



Consulting  
Engineers and  
Scientists

September 5, 2018

Mr. John B. Miller, P.E.  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
625 Broadway, 11<sup>th</sup> Floor  
Albany, NY 12233-7014

**Re: Pre-Design Investigation Summary Report  
Former Safety Kleen Dry Cleaners Site (Site # 336078)  
115 Temple Hill Road  
New Windsor, New York 12584**

Dear Mr. Miller:

This Pre-Design Investigation (PDI) summary report presents the results of the Membrane Interface Probe (MIP) investigation completed to determine the extent of volatile organic compounds (VOCs)-impacted soil that exceed the Unrestricted Use Soil Cleanup Objectives (SCOs) below the Former Safety Kleen Dry Cleaners Site (the Site) located in New Windsor, New York (**Figure 1**). GEI Consultants Inc., P.C. (GEI) completed the work in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved Interim Remedial Measure Work Plan, dated August 16, 2017. A total of twenty-four (24) MIP borings were advanced at the Site from July 23 through 26, 2018. Grab and composite soil samples were also collected from the most impacted borings according to the MIP data and sent to a New York State Environmental Laboratory Approval Program (ELAP)-approved laboratory for analysis. The results of the investigation are summarized below.

### **MIP and Analytical Soil Sample Locations**

MIP borings were advanced at twenty-four (24) locations in the footprint of the former dry cleaner unit (Suite 700) and the surrounding parking lot (**Figure 2**) to depths ranging from approximately 5-19.6 feet below grade. Prior to the MIP investigation, the subslab depressurization system (SSDS) was modified and Unit 700 was demolished in preparation for the planned redevelopment at the Site. The MIP locations proposed in the work plan were altered because of construction activities and utilities at the Site. The MIP locations are identified below:

- Ten (10) MIP borings were completed at locations within the footprint of Suite 700: MIP-01, MIP-02, MIP-03, MIP-15, MIP-17, MIP-18, MIP-20, MIP-22, MIP-23, and MIP-24.
- Three (3) MIP borings were completed at locations proximate to monitoring well MW-7 in the former alleyway: MIP-16, MIP-19, and MIP-21.
- Three (3) MIP borings were completed at the front parking lot area close to Suites 700 and 800: MIP-12, MIP-13, and MIP-14.

- Eight (8) MIP borings were completed at the rear parking lot area close to Suites 600, 700, and 800.

MIP investigations generate relative data. As such, VOC concentration cannot be directly determined from the MIP detector responses. This is due to subsurface conditions that change with depth as the MIP is advanced (e.g. soil type, density, and moisture content) and influences encountered (e.g. rate of VOC diffusion off soil) that cannot be compensated for at the surface. However, laboratory analysis of discrete soil samples collected can confirm and quantify the VOCs present. To this end, three grab soil samples and one composite soil sample were collected and analyzed from the most impacted boring according to the MIP data and the area near the most impacted borings. The MIP points and soil sample locations are shown in **Figure 2** and presented below:

<b>MIP ID (Terminal depth, feet below grade)</b>	<b>Analytical Sample ID (Depth, feet below grade)</b>
MIP-01 (6.50')	MIP-FSK-01 (3'-4')
MIP-02 (7.50')	-
MIP-03 (6.75')	-
MIP-04 (16.40')	-
MIP-05 (7.35')	-
MIP-06 (19.60')	-
MIP-07 (8.20')	-
MIP-08 (10.15')	-
MIP-09 (8.40')	-
MIP-10 (8.30')	-
MIP-11 (10.35')	-
MIP-12 (5.00')	-
MIP-13 (6.75')	-
MIP-14 (6.40')	-
MIP-15 (8.45')	-
MIP-16 (7.95')	-
MIP-17 (8.55')	-
MIP-18 (8.55')	-
MIP-19 (8.80')	MIP-FSK-19 (9'-10')
MIP-20 (9.90')	MIP-FSK-20 (5'-6')
MIP-21 (7.65')	-
MIP-22 (9.80')	-
MIP-23 (6.90')	-
MIP-24 (8.60')	-

MIP-19 had a terminal depth (8.8 feet below grade) that was less than soil sample MIP-FSK-19 (9-10 feet below grade) because the MIP probe met refusal and could not be advanced further without the risk of damage to the probe. Also, the location of the permeable membrane on the probe is approximately 1 foot from the bottom end of the probe. Volatiles in the subsurface diffuse across the membrane and partition into a stream of carrier gas where they can be swept to the detector. The MIP data is presented in **Attachment 1** and discussed below. The discussion is organized by detector as they appear on the MIP investigation logs from left to right. The investigation logs present individual graphs of the three gas detector responses plotted in color (Halogen Specific Detector (XSD)-red, Photoionization Detector (PID)-blue, and Flame Ionization Detector (FID)-orange) along with the results of the electrical conductivity readings (shown in black).

### **Electrical Conductivity (mS/m)**

Electrical conductivity is measured in Millisiemens/meter (mS/m) by a detector fitted on the MIP probe that sends current through the formation between two contacts on the probe. Current and voltage are measured between two probe contacts. Soil conductivity varies with grain size. Finer grained soils, such as silts or clays, tend to produce higher electrical conductivity signals than coarser grained sands and gravels.

MIP logs provide an inferred and generalized geologic profile of penetrated strata based on electrical conductivity readings. The data from the MIP logs were compared to historical environmental boring logs presented in the Interim Remedial Investigation Report, Revision 1, by Solutech, Inc., dated May 17, 2012. There was good agreement between the two data sets. Both the MIP logs and the environmental boring logs describe a site with silty clay and rock fragments from the surface to the maximum depth of refusal at approximately 20 feet below grade. This lithology was generally uniform across the Site.

### **XSD ( $\mu$ V)**

The XSD is the most sensitive of the three detectors to halogenated compounds including chlorinated VOCs. XSD responses measured in microvolts ( $\mu$ V) were present in only two MIP locations (**Attachment 1**). These borings were in the area of the former dry cleaner equipment (MIP-20 and MIP-22). Both MIP-20 and MIP-22 were advanced to a maximum depth of approximately 10 feet below grade surface. The XSD responses were present between zero and 10 feet below grade surface. These responses are useful as a screening tool but should not be used to estimate constituent concentrations.

### **PID ( $\mu$ V)**

The PID is the most sensitive of the three detectors to aromatic hydrocarbons, generally associated with petroleum compounds. Although the PID will respond to chlorinated VOCs, it responds with less sensitivity than the XSD. PID responses were present in eight MIP locations (MIP-03, MIP-04, MIP-06, MIP-13, MIP-14, MIP-15, MIP-20, and MIP-22) (**see Attachment 1**).

These responses should only be regarded as a screening tool and not used to estimate constituent concentrations.

### FID ( $\mu$ V)

The FID is a general detector useful for hydrocarbon detection, but less sensitive to aromatic and chlorinated VOCs reported by the other two detectors. FID responses were present in eleven MIP locations (MIP-02, MIP-04, MIP-05, MIP-08, MIP-12, MIP-13, MIP-14, MIP-15, MIP-17, MIP-22, and MIP-23) (see **Attachment 1**). The FID responses were generally similar to the PID and, therefore, appeared more sensitive to aromatic compounds than chlorinated VOCs.

### Summary of Soil Analytical Results

GEI conducted soil sampling as part of the MIP investigation. Soil samples were collected from the area of most impact according to the MIP data and historical groundwater monitoring data and analyzed by York Analytical Laboratories (Stratford, Connecticut). Three grab samples were collected from MIP-01 (3-4 feet below grade), MIP-19 (9-10 feet below grade), and MIP-20 (5-6 feet below grade). Seven composite samples were collected from the soil borings around the former Suite 700. The grab samples were analyzed for VOCs via EPA Method 8260C. The composite samples were analyzed for the following parameters:

- Toxic Characteristic Leaching Procedure (TCLP) VOCs (SW 1311/8260C)
- Total and TCLP Semivolatile Organic Compounds (SW 1311/8270D)
- Total and TCLP Resource Conservation and Recovery Act (RCRA) Metals (6010C) (Mercury 7473)
- Polychlorinated biphenyls (8082A)
- Ignitability (1030P)
- Corrosivity pH (9045D)
- Reactive Cyanide/Sulfide (SW 846 CH. 7.3)
- EPH (GRO and DRO)
- Pesticides
- Herbicides

The laboratory data is presented in **Attachment 2**. The analytical detections were compared to the SCOs and no exceedances were observed. The results are summarized in the Table below:

Analyte	Unrestricted Use SCO, mg/kg	MIP-FSK-01 Grab (3-4 feet bgs), mg/kg	MIP-FSK-19 Grab (9-10 feet bgs), mg/kg	MIP-FSK-20 Grab (3-4 feet bgs), mg/kg	MIP-FSK-Composite, mg/kg
Acetone	0.05	0.005	-	-	-
PCE	1.3	0.0058	0.0068	0.93	-
Methylene Chloride	0.05	-	0.005	-	-
Benzyl butyl phthalate	NE	-	-	-	0.0972

Analyte	Unrestricted Use SCO, mg/kg	MIP-FSK-01 Grab (3-4 feet bgs), mg/kg	MIP-FSK-19 Grab (9-10 feet bgs), mg/kg	MIP-FSK-20 Grab (3-4 feet bgs), mg/kg	MIP-FSK-Composite, mg/kg
Bis(2-ethylhexyl phthalate)	NE	-	-	-	0.0535
Arsenic	13	-	-	-	2.94
Barium	350	-	-	-	41.9
Chromium	NE	-	-	-	14.1
Lead	63	-	-	-	9.87
Selenium	3.9	-	-	-	0.346*

Notes:

NE = Not Established

mg/kg = milligram per kilogram

bgs = below ground surface

\* = Unit in milligram per liter (mg/L)

### Community Air Monitoring Program (CAMP)

VOCs and PM-10 were monitored upwind and downwind on a continuous basis during intrusive field work using a PID for VOCs and a particulate meter for particulate dust. Water was available to be sprayed on exposed surfaces and roadways to suppress windblown dust and BioSolve spray was available on site to control any odors during the MIP work. These dust and odor control measures were not required during the work. There was no elevated concentration of the monitored parameters. A summary of the CAMP results is presented in **Attachment 3**.

### Photographic Log

A photographic log of the MIP investigation drilling is presented in **Attachment 4**.

### Recommendation

Based on the MIP investigation and soil sampling analytical results, there are no detections above the Unrestricted Use SCO that would require further soil remedial action at the Site. Only two MIP locations detected the presence of chlorinated VOCs out of 24 MIP locations. These locations were around the former dry cleaner equipment. Soil samples collected from this area identified PCE and methylene chloride in concentrations that were below the Unrestricted Use SCO. All other analytes identified in the soil analytical data were below the Unrestricted Use SCO.

The modified subslab depressurization system and quarterly soil vapor monitoring will continue at the Site to mitigate indoor vapor intrusion.

## References

GEI Consultants, Inc., August 2017. *Interim Remedial Measure Work Plan*

Solutech Inc., May 2012. *Interim Remedial Investigation Report, Revision 1*

Please feel free to contact us with any questions.

Sincerely,

GEI CONSULTANTS, INC.



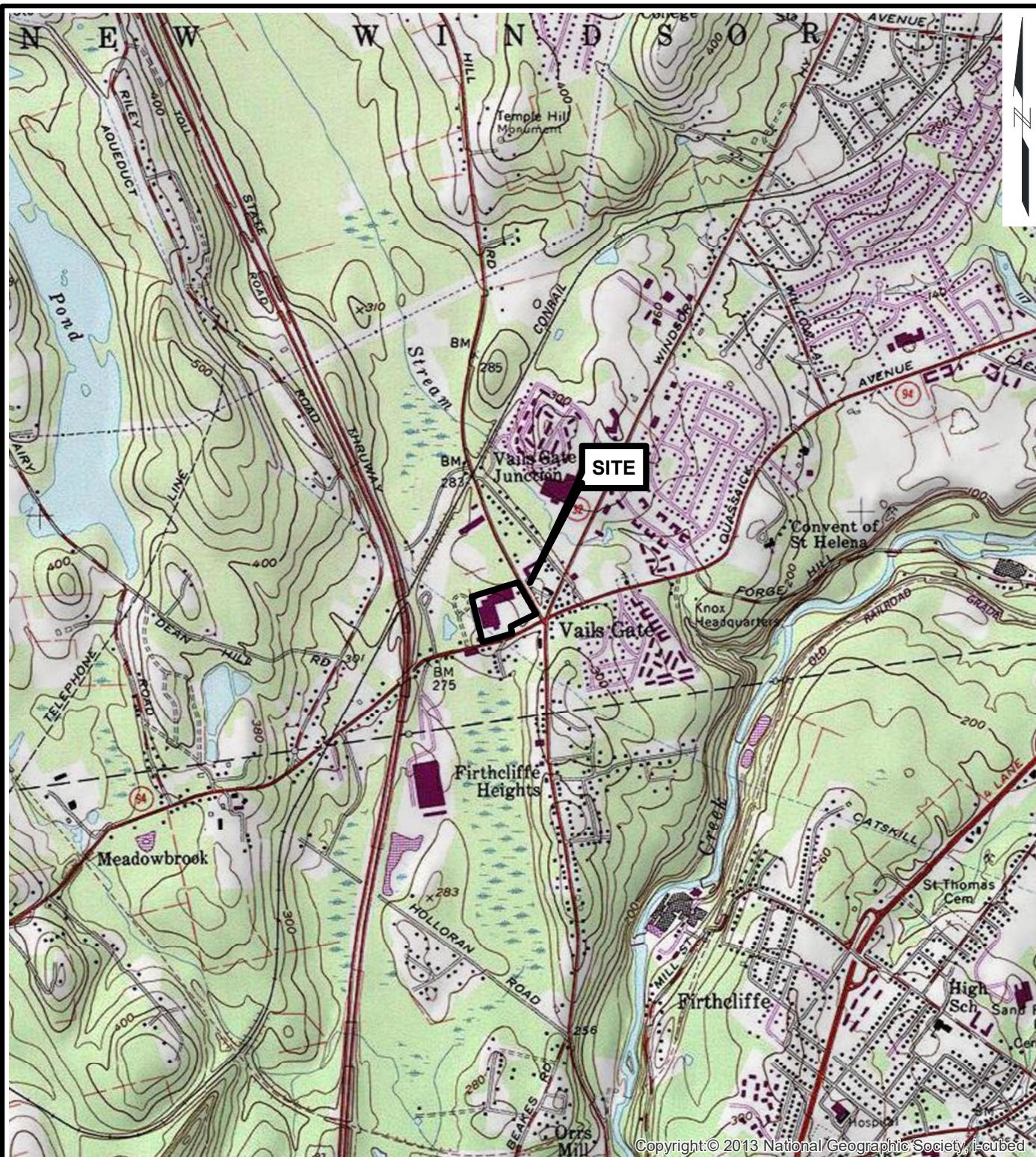
Matthew J. O'Neil, P.E.  
Senior Engineer



Nicholas J. Recchia, P.G.  
Project Manager

MJO/NJR/amm  
Enclosures  
H:\WPROC\Project\The Rosen Group\MIP Investigation\MIP Report-Final.docx

# **Figures**



**SOURCE:**

1. USGS TOPOGRAPHIC MAP ACCESSED VIA ARCGIS ONLINE SERVICES.

0 2,000 4,000  
SCALE: 1" = 2000'

Pre-Design Investigation Summary Report Former Safety Kleen Dry Cleaner 115 Temple Hill Road New Windsor, New York	<b>GEI</b> Consultants	SITE LOCATION MAP	
The Rosen Group Claymont, Delaware		Project 1602600	August 2018
J:\Projects\1602600 The Rosen Group\Former Safety Kleen Dry Cleaner\Site Location Map- IRM Workplan.mxd			Fig. 1



# **Attachment 1**

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# Final Data Package for Membrane Interface Probe Services

Site Location: 115 Temple Hill Road, New Windsor, New York

Project Number: 203181157

Report Date: August 2<sup>nd</sup>, 2018



**Prepared for:**

GEI Consultants, Inc..  
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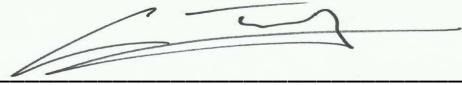
## Project Narrative

Cascade Technical Services (Cascade) is pleased to present this data report to GEI Consultants, Inc. for the membrane interface probe (MIP) services that were provided between the dates of July 23rd and July 26<sup>th</sup>, 2018 at your site located at 115 Temple Hill Road, New Windsor, NY.

The results associated with the data and plots presented in this report were generated in accordance to Cascade's and Geoprobe's Standard Operating Procedures (SOPs) for MIP services.

All field work and data management were completed by trained, scientific professionals and all quality assurance/quality control (QA/QC) measurements associated with these data were found to be within the tolerances set forth in the SOPs for these services. Response tests conducted previous to, and subsequent to the MIP borings were found to be within the tolerances set forth for this MIP survey and therefore the data are deemed acceptable for use. Exception/deviations regarding these response tests and the related data are noted on the MIP Summary Table that is part of this report. This report contains a set of plots for each of the MIP locations.

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above.

Signature: 

Charles Terry, Eastern Field Supervisor of Site Characterization Services

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## Project Site Map and MIP Locations

Approximate boring locations are provided below. Field staff estimated boring locations using reference points observed on site in relation to the same reference points visible in Google Earth map software.



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## Membrane Interface Probe Data Summary Table

Provided below is a summary of MIP information.

\*Acceptable values for ECD, PID, and XSD detectors are 50mV

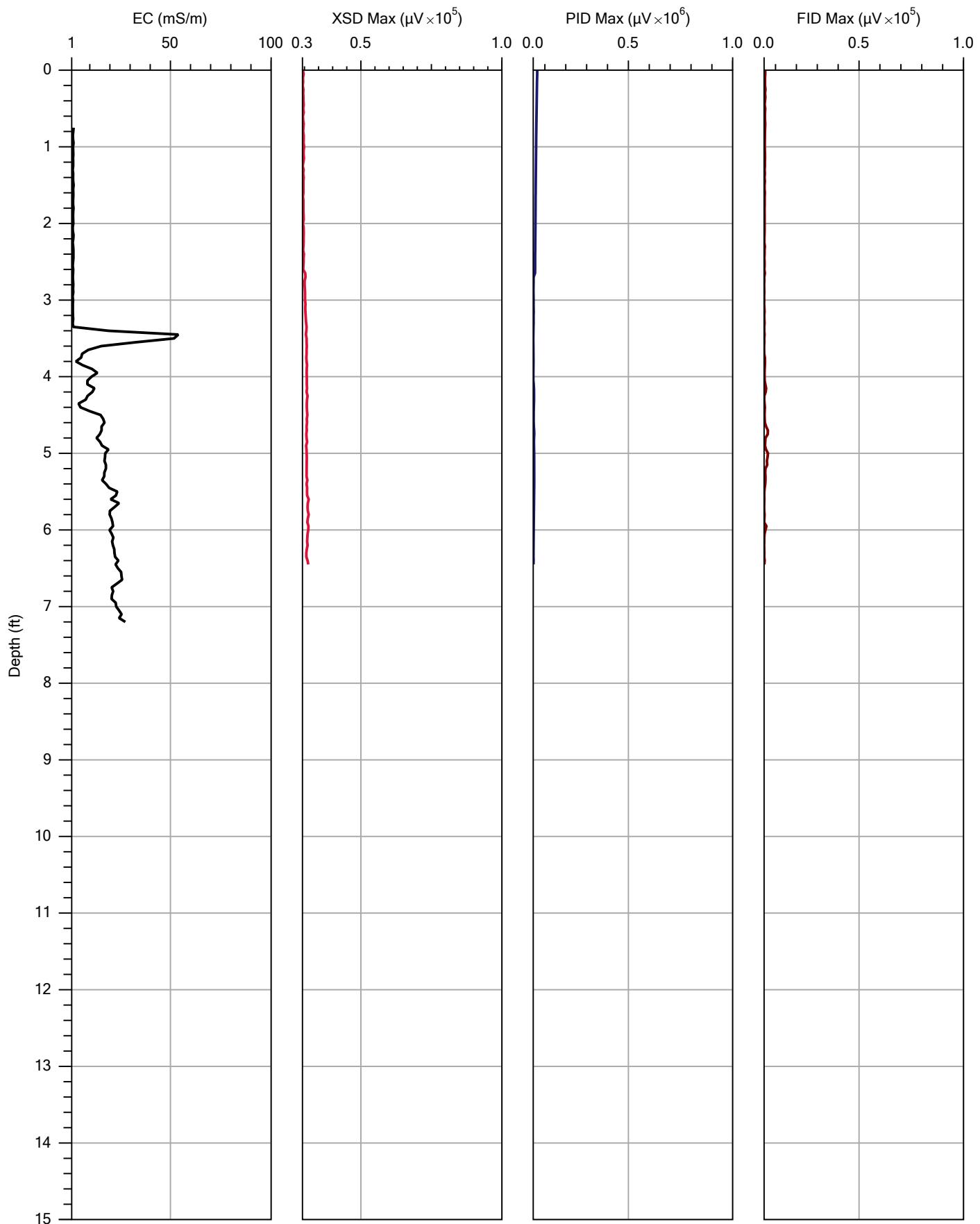
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MIP02	July 23, 2018	10:20	7.50	None
MIP03	July 23, 2018	10:47	6.75	None
MIP04	July 23, 2018	11:26	16.40	None
MIP05	July 23, 2018	14:35	7.35	None
MIP06	July 24, 2018	09:33	19.60	None
MIP07	July 24, 2018	10:32	8.20	None
MIP08	July 24, 2018	11:08	10.15	None
MIP09	July 24, 2018	13:00	8.40	None
MIP10	July 24, 2018	13:29	8.30	None
MIP11	July 24, 2018	14:30	10.35	None
MIP12	July 25, 2018	08:24	4.75	None
MIP13	July 25, 2018	08:58	6.75	None
MIP14	July 25, 2018	09:24	6.40	None
MIP15	July 25, 2018	10:51	8.45	None

