

OBG | There's a way

December 22, 2016

Thomas HallNYSDEC Region 8 Office 6274 East Avon-Lima Rd Avon. NY 14414-9516

RE: NYSDEC Spill No. 1606422

Ben Weitsman of Rochester LLC

80 Steel Street Rochester, NY
Cleanup Approach

FILE: 6084/60307

Dear Thomas:

O'Brien & Gere (OBG), on behalf of Ben Weitsman of Rochester LLC (Weitsman), has developed the approach herein described to obtain closure of the NYSDEC Spill No. 1606422, associated with the facility located at 80 Steel Street in the city of Rochester, Monroe County, New York (herein referred to as Site), opened on September 28, 2016.

BACKGROUND

OBG was on Site on September 28, 2016 performing test digs to collect soil samples for disposal characterization as part of an on-going United States Environmental Protection Agency (USEPA)-approved self-implementing polychlorinated biphenyl (PCB) cleanup. While advancing a test pit with an excavator in an area outside of the delineated PCB cleanup area, a buried 55-gallon steel drum (buried drum) with secured lid was encountered in the sidewall at approximately 1.5-feet (ft) below grade surface (bgs). The side of the drum opened to the excavation had deterioration that was causing a black, oily-like substance to leak from the drum. Water was encountered in the excavation at a depth of approximately 3-ft bgs.

The buried drum was uncovered to a point of being able to access and open the steel lid. Soil around the drum was excavated and placed on poly-sheeting adjacent to the excavation. Upon opening the buried drum, a polylining was observed and fluid within the drum was at a level equal to the surrounding water. An attempt was made to transfer the contents(fluid) of the drum into a new 55-gallon steel drum via an electric transfer pump. Approximately 30-gallons of water was transferred to the new drum when it was determined that the level in the drum was not dropping, pumping subsequently ceased. Within the buried drum was a poly-liner containing sludge and water, the liner and the sludge it contained was removed and placed in a plastic over-pack drum.

Absorbent pads were placed on the water surface within the excavation and in the buried drum and the buried drum was covered and secured using the original lid. To limit the potential migration of the oily-like substance on the surface of the excavation water, the excavation was backfilled with the same material, re-covering the drum.







Prior to the excavation being backfilled, a composited soil sample (WC-03-0-8-092816) was collected for waste characterization purposes from the stockpile of material removed from around the buried drum. The sample was analyzed for the following:

- Flashpoint (USEPA Method 1010A)
- PCBs (USEPA Method 8082A)
- pH (USEPA Method 9045D)
- TCLP Semi-Volatile Organic Compounds (SVOCs) (USEPA Method 8270D)
- TCLP Mercury (USEPA Method 7470A)
- TCLP RCRA Metals (ICP) (USEPA Method 6010C)
- TCLP Volatile Organic Compounds (VOCs) (USEPA Method 8260C)

Laboratory Reports have been included as Attachment 1.

In addition to the soil sample collected from the soils adjacent to the buried drum, a waste characterization sample was collected from the oil water mixture that had been transferred into the new steel drum. The waste oil/water will be profiled based on the analytical results and appropriately disposed of at an authorized treatment, storage, and disposal facility (TSDF).

A second 55-gallon steel drum (pond drum) was observed sitting in the existing site retention pond approximately 100 feet north of the buried drum. The drum did not have a lid and was partially submerged in the retention pond under approximately 1 foot of water and several inches of sediment and material. Upon removal of the drum a sheen was observed on the retention pond water surface in the vicinity of the drum so an absorbent boom was used for control. A sheen was not apparent until the drum was disturbed. Once the drum was set upright, the drum was observed to contain approximately 30-gallons of black material. The drum contents were sampled (Pond_Drum-1-092916) for waste characterization as identified above. The material will be profiled for disposal purposes based on the analytical results, and appropriately disposed of at an authorized TSDF. Based upon the use of the site and the condition and location of each drum, the two drums are not believed to be associated with each other. A limited investigation utilizing ground penetrating radar was conducted in the excavation area of the proposed storm water management area (SWMA) and no additional anomalies were detected that would indicate the presence of additional drums.

While excavating the SWMA 2 PVC lines were uncovered approximately 2 to 3 feet bgs. The lines contained an oil sludge. The sludge and soil immediately adjacent to the PVC lines was sampled for waste characterization. Upon review of the analytical (Lab Sample ID:165454) a determination will be made on how to dispose of the PVC lines, its contents.

CLEANUP APPROACH

As part of the self-implementing PCB cleanup, an USEPA and NYSDEC-approved cap consisting of paved asphalt and lined retention pond will cover the area of the drums. In addition, a deed restriction will be placed on the Site that, combined with the cap system, will mitigate potential exposures.

The area where the drums were encountered are located within the planned SWMA. Soil will be excavated from this area to develop the grades necessary for the installation of the SWMA liner, with varying depths from 2 to 8 ft. below current grade. This removal will extend to at least 2 ft. below and extend to at least 15 ft. horizontally from the buried drum. The excess soils from Site improvements associated with cleanup have been approved for transport and disposal at a 6 NYCRR Part 360 (Part 360)-permitted landfill located in Ontario County, New York, and operated by Casella Resource Solutions (Casella).



The water in the current retention pond, in addition to water encountered during construction, will be pumped out and contained in a storage tank for characterization prior to discharge to the Monroe County sewer system. A short term discharge permit has been obtained from Monroe County Pure Waters to discharge the water to the Monroe County sewer located on Site and written authorization from Monroe County will be received prior to discharge. The sediment at the bottom of the retention pond will also be removed as part of the Site improvements and disposed of at the Casella landfill as part of the same waste stream as the surrounding soils.

As part of the construction activities, the buried drum will also be removed, and placed in an over pack for disposal at an authorized TSDF.

The proposed excavation depth in the vicinity of the buried drum and PVC lines is approximately 2.5-ft below the bottom of the buried drum and lines. Soils at the bottom of the excavation in the vicinity of the buried drum and lines will be screened with a photo-ionization detector (PID) and results will be included as part of the spill closure report to the NYSDEC. Should elevated readings (*i.e.*, greater than 10 ppm) or visual/olfactory evidence of petroleum impacts be observed at the bottom of the proposed excavation, documentation samples of the area will be collected as outlined in NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, issued May 2010. No additional soil sampling is planned related to the cleanup of this spill.

Upon completion of the Site improvements, a report will be submitted to the NYSDEC for approval of the spill closure. This report will include a description of the field observations and samples collected, if warranted based on the criteria described above, in addition to documentation of soil and water disposition.

OBG requests NYSDEC-approval of the cleanup approach contained herein. Should you have any questions, please do not hesitate to contact me at 315-956-6836.

Very truly yours, O'BRIEN & GERE, INC. OF NORTH AMERICA

James Guotta

James CavottaProject Manager

cc. James Haklar-USEPA Region 2
Mike Khalil – NYSDEC Region 8
Doreen Simmons- Hancock and Estabrook
Paul Mazurkiewicz, PE – O'Brien & Gere
Doug Crawford, PE – O'Brien & Gere
Logan Reid – O'Brien & Gere

Attachments:

Attachment 1 – Laboratory Analytical Reports

Attachment 1 –

Laboratory Analytical
Reports



Analytical Report For

O'Brien & Gere Engineers, Inc.

For Lab Project ID

164225

Referencing

60307

Prepared

Thursday, October 06, 2016

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

M Nil

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958 • PADEP ID# 68-02351



Client: O'Brien & Gere Engineers, Inc.

Project Reference: 60307

Sample Identifier: WC-01-0-8-092816, 40 ppm Headspace

Lab Sample ID: 164225-01 Date Sampled: 9/28/2016 **Date Received:** Matrix: Soil 9/29/2016

Flash Point

Analyte Units Qualifier Result **Date Analyzed**

Flash Point, Celsius >70.0 \mathbf{C} 10/5/2016

Method Reference(s): **EPA 1010A**

PCBs

Analyte Result Units **Oualifier Date Analyzed** PCB-1016 < 0.363 mg/Kg 10/3/2016 03:28 PCB-1221 < 0.363 mg/Kg 10/3/2016 03:28 PCB-1232 < 0.363 10/3/2016 03:28 mg/Kg PCB-1242 < 0.363 mg/Kg 10/3/2016 03:28 PCB-1248 < 0.363 mg/Kg 10/3/2016 03:28 PCB-1254 < 0.363 10/3/2016 03:28 mg/Kg PCB-1260 < 0.363 mg/Kg 10/3/2016 03:28 PCB-1262 < 0.363 10/3/2016 03:28 mg/Kg PCB-1268 < 0.363 10/3/2016 03:28 mg/Kg **Percent Recovery Outliers Date Analyzed Surrogate** Limits

Decachlorobiphenyl 61.1 10 - 144 10/3/2016 03:28 65.6 10 - 140 Tetrachloro-m-xylene 10/3/2016 03:28

Method Reference(s): EPA 8082A

EPA 3550C 9/30/2016

Preparation Date:

pН

Result Units Qualifier Analyte Date Analyzed 9/29/2016 13:15 7.73 @ 24.8 C S.U. рН

Method Reference(s): EPA 9045D

Reactive Cyanide

Analyte Result **Units Qualifier Date Analyzed** Reactivity, Cyanide <100 10/3/2016 mg/Kg



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 60307

Sample Identifier: WC-01-0-8-092816, 40 ppm Headspace

Lab Sample ID:164225-01Date Sampled:9/28/2016Matrix:SoilDate Received:9/29/2016

Method Reference(s): EPA 7.3.3.2 **Subcontractor ELAP ID:** 11148

ELAP does not offer this test for approval as part of their laboratory certification program.

Reactive Sulfide

AnalyteResultUnitsQualifierDate AnalyzedReactivity, Sulfide<100</td>mg/Kg10/3/2016

Method Reference(s):EPA 7.3.4.2Subcontractor ELAP ID:11148

ELAP does not offer this test for approval as part of their laboratory certification program.



Client: O'Brien & Gere Engineers, Inc.

