April 2021 Groundwater Monitoring and HRSC Investigation Report

Triple Stop Chevron

1034 West Gentile Street, Layton, Utah

Facility ID No. 3000500, Release Site NUB

June 8, 2021

Terracon Project No. 61197153

Prepared for:

Utah Department of Environmental Quality
Division of Environmental Response and Remediation
Salt Lake City, Utah

Prepared by:

Terracon Consultants, Inc.
Midvale, Utah

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Environmental ■ Facilities ■ Geotechnical ■ Materials

June 8, 2021

Utah Department of Environmental Quality
Division of Environmental Response and Remediation
195 North 1950 West
PO Box 144840
Salt Lake City, Utah 84114-4840

Attn: Mr. Kevin Beery
P: 801.536.4214
E: kbeery@utah.gov

Re: April 2021, Groundwater Monitoring and HRSC Investigation Report
Triple Stop Chevron
1034 West Gentile Street, Layton, Utah
Facility ID No. 3000500, Release Site NUB
Terracon Project No. 61197153

Dear Mr. Beery:

Terracon is pleased to provide this report documenting the April 2021 groundwater monitoring event and the results of the High Resolution Characteristic (HRSC) Investigation at the above-referenced site. Terracon conducted this sampling event in accordance with a workplan submitted under NUB-09 dated July 29, 2020 and the HRSC Investigation under Workplan 14, dated January 28, 2021.

We appreciate the opportunity to have performed these services for you. Please contact our office at [801] 545-8500 if you have questions regarding this information or if we can provide any other services.

Sincerely,

Terracon Consultants, Inc.

Curt Stripeika
Senior Project Manager
UST Certified Consultant #CC0003

Robert J. Roth, PE
Authorized Project Reviewer

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1.0 INTRODUCTION

1.1 Site Description

Site Name	Triple Stop Chevron
Site Location/Address	1034 West Gentile Street, Layton, Utah
Site Improvements	The site operates as a convenience store and retail gas station.

Exhibit 1 (**Appendix A**) presents the general location, shows locations of the wells in relation to pertinent site features, and depicts groundwater elevations and elevation contours based on measurements collected during this sampling event. **Exhibits 2, 3,** and **4** displays the benzene isocontour maps April and January of 2021, and October 2020, respectively. **Exhibits 5, 6** and **7** show hydrographs of select wells of groundwater elevation and benzene concentration with time.

1.2 Project Background

On February 14, 2019, Layton City reported petroleum odors in the basement of a home near the intersection of Gentile and Angel streets. On February 16, 2019, two other homeowners reported gasoline vapors in their basements. This prompted an investigation initiated by the Utah Division of Environmental Response and Remediation (DERR). The nearby Triple Stop Chevron (Chevron) gas station was identified as a suspect source of the petroleum vapors.

An analysis of inventory control records in November of 2019 by the DERR revealed that from March of 2013 to March of 2019, Chevron lost between 22,000 to 23,000 gallons of unleaded fuel. The cause of the release was attributed to a crack in the downtube below the spill bucket. The release is believed to have occurred at a rate of 20 gallons per load of unleaded fuel delivered. The downtube was repaired in April of 2019 and it is presumed the release has stopped.

At the request of DERR and the Owner of Triple Stop Chevron, Mr. Mark Smith, Terracon prepared a Work Plan to assist with development of a strategy for containment and remediation of the release. As a response to the release, CalClean (a mobile high vacuum extraction unit) was brought to the site for the purpose of removing impacted groundwater and recovery of light non-aqueous phase liquid (LNAPL). The unit operated on the Chevron site for five weeks and for one week on the south side of Gentile Street, directly south of the Chevron. During that time, 194,760 gallons of water was recovered and discharged under permit to the South Davis Sewer

District Reclamation Plant. During that time, it was estimated that 2,545 gallons of light non-aqueous phase liquid (LNAPL) was recovered.

Presently, Terracon has submitted a Corrective Action Plan (CAP) and installed a vapor extraction system (SVE) for source reduction and vapor mitigation at the Chevron. The system has been in operation since July 2020. As of May 5, 2021, the system has recovered 2,040 equivalent gallons of gasoline in the vapor phase in addition to the 2,545 gallons from CalClean system for a total of 4,585 gallons.

1.3 Scope of Work

This report documents the groundwater sampling event conducted in January of 2021 to evaluate concentrations of dissolved petroleum hydrocarbons and determine groundwater elevations at the Site for evaluation of present groundwater conditions. This report also documents the 2nd quarter of 2021 groundwater monitoring conducted under Work Plan NUB-09.

1.4 Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time. Terracon makes no warranties, express or implied, regarding the findings, conclusions, or recommendations. Terracon does not warrant the work of laboratories, regulatory agencies, or other third parties supplying information used in the preparation of the report.

1.5 Additional Scope Limitations

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work. Such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, non-detectable, or not present during these services, and we cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during our investigation. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments, investigations or exploratory services; the data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

1.6 Reliance

This report has been prepared for the exclusive use and reliance of Triple Stop Chevron, Inc. and authorized regulatory agencies having jurisdiction over the release case file. Use or reliance by

any other party is prohibited without the written authorization of Triple Stop Chevron, Inc. and Terracon.

Reliance on the report by the client and all authorized parties will be subject to the terms, conditions and limitations stated in the proposal, report, and Terracon's Terms and Conditions. The limitation of liability defined in the Terms and Conditions is the aggregate limit of Terracon's liability to the client and all relying parties.

2.0 GROUNDWATER MONITORING

Terracon conducted the groundwater sampling event on April 7th and 8th, 2021. Terracon collected depth-to-water measurements and groundwater samples from twenty-one monitoring wells.

The list of wells and rationale for sampling is listed below:

Wells	Location	Rationale
MW-8	Chevron	Upgradient
EW-3, EW-4, MW-10, MW-13 & 14	Chevron	Source
RW-2, MW-22, 23, 24, & 25	Gentile	In plume
MW-1, 2, 4, 18, 19 , 20, & 30	Residential neighborhood	In plume
MW-31, 32, 37	Residential neighborhood	Downgradient plume edge
Total number of wells to be sampled - **21**		
Samples from MW-119 and MW-124 were collected as blind duplicates of MW-19 and MW-24, respectively.		

The wells were sampled by a Utah-certified UST Groundwater and Soil Sampler (Chase Maeser, GS 1753) with oversight from a Utah-certified UST Consultant (Curt Stripeika, CC 0003). Terracon sampled the wells following standard operating procedures for well sampling, which included purging three casing volumes from each of the wells using a new disposable bailer for each well.

2.1 Site Observations

Exhibit 1 (**Appendix A**) shows the calculated potentiometric surface and inferred groundwater flow direction. The groundwater flow direction was toward the southwest. A groundwater gradient was calculated as 0.014 feet/foot between the MW-8 and MW-32. **Table 1** (**Appendix B**) presents a summary of the gauging data. Comparing the gauging data collected in January 2021 to this gauging event shows a groundwater elevation decrease of approximately 0.39 to 0.57 feet across the project site.

Free-product was not measured in any of the wells across the project site. Free-product had been reported in MW-10 and EW-4 in past gauging events.

2.2 Investigation-derived Waste

Monitoring well purge water was surface applied in the vicinity of the well that generated the water and was allowed to infiltrate and/or evaporate. Care was taken to not allow purge water to affect nearby receptors (e.g., storm water catch basins, utilities, property boundaries, etc.).

3.0 LABORATORY ANALYTICAL PROGRAM

The 21 groundwater samples were submitted to Pace Analytical National for analyses of methyl tert-butyl ether, benzene, toluene, ethyl benzene, xylenes, and naphthalene (MBTEXN); total petroleum hydrocarbons – gasoline range organics (TPH-GRO), using EPA Method 8260; and total petroleum hydrocarbons – diesel range organics (TPH-DRO) with silica gel treatment (SGT), using EPA Method 8015. The executed chain-of-custody records and laboratory data sheets are provided in **Appendix C**.

4.0 DATA EVALUATION

Refer to **Table 2** in (**Appendix B**) for a summary of the laboratory analytical results. The analytical data are compared to regulatory screening levels, including the Initial Screening Levels (ISL) and Tier 1 Screening Criteria established by the DERR. **Table 3** (**Appendix B**) presents relative percent difference for duplicate pairs.

Exhibits 2, 3 and **4** (**Appendix A**) shows benzene concentrations and inferred isoconcentration contours for the January 2021 and the two preceding events. **Exhibits 5, 6** and **7** (**Appendix A**) show hydrographs of selected wells of benzene and groundwater elevation trends with time.

4.1 Groundwater Sample Results

Triple Stop Chevron

Monitor wells MW-8, MW-10, MW-13, MW-14, EW-3 and EW-4 were sampled on the Triple Stop Chevron. Monitor well MW-8 (upgradient of presumed release location) had no detections of MBTEXN, TPH GRO or DRO above screening levels. Both monitoring wells MW-13 and MW-14 reported detections of petroleum but below the ISLs. Data for MW-10 previously showed that LNAPL was present with measurable thickness of up to 1.47 feet observed in the past. Currently a sheen is present but not a measurable thickness. Currently in MW-10, benzene is at 0.0662 mg/l, above the ISL and TPH GRO and DRO both above the Tier 1 screening level. Monitor well EW-3 had detections of benzene, toluene, xylenes all above Tier 1, TPH GRO and DRO above Tier 1 and ethylbenzene above ISLs. Monitor well EW-4 had detections of benzene and TPH

GRO above Tier 1 and TPH DRO above ISLs. There were not detections in the upgradient monitor well MW-8.

Off-Site Groundwater Sample Results

Gentile Street

Groundwater samples were collected from wells MW-22, MW-23, MW-24, MW-25 located along the right of way of Gentile Street and RW-2 in the street adjacent to the sanitary sewer line. Multiple petroleum hydrocarbons were above the laboratory detection limit in all samples. The benzene concentration in RW-2 was 2.43 mg/L, a significant decrease from 11.60 mg/L that was detected in September 2019 when the well was installed. Additionally, toluene, xylenes, TPH GRO and DRO were all above the Tier 1 screening level. Monitor well MW-22 had a detection of benzene 0.000627, slightly above ISLs. Both MW-23 and MW-25 had detections of benzene but at levels below the ISLs. Monitor well MW-24 had a benzene detection of 0.374 mg/l which is above the Tier 1. Detections of TPH GRO and DRO in MW-22, MW-23, and MW-25 were below the ISLs, detections of TPH GRO and DRO in MW-24 were above ISLs.

Residential Neighborhood

Groundwater samples were collected from wells MW-1, MW-2, MW-4, MW-19, MW-20, MW-30, MW-31, MW-32 and MW-37 within the subdivision. The wells are located within the cul-de-sac, and within property boundaries of 1134 West 25 South, 1122 West 25 South, and 1125 West 35 South. Monitor wells MW-1, MW-2, MW-19 and MW-31 reported petroleum concentrations that exceeded ISL and/or Tier 1 Screening Levels. Monitoring wells MW-32 and MW-37 did not report petroleum hydrocarbons above the laboratory detection limit.

5.0 HIGH RESOLUTION SITE CHARACTERIZATION INVESTIGATION

5.1 HRSC Assessment

Terracon personnel oversaw a high-resolution site characterization (HRSC) investigation, conducted by Cascade Technical Services (Cascade) from March 23 through March 27, 2021. The objectives of the HRSC were the following;

- Estimate the vertical and horizontal extent of LNAPL at the source area of Chevron.
- Estimate the current impacts in Gentile Street along the sanitary sewer.
- Estimate the extent of vertical impacts in the vicinity of MW-24 on south side of Gentile Street.
- Estimate the impacts immediately upgradient of MW-1.
- Prepare a 3D model of the plume from the HRSC data and compare to current dissolved phase concentrations.

The HRSC investigation was conducted at the southwest corner of Chevron in Gentile Street just south of the station, and along the south side of Gentile Street. One boring was drilled in the Utah Transit Authority (UTA) right of way. Confirmation soil borings were advanced adjacent to select HRSC locations for soil sample collection. The groundwater sampling was performed one and half weeks later to allow correlation of the dissolved phase plume and the HRSC borings. **Exhibit 8** shows the locations of the HRSC borings. A summary report prepared by Cascade is included in **Appendix E**.

Assessment Activities

Soil borings were advanced with a Geoprobe track rig using Direct Push Technology (DPT). Due to the historical presence of LNAPL in EW-4 and MW-10, the HRSC was initiated using an Optical Interface Probe (OIP) to detect the presence of LNAPL. OIP1 was drilled adjacent to EW-4, no LNAPL was observed during the operations of that boring. The drill was then moved to OIP2, between EW-4 and MW-10 and the boring advanced part way, when a malfunction of the depth indicator occurred. Due to the lack of LNAPL present, the boring was abandoned and Cascade switched to a Membrane Interface Probe and Hydraulic Profiling Tool (MIHPT) system for the remaining soil borings. The MIP system contains two membrane interface detectors used to detect VOCs, including a PID and a flame ionization detector (FID). The MIHPT system has a MIP and an HPT to estimate soil permeability.

Ten MIHPT borings and one OIP were advanced between 20 to 22 feet bgs. In addition, two confirmation soil borings (HRSC1 and HRSC 2) were drilled in the vicinity of EW-4 and MW-10 with a third planned near MW-24, however a mechanical breakdown of the Cascade DPT rig occurred, preventing the collection of soil samples near MW-24. The soil boring logs for HRSC 1 and 2 are included in **Appendix D** of this report. A summary of soil analytical results is presented in **Table 4** (**Appendix B**). The associated laboratory analytical report is included in **Appendix C**.

Field-Screening and Analytical Results

The MIP boring locations are shown on **Exhibit 8** (**Appendix A**). Based on the data gathered from the OIP and MIHPT systems, soils encountered were fine grained silty sand (SM), consistent with previous investigations and drilling performed on the project site. These observations were confirmed by drilling two borings, HRSC1 and HRSC2 and logging the soil types according to the USC system. Detailed soil descriptions are included on the soil boring logs provided in **Appendix C**.

The HRSC investigation included measurements of hydraulic conductivity by injecting a small stream of water into the formation and measuring the pressure required to inject the stream into the formation. The hydraulic conductivity ranged from 30 to 60 feet/day. Depth to water during the investigation ranged from MIPT2 at 10.5 feet in Gentile to MIPT8 at 12.5 feet in UTA Right of Way.

The investigation started with the two OIP borings (OIP1 and OIP2) centered around MW-10 which previously has shown LNAPL as recently as January with a measurable thickness of 0.01 feet. The two borings detected pockets of LNAPL with a residual saturation of less than 0.01 percent. With such a low LNAPL saturation it was decided to switch to the MIPT system which measures relative response in two different photoionization detectors in µV x 10^5 (low scale) and µV x 10^6 (high scale). The highest response was measured in MIPT3 in Gentile street at a depth between 10 and 13 feet (**Exhibits 15.1 and 16.1**). Other borings showed very little response in comparison to MIPT3. **Exhibits 15.1, 15.2, 16.1** and **16.2** (**Appendix A**) shows a point to point comparison of the PID response in the low and high scales of all MIPT logs.

Following the HRSC borings, two soil borings (HRSC1 and HRSC2) were drilled in the locations shown on **Exhibit 9** (**Appendix A**). The two borings were located in the vicinity of MW-10 at the source zone located at Chevron. The soil borings were advanced using a track-mounted direct-push drilling rig to a maximum depth of approximately 20 feet below the ground surface (bgs). Drilling equipment was cleaned, using a high-pressure washer prior to beginning the project and before beginning each boring. Non-dedicated sampling equipment was cleaned using an Alconox® detergent wash and potable water rinse prior to commencement of the project and between the collection of each sample.

A third boring was planned near MIHPT7 on the south side of Gentile. However, the drill rig had a mechanical failure and would have required several days to repair. Therefore, the third boring was not advanced.

Three soil samples were collected from HRSC1 and two from HRSC2. Soil samples were collected at 9.5 to 10. feet (SS-1), SS-2 at 14.5 to 15 feet, and SS-3 at 19.5 to 20 feet from HRSC1 and soil samples from HRSC2 were collected at 12.5 feet (SS-1) and SS-2 at 17 to 17.5 feet. The soil samples collected from the HRSC borings were then submitted to Pace Analytical Laboratories for analysis of benzene, toluene, ethylbenzene, xylenes, and naphthalene (BTEXN) and methyl-tert-butyl ether (MTBE); total petroleum hydrocarbons – diesel range organics (TPH-DRO) with silica gel treatment (SGT); and total petroleum hydrocarbons - gasoline range organics (TPH-GRO). The executed chain-of-custody forms and laboratory data sheets are provided in **Appendix D.**

A summary of the soil analytical data is presented in **Table 4** (**Appendix C**). HRSC1 was drilled west of MW-10 and HRSC2 east side of MW-10. Distances from MW-10 were less than 5 feet. Based on the analytical data, it is estimated that the majority of the mass of petroleum hydrocarbons is between 12 and 15 feet which consistent with the MIHPT borings. The analytical data from HRSC1 SS-2 at 14.5 to 15 feet bgs had concentrations of benzene, ethylbenzene, toluene, xylenes and TPH GRO all above the Tier 1 screening level and TPH DRO above the ISL The corresponding PID measurement for that sample was 1031 ppm. All detections from HRSC1 SS-1 at 9.5 to 10 feet bgs were below ISLs. Soil boring HRSC2, SS-2 at 12.5 feet, both benzene and TPH GRO were above the ISL, all other constituents were below the ISL. The corresponding

PID reading for that sample was 73 ppm. Sample HRSC2 SS-1 had detections of petroleum but at concentrations below the ISLs.

Using the data supplied by Cascade, Terracon developed a 3 dimensional model of the plume as depicted in **Exhibits 10** thru **14** (**Appendix A**). Orientation of the cross sections is provided in **Exhibit 9. Exhibit 11** shows a cross section through the centerline of the plume A-A'. The cross section shows qualitatively the highest PID detections were within Gentile Street. Data collection in Gentile Street was limited to two HRSC borings along the north side of the sanitary sewer. **Exhibit 9** also shows the plume in plan-view, indicating the bulk of the contaminate mass extends from the Chevron into Gentile Street then attenuating on the south side of Gentile Street.