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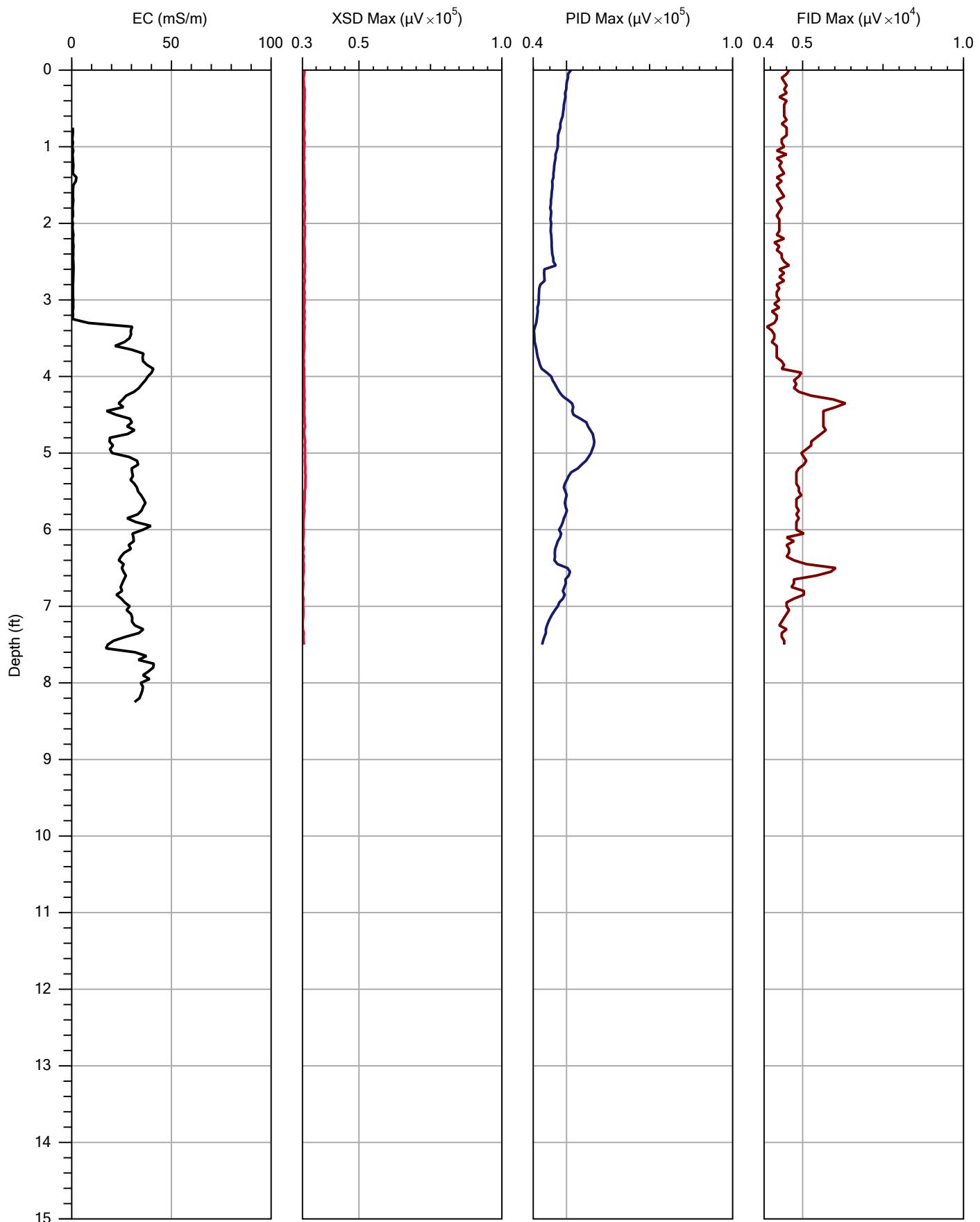
MIP16	July 25, 2018	11:24	7.95	None
MIP17	July 25, 2018	13:03	8.55	None
MIP18	July 25, 2018	13:57	8.55	None
MIP19	July 25, 2018	08:18	8.80	None
MIP20	July 26, 2018	08:57	9.90	None
MIP21	July 26, 2018	09:36	7.65	None
MIP22	July 26, 2018	10:21	9.85	None
MIP23	July 26, 2018	11:03	6.90	None
MIP24	July 26, 2018	11:39	8.60	None

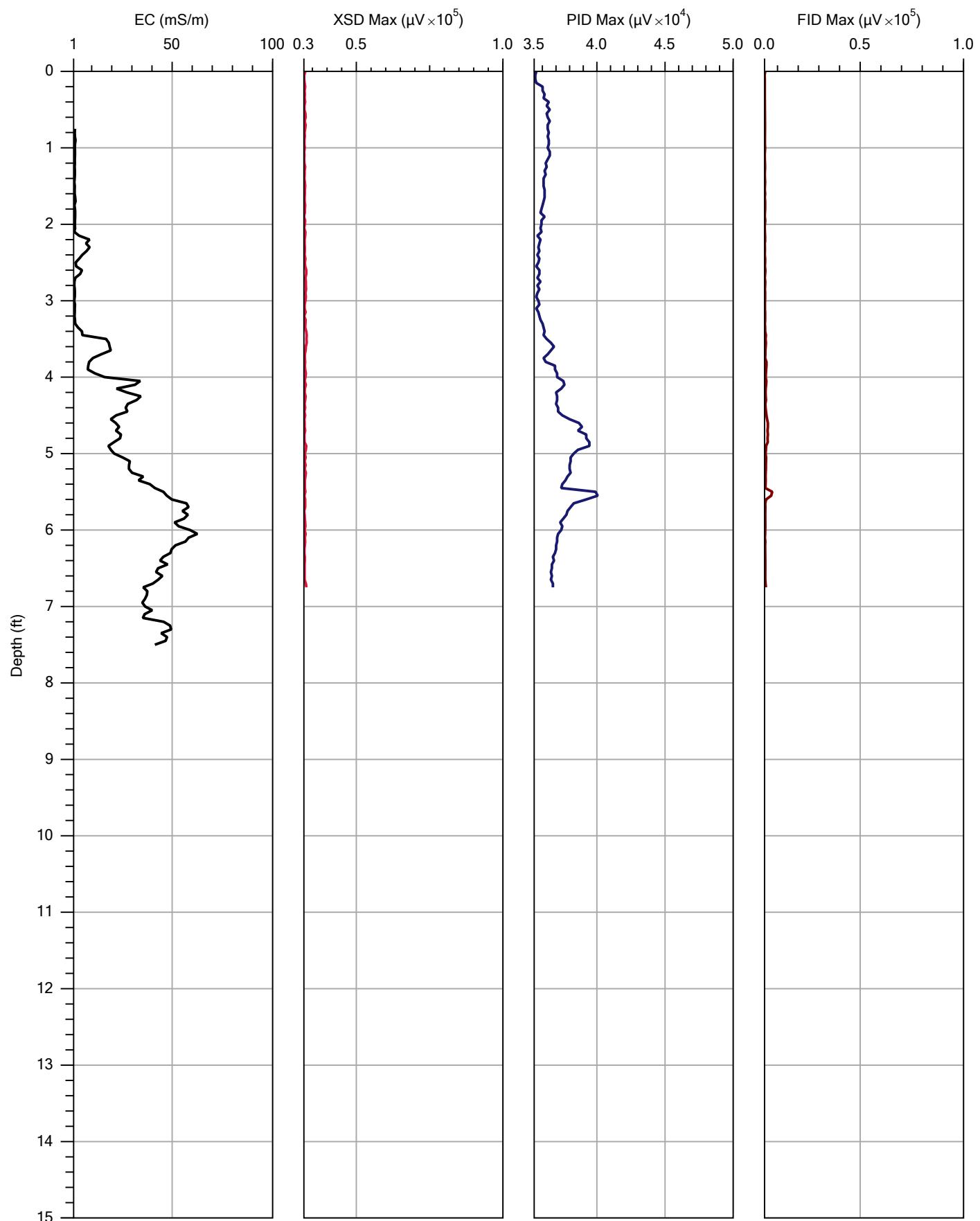
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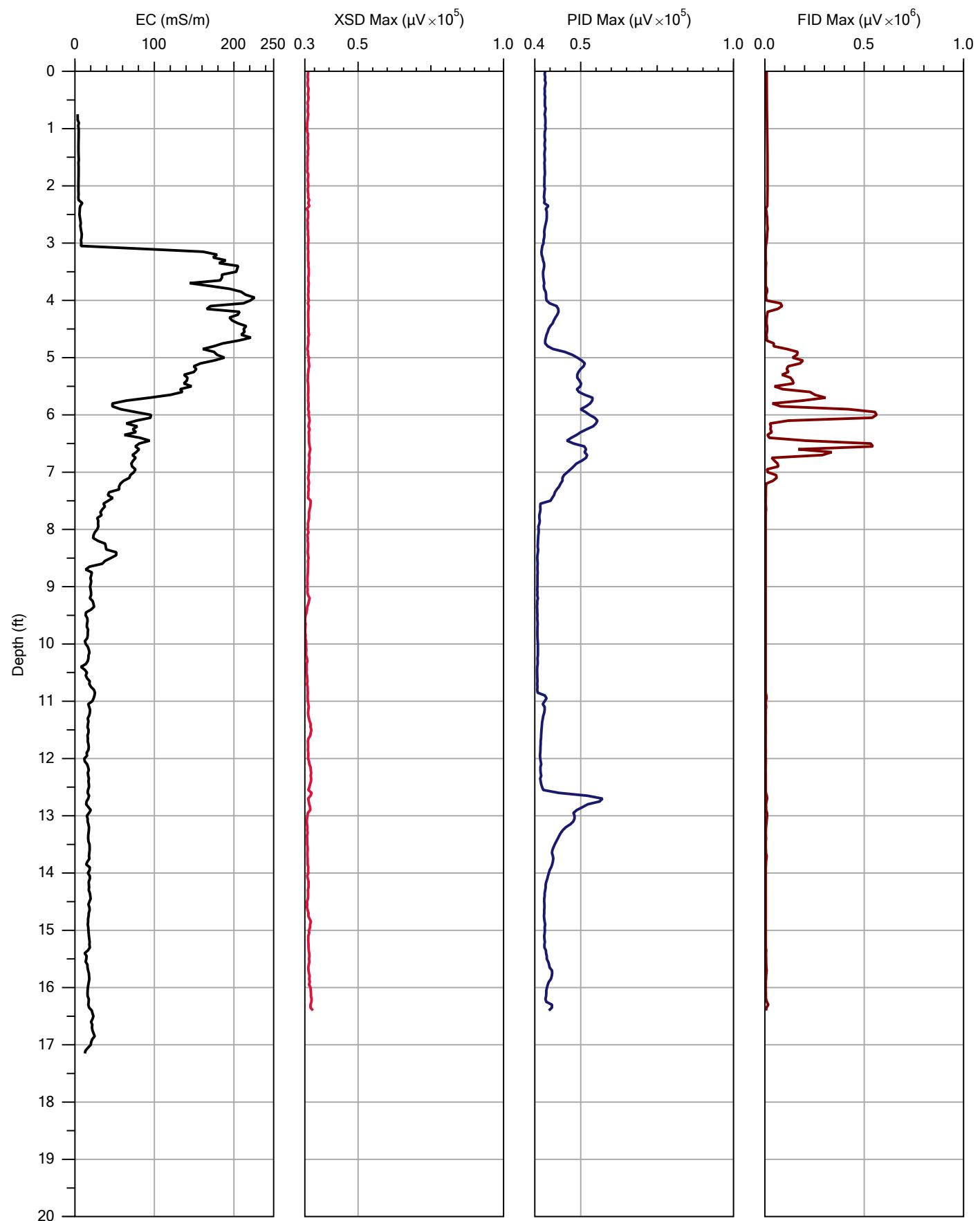
## Membrane Interface Probe Data Plots

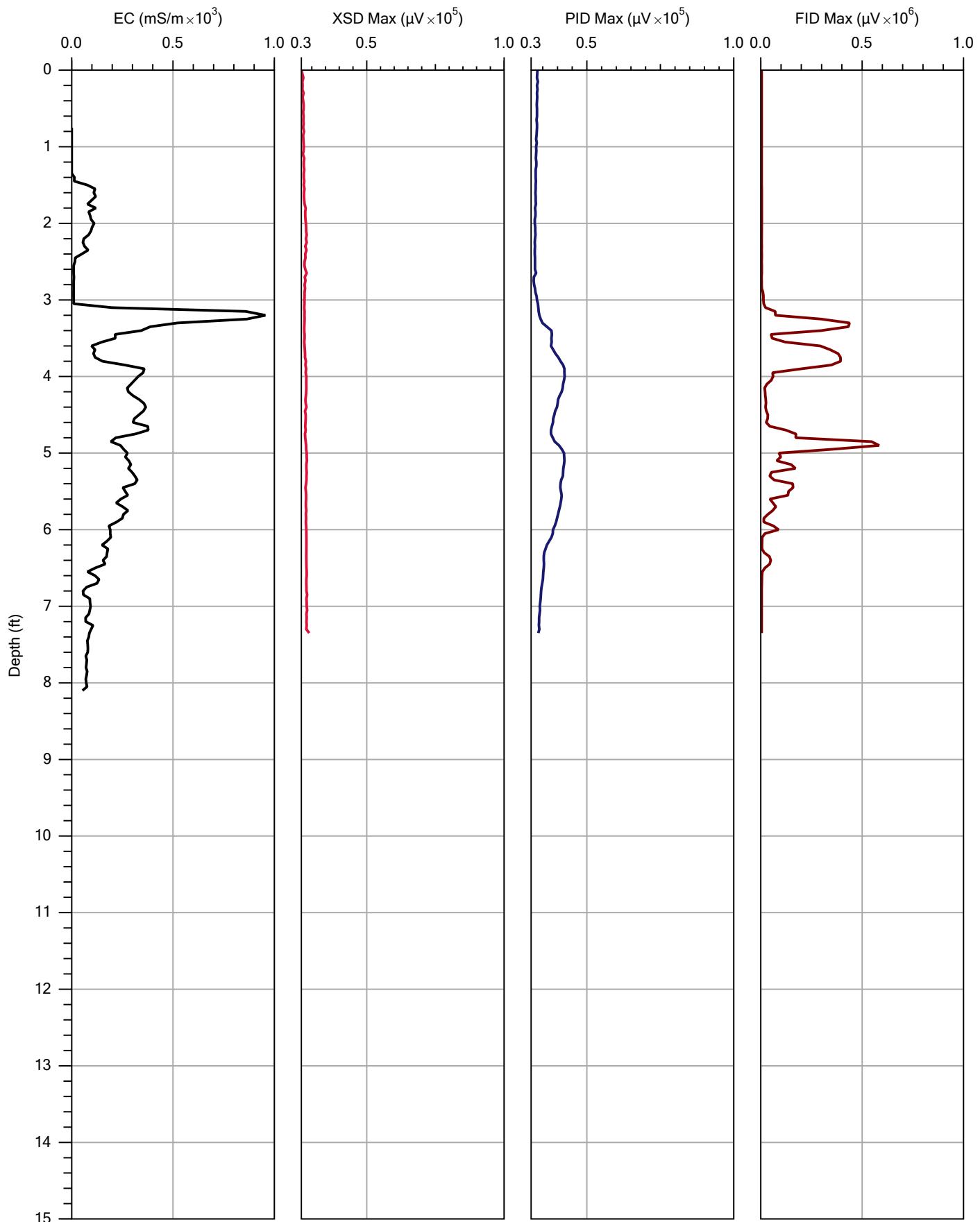


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Project ID: 203181157	Client: GEI	Location: new windsor ny

