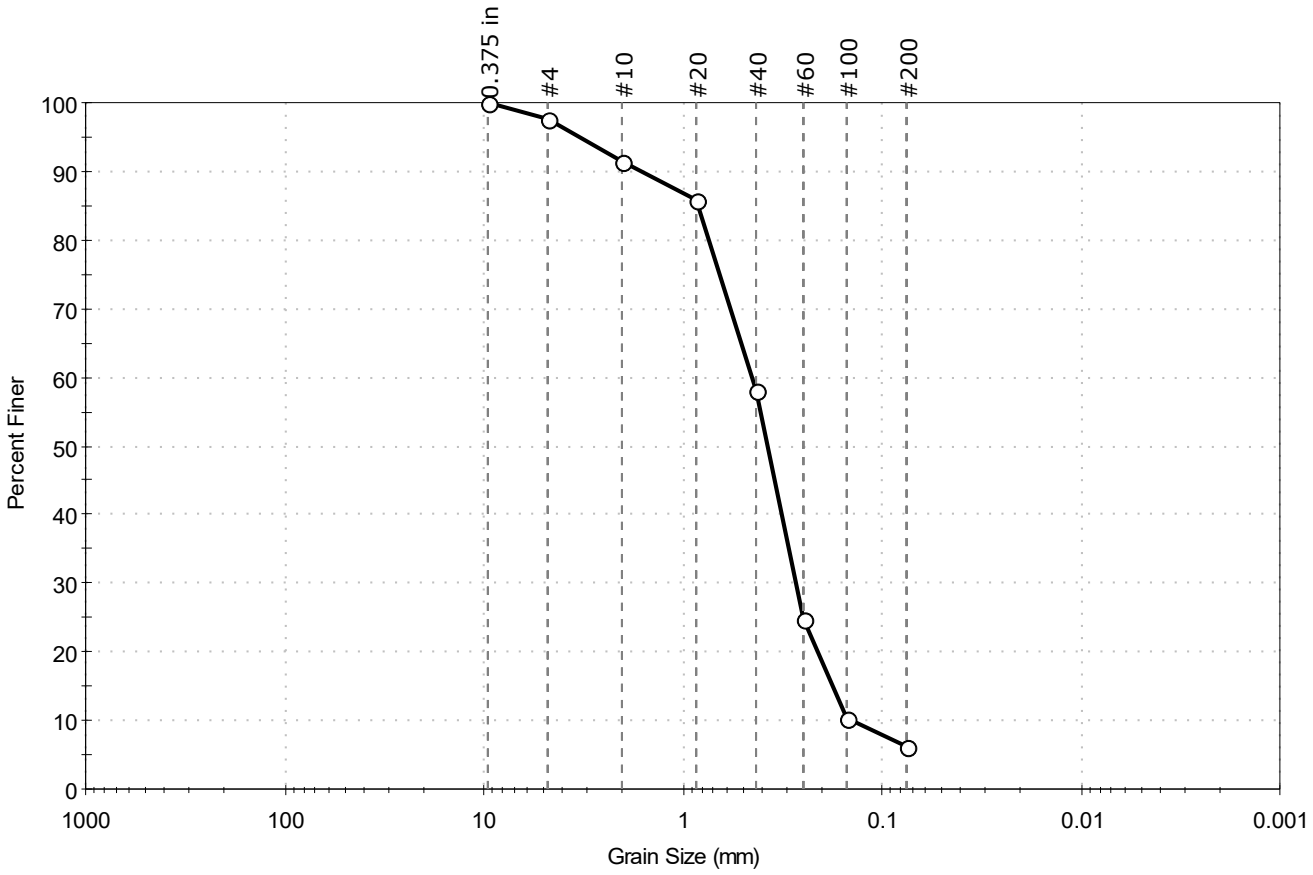
TEST BORING NO.	TOTAL DEPTH (FT.)	ELEV. GROUND SURFACE (FT.)	ELEV. WATER (FT.)	THICKNESS SOIL (FT.)			ELEV. TOP OF	
				FILL	SAND	VARVED CLAY	SAND	VARVED CLAY
SB-1	32.0	37.0	27.0	8.7	8.8	14.5+	28.3	19.5
SB-2	32.0	38.0	26.0	1.5	16.5	14.0+	36.5	20.0
SB-3	52.0	38.0	26.0	0.5	19.5	32.0+	37.5	18.0

NOTES:

1. Refer to Site Layout Plan for locations of test borings.
2. Elevations are in feet and refer to NAVD 88 Datum.
3. Zuvic Carr located test borings in the field.