6.0 FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

Groundwater monitoring data show the following:

- Groundwater elevations have decreased across most of the project site approximately 0.39 to 0.57 feet since the previous sampling event in January 2021.
- The overall groundwater concentrations have continued to decrease across the entire impacted area with most wells sampled showing decreases in benzene and other gasoline constituents from the January 2021 sampling event.

The HRSC investigation revealed the following:

- The detected LNAPL in the vicinity of MW-10 was minimal and the estimated residual saturation within the soil was 0.01 percent or less, indicating very little LNAPL remains in the source area
- There does not appear to be residual LNAPL within the right of way within Gentile Street.
- The vertical extent of contamination appears to be from 12 to 15 fee bgs and varies through the plume due to the difference in surface elevations of the project site.
- The bulk of the contamination mass appears to be within the south west corner of Chevron and within Gentile Street, possibly along the sanitary sewer corridor.
- Contamination on the south side of Gentile has decreased since project inception.
- Measured hydraulic conductivities range from 30 to 60 feet/day.

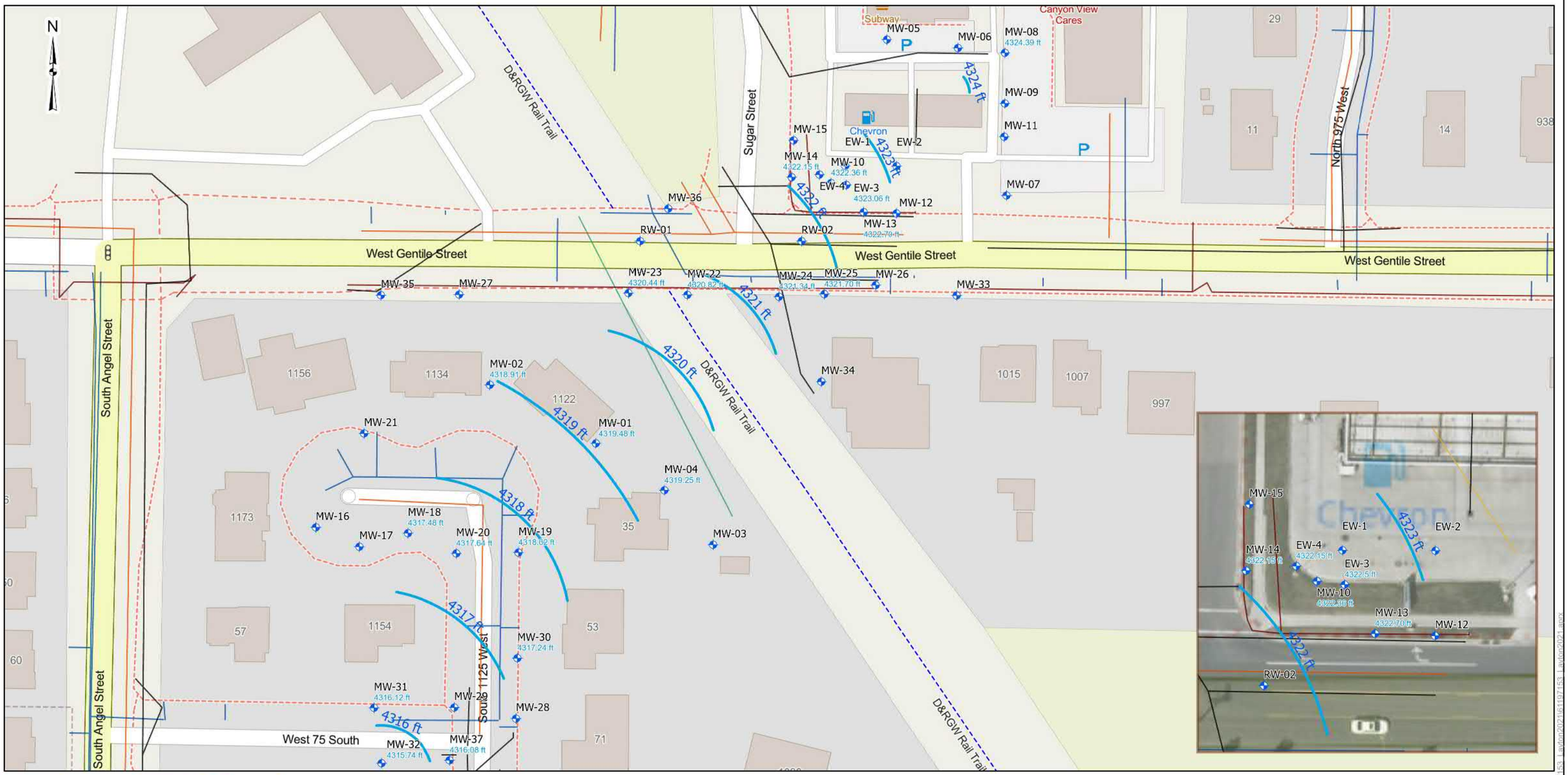
<u>Recommendations</u>

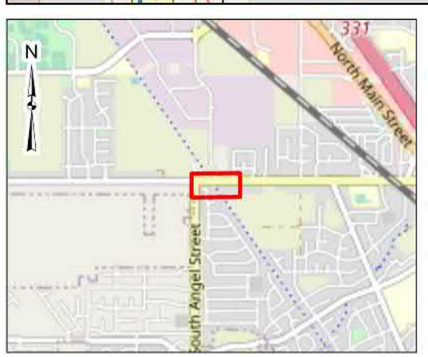
Due to the absence of LNAPL in the source area, the coarse native lithology (fine sand [SM]), and the relatively high hydraulic conductivity obtained from the HRSC investigation, it is proposed to install and operate an air sparge (AS) system to reduce the concentration of VOCs in the dissolved phase and extract the sparged vapors with the existing soil vapor extraction (SVE) system. A total of six AS wells could be installed within Gentile Street and at the Chevron. To facilitate the installation, Terracon proposes to develop a cost workplan to design the AS system, install the

six AS wells, conduct a pilot test to determine flow requirements and pressure for sizing a compressor and installation of the system.

As part of the installation of the SVE system, AS air supply lines were installed with the SVE conveyance lines from the fenced compound area of the SVE system to the landscaped area of the southwest corner of the Chevron, thus eliminating the need for additional work within Sugar Street.

APPENDIX A
Exhibits





- Monitoring Well
- Groundwater Elevation (ft), April 2021
- D&RGW Rail Line
- Storm Drain Lines
- UTOPIA AsBuilt Lines
- Waterlines
- Sanitary Sewer Lines
- Andeavor Pipeline

DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

0 50 100 200 Feet

Project No.:	61197153
Date:	May 2021
Drawn By:	AST
Reviewed By:	CAS

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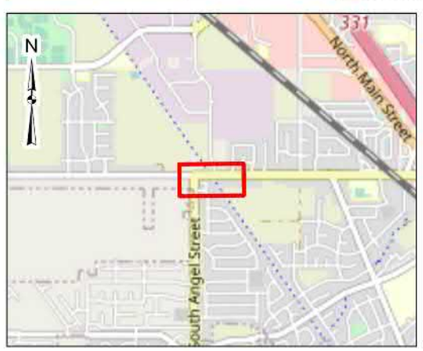
Groundwater Elevation Map, April 2021

TSC - Layton Chevron
Triple Stop Chevron Inc.
1034 West Gentile Street
Layton, UT 84041

Exhibit

1



- Monitoring Well with Benzene Concentration (mg/L)
- D&RGW Rail Line
- Storm Drain Lines
- UTOPIA AsBuilt Lines
- Waterlines
- Sanitary Sewer Lines
- Andeavor Pipeline

Benzene Concentrations (mg/L), April 2021

- >5
- 1 - <5
- 0.3 - <1
- 0 - <0.3

DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

Feet
0 80 160 320

Project No.:	61197153
Date:	May 2021
Drawn By:	AST
Reviewed By:	JRG

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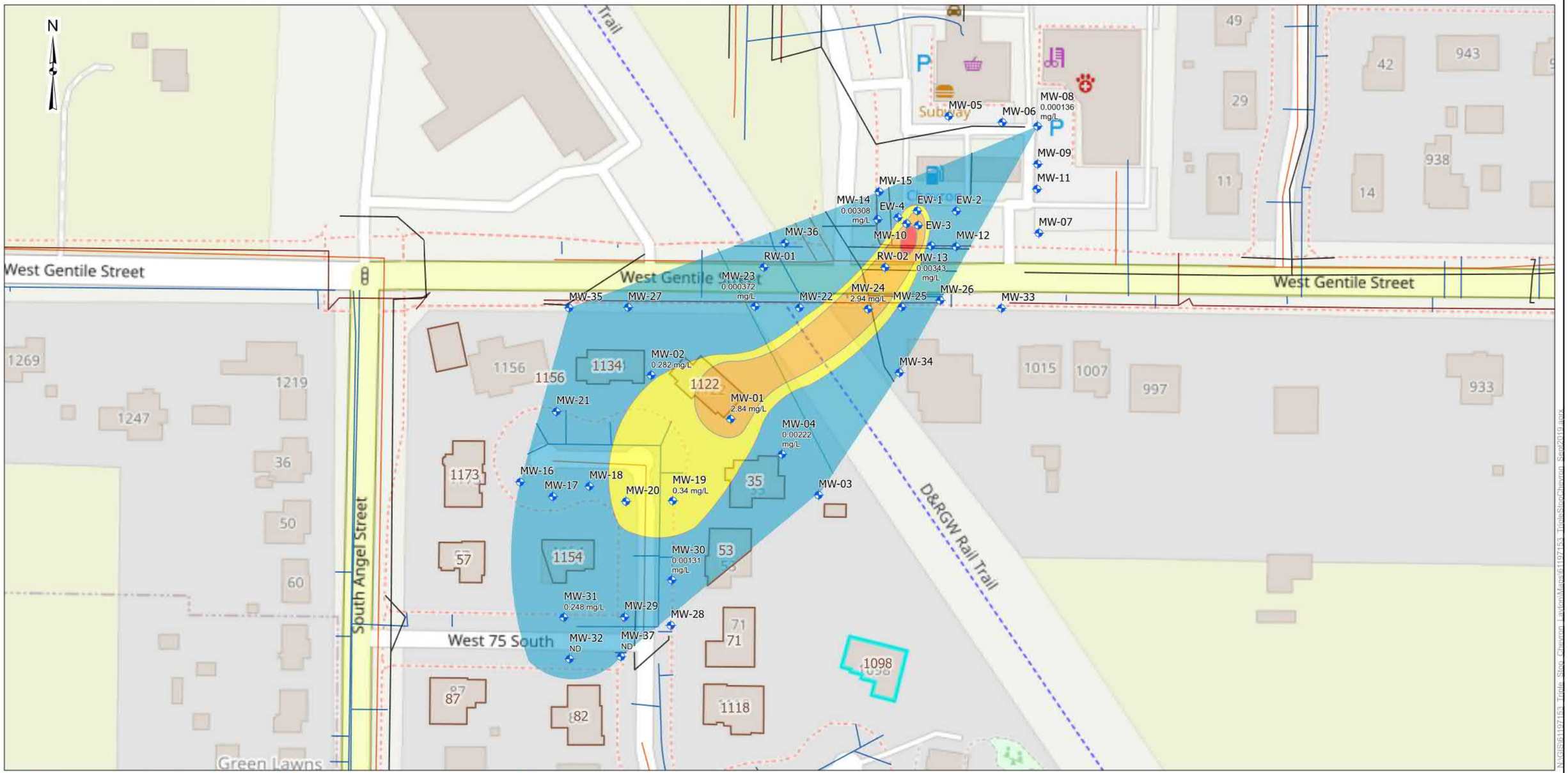
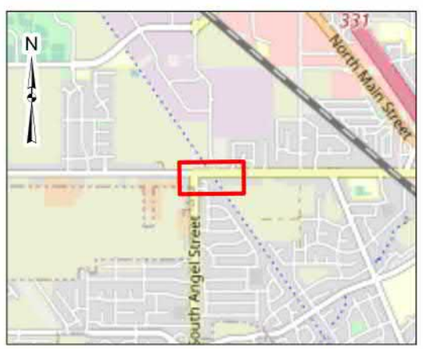
Benzene Concentrations, April 2021

TSC - Layton Chevron
Triple Shop Chevron Inc.
1034 West Gentile Street
Layton, UT 84041

Exhibit

2





- Monitoring Well with Benzene Concentration (mg/L)
- houses_digi
- Storm Drain Lines
- UTOPIA AsBuilt Lines
- Waterlines
- Sanitary Sewer Lines
- D&RGW Rail Line
- Andeavor Pipeline

Benzene Concentrations (mg/L), January 2021

- >5
- 1 - <5
- 0.3 - <1
- 0 - <0.3

DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

Feet
0 80 160 320

Project No.:	61197153
Date:	Mar 2021
Drawn By:	AST
Reviewed By:	JRG

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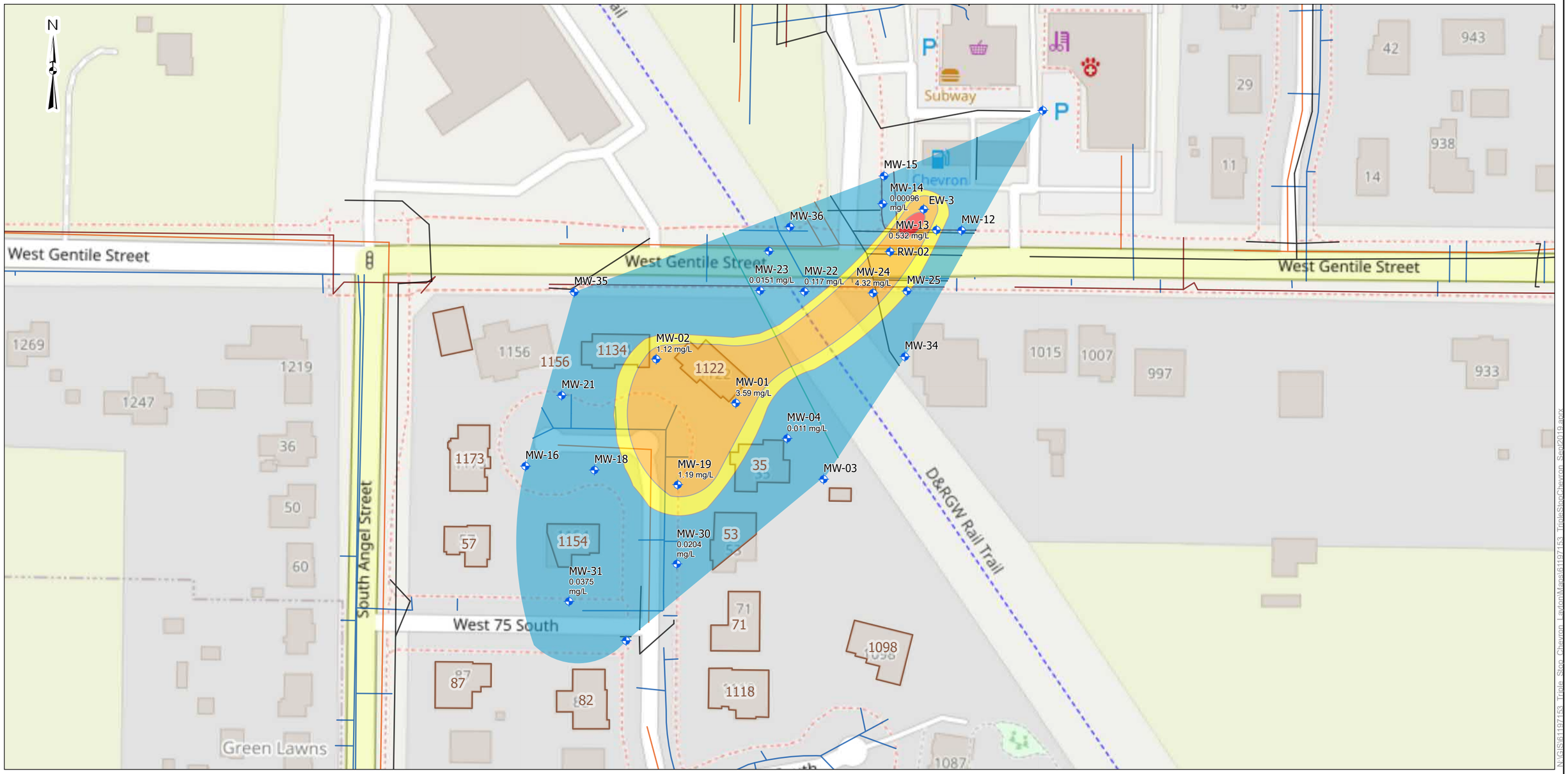
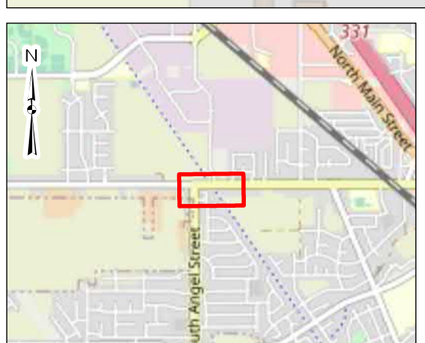
Benzene Concentrations, January 2021

TSC - Layton Chevron
Triple Stop Chevron Inc.
1034 West Gentile Street
Layton, UT 84041

Exhibit

3





Monitoring Well with Benzene Concentration (mg/L)

Storm Drain Lines

UTOPIA AsBuilt Lines

Waterlines

Sanitary Sewer Lines

Andeavor Pipeline

D&RGW Rail Line

Benzene Concentration (mg/L), October 2020

- >5
- 1 - <5
- 0.3 - <1
- 0 - <0.3

DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

Feet
0 80 160 320

Project No.:	61197153
Date:	Dec 2020
Drawn By:	AST
Reviewed By:	JRG

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Benzene Concentrations, October 2020

TSC - Layton Chevron
Triple Stop Chevron Inc.
1034 West Gentile Street
Layton, UT 84041