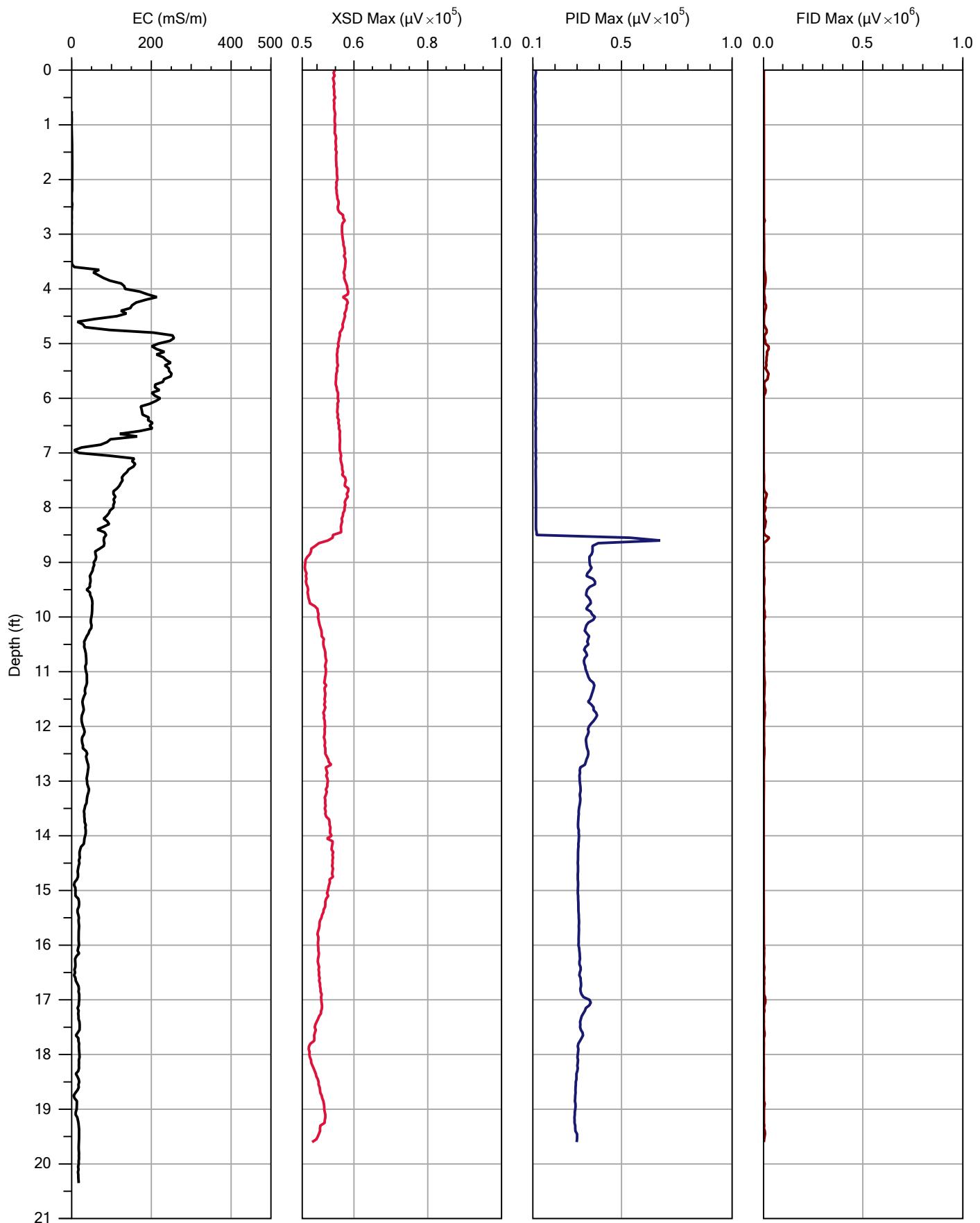


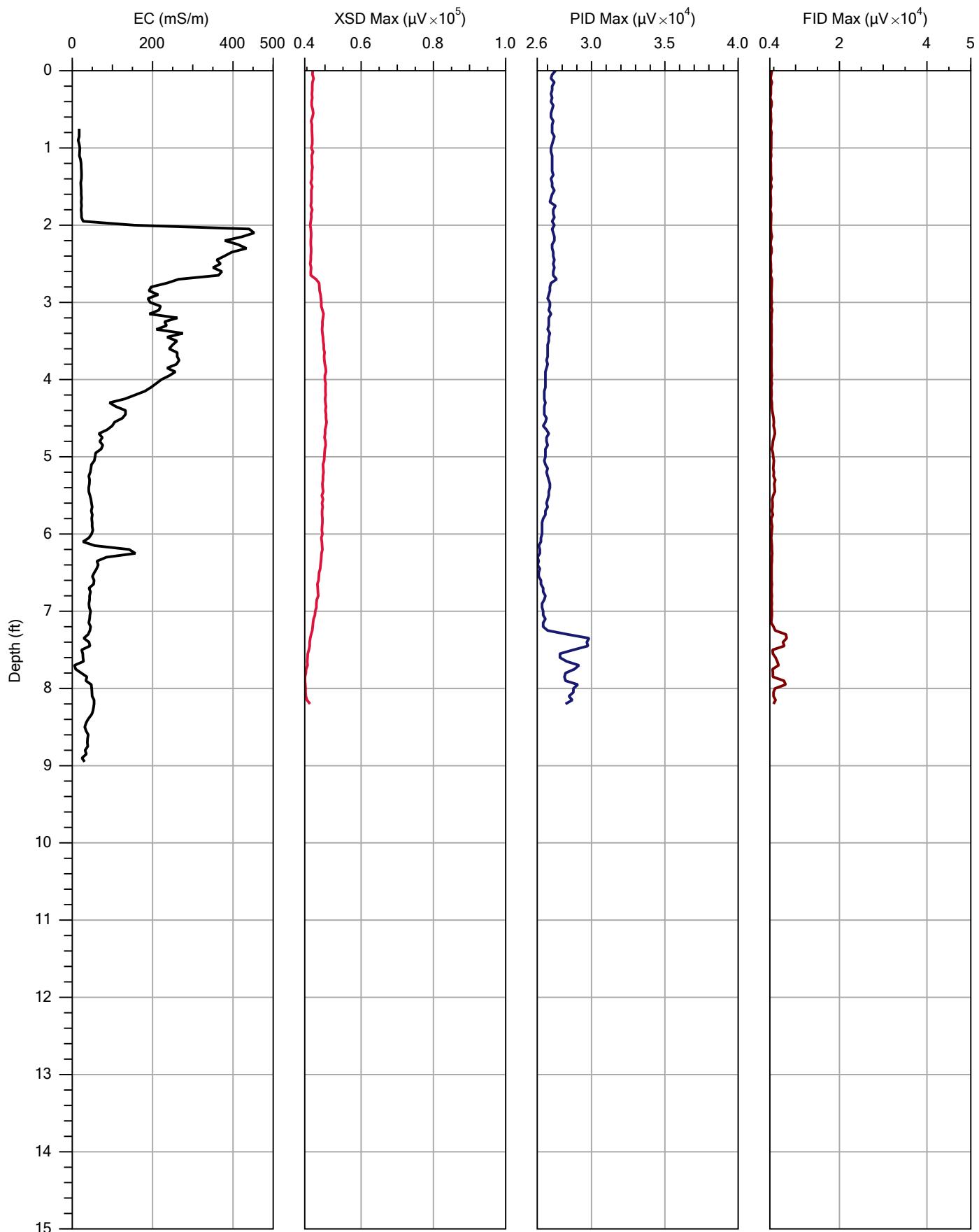


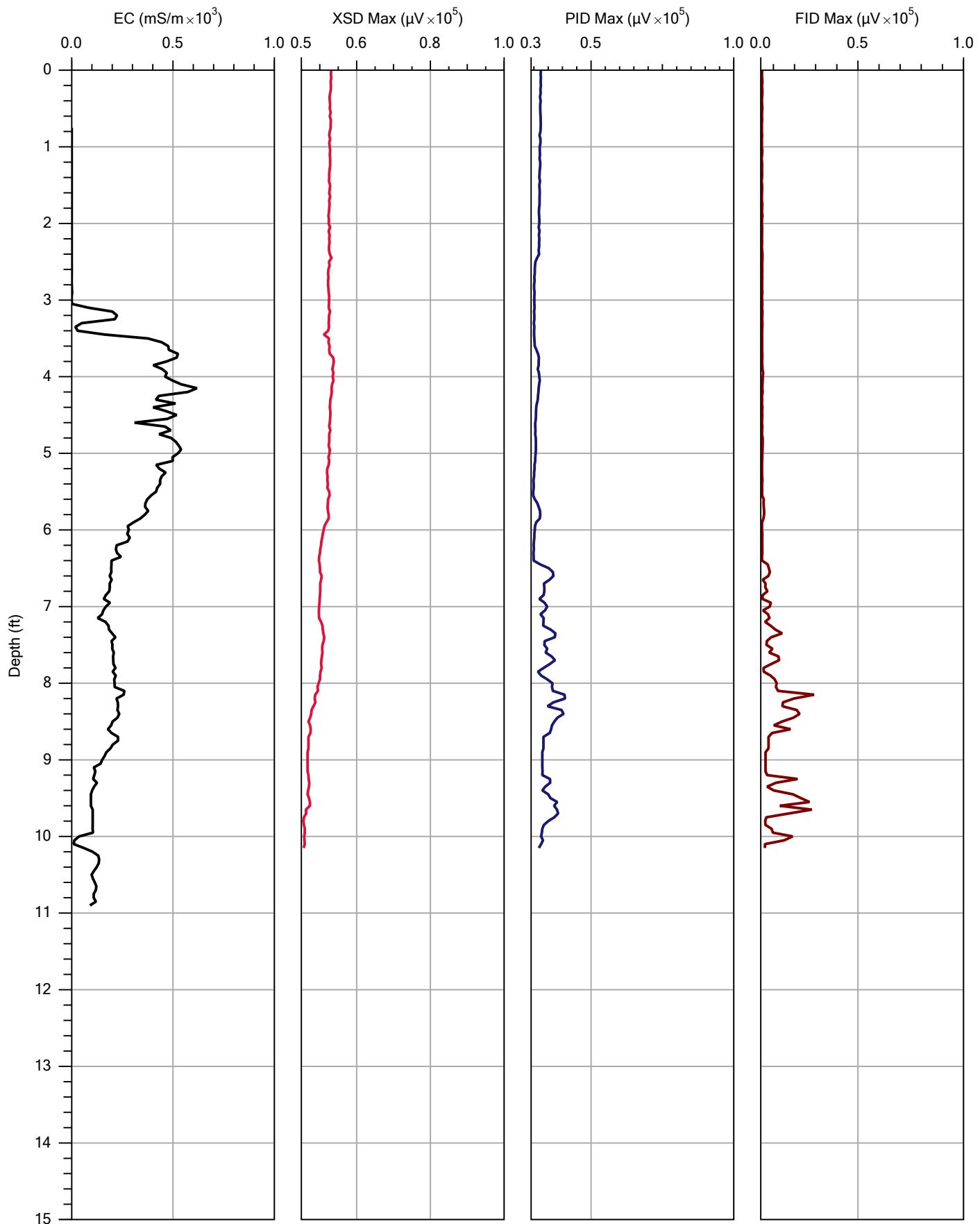


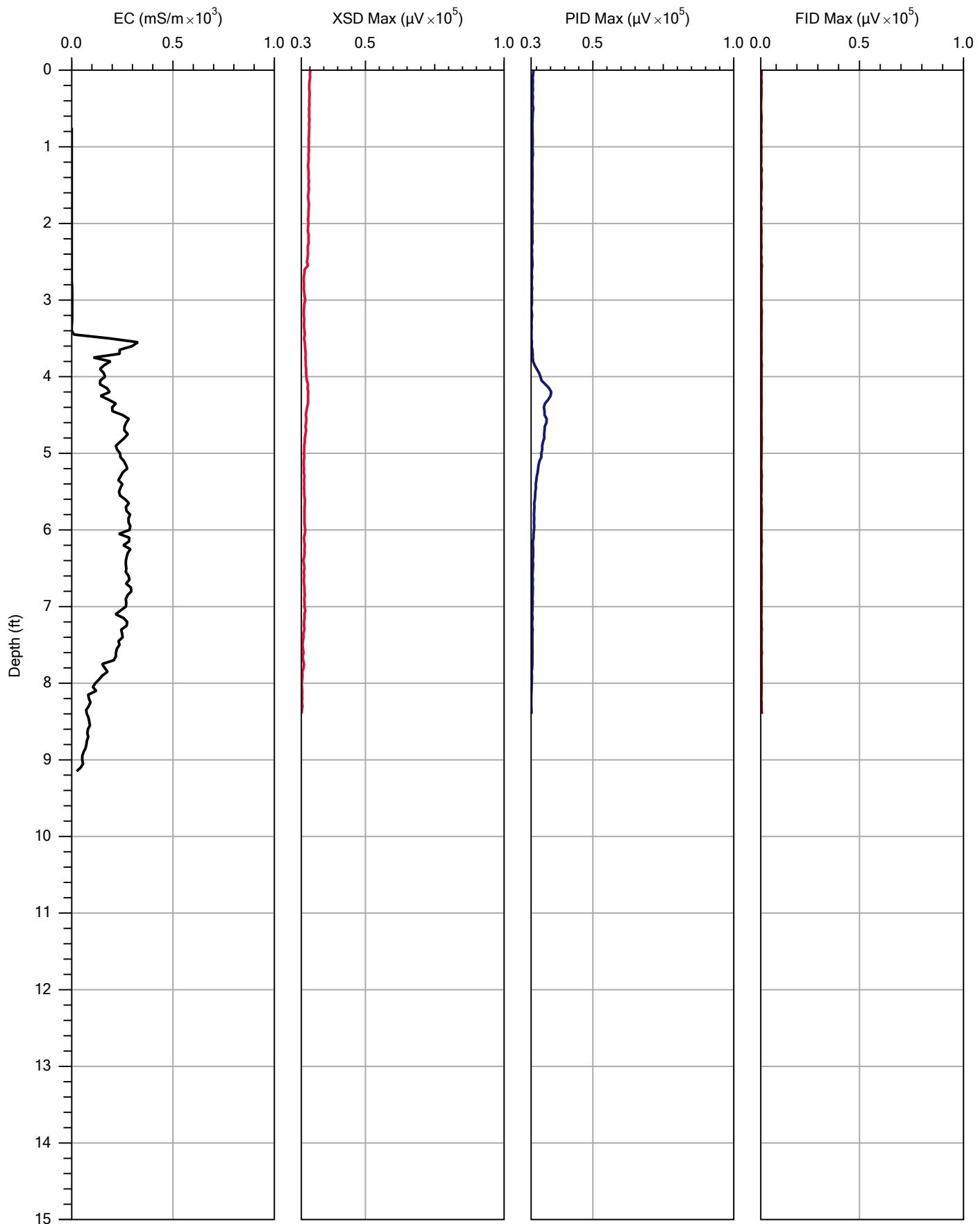


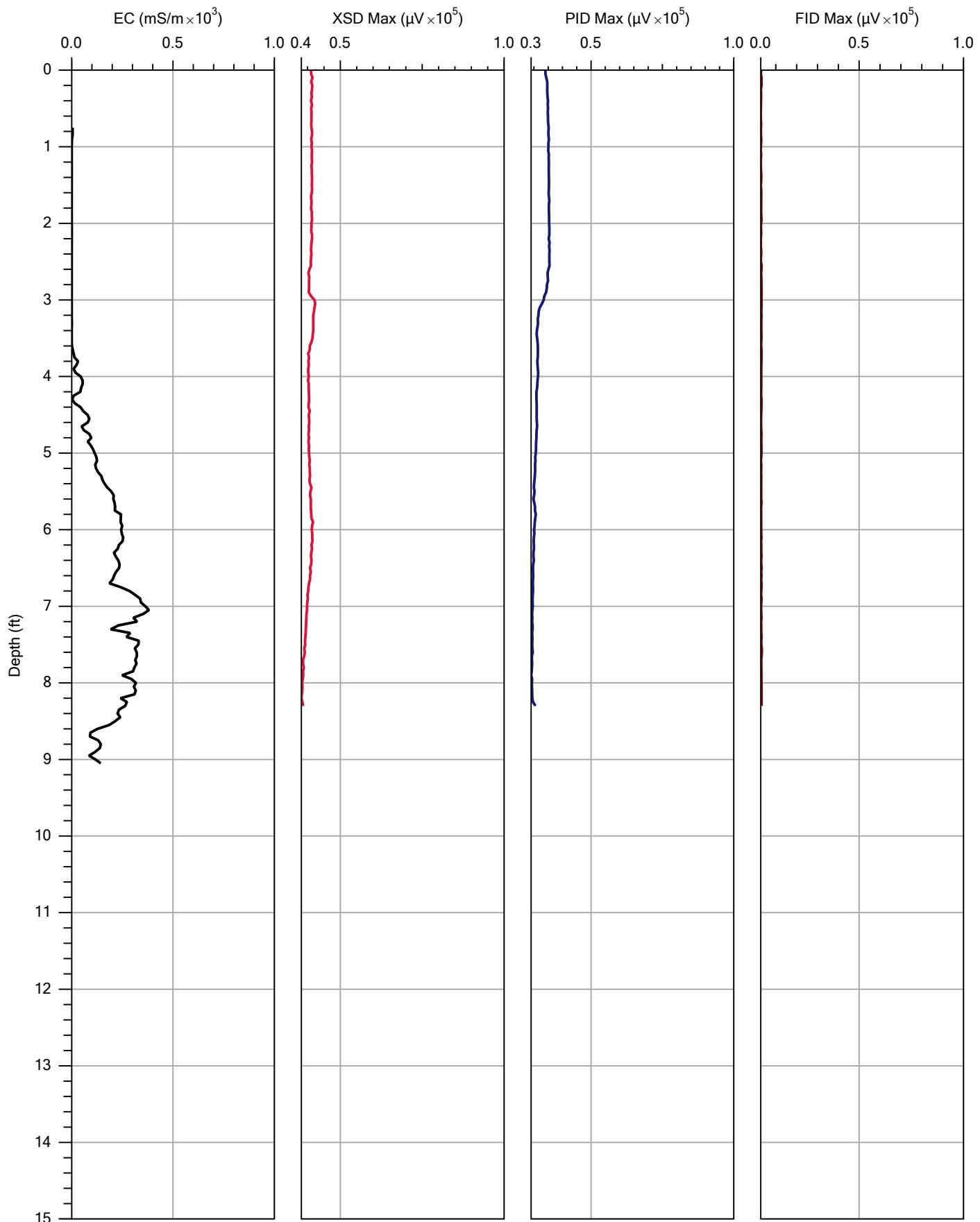
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	Location:

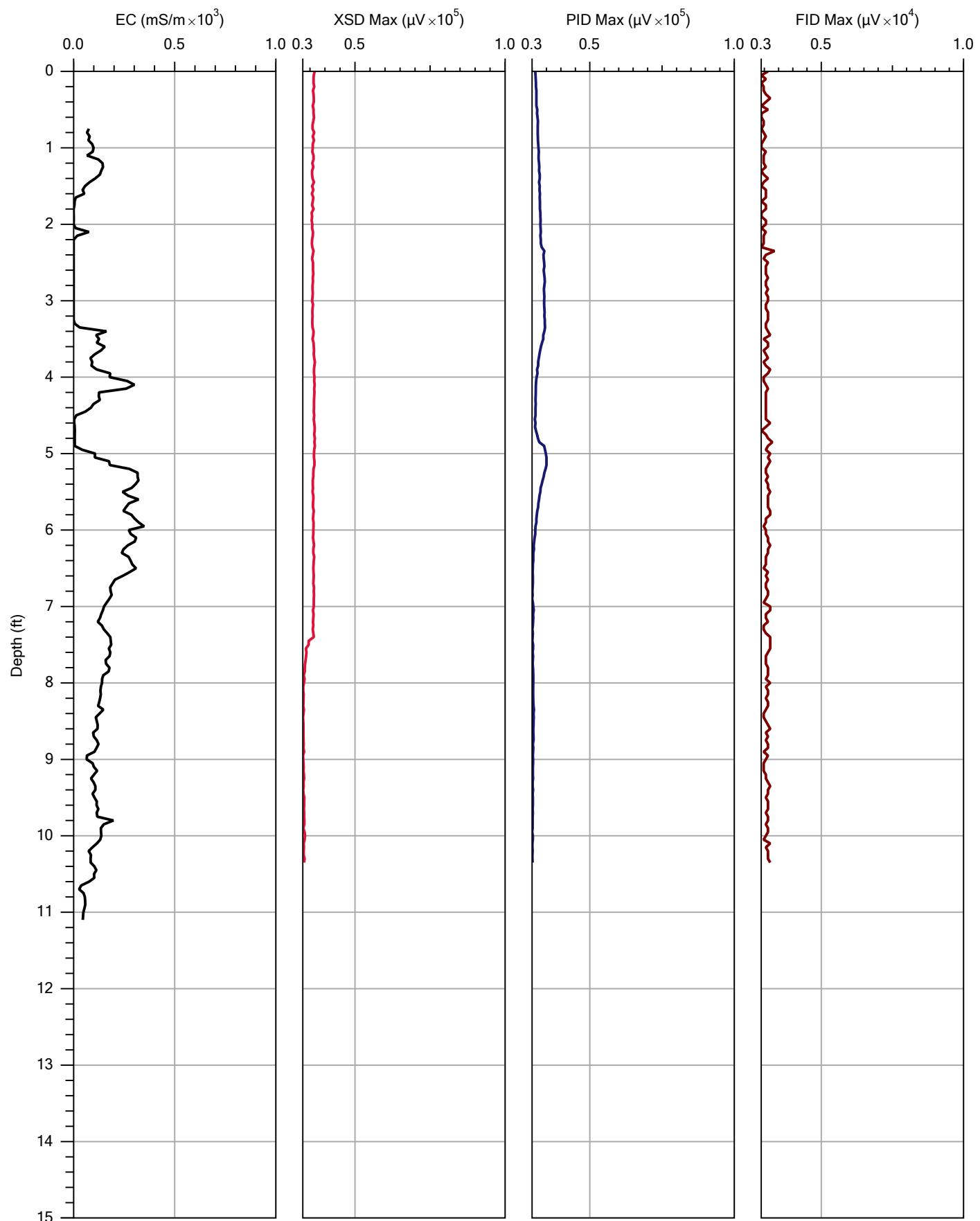


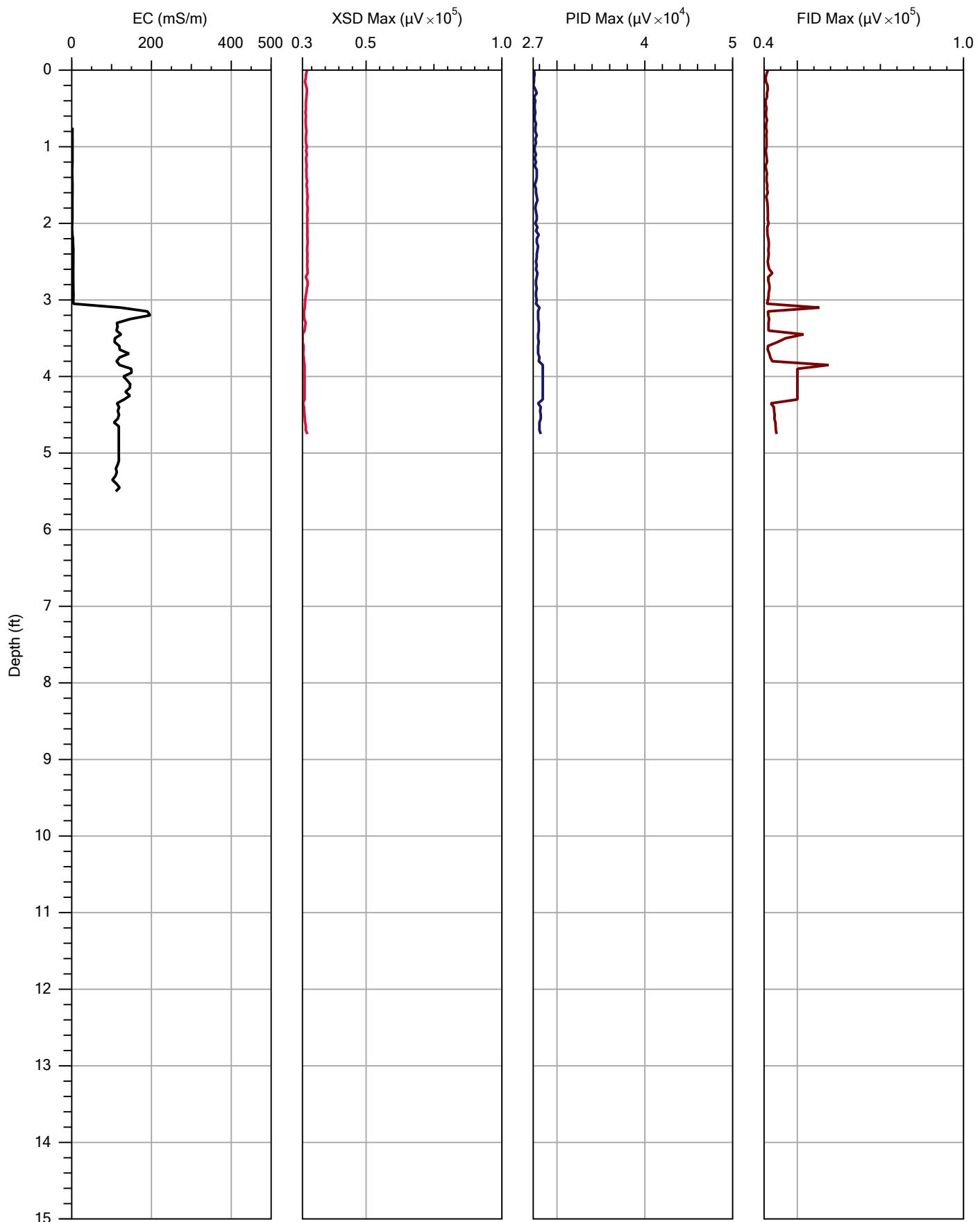


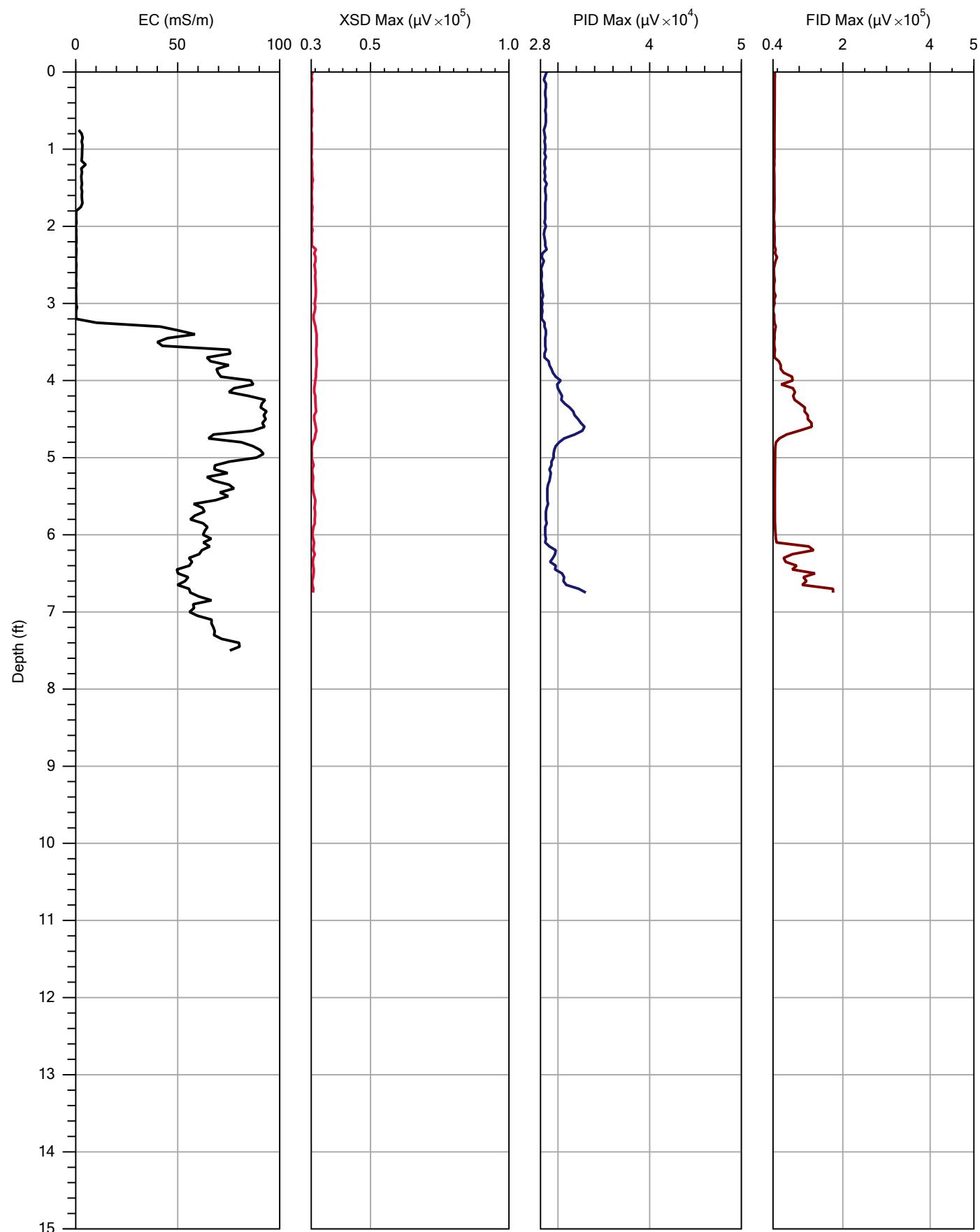


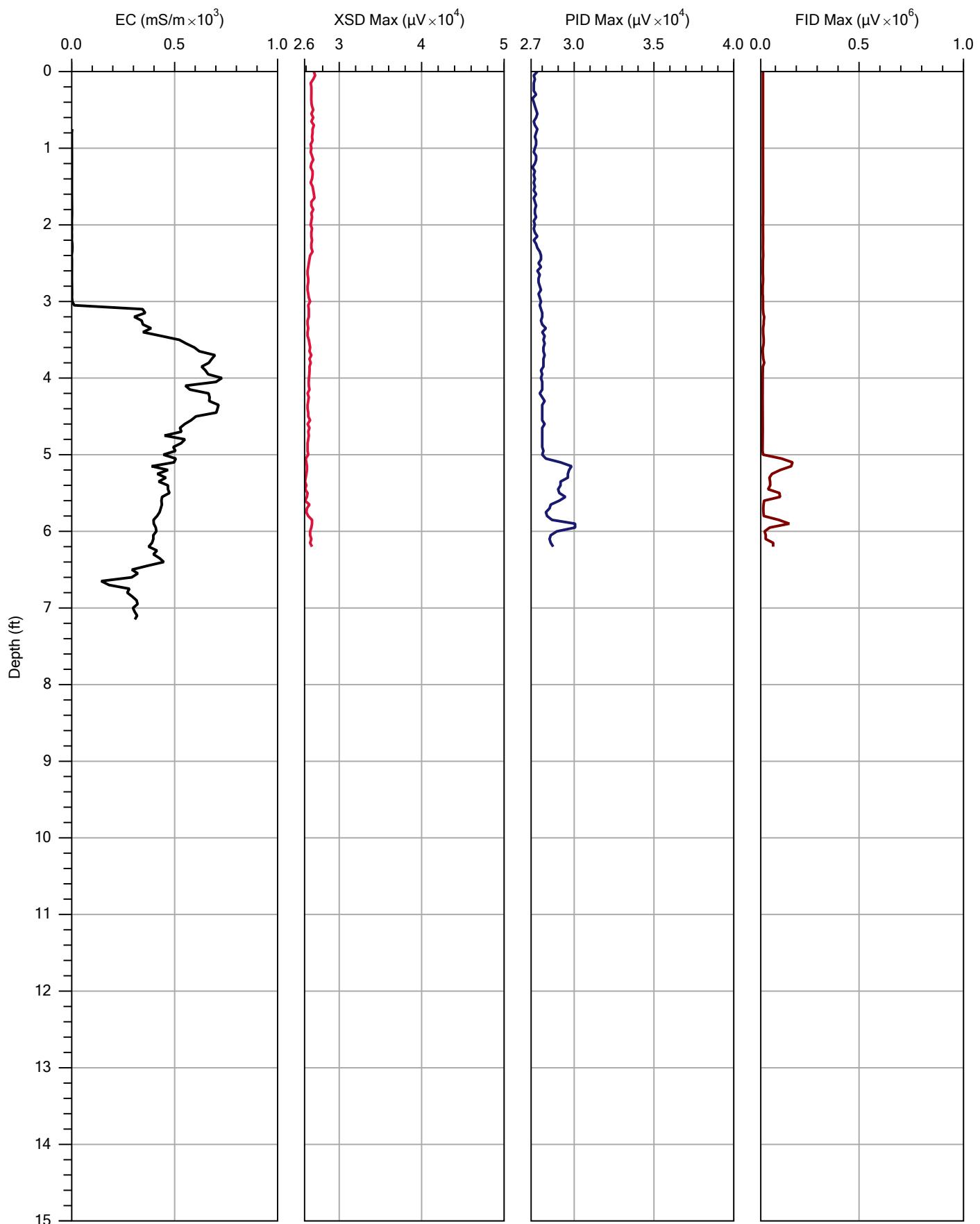


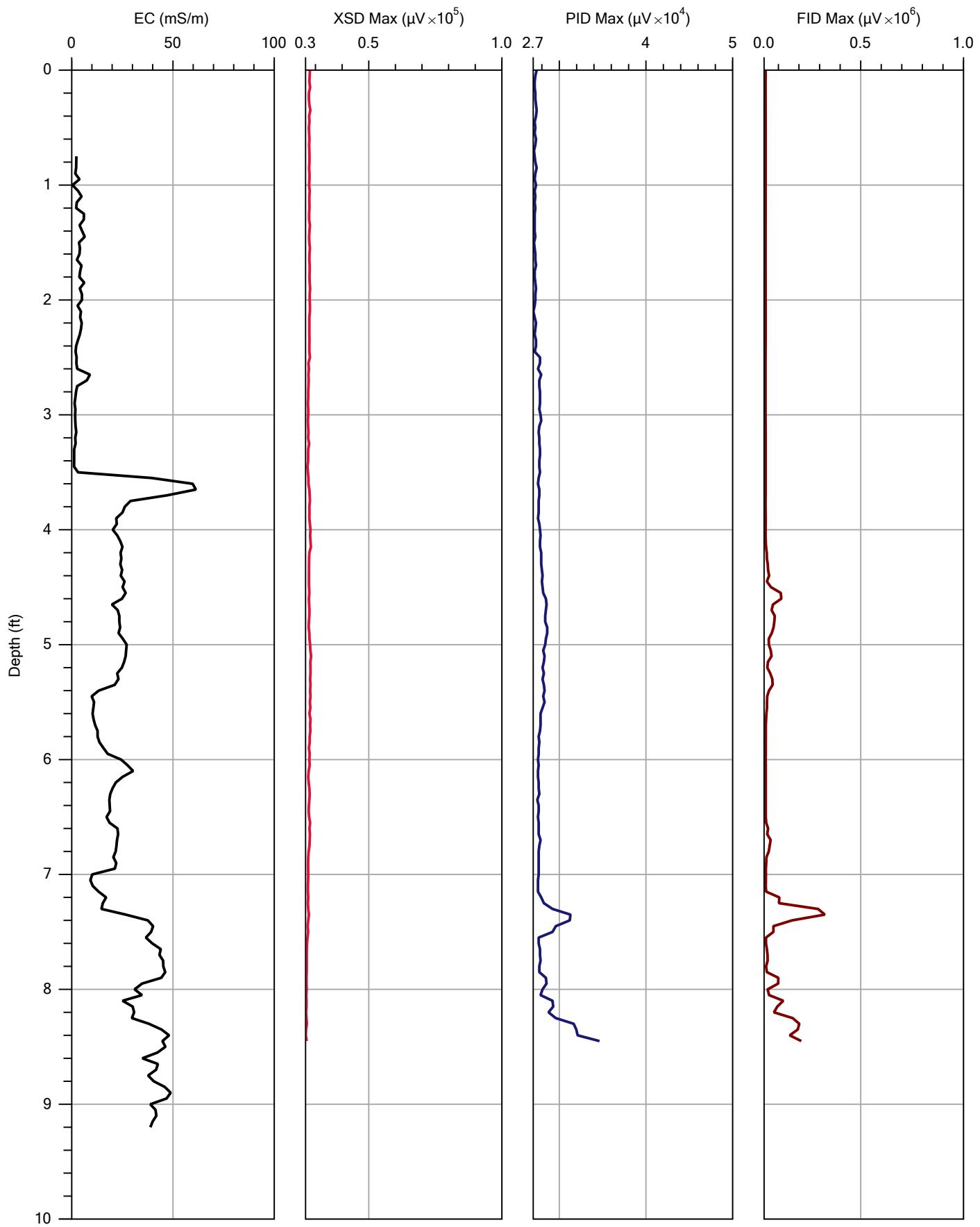


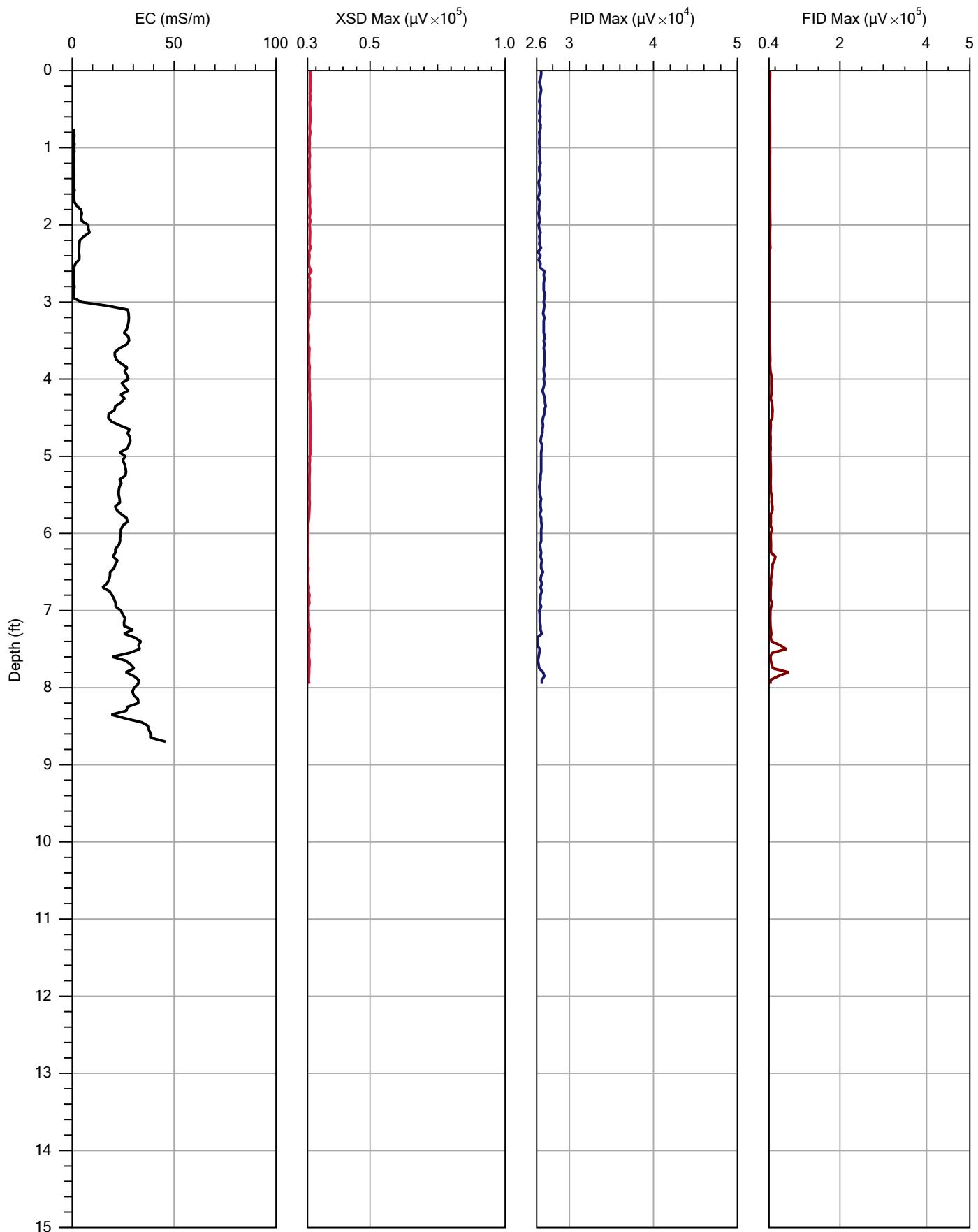


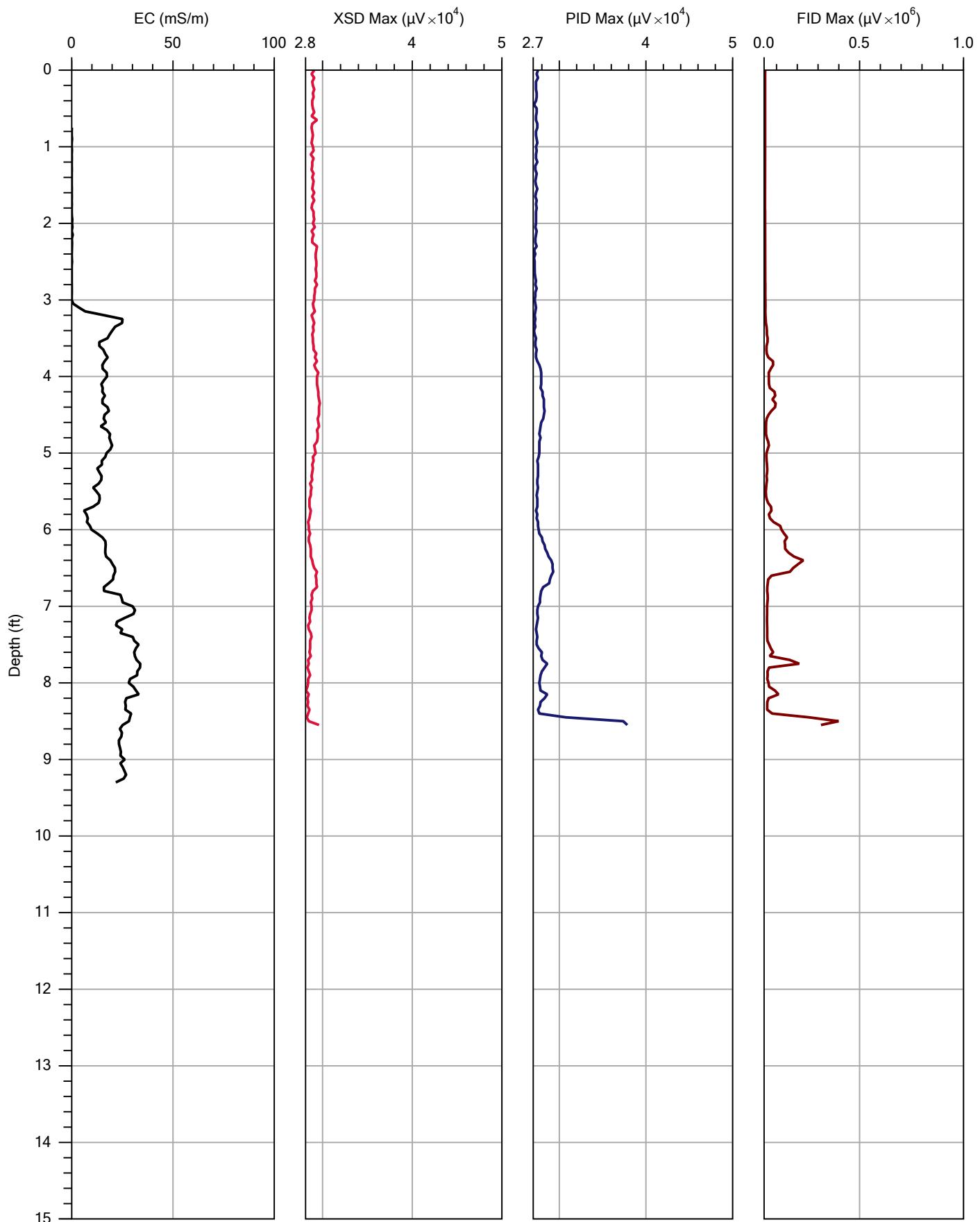


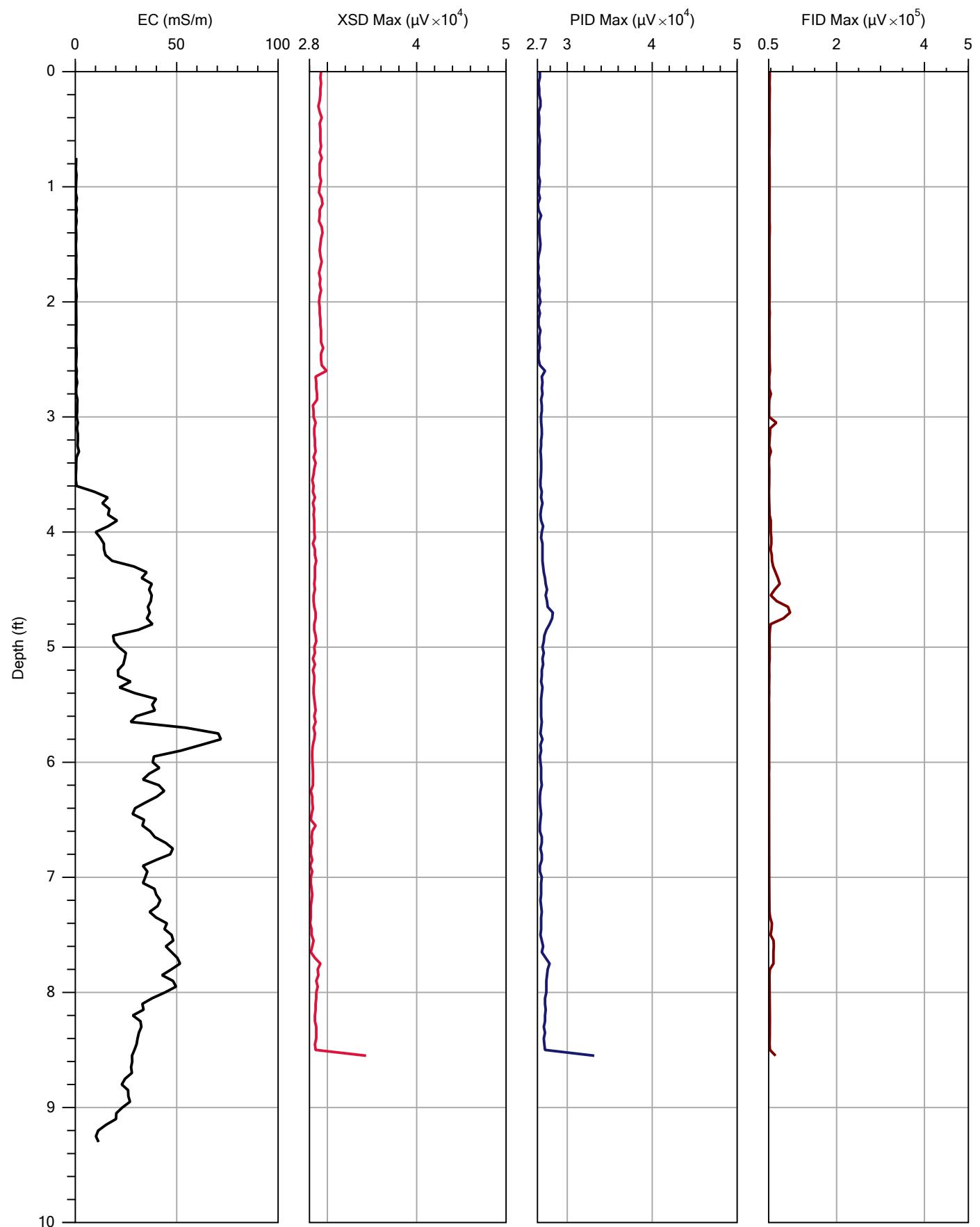


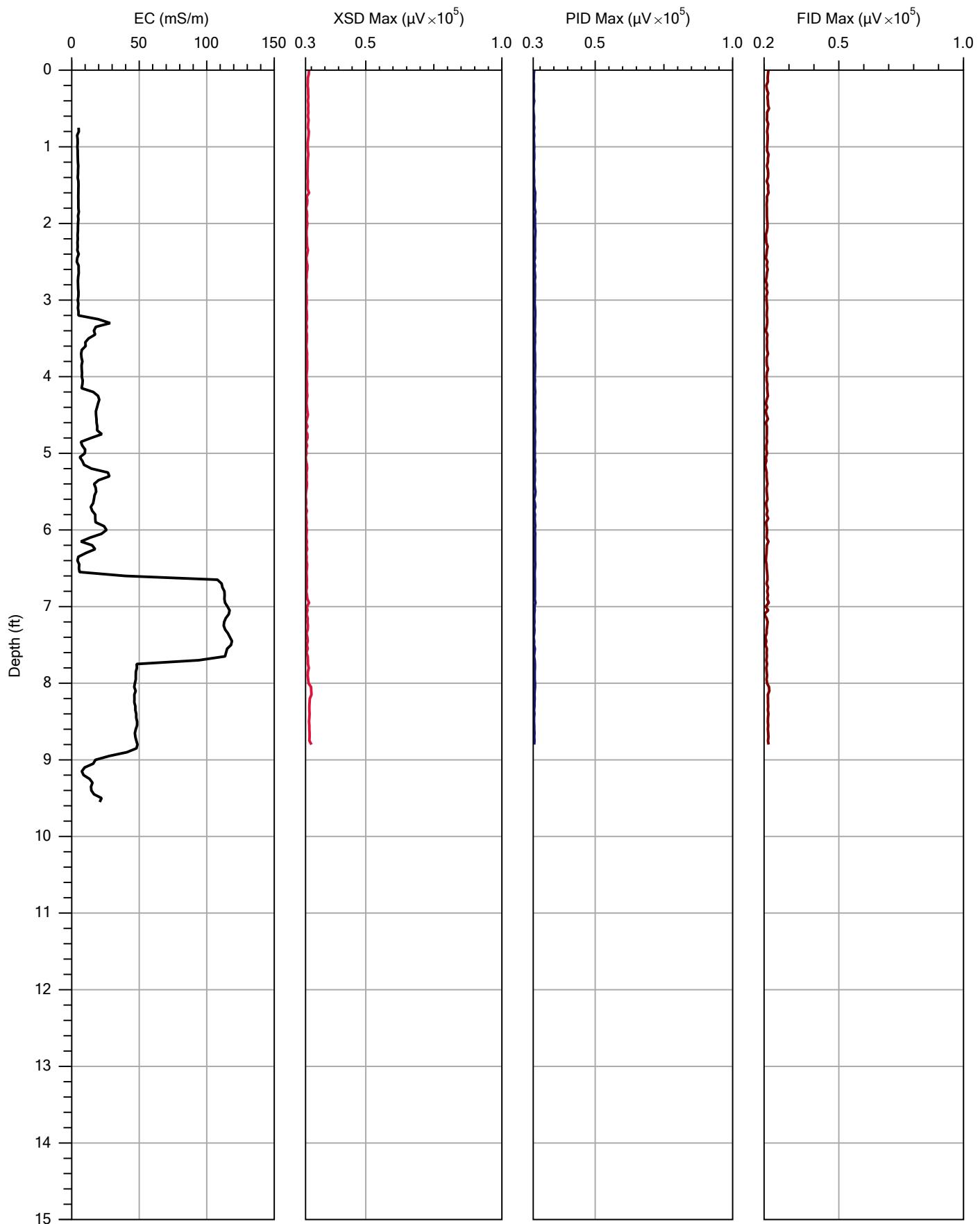






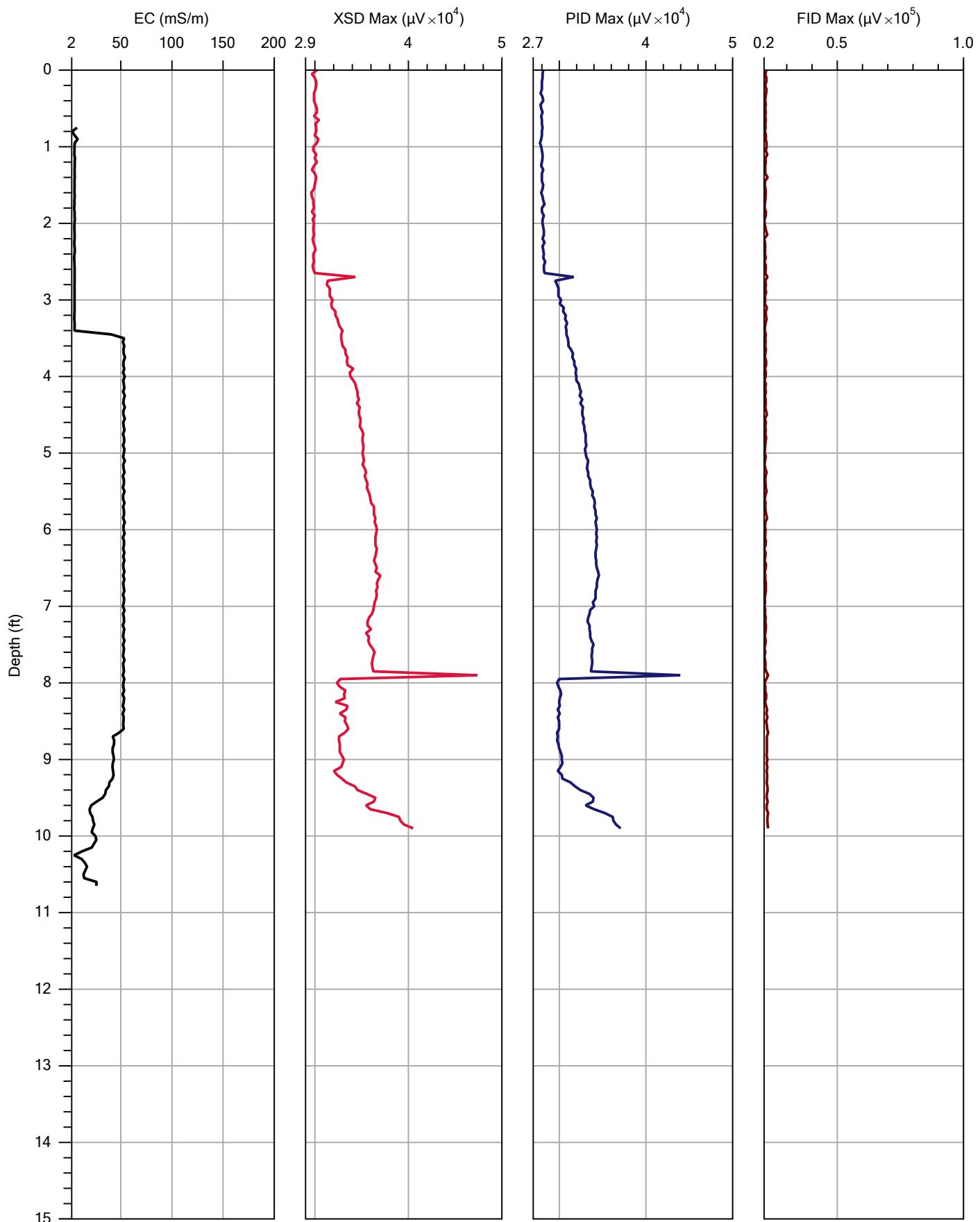






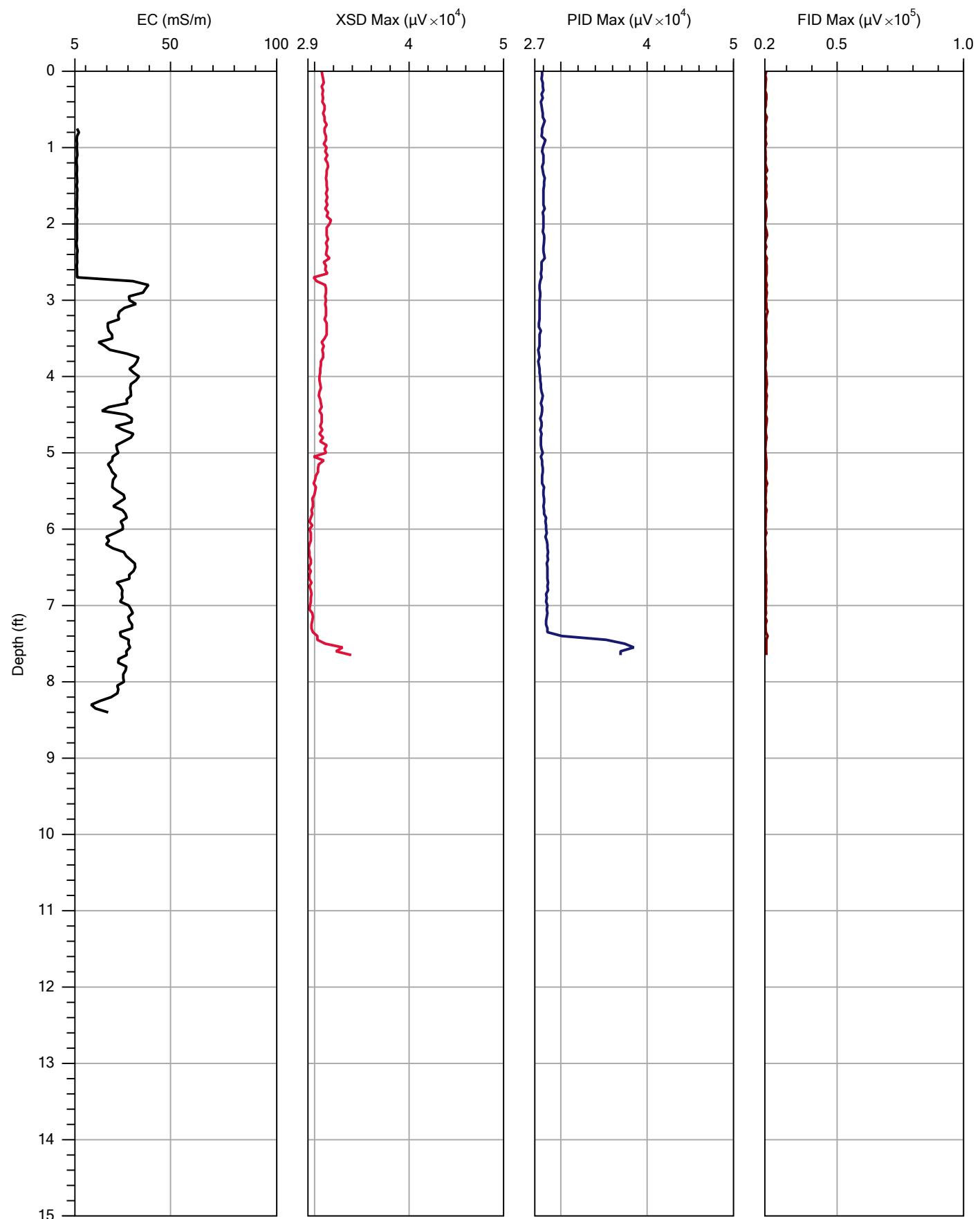
### SAMPLE LOCATION: MIP-FSK-19 (9-10 ft bgs)

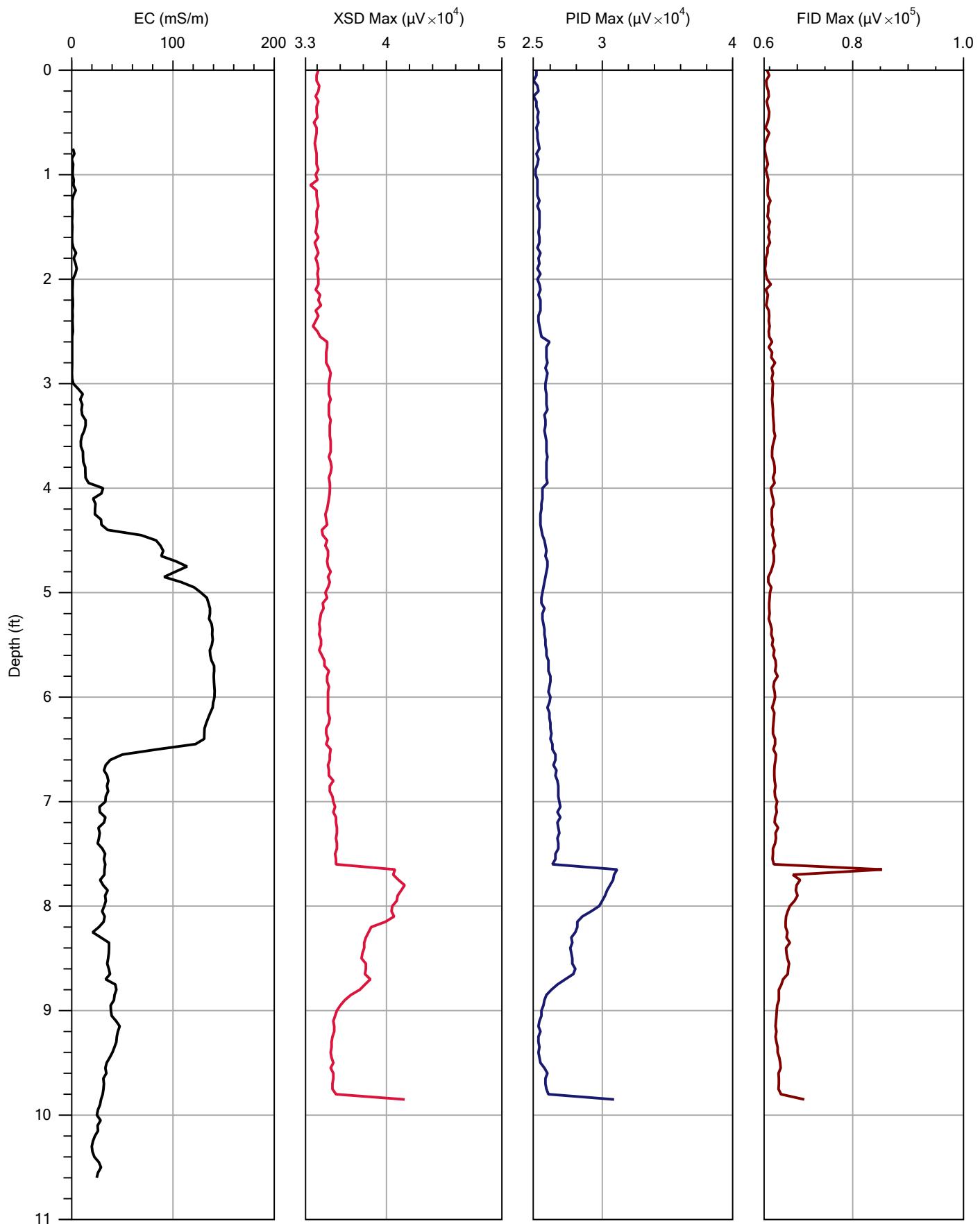
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Project ID: 203181157	Client: GEI	Location: new windsor ny

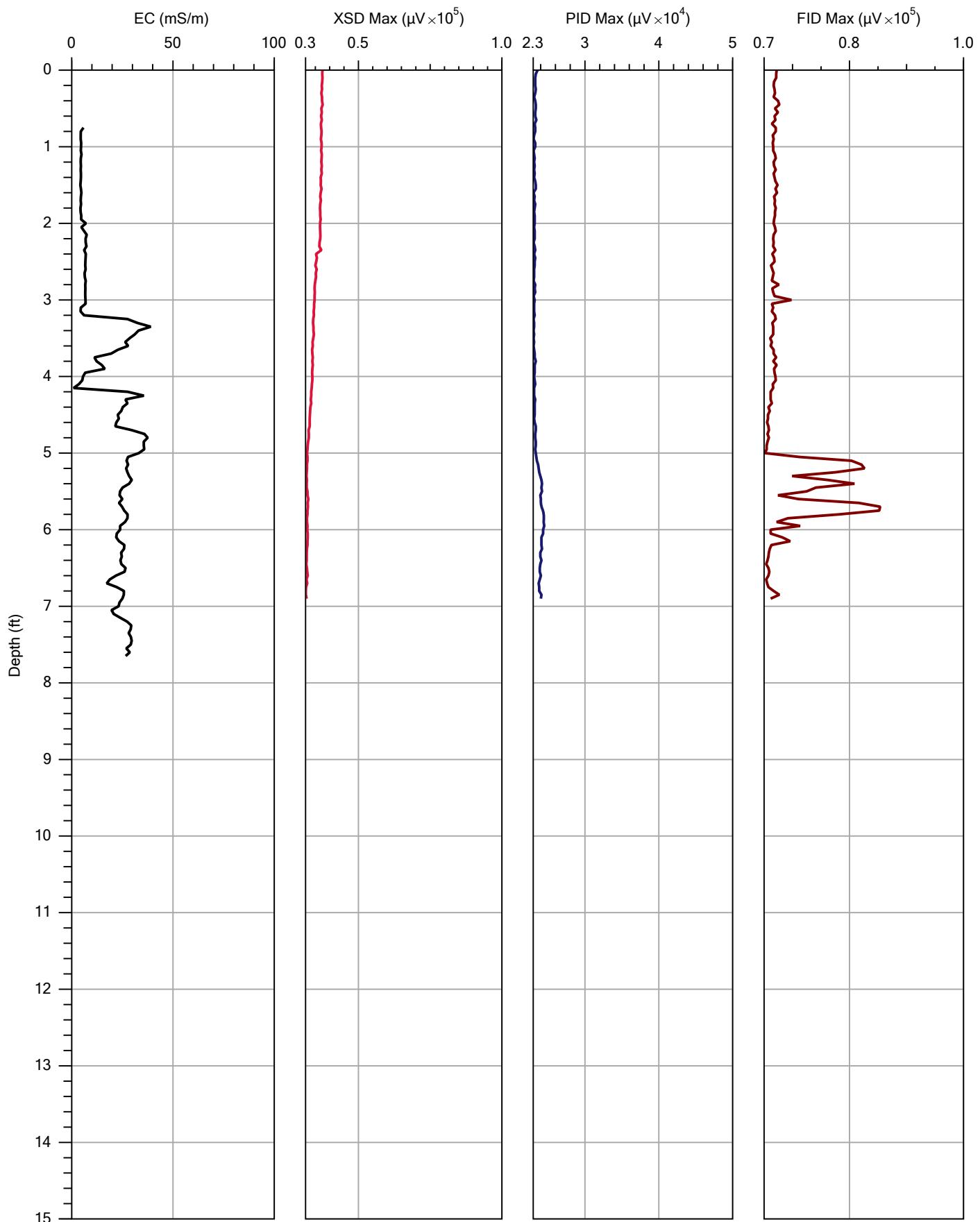


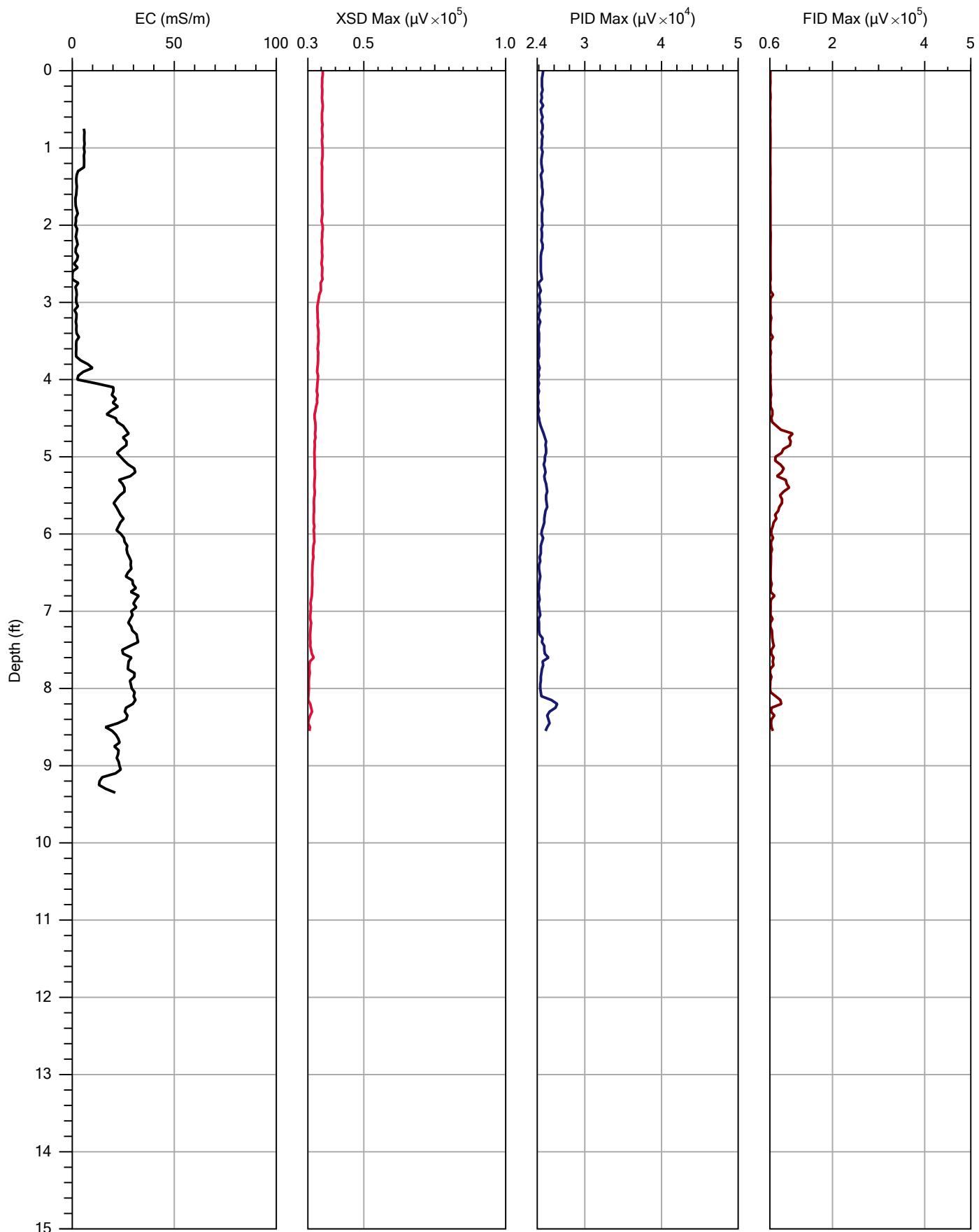
#### SAMPLE LOCATION: MIP-FSK-20 (5-6 ft bgs)

Company: CASCADE TECHNICAL SERVICES	Operator: ZF	Date: 07/26/18
Project ID: 203181157	Client: GEI	Location: new windsor ny









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## Reference Material

The sections below provide information regarding the Cascade Personnel present at the site during the field activities, the specific equipment used during field activities, and background information on the MIP system.

### Cascade Personnel

The following personnel were present during field activities at the Site:

- Mr. Zack Fordley, Cascade Technical Services (HRSC Specialist)
- Mr. Drake Boyke, Cascade Technical Services (DPT Operator)

### Equipment

The following equipment was utilized during field activities at the Site:

- Geoprobe 66 Series Direct Push Drill Rig
- MIP Controller (Nitrogen Flow and Heater)
- Geoprobe FI 6000 Computer
- SRI Model 310 GC Gas Chromatograph [or] HP 5890 Gas Chromatograph
- Electrical Conductivity
- XSD (Halogen Specific Detector)
- PID (Photo Ionization Detector) 10.2 eV Lamp
- FID (Flame Ionization Detector)
- 150' MIP Trunkline
- 1.75" O.D. MIP Probe
- 1.75" O.D. Drive Rods
- Ultra-High Purity Nitrogen
- Ultra-High Purity Hydrogen

### MIP System Overview

The MIP is commonly used for quickly determining the locations of volatile organic compound (VOC) source zones and plumes. The MIP is most valuable in terms of its ability to provide “spatial correspondence”, meaning that where the MIP detector response show peaks, there is likely to be elevated soil and groundwater concentrations. The MIP can also be used to provide extremely valuable data to streamline subsequent investigative tasks and improve the overall efficiency and accuracy of the site investigation. Vertical profiles, cross sectional views and 3D images of contaminant distribution can all be produced from the electronic data generated by the MIP logs. The unique capability of providing reliable, real-time information allows for informed and timely decision making in the field. The MIP works by heating the soils and groundwater adjacent to the probe to 120 degrees C. This volatilizes the VOCs and allows the VOCs to transfer through a Teflon membrane via a combination of concentration and pressure gradients. These VOCs are then swept into a nitrogen gas loop that carries these vapors to a series of detectors housed at the surface. Continuous chemical profiles are generated from each hole. Electrical conductivity of the soil is also measured and these logs can be compared to the chemical logs to better understand the relationship between the lithology and the contaminant distribution. The MIP technology is only appropriate for VOCs. The following section discusses the various detection systems that are commonly used with the MIP system.

### Detector Overview

- XSD – The Halogen Specific Detector converts compounds containing halogens to their oxidation products and free halogen atoms by oxidative pyrolysis. These halogen atoms are