Client:	GNCB Consulting Engineers, P.C.				
Project:	Riverside Drive Outfall				
Location:	East Hartford, CT			Project No:	GTX-310049
Boring ID:	SB1	Sample Type:	bag	Tested By:	ckg
Sample ID:	1	Test Date:	05/25/19	Checked By:	bfs
Depth :	7-9	Test Id:	505835		
Test Comment:	---				
Visual Description:	Moist, brown sand with silt				
Sample Comment:	---				

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	2.4	91.4	6.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	98		
#10	2.00	91		
#20	0.85	86		
#40	0.42	58		
#60	0.25	25		
#100	0.15	10		
#200	0.075	6.2		

Coefficients

D_{85} = 0.8309 mm	D_{30} = 0.2720 mm
D_{60} = 0.4451 mm	D_{15} = 0.1776 mm
D_{50} = 0.3735 mm	D_{10} = 0.1446 mm
C_u = 3.078	C_c = 1.150

Classification

ASTM N/A

AASHTO Fine Sand (A-3 (1))

Sample/Test Description

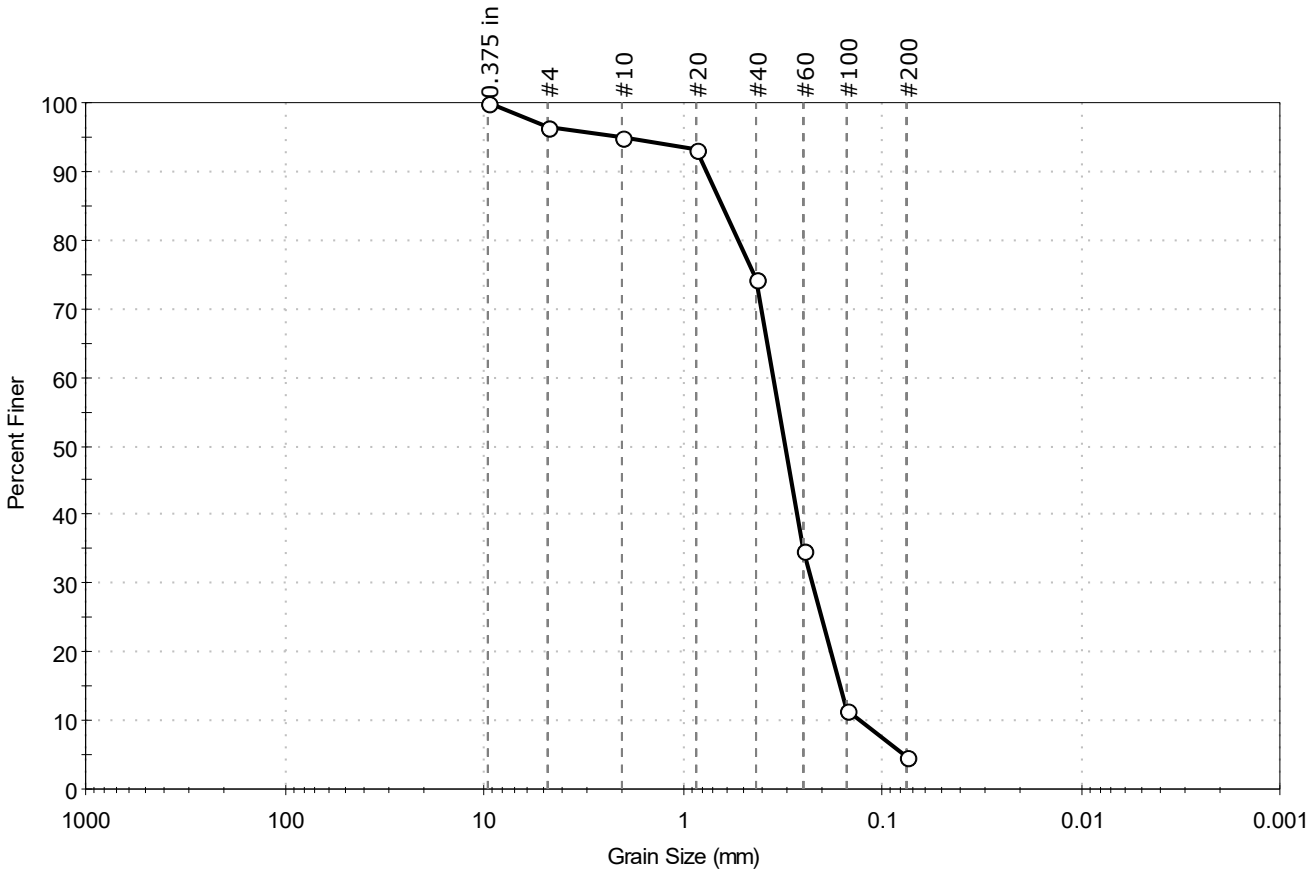
Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