Exhibit

4

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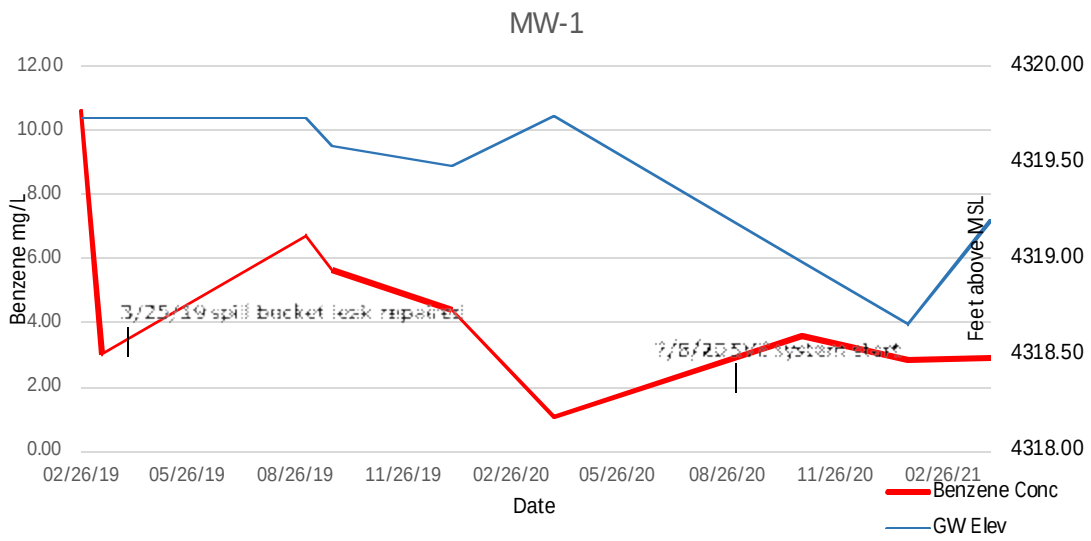
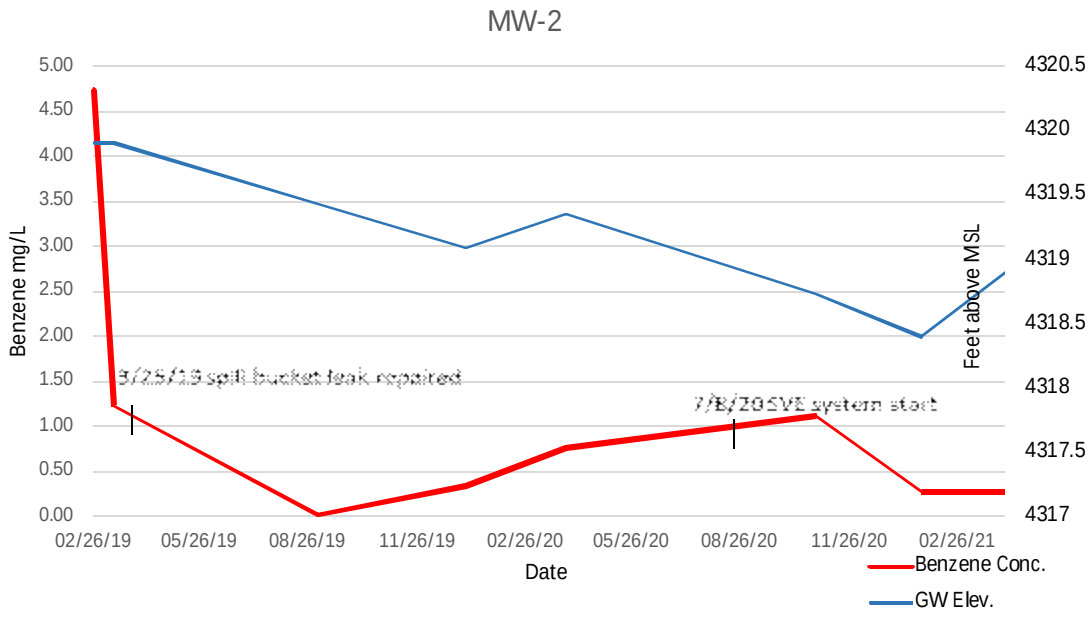
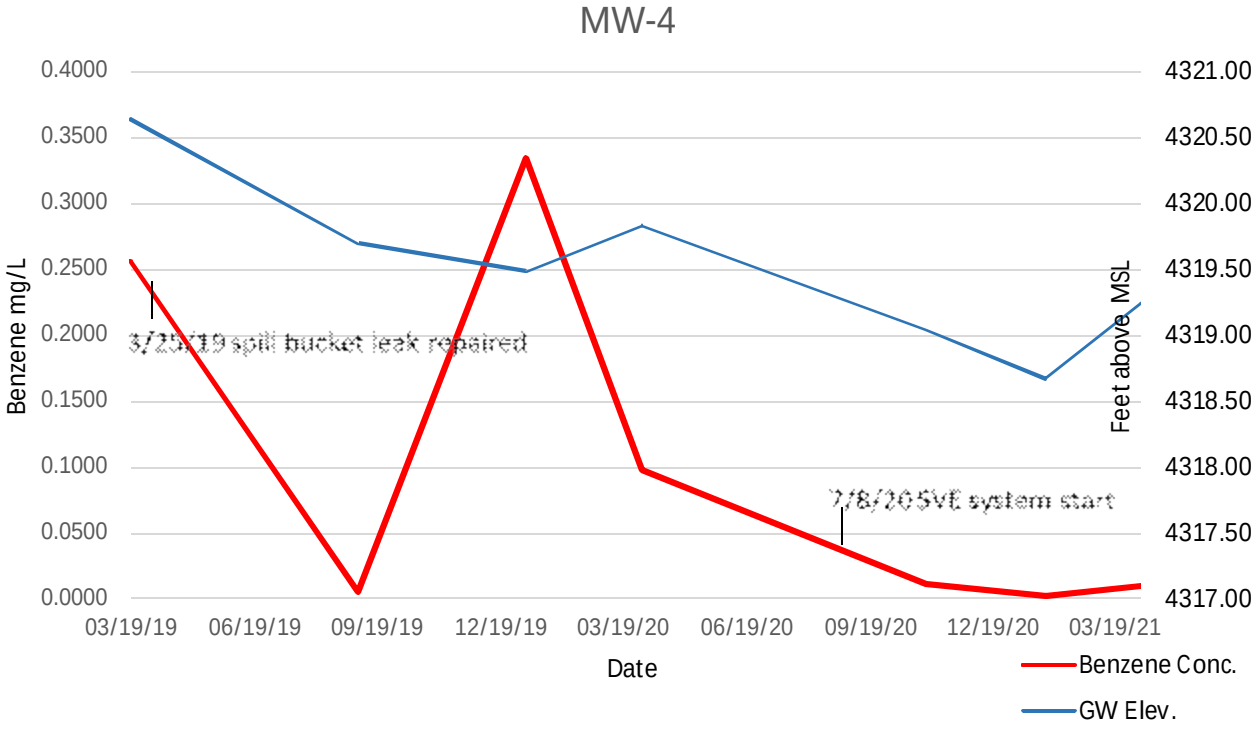
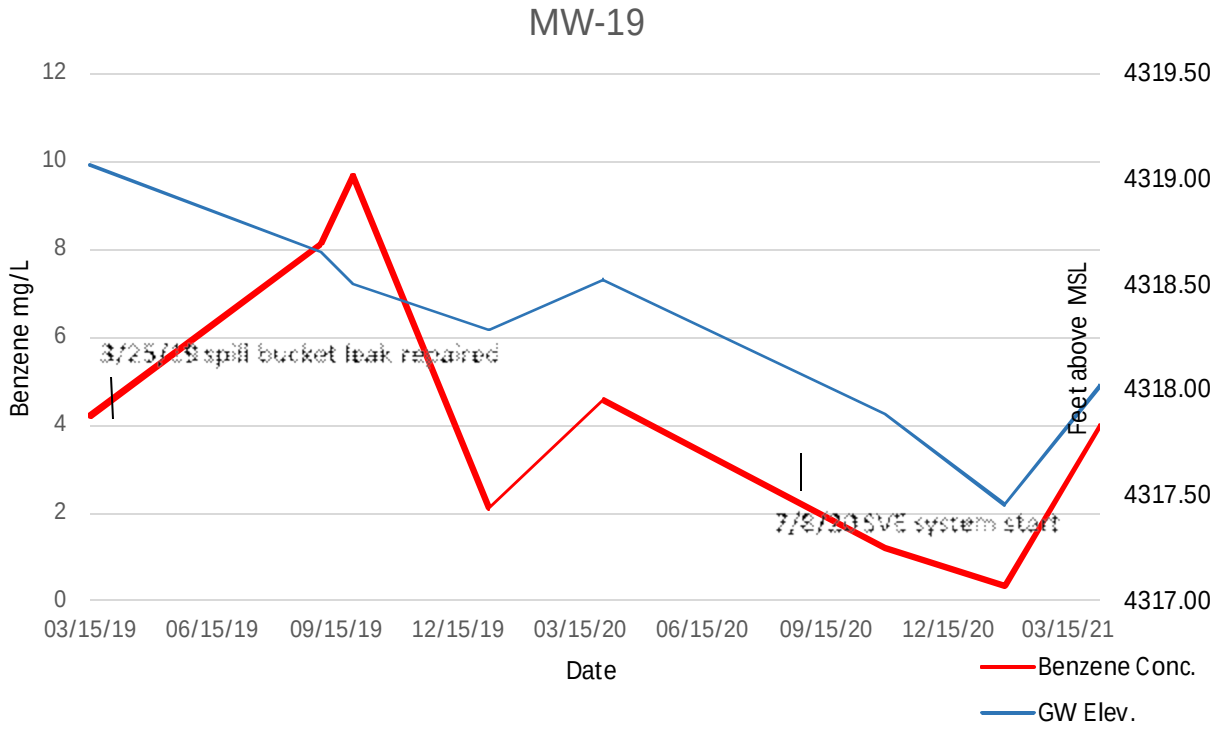
Hydrograph showing benzene conecntration relative to groundwater elevation



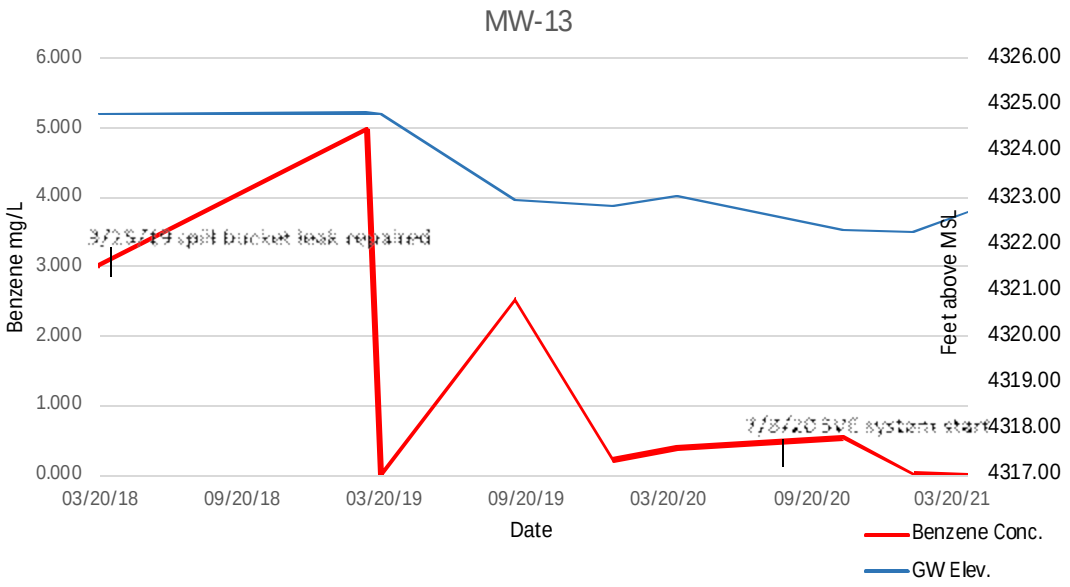


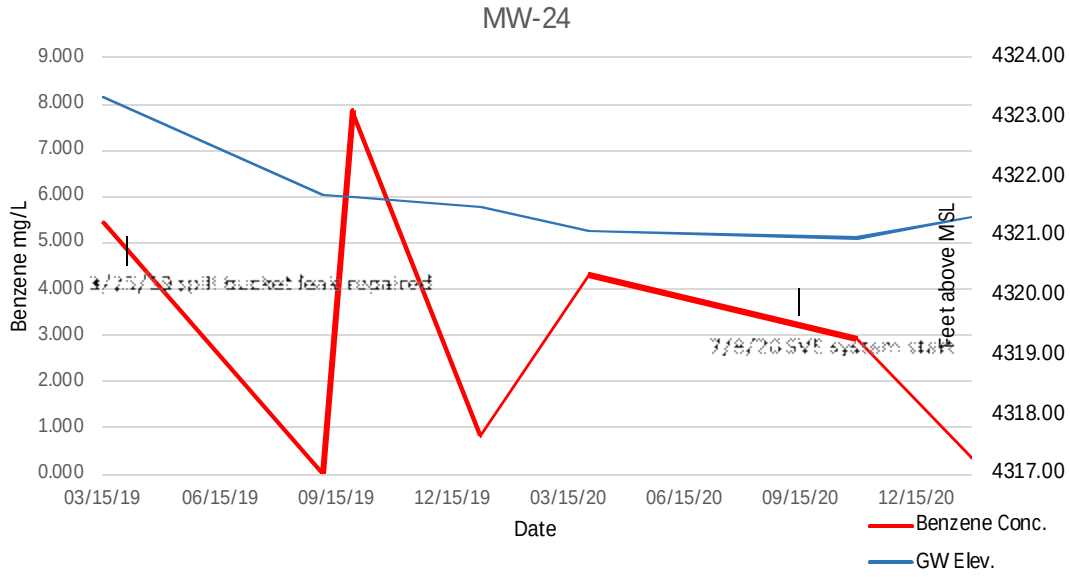
Hydrograph showing benzene conecntration relative to groundwater elevation

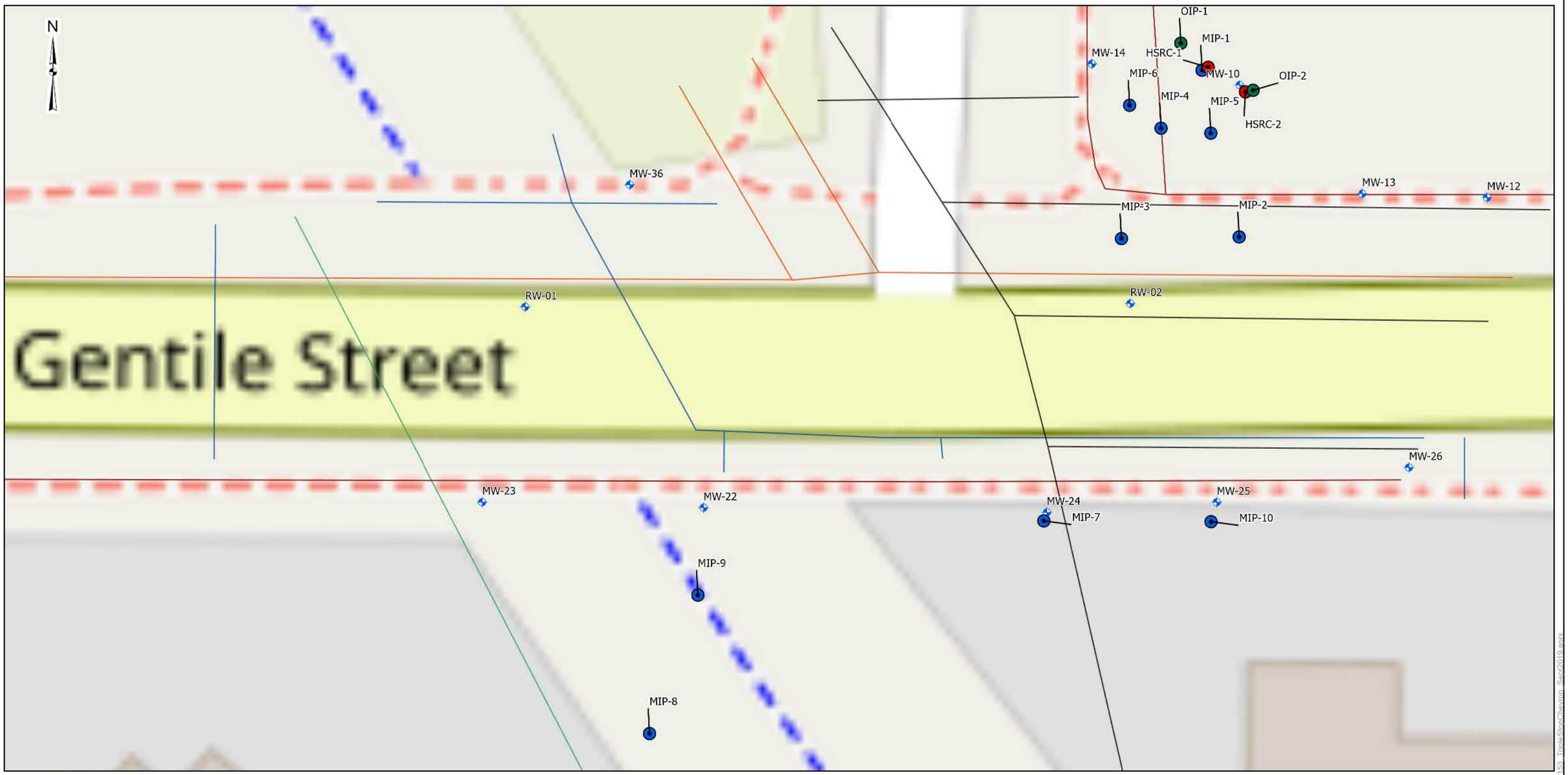


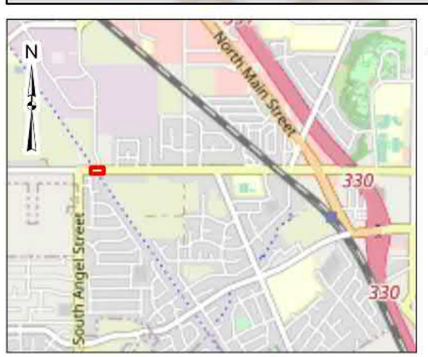


Hydrograph showing benzene conecntration relative to groundwater elevation









April 2021 Sample Points

- HSRC
- MIP
- OIP
- Monitoring Well
- D&RGW Rail Line
- Storm Drain Lines
- UTOPIA AsBuilt Lines
- Waterlines
- Sanitary Sewer Lines
- Andeavor Pipeline

DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap

0 15 30 60 Feet

Project No.:	61197153
Date:	May 2021
Drawn By:	AST
Reviewed By:	CAS

Terracon
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PH. (801) 545-8500 terracon.com

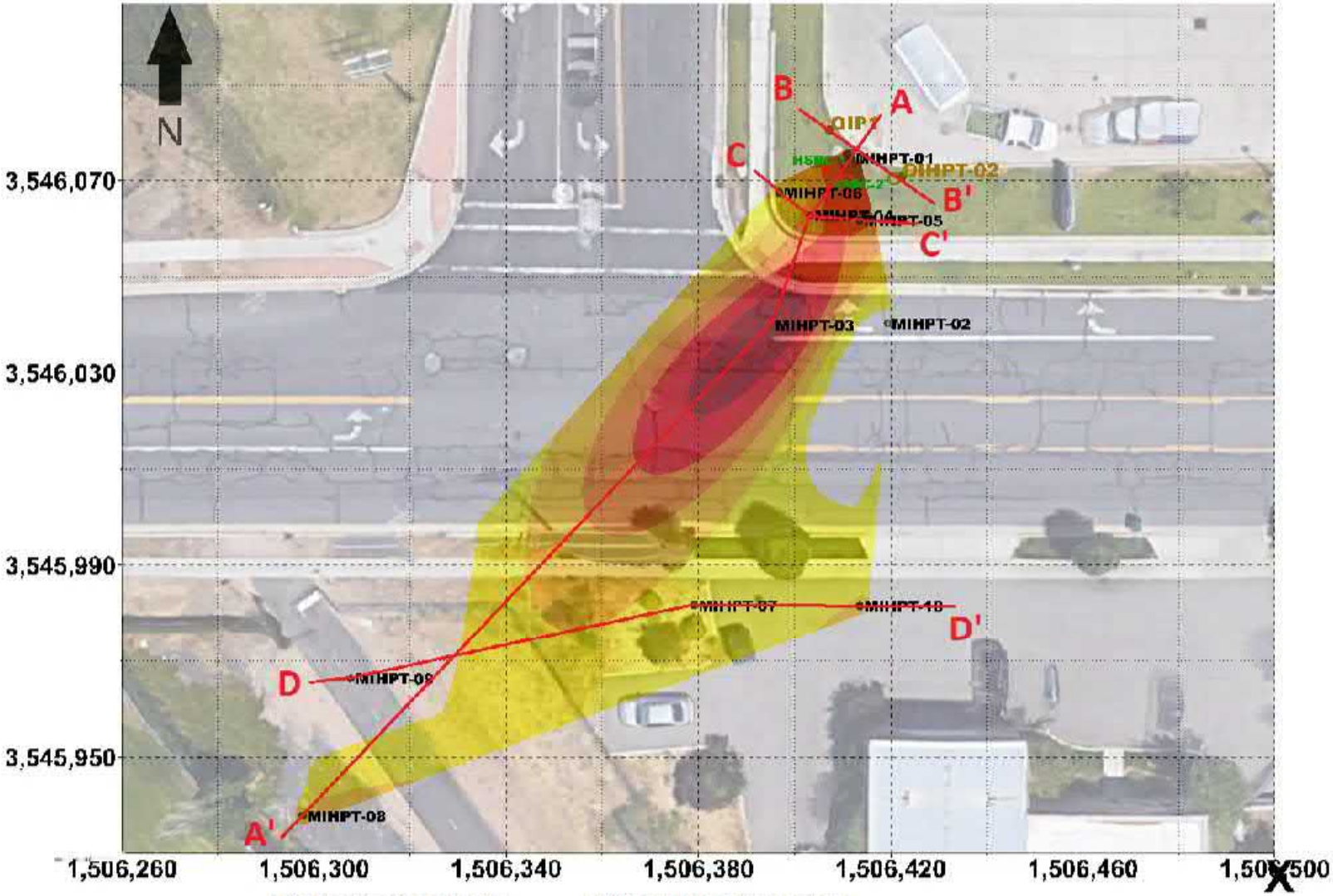
HRSC Boring Locations

TSC - Layton Chevron
Triple Stop Chevron Inc.
1034 West Gentile Street
Layton, UT 84041

Exhibit

8

N:\GIS\61197153 Triple Stop Chevron Layton\Maps\61197153_TripleStopChevron_Sep2019.aprx



Definitions:
MIP: Membrane Interface Probe
HPT: Hydraulic Profiling Tool
OIP: Optical Image Profiler
UVOST: Ultra-Violet Optical Screening Tool

EC: Electrical Conductivity
FID: Flame Ionization Detector
PID: Photo Ionization Detector
XSD: Halogen Specific Detector
ECD: Electron Capture Detector

PSI: Pounds per Square Inch
K: Hydraulic Conductivity
uV: MicroVolts
mS/m: MilliSiemens per Meter
ft/day: Feet per Day

Notes:
All coordinates in Nad83 State Plane - Utah - N (US Feet)
Vertical Exaggeration: x3
Scales as Shown

Project No.	61197153
Date Drawn	May 2021
Drawn By	Jim Depa
Reviewed By	Curt Stripeika

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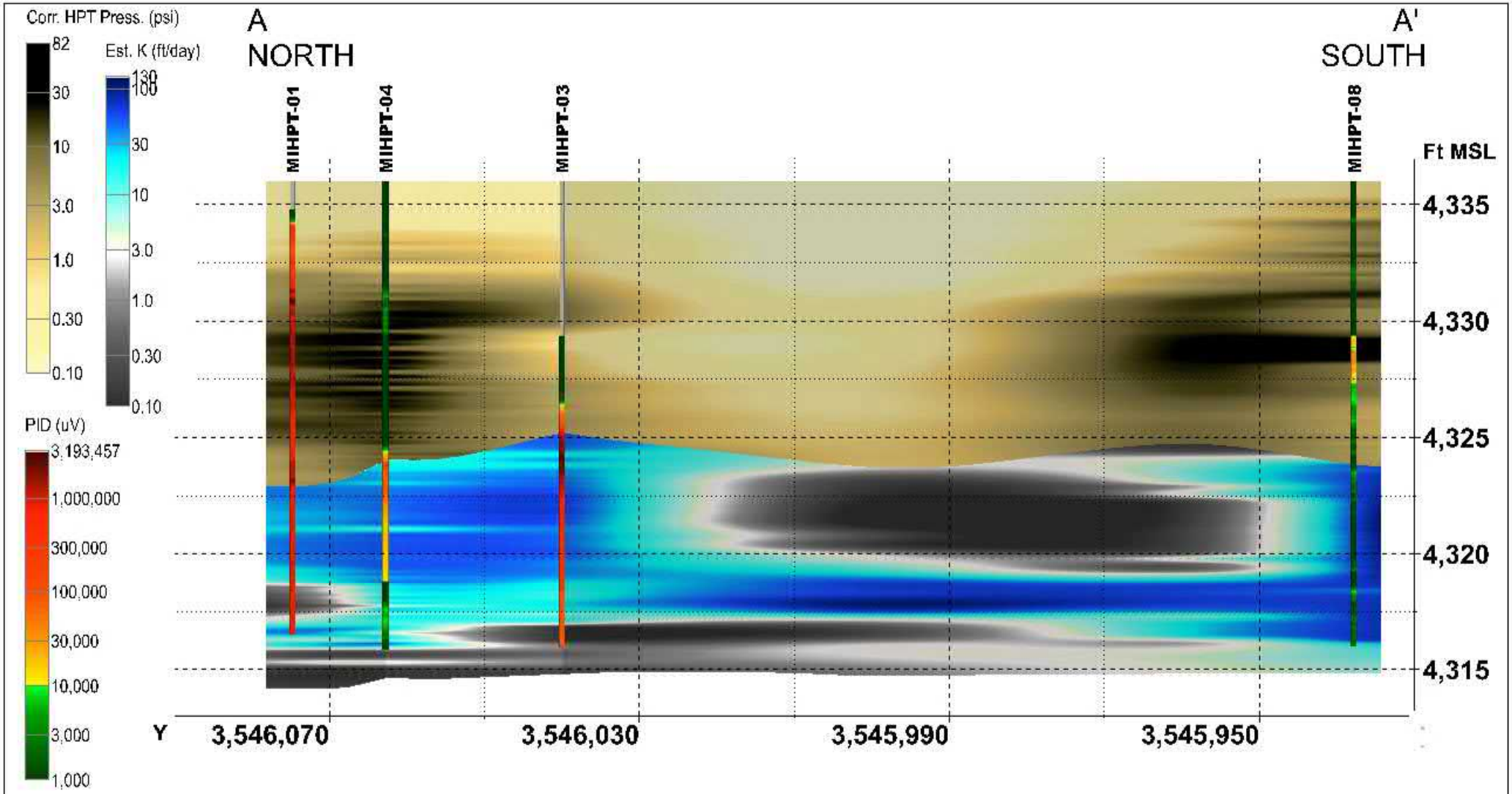
PID Footprint with Cross Section Reference Map
PID Footprint at 10k, 30k, 100k, 500k, and 2M uV

Triple Stop Chevron
1034 West Gentile Street
Layton, Utah 84041

EXHIBIT
9



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Scales as Shown

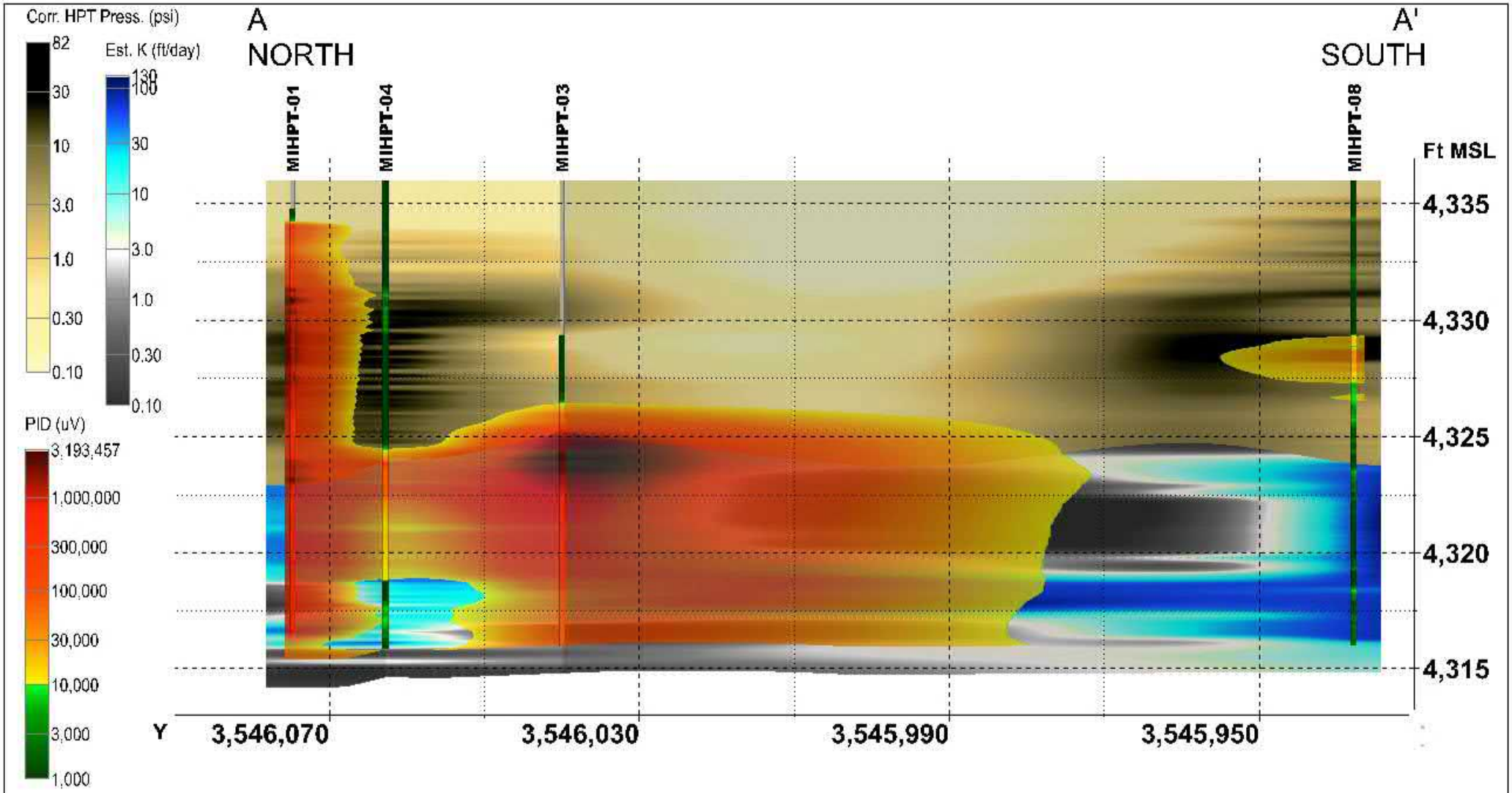
Project No.	61197153
Date Drawn	May 2021
Drawn By	Jim Depa
Reviewed By	Curt Stripeika

Terracon

Cross Section A-A'
PID Data and Geologic Fence (HPT Pressure and Est. K)

Triple Stop Chevron
1034 West Gentile Street
Layton, Utah 84041

EXHIBIT
10



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Vertical Exaggeration: x3
Scales as Shown

Project No.	61197153
Date Drawn	May 2021
Drawn By	Jim Depa
Reviewed By	Curt Stripeika

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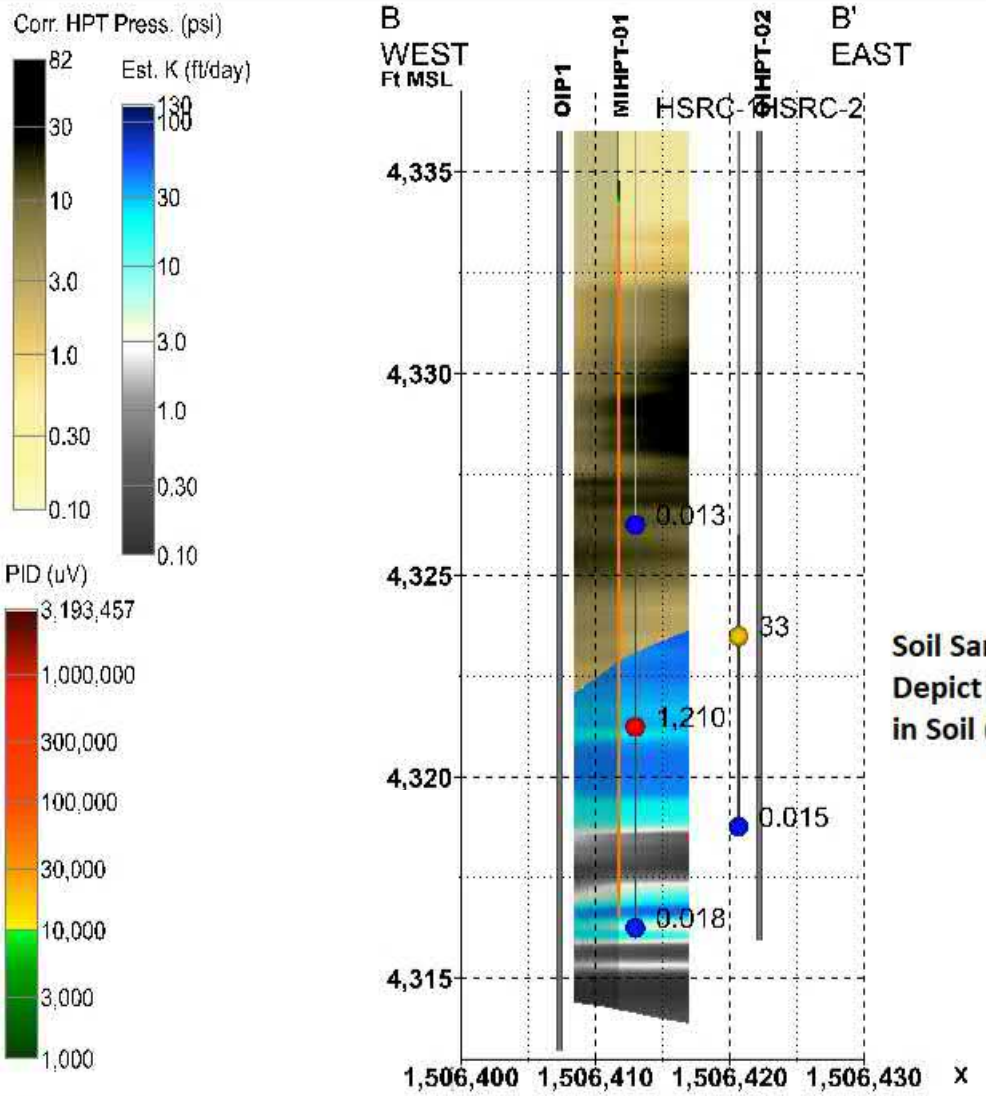
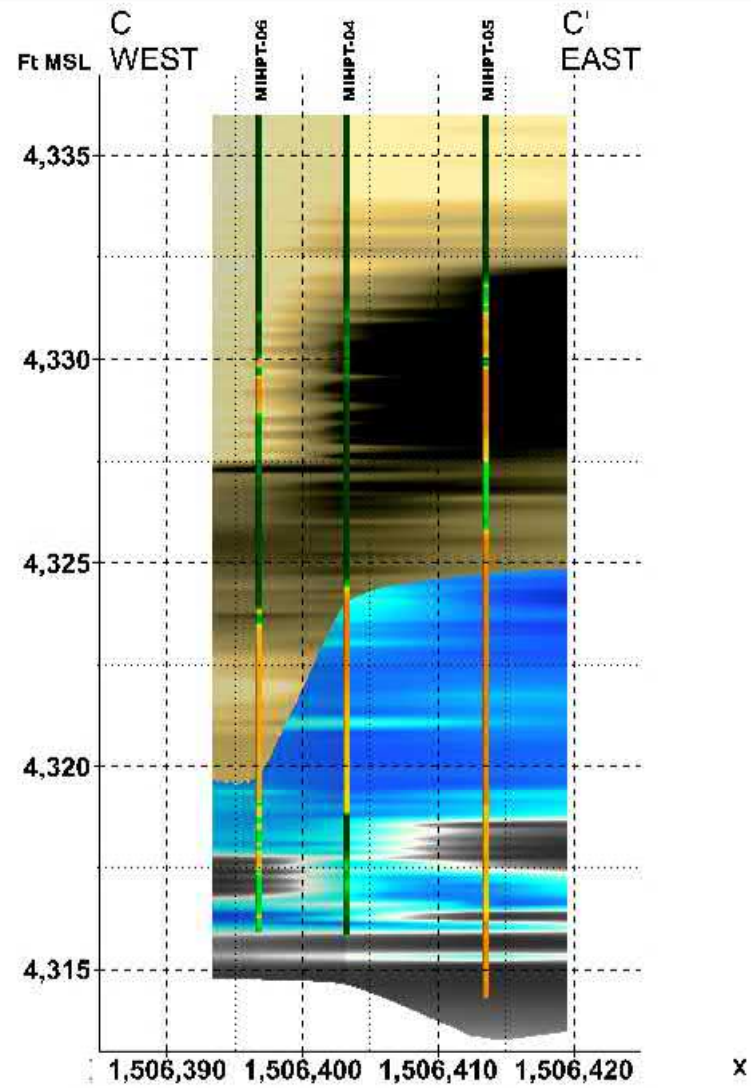
Cross Section A-A'
PID Plume and Geologic Fence (HPT Pressure and Est. K)