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adsorbed onto the activated platinum surface of the detector probe assembly resulting in an increase thermionic emission. This emission current provides a corresponding voltage that is measured via an electrometer circuit in the detector controller.

- PID – Photo Ionization Detector sample stream flows through the detector's reaction chamber where it is continuously irradiated with high energy ultraviolet light. When compounds are present that have a lower ionization potential than that of the irradiation energy (10.2 electron volts with standard lamp) they are ionized. The ions formed are collected in an electrical field, producing an ion current that is proportional to compound concentration. The ion current is amplified and output by the gas chromatograph's electrometer.
- FID – Flame Ionization Detector consists of a hydrogen / air flame and a collector plate. The effluent from the GC (trunkline) passes through the flame, which breaks down organic molecules and produces ions. The ions are collected on a biased electrode and produce an electric signal.

#### MIP Data Collection

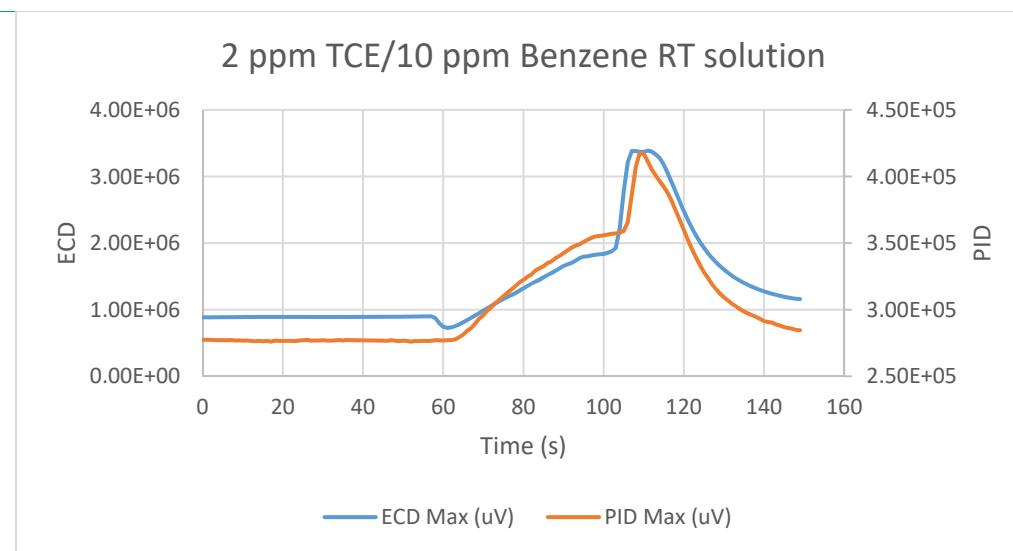
- Depth - Data is collected every 0.05 feet, or twenty points per foot.
- Electrical Conductivity - Electrical Conductivity data is measured/collected in milli-siemens per Meter (ms/M). The conductivity of soils is different for each type of media. Finer grained sediments, such as silts or clays, will typically have a higher EC signal. While coarser grained sediments, sands and gravel, will typically have a lower EC signal.
- Rate of Penetration - Rate of penetration (ROP) is measured/collected in feet per minute (ft/min). Speed is an indication of the advancement rate of the MIP probe. In order to allow for adequate heating of the MIP tooling, the MIP's ROP should not exceed one foot per minute.
- Temperature - Temperature data is measured/collected in Degrees Celsius. Temperature is an indication of the physical temperature of the MIP block. Minimum and Maximum temperature is collected at each vertical interval. Cascade's temperature protocol indicates that the MIP probe temperature shall maintain a minimum temperature of 90 Degrees Celsius.
- Pressure - Pressure data is measured/collected in PSI. The pressure readings represent the pressure being delivered to the MIP's nitrogen gas line. Deviations greater than of 1.5 PSI outside of the starting pressure indicate a system leak or obstruction is present.
- Detector (XSD, PID, FID) - Detector responses are measured/collected in micro Volts (uV). Detector responses are an indication of relative contaminant responses. Minimum and Maximum detector responses are collected at each vertical interval.

#### Response Testing

Response testing (RT) is an integral part of ensuring the quality of data from the MIP system. Response testing is conducted before and after each log. This ensures the validity of the data and the integrity of the system. The RT provides a traceable indication that the MIP system detectors are adequately responding and allows the carrier gas trip time to be calculated on the physical components of the system.

Cascade uses acceptance criteria to evaluate the RTs. The acceptable criteria for an RT is defined for specified concentrations of RT solution and a specified N2 trunkline flow rate.

The trip time is measured by recording the time between the moment when the VOA is placed over the membrane and the response of the detectors, as viewed on the MIP data acquisition unit. The baseline and peak response value are also recorded for comparison with other MIP response tests. The trip time is entered manually into the data acquisition system account for the time it takes for compounds in the subsurface to travel the length of the trunkline during the MIP boring.