GeoTesting EXPRESS

Client:	GNCB Consulting Engineers, P.C.				
Project:	Riverside Drive Outfall				
Location:	East Hartford, CT			Project No:	GTX-310049
Boring ID:	SB2	Sample Type:	bag	Tested By:	ckg
Sample ID:	2	Test Date:	05/24/19	Checked By:	bfs
Depth :	5-7	Test Id:	505836		
Test Comment:	---				
Visual Description:	Moist, brown sand				
Sample Comment:	---				

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
--	3.5	91.8	4.7

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	96		
#10	2.00	95		
#20	0.85	93		
#40	0.42	74		
#60	0.25	35		
#100	0.15	12		
#200	0.075	4.7		

Coefficients

D_{85} = 0.6290 mm	D_{30} = 0.2253 mm
D_{60} = 0.3510 mm	D_{15} = 0.1617 mm
D_{50} = 0.3069 mm	D_{10} = 0.1277 mm
C_u = 2.749	C_c = 1.132

Classification

ASTM Poorly graded SAND (SP)

AASHTO Fine Sand (A-3 (1))

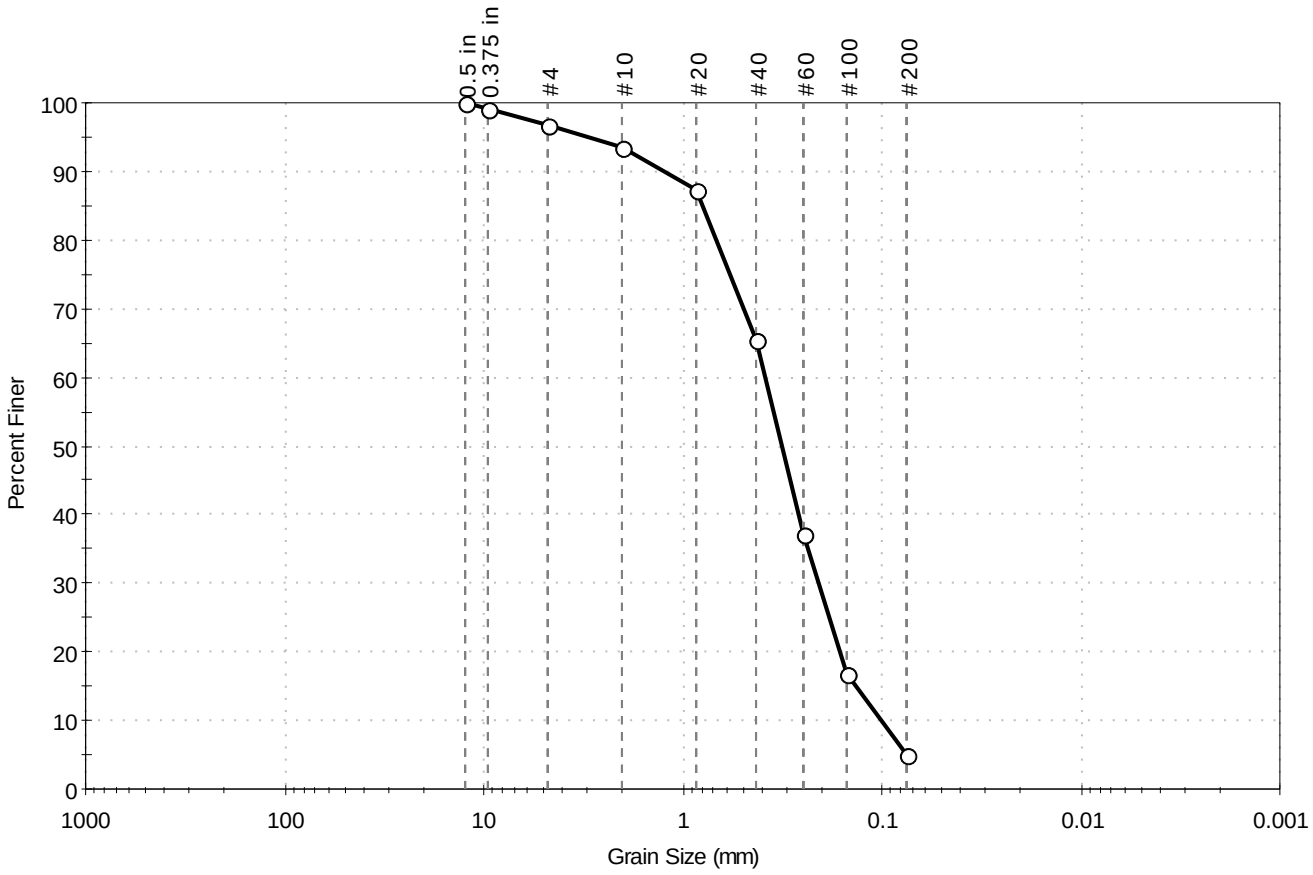
Sample/Test Description