60307 **Project Reference:**

Sample Identifier: WC-01-0-8-092816, 40 ppm Headspace

Lab Sample ID: **Date Sampled:** 164225-01A 9/28/2016 **Matrix: TCLP Extract Date Received:** 9/29/2016

TCLP Semi-Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500	10/3/2016 18:13
2,4,5-Trichlorophenol	< 80.0	ug/L	400000	10/3/2016 18:13
2,4,6-Trichlorophenol	< 40.0	ug/L	2000	10/3/2016 18:13
2,4-Dinitrotoluene	< 40.0	ug/L	130	10/3/2016 18:13
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000	10/3/2016 18:13
Hexachlorobenzene	< 40.0	ug/L	130	10/3/2016 18:13
Hexachlorobutadiene	< 40.0	ug/L	500	10/3/2016 18:13
Hexachloroethane	< 40.0	ug/L	3000	10/3/2016 18:13
Nitrobenzene	< 40.0	ug/L	2000	10/3/2016 18:13
Pentachlorophenol	< 80.0	ug/L	100000	10/3/2016 18:13
Pyridine	< 40.0	ug/L	5000	10/3/2016 18:13

<u>Surrogate</u>	Percent Recovery	Limits	Outliers	Date Analy	zed
2,4,6-Tribromophenol	94.2	34.3 - 131		10/3/2016	18:13
2-Fluorobiphenyl	93.9	42.8 - 105		10/3/2016	18:13
2-Fluorophenol	72.8	15.8 - 97.7		10/3/2016	18:13
Nitrobenzene-d5	84.9	49.7 - 100		10/3/2016	18:13
Phenol-d5	69.9	10 - 98.9		10/3/2016	18:13
Terphenyl-d14	94.3	52.6 - 115		10/3/2016	18:13

Method Reference(s): EPA 8270D

EPA 1311 / 3510C

Preparation Date: 10/3/2016 B14416.D

Data File:

TCLP Mercury

<u>Analyte</u>	Result	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2	10/1/2016 15:39

Method Reference(s): EPA 7470A EPA 1311 **Preparation Date:** 10/1/2016 Data File: Hg161001A



Client: O'Brien & Gere Engineers, Inc.

Project Reference: 60307

Sample Identifier: WC-01-0-8-092816, 40 ppm Headspace

Lab Sample ID:164225-01ADate Sampled:9/28/2016Matrix:TCLP ExtractDate Received:9/29/2016

TCLP RCRA Metals (ICP)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
Arsenic	< 0.100	mg/L	5	10/3/2016 17:23
Barium	0.790	mg/L	100	10/3/2016 17:23
Cadmium	< 0.0250	mg/L	1	10/3/2016 17:23
Chromium	< 0.0500	mg/L	5	10/3/2016 17:23
Lead	< 0.100	mg/L	5	10/3/2016 17:23
Selenium	< 0.100	mg/L	1	10/3/2016 17:23
Silver	< 0.0500	mg/L	5	10/3/2016 17:23

Method Reference(s): EPA 6010C

EPA 1311 / 3005A

 Preparation Date:
 9/30/2016

 Data File:
 100316b

TCLP Volatile Organics

<u>Analyte</u>	Result	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700	10/3/2016 21:28
1,2-Dichloroethane	< 20.0	ug/L	500	10/3/2016 21:28
2-Butanone	< 100	ug/L	200000	10/3/2016 21:28
Benzene	< 20.0	ug/L	500	10/3/2016 21:28
Carbon Tetrachloride	< 20.0	ug/L	500	10/3/2016 21:28
Chlorobenzene	< 20.0	ug/L	100000	10/3/2016 21:28
Chloroform	< 20.0	ug/L	6000	10/3/2016 21:28
Tetrachloroethene	< 20.0	ug/L	700	10/3/2016 21:28
Trichloroethene	< 20.0	ug/L	500	10/3/2016 21:28
Vinyl chloride	< 20.0	ug/L	200	10/3/2016 21:28



Client: O'Brien & Gere Engineers, Inc.

Project Reference: 60307

Sample Identifier: WC-01-0-8-092816, 40 ppm Headspace

Lab Sample ID:164225-01ADate Sampled:9/28/2016Matrix:TCLP ExtractDate Received:9/29/2016

<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<u>Outliers</u>	rs Date Analyz	
1,2-Dichloroethane-d4	98.2	85.8 - 116		10/3/2016	21:28
4-Bromofluorobenzene	103	80.6 - 114		10/3/2016	21:28
Pentafluorobenzene	102	89.6 - 112		10/3/2016	21:28
Toluene-D8	108	89.6 - 109		10/3/2016	21:28

Method Reference(s): EPA 8260C

EPA 1311 / 5030C

Data File: x35794.D



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 60307

Sample Identifier: WC-02-0-3-092816, 17.4 ppm Headspace

 Lab Sample ID:
 164225-02
 Date Sampled:
 9/28/2016

 Matrix:
 Soil
 Date Received:
 9/29/2016

Flash Point

Analyte Result Units Qualifier Date Analyzed

Flash Point, Celsius >70.0 C 10/6/2016

Method Reference(s): EPA 1010A

PCBs

Analyte Result Units **Oualifier Date Analyzed** PCB-1016 < 0.370 mg/Kg 10/6/2016 09:22 PCB-1221 < 0.370 mg/Kg 10/6/2016 09:22 PCB-1232 < 0.370 10/6/2016 09:22 mg/Kg PCB-1242 < 0.370 10/6/2016 09:22 mg/Kg PCB-1248 < 0.370 10/6/2016 09:22 mg/Kg PCB-1254 < 0.370 10/6/2016 09:22 mg/Kg PCB-1260 < 0.370 mg/Kg 10/6/2016 09:22 PCB-1262 < 0.370 10/6/2016 09:22 mg/Kg PCB-1268 < 0.370 10/6/2016 09:22 mg/Kg

SurrogatePercent RecoveryLimitsOutliersDate AnalyzedDecachlorobiphenyl90.410 - 14410/6/201609:22Tetrachloro-m-xylene46.710 - 14010/6/201609:22

Method Reference(s): EPA 8082A

EPA 3550C 9/30/2016

Preparation Date: 9/30/20

pН

 Analyte
 Result
 Units
 Qualifier
 Date Analyzed

 pH
 8.19 @ 24.9 C
 S.U.
 9/29/2016 13:15

Method Reference(s): EPA 9045D

Reactive Cyanide

Analyte Result Units Qualifier Date Analyzed

Reactivity, Cyanide <100 mg/Kg 10/3/2016



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 60307

Sample Identifier: WC-02-0-3-092816, 17.4 ppm Headspace

Lab Sample ID:164225-02Date Sampled:9/28/2016Matrix:SoilDate Received:9/29/2016

Method Reference(s): EPA 7.3.3.2 **Subcontractor ELAP ID:** 11148

ELAP does not offer this test for approval as part of their laboratory certification program.

Reactive Sulfide

AnalyteResultUnitsQualifierDate AnalyzedReactivity, Sulfide<100</td>mg/Kg10/3/2016

Method Reference(s):EPA 7.3.4.2Subcontractor ELAP ID:11148

ELAP does not offer this test for approval as part of their laboratory certification program.



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 60307

Sample Identifier: WC-02-0-3-092816, 17.4 ppm Headspace

Lab Sample ID:164225-02ADate Sampled:9/28/2016Matrix:TCLP ExtractDate Received:9/29/2016

TCLP Semi-Volatile Organics

Analyte	<u>Result</u>	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500	10/3/2016 18:41
2,4,5-Trichlorophenol	< 80.0	ug/L	400000	10/3/2016 18:41
2,4,6-Trichlorophenol	< 40.0	ug/L	2000	10/3/2016 18:41
2,4-Dinitrotoluene	< 40.0	ug/L	130	10/3/2016 18:41
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000	10/3/2016 18:41
Hexachlorobenzene	< 40.0	ug/L	130	10/3/2016 18:41
Hexachlorobutadiene	< 40.0	ug/L	500	10/3/2016 18:41
Hexachloroethane	< 40.0	ug/L	3000	10/3/2016 18:41
Nitrobenzene	< 40.0	ug/L	2000	10/3/2016 18:41
Pentachlorophenol	< 80.0	ug/L	100000	10/3/2016 18:41
Pyridine	< 40.0	ug/L	5000	10/3/2016 18:41

<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	Outliers	Date Analy	zed
2,4,6-Tribromophenol	84.1	34.3 - 131		10/3/2016	18:41
2-Fluorobiphenyl	85.1	42.8 - 105		10/3/2016	18:41
2-Fluorophenol	72.5	15.8 - 97.7		10/3/2016	18:41
Nitrobenzene-d5	79.9	49.7 - 100		10/3/2016	18:41
Phenol-d5	76.9	10 - 98.9		10/3/2016	18:41
Terphenyl-d14	80.1	52.6 - 115		10/3/2016	18:41

Method Reference(s): EPA 8270D

EPA 1311 / 3510C

Preparation Date: 10/3/2016 **Data File:** B14417.D

TCLP Mercury

<u>Analyte</u>	Result	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2	10/1/2016 15:43

Method Reference(s): EPA 7470A
EPA 1311
Preparation Date: 10/1/2016
Data File: Hg161001A



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 60307

Sample Identifier: WC-02-0-3-092816, 17.4 ppm Headspace

Lab Sample ID:164225-02ADate Sampled:9/28/2016Matrix:TCLP ExtractDate Received:9/29/2016

TCLP RCRA Metals (ICP)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
Arsenic	< 0.100	mg/L	5	10/3/2016 17:36
Barium	1.59	mg/L	100	10/3/2016 17:36
Cadmium	< 0.0250	mg/L	1	10/3/2016 17:36
Chromium	< 0.0500	mg/L	5	10/3/2016 17:36
Lead	0.572	mg/L	5	10/3/2016 17:36
Selenium	< 0.100	mg/L	1	10/3/2016 17:36
Silver	< 0.0500	mg/L	5	10/3/2016 17:36

Method Reference(s): EPA 6010C

EPA 1311 / 3005A

 Preparation Date:
 9/30/2016

 Data File:
 100316b

TCLP Volatile Organics

<u>Analyte</u>	Result	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700	10/3/2016 21:50
1,2-Dichloroethane	< 20.0	ug/L	500	10/3/2016 21:50
2-Butanone	< 100	ug/L	200000	10/3/2016 21:50
Benzene	< 20.0	ug/L	500	10/3/2016 21:50
Carbon Tetrachloride	< 20.0	ug/L	500	10/3/2016 21:50
Chlorobenzene	< 20.0	ug/L	100000	10/3/2016 21:50
Chloroform	< 20.0	ug/L	6000	10/3/2016 21:50
Tetrachloroethene	< 20.0	ug/L	700	10/3/2016 21:50
Trichloroethene	< 20.0	ug/L	500	10/3/2016 21:50
Vinyl chloride	< 20.0	ug/L	200	10/3/2016 21:50



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 60307

Sample Identifier: WC-02-0-3-092816, 17.4 ppm Headspace

Lab Sample ID:164225-02ADate Sampled:9/28/2016Matrix:TCLP ExtractDate Received:9/29/2016

Surrogate	Percent Recovery	Limits	Outliers	Date Analy	zed
1,2-Dichloroethane-d4	96.5	85.8 - 116	<u> </u>	10/3/2016	21:50
4-Bromofluorobenzene	104	80.6 - 114		10/3/2016	21:50
Pentafluorobenzene	102	89.6 - 112		10/3/2016	21:50
Toluene-D8	105	89.6 - 109		10/3/2016	21:50