Triple Stop Chevron
1034 West Gentile Street
Layton, Utah 84041

EXHIBIT
11



Soil Samples Depict Total BTEX in Soil (mg/kg)



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Vertical Exaggeration: x3
Scales as Shown

Project No.	61197153
Date Drawn	May 2021
Drawn By	Jim Depa
Reviewed By	Curt Stripeika

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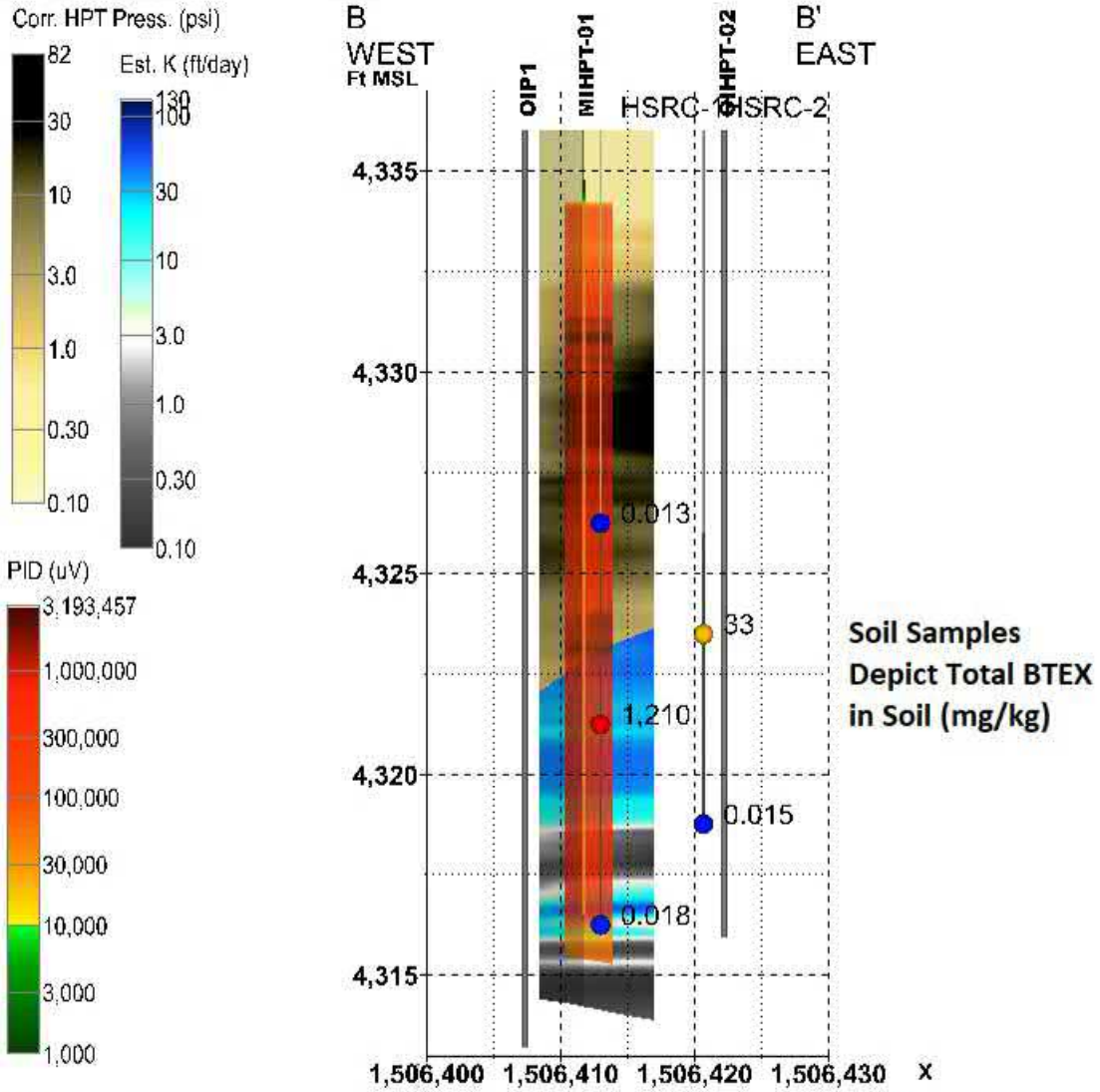
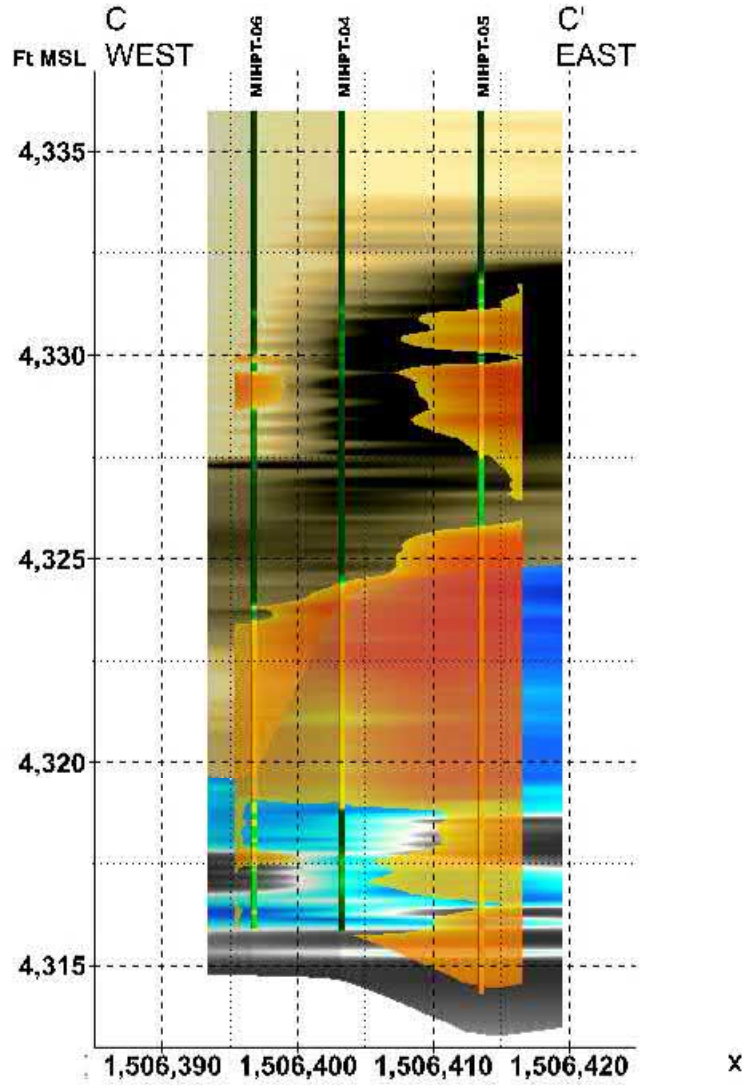
Cross Sections B-B' & C-C'
PID Data and Geologic Fence (HPT Pressure and Est. K)

Triple Stop Chevron
1034 West Gentile Street
Layton, Utah 84041

EXHIBIT
12



Soil Samples Depict Total BTEX in Soil (mg/kg)



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Vertical Exaggeration: x3
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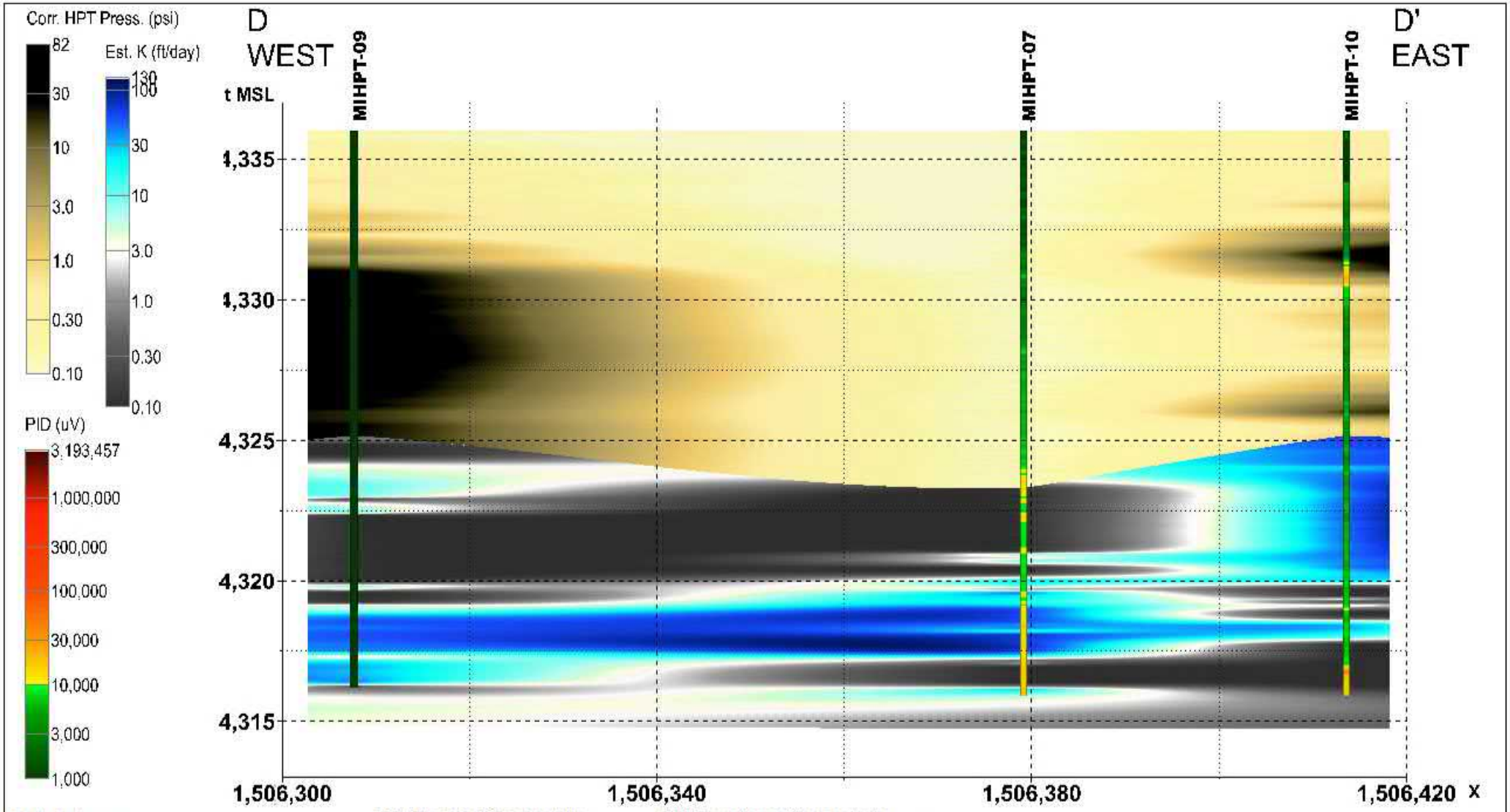
Project No.	61197153
Date Drawn	May 2021
Drawn By	Jim Depa
Reviewed By	Curt Stripeika

Terracon

Cross Sections B-B' & C-C'
PID Plume and Geologic Fence (HPT Pressure and Est. K)

Triple Stop Chevron
1034 West Gentile Street
Layton, Utah 84041

EXHIBIT
13



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Scales as Shown

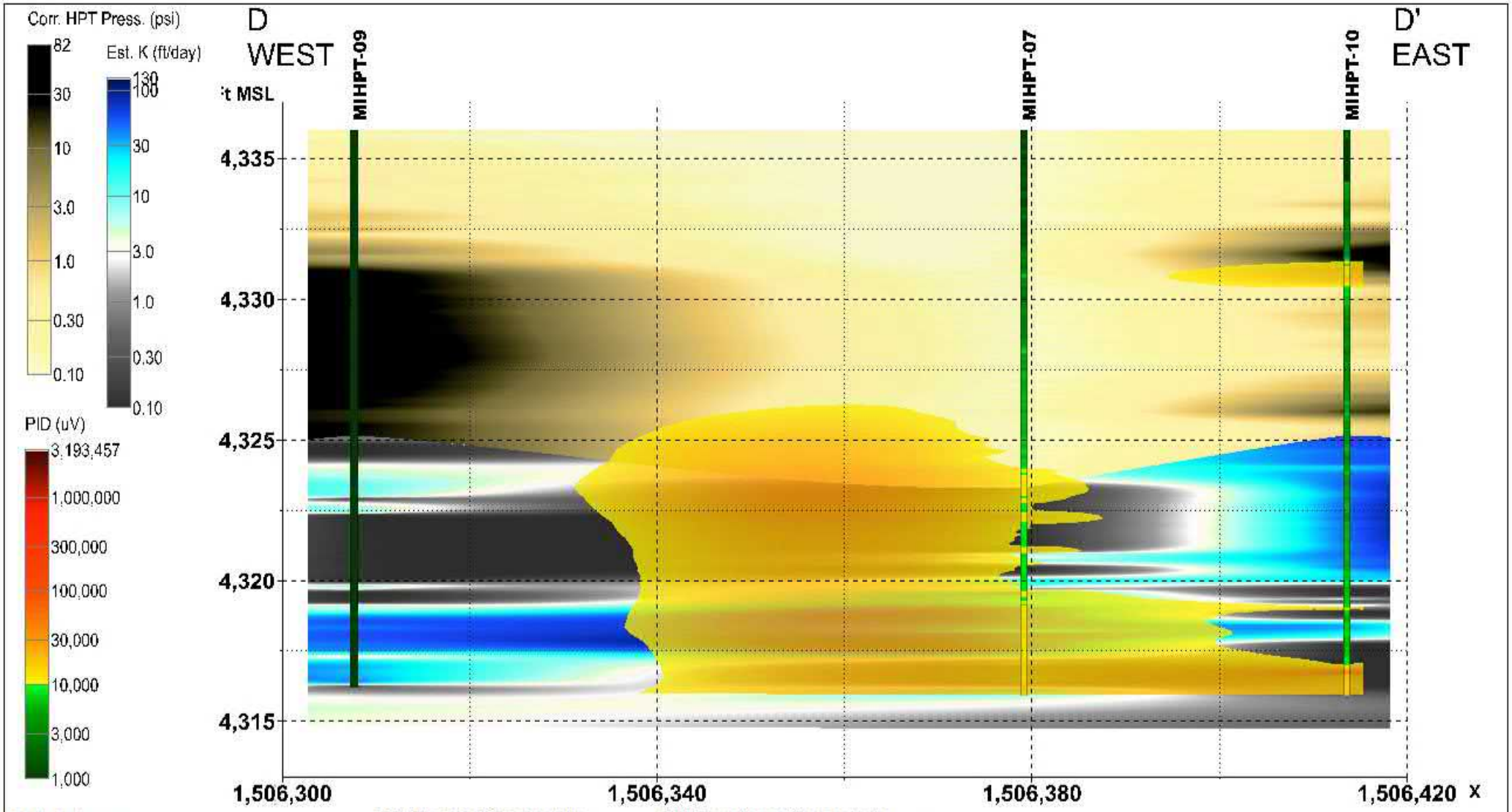
Project No.	61197153
Date Drawn	May 2021
Drawn By	Jim Depa
Reviewed By	Curt Stripeika

Terracon

Cross Section D-D'
PID Data and Geologic Fence (HPT Pressure and Est. K)

Triple Stop Chevron
1034 West Gentile Street
Layton, Utah 84041

EXHIBIT
14



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Vertical Exaggeration: x3
Scales as Shown