Sand/Gravel Particle Shape : ---

Sand/Gravel Hardness : ---

Client:	GNCB Consulting Engineers, P.C.				
Project:	Riverside Drive Outfall				
Location:	East Hartford, CT			Project No:	GTX-310049
Boring ID:	SB3	Sample Type:	bag	Tested By:	ckg
Sample ID:	3	Test Date:	05/24/19	Checked By:	bfs
Depth :	10-12	Test Id:	505837		
Test Comment:	---				
Visual Description:	Moist, brown sand with silt				
Sample Comment:	---				

Particle Size Analysis - ASTM D422



%Cobble	%Gravel	%Sand	%Silt & Clay Size
---	3.2	91.8	5.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.5 in	12.50	100		
0.375 in	9.50	99		
#4	4.75	97		
#10	2.00	94		
#20	0.85	87		
#40	0.42	66		
#60	0.25	37		
#100	0.15	17		
#200	0.075	5.0		

Coefficients

D_{85} = 0.7902 mm	D_{30} = 0.2093 mm
D_{60} = 0.3833 mm	D_{15} = 0.1351 mm
D_{50} = 0.3182 mm	D_{10} = 0.1006 mm
C_u = 3.810	C_c = 1.136

Classification

ASTM N/A

AASHTO Fine Sand (A-3 (1))