## **Attachment 2**



# Technical Report

prepared for:

**GEI Consultants, Inc**  
455 Winding Brook Drive, Suite 201  
Glastonbury CT, 06033  
**Attention: Matt O'Neill**

Report Date: 07/30/2018

**Client Project ID: 1602600-06-1**

York Project (SDG) No.: 18G0973

CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037



New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

120 RESEARCH DRIVE  
[www.YORKLAB.com](http://www.YORKLAB.com)

STRATFORD, CT 06615  
(203) 325-1371



132-02 89th AVENUE  
FAX (203) 357-0166

RICHMOND HILL, NY 11418  
[ClientServices@yorklab.com](mailto:ClientServices@yorklab.com)

Report Date: 07/30/2018  
Client Project ID: 1602600-06-1  
York Project (SDG) No.: 18G0973

**GEI Consultants, Inc**  
455 Winding Brook Drive, Suite 201  
Glastonbury CT, 06033  
Attention: Matt O'Neill

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## Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on July 23, 2018 and listed below. The project was identified as your project: **1602600-06-1**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<b><u>York Sample ID</u></b>	<b><u>Client Sample ID</u></b>	<b><u>Matrix</u></b>	<b><u>Date Collected</u></b>	<b><u>Date Received</u></b>
18G0973-01	MIP-FSK-01	Soil	07/23/2018	07/23/2018

## **General Notes for York Project (SDG) No.: 18G0973**

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

**Approved By:**



**Date:** 07/30/2018

Benjamin Gulizia  
Laboratory Director





## Sample Information

**Client Sample ID:** MIP-FSK-01

**York Sample ID:** 18G0973-01

York Project (SDG) No.  
18G0973

Client Project ID  
1602600-06-1

Matrix  
Soil

Collection Date/Time  
July 23, 2018 9:10 am

Date Received  
07/23/2018

### Volatile Organics, 8260 List

Sample Prepared by Method: EPA 5035A

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	07/26/2018 07:30	07/26/2018 16:35	SS
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	07/26/2018 07:30	07/26/2018 16:35	SS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	07/26/2018 07:30	07/26/2018 16:35	SS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	07/26/2018 07:30	07/26/2018 16:35	SS
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	07/26/2018 07:30	07/26/2018 16:35	SS
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	07/26/2018 07:30	07/26/2018 16:35	SS
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	07/26/2018 07:30	07/26/2018 16:35	SS
563-58-6	1,1-Dichloropropylene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP,NELAC-NY12058,PAE	07/26/2018 07:30	07/26/2018 16:35	SS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP,NELAC-NY12058,PAE	07/26/2018 07:30	07/26/2018 16:35	SS
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP,NELAC-NY12058	07/26/2018 07:30	07/26/2018 16:35	SS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP,NELAC-NY12058,PAE	07/26/2018 07:30	07/26/2018 16:35	SS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	07/26/2018 07:30	07/26/2018 16:35	SS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	07/26/2018 07:30	07/26/2018 16:35	SS
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	07/26/2018 07:30	07/26/2018 16:35	SS
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	07/26/2018 07:30	07/26/2018 16:35	SS
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	07/26/2018 07:30	07/26/2018 16:35	SS
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	07/26/2018 07:30	07/26/2018 16:35	SS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	07/26/2018 07:30	07/26/2018 16:35	SS
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	07/26/2018 07:30	07/26/2018 16:35	SS
142-28-9	1,3-Dichloropropane	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP,NELAC-NY12058,PAE	07/26/2018 07:30	07/26/2018 16:35	SS



## Sample Information

**Client Sample ID:** MIP-FSK-01

**York Sample ID:**

**18G0973-01**

York Project (SDG) No.

18G0973

Client Project ID

1602600-06-1

Matrix

Soil

Collection Date/Time

July 23, 2018 9:10 am

Date Received

07/23/2018

### Volatile Organics, 8260 List

Sample Prepared by Method: EPA 5035A

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1;	07/26/2018 07:30	07/26/2018 16:35	SS
123-91-1	1,4-Dioxane	ND		ug/kg dry	41	160	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP,NELAC-NY12058,PAE	07/26/2018 07:30	07/26/2018 16:35	SS
594-20-7	2,2-Dichloropropane	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP,NELAC-NY12058	07/26/2018 07:30	07/26/2018 16:35	SS
78-93-3	2-Butanone	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1;	07/26/2018 07:30	07/26/2018 16:35	SS
95-49-8	2-Chlorotoluene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1;	07/26/2018 07:30	07/26/2018 16:35	SS
106-43-4	4-Chlorotoluene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1;	07/26/2018 07:30	07/26/2018 16:35	SS
67-64-1	Acetone	5.0	CCV-E , SCAL- E, J	ug/kg dry	4.1	8.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1;	07/26/2018 07:30	07/26/2018 16:35	SS
71-43-2	Benzene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1;	07/26/2018 07:30	07/26/2018 16:35	SS
108-86-1	Bromobenzene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP,NELAC-NY12058,PAE	07/26/2018 07:30	07/26/2018 16:35	SS
74-97-5	Bromochloromethane	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP,NELAC-NY12058,PAE	07/26/2018 07:30	07/26/2018 16:35	SS
75-27-4	Bromodichloromethane	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1;	07/26/2018 07:30	07/26/2018 16:35	SS
75-25-2	Bromoform	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1;	07/26/2018 07:30	07/26/2018 16:35	SS
74-83-9	Bromomethane	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1;	07/26/2018 07:30	07/26/2018 16:35	SS
56-23-5	Carbon tetrachloride	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1;	07/26/2018 07:30	07/26/2018 16:35	SS
108-90-7	Chlorobenzene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1;	07/26/2018 07:30	07/26/2018 16:35	SS
75-00-3	Chloroethane	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1;	07/26/2018 07:30	07/26/2018 16:35	SS
67-66-3	Chloroform	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1;	07/26/2018 07:30	07/26/2018 16:35	SS
74-87-3	Chloromethane	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1;	07/26/2018 07:30	07/26/2018 16:35	SS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1;	07/26/2018 07:30	07/26/2018 16:35	SS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1;	07/26/2018 07:30	07/26/2018 16:35	SS
124-48-1	Dibromochloromethane	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP,NELAC-NY12058,PAE	07/26/2018 07:30	07/26/2018 16:35	SS



## Sample Information

Client Sample ID: MIP-FSK-01

York Sample ID:

18G0973-01

York Project (SDG) No.

18G0973

Client Project ID

1602600-06-1

Matrix

Soil

Collection Date/Time

July 23, 2018 9:10 am

Date Received

07/23/2018

### Volatile Organics, 8260 List

Sample Prepared by Method: EPA 5035A

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
74-95-3	Dibromomethane	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP,NELAC-NY12058,PAE	07/26/2018 07:30	07/26/2018 16:35	SS
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP,NELAC-NY12058,PAE	07/26/2018 07:30	07/26/2018 16:35	SS
100-41-4	Ethyl Benzene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	07/26/2018 07:30	07/26/2018 16:35	SS
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP,NELAC-NY12058,PAE	07/26/2018 07:30	07/26/2018 16:35	SS
98-82-8	Isopropylbenzene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	07/26/2018 07:30	07/26/2018 16:35	SS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	07/26/2018 07:30	07/26/2018 16:35	SS
75-09-2	Methylene chloride	ND		ug/kg dry	4.1	8.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	07/26/2018 07:30	07/26/2018 16:35	SS
91-20-3	Naphthalene	ND		ug/kg dry	2.0	8.1	1	EPA 8260C Certifications: NELAC-NY10854,NJDEP,NELAC-NY12058,PAE	07/26/2018 07:30	07/26/2018 16:35	SS
104-51-8	n-Butylbenzene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	07/26/2018 07:30	07/26/2018 16:35	SS
103-65-1	n-Propylbenzene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	07/26/2018 07:30	07/26/2018 16:35	SS
95-47-6	o-Xylene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/26/2018 07:30	07/26/2018 16:35	SS
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	4.1	8.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/26/2018 07:30	07/26/2018 16:35	SS
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	07/26/2018 07:30	07/26/2018 16:35	SS
135-98-8	sec-Butylbenzene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	07/26/2018 07:30	07/26/2018 16:35	SS
100-42-5	Styrene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	07/26/2018 07:30	07/26/2018 16:35	SS
98-06-6	tert-Butylbenzene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	07/26/2018 07:30	07/26/2018 16:35	SS
127-18-4	Tetrachloroethylene	5.8		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	07/26/2018 07:30	07/26/2018 16:35	SS
108-88-3	Toluene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	07/26/2018 07:30	07/26/2018 16:35	SS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	07/26/2018 07:30	07/26/2018 16:35	SS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	07/26/2018 07:30	07/26/2018 16:35	SS
79-01-6	Trichloroethylene	ND		ug/kg dry	2.0	4.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY1	07/26/2018 07:30	07/26/2018 16:35	SS



## Sample Information

<b>Client Sample ID:</b> MIP-FSK-01		<b>York Sample ID:</b> 18G0973-01
<u>York Project (SDG) No.</u> 18G0973	<u>Client Project ID</u> 1602600-06-1	<u>Matrix</u> Soil <u>Collection Date/Time</u> July 23, 2018 9:10 am <u>Date Received</u> 07/23/2018

### Volatile Organics, 8260 List

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	2.0	4.1	1	EPA 8260C	07/26/2018 07:30	07/26/2018 16:35	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11		
108-05-4	Vinyl acetate	ND		ug/kg dry	2.0	4.1	1	EPA 8260C	07/26/2018 07:30	07/26/2018 16:35	SS
								Certifications:	NELAC-NY10854,NJDEP,NELAC-NY12058,PAE		
75-01-4	Vinyl Chloride	ND		ug/kg dry	2.0	4.1	1	EPA 8260C	07/26/2018 07:30	07/26/2018 16:35	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11		
1330-20-7	Xylenes, Total	ND		ug/kg dry	6.1	12	1	EPA 8260C	07/26/2018 07:30	07/26/2018 16:35	SS
								Certifications:	CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11		
Surrogate Recoveries		Result	Acceptance Range								
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	96.2 %			77-125						
2037-26-5	Surrogate: Toluene-d8	101 %			85-120						
460-00-4	Surrogate: p-Bromofluorobenzene	102 %			76-130						

### Total Solids

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	92.0		%	0.100	1	SM 2540G	07/30/2018 10:54	07/30/2018 16:05	TJM



### Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
18G0973-01	MIP-FSK-01	40mL Vial with Stir Bar-Cool 4° C



## Sample and Data Qualifiers Relating to This Work Order

- SCAL-E The value reported is ESTIMATED. The value is estimated due to its behavior during initial calibration (average Rf>20%).
- QL-02 This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
- J Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
- CCV-E The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).

### Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence . This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias ) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.



Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

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**YORK**  
ANALYTICAL LABORATORIES INC.  
120 Research Drive  
Stratford, CT 06615  
clientservices@yorklab.com

YORK Project No.  
**1860973**

# Field Chain-of-Custody Record

**NOTE:** YORK's Standard Terms & Conditions are listed on the back side of this document.  
This document serves as your written authorization for YORK to proceed with the analyses requested below.  
Your signature binds you to YORK's Standard Terms & Conditions.

www.yorklab.com

## YOUR Information

Company: <b>G&amp;J CONSULTANTS</b>	Report To: <b>Same</b>	Invoice To: <b>Same</b>	YOUR Project Number <b>1602600-06-1</b>
Address: <b>455 Winding Brook Dr. Glastonbury, CT 06033</b>	Address: Phone: <b>860-368-5300</b>	Phone: Contact: <b>Matt O'Neil</b>	YOUR Project Name <b>Former Safety Clean Dry Cleaners</b>
E-mail: <b>Matt.O'Neil@geiconsultants.com</b>	E-mail: E-mail: <b>Arin</b>	E-mail: E-mail: <b>Arin</b>	YOUR PO#: <b>1602600-06-1</b>
Matrix Codes		Samples From	Report / EDD Type (circle selections)
S - soil / solid	GW - groundwater	New York <input checked="" type="checkbox"/> New Jersey <input type="checkbox"/> Connecticut <input type="checkbox"/> Pennsylvania <input type="checkbox"/> Other	Summary Report <input checked="" type="checkbox"/> QA Report <input type="checkbox"/> NY ASP A Package <input type="checkbox"/> NY ASP B Package <input type="checkbox"/> NJDEP Reduced Deliverables <input type="checkbox"/> NJDKQP Other: <input type="checkbox"/> NYSDEC EQuIS <input type="checkbox"/> NJDEP SRP HazSite <input type="checkbox"/> Other:
Sample Identification		Date/Time Sampled	Analysis Requested
<b>MP-FSK-01</b>		<b>7/29/18 0910</b>	<b>8260 VOCs</b>
Comments:			
<p>Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.</p> <p><i>Chris Atwood</i></p> <p>Samples Collected By: (print your name above and sign below)</p> <p><i>Arin</i></p>			

Turn-Around Time		Special Instruction	
RUSH - Next Day	RUSH - Two Day	HCl <input type="checkbox"/> MeOH <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/> ZnAc <input type="checkbox"/>	Field Filtered <input type="checkbox"/> Lab to Filter <input type="checkbox"/>
RUSH - Three Day	RUSH - Four Day	Ascorbic Acid <input type="checkbox"/> Other: _____	Date/Time
Standard (5-7 Day)	X		
Samples Relinquished by / Company		Preservation: (check all that apply)	
Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company
<b>7-23-18 11:30</b>	<b>Arin</b>	<b>7-23-18 11:30</b>	<b>Samples Received by / Company</b>
Samples Received by / Company		Date/Time	
Date/Time	Samples Received by / Company	Date/Time	Samples Received in LAB by
<b>7-23-18 11:30</b>	<b>Jewell</b>	<b>7-23-18 11:30</b>	<b>Temp. Received at Lab</b>
Samples Relinquished by / Company		Date/Time	
Date/Time	Samples Received by / Company	Date/Time	Temp. Received at Lab
<b>7-23-18 11:30</b>	<b>T. Mahir</b>	<b>7-23-18 11:30</b>	<b>1.1 Degrees C</b>



# Technical Report

prepared for:

**GEI Consultants, Inc**  
455 Winding Brook Drive, Suite 201  
Glastonbury CT, 06033  
**Attention: Matt O'Neill**

Report Date: 08/08/2018  
**Client Project ID: 1602600.06.1**  
York Project (SDG) No.: 18G1174

Revision No. 1.0

CT Cert. No. PH-0723

New Jersey Cert. No. CT005 and NY037



New York Cert. Nos. 10854 and 12058

PA Cert. No. 68-04440

Report Date: 08/08/2018  
Client Project ID: 1602600.06.1  
York Project (SDG) No.: 18G1174

**GEI Consultants, Inc**  
455 Winding Brook Drive, Suite 201  
Glastonbury CT, 06033  
Attention: Matt O'Neill

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## Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on July 27, 2018 and listed below. The project was identified as your project: **1602600.06.1**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Sample and Analysis Qualifiers section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the Sample and Data Qualifiers Relating to This Work Order section of this report and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<b>York Sample ID</b>	<b>Client Sample ID</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Date Received</b>
18G1174-01	MIP-FSK-Composite	Soil	07/26/2018	07/27/2018
18G1174-02	MIP-FSK-20 (5-6ft)	Soil	07/26/2018	07/27/2018
18G1174-03	MIP-FSK-19 (9-10ft)	Soil	07/26/2018	07/27/2018

## **General Notes for York Project (SDG) No.: 18G1174**

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All analyses conducted met method or Laboratory SOP requirements. See the Sample and Data Qualifiers Section for further information.
6. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
7. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.
8. Analyses conducted at York Analytical Laboratories, Inc. Stratford, CT are indicated by NY Cert. No. 10854; those conducted at York Analytical Laboratories, Inc., Richmond Hill, NY are indicated by NY Cert. No. 12058.

**Approved By:**



**Date:** 08/08/2018

Benjamin Gulizia  
Laboratory Director





## Sample Information

<b>Client Sample ID:</b>	<b>MIP-FSK-Composite</b>	<b>York Sample ID:</b>	<b>18G1174-01</b>
<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>
18G1174	1602600.06.1	Soil	July 26, 2018 12:02 pm
			Date Received 07/27/2018

### Volatile Organics, TCLP RCRA List

Sample Prepared by Method: EPA 5030B/1311

**Log-in Notes:** VOA-CON  
T

**Sample Notes:**

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst		
75-35-4	1,1-Dichloroethylene	ND		ug/L	25	50	10	EPA 8260C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	08/02/2018 14:43	08/03/2018 02:13	RDS		
107-06-2	1,2-Dichloroethane	ND		ug/L	25	50	10	EPA 8260C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	08/02/2018 14:43	08/03/2018 02:13	RDS		
106-46-7	1,4-Dichlorobenzene	ND		ug/L	25	50	10	EPA 8260C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	08/02/2018 14:43	08/03/2018 02:13	RDS		
78-93-3	2-Butanone	ND		ug/L	25	50	10	EPA 8260C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	08/02/2018 14:43	08/03/2018 02:13	RDS		
71-43-2	Benzene	ND		ug/L	25	50	10	EPA 8260C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	08/02/2018 14:43	08/03/2018 02:13	RDS		
56-23-5	Carbon tetrachloride	ND		ug/L	25	50	10	EPA 8260C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	08/02/2018 14:43	08/03/2018 02:13	RDS		
108-90-7	Chlorobenzene	ND		ug/L	25	50	10	EPA 8260C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	08/02/2018 14:43	08/03/2018 02:13	RDS		
67-66-3	Chloroform	ND		ug/L	25	50	10	EPA 8260C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	08/02/2018 14:43	08/03/2018 02:13	RDS		
127-18-4	Tetrachloroethylene	ND		ug/L	25	50	10	EPA 8260C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	08/02/2018 14:43	08/03/2018 02:13	RDS		
79-01-6	Trichloroethylene	ND		ug/L	25	50	10	EPA 8260C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	08/02/2018 14:43	08/03/2018 02:13	RDS		
75-01-4	Vinyl Chloride	ND		ug/L	25	50	10	EPA 8260C/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,NELAC-NY11	08/02/2018 14:43	08/03/2018 02:13	RDS		
<b>Surrogate Recoveries</b>		<b>Result</b>	<b>Acceptance Range</b>										
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	98.7 %			77-125								
460-00-4	Surrogate: p-Bromofluorobenzene	92.3 %			76-130								
2037-26-5	Surrogate: Toluene-d8	104 %			85-120								

### Semi-Volatiles, 8270 - Comprehensive

Sample Prepared by Method: EPA 3550C

**Log-in Notes:** VOA-CON  
T

**Sample Notes:**

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
92-52-4	1,1-Biphenyl	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
95-94-3	1,2,4,5-Tetrachlorobenzene	ND		ug/kg dry	94.3	188	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR



## Sample Information

**Client Sample ID:** MIP-FSK-Composite

**York Sample ID:**

**18G1174-01**

**York Project (SDG) No.**

18G1174

**Client Project ID**

1602600.06.1

**Matrix**

Soil

**Collection Date/Time**

July 26, 2018 12:02 pm

**Date Received**

07/27/2018

### Semi-Volatiles, 8270 - Comprehensive

Sample Prepared by Method: EPA 3550C

#### Log-in Notes:

VOA-CON  
T

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
122-66-7	1,2-Diphenylhydrazine (as Azobenzene)	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: NELAC-NY10854,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
58-90-2	2,3,4,6-Tetrachlorophenol	ND		ug/kg dry	94.3	188	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
95-95-4	2,4,5-Trichlorophenol	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
88-06-2	2,4,6-Trichlorophenol	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
120-83-2	2,4-Dichlorophenol	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
105-67-9	2,4-Dimethylphenol	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
51-28-5	2,4-Dinitrophenol	ND		ug/kg dry	94.3	188	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
121-14-2	2,4-Dinitrotoluene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
606-20-2	2,6-Dinitrotoluene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
91-58-7	2-Chloronaphthalene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
95-57-8	2-Chlorophenol	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
91-57-6	2-Methylnaphthalene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
95-48-7	2-Methylphenol	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
88-74-4	2-Nitroaniline	ND		ug/kg dry	94.3	188	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
88-75-5	2-Nitrophenol	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
65794-96-9	3- & 4-Methylphenols	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
91-94-1	3,3-Dichlorobenzidine	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
99-09-2	3-Nitroaniline	ND		ug/kg dry	94.3	188	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
534-52-1	4,6-Dinitro-2-methylphenol	ND		ug/kg dry	94.3	188	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR



## Sample Information

**Client Sample ID:** MIP-FSK-Composite

**York Sample ID:**

**18G1174-01**

**York Project (SDG) No.**

18G1174

**Client Project ID**

1602600.06.1

**Matrix**

Soil

**Collection Date/Time**

July 26, 2018 12:02 pm

**Date Received**

07/27/2018

### Semi-Volatiles, 8270 - Comprehensive

Sample Prepared by Method: EPA 3550C

#### Log-in Notes:

VOA-CON  
T

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
101-55-3	4-Bromophenyl phenyl ether	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
59-50-7	4-Chloro-3-methylphenol	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
106-47-8	4-Chloroaniline	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
7005-72-3	4-Chlorophenyl phenyl ether	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
100-01-6	4-Nitroaniline	ND		ug/kg dry	94.3	188	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
100-02-7	4-Nitrophenol	ND		ug/kg dry	94.3	188	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
83-32-9	Acenaphthene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
208-96-8	Acenaphthylene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
98-86-2	Acetophenone	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
62-53-3	Aniline	ND		ug/kg dry	189	377	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
120-12-7	Anthracene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
1912-24-9	Atrazine	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
100-52-7	Benzaldehyde	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
92-87-5	Benzidine	ND		ug/kg dry	189	377	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
56-55-3	Benzo(a)anthracene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
50-32-8	Benzo(a)pyrene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
205-99-2	Benzo(b)fluoranthene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
191-24-2	Benzo(g,h,i)perylene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
207-08-9	Benzo(k)fluoranthene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
65-85-0	Benzoic acid	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
100-51-6	Benzyl alcohol	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR



## Sample Information

**Client Sample ID:** MIP-FSK-Composite

**York Sample ID:**

**18G1174-01**

**York Project (SDG) No.**

18G1174

**Client Project ID**

1602600.06.1

**Matrix**

Soil

**Collection Date/Time**

July 26, 2018 12:02 pm

**Date Received**

07/27/2018

### Semi-Volatiles, 8270 - Comprehensive

Sample Prepared by Method: EPA 3550C

#### Log-in Notes:

VOA-CON  
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#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
85-68-7	Benzyl butyl phthalate	97.2		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
111-91-1	Bis(2-chloroethoxy)methane	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
111-44-4	Bis(2-chloroethyl)ether	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
108-60-1	Bis(2-chloroisopropyl)ether	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
117-81-7	<b>Bis(2-ethylhexyl)phthalate</b>	<b>53.5</b>	J	ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
105-60-2	Caprolactam	ND		ug/kg dry	94.3	188	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
86-74-8	Carbazole	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
218-01-9	Chrysene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
53-70-3	Dibenzo(a,h)anthracene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
132-64-9	Dibenzofuran	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
84-66-2	Diethyl phthalate	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
131-11-3	Dimethyl phthalate	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
84-74-2	Di-n-butyl phthalate	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
117-84-0	Di-n-octyl phthalate	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
206-44-0	Fluoranthene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
86-73-7	Fluorene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
118-74-1	Hexachlorobenzene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
77-47-4	Hexachlorocyclopentadiene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
67-72-1	Hexachloroethane	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
193-39-5	Indeno(1,2,3-cd)pyrene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
78-59-1	Isophorone	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR



## Sample Information

**Client Sample ID:** MIP-FSK-Composite

**York Sample ID:**

**18G1174-01**

York Project (SDG) No.