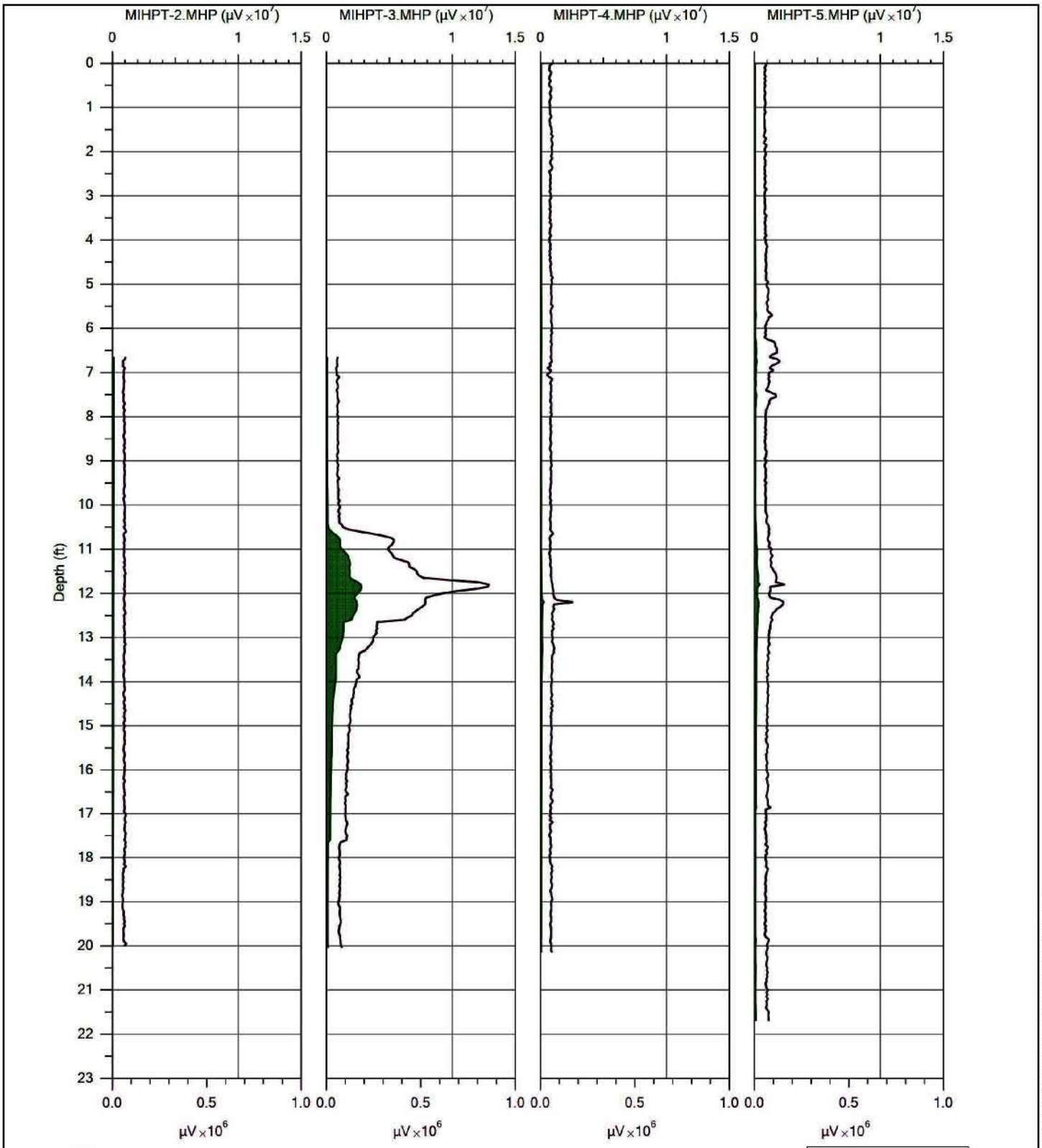
Project No.	61197153
Date Drawn	May 2021
Drawn By	Jim Depa
Reviewed By	Curt Stripeika

Terracon

Cross Section D-D'
PID Plume and Geologic Fence (HPT Pressure and Est. K)

Triple Stop Chevron
1034 West Gentile Street
Layton, Utah 84041

EXHIBIT
15



CASCADE
DRILLING | TECHNICAL SERVICES

PID Max / FID Max

Company: Cascade	Operator: Davis Ocana
Project ID: 302211012	Client: Terracon

MIHPT-2.MHP	03/25/21
MIHPT-3.MHP	03/25/21
MIHPT-4.MHP	03/25/21
MIHPT-5.MHP	03/25/21

Project No.: 61197153	Terracon	Point to Point PID Comparison - Low Scale	Exhibit
Date: Jun 2021	6949 S High Tech Dr, Ste 100 Midvale, UT 84047	TSC - Layton Chevron Triple Stop Chevron Inc. 1034 West Gentile Street Layton, UT 84041	15.1
Drawn By: AST	PH. (801) 545-8500 terracon.com		
Reviewed By: CAS			

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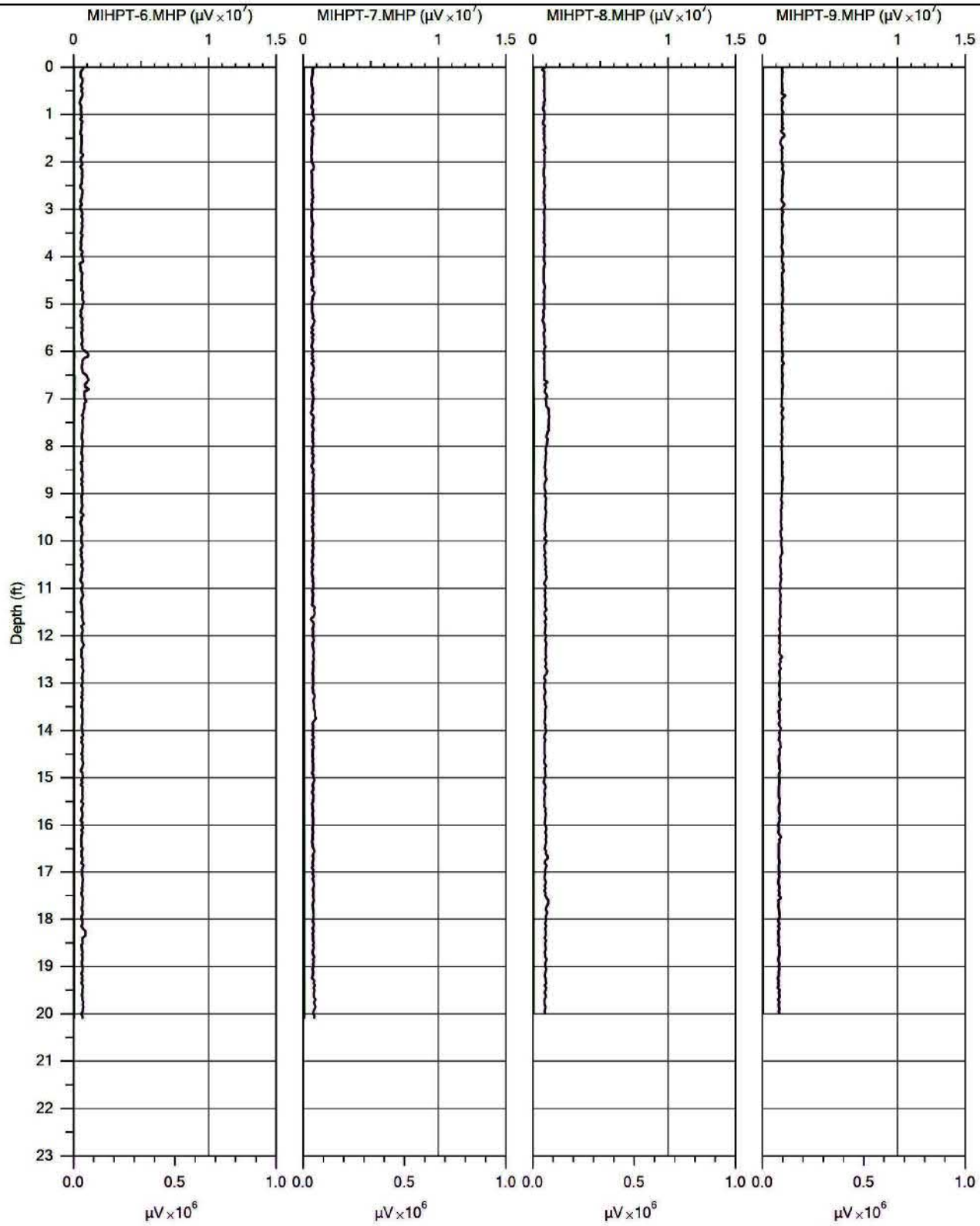

CASCADE
DRILLING | TECHNICAL SERVICES

PID Max / FID Max

Company: Cascade	Operator: Davis Ocana
Project ID: 302211012	Client: Terracon

MIHPT-6.MHP	03/26/21
MIHPT-7.MHP	03/26/21
MIHPT-8.MHP	03/26/21
MIHPT-9.MHP	03/26/21

Project No.: 61197153	Terracon	Point to Point PID Comparison - Low Scale	Exhibit
Date: Jun 2021	6949 S High Tech Dr, Ste 100 Midvale, UT 84047	TSC - Layton Chevron Triple Stop Chevron Inc. 1034 West Gentile Street Layton, UT 84041	15.2
Drawn By: AST	PH. (801) 545-8500 terracon.com		
Reviewed By: CAS			

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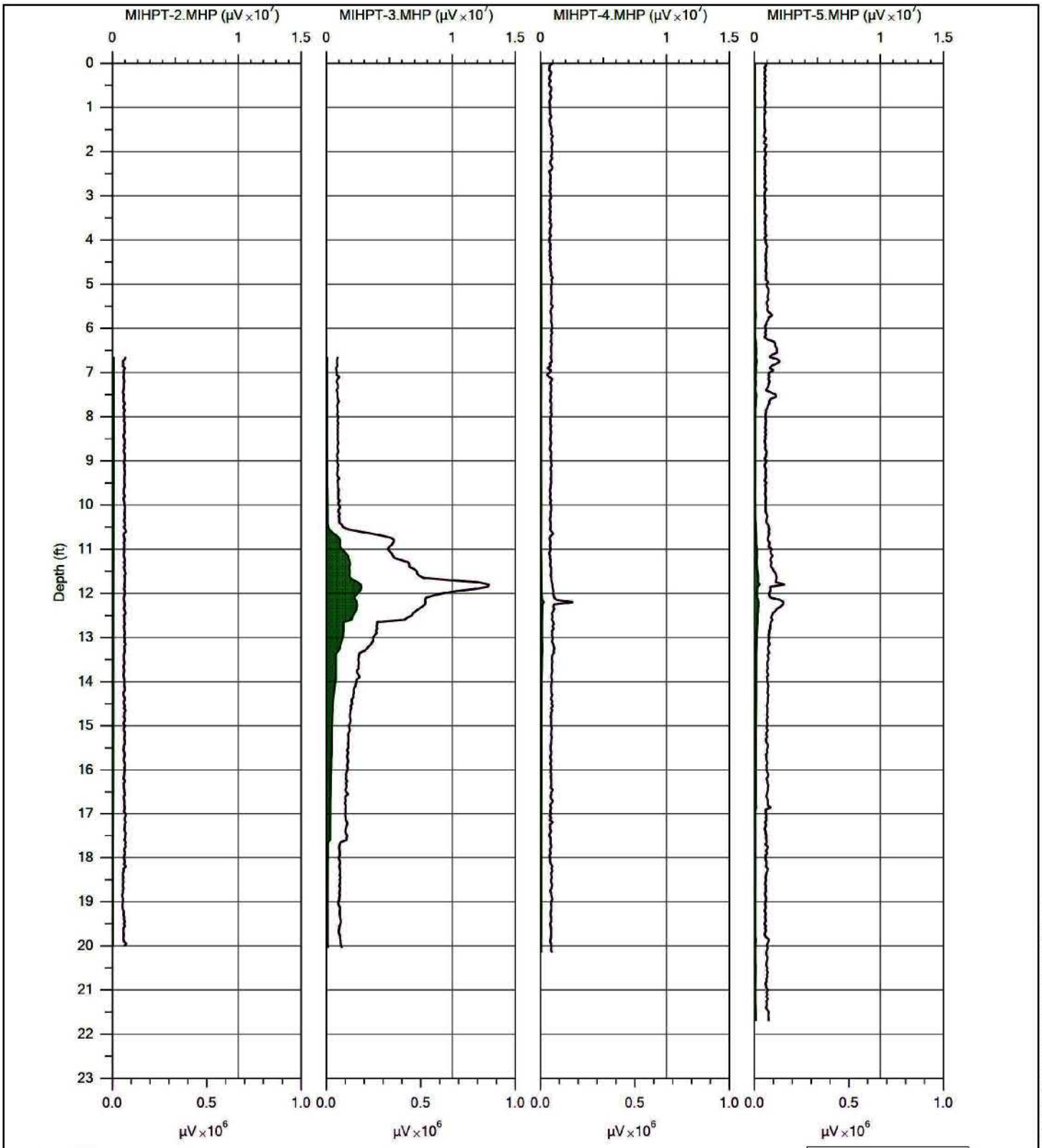


CASCADE
DRILLING | TECHNICAL SERVICES

PID Max / FID Max

Company: Cascade	Operator: Davis Ocana
Project ID: 302211012	Client: Terracon

MIHPT-2.MHP	03/25/21
MIHPT-3.MHP	03/25/21
MIHPT-4.MHP	03/25/21
MIHPT-5.MHP	03/25/21

Project No.:	61197153
Date:	Jun 2021
Drawn By:	AST
Reviewed By:	CAS

Terracon

6949 S High Tech Dr, Ste 100 Midvale, UT 84047

PH. (801) 545-8500 terracon.com

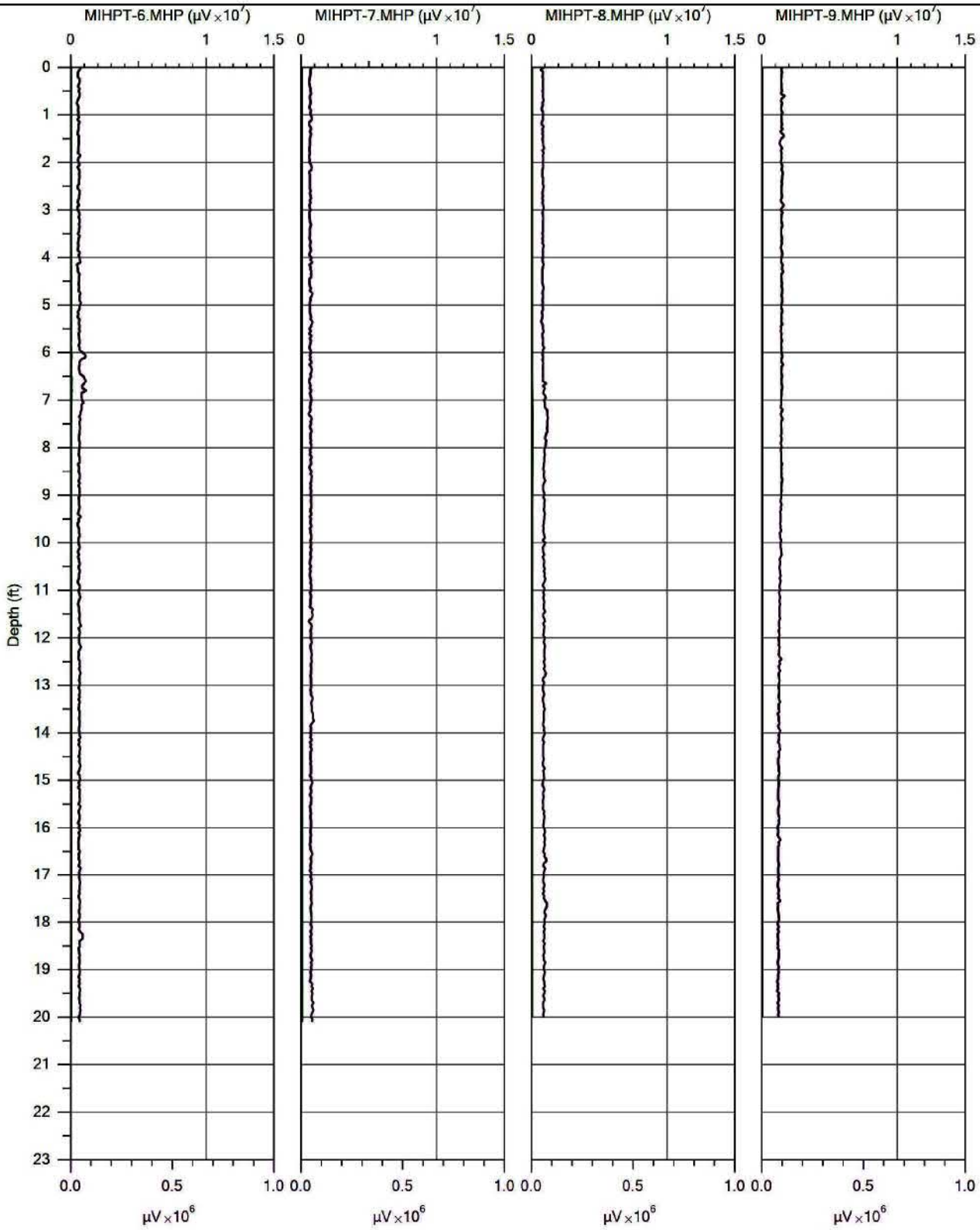
Point to Point PID Comparison - High Scale

TSC - Layton Chevron
Triple Stop Chevron Inc.
1034 West Gentile Street
Layton, UT 84041

Exhibit

16.1

N:\GIS\61197153_Triple_Stop_Chevron_Layton\Maps\61197153_TripleStopChevron_Sept2019.aprx



CASCADE
DRILLING | TECHNICAL SERVICES

PID Max / FID Max

Company: Cascade	Operator: Davis Ocana
Project ID: 302211012	Client: Terracon

MIHPT-6.MHP	03/26/21
MIHPT-7.MHP	03/26/21
MIHPT-8.MHP	03/26/21
MIHPT-9.MHP	03/26/21

Project No.: 61197153	Terracon	Point to Point PID Comparison - High Scale	Exhibit
Date: Jun 2021	6949 S High Tech Dr, Ste 100 Midvale, UT 84047	TSC - Layton Chevron Triple Stop Chevron Inc. 1034 West Gentile Street Layton, UT 84041	16.2
Drawn By: AST	PH. (801) 545-8500 terracon.com		
Reviewed By: CAS			

N:\GIS\61197153_Triple_Stop_Chevron_Layton\Maps\61197153_TripleStopChevron_Sept2019.aprx