Method Reference(s): EPA 8260C

EPA 1311 / 5030C

Data File: x35795.D



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 60307

Sample Identifier: WC-03-0-8-092816, 10.1 ppm

Lab Sample ID:164225-03Date Sampled:9/28/2016Matrix:SoilDate Received:9/29/2016

Flash Point

Analyte Result Units Qualifier Date Analyzed

Flash Point, Celsius >70.0 C 10/3/2016

Method Reference(s): EPA 1010A

PCBs

<u>Analyte</u>	Result	<u>Units</u>		Qualifier	Date Analy	zed
PCB-1016	< 0.382	mg/Kg			10/3/2016	04:15
PCB-1221	< 0.382	mg/Kg			10/3/2016	04:15
PCB-1232	< 0.382	mg/Kg			10/3/2016	04:15
PCB-1242	< 0.382	mg/Kg			10/3/2016	04:15
PCB-1248	< 0.382	mg/Kg			10/3/2016	04:15
PCB-1254	< 0.382	mg/Kg			10/3/2016	04:15
PCB-1260	< 0.382	mg/Kg			10/3/2016	04:15
PCB-1262	< 0.382	mg/Kg			10/3/2016	04:15
PCB-1268	< 0.382	mg/Kg			10/3/2016	04:15
Surrogate	Percen	<u>it Recovery</u>	<u>Limits</u>	Outliers	Date Analy	zed
Decachlorobiphenyl		54.0	10 - 144		10/3/2016	04:15
Tetrachloro-m-xylene		52.4	10 - 140		10/3/2016	04:15

Method Reference(s): EPA 8082A EPA 3550C

Preparation Date: 9/30/2016

pН

 Analyte
 Result
 Units
 Qualifier
 Date Analyzed

 pH
 9.39 @ 24.9 C
 S.U.
 9/29/2016 13:15

Method Reference(s): EPA 9045D

Reactive Cyanide

AnalyteResultUnitsQualifierDate AnalyzedReactivity, Cyanide<100</td>mg/Kg10/3/2016



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 60307

Sample Identifier: WC-03-0-8-092816, 10.1 ppm

Lab Sample ID:164225-03Date Sampled:9/28/2016Matrix:SoilDate Received:9/29/2016

Method Reference(s):EPA 7.3.3.2Subcontractor ELAP ID:11148

ELAP does not offer this test for approval as part of their laboratory certification program.

Reactive Sulfide

AnalyteResultUnitsQualifierDate AnalyzedReactivity, Sulfide<100</td>mg/Kg10/3/2016

Method Reference(s):EPA 7.3.4.2Subcontractor ELAP ID:11148

ELAP does not offer this test for approval as part of their laboratory certification program.



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 60307

Sample Identifier: WC-03-0-8-092816, 10.1 ppm

Lab Sample ID:164225-03ADate Sampled:9/28/2016Matrix:TCLP ExtractDate Received:9/29/2016

TCLP Semi-Volatile Organics

Analyte	Result	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500	10/3/2016 14:46
2,4,5-Trichlorophenol	< 80.0	ug/L	400000	10/3/2016 14:46
2,4,6-Trichlorophenol	< 40.0	ug/L	2000	10/3/2016 14:46
2,4-Dinitrotoluene	< 40.0	ug/L	130	10/3/2016 14:46
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000	10/3/2016 14:46
Hexachlorobenzene	< 40.0	ug/L	130	10/3/2016 14:46
Hexachlorobutadiene	< 40.0	ug/L	500	10/3/2016 14:46
Hexachloroethane	< 40.0	ug/L	3000	10/3/2016 14:46
Nitrobenzene	< 40.0	ug/L	2000	10/3/2016 14:46
Pentachlorophenol	< 80.0	ug/L	100000	10/3/2016 14:46
Pyridine	< 40.0	ug/L	5000	10/3/2016 14:46

Surrogate	Percent Recovery	<u>Limits</u>	<u>Outliers</u>	Date Analyzed		
2,4,6-Tribromophenol	82.9	34.3 - 131		10/3/2016	14:46	
2-Fluorobiphenyl	88.2	42.8 - 105		10/3/2016	14:46	
2-Fluorophenol	63.2	15.8 - 97.7		10/3/2016	14:46	
Nitrobenzene-d5	75.3	49.7 - 100		10/3/2016	14:46	
Phenol-d5	61.6	10 - 98.9		10/3/2016	14:46	
Terphenyl-d14	87.4	52.6 - 115		10/3/2016	14:46	

Method Reference(s): EPA 8270D

EPA 1311 / 3510C

Preparation Date: 10/3/2016 **Data File:** B14413.D

TCLP Mercury

<u>Analyte</u>	Result	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2	10/1/2016 15:46

Method Reference(s): EPA 7470A
EPA 1311
Preparation Date: 10/1/2016
Data File: Hg161001A



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 60307

Sample Identifier: WC-03-0-8-092816, 10.1 ppm

Lab Sample ID:164225-03ADate Sampled:9/28/2016Matrix:TCLP ExtractDate Received:9/29/2016

TCLP RCRA Metals (ICP)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
Arsenic	< 0.100	mg/L	5	10/3/2016 13:56
Barium	0.698	mg/L	100	10/3/2016 13:56
Cadmium	< 0.0250	mg/L	1	10/3/2016 13:56
Chromium	< 0.0500	mg/L	5	10/3/2016 13:56
Lead	< 0.100	mg/L	5	10/3/2016 13:56
Selenium	< 0.100	mg/L	1	10/3/2016 13:56
Silver	< 0.0500	mg/L	5	10/3/2016 13:56

Method Reference(s): EPA 6010C

EPA 1311 / 3005A

 Preparation Date:
 9/30/2016

 Data File:
 100316a

TCLP Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700	10/3/2016 14:08
1,2-Dichloroethane	< 20.0	ug/L	500	10/3/2016 14:08
2-Butanone	< 100	ug/L	200000	10/3/2016 14:08
Benzene	< 20.0	ug/L	500	10/3/2016 14:08
Carbon Tetrachloride	< 20.0	ug/L	500	10/3/2016 14:08
Chlorobenzene	< 20.0	ug/L	100000	10/3/2016 14:08
Chloroform	< 20.0	ug/L	6000	10/3/2016 14:08
Tetrachloroethene	< 20.0	ug/L	700	10/3/2016 14:08
Trichloroethene	< 20.0	ug/L	500	10/3/2016 14:08
Vinyl chloride	< 20.0	ug/L	200	10/3/2016 14:08



Client: O'Brien & Gere Engineers, Inc.

Project Reference: 60307

Sample Identifier: WC-03-0-8-092816, 10.1 ppm

Lab Sample ID:164225-03ADate Sampled:9/28/2016Matrix:TCLP ExtractDate Received:9/29/2016

<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<u>Outliers</u>	Date Analy	Date Analyzed		
1,2-Dichloroethane-d4	109	85.8 - 116		10/3/2016	14:08		
4-Bromofluorobenzene	99.5	80.6 - 114		10/3/2016	14:08		
Pentafluorobenzene	101	89.6 - 112		10/3/2016	14:08		
Toluene-D8	106	89.6 - 109		10/3/2016	14:08		

Method Reference(s): EPA 8260C

EPA 1311 / 5030C

Data File: x35775.D



Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

- "<" = Analyzed for but not detected at or above the quantitation limit.
- "E" = Result has been estimated, calibration limit exceeded.
- "Z" = See case narrative.
- "D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
- "M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
- "B" = Method blank contained trace levels of analyte. Refer to included method blank report.
- "J" = Result estimated between the quantitation limit and half the quantitation limit.
- "L" = Laboratory Control Sample recovery outside accepted QC limits.
- "P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
- "NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
- "*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.
- "(1)" = Indicates data from primary column used for QC calculation.
- "A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
- "F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, tern or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to reperform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any

environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises. Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

CHAIN OF CUSTODY

Rush 1 day Rush 2 day Rush 3 day 10 day Standard 5 day lease indicate date needed: DATE COLLECTED 9-28-16 Turnaround Time -28-16 6030" PROJECT REFERENCE PARADIGM Availability contingent upon lab approval; additional fees may apply. 6 TIME 1638 1045 5466 × Other please indicate package needed: Category B Category A Batch QC None Required O K C W Report Supplements ATTN: CITY: Matrix Codes: ADDRESS: MC-02-0-3-0928/6 MC-01-0-8-092816 NC-03-D-8 AQ - Aqueous Liquid NQ - Non-Aqueous Liquid Ochest! 585 Logan please indicate EDD needed : NYSDEC EDD Basic EDD None Required Other EDD SAMPLE IDENTIFIER STATE: 18210 a ΖĮΡ By signing this form, client agrees to Paradigm Terms and Conditions (reverse). WA - Water WG - Groundwater Received @ Lab By Recéived By 0K 26 8 00 50 SO X - Z - Z = Z ADDRESS: CLIENT: James Symucoc TCLP VOCS 383 TCLP SVOCS 86 X DW - Drinking Water WW - Wastewater Caro Ha X TED ANALYSIS INVOICE TO: Bractiviti eactivity STATE: Pate/Firme 9/78//6 8 18016 Date/Time Date/Time 129 Washington SO - Soil SL - Sludge 16 5°C/W 40 ppm 17.4 1735 11:10 For TCLP 28 8 8/28 /16 SD - Solid PT - Paint Email: Quotation #: Hadspace O to 64225 REMARKS extact, Logan. Reid Cobycon P.I.F. Total Cost: 9188116:1741ha LAB PROJECT ID WP - Wipe CK - Caulk PARADIGM LAB SAMPLE NUMBER OL - Oil AR - Air 021 012 034 -6 9/30/16 per cirent

rush TAT

See additional page for sample conditions



Chain of Custody Supplement

Client:	(O'Brien & Gere	Completed by:	Glenn Pezzulo									
Lab Project ID:		164225	Date:	9/29/16									
	Sample Condition Requirements Per NELAC/ELAP 210/241/242/243/244												
Condition	NELAC compliance with the sample condition requirements upon receipt Condition Yes No N/A												
Container Type													
1	Comments	<u></u>	6										
Transferred to meth compliant container													
Headspace (<1 mL)	Comments												
Preservation	Comments												
·	Somments												
Chlorine Absent (<0.10 ppm per te	st strip) Comments												
Holding Time													
(Comments												
Temperature	Comments	15°Ciced started	m field	Netals									
Sufficient Sample (
C	Comments												

	comments: 43 CPEVS WOW+ Job	Holding Time:	Preservation:	Container Type:	Sample Condition: Per NELAC/ELAP 210/241/242/243/244	** LAB USE ONEX BELOWATELIST IN EAST OF THE STATE OF THE	9	α	7	,	5	4	3 4 16:38 4	2 /0:45	x Sh:60 91/86/6 1	DATE TIME O			PROJECT NAME/SITE NAME:				PARADIGM		
Reco	Olb/L	Y N Rece	V N	Y N N	42/243/244									- 02	164235-01	G R SAMPLE LOCATIONFIELD ID B		comments. Please email results to reporting@paradigmenv.com	ATTN: Reporting	FAX:	CITY: Rochester STATE: NY	ADDRESS: 179 Lake Avenue	COMPANY: Paradigm Environmental	CHAII	くこべこ
Received @ Lab By Date/Time	Received By Philip 1966/Time	wed By	Tate/Time April A	Client Client								_			× × Š	X-X->E DIENTED DIENTED Reactivity	REQUESTED ANALYSIS	orting@paradigmenv.com	ATTN: Accounts Payable	PHONE: FAX:	ZIP: 14608 CITY: STATE:	ADDRESS:	COMPANY: Same	CHAIN OF CUSTODY	- 01 0 5 10 10
me .	0/35	5-29-16 (700 PLE	//6 /6 ! 0 O Total Cost:													REMARKS	Date Due: 10 / 7 //6	1 2 3	7	10 March	ZIP: TURNAROUND TIME: (WORKING DAYS)		T(Q): LAB PROJECT #: CLIEN	/	- 7
																PARADIGM LAB SAMPLE NUMBER	//6	7-6	OTHER	נאים	0,449		CLENT PROJECT #:	11148	



Analytical Report For

O'Brien & Gere Engineers, Inc.