18G1174

Client Project ID

1602600.06.1

Matrix

Soil

Collection Date/Time

July 26, 2018 12:02 pm

Date Received

07/27/2018

### Semi-Volatiles, 8270 - Comprehensive

Sample Prepared by Method: EPA 3550C

**Log-in Notes:**

VOA-CON  
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**Sample Notes:**

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
91-20-3	Naphthalene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
98-95-3	Nitrobenzene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
62-75-9	N-Nitrosodimethylamine	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
621-64-7	N-nitroso-di-n-propylamine	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
86-30-6	N-Nitrosodiphenylamine	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
87-86-5	Pentachlorophenol	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
85-01-8	Phenanthrene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
108-95-2	Phenol	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR
129-00-0	Pyrene	ND		ug/kg dry	47.2	94.3	2	EPA 8270D Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/01/2018 14:05	08/02/2018 21:06	SR

#### **Surrogate Recoveries**

#### **Result**

#### **Acceptance Range**

367-12-4	Surrogate: 2-Fluorophenol	38.6 %	20-108
4165-62-2	Surrogate: Phenol-d5	36.3 %	23-114
4165-60-0	Surrogate: Nitrobenzene-d5	45.8 %	22-108
321-60-8	Surrogate: 2-Fluorobiphenyl	42.4 %	21-113
118-79-6	Surrogate: 2,4,6-Tribromophenol	75.4 %	19-110
1718-51-0	Surrogate: Terphenyl-d14	66.5 %	24-116

### Semi-Volatiles, TCLP RCRA Target List

Sample Prepared by Method: EPA 3510C/1311

**Log-in Notes:**

VOA-CON  
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**Sample Notes:**

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
106-46-7	1,4-Dichlorobenzene	ND		ug/L	6.45	10.0	1	EPA 8270D/1311 Certifications: NELAC-NY10854,PADEP	08/02/2018 07:53	08/02/2018 22:11	OW
95-95-4	2,4,5-Trichlorophenol	ND		ug/L	7.22	10.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/02/2018 07:53	08/02/2018 22:11	OW
88-06-2	2,4,6-Trichlorophenol	ND		ug/L	6.54	10.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/02/2018 07:53	08/02/2018 22:11	OW
121-14-2	2,4-Dinitrotoluene	ND		ug/L	4.73	10.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/02/2018 07:53	08/02/2018 22:11	OW
95-48-7	2-Methylphenol	ND		ug/L	1.71	10.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/02/2018 07:53	08/02/2018 22:11	OW
65794-96-9	3- & 4-Methylphenols	ND		ug/L	7.43	20.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/02/2018 07:53	08/02/2018 22:11	OW



## Sample Information

**Client Sample ID:** MIP-FSK-Composite

**York Sample ID:** 18G1174-01

York Project (SDG) No.  
18G1174

Client Project ID  
1602600.06.1

Matrix  
Soil

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July 26, 2018 12:02 pm

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07/27/2018

### Semi-Volatiles, TCLP RCRA Target List

Sample Prepared by Method: EPA 3510C/1311

**Log-in Notes:** VOA-CON  
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**Sample Notes:**

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1319-77-3	Cresols, total	ND		ug/L	7.40	30.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854	08/02/2018 07:53	08/02/2018 22:11	OW
118-74-1	Hexachlorobenzene	ND		ug/L	5.91	10.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/02/2018 07:53	08/02/2018 22:11	OW
87-68-3	Hexachlorobutadiene	ND		ug/L	6.62	10.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/02/2018 07:53	08/02/2018 22:11	OW
67-72-1	Hexachloroethane	ND		ug/L	7.26	10.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/02/2018 07:53	08/02/2018 22:11	OW
98-95-3	Nitrobenzene	ND		ug/L	3.93	10.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/02/2018 07:53	08/02/2018 22:11	OW
87-86-5	Pentachlorophenol	ND		ug/L	7.53	10.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/02/2018 07:53	08/02/2018 22:11	OW
110-86-1	Pyridine	ND		ug/L	6.37	10.0	1	EPA 8270D/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/02/2018 07:53	08/02/2018 22:11	OW

Surrogate Recoveries	Result	Acceptance Range
367-12-4 <i>Surrogate: 2-Fluorophenol</i>	55.3 %	10-90.9
4165-62-2 <i>Surrogate: Phenol-d5</i>	41.2 %	10-69.2
4165-60-0 <i>Surrogate: Nitrobenzene-d5</i>	79.3 %	19.2-141
321-60-8 <i>Surrogate: 2-Fluorobiphenyl</i>	67.2 %	24.8-127
118-79-6 <i>Surrogate: 2,4,6-Tribromophenol</i>	138 %	23-163
1718-51-0 <i>Surrogate: Terphenyl-d14</i>	88.2 %	25.8-110

### Pesticides, TCLP RCRA List

Sample Prepared by Method: EPA 3510C/1311

**Log-in Notes:** VOA-CON  
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**Sample Notes:**

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
57-74-9	Chlordane, total	ND		ug/L	0.222	0.222	1	EPA 8081B/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/02/2018 08:02	08/02/2018 12:56	SA
72-20-8	Endrin	ND		ug/L	0.0444	0.0444	1	EPA 8081B/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/02/2018 08:02	08/02/2018 12:56	SA
58-89-9	gamma-BHC (Lindane)	ND		ug/L	0.0444	0.0444	1	EPA 8081B/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/02/2018 08:02	08/02/2018 12:56	SA
76-44-8	Heptachlor	ND		ug/L	0.0444	0.0444	1	EPA 8081B/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/02/2018 08:02	08/02/2018 12:56	SA
1024-57-3	Heptachlor epoxide	ND		ug/L	0.0444	0.0444	1	EPA 8081B/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/02/2018 08:02	08/02/2018 12:56	SA
72-43-5	Methoxychlor	ND		ug/L	0.0444	0.0444	1	EPA 8081B/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/02/2018 08:02	08/02/2018 12:56	SA
8001-35-2	Toxaphene	ND		ug/L	1.11	1.11	1	EPA 8081B/1311 Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	08/02/2018 08:02	08/02/2018 12:56	SA

Surrogate Recoveries	Result	Acceptance Range
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## Sample Information

<u>Client Sample ID:</u> MIP-FSK-Composite	<u>York Sample ID:</u> 18G1174-01			
York Project (SDG) No. 18G1174	Client Project ID 1602600.06.1	Matrix Soil	Collection Date/Time July 26, 2018 12:02 pm	Date Received 07/27/2018

### Pesticides, TCLP RCRA List

Sample Prepared by Method: EPA 3510C/1311

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
2051-24-3	Surrogate: Decachlorobiphenyl	75.4 %			30-120						
877-09-8	Surrogate: Tetrachloro-m-xylene	78.6 %			30-120						

### Polychlorinated Biphenyls (PCB)

Sample Prepared by Method: EPA 3550C

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
12674-11-2	Aroclor 1016	ND		mg/kg dry	0.0188	1	EPA 8082A	08/01/2018 14:00	08/02/2018 15:04	LAB
11104-28-2	Aroclor 1221	ND		mg/kg dry	0.0188	1	EPA 8082A	08/01/2018 14:00	08/02/2018 15:04	LAB
11141-16-5	Aroclor 1232	ND		mg/kg dry	0.0188	1	EPA 8082A	08/01/2018 14:00	08/02/2018 15:04	LAB
53469-21-9	Aroclor 1242	ND		mg/kg dry	0.0188	1	EPA 8082A	08/01/2018 14:00	08/02/2018 15:04	LAB
12672-29-6	Aroclor 1248	ND		mg/kg dry	0.0188	1	EPA 8082A	08/01/2018 14:00	08/02/2018 15:04	LAB
11097-69-1	Aroclor 1254	ND		mg/kg dry	0.0188	1	EPA 8082A	08/01/2018 14:00	08/02/2018 15:04	LAB
11096-82-5	Aroclor 1260	ND		mg/kg dry	0.0188	1	EPA 8082A	08/01/2018 14:00	08/02/2018 15:04	LAB
1336-36-3	* Total PCBs	ND		mg/kg dry	0.0188	1	EPA 8082A	08/01/2018 14:00	08/02/2018 15:04	LAB
	<b>Surrogate Recoveries</b>	<b>Result</b>			<b>Acceptance Range</b>					
877-09-8	Surrogate: Tetrachloro-m-xylene	47.5 %			30-140					
2051-24-3	Surrogate: Decachlorobiphenyl	40.5 %			30-140					

### Herbicides, TCLP Target List

Sample Prepared by Method: EPA 3535A/1311

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
93-72-1	2,4,5-TP (Silvex)	ND		ug/L	5.00	1	EPA 8151A/1311	08/02/2018 04:39	08/02/2018 13:56	lab
94-75-7	2,4-D	ND		ug/L	5.00	1	EPA 8151A/1311	08/02/2018 04:39	08/02/2018 13:56	lab
	<b>Surrogate Recoveries</b>	<b>Result</b>			<b>Acceptance Range</b>					
19719-28-9	Surrogate: 2,4-Dichlorophenylacetic acid (DCAA)	142 %			30-150					



## Sample Information

**Client Sample ID:** MIP-FSK-Composite

**York Sample ID:** 18G1174-01

York Project (SDG) No.  
18G1174

Client Project ID  
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Matrix  
Soil

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July 26, 2018 12:02 pm

Date Received  
07/27/2018

### NJDEP EPH (Cat. 2 Non-Fractionated)

Sample Prepared by Method: EPA 3545A

Log-in Notes: VOA-CON

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Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	* Total EPH	ND		mg/kg dry	55.4	1	NJDEP EPH Rev 3.0 Certifications: NJDEP	08/02/2018 04:48	08/02/2018 18:33	SA
<b>Surrogate Recoveries</b>										
3386-33-2 <i>Surrogate: 1-Chlorooctadecane</i> 79.3 %      40-140										
84-15-1 <i>Surrogate: o-Terphenyl</i> 83.9 %      40-140										

### Total Petroleum Hydrocarbons-DRO (C10-C28)

Sample Prepared by Method: EPA 3550C

Log-in Notes: VOA-CON

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Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Petroleum Hydrocarbons-DRO	ND		mg/kg dry	11.3	1	EPA 8015D Certifications: NELAC-NY10854,NJDEP,PADEP	07/31/2018 13:56	08/01/2018 15:32	SA
<b>Surrogate Recoveries</b>										
638-68-6	<i>Surrogate: Triacontane</i>	56.4 %			30-150					
<b>Total Petroleum Hydrocarbons-GRO (C5-C10)</b>										

### Total Petroleum Hydrocarbons-GRO (C5-C10)

Sample Prepared by Method: EPA 5035A

Log-in Notes: VOA-CON

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Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	Total Petroleum Hydrocarbons-GRO	ND		mg/kg dry	90.4	100	EPA 8015D Certifications: NELAC-NY10854,NJDEP,PADEP	07/27/2018 07:30	07/27/2018 23:45	OW
<b>Surrogate Recoveries</b>										
460-00-4	<i>Surrogate: p-Bromofluorobenzene</i>	96.7 %			70-130					
<b>Metals, RCRA</b>										

Sample Prepared by Method: EPA 3050B

Log-in Notes: VOA-CON

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Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7440-38-2	<b>Arsenic</b>	<b>2.94</b>		mg/kg dry	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/30/2018 10:43	07/30/2018 17:58	KML
7440-39-3	<b>Barium</b>	<b>41.9</b>		mg/kg dry	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/30/2018 10:43	07/30/2018 17:58	KML
7440-43-9	Cadmium	ND		mg/kg dry	0.339	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/30/2018 10:43	07/30/2018 17:58	KML
7440-47-3	<b>Chromium</b>	<b>14.1</b>		mg/kg dry	0.565	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/30/2018 10:43	07/30/2018 17:58	KML
7439-92-1	<b>Lead</b>	<b>9.87</b>		mg/kg dry	0.565	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/30/2018 10:43	07/30/2018 17:58	KML
7782-49-2	Selenium	ND		mg/kg dry	1.13	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/30/2018 10:43	07/30/2018 17:58	KML
7440-22-4	Silver	ND		mg/kg dry	0.565	1	EPA 6010C Certifications: CTDOH,NELAC-NY10854,NJDEP,PADEP	07/30/2018 10:43	07/30/2018 17:58	KML



## Sample Information

<b>Client Sample ID:</b>	<b>MIP-FSK-Composite</b>	<b>York Sample ID:</b>	<b>18G1174-01</b>
<u>York Project (SDG) No.</u>	<u>Client Project ID</u>	<u>Matrix</u>	<u>Collection Date/Time</u>
18G1174	1602600.06.1	Soil	July 26, 2018 12:02 pm
			Date Received 07/27/2018

### Metals, TCLP RCRA

Sample Prepared by Method: EPA 3015A/1311

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	<u>Log-in Notes:</u>	VOA-CON	<u>Sample Notes:</u>	Analyst
								T			
7440-38-2	Arsenic	ND		mg/L	0.100	1	EPA 6010C/1311	08/02/2018 14:41	08/02/2018 21:03	KML	
					Certifications:		CTDOH,NELAC-NY10854,NJDEP,PADEP				
7440-39-3	Barium	ND		mg/L	0.250	1	EPA 6010C/1311	08/02/2018 14:41	08/02/2018 21:03	KML	
					Certifications:		CTDOH,NELAC-NY10854,NJDEP,PADEP				
7440-43-9	Cadmium	ND		mg/L	0.075	1	EPA 6010C/1311	08/02/2018 14:41	08/02/2018 21:03	KML	
					Certifications:		CTDOH,NELAC-NY10854,NJDEP,PADEP				
7440-47-3	Chromium	ND		mg/L	0.125	1	EPA 6010C/1311	08/02/2018 14:41	08/02/2018 21:03	KML	
					Certifications:		CTDOH,NELAC-NY10854,NJDEP,PADEP				
7439-92-1	Lead	ND		mg/L	0.125	1	EPA 6010C/1311	08/02/2018 14:41	08/02/2018 21:03	KML	
					Certifications:		CTDOH,NELAC-NY10854,NJDEP,PADEP				
7782-49-2	Selenium	0.436		mg/L	0.250	1	EPA 6010C/1311	08/02/2018 14:41	08/02/2018 21:03	KML	
					Certifications:		CTDOH,NELAC-NY10854,NJDEP,PADEP				
7440-22-4	Silver	ND		mg/L	0.125	1	EPA 6010C/1311	08/02/2018 14:41	08/02/2018 21:03	KML	
					Certifications:		CTDOH,NELAC-NY10854,NJDEP,PADEP				

### Mercury by 7473

Sample Prepared by Method: EPA 7473 soil

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	<u>Log-in Notes:</u>	VOA-CON	<u>Sample Notes:</u>	Analyst
								T			
7439-97-6	Mercury	ND		mg/kg dry	0.0339	1	EPA 7473	07/31/2018 15:08	07/31/2018 15:30	SY	
					Certifications:		CTDOH,NJDEP,NELAC-NY10854,PADEP				

### Mercury TCLP by 7473

Sample Prepared by Method: EPA 7473 water

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	<u>Log-in Notes:</u>	VOA-CON	<u>Sample Notes:</u>	Analyst
								T			
7439-97-6	Mercury	ND		mg/L	0.000200	1	EPA 7473/1311	08/01/2018 13:54	08/01/2018 17:49	SY	
					Certifications:		CTDOH,NJDEP,PADEP,NELAC-NY10854				

### Ignitability

Sample Prepared by Method: Analysis Preparation

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	<u>Log-in Notes:</u>	VOA-CON	<u>Sample Notes:</u>	Analyst
								T			
* Ignitability	Non-Ignit.	-			1	1	EPA 1030P	08/01/2018 19:44	08/02/2018 02:03	AA	
					Certifications:						

### Total Solids

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	<u>Log-in Notes:</u>	VOA-CON	<u>Sample Notes:</u>	Analyst
								T			
solids	* % Solids	88.5		%	0.100	1	SM 2540G	08/02/2018 23:24	08/03/2018 04:05	AA	
					Certifications:		CTDOH				



## Sample Information

<u>Client Sample ID:</u> MIP-FSK-Composite	<u>York Sample ID:</u> 18G1174-01			
York Project (SDG) No. 18G1174	Client Project ID 1602600.06.1	Matrix Soil	Collection Date/Time July 26, 2018 12:02 pm	Date Received 07/27/2018

### Corrosivity by SM 4500/EPA 9045D

Sample Prepared by Method: Analysis Preparation

Log-in Notes: VOA-CON

T

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
pH		7.80		pH units	0.500	1	EPA 9045D Certifications: NELAC-NY10854,CTDOH,PADEP	08/01/2018 15:11	08/01/2018 20:31	TJD

### Reactivity-Cyanide

Sample Prepared by Method: Analysis Preparation

Log-in Notes: VOA-CON

T

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
* Reactivity - Cyanide		ND		mg/kg	0.250	1	EPA SW-846 Ch.7.3.3 Certifications: CTDOH,PADEP	08/03/2018 16:39	08/03/2018 17:11	TJD

### Reactivity-Sulfide

Sample Prepared by Method: Analysis Preparation

Log-in Notes: VOA-CON

T

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
* Reactivity - Sulfide		ND		mg/kg	15.0	1	EPA SW-846 Ch.7.3.4 Certifications: CTDOH,PADEP	08/03/2018 16:40	08/03/2018 17:11	TJD

### TCLP Extraction for METALS EPA 1311

Sample Prepared by Method: EPA SW 846-1311 TCLP ext. for metals

Log-in Notes: VOA-CON

T

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
TCLP Extraction		Completed		N/A	1.00	1	EPA 1311 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/31/2018 21:15	08/01/2018 14:57	TJM

### TCLP Extraction for SVOCS/PEST/HERB

Sample Prepared by Method: EPA SW 846-1311 TCLP extr. for SVOA/PEST/HERBS

Log-in Notes: VOA-CON

T

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
TCLP Extraction		Completed		N/A	1.00	1	EPA 1311 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	07/31/2018 21:30	08/01/2018 14:57	TJM

### TCLP Extraction for VOA by EPA 1311 ZHE

Sample Prepared by Method: EPA SW 846-1311 TCLP ZHE for VOA

Log-in Notes: VOA-CON

T

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
TCLP Extraction		Completed		N/A	1.00	1	EPA 1311 Certifications: NELAC-NY10854,CTDOH,NJDEP,PADEP	08/01/2018 21:07	08/02/2018 13:58	TJM

### Temperature

Sample Prepared by Method: Analysis Preparation

Log-in Notes: VOA-CON

T

Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
* Temperature		23.1		°C	1.00	1	EPA 170.1 Certifications:	08/01/2018 15:11	08/01/2018 20:31	TJD



## Sample Information

**Client Sample ID:** MIP-FSK-20 (5-ft)

**York Sample ID:** 18G1174-02

**York Project (SDG) No.**  
18G1174

**Client Project ID**  
1602600.06.1

**Matrix**  
Soil

**Collection Date/Time**  
July 26, 2018 8:50 am

**Date Received**  
07/27/2018

### Volatile Organics, 8260 - Comprehensive

Sample Prepared by Method: EPA 5035A

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAE	07/31/2018 07:30	07/31/2018 20:56	RDS
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	07/31/2018 07:30	07/31/2018 20:56	RDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAE	07/31/2018 07:30	07/31/2018 20:56	RDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
123-91-1	1,4-Dioxane	ND		ug/kg dry	46	92	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAE	07/31/2018 07:30	07/31/2018 20:56	RDS
78-93-3	2-Butanone	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS



## Sample Information

Client Sample ID: MIP-FSK-20 (5-ft)

York Sample ID:

18G1174-02

York Project (SDG) No.

18G1174

Client Project ID

1602600.06.1

Matrix

Soil

Collection Date/Time

July 26, 2018 8:50 am

Date Received

07/27/2018

### Volatile Organics, 8260 - Comprehensive

Sample Prepared by Method: EPA 5035A

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
591-78-6	2-Hexanone	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
108-10-1	4-Methyl-2-pentanone	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
67-64-1	Acetone	ND		ug/kg dry	4.6	9.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
107-02-8	Acrolein	ND		ug/kg dry	4.6	9.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
107-13-1	Acrylonitrile	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
71-43-2	Benzene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
74-97-5	Bromochloromethane	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAL	07/31/2018 07:30	07/31/2018 20:56	RDS
75-27-4	Bromodichloromethane	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
75-25-2	Bromoform	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
74-83-9	Bromomethane	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
75-15-0	Carbon disulfide	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
56-23-5	Carbon tetrachloride	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
108-90-7	Chlorobenzene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
75-00-3	Chloroethane	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
67-66-3	Chloroform	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
74-87-3	Chloromethane	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
110-82-7	Cyclohexane	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAL	07/31/2018 07:30	07/31/2018 20:56	RDS
124-48-1	Dibromochloromethane	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAL	07/31/2018 07:30	07/31/2018 20:56	RDS
74-95-3	Dibromomethane	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAL	07/31/2018 07:30	07/31/2018 20:56	RDS



## Sample Information

Client Sample ID: MIP-FSK-20 (5-ft)

York Sample ID:

18G1174-02

York Project (SDG) No.