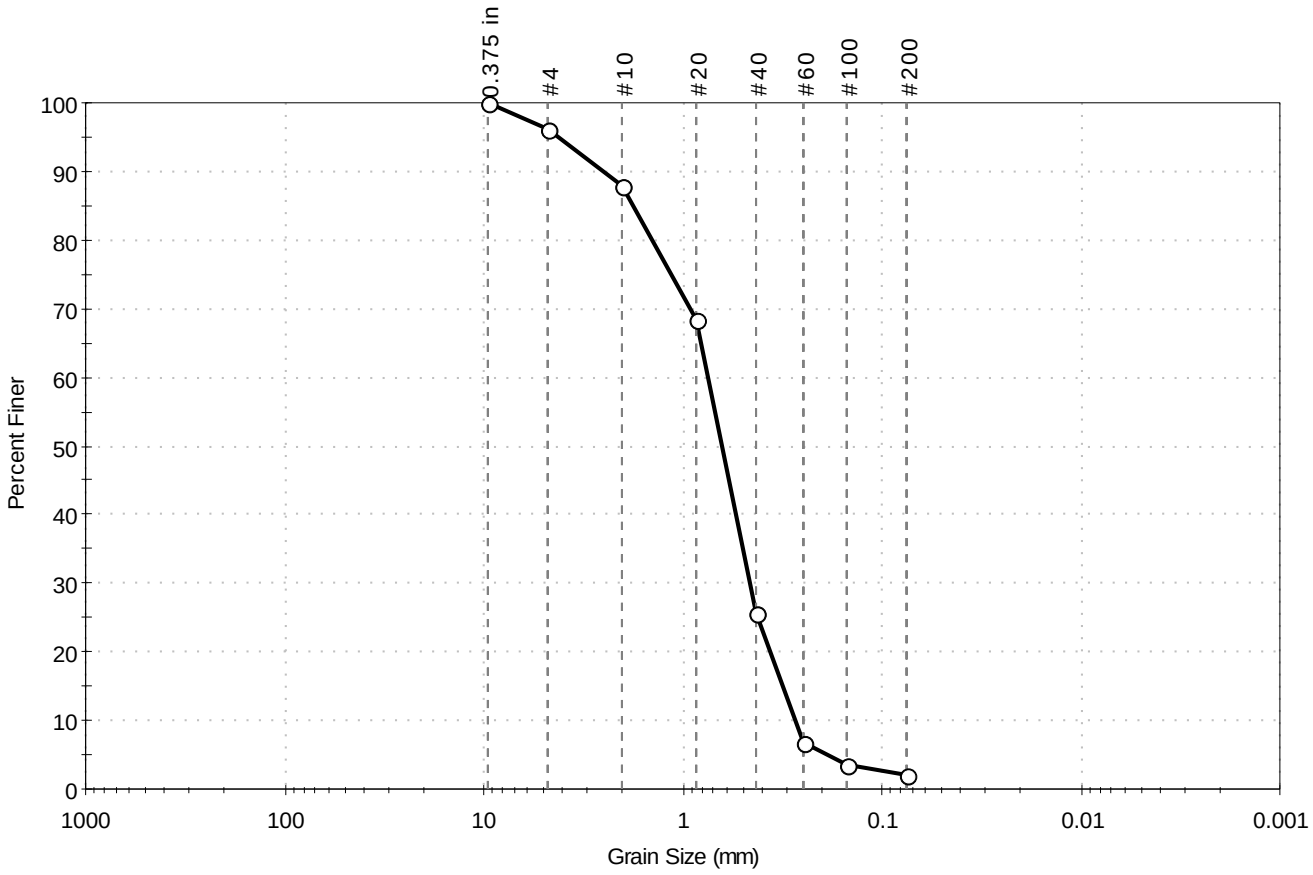
Sample / Test Description

Sand/Gravel Particle Shape : ANGULAR

Sand/Gravel Hardness : HARD

Client:	GNCB Consulting Engineers, P.C.				
Project:	Riverside Drive Outfall				
Location:	East Hartford, CT			Project No:	GTX-310049
Boring ID:	SB1	Sample Type:	bag	Tested By:	ckg
Sample ID:	4	Test Date:	05/24/19	Checked By:	bfs
Depth :	15-17	Test Id:	505838		
Test Comment:	---				
Visual Description:	Moist, brown sand				
Sample Comment:	---				

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
---	3.7	94.1	2.2

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	96		
#10	2.00	88		
#20	0.85	69		
#40	0.42	26		
#60	0.25	7		
#100	0.15	3		
#200	0.075	2.2		

Coefficients

D_{85} = 1.7612 mm	D_{30} = 0.4549 mm
D_{60} = 0.7402 mm	D_{15} = 0.3146 mm
D_{50} = 0.6293 mm	D_{10} = 0.2738 mm
C_u = 2.703	C_c = 1.021

Classification

ASTM — Poorly graded SAND (SP)

AASHTO — Stone Fragments, Gravel and Sand (A-1-b (1))

Sample / Test Description

Sand/Gravel Particle Shape : ROUNDED

Sand/Gravel Hardness : HARD

GeoTesting EXPRESS

Client:	GNCB Consulting Engineers, P.C.				
Project:	Riverside Drive Outfall				
Location:	East Hartford, CT			Project No:	GTX-310049
Boring ID:	---	Sample Type:	---	Tested By:	ckg
Sample ID:	---	Test Date:	05/24/19	Checked By:	bfs
Depth :	---	Test Id:	505843		