For Lab Project ID

164239

Referencing

60307

Prepared

Friday, October 07, 2016

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958 • PADEP ID# 68-02351



Client: O'Brien & Gere Engineers, Inc.

Project Reference: 60307

Sample Identifier: WC-04-0-3-092916

Lab Sample ID: 164239-01 Date Sampled: 9/29/2016 Matrix: **Date Received:** Soil 9/29/2016

Flash Point

Analyte Result Units Qualifier Date Analyzed

Flash Point, Celsius >70.0 \mathbf{C}

10/6/2016

Method Reference(s): **EPA 1010A**

рН

Analyte Result Units **Oualifier Date Analyzed**

8.05 @ 19.8 C S.U. 10/5/2016 18:48 рН

Method Reference(s): EPA 9045D

Reactive Cvanide

Analyte Result **Oualifier** Units **Date Analyzed**

Reactivity, Cyanide <100 mg/Kg 10/5/2016

Method Reference(s): EPA 7.3.3.2 **Subcontractor ELAP ID:** 11148

ELAP does not offer this test for approval as part of their laboratory certification program.

Reactive Sulfide

Analyte Result **Units Qualifier Date Analyzed**

<100 10/5/2016 Reactivity, Sulfide mg/Kg

Method Reference(s): EPA 7.3.4.2 Subcontractor ELAP ID: 11148

ELAP does not offer this test for approval as part of their laboratory certification program.



Client: O'Brien & Gere Engineers, Inc.

Project Reference: 60307

Sample Identifier: WC-04-0-3-092916

Lab Sample ID:164239-01ADate Sampled:9/29/2016Matrix:TCLP ExtractDate Received:9/29/2016

TCLP Semi-Volatile Organics

<u>Analyte</u>	Result	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500	10/5/2016 00:54
2,4,5-Trichlorophenol	< 80.0	ug/L	400000	10/5/2016 00:54
2,4,6-Trichlorophenol	< 40.0	ug/L	2000	10/5/2016 00:54
2,4-Dinitrotoluene	< 40.0	ug/L	130	10/5/2016 00:54
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000	10/5/2016 00:54
Hexachlorobenzene	< 40.0	ug/L	130	10/5/2016 00:54
Hexachlorobutadiene	< 40.0	ug/L	500	10/5/2016 00:54
Hexachloroethane	< 40.0	ug/L	3000	10/5/2016 00:54
Nitrobenzene	< 40.0	ug/L	2000	10/5/2016 00:54
Pentachlorophenol	< 80.0	ug/L	100000	10/5/2016 00:54
Pyridine	< 40.0	ug/L	5000	10/5/2016 00:54

<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	Outliers	Date Analyzed		
2,4,6-Tribromophenol	103	34.3 - 131		10/5/2016	00:54	
2-Fluorobiphenyl	95.6	42.8 - 105		10/5/2016	00:54	
2-Fluorophenol	74.5	15.8 - 97.7		10/5/2016	00:54	
Nitrobenzene-d5	87.2	49.7 - 100		10/5/2016	00:54	
Phenol-d5	71.1	10 - 98.9		10/5/2016	00:54	
Terphenyl-d14	96.9	52.6 - 115		10/5/2016	00:54	

Method Reference(s): EPA 8270D

EPA 1311 / 3510C

Preparation Date: 10/4/2016 **Data File:** B14442.D

TCLP Mercury

Analyte	Result	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2	10/1/2016 15:19

Method Reference(s): EPA 7470A
EPA 1311
Preparation Date: 10/1/2016
Data File: Hg161001A



Client: O'Brien & Gere Engineers, Inc.

Project Reference: 60307

Sample Identifier: WC-04-0-3-092916

Lab Sample ID:164239-01ADate Sampled:9/29/2016Matrix:TCLP ExtractDate Received:9/29/2016

TCLP RCRA Metals (ICP)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
Arsenic	< 0.100	mg/L	5	10/3/2016 18:32
Barium	1.22	mg/L	100	10/3/2016 18:32
Cadmium	0.0720	mg/L	1	10/3/2016 18:32
Chromium	< 0.0500	mg/L	5	10/3/2016 18:32
Lead	< 0.100	mg/L	5	10/3/2016 18:32
Selenium	< 0.100	mg/L	1	10/3/2016 18:32
Silver	< 0.0500	mg/L	5	10/3/2016 18:32

Method Reference(s): EPA 6010C

EPA 1311 / 3005A

 Preparation Date:
 10/1/2016

 Data File:
 100316b

TCLP Volatile Organics

<u>Analyte</u>	Result	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700	10/3/2016 23:18
1,2-Dichloroethane	< 20.0	ug/L	500	10/3/2016 23:18
2-Butanone	< 100	ug/L	200000	10/3/2016 23:18
Benzene	< 20.0	ug/L	500	10/3/2016 23:18
Carbon Tetrachloride	< 20.0	ug/L	500	10/3/2016 23:18
Chlorobenzene	< 20.0	ug/L	100000	10/3/2016 23:18
Chloroform	< 20.0	ug/L	6000	10/3/2016 23:18
Tetrachloroethene	< 20.0	ug/L	700	10/3/2016 23:18
Trichloroethene	< 20.0	ug/L	500	10/3/2016 23:18
Vinyl chloride	< 20.0	ug/L	200	10/3/2016 23:18



Client: O'Brien & Gere Engineers, Inc.

Project Reference: 60307

Sample Identifier: WC-04-0-3-092916

Lab Sample ID:164239-01ADate Sampled:9/29/2016Matrix:TCLP ExtractDate Received:9/29/2016

<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<u>Outliers</u>	Date Analy	vzed
1,2-Dichloroethane-d4	97.6	85.8 - 116		10/3/2016	23:18
4-Bromofluorobenzene	100	80.6 - 114		10/3/2016	23:18
Pentafluorobenzene	102	89.6 - 112		10/3/2016	23:18
Toluene-D8	105	89.6 - 109		10/3/2016	23:18

Method Reference(s): EPA 8260C

EPA 1311 / 5030C

Data File: x35799.D



Client: O'Brien & Gere Engineers, Inc.

Project Reference: 60307

Sample Identifier: WC-05-0-2-092916

Lab Sample ID: 164239-02 Date Sampled: 9/29/2016 Matrix: **Date Received:** Soil 9/29/2016

Flash Point

Analyte Result Units Qualifier Date Analyzed

Flash Point, Celsius >70.0 \mathbf{C}

10/6/2016

Method Reference(s): **EPA 1010A**

рН

Analyte Result Units **Oualifier Date Analyzed**

S.U. 8.24 @ 20.1 C 10/5/2016 18:48 рН

Method Reference(s): EPA 9045D

Reactive Cvanide

Analyte Result **Oualifier** Units **Date Analyzed**

Reactivity, Cyanide <100 mg/Kg 10/5/2016

Method Reference(s): EPA 7.3.3.2 **Subcontractor ELAP ID:** 11148

ELAP does not offer this test for approval as part of their laboratory certification program.

Reactive Sulfide

Analyte Result **Units Qualifier Date Analyzed**

<100 10/5/2016 Reactivity, Sulfide mg/Kg

Method Reference(s): EPA 7.3.4.2 Subcontractor ELAP ID: 11148

ELAP does not offer this test for approval as part of their laboratory certification program.



Client: O'Brien & Gere Engineers, Inc.

Project Reference: 60307

Sample Identifier: WC-05-0-2-092916

Lab Sample ID:164239-02ADate Sampled:9/29/2016Matrix:TCLP ExtractDate Received:9/29/2016

TCLP Semi-Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500	10/5/2016 01:23
2,4,5-Trichlorophenol	< 80.0	ug/L	400000	10/5/2016 01:23
2,4,6-Trichlorophenol	< 40.0	ug/L	2000	10/5/2016 01:23
2,4-Dinitrotoluene	< 40.0	ug/L	130	10/5/2016 01:23
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000	10/5/2016 01:23
Hexachlorobenzene	< 40.0	ug/L	130	10/5/2016 01:23
Hexachlorobutadiene	< 40.0	ug/L	500	10/5/2016 01:23
Hexachloroethane	< 40.0	ug/L	3000	10/5/2016 01:23
Nitrobenzene	< 40.0	ug/L	2000	10/5/2016 01:23
Pentachlorophenol	< 80.0	ug/L	100000	10/5/2016 01:23
Pyridine	< 40.0	ug/L	5000	10/5/2016 01:23

Surrogate	Percent Recovery	<u>Limits</u>	<u>Outliers</u>	Date Analy	zed
2,4,6-Tribromophenol	104	34.3 - 131		10/5/2016	01:23
2-Fluorobiphenyl	96.5	42.8 - 105		10/5/2016	01:23
2-Fluorophenol	76.9	15.8 - 97.7		10/5/2016	01:23
Nitrobenzene-d5	87.2	49.7 - 100		10/5/2016	01:23
Phenol-d5	72.0	10 - 98.9		10/5/2016	01:23
Terphenyl-d14	99.0	52.6 - 115		10/5/2016	01:23

Method Reference(s): EPA 8270D

EPA 1311 / 3510C

Preparation Date: 10/4/2016 **Data File:** B14443.D

TCLP Mercury

<u>Analyte</u>	Result	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2	10/1/2016 15:29

Method Reference(s): EPA 7470A
EPA 1311
Preparation Date: 10/1/2016
Data File: Hg161001A



Client: O'Brien & Gere Engineers, Inc.