APPENDIX B
Analytical Data Tables

Table 1
Monitoring Well Gauging Data
Triple Stop Chevron
1034 West Gentile Street, Layton, Utah
Release NUB; Facility ID 3000500
Terracon Project 61197153

Well ID	DATE	NAPL	DTW	Groundwater Elevation
TOC Elevation	MM/DD/YY	Thickness	feet below TOC	
MW-1	02/26/19	NM	NM	NM
4330.19	03/15/19	0.00	9.77	4320.42
	05/13/19	0.00	9.26	4320.93
	06/05/19	0.00	9.34	4320.85
	06/14/19	0.00	9.56	4320.63
	07/31/19	0.00	10.14	4320.05
	08/30/19	0.00	10.46	4319.73
	09/26/19	0.00	10.60	4319.59
	01/06/20	0.00	10.71	4319.48
	04/01/20	0.00	10.45	4319.74
	10/29/20	0.00	11.20	4318.99
	01/28/21	0.00	11.53	4318.66
	04/07/21	0.00	10.99	4319.20
MW-2	02/26/19	NM	NM	NM
4330.01	03/15/19	0.00	10.10	4319.91
	06/05/19	0.00	9.66	4320.35
	06/14/19	0.00	9.84	4320.17
	07/31/19	0.00	10.33	4319.68
	08/30/19	0.00	10.58	4319.43
	01/06/20	0.00	10.92	4319.09
	04/01/20	0.00	10.65	4319.36
	10/29/20	0.00	11.28	4318.73
	01/28/21	0.00	11.61	4318.40
	04/07/21	0.00	11.10	4318.91
MW-3	03/15/19	0.00	8.83	4320.46
4329.29	03/19/19	0.00	8.72	4320.57
	06/05/19	0.00	8.36	4320.93
	06/14/19	0.00	8.60	4320.69
	08/30/19	0.00	9.74	4319.55
	01/06/20	0.00	9.84	4319.45
	04/01/20	0.00	9.54	4319.75
MW-4	03/15/19	0.00	9.51	4320.54
4330.05	03/19/19	0.00	9.40	4320.65
	06/05/19	0.00	9.05	4321.00
	06/14/19	0.00	9.30	4320.75
	07/31/19	0.00	10.00	4319.29
	08/30/19	0.00	10.35	4319.70
	01/06/20	0.00	10.56	4319.49
	04/01/20	0.00	10.22	4319.83
	10/29/20	0.00	11.00	4319.05
	01/28/21	0.00	11.37	4318.68
	04/07/21	0.00	10.80	4319.25
MW-5	03/15/19	0.00	8.65	4325.22
4333.87	05/13/19	0.00	8.68	4325.19
	06/05/19	0.00	8.78	4325.09
	06/14/19	NM	NM	NM
	08/30/19	0.00	9.89	4323.98
MW-6	03/15/19	0.00	8.50	4325.62
4334.12	05/13/19	0.00	8.57	4325.55
	06/05/19	0.00	8.65	4325.47
	06/14/19	NM	NM	NM
	08/30/19	0.00	9.27	4324.85
MW-7	03/15/19	0.00	8.51	4325.45
4333.96	05/13/19	0.00	8.59	4325.37
	06/05/19	0.00	8.71	4325.25
	06/14/19	0.00	9.02	4324.94

Table 1
Monitoring Well Gauging Data
Triple Stop Chevron
1034 West Gentile Street, Layton, Utah
Release NUB; Facility ID 3000500
Terracon Project 61197153

Well ID	DATE	NAPL	DTW	Groundwater Elevation
TOC Elevation	MM/DD/YY	Thickness	feet below TOC	
	08/30/19	0.00	10.15	4323.81
MW-8	03/15/19	0.00	9.07	4325.81
4334.88	05/13/19	0.00	9.12	4325.76
	06/05/19	0.00	9.18	4325.70
	06/14/19	NM	NM	NM
	08/30/19	0.00	10.31	4324.57
	01/06/20	0.00	10.16	4324.72
	04/01/20	0.00	9.96	4324.92
	10/30/20	0.00	10.96	4323.92
	01/27/21	0.00	11.04	4323.84
	04/08/21	0.00	10.49	4324.39
MW-9	03/15/19	0.00	8.95	4325.62
4334.57	05/13/19	0.00	8.99	4325.58
	06/05/19	0.00	9.10	4325.47
	06/14/19	NM	NM	NM
	08/30/19	0.00	10.28	4324.29
MW-10	03/12/19	**0.09**	10.10	4324.43
4334.46	03/15/19	0.00	10.00	4324.46
	03/20/19	0.00	9.98	4324.48
	05/13/19	**1.47**	11.10	4324.46
	06/05/19	NM	NM	-
	06/14/19	0.00	10.64	4323.82
	07/31/19	**0.43**	11.68	4323.10
	08/30/19	**0.52**	11.51	4323.34
	01/08/20	**0.79**	12.24	4322.81
	10/30/20	**0.01**	12.25	4322.22
	01/28/21	**0.01**	12.16	4322.31
	04/08/21	0.00	12.10	4322.36
MW-11	03/15/19	0.00	9.16	4325.53
4334.69	05/13/19	0.00	9.17	4325.52
	06/05/19	0.00	9.33	4325.36
	06/14/19	NM	NM	NM
	08/30/19	0.00	10.57	4324.12
MW-12	02/27/19	NM	NM	NM
4332.49	03/15/19	0.00	7.46	4325.03
	05/13/19	0.00	7.52	4324.97
	06/05/19	NM	NM	NM
	06/14/19	0.00	8.15	4324.34
	08/30/19	0.00	9.45	4323.04
	01/08/20	0.00	9.49	4323.00
	04/01/20	0.00	9.23	4323.26
MW-13	02/27/19	NM	NM	NM
4332.82	03/15/19	0.00	8.00	4324.82
	03/20/18	0.00	8.01	4324.81
	05/13/19	0.00	8.06	4324.76
	06/05/19	NM	NM	NM
	06/14/19	0.00	8.72	4324.10
	08/30/19	0.00	9.98	4322.84
	01/08/20	0.00	10.02	4322.80
	03/31/20	0.00	9.78	4323.04
	10/29/20	0.00	10.53	4322.29
	01/27/21	0.00	10.56	4322.26
	04/08/21	0.00	10.12	4322.70
MW-14	02/27/19	NM	NM	NM
4332.86	03/15/19	0.00	8.77	4324.09
	03/20/19	0.00	8.77	4324.09
	05/13/19	0.00	9.56	4323.30

Table 1
Monitoring Well Gauging Data
Triple Stop Chevron
1034 West Gentile Street, Layton, Utah
Release NUB; Facility ID 3000500
Terracon Project 61197153

Well ID	DATE	NAPL	DTW	Groundwater Elevation
TOC Elevation	MM/DD/YY	Thickness	feet below TOC	
	06/05/19	0.00	9.13	4323.73
	06/14/19	NM	NM	NM
	07/31/19	0.00	9.95	4322.91
	08/30/19	0.00	10.22	4322.64
	01/08/20	0.00	10.30	4322.56
	03/31/20	0.00	10.05	4322.81
	10/29/20	0.00	11.01	4321.85
	01/27/21	0.00	11.25	4321.61
	04/08/21	0.00	10.71	4322.15
MW-15	02/27/19	NM	NM	NM
4333.42	03/15/19	0.00	9.43	4323.99
	05/13/19	0.00	9.23	4324.19
	06/05/19	0.00	9.51	4323.91
	60/14/19	0.00	9.69	4323.73
	07/31/19	0.00	10.29	4323.13
	08/30/19	0.00	10.56	4322.86
	01/08/20	0.00	10.60	4322.82
	03/31/20	0.00	10.37	4323.05
MW-16	03/15/19	0.00	10.10	4318.11
4328.21	05/13/19	0.00	9.50	4318.71
	06/05/19	0.00	9.54	4318.67
	06/14/19	NM	NM	NM
	07/31/19	0.00	9.94	4318.27
	08/30/19	0.00	10.30	4317.91
	01/06/20	0.00	11.02	4317.19
	04/01/20	0.00	10.71	4317.50
	10/30/20	0.00	11.24	4316.97
MW-17	03/15/19	0.00	9.62	4318.29
4327.91	05/13/19	0.00	9.04	4318.87
	06/05/19	0.00	9.05	4318.86
	06/14/19	NM	NM	NM
	08/30/19	0.00	9.93	4317.98
	10/30/20	0.00	10.81	4317.10
MW-18	03/15/19	0.00	9.12	4318.62
4327.74	05/13/19	0.00	8.55	4319.19
	06/05/19	0.00	8.57	4319.17
	06/14/19	0.00	8.79	4318.95
	08/30/19	0.00	9.45	4318.29
	01/06/20	0.00	10.01	4317.73
	04/01/20	0.00	9.71	4318.03
	04/07/21	0.00	10.26	4317.48
MW-19	03/15/19	0.00	8.05	4319.07
4327.12	05/13/19	0.00	7.49	4319.63
	06/05/19	0.00	7.51	4319.61
	06/14/19	0.00	7.75	4319.37
	07/31/19	0.00	8.10	4319.02
	08/30/19	0.00	8.46	4318.66
	09/26/19	0.00	8.61	4318.51
	01/07/20	0.00	8.83	4318.29
	04/01/20	0.00	8.59	4318.53
	10/29/20	0.00	9.23	4317.89
	01/27/21	0.00	9.66	4317.46
	04/07/21	0.00	9.10	4318.02
MW-20	03/15/19	0.00	8.75	4318.61
4327.36	05/13/19	0.00	8.12	4319.24
	06/05/19	0.00	8.12	4319.24
	06/14/19	0.00	8.34	4319.02

Table 1
Monitoring Well Gauging Data
Triple Stop Chevron
1034 West Gentile Street, Layton, Utah
Release NUB; Facility ID 3000500
Terracon Project 61197153

Well ID	DATE	NAPL	DTW	Groundwater Elevation
TOC Elevation	MM/DD/YY	Thickness	feet below TOC	
	07/31/19	0.00	8.70	4318.66
	08/30/19	0.00	9.00	4318.36
	10/30/20	0.00	9.83	4317.53
MW-21	03/15/19	0.00	9.55	4318.77
4328.32	05/13/19	0.00	9.01	4319.31
	06/05/19	0.00	9.04	4319.28
	06/14/19	NM	NM	NM
	07/31/19	0.00	9.47	4318.85
	08/30/19	0.00	9.73	4318.59
	01/06/20	0.00	10.36	4317.96
	04/01/20	0.00	10.09	4318.23
MW-22	02/27/19	NM	NM	NM
4333.90	03/20/19	0.00	11.60	4322.30
	05/13/19	0.00	11.45	4322.45
	06/05/19	0.00	11.51	4322.39
	06/14/19	0.00	11.73	4322.17
	07/31/19	0.00	12.39	4321.51
	08/30/19	0.00	12.70	4321.20
	01/07/20	0.00	12.83	4321.07
	3//31/20	0.00	12.59	4321.31
	10/29/20	0.00	13.29	4320.61
	01/28/21	0.00	13.60	4320.30
	04/08/21	0.00	13.08	4320.82
MW-23	02/27/19	NM	NM	NM
4333.67	03/20/19	0.00	11.90	4321.77
	05/13/19	0.00	11.65	4322.02
	06/05/19	0.00	11.73	4321.94
	06/14/19	0.00	11.94	4321.73
	07/31/19	0.00	12.39	4321.28
	08/30/19	0.00	12.82	4320.85
	09/26/19	0.00	11.92	4321.75
	1/8/20	0.00	13.02	4320.65
	3/31/20	0.00	12.75	4320.92
	10/29/20	0.00	13.36	4320.31
	1/28/20	0.00	13.72	4319.95
	4/8/21	0.00	13.23	4320.44
MW-24	03/20/19	0.00	9.98	4323.34
4333.32	05/13/19	0.00	9.92	4323.40
	06/05/19	0.00	10.06	4323.26
	06/14/19	0.00	10.38	4322.94
	07/31/19	0.00	11.30	4322.02
	08/30/19	0.00	11.61	4321.71
	01/07/20	0.00	11.66	4321.66
	03/31/20	0.00	11.42	4321.90
	10/29/20	0.00	12.22	4321.10
	04/08/21	0.00	11.98	4321.34
MW-25	03/20/19	0.00	9.01	4323.90
4332.91	05/13/19	0.00	9.00	4323.91
	06/05/19	0.00	9.14	4323.77
	06/14/19	0.00	9.52	4323.39
	07/31/19	0.00	10.59	4322.32
	08/30/19	0.00	10.88	4322.03
	01/07/20	0.00	10.94	4321.97
	03/31/20	0.00	10.68	4322.23
	04/08/21	0.00	11.21	4321.70
MW-26	03/19/19	0.00	8.31	4324.36
4332.67	05/13/19	0.00	8.22	4324.45

Table 1
Monitoring Well Gauging Data
Triple Stop Chevron
1034 West Gentile Street, Layton, Utah
Release NUB; Facility ID 3000500
Terracon Project 61197153

Well ID	DATE	NAPL	DTW	Groundwater Elevation
TOC Elevation	MM/DD/YY	Thickness	feet below TOC	
	06/05/19	0.00	8.44	4324.23
	06/14/19	0.00	8.78	4323.89
	08/30/19	0.00	10.25	4322.42
MW-27	03/20/19	0.00	13.37	4319.95
4333.32	05/13/19	0.00	13.01	4320.31
	06/05/19	0.00	13.07	4320.25
	06/14/19	0.00	13.19	4320.13
	08/30/19	0.00	13.80	4319.52
MW-28	03/20/19	NM	NM	NM
4326.51	05/13/19	0.00	7.91	4318.60
	06/05/19	0.00	7.90	4318.61
	06/14/19	0.00	NM	NM
	08/30/19	0.00	8.90	4317.61
MW-29	03/20/19	NM	NM	NM
4326.35	05/13/19	0.00	8.05	4318.30
	06/05/19	0.00	8.05	4318.30
	06/14/19	0.00	8.27	4318.08
	08/30/19	0.00	9.00	4317.35
MW-30	03/20/19	0.00	NM	NM
4326.86	05/13/19	0.00	7.84	4319.02
	06/05/19	0.00	7.84	4319.02
	06/14/19	0.00	8.10	4318.76
	08/30/19	0.00	8.88	4317.98
	01/07/20	0.00	9.28	4317.58
	04/01/20	0.00	9.03	4317.83
	10/29/20	0.00	9.68	4317.18
	01/27/21	0.00	10.15	4316.71
	04/08/21	0.00	9.62	4317.24
MW-31	03/27/19	0.00	8.36	4317.50
4325.86	06/05/19	0.00	7.99	4317.87
	06/14/19	0.00	8.20	4317.66
	07/31/19	0.00	8.58	4317.28
	08/30/19	0.00	8.85	4317.01
	01/06/20	0.00	9.42	4316.44
	04/01/20	0.00	9.13	4316.73
	10/29/20	0.00	9.70	4316.16
	01/27/21	0.00	10.23	4315.63
	04/07/21	0.00	9.74	4316.12
MW-32	03/27/19	0.00	8.74	4317.15
4325.89	06/05/19	0.00	8.36	4317.53
	06/14/19	0.00	8.57	4317.32
	07/31/19	0.00	8.48	4317.41
	08/30/19	0.00	9.20	4316.69
	01/28/21	0.00	10.61	4315.28
	04/07/21	0.00	10.15	4315.74
MW-33	03/27/19	0.00	8.06	4324.93
4332.99	06/05/19	0.00	8.45	4324.54
	06/14/19	0.00	8.78	4324.21
	08/30/19	0.00	10.16	4322.83
MW-34	03/27/19	0.00	NM	NM
4331.78	06/05/19	0.00	8.92	4322.86
	06/14/19	0.00	9.22	4322.56
	08/30/19	0.00	10.48	4321.30
	01/07/20	0.00	10.45	4321.33
	04/01/20	0.00	10.19	4321.59
MW-35	04/02/19	0.00	NM	NM
4332.19	06/05/19	0.00	12.91	4319.28

Table 1
Monitoring Well Gauging Data
Triple Stop Chevron
1034 West Gentile Street, Layton, Utah
Release NUB; Facility ID 3000500
Terracon Project 61197153

Well ID	DATE	NAPL	DTW	Groundwater Elevation
TOC Elevation	MM/DD/YY	Thickness	feet below TOC	
	06/14/19	0.00	12.98	4319.21
	08/30/19	0.00	13.37	4318.82
	01/08/20	0.00	13.72	4318.47
	03/31/20	0.00	13.44	4318.75
	10/20/20	0.00	13.86	4318.33
MW-36	04/02/19	0.00	NM	NM
4333.26	06/05/19	0.00	10.67	4322.59
	06/14/19	0.00	10.83	4322.43
	08/30/19	0.00	11.60	4321.66
	01/07/20	0.00	11.74	4321.52
	03/31/20	0.00	11.50	4321.76
	10/30/20	0.00	12.19	4321.07
MW-37	04/02/19	0.00	NM	NM
4326.48	06/05/19	0.00	8.71	4317.77
	06/14/19	0.00	8.93	4317.55
	08/30/19	0.00	9.58	4316.90
	01/06/20	0.00	10.10	4316.38
	04/01/20	0.00	9.84	4316.64
	10/29/20	0.00	10.36	4316.12
	01/27/21	0.00	10.79	4315.69
	04/07/21	0.00	10.40	4316.08
EW-1	05/23/19	0.00	8.82	4325.48
4334.30	05/24/19	**0.01**	8.91	4325.40
	06/05/19	0.00	9.93	4324.37
	07/03/19	0.00	10.48	4323.82
	08/30/19	0.00	10.95	4323.35
	01/08/20	0.00	10.90	4323.40
EW-2	05/23/19	0.00	8.73	4325.44
4334.17	05/24/19	**Trace**	8.81	4325.36
	06/05/19	0.00	9.84	4324.33
	07/03/19	0.00	10.10	DRY
	08/30/19	0.00	10.07	4324.10
	01/08/20	0.00	10.09	4324.08
EW-3	05/23/19	0.00	8.61	4325.49
4334.10	05/24/19	0.00	8.69	4325.41
	06/05/19	NM	NM	NM
	07/03/19	NM	NM	NM
	08/30/19	0.00	10.73	4323.37
	01/08/20	0.00	10.66	4323.44
	03/31/20	0.00	10.43	4323.67
	01/28/21	0.00	11.60	4322.50
	04/08/21	0.00	11.04	4323.06
EW-4	05/23/19	**0.13**	9.55	4324.84
4334.29	05/24/19	**0.15**	9.90	4324.50
	06/05/19	NM	NM	NM
	07/03/19	NM	NM	NM
	08/30/19	**0.09**	11.44	4322.92
	01/08/20	**1.18**	12.38	4322.80
	10/30/20	0.00	13.40	4320.89
	01/28/21	0.00	12.14	4322.15
	04/08/21	0.00	11.74	4322.55