Moisture Content of Soil and Rock - ASTM D2216

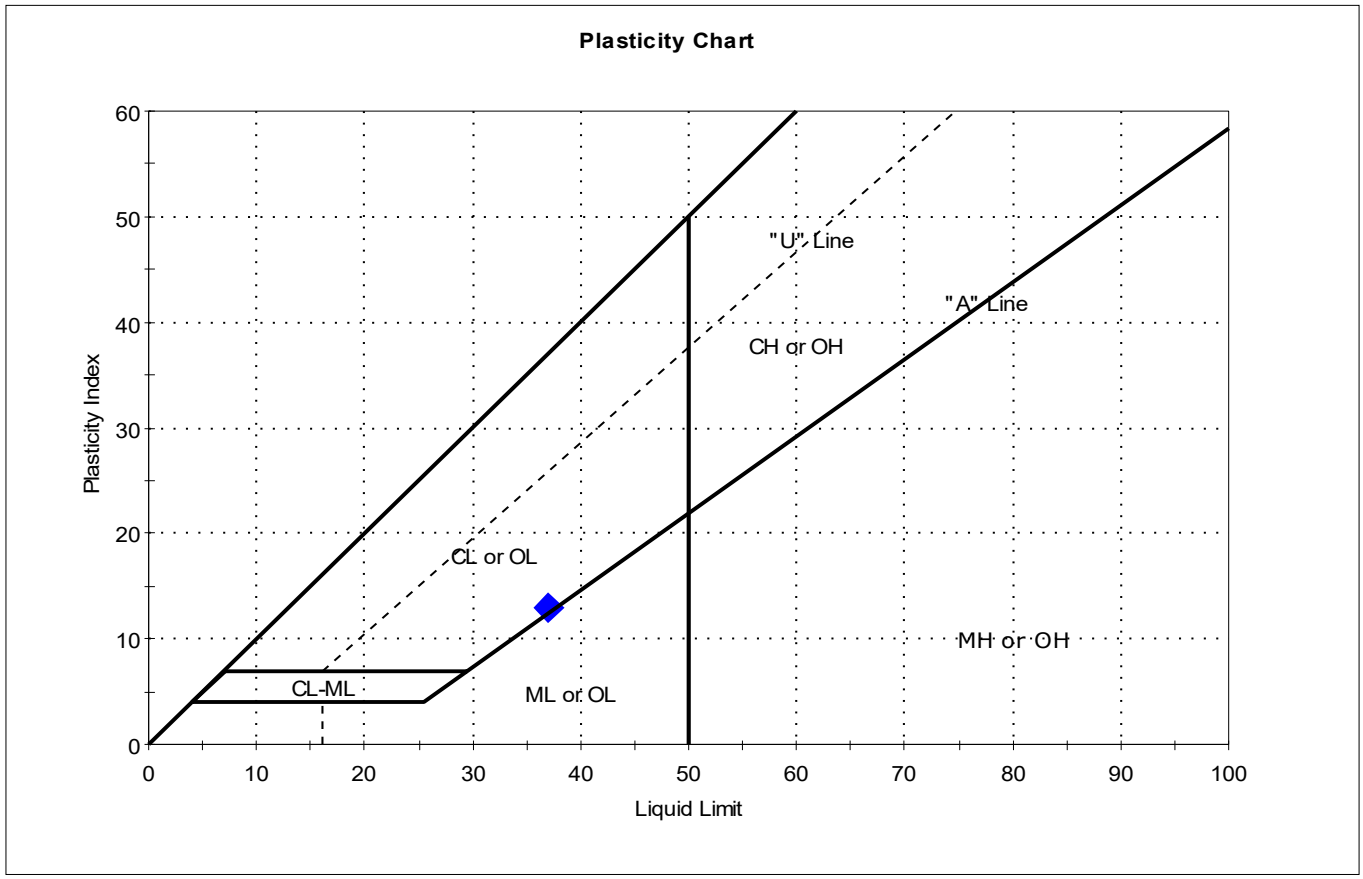
Boring ID	Sample ID	Depth	Description	Moisture Content,%
SB1	5	20-22	Moist, olive gray clay	42.8
SB2	6	25-27	Moist, olive gray clay	45.5
SB2	7	30-32	Moist, olive gray clay	49.8
SB3	8	20-22	Moist, olive clay	23.2
SB3	9	35-37	Moist, olive gray clay	56.0