Project Reference: 60307

Sample Identifier: WC-05-0-2-092916

Lab Sample ID:164239-02ADate Sampled:9/29/2016Matrix:TCLP ExtractDate Received:9/29/2016

TCLP RCRA Metals (ICP)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
Arsenic	< 0.100	mg/L	5	10/3/2016 18:36
Barium	1.16	mg/L	100	10/3/2016 18:36
Cadmium	0.118	mg/L	1	10/3/2016 18:36
Chromium	< 0.0500	mg/L	5	10/3/2016 18:36
Lead	0.370	mg/L	5	10/3/2016 18:36
Selenium	< 0.100	mg/L	1	10/3/2016 18:36
Silver	< 0.0500	mg/L	5	10/3/2016 18:36

Method Reference(s): EPA 6010C

EPA 1311 / 3005A

 Preparation Date:
 10/1/2016

 Data File:
 100316b

TCLP Volatile Organics

<u>Analyte</u>	Result	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700	10/3/2016 23:41
1,2-Dichloroethane	< 20.0	ug/L	500	10/3/2016 23:41
2-Butanone	< 100	ug/L	200000	10/3/2016 23:41
Benzene	< 20.0	ug/L	500	10/3/2016 23:41
Carbon Tetrachloride	< 20.0	ug/L	500	10/3/2016 23:41
Chlorobenzene	< 20.0	ug/L	100000	10/3/2016 23:41
Chloroform	< 20.0	ug/L	6000	10/3/2016 23:41
Tetrachloroethene	< 20.0	ug/L	700	10/3/2016 23:41
Trichloroethene	< 20.0	ug/L	500	10/3/2016 23:41
Vinyl chloride	< 20.0	ug/L	200	10/3/2016 23:41



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 60307

Sample Identifier: WC-05-0-2-092916

Lab Sample ID:164239-02ADate Sampled:9/29/2016Matrix:TCLP ExtractDate Received:9/29/2016

Surrogate	Percent Recovery	<u>Limits</u>	<u>Outliers</u>	Date Analy	vzed
1,2-Dichloroethane-d4	98.8	85.8 - 116		10/3/2016	23:41
4-Bromofluorobenzene	99.8	80.6 - 114		10/3/2016	23:41
Pentafluorobenzene	101	89.6 - 112		10/3/2016	23:41
Toluene-D8	105	89.6 - 109		10/3/2016	23:41

Method Reference(s): EPA 8260C

EPA 1311 / 5030C

Data File: x35800.D



10/3/2016

Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 60307

Sample Identifier: Buried_Drum-1-092916

 Lab Sample ID:
 164239-03
 Date Sampled:
 9/29/2016

 Matrix:
 Oil
 Date Received:
 9/29/2016

Flash Point

Analyte Result Units Qualifier Date Analyzed

Flash Point, Celsius >70.0 C

Method Reference(s): EPA 1010A

<u>Mercury</u>

Analyte Result Units Qualifier Date Analyzed

Mercury 0.0224 mg/Kg 9/30/2016 17:25

Method Reference(s):EPA 7471BPreparation Date:9/30/2016Data File:Hg160930B

RCRA Metals (ICP)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Qualifier</u>	Date Analyzed
Arsenic	2.96	mg/Kg		9/30/2016 19:46
Barium	12.4	mg/Kg	D	9/30/2016 19:46
Cadmium	< 0.240	mg/Kg		9/30/2016 19:46
Chromium	3.54	mg/Kg		9/30/2016 19:46
Lead	9.72	mg/Kg	D	9/30/2016 19:46
Selenium	< 0.481	mg/Kg		10/3/2016 16:14
Silver	< 0.481	mg/Kg		9/30/2016 19:46

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 9/30/2016 **Data File:** 093016b

PCBs

Analyte	Result	<u>Units</u>	Qualifier	Date Analyzed
PCB-1016	< 4.81	mg/Kg		10/3/2016 12:12
PCB-1221	< 4.81	mg/Kg		10/3/2016 12:12
PCB-1232	< 4.81	mg/Kg		10/3/2016 12:12
PCB-1242	< 4.81	mg/Kg		10/3/2016 12:12
PCB-1248	< 4.81	mg/Kg		10/3/2016 12:12



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 60307

Sample Identifier: Buried_Drum-1-092916

Lab Sample ID:164239-03Date Sampled:9/29/2016Matrix:OilDate Received:9/29/2016

PCB-1254 < 4.81 mg/Kg 10/3/2016 12:12 PCB-1260 < 4.81 mg/Kg 10/3/2016 12:12 PCB-1262 < 4.81 mg/Kg 10/3/2016 12:12 PCB-1268 < 4.81 mg/Kg 10/3/2016 12:12

SurrogatePercent RecoveryLimitsOutliersDate AnalyzedDecachlorobiphenyl54.810 - 11310/3/201612:12Tetrachloro-m-xylene28.210 - 9310/3/201612:12

Method Reference(s): EPA 8082A EPA 3580A

Preparation Date: 9/30/2016

Reactive Cyanide

AnalyteResultUnitsQualifierDate AnalyzedReactivity, Cyanide<100</td>mg/Kg10/2/2016

Method Reference(s):EPA 7.3.3.2Subcontractor ELAP ID:11148

ELAP does not offer this test for approval as part of their laboratory certification program.

Reactive Sulfide

Analyte Result Units Qualifier Date Analyzed

Reactivity, Sulfide <100 mg/Kg 10/2/2016

Method Reference(s): EPA 7.3.4.2 **Subcontractor ELAP ID:** 11148

ELAP does not offer this test for approval as part of their laboratory certification program.

Semi-Volatile Organics (Acid/Base Neutrals)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	Qualifier	Date Analyzed
1,1-Biphenyl	< 943000	ug/Kg		9/30/2016 17:41
1,2,4,5-Tetrachlorobenzene	< 943000	ug/Kg		9/30/2016 17:41
1,2,4-Trichlorobenzene	< 943000	ug/Kg		9/30/2016 17:41
1,2-Dichlorobenzene	< 943000	ug/Kg		9/30/2016 17:41
1,3-Dichlorobenzene	< 943000	ug/Kg		9/30/2016 17:41
1,4-Dichlorobenzene	< 943000	ug/Kg		9/30/2016 17:41
2,2-Oxybis (1-chloropropane)	< 943000	ug/Kg		9/30/2016 17:41



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 60307

Sample Identifier:	Buried_Dru	m-1-092916				
Lab Sample ID:	164239-03			Date Sampled:	9/29/2016	
Matrix:	Oil			Date Received:	9/29/2016	
2,3,4,6-Tetrachloroph	enol	< 943000	ug/Kg		9/30/2016	17:
2,4,5-Trichlorophenol	I	< 1890000	ug/Kg		9/30/2016	17:
2,4,6-Trichlorophenol	l	< 943000	ug/Kg		9/30/2016	17:
2,4-Dichlorophenol		< 943000	ug/Kg		9/30/2016	17
2,4-Dimethylphenol		< 943000	ug/Kg		9/30/2016	17
2,4-Dinitrophenol		< 1890000	ug/Kg		9/30/2016	17
2,4-Dinitrotoluene		< 943000	ug/Kg		9/30/2016	17
2,6-Dinitrotoluene		< 943000	ug/Kg		9/30/2016	17
2-Chloronaphthalene		< 943000	ug/Kg		9/30/2016	17
2-Chlorophenol		< 943000	ug/Kg		9/30/2016	17
2-Methylnapthalene		< 943000	ug/Kg		9/30/2016	17
2-Methylphenol		< 943000	ug/Kg		9/30/2016	17
2-Nitroaniline		< 1890000	ug/Kg		9/30/2016	17
2-Nitrophenol		< 943000	ug/Kg		9/30/2016	17
3&4-Methylphenol		< 943000	ug/Kg		9/30/2016	17
3,3'-Dichlorobenzidin	e	< 943000	ug/Kg		9/30/2016	17
3-Nitroaniline		< 1890000	ug/Kg		9/30/2016	17
4,6-Dinitro-2-methylp	ohenol	< 1890000	ug/Kg		9/30/2016	17
4-Bromophenyl pheny	yl ether	< 943000	ug/Kg		9/30/2016	17
4-Chloro-3-methylpho	enol	< 943000	ug/Kg		9/30/2016	17
4-Chloroaniline		< 943000	ug/Kg		9/30/2016	17
4-Chlorophenyl pheny	yl ether	< 943000	ug/Kg		9/30/2016	17
4-Nitroaniline		< 1890000	ug/Kg		9/30/2016	17
4-Nitrophenol		< 1890000	ug/Kg		9/30/2016	17
Acenaphthene		< 943000	ug/Kg		9/30/2016	17
Acenaphthylene		< 943000	ug/Kg		9/30/2016	17
Acetophenone		< 943000	ug/Kg		9/30/2016	17
Anthracene		< 943000	ug/Kg		9/30/2016	17
Atrazine		< 943000	ug/Kg		9/30/2016	17
Benzaldehyde		< 943000	ug/Kg		9/30/2016	17
Benzo (a) anthracene		< 943000	ug/Kg		9/30/2016	17
Benzo (a) pyrene		< 943000	ug/Kg		9/30/2016	17



Client: O'Brien & Gere Engineers, Inc.

Project Reference: 60307

Sample Identifier:	Buried_Dr	um-1-092916				
Lab Sample ID:	164239-03	3		Date Sampled:	9/29/2016	
Matrix:	Oil			Date Received:	9/29/2016	
Benzo (b) fluoranthen	ie	< 943000	ug/Kg		9/30/2016	17:
Benzo (g,h,i) perylene		< 943000	ug/Kg		9/30/2016	17:
Benzo (k) fluoranthen	ie	< 943000	ug/Kg		9/30/2016	17:
Bis (2-chloroethoxy) r	nethane	< 943000	ug/Kg		9/30/2016	17:
Bis (2-chloroethyl) etl	her	< 943000	ug/Kg		9/30/2016	17:
Bis (2-ethylhexyl) pht	halate	< 943000	ug/Kg		9/30/2016	17
Butylbenzylphthalate		< 943000	ug/Kg		9/30/2016	17:
Caprolactam		< 943000	ug/Kg		9/30/2016	17
Carbazole		< 943000	ug/Kg		9/30/2016	17
Chrysene		< 943000	ug/Kg		9/30/2016	17
Dibenz (a,h) anthrace	ne	< 943000	ug/Kg		9/30/2016	17
Dibenzofuran		< 943000	ug/Kg		9/30/2016	17
Diethyl phthalate		< 943000	ug/Kg		9/30/2016	17
Dimethyl phthalate		< 1890000	ug/Kg		9/30/2016	17
Di-n-butyl phthalate		< 943000	ug/Kg		9/30/2016	17
Di-n-octylphthalate		< 943000	ug/Kg		9/30/2016	17
Fluoranthene		< 943000	ug/Kg		9/30/2016	17
Fluorene		< 943000	ug/Kg		9/30/2016	17
Hexachlorobenzene		< 943000	ug/Kg		9/30/2016	17
Hexachlorobutadiene		< 943000	ug/Kg		9/30/2016	17
Hexachlorocyclopenta	adiene	< 943000	ug/Kg		9/30/2016	17
Hexachloroethane		< 943000	ug/Kg		9/30/2016	17
Indeno (1,2,3-cd) pyre	ene	< 943000	ug/Kg		9/30/2016	17
Isophorone		< 943000	ug/Kg		9/30/2016	17
Naphthalene		< 943000	ug/Kg		9/30/2016	17
Nitrobenzene		< 943000	ug/Kg		9/30/2016	17
N-Nitroso-di-n-propyl	lamine	< 943000	ug/Kg		9/30/2016	17
N-Nitrosodiphenylam	ine	< 943000	ug/Kg		9/30/2016	17
Pentachlorophenol		< 1890000	ug/Kg		9/30/2016	17
Phenanthrene		< 943000	ug/Kg		9/30/2016	17
Phenol		< 943000	ug/Kg		9/30/2016	17
Pyrene		< 943000	ug/Kg		9/30/2016	17