18G1174

Client Project ID

1602600.06.1

Matrix

Soil

Collection Date/Time

July 26, 2018 8:50 am

Date Received

07/27/2018

### Volatile Organics, 8260 - Comprehensive

Sample Prepared by Method: EPA 5035A

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAL	07/31/2018 07:30	07/31/2018 20:56	RDS
100-41-4	Ethyl Benzene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAL	07/31/2018 07:30	07/31/2018 20:56	RDS
98-82-8	Isopropylbenzene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
79-20-9	Methyl acetate	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAL	07/31/2018 07:30	07/31/2018 20:56	RDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
108-87-2	Methylcyclohexane	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAL	07/31/2018 07:30	07/31/2018 20:56	RDS
75-09-2	Methylene chloride	ND		ug/kg dry	4.6	9.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
104-51-8	n-Butylbenzene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
103-65-1	n-Propylbenzene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
95-47-6	o-Xylene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/31/2018 07:30	07/31/2018 20:56	RDS
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	4.6	9.2	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	07/31/2018 07:30	07/31/2018 20:56	RDS
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
135-98-8	sec-Butylbenzene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
100-42-5	Styrene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAL	07/31/2018 07:30	07/31/2018 20:56	RDS
98-06-6	tert-Butylbenzene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
127-18-4	Tetrachloroethylene	930		ug/kg dry	230	450	100	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:44	RDS
108-88-3	Toluene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS



## Sample Information

Client Sample ID: MIP-FSK-20 (5-ft)

York Sample ID: 18G1174-02

York Project (SDG) No.  
18G1174

Client Project ID  
1602600.06.1

Matrix  
Soil

Collection Date/Time  
July 26, 2018 8:50 am

Date Received  
07/27/2018

### Volatile Organics, 8260 - Comprehensive

Sample Prepared by Method: EPA 5035A

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst		
110-57-6	* trans-1,4-dichloro-2-butene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH	07/31/2018 07:30	07/31/2018 20:56	RDS		
79-01-6	Trichloroethylene	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS		
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS		
75-01-4	Vinyl Chloride	ND		ug/kg dry	2.3	4.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS		
1330-20-7	Xylenes, Total	ND		ug/kg dry	6.9	14	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	07/31/2018 07:30	07/31/2018 20:56	RDS		
<b>Surrogate Recoveries</b>		<b>Result</b>	<b>Acceptance Range</b>										
17060-07-0	Surrogate: 1,2-Dichloroethane-d4	98.9 %			77-125								
2037-26-5	Surrogate: Toluene-d8	105 %			85-120								
460-00-4	Surrogate: p-Bromofluorobenzene	96.9 %			76-130								

### Total Solids

Sample Prepared by Method: % Solids Prep

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	87.6		%	0.100	1	SM 2540G Certifications: CTDOH	08/02/2018 23:24	08/03/2018 04:05	AA

## Sample Information

Client Sample ID: MIP-FSK-19 (9-10ft)

York Sample ID: 18G1174-03

York Project (SDG) No.  
18G1174

Client Project ID  
1602600.06.1

Matrix  
Soil

Collection Date/Time  
July 26, 2018 8:08 am

Date Received  
07/27/2018

### Volatile Organics, 8260 - Comprehensive

Sample Prepared by Method: EPA 5035A

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
630-20-6	1,1,1,2-Tetrachloroethane	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
71-55-6	1,1,1-Trichloroethane	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
79-34-5	1,1,2,2-Tetrachloroethane	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS



## Sample Information

**Client Sample ID:** MIP-FSK-19 (9-10ft)

**York Sample ID:**

**18G1174-03**

**York Project (SDG) No.**

18G1174

**Client Project ID**

1602600.06.1

**Matrix**

Soil

**Collection Date/Time**

July 26, 2018 8:08 am

**Date Received**

07/27/2018

### Volatile Organics, 8260 - Comprehensive

Sample Prepared by Method: EPA 5035A

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113)	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
79-00-5	1,1,2-Trichloroethane	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
75-34-3	1,1-Dichloroethane	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
75-35-4	1,1-Dichloroethylene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
87-61-6	1,2,3-Trichlorobenzene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAE	08/01/2018 07:30	08/01/2018 12:17	RDS
96-18-4	1,2,3-Trichloropropane	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP	08/01/2018 07:30	08/01/2018 12:17	RDS
120-82-1	1,2,4-Trichlorobenzene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAE	08/01/2018 07:30	08/01/2018 12:17	RDS
95-63-6	1,2,4-Trimethylbenzene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
96-12-8	1,2-Dibromo-3-chloropropane	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
106-93-4	1,2-Dibromoethane	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
95-50-1	1,2-Dichlorobenzene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
107-06-2	1,2-Dichloroethane	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
78-87-5	1,2-Dichloropropane	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
108-67-8	1,3,5-Trimethylbenzene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
541-73-1	1,3-Dichlorobenzene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
106-46-7	1,4-Dichlorobenzene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
123-91-1	1,4-Dioxane	ND		ug/kg dry	36	71	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAE	08/01/2018 07:30	08/01/2018 12:17	RDS
78-93-3	2-Butanone	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
591-78-6	2-Hexanone	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
108-10-1	4-Methyl-2-pentanone	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
67-64-1	Acetone	ND		ug/kg dry	3.6	7.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS



## Sample Information

**Client Sample ID:** MIP-FSK-19 (9-10ft)

**York Sample ID:** 18G1174-03

**York Project (SDG) No.**  
18G1174

**Client Project ID**  
1602600.06.1

**Matrix**  
Soil

**Collection Date/Time**  
July 26, 2018 8:08 am

**Date Received**  
07/27/2018

### Volatile Organics, 8260 - Comprehensive

Sample Prepared by Method: EPA 5035A

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
107-02-8	Acrolein	ND		ug/kg dry	3.6	7.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
107-13-1	Acrylonitrile	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
71-43-2	Benzene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
74-97-5	Bromochloromethane	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAE	08/01/2018 07:30	08/01/2018 12:17	RDS
75-27-4	Bromodichloromethane	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
75-25-2	Bromoform	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
74-83-9	Bromomethane	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
75-15-0	Carbon disulfide	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
56-23-5	Carbon tetrachloride	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
108-90-7	Chlorobenzene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
75-00-3	Chloroethane	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
67-66-3	Chloroform	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
74-87-3	Chloromethane	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
156-59-2	cis-1,2-Dichloroethylene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
10061-01-5	cis-1,3-Dichloropropylene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
110-82-7	Cyclohexane	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAE	08/01/2018 07:30	08/01/2018 12:17	RDS
124-48-1	Dibromochloromethane	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAE	08/01/2018 07:30	08/01/2018 12:17	RDS
74-95-3	Dibromomethane	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAE	08/01/2018 07:30	08/01/2018 12:17	RDS
75-71-8	Dichlorodifluoromethane	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAE	08/01/2018 07:30	08/01/2018 12:17	RDS
100-41-4	Ethyl Benzene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
87-68-3	Hexachlorobutadiene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAE	08/01/2018 07:30	08/01/2018 12:17	RDS



## Sample Information

<b>Client Sample ID:</b> MIP-FSK-19 (9-10ft)	<b>York Sample ID:</b> 18G1174-03			
York Project (SDG) No. 18G1174	Client Project ID 1602600.06.1	Matrix Soil	Collection Date/Time July 26, 2018 8:08 am	Date Received 07/27/2018

### Volatile Organics, 8260 - Comprehensive

Sample Prepared by Method: EPA 5035A

#### Log-in Notes:

#### Sample Notes:

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
98-82-8	Isopropylbenzene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
79-20-9	Methyl acetate	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAE	08/01/2018 07:30	08/01/2018 12:17	RDS
1634-04-4	Methyl tert-butyl ether (MTBE)	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
108-87-2	Methylcyclohexane	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAE	08/01/2018 07:30	08/01/2018 12:17	RDS
75-09-2	<b>Methylene chloride</b>	<b>5.0</b>	J	ug/kg dry	3.6	7.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
104-51-8	n-Butylbenzene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
103-65-1	n-Propylbenzene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
95-47-6	o-Xylene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	08/01/2018 07:30	08/01/2018 12:17	RDS
179601-23-1	p- & m- Xylenes	ND		ug/kg dry	3.6	7.1	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,PA	08/01/2018 07:30	08/01/2018 12:17	RDS
99-87-6	p-Isopropyltoluene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
135-98-8	sec-Butylbenzene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
100-42-5	Styrene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
75-65-0	tert-Butyl alcohol (TBA)	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: NELAC-NY10854,NELAC-NY12058,NJDEP,PAE	08/01/2018 07:30	08/01/2018 12:17	RDS
98-06-6	tert-Butylbenzene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
127-18-4	<b>Tetrachloroethylene</b>	<b>6.8</b>		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
108-88-3	Toluene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
156-60-5	trans-1,2-Dichloroethylene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
10061-02-6	trans-1,3-Dichloropropylene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
110-57-6	* trans-1,4-dichloro-2-butene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH	08/01/2018 07:30	08/01/2018 12:17	RDS
79-01-6	Trichloroethylene	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
75-69-4	Trichlorofluoromethane	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS
75-01-4	Vinyl Chloride	ND		ug/kg dry	1.8	3.6	1	EPA 8260C Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ	08/01/2018 07:30	08/01/2018 12:17	RDS



## Sample Information

<b>Client Sample ID:</b> MIP-FSK-19 (9-10ft)	<b>York Sample ID:</b> 18G1174-03			
York Project (SDG) No. 18G1174	Client Project ID 1602600.06.1	Matrix Soil	Collection Date/Time July 26, 2018 8:08 am	Date Received 07/27/2018

### Volatile Organics, 8260 - Comprehensive

Sample Prepared by Method: EPA 5035A

CAS No.	Parameter	Result	Flag	Units	Reported to LOD/MDL	LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
1330-20-7	Xylenes, Total	ND		ug/kg dry	5.4	11	1	EPA 8260C	08/01/2018 07:30	08/01/2018 12:17	RDS
Certifications: CTDOH,NELAC-NY10854,NELAC-NY12058,NJ											
<b>Surrogate Recoveries</b>											
17060-07-0 Surrogate: 1,2-Dichloroethane-d4 113 % 77-125											
2037-26-5 Surrogate: Toluene-d8 103 % 85-120											
460-00-4 Surrogate: p-Bromofluorobenzene 98.2 % 76-130											

### Total Solids

Sample Prepared by Method: % Solids Prep

CAS No.	Parameter	Result	Flag	Units	Reported to LOQ	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
solids	* % Solids	88.1		%	0.100	1	SM 2540G	08/02/2018 23:24	08/03/2018 04:05	AA



### Volatile Analysis Sample Containers

Lab ID	Client Sample ID	Volatile Sample Container
18G1174-01	MIP-FSK-Composite	8 oz. WM Clear Glass Cool to 4° C
18G1174-01	MIP-FSK-Composite	40mL 01_Clear Vial Cool to 4° C
18G1174-02	MIP-FSK-20 (5-6ft)	40mL Vial with Stir Bar-Cool 4° C
18G1174-03	MIP-FSK-19 (9-10ft)	40mL Vial with Stir Bar-Cool 4° C



## Sample and Data Qualifiers Relating to This Work Order

VOA-CONT	Non-Compliant - the container(s) provided by the client for soil volatiles do not meet the requirements of EPA SW846-5035A. Results reported below 200 ug/kg may be biased low due to samples not being collected according to EPA SW846 5035A requirements.
S-HI	Surrogate recovery is above acceptance limits. No target compound is detected in sample.
S-08	The recovery of this surrogate was outside of QC limits.
QL-02	This LCS analyte is outside Laboratory Recovery limits due the analyte behavior using the referenced method. The reference method has certain limitations with respect to analytes of this nature.
M-SRD1	The serial dilution for this element was outside control limits.
M-MBLk	Analyte was detected in the batch method blank above the Reporting Limit.
M-ICV	The recovery for this element in the ICV was outside the 95-105% Recovery criteria for EPA 200.7
M-EBlk	This element was detected in the TCLP or SPLP fluid extraction blank > than the Reporting Limit.
M-CRL	The RL check for this element recovered outside of control limits.
J	Detected below the Reporting Limit but greater than or equal to the Method Detection Limit (MDL/LOD) or in the case of a TIC, the result is an estimated concentration.
IGN-01	Non-Ignit.
EXT-COMP	Completed
CCV-E	The value reported is ESTIMATED. The value is estimated due to its behavior during continuing calibration verification (>20% Difference for average Rf or >20% Drift for quadratic fit).
B	Analyte is found in the associated analysis batch blank. For volatiles, methylene chloride and acetone are common lab contaminants.

### Definitions and Other Explanations

*	Analyte is not certified or the state of the samples origination does not offer certification for the Analyte.
ND	NOT DETECTED - the analyte is not detected at the Reported to level (LOQ/RL or LOD/MDL)
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
LOQ	LIMIT OF QUANTITATION - the minimum concentration of a target analyte that can be reported within a specified degree of confidence . This is the lowest point in an analyte calibration curve that has been subjected to all steps of the processing/analysis and verified to meet defined criteria. This is based upon NELAC 2009 Standards and applies to all analyses.
LOD	LIMIT OF DETECTION - a verified estimate of the minimum concentration of a substance in a given matrix that an analytical process can reliably detect. This is based upon NELAC 2009 Standards and applies to all analyses conducted under the auspices of EPA SW-846.
MDL	METHOD DETECTION LIMIT - a statistically derived estimate of the minimum amount of a substance an analytical system can reliably detect with a 99% confidence that the concentration of the substance is greater than zero. This is based upon 40 CFR Part 136 Appendix B and applies only to EPA 600 and 200 series methods.
Reported to	This indicates that the data for a particular analysis is reported to either the LOD/MDL, or the LOQ/RL. In cases where the "Reported to" is located above the LOD/MDL, any value between this and the LOQ represents an estimated value which is "J" flagged accordingly. This applies to volatile and semi-volatile target compounds only.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.



**High Bias** High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.

**Non-Dir.** Non-dir. flag (Non-Directional Bias) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two. For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

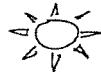
Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the LOD/MDL, with values between the LOD/MDL and the LOQ being "J" flagged as estimated results.

For analyses by EPA SW-846-8270D, the Limit of Quantitation (LOQ) reported for benzidine is based upon the lowest standard used for calibration and is not a verified LOQ due to this compound's propensity for oxidative losses during extraction/concentration procedures and non-reproducible chromatographic performance.

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Revision Description: This report has been revised to include the correct Chain of Custody.



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## **Field Chain-of-Custody Record**

**YORK Project No.**

1861174

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**YORK Project No.**

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YOUR Information		Report To:	Invoice To:	YOUR Project Number 1602600.06.1	Turn-Around Time
Company: <b>GEI CONSULTANTS</b>	Address: <b>455 Winding Brook Dr. Glastonbury, CT 06033</b>	Phone.: <b>860-368-5300</b>	Contact: <b>Matt O'Neil</b>		
E-mail: <b>Matt.1@geiconsultants.com</b>		Phone.: <b></b>	Contact: <b></b>	Phone.: <b></b>	Contact: <b></b>
		E-mail: <b></b>		E-mail: <b></b>	YOUR Project Name <b>Former Safety Kleen Dry Cleaners</b>
					YOUR PO#: <b>1602600.06.1</b>

Please print clearly and legibly. All information must be complete. Sample will not be logged in and the turn-around-time clock will not begin until all questions by YORK are resolved.

Chris Hinde

Samples Collected by: (print your name above and sign below)

6

Matrix Codes	Samples From	Report / EDD Type (circle selections)			YORK Reg. Comp.
S - soil / solid	New York	<input checked="" type="checkbox"/> Summary Report	CT RCP	<input checked="" type="checkbox"/> Standard Excel EDD	Compared to the following Regulation(s): (please fill in)
GW - groundwater	New Jersey	<input type="checkbox"/> QA Report	CT RCP DQA/DUE	EQuIS (Standard)	
DW - drinking water	Connecticut	<input type="checkbox"/> NY ASP A Package	NJDEP Reduced Deliverables	NYSDEC EQuIS	
WW - wastewater	Pennsylvania	<input type="checkbox"/> NY ASP B Package		NJDEP SRP HazSite	
O - Oil ; Other	Other		NJKQP	Other:	

<u>Comments:</u>	Preservation: (check all that apply)						Special Instruction
	<input type="checkbox"/> HCl	<input type="checkbox"/> MeOH	<input type="checkbox"/> HNO <sub>3</sub>	<input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub>	<input type="checkbox"/> NaOH	<input type="checkbox"/> ZnAc	

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Ascorbic Acid	Other:	Lab to Filter
			1/27/15		1/27/15

*Alvis* 712718 0945 *N* 712718 *N* 712718

Samples Received by / Company	Date/Time	Samples Reminished by / Company	Date/Time	Comments/Notes	

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Received in LAB by	Date/Time	Temp. Received at Lab
					Rfice	1108 29C 7-27-18 Degrees F



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**YORK Project No.**

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YOUR Information		Report To:		Invoice To:		YOUR Project Number		Turn-Around Time	
Company: <b>GET CONSULTANTS</b>	Company: <b>Same</b>	Address: 455 Winding Brook Dr. Glastonbury, CT 06033	Address: Same	Phone: 860-368-5300	Phone..	1602600-06-1		RUSH - Next Day	
Contact: Matt O'Neil	Contact: Matt O'Neil	E-mail: moneil@geiconsultants.com	E-mail:	Contact:	Contact:	YOUR Project Name Former Safety Kleen Dry Cleaners		RUSH - Two Day	
E-mail: moneil@geiconsultants.com				E-mail:	E-mail:	YOUR PO#: 1602600-06-1		RUSH - Three Day	
Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.				Matrix Codes	Samples From	Report / EDD Type (circle selections)		YORK Reg. Comp.	
				S - soil / solid	New York <input checked="" type="checkbox"/>	Summary Report	CT RCP	Standard Excel EDD	Compared to the following Regulation(s): (please fill in)
				GW - groundwater	New Jersey	QA Report	CT RCP DQA/DUE	EQuIS (Standard)	
				DW - drinking water	Connecticut	NY ASP A Package	NJDEP Reduced Deliverables	NYSDEC EQUIS	
				WW - wastewater	Pennsylvania	NY ASP B Package	NJDKQP	NJDEP SRP HazSite	
				O - Oil      Other	Other			Other:	
Sample Identification		Sample Matrix	Date/Time Sampled		Analysis Requested		Container Description		
MIP-Fsk-Composite - chain 3		S	7-26-18 1202		TCLP VOC & TCLP SVOC & Herbicides		1-4oz and 1-8 oz jars		
<u>Comments:</u>		Preservation: (check all that apply)				Special Instruction			
		HCl <input type="checkbox"/> MeOH <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/> ZnAc <input type="checkbox"/> Ascorbic Acid <input type="checkbox"/> Other: _____				Field Filtered <input type="checkbox"/> Lab to Filter <input type="checkbox"/>			
Samples Reinquished by / Company		Date/Time	Samples Received by / Company		Date/Time	Samples Reinquished by / Company		Date/Time	
<i>ABR</i>		7/27/18 0945	<i>ABR</i>		7/27/18 9:45	<i>ABR</i>		7/27/18 11:05	
Samples Received by / Company		Date/Time	Samples Reinquished by / Company		Date/Time	Samples Received by / Company		Date/Time	
Samples Reinquished by / Company		Date/Time	Samples Received by / Company		Date/Time	Samples Received in LAB by		Date/Time	Temp. Received at Lab
									9-27-18 70° F 100% RH 2.9 Degrees



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## **Field Chain-of-Custody Record**

**YORK Project No.**

18G1174

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YOUR Information		Report To:	Invoice To:	YOUR Project Number	Turn-Around Time
Company: <b>GFI CONSULTANTS</b>	Company: <i>Same</i>	Company: <i>Same</i>	<b>1602600-06-1</b>		RUSH - Next Day
Address: 455 Winding Brook Dr. Glastonbury, CT 06033	Address:	Address:	<b>YOUR Project Name</b> <i>Former Safety Kleen Dry Cleaners</i>		RUSH - Two Day
Phone: 860-368-5300	Phone:	Phone:			RUSH - Three Day
Contact: Matt O'Neil	Contact:	Contact:			RUSH - Four Day
E-mail: <a href="mailto:moneil@gefconsultants.com">moneil@gefconsultants.com</a>	E-mail:	E-mail:	YOUR PO#:		Standard (5-7 Day)

**Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.**

Chris Akudin

Samples Collected by: (print your name above and sign below)

*[Signature]*

Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.		<b>Matrix Codes</b> S - soil / solid GW - groundwater DW - drinking water WW - wastewater O - Oil    Other	<b>Samples From</b> New York New Jersey Connecticut Pennsylvania Other	<b>Report / EDD Type (circle selections)</b>			<b>YORK Reg. Comp.</b> Compared to the following Regulation(s): (please fill in)
<input checked="" type="checkbox"/> Summary Report <input type="checkbox"/> CT RCP <input type="checkbox"/> Standard Excel EDD							
<input type="checkbox"/> QA Report <input type="checkbox"/> CT RCP DQA/DUE <input type="checkbox"/> EQUIIS (Standard)							
<input type="checkbox"/> NY ASP A Package <input type="checkbox"/> NJDEP Reduced Deliverables <input type="checkbox"/> NYSDEC EQUSI							
<input type="checkbox"/> NY ASP B Package <input type="checkbox"/> NJDEP SRP HazSite							
<input type="checkbox"/> NJDKQP <input type="checkbox"/> Other:							

Comments:	Preservation: (check all that apply)	Special Instruction
	HCl <input type="checkbox"/> MeOH <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/> ZnAc <input type="checkbox"/> Ascorbic Acid <input type="checkbox"/> Other: _____	Field Filtered <input type="checkbox"/> Lab to Filter <input type="checkbox"/>

Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time
	7/27/18 0945		7/29/18 9:44 AM		7/29/18 11:20 AM

Samples Received by / Company      Date/Time      Samples Relinquished by / Company      Date/Time      Samples Received by / Company      Date/Time

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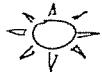
## ***Field Chain-of-Custody Record***

YORK Project N

18G-1174

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YOUR Information		Report To:	Invoice To:	YOUR Project Number  <b>(602600.06.1)</b>	Turn-Around Time  RUSH - Next Day RUSH - Two Day RUSH - Three Day RUSH - Four Day Standard (5-7 Day) X
Company: <b>GEI Consultants</b> Address: <b>455 Winding Brook Dr Glastonbury, CT 06033</b> Phone: <b>860-368-5300</b> Contact: <b>Matt O'Neil</b> E-mail: <b>moneil@geiconsultants.com</b>	Company: <b>Same</b> Address: Phone: Contact: E-mail:	Company: <b>Same</b> Address: Phone: Contact: E-mail:			
Please print clearly and legibly. All information must be complete. Samples will not be logged in and the turn-around-time clock will not begin until any questions by YORK are resolved.		YOUR Project Name  <b>Former Safety Kleen Dry Cleaners</b>			
		YOUR PO#:			
<b>Chris Akundo</b>  Samples Collected by: (print your name above and sign below)  <b>Chris</b>		Matrix Codes	Samples From	Report / EDD Type (circle selections)	
		S - soil / solid GW - groundwater DW - drinking water WW - wastewater O - Oil      Other	New York New Jersey Connecticut Pennsylvania Other	<input checked="" type="checkbox"/> Summary Report <input type="checkbox"/> QA Report <input type="checkbox"/> NY ASP A Package <input type="checkbox"/> NY ASP B Package	
Sample Identification  <b>MP-FSK-Composite-chain 5</b>		Sample Matrix  <b>S</b>	Date/Time Sampled  <b>7/26/18 1202</b>	Analysis Requested  <b>Total SVOC and TcLP Residue</b>	Container Description  <b>1-802 jar</b>
Comments:		Preservation: (check all that apply)		Special Instruction	
		HCl <input type="checkbox"/> MeOH <input type="checkbox"/> HNO <sub>3</sub> <input type="checkbox"/> H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/> ZnAc <input type="checkbox"/> Ascorbic Acid <input type="checkbox"/> Other: _____			Field Filtered <input type="checkbox"/> Lab to Filter <input type="checkbox"/>
Samples Relinquished by / Company  <b>Chris</b>	Date/Time  <b>7/27/18 0945</b>	Samples Received by / Company  <b>K</b>	Date/Time  <b>7/27/18 0945</b>	Samples Relinquished by / Company  <b>N</b>	Date/Time  <b>7/28/18 1508</b>
Samples Received by / Company	Date/Time	Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time
Samples Relinquished by / Company	Date/Time	Samples Received by / Company	Date/Time	Samples Received in LAB by	Date/Time
				<b>Chris</b>	<b>108 C 29</b> Degrees C



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## **Field Chain-of-Custody Record**

**YORK Project No.**

18G-1174

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## **Attachment 3**

**Appendix B. Daily Maximum 15-Minute Average Concentrations of TVOC and PM-10  
Former Safety Clean Dry Cleaners Site - Community Air Monitoring Plan  
The Rosen Group  
New Windsor, New York**

	<b>TVOC (ppmv)</b>	<b>PM-10 (ug/m<sup>3</sup>)</b>		
<b>Date</b>	<b>Upwind</b>	<b>Downwind</b>	<b>Upwind</b>	<b>Downwind</b>
Mon 7/23/2018	1.83	0.81	18.7	27.1
Tue 7/24/2018	0.32	0.44	21.3	31.9
Wed 7/25/2018	0.24	0.05	13.9	26.9
Thu 7/26/2018	0.27	0.25	22.2	10.4

**Notes:**

ug/m<sup>3</sup> = micrograms per cubic meter

ppm = parts per million by volume

TVOC = total volatile organic compounds

PM-10 = particulate matter (i.e. dust) less than 10 microns in diameter

## **Attachment 4**



MIP Crew During Investigation



Soil Core Sample



Demolished Former Dry Cleaner Unit

PRE-DESIGN INVESTIGATION REPORT  
FORMER SAFETY KLEEN DRY CLEANERS

The Rosen Group

GEI  
Consultants

PHOTOGRAPHIC LOG

1602600.6.1

AUGUST 2018

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