Notes: Temperature of Drying : 110º Celsius

GeoTesting EXPRESS

Client:	GNCB Consulting Engineers, P.C.				
Project:	Riverside Drive Outfall				
Location:	East Hartford, CT			Project No:	GTX-310049
Boring ID:	SB3	Sample Type:	bag	Tested By:	cam
Sample ID:	8	Test Date:	05/28/19	Checked By:	bfs
Depth :	20-22	Test Id:	505844		
Test Comment:	---				
Visual Description:	Moist, olive clay				
Sample Comment:	---				

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	8	SB3	20-22	23	37	24	13	-0.1	

Sample Prepared using the WET method

Dry Strength: VERY HIGH

Dilatancy: SLOW

Toughness: LOW

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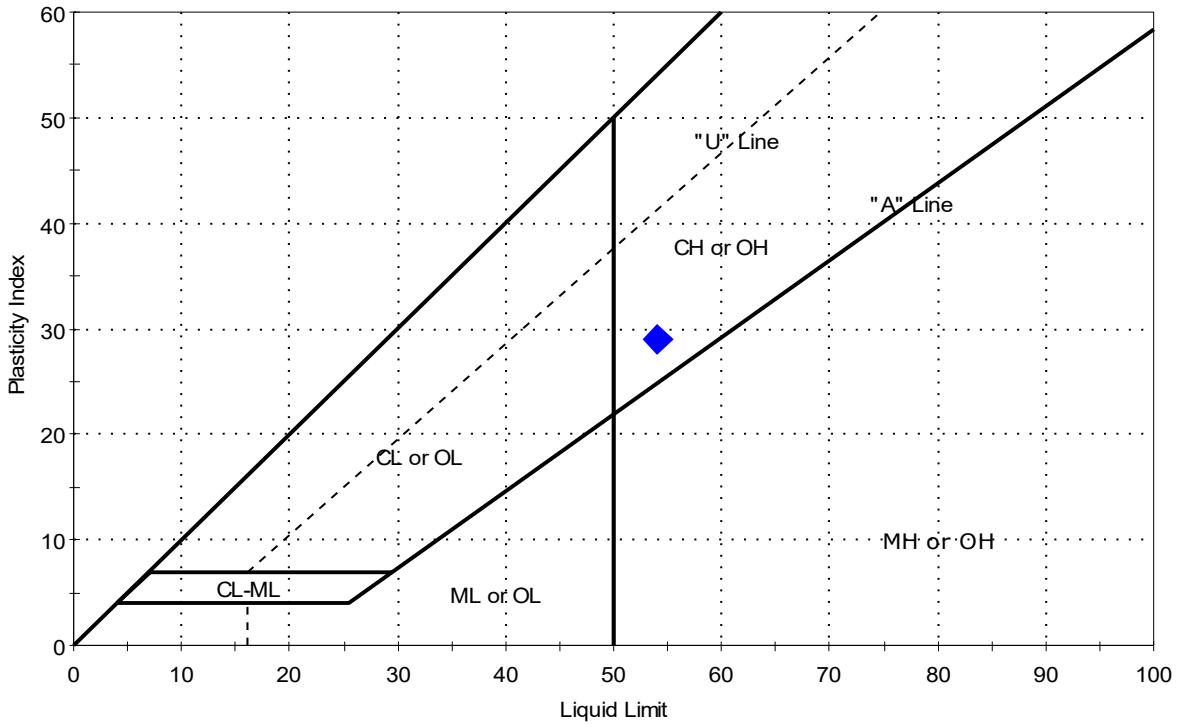
GeoTesting EXPRESS

Client:	GNCB Consulting Engineers, P.C.				
Project:	Riverside Drive Outfall				
Location:	East Hartford, CT			Project No:	GTX-310049
Boring ID:	SB3	Sample Type:	bag	Tested By:	cam
Sample ID:	9	Test Date:	05/28/19	Checked By:	bfs
Depth :	35-37	Test Id:	505845		
Test Comment:	---				
Visual Description:	Moist, olive gray clay				
Sample Comment:	---				

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content,%	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
◆	9	SB3	35-37	56	54	25	29	1.1	

Sample Prepared using the WET method

Dry Strength: VERY HIGH

Dilatancy: SLOW

Toughness: LOW