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 60307

Sample Identifier: Buried_Drum-1-092916

 Lab Sample ID:
 164239-03
 Date Sampled:
 9/29/2016

 Matrix:
 Oil
 Date Received:
 9/29/2016

<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<u>Outliers</u>	Date Analy	vzed
2,4,6-Tribromophenol	101	70 - 130		9/30/2016	17:41
2-Fluorobiphenyl	113	70 - 130		9/30/2016	17:41
2-Fluorophenol	104	70 - 130		9/30/2016	17:41
Nitrobenzene-d5	98.3	70 - 130		9/30/2016	17:41
Phenol-d5	107	70 - 130		9/30/2016	17:41
Terphenyl-d14	99.6	70 - 130		9/30/2016	17:41

Reporting limit elevated due to oil matrix

Method Reference(s): EPA 8270D

EPA 3580A

Preparation Date: 9/30/2016 **Data File:** B14398.D

Volatile Organics

<u>Analyte</u>	Result	<u>Units</u>	Qualifier	Date Analyzed	
1,1,1-Trichloroethane	< 1960	ug/Kg		9/30/2016 18:1	7
1,1,2,2-Tetrachloroethane	< 1960	ug/Kg		9/30/2016 18:1	7
1,1,2-Trichloroethane	< 1960	ug/Kg		9/30/2016 18:1	7
1,1-Dichloroethane	< 1960	ug/Kg		9/30/2016 18:1	7
1,1-Dichloroethene	< 1960	ug/Kg		9/30/2016 18:1	7
1,2,3-Trichlorobenzene	< 4900	ug/Kg		9/30/2016 18:1	7
1,2,4-Trichlorobenzene	< 4900	ug/Kg		9/30/2016 18:1	7
1,2-Dibromo-3-Chloropropane	< 9800	ug/Kg		9/30/2016 18:1	7
1,2-Dibromoethane	< 1960	ug/Kg		9/30/2016 18:1	7
1,2-Dichlorobenzene	< 1960	ug/Kg		9/30/2016 18:1	7
1,2-Dichloroethane	< 1960	ug/Kg		9/30/2016 18:1	7
1,2-Dichloropropane	< 1960	ug/Kg		9/30/2016 18:1	7
1,3-Dichlorobenzene	< 1960	ug/Kg		9/30/2016 18:1	7
1,4-Dichlorobenzene	< 1960	ug/Kg		9/30/2016 18:1	7
1,4-dioxane	< 19600	ug/Kg		9/30/2016 18:1	7
2-Butanone	< 9800	ug/Kg		9/30/2016 18:1	7
2-Hexanone	< 4900	ug/Kg		9/30/2016 18:1	7
4-Methyl-2-pentanone	< 4900	ug/Kg		9/30/2016 18:1	7



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 60307

Sample Identifier:	Buried_Drum-1-092916				
Lab Sample ID:	164239-03		Date Sampled:	9/29/2016	
Matrix:	Oil		Date Received:	9/29/2016	
Acetone	< 9800	ug/Kg		9/30/2016	18:
Benzene	3650	ug/Kg		9/30/2016	18:
Bromochloromethane	< 4900	ug/Kg		9/30/2016	18
Bromodichloromethane	< 1960	ug/Kg		9/30/2016	18
Bromoform	< 4900	ug/Kg		9/30/2016	18
Bromomethane	< 1960	ug/Kg		9/30/2016	18
Carbon disulfide	< 1960	ug/Kg		9/30/2016	18
Carbon Tetrachloride	< 1960	ug/Kg		9/30/2016	18
Chlorobenzene	< 1960	ug/Kg		9/30/2016	18
Chloroethane	< 1960	ug/Kg		9/30/2016	18
Chloroform	< 1960	ug/Kg		9/30/2016	18
Chloromethane	< 1960	ug/Kg		9/30/2016	18
cis-1,2-Dichloroethene	< 1960	ug/Kg		9/30/2016	18
cis-1,3-Dichloropropene	e < 1960	ug/Kg		9/30/2016	18
Cyclohexane	< 9800	ug/Kg		9/30/2016	18
Dibromochloromethane	< 1960	ug/Kg		9/30/2016	18
Dichlorodifluoromethar	e < 1960	ug/Kg		9/30/2016	18
Ethylbenzene	< 1960	ug/Kg		9/30/2016	18
Freon 113	< 1960	ug/Kg		9/30/2016	18
Isopropylbenzene	< 1960	ug/Kg		9/30/2016	18
m,p-Xylene	< 1960	ug/Kg		9/30/2016	18
Methyl acetate	< 1960	ug/Kg		9/30/2016	18
Methyl tert-butyl Ether	< 1960	ug/Kg		9/30/2016	18
Methylcyclohexane	5350	ug/Kg		9/30/2016	18
Methylene chloride	< 4900	ug/Kg		9/30/2016	18
o-Xylene	< 1960	ug/Kg		9/30/2016	18
Styrene	< 4900	ug/Kg		9/30/2016	18
Tetrachloroethene	< 1960	ug/Kg		9/30/2016	18
Toluene	< 1960	ug/Kg		9/30/2016	18
trans-1,2-Dichloroethen	e < 1960	ug/Kg		9/30/2016	18
trans-1,3-Dichloroprope	ene < 1960	ug/Kg		9/30/2016	18
Trichloroethene	< 1960	ug/Kg		9/30/2016	18



9/30/2016

18:17

Client: O'Brien & Gere Engineers, Inc.

Project Reference: 60307

Toluene-D8

Sample Identifier: Buried_Drum-1-092916

 Lab Sample ID:
 164239-03
 Date Sampled:
 9/29/2016

 Matrix:
 Oil
 Date Received:
 9/29/2016

Trichlorofluoromethane	< 1960	ug/Kg			9/30/2016	18:17
Vinyl chloride	< 1960	ug/Kg			9/30/2016	18:17
<u>Surrogate</u>	Percent Recovery		<u>Limits</u>	Outliers	Date Analy	zed
1,2-Dichloroethane-d4		104	82 - 124		9/30/2016	18:17
4-Bromofluorobenzene		104	80.5 - 116		9/30/2016	18:17
Pentafluorobenzene		107	88.7 - 112		9/30/2016	18:17

79.1 - 120

104

Method Reference(s): EPA 8260C

EPA 3585

Data File: x35752.D



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 60307

Sample Identifier: Pond_Drum-092916

Lab Sample ID:164239-04Date Sampled:9/29/2016Matrix:SludgeDate Received:9/29/2016

Flash Point

Analyte Result Units Qualifier Date Analyzed

Flash Point, Celsius >70.0 C 10/6/2016

Method Reference(s): EPA 1010A

PCBs

Analyte	Result	<u>Units</u>		Qualifier	Date Analy	zed
PCB-1016	< 1.07	mg/Kg			10/6/2016	09:45
PCB-1221	< 1.07	mg/Kg			10/6/2016	09:45
PCB-1232	< 1.07	mg/Kg			10/6/2016	09:45
PCB-1242	6.88	mg/Kg			10/6/2016	09:45
PCB-1248	< 1.07	mg/Kg			10/6/2016	09:45
PCB-1254	2.70	mg/Kg			10/6/2016	09:45
PCB-1260	< 1.07	mg/Kg			10/6/2016	09:45
PCB-1262	< 1.07	mg/Kg			10/6/2016	09:45
PCB-1268	< 1.07	mg/Kg			10/6/2016	09:45
Surrogate	Percent 1	Recovery	<u>Limits</u>	<u>Outliers</u>	Date Analy	zed
Decachlorobiphenyl	18	35	10 - 144	*	10/6/2016	09:45
Tetrachloro-m-xylene	41	1	10 - 140		10/6/2016	09:45

Method Reference(s): EPA 8082A

EPA 3550C

Preparation Date: 10/3/2016

pН

<u>Analyte</u>	Result	<u>Units</u>	Qualifier	Date Analyzed
рН	6.00	S.U.		10/5/2016 18:48

Method Reference(s): pH by Strip

Reactive Cyanide

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	Qualifier	Date Analyzed
Reactivity, Cyanide	<100	mg/Kg		10/5/2016



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 60307

Sample Identifier: Pond_Drum-092916

Lab Sample ID:164239-04Date Sampled:9/29/2016Matrix:SludgeDate Received:9/29/2016

Method Reference(s): EPA 7.3.3.2 Subcontractor ELAP ID: 11148

ELAP does not offer this test for approval as part of their laboratory certification program.

Reactive Sulfide

AnalyteResultUnitsQualifierDate AnalyzedReactivity, Sulfide180mg/Kg10/5/2016

Method Reference(s):EPA 7.3.4.2Subcontractor ELAP ID:11148

ELAP does not offer this test for approval as part of their laboratory certification program.



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 60307

Sample Identifier: Pond_Drum-092916

Lab Sample ID:164239-04ADate Sampled:9/29/2016Matrix:TCLP ExtractDate Received:9/29/2016

TCLP Semi-Volatile Organics

<u>Analyte</u>	Result	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500	10/5/2016 01:52
2,4,5-Trichlorophenol	< 80.0	ug/L	400000	10/5/2016 01:52
2,4,6-Trichlorophenol	< 40.0	ug/L	2000	10/5/2016 01:52
2,4-Dinitrotoluene	< 40.0	ug/L	130	10/5/2016 01:52
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000	10/5/2016 01:52
Hexachlorobenzene	< 40.0	ug/L	130	10/5/2016 01:52
Hexachlorobutadiene	< 40.0	ug/L	500	10/5/2016 01:52
Hexachloroethane	< 40.0	ug/L	3000	10/5/2016 01:52
Nitrobenzene	< 40.0	ug/L	2000	10/5/2016 01:52
Pentachlorophenol	< 80.0	ug/L	100000	10/5/2016 01:52
Pyridine	< 40.0	ug/L	5000	10/5/2016 01:52

Percent Recovery	Limits	<u>Outliers</u>	Date Analy	zed
97.6	34.3 - 131		10/5/2016	01:52
102	42.8 - 105		10/5/2016	01:52
70.1	15.8 - 97.7		10/5/2016	01:52
89.6	49.7 - 100		10/5/2016	01:52
59.8	10 - 98.9		10/5/2016	01:52
97.6	52.6 - 115		10/5/2016	01:52
	97.6 102 70.1 89.6 59.8	97.634.3 - 13110242.8 - 10570.115.8 - 97.789.649.7 - 10059.810 - 98.9	97.6 34.3 - 131 102 42.8 - 105 70.1 15.8 - 97.7 89.6 49.7 - 100 59.8 10 - 98.9	97.6 34.3 - 131 10/5/2016 102 42.8 - 105 10/5/2016 70.1 15.8 - 97.7 10/5/2016 89.6 49.7 - 100 10/5/2016 59.8 10 - 98.9 10/5/2016

Method Reference(s): EPA 8270D

EPA 1311 / 3510C

Preparation Date: 10/4/2016 Data File: B14444.D

TCLP Mercury

<u>Analyte</u>	Result	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2	10/1/2016 15:33

Method Reference(s): EPA 7470A
EPA 1311
Preparation Date: 10/1/2016
Data File: Hg161001A



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 60307

Sample Identifier: Pond_Drum-092916

Lab Sample ID:164239-04ADate Sampled:9/29/2016Matrix:TCLP ExtractDate Received:9/29/2016

TCLP RCRA Metals (ICP)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
Arsenic	< 0.100	mg/L	5	10/3/2016 18:41
Barium	2.92	mg/L	100	10/3/2016 18:41
Cadmium	< 0.0250	mg/L	1	10/3/2016 18:41
Chromium	< 0.0500	mg/L	5	10/3/2016 18:41
Lead	< 0.100	mg/L	5	10/3/2016 18:41
Selenium	< 0.100	mg/L	1	10/3/2016 18:41
Silver	< 0.0500	mg/L	5	10/3/2016 18:41

Method Reference(s): EPA 6010C

EPA 1311 / 3005A

 Preparation Date:
 10/1/2016

 Data File:
 100316b

TCLP Volatile Organics

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700	10/5/2016 21:58
1,2-Dichloroethane	< 20.0	ug/L	500	10/5/2016 21:58
2-Butanone	< 100	ug/L	200000	10/5/2016 21:58
Benzene	< 20.0	ug/L	500	10/5/2016 21:58
Carbon Tetrachloride	< 20.0	ug/L	500	10/5/2016 21:58
Chlorobenzene	< 20.0	ug/L	100000	10/5/2016 21:58
Chloroform	< 20.0	ug/L	6000	10/5/2016 21:58
Tetrachloroethene	< 20.0	ug/L	700	10/5/2016 21:58
Trichloroethene	< 20.0	ug/L	500	10/5/2016 21:58
Vinyl chloride	< 20.0	ug/L	200	10/5/2016 21:58



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 60307

Sample Identifier: Pond_Drum-092916

Lab Sample ID:164239-04ADate Sampled:9/29/2016Matrix:TCLP ExtractDate Received:9/29/2016

<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<u>Outliers</u>	Date Analy	vzed
1,2-Dichloroethane-d4	116	85.8 - 116		10/5/2016	21:58
4-Bromofluorobenzene	99.1	80.6 - 114		10/5/2016	21:58
Pentafluorobenzene	98.5	89.6 - 112		10/5/2016	21:58
Toluene-D8	105	89.6 - 109		10/5/2016	21:58

Method Reference(s): EPA 8260C

EPA 1311 / 5030C

Data File: x35856.D



Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

- "<" = Analyzed for but not detected at or above the quantitation limit.
- "E" = Result has been estimated, calibration limit exceeded.
- "Z" = See case narrative.
- "D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
- "M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
- "B" = Method blank contained trace levels of analyte. Refer to included method blank report.
- "J" = Result estimated between the quantitation limit and half the quantitation limit.
- "L" = Laboratory Control Sample recovery outside accepted QC limits.
- "P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
- "NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
- "*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.
- "(1)" = Indicates data from primary column used for QC calculation.
- "A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
- "F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, tern or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to reperform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB. Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against

any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any

environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises. Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.



	Rush 3 day Category A Rush 2 day Category B Category B Other Other Dlease indicate date needed: Dlease indicate package needed:	Availability contingent upon lab app Standard 5 day Mone Required				174/16 1135 X	×	4/24/16 1115 X	-	9/29/16 1000 ×	DATE COLLECTED COLLECTED S A E		60307	PROJECT REFERENCE			PARADIGM
	NYSDEC EDD	Availability contingent upon lab approval; additional fees may apply. 5 day None Required Batch QC Report Supplements None Required None Required None Required Basic EDD				- 1-092916 SUPARK	Pond-Drum-092916	. Dru	0-2-	918260-5-0-40-JM	SAMPLE IDENTIFIER		Matrix Codes:\\ AQ - Aqueous Liquid NQ - Non-Aqueous Liquid	ATTN: Logan Reld	120	draws St	CLIENT: ORG
See addi	Received By Pate/Time Pate/Time A / 29 / 16 / 15 / 15 Received @ Lab By Date/Time Date/Time	Sampled By Date/Time 151 Relinquished By Date/Time Date/Time	Canna	SE SE	Ato	WP I	5 XXXXXX X Mal	0 2 N X X X X X X X X X X X X X X X X X X	50 4,	x x x x x y y 0 S	Total VOLS TELT TOTAL SVOLS TELT TOTAL RICHARDS	REQUESTED ANALYSIS & SISIL	WA - Water DW - Drinking Water SD - Soil WG - Groundwater WW - Wastewater SL - Sludge	ATTN: dames Lowothy	E 74MCUSE NY	710 ADDRESS: 3	CLIENT: ORG
See additional page for sample conditions.	16:13 P.I.F. 15:36 Conditions (reverse).	Total Cost:		CP 9129116	FORTCLP extract.	ZH-HK TAT	VOUS possible 11 00	coaled in oil, shippery/Hah Wils	00	0	PARADIGM LAB SAMPLE NUMBER		SD - Solid WP - Wipe OL - Oil PT - Paint CK - Caulk AR - Air	Legan. Reid @ obg com	7 Quo	164239	LAB PROJECT ID



Chain of Custody Supplement

Client:		O'Brien & Gere	Completed by:	Glenn Pezzulo
Lab Project ID):	164239	Date:	9/30/16
			on Requirements 10/241/242/243/244	
Condition	Λ	NELAC compliance with the sample Yes	condition requirements upon No	n receipt N/A
Container Type	Comments			
Transferred to met				
Headspace (<1 mL)	Comments			
Preservation	Comments			
Chlorine Absent (<0.10 ppm per to	est strip) Comments			
Holding Time	Comments			
Temperature	Comments	13°Ciced Started	m frew	[] moru [s
Sufficient Sample	Quantity Comments			

Serial_No:10031609:27



Analytical Report For

O'Brien & Gere Engineers, Inc.

For Lab Project ID

165454

Referencing

80 Steel Street

Prepared

Thursday, December 22, 2016

This project has been re-issued to report data for PCBs, per Chain of Custody.

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below.

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958 • PADEP ID# 68-02351



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 80 Steel Street

Sample Identifier: Sample 1-5

 Lab Sample ID:
 165454-01
 Date Sampled:
 12/16/2016

 Matrix:
 Soil
 Date Received:
 12/16/2016

Flash Point

Analyte Result Units Qualifier Date Analyzed

Flash Point, Celsius > 70.0 C 12/20/2016

Method Reference(s): EPA 1010A

PCBs

Analyte Result Units **Oualifier Date Analyzed** PCB-1016 < 0.387 mg/Kg 12/22/2016 05:26 PCB-1221 < 0.387 mg/Kg 12/22/2016 05:26 PCB-1232 < 0.387 12/22/2016 05:26 mg/Kg PCB-1242 < 0.387 12/22/2016 05:26 mg/Kg PCB-1248 12/22/2016 05:26 0.744 mg/Kg PCB-1254 0.400 В 12/22/2016 05:26 mg/Kg PCB-1260 < 0.387 mg/Kg 12/22/2016 05:26 PCB-1262 < 0.387 12/22/2016 05:26 mg/Kg PCB-1268 < 0.387 12/22/2016 05:26 mg/Kg **Percent Recovery Outliers Date Analyzed Surrogate** Limits Decachlorobiphenyl 139 10 - 144 12/22/2016 05:26

Method Reference(s): EPA 8082A

EPA 3550C

Preparation Date: 12/21/2016

pН

 Analyte
 Result
 Units
 Qualifier
 Date Analyzed

 pH
 8.14 @ 20.0 C
 S.U.
 12/19/2016 12:20

105

10 - 140

Method Reference(s): EPA 9045D

Reactive Cyanide

Tetrachloro-m-xylene

AnalyteResultUnitsQualifierDate AnalyzedReactivity, Cyanide<100</td>mg/Kg12/19/2016

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

12/22/2016

05:26



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 80 Steel Street

Sample Identifier: Sample 1-5

 Lab Sample ID:
 165454-01
 Date Sampled:
 12/16/2016

 Matrix:
 Soil
 Date Received:
 12/16/2016

Method Reference(s): EPA 7.3.3.2 Subcontractor ELAP ID: 11148

ELAP does not offer this test for approval as part of their laboratory certification program.

Reactive Sulfide

AnalyteResultUnitsQualifierDate AnalyzedReactivity, Sulfide<100</td>mg/Kg12/19/2016

Method Reference(s):EPA 7.3.4.2Subcontractor ELAP ID:11148

ELAP does not offer this test for approval as part of their laboratory certification program.



Client: O'Brien & Gere Engineers, Inc.

Project Reference: 80 Steel Street

Sample Identifier: Sample 1-5

Lab Sample ID:165454-01ADate Sampled:12/16/2016Matrix:TCLP ExtractDate Received:12/16/2016

TCLP Semi-Volatile Organics

<u>Analyte</u>	Result	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
1,4-Dichlorobenzene	< 40.0	ug/L	7500	12/19/2016 14:59
2,4,5-Trichlorophenol	< 80.0	ug/L	400000	12/19/2016 14:59
2,4,6-Trichlorophenol	< 40.0	ug/L	2000	12/19/2016 14:59
2,4-Dinitrotoluene	< 40.0	ug/L	130	12/19/2016 14:59
Cresols (as m,p,o-Cresol)	< 80.0	ug/L	200000	12/19/2016 14:59
Hexachlorobenzene	< 40.0	ug/L	130	12/19/2016 14:59
Hexachlorobutadiene	< 40.0	ug/L	500	12/19/2016 14:59
Hexachloroethane	< 40.0	ug/L	3000	12/19/2016 14:59
Nitrobenzene	< 40.0	ug/L	2000	12/19/2016 14:59
Pentachlorophenol	< 80.0	ug/L	100000	12/19/2016 14:59
Pyridine	< 40.0	ug/L	5000	12/19/2016 14:59

Surrogate	Percent Recovery	<u>Limits</u>	<u>Outliers</u>	Date Analy	zed
2,4,6-Tribromophenol	76.2	34.3 - 131		12/19/2016	14:59
2-Fluorobiphenyl	66.8	42.8 - 105		12/19/2016	14:59
2-Fluorophenol	57.6	15.8 - 97.7		12/19/2016	14:59
Nitrobenzene-d5	66.1	49.7 - 100		12/19/2016	14:59
Phenol-d5	54.7	10 - 98.9		12/19/2016	14:59
Terphenyl-d14	76.8	52.6 - 115		12/19/2016	14:59

Method Reference(s): EPA 8270D

EPA 1311 / 3510C

Preparation Date: 12/19/2016 Data File: B16128.D

TCLP Mercury

<u>Analyte</u>	Result	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
Mercury	< 0.00200	mg/L	0.2	12/20/2016 14:23

Method Reference(s):EPA 7470AEPA 1311Preparation Date:12/20/2016Data File:Hg161220A



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 80 Steel Street

Sample Identifier: Sample 1-5

Lab Sample ID:165454-01ADate Sampled:12/16/2016Matrix:TCLP ExtractDate Received:12/16/2016

TCLP RCRA Metals (ICP)

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
Arsenic	< 0.100	mg/L	5	12/20/2016 11:13
Barium	0.820	mg/L	100	12/20/2016 11:13
Cadmium	< 0.0250	mg/L	1	12/20/2016 11:13
Chromium	< 0.0500	mg/L	5	12/20/2016 11:13
Lead	0.106	mg/L	5	12/20/2016 11:13
Selenium	< 0.100	mg/L	1	12/20/2016 11:13
Silver	< 0.0500	mg/L	5	12/20/2016 11:13

Method Reference(s): EPA 6010C

EPA 1311 / 3005A

Preparation Date: 12/19/2016 Data File: 122016b

TCLP Volatile Organics

<u>Analyte</u>	Result	<u>Units</u>	Regulatory Limit Qualifier	Date Analyzed
1,1-Dichloroethene	< 20.0	ug/L	700	12/19/2016 14:23
1,1-Dichloroethene	< 20.0	ug/L	700	12/19/2016 14:23
1,1-Dichloroethene	< 20.0	ug/L	700	12/19/2016 14:23
1,1-Dichloroethene	< 20.0	ug/L	700	12/19/2016 14:23
1,2-Dichloroethane	< 20.0	ug/L	500	12/19/2016 14:23
1,2-Dichloroethane	< 20.0	ug/L	500	12/19/2016 14:23
1,2-Dichloroethane	< 20.0	ug/L	500	12/19/2016 14:23
1,2-Dichloroethane	< 20.0	ug/L	500	12/19/2016 14:23
2-Butanone	< 100	ug/L	200000	12/19/2016 14:23
2-Butanone	< 100	ug/L	200000	12/19/2016 14:23
2-Butanone	< 100	ug/L	200000	12/19/2016 14:23
2-Butanone	< 100	ug/L	200000	12/19/2016 14:23
Benzene	< 20.0	ug/L	500	12/19/2016 14:23
Benzene	< 20.0	ug/L	500	12/19/2016 14:23
Benzene	< 20.0	ug/L	500	12/19/2016 14:23
Benzene	< 20.0	ug/L	500	12/19/2016 14:23



Client: O'Brien & Gere Engineers, Inc.

Project Reference: 80 Steel Street

Sample Identifier:	Sample 1-5			
Lab Sample ID:	165454-01A		Date Sampled:	12/16/2016
Matrix:	TCLP Extract		Date Received:	12/16/2016
Carbon Tetrachloride	< 20.0	ug/L	500	12/19/2016 14:23
Carbon Tetrachloride	< 20.0	ug/L	500	12/19/2016 14:23
Carbon Tetrachloride	< 20.0	ug/L	500	12/19/2016 14:23
Carbon Tetrachloride	< 20.0	ug/L	500	12/19/2016 14:23
Chlorobenzene	< 20.0	ug/L	100000	12/19/2016 14:23
Chlorobenzene	< 20.0	ug/L	100000	12/19/2016 14:23
Chlorobenzene	< 20.0	ug/L	100000	12/19/2016 14:23
Chlorobenzene	< 20.0	ug/L	100000	12/19/2016 14:23
Chloroform	< 20.0	ug/L	6000	12/19/2016 14:23
Chloroform	< 20.0	ug/L	6000	12/19/2016 14:23
Chloroform	< 20.0	ug/L	6000	12/19/2016 14:23
Chloroform	< 20.0	ug/L	6000	12/19/2016 14:23
Tetrachloroethene	< 20.0	ug/L	700	12/19/2016 14:23
Tetrachloroethene	< 20.0	ug/L	700	12/19/2016 14:23
Tetrachloroethene	< 20.0	ug/L	700	12/19/2016 14:23
Tetrachloroethene	< 20.0	ug/L	700	12/19/2016 14:23
Trichloroethene	< 20.0	ug/L	500	12/19/2016 14:23
Trichloroethene	< 20.0	ug/L	500	12/19/2016 14:23
Trichloroethene	< 20.0	ug/L	500	12/19/2016 14:23
Trichloroethene	< 20.0	ug/L	500	12/19/2016 14:23
Vinyl chloride	< 20.0	ug/L	200	12/19/2016 14:23
Vinyl chloride	< 20.0	ug/L	200	12/19/2016 14:23
Vinyl chloride	< 20.0	ug/L	200	12/19/2016 14:23
Vinyl chloride	< 20.0	ug/L	200	12/19/2016 14:23

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.



Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 80 Steel Street

Sample Identifier: Sample 1-5

Lab Sample ID:165454-01ADate Sampled:12/16/2016Matrix:TCLP ExtractDate Received:12/16/2016

<u>Surrogate</u>	Percent Recovery	<u>Limits</u>	<u>Outliers</u>	Date Analy	zed
1,2-Dichloroethane-d4	96.7	85.8 - 116		12/19/2016	14:23
1,2-Dichloroethane-d4	96.7	85.8 - 116		12/19/2016	14:23
4-Bromofluorobenzene	95.3	80.6 - 114		12/19/2016	14:23
4-Bromofluorobenzene	95.3	80.6 - 114		12/19/2016	14:23
Pentafluorobenzene	103	89.6 - 112		12/19/2016	14:23
Pentafluorobenzene	103	89.6 - 112		12/19/2016	14:23
Toluene-D8	101	89.6 - 109		12/19/2016	14:23
Toluene-D8	101	89.6 - 109		12/19/2016	14:23

Method Reference(s): EPA 8260C

EPA 1311 / 5030C

Data File: x37872.D



Method Blank Report

Client: <u>O'Brien & Gere Engineers, Inc.</u>

Project Reference: 80 Steel Street

Lab Project ID: 165454

Matrix: Soil

D	C	P	c
~		п.	•

<i>1</i> D 3					
<u>Analyte</u>	<u>Result</u>	<u>Units</u>	Qualifier	Date Analy	<u>zed</u>
PCB-1016	< 0.327	mg/Kg		12/22/2016	04:39
PCB-1221	< 0.327	mg/Kg		12/22/2016	04:39
PCB-1232	< 0.327	mg/Kg		12/22/2016	04:39
PCB-1242	< 0.327	mg/Kg		12/22/2016	04:39
PCB-1248	< 0.327	mg/Kg		12/22/2016	04:39
PCB-1254	0.227	mg/Kg	J	12/22/2016	04:39
PCB-1260	< 0.327	mg/Kg		12/22/2016	04:39
PCB-1262	< 0.327	mg/Kg		12/22/2016	04:39
PCB-1268	<0.327	mg/Kg		12/22/2016	04:39
Surrogate	Percent Recovery	Limits	<u>Outliers</u>	Date Anal	yzed
Decachlorobiphenyl	109	10 - 144		12/22/2016	04:39
Tetrachloro-m-xylene	98.5	10 - 140		12/22/2016	04:39

Method Reference(s): EPA 8082A

EPA 3550C

Preparation Date: 12/21/2016
QC Batch ID: QC161221PCBS

QC Number:



Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

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All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

- "<" = Analyzed for but not detected at or above the quantitation limit.
- "E" = Result has been estimated, calibration limit exceeded.
- "Z" = See case narrative.
- "D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
- "M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
- "B" = Method blank contained trace levels of analyte. Refer to included method blank report.
- "J" = Result estimated between the quantitation limit and half the quantitation limit.
- "L" = Laboratory Control Sample recovery outside accepted QC limits.
- "P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
- "NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
- "*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.
- "(1)" = Indicates data from primary column used for QC calculation.
- "A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
- "F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, tern or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to reperform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any

environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises. Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on th final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

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CHAIN OF CUSTODY

Turnaround Time Availability conti Standard 5 day 10 day Rush 3 day Rush 2 day Rush 1 day	DATE COLLECTED DATE COLLECTED 12/16/16 13/16/16 13/16/16	PAR
ity contingen	W 80 Stal Stan	PARADIGM PROJECT REFERENCE
t upon lab app None Required Batch QC Category A	X X X X M H - W O Z S C O O D S C O	Z C M
Availability contingent upon lab approval; additional fees may apply. S day None Required Batch QC Category A Category B Category B Report Supplements None Required None Required	SAMPLE IDENTIFIER	ATTN: Lawy Califfu
Sampled By Relinquished By Received By	WA - Water WG - Groundwater WG - Groundwater	ZIP 13021
Salari Jacken	TO AMESCE OF THE STATE OF THE S	ADDRESS: CITY: PHONE: ATTN: AMAGA ATTN: AMAGA ATTN: AMAGA AMAGA
Date/Time Date/Time Date/Time Date/Time Date/Time	Total SVCCCIC Total PCBs Total PCBs X Igniability Flag SI-Side	INVOICE TO: STAP M CZIP: LAWS (EVOHA (O) OHJ. 60 M
1330 Total Cost:	SD-Solid WP-Wipe PT-Paint CK-Caulk 12/16 1545 matrix 12/16/16/16/1532	LAB PROJECT ID LAB PROJECT ID Contaction #:
	OL - Oil AR - Air Nuwber	

See additional page for sample conditions.

By signing this form, client agrees to Paradigm Terms and Conditions (reverse).

Other

please indicate package needed:

Other EDD please indicate EDD needed :



Chain of Custody Supplement

Client:	OBG	Completed by:	Molly Vail					
Lab Project ID:	165454	Date:	12/16/2016					
Sample Condition Requirements Per NELAC/ELAP 210/241/242/243/244								
NELAC compliance with the sample condition requirements upon receipt Condition No N/A								
Container Type	х							
Commen	ts							
Transferred to method- compliant container			x					
Headspace (<1 mL) Commer	uts		х					
Preservation Commer	nts		х					
Chlorine Absent (<0.10 ppm per test strip Commer			x					
Holding Time Commer	x x							
Temperature Commen	x 4 C 12/16/16 15:32		x Met					
Sufficient Sample Quantit								

179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

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