Notes:
TOC = Top of Casing, Monitoring Well Surveyed Elevation
DTP - Depth to product

Table 2
Monitoring Well Data and Analytical Results
Triple Stop Chevron
1034 West Gentile Street, Layton, Utah
Release NUB; Facility ID 3000500
Terracon Project 61197153

Sample ID	DATE	BENZENE	ETHYL-BENZENE	MTBE	NAPH-THALENE	TOLUENE	XYLENES	TPH-GRO	TPH-DRO	D.O	FPT	DTW	Groundwater Elevation
	MM/DD/YY	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(feet)	(feet)	(feet)
Initial Screening Level		0.005	0.7	0.2	0.7	1	10	1	1				
Tier 1 Screening Level		0.30	4	0.2	0.7	3	10	10	10				
MW-1	02/26/19	10.60	1.28	<0.005	0.101	0.416	1.63	17.6	1.3	NA	NM	NM	4319.73
	03/15/19	3.06	0.377	<0.005	0.037	0.595	1.41	7.67	1.1	NA	0.00	9.77	4319.73
	09/04/19	6.70	0.551	<0.00100	0.0440	2.41	3.18	18.00	1.06	NA	0.00	10.46	4319.73
	09/26/19	5.63	0.475	<0.100	<0.100	2.06	2.53	11.00	1.73	NA	0.00	10.60	4319.59
	01/06/20	4.38	0.578	<0.100	0.0773	2.08	3.28	25.50	0.912	NA	0.00	10.71	4319.48
	04/01/20	1.08	0.167	<0.200	<1.00	0.337	0.688	<100	0.440	NA	0.00	10.45	4319.74
	10/29/20	3.59	0.484	<0.002	0.0385	2.040	2.110	15.10	0.737	NA	0.00	11.20	4318.99
	01/27/21	2.84	0.565	<0.0250	0.0451	0.463	1.75	13.1	1.10	NA	0.00	11.53	4318.66
	04/07/21	2.89	0.0644	<0.00500	0.00837	1.12	0.396	2.79	1.50	3.60	0.00	10.99	4319.20
MW-2	02/26/19	4.74	<0.012	<0.005	0.053	<0.012	0.106	6.95	<1.0	NA	NM	NM	4319.91
	03/15/19	1.24	0.030	<0.005	0.028	0.018	0.086	2.40	<1.0	NA	0.00	10.10	4319.91
	09/04/19	0.02	0.00398	<0.00100	<0.00500	<0.00100	<0.00300	0.430	<0.100	NA	0.00	10.58	4319.43
	01/06/20	0.33	0.0522	<0.00100	0.00473	0.000562	0.0182	1.760	0.0807	NA	0.00	10.92	4319.09
	04/01/20	0.76	0.132	<0.0100	0.0309	0.0134	0.6320	4.480	0.383	NA	0.00	10.65	4319.36
	10/29/20	1.12	0.370	<0.001	0.0532	0.0226	1.2	9.050	0.636	NA	0.00	11.28	4318.73
	01/27/21	0.282	0.115	<0.0100	<0.0500	0.3220	0.584	2.92	0.139	NA	0.00	11.61	4318.40
	04/07/21	0.264	0.0441	<0.0100	<0.0500	0.0102	0.121	1.45	0.418	3.17	0.00	11.10	4318.91
MW-3*	03/15/19	0.550	0.073	<0.005	<0.012	0.027	0.813	2.71	<1.0	NA	0.00	9.51	4319.78
MW-3	03/19/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.72	4320.57
	09/04/19	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.327	<0.100	NA	0.00	9.74	4319.55
	01/06/20	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.500	<0.100	NA	0.00	9.84	4319.45
	04/01/20	0.00	<0.00100	<0.00100	<0.00500	<0.00100	<0.00100	<0.500	<0.100	NA	0.00	9.54	4319.75
MW-4*	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.83	4321.22
MW-4	03/19/19	0.2560	0.020	<0.005	<0.012	<0.012	0.302	1.23	<1.0	NA	0.00	9.40	4320.65
	09/04/19	0.0050	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.351	<0.100	NA	0.00	10.35	4319.70
	01/06/20	0.3350	0.00165	<0.00100	<0.00100	0.0149	0.0103	1.680	<0.100	NA	0.00	10.56	4319.49
	04/01/20	0.09860	<0.00100	<0.00100	<0.00500	0.00319	<0.00300	0.259	<0.100	NA	0.00	10.22	4319.83
	10/29/20	0.0110	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	0.0598	<0.100	NA	0.00	11.00	4319.05
	01/27/21	0.00222	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	11.37	4318.68
	04/07/21	0.0101	<0.00100	<0.00100	<0.00500	<0.00100	0.000772	<0.500	0.0421	2.80	0.00	10.80	4319.25
MW-5	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.65	4325.22
MW-6	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.50	4325.62
MW-7	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.51	4325.45
MW-8	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	9.07	4325.81
	09/04/19	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.33	<0.100	NA	0.00	10.31	4324.57
	01/06/20	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.500	<0.100	NA	0.00	10.16	4324.72
	03/31/20	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.500	<0.100	NA	0.00	9.96	4324.92
	10/29/20	<0.00100	<0.00100	<0.0001	0.00101	<0.00100	<0.00300	<0.100	<0.0247	NA	0.00	10.96	4323.92
	01/27/21	0.000136	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	11.04	4323.84
	04/08/21	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	2.80	0.00	10.49	4324.39
MW-9	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	0.0379	NA	0.00	8.95	4325.62
MW-10	03/12/19	9.32	1.12	<0.005	0.221	4.65	7.72	33.1	13.2	NA	0.09	10.10	4324.43
	03/15/19	14.5	2.32	<0.005	0.394	25.1	18.1	78.0	11.8	NA	0.00	10.00	4324.46
	03/20/19	13.8	2.13	<0.100	0.598	17.9	16.2	68.7	13.3	NA	0.00	9.98	4324.48
	04/08/21	0.0662	0.119	<0.050	0.177	0.710	6.88	23.1	10.8	2.00	0.00	12.10	4322.36
MW-11	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	9.16	4325.53
MW-12	02/27/19	0.32	0.019	<0.005	<0.012	0.125	0.069	4.54	<1.0	<1	NM	NM	--
	03/15/19	0.158	0.012	<0.005	<0.012	0.082	0.044	4.92	<1.0	NA	0.00	7.46	4325.03
	09/05/19	0.07	0.00274	<0.00100	<0.00500	0.00673	0.0107	2.11	0.0562	NA	0.00	10.57	4321.92
	01/08/20	0.01	<0.00100	<0.00100	<0.00500	<0.00100	0.00110	0.193	<0.100	NA	0.00	9.49	4323.00
	03/31/20	0.00	<0.00100	<0.00100	<0.00500	<0.00100	0.00172	0.159	<0.100	NA	0.00	9.23	4323.26
MW-13	02/27/19	4.980	1.06	<0.200	<0.500	4.57	8.38	19.0	4.4	<50	NM	NM	4324.82
	03/15/19	2.29	0.464	<0.005	0.039	1.27	3.06	10.7	2.1	NA	0.00	8.00	4324.82
	03/20/18	3.020	0.635	<0.005	0.045	1.97	4.42	17.0	2.9	NA	0.00	8.01	4324.81
	09/05/19	2.530	1.53	<0.00100	0.171	1.47	11.50	57.3	2.5	NA	0.00	9.88	4322.94
	01/08/20	0.225	0.133	<0.100	0.0298	0.0127	0.756	4.09	0.655	NA	0.00	10.02	4322.80
	03/31/20	0.402	0.220	<0.0100	0.0383	0.0317	1.340	4.38	1.270	NA	0.00	9.78	4323.04
	10/29/20	0.532	0.191	<0.001	0.0688	0.0573	0.876	4.19	0.762	NA	0.00	10.53	4322.29
	01/27/21	0.00343	0.00280	<0.001	0.00195	<0.00100	0.00209	<0.500	0.146	NA	0.00	10.56	4322.26
	04/08/21	0.00200	0.00305	<0.00100	<0.00500	<0.00100	0.000462	0.272	0.267	2.31	0.00	10.12	4322.70
MW-14	02/27/19	2.090	0.511	<0.005	0.046	0.804	3.44	13.5	3.3	<1	NM	NM	--
	03/15/19	1.16	0.365	<0.005	0.039	0.765	2.56	9.21	2.5	NA	0.00	8.77	4324.09
	03/20/19	2.380	0.341	<0.005	0.034	1.44	2.43	11.0	2.1	NA	0.00	8.77	4324.09
	09/05/19	0.798	0.082	<0.00100	0.0204	0.485	0.428	6.3	0.415	NA	0.00	10.22	4322.64
	01/08/20	0.018	0.00143	<0.00100	<0.00500	0.000857	0.00136	1.02	<0.100	NA	0.00	10.30	4322.56

Table 2
Monitoring Well Data and Analytical Results
Triple Stop Chevron
1034 West Gentile Street, Layton, Utah
Release NUB; Facility ID 3000500
Terracon Project 61197153

Sample ID	DATE	BENZENE	ETHYL-BENZENE	MTBE	NAPH-THALENE	TOLUENE	XYLENES	TPH-GRO	TPH-DRO	D.O	FPT	DTW	Groundwater Elevation
	MM/DD/YY	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(feet)	(feet)	(feet)
Initial Screening Level		0.005	0.7	0.2	0.7	1	10	1	1				
Tier 1 Screening Level		0.30	4	0.2	0.7	3	10	10	10				
	03/31/20	0.032	0.00282	<0.00100	<0.00100	0.00119	0.00383	0.811	<0.100	NA	0.00	10.05	4322.81
	10/29/20	0.000960	0.00019	<0.0001	<0.0050	<0.00100	0.00048	0.375	<0.247	NA	0.00	11.01	4321.85
	01/27/21	0.000308	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	11.25	4321.61
	04/08/21	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	0.292	0.0247	2.62	0.00	10.71	4310.90
MW-15	02/27/19	0.3180	<0.012	<0.005	<0.012	<0.012	0.031	3.28	<1.0	<1	NM	NM	--
	03/15/19	0.038	<0.012	<0.005	<0.012	<0.012	<0.012	0.334	<1.0	NA	0.00	9.43	4323.99
	09/05/19	0.0018	<0.00100	<0.00100	<0..00500	<0.00100	<0.00300	0.217	<0.100	NA	0.00	10.56	4322.86
	01/08/20	<0.00100	<0.00100	<0.00100	<0..00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.60	4322.82
	03/31/20	<0.00100	<0.00100	<0.00100	<0..00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.37	4323.05
MW-16	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	10.10	4318.11
	09/04/19	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	0.323	<0.100	NA	0.00	10.30	4317.91
	01/06/20	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	11.02	4317.19
	04/01/20	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.71	4317.50
MW-17	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	9.62	4318.29
MW-18	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	9.12	4318.62
	09/04/19	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	0.324	<0.100	NA	0.00	9.45	4318.29
	01/06/20	0.00159	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.01	4317.73
	04/01/20	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	9.71	4318.03
	04/07/21	0.0181	<0.00100	0.000169	<0.00100	<0.00100	0.00117	0.150	0.0531	3.10	0.00	10.26	4317.48
MW-19	03/15/19	4.23	0.423	<0.005	0.040	0.085	0.333	6.29	<1.0	NA	0.00	8.05	4319.07
	09/04/19	8.130	0.81	<0.00100	0.0548	0.0589	0.0589	10.30	1.47	NA	0.00	8.46	4318.66
	09/27/19	9.700	0.746	<0.0400	0.0862	0.0464	1.51	12.50	1.68	NA	0.00	8.61	4318.51
	01/07/20	2.140	0.0558	<0.00100	0.00401	0.00165	<0.00300	4.56	0.198	NA	0.00	8.83	4318.29
	04/01/20	4.580	0.3720	<0.00500	<0.250	<0.0500	0.0569	14.20	0.559	NA	0.00	8.59	4318.53
	10/29/20	1.190	0.2240	<0.005	<0.05	0.08530	0.517	5.59	0.371	NA	0.00	9.23	4317.89
	01/27/21	0.340	0.156	<0.0100	<0.0500	0.00886	0.00742	1.47	0.313	NA	0.00	9.66	4317.46
	04/07/21	3.98	0.998	<0.00500	0.0521	4.06	4.22	36.4	2.04	3.40	0.00	9.10	4318.02
MW-20	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.75	4318.61
	04/07/21	1.43	0.0210	<0.0100	0.00222	0.0127	0.0169	3.36	0.0686	3.60	0.00	9.72	4317.64
MW-21	03/15/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	9.55	4318.77
	09/04/19	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	0.361	<0.100	NA	0.00	9.73	4318.59
	01/06/20	0.00	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	0.19	NA	0.00	10.35	4317.97
	04/01/20	0.01	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.09	4318.23
MW-22	02/27/19	6.32	2.12	<0.200	<0.500	10.4	16.9	41.4	6.7	<50	NM	NM	--
	03/20/19	0.42	0.116	<0.005	0.016	0.182	0.665	2.35	1.1	NA	0.00	11.60	4322.30
	09/04/19	0.25	0.180	<0.00100	0.0286	0.462	1.280	7.40	1.08	NA	0.00	12.70	4321.20
	01/07/20	6.81	1.11	<0.00100	0.144	1.06	2.06	29.50	1.85	NA	0.00	12.83	4321.07
	03/31/20	3.62	0.495	<0.100	<0.500	1.58	2.08	15.90	1.45	NA	0.00	12.59	4321.31
	10/29/20	0.12	0.136	<0.0001	0.02	0.0212	0.366	3.09	0.394	NA	0.00	13.29	4320.61
	04/08/21	0.00627	0.0408	<0.00100	0.00714	0.0212	0.134	0.997	0.664	1.97	0.00	13.08	4320.82
MW-23	02/27/19	5.85	1.09	<0.005	<0.012	5.96	8.56	21.5	5.2	NA	NM	NM	--
	03/20/19	0.18	0.048	<0.005	<0.012	0.231	0.270	1.02	<1.0	NA	0.00	11.90	4321.77
	09/26/19	0.73	0.143	<0.00200	0.0668	0.417	0.382	1.96	0.917	NA	0.00	11.92	4321.75
	01/08/20	1.18	0.188	<0.00100	<0.00100	0.0602	0.412	6.26	0.311	NA	0.00	13.02	4320.65
	03/31/20	2.24	0.177	<0.0250	<0.125	0.971	0.538	8.90	0.363	NA	0.00	12.75	4320.92
	10/29/20	0.02	0.0232	<0.0001	0.00374	0.00058	0.00752	0.404	<0.100	NA	0.00	13.36	4320.31
	01/28/21	0.00	0.0014	<0.00100	<0.00500	<0.00100	0.000610	<0.500	<0.100	NA	0.00	13.72	4319.95
	04/08/21	0.00889	0.0266	<0.00100	0.00190	0.000575	0.0450	0.437	0.260	2.86	0.00	13.23	4320.44
MW-24	03/20/19	5.420	0.942	<0.005	0.132	0.233	7.11	18.6	4.9	NA	0.00	9.98	4323.34
	09/04/19	0.005	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	0.390	0.0394	NA	0.00	11.61	4321.71
	01/07/20	7.860	1.27	<0.00100	0.0705	0.0304	1.18	20.3	1.35	NA	0.00	11.66	4321.66
	03/31/20	0.853	0.258	<0.0250	0.0309	0.0161	0.754	<12.5	1.10	NA	0.00	11.42	4321.49
	10/29/20	4.320	0.506	<0.002	0.0942	0.32	5.660	36.6	2.6	NA	0.00	12.22	4321.10
	02/04/21	2.940	0.717	<0.0250	0.120	0.241	4.28	19.6	4.2	NA	0.00	12.35	4320.97
	04/08/21	0.374	0.0891	<0.0250	0.0379	0.0152	0.445	7.15	5.96	2.89	0.00	11.98	4321.34
MW-25	03/20/19	1.25	0.298	<0.005	0.028	0.243	2.06	5.53	1.5	NA	0.00	9.01	4323.90
	09/04/19	0.000668	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	0.351	<0.100	NA	0.00	10.88	4322.03
	01/07/20	0.00182	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.94	4321.97
	03/31/20	0.00136	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.68	4322.23
	04/08/21	0.000130	0.00348	<0.00100	<0.00500	0.000415	0.00809	<0.500	0.0501	1.90	0.00	11.21	4321.70
MW-26	03/19/19	0.127	<0.012	<0.005	<0.012	0.012	0.033	0.991	<1.0	NA	0.00	8.31	4324.36
MW-27	03/20/19	0.28	0.056	<0.005	<0.012	0.618	0.334	1.44	<1.0	NA	0.00	13.37	4319.95
MW-28	03/20/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	NM	NM	--
MW-29	03/20/19	0.12	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	NM	NM	--
MW-30	03/20/19	0.82	0.076	<0.005	<0.012	0.014	0.068	0.978	<1.0	NA	NM	NM	--

Table 2
Monitoring Well Data and Analytical Results
Triple Stop Chevron
1034 West Gentile Street, Layton, Utah
Release NUB; Facility ID 3000500
Terracon Project 61197153

Sample ID	DATE	BENZENE	ETHYL-BENZENE	MTBE	NAPH-THALENE	TOLUENE	XYLENES	TPH-GRO	TPH-DRO	D.O	FPT	DTW	Groundwater Elevation
	MM/DD/YY	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(feet)	(feet)	(feet)
Initial Screening Level		0.005	0.7	0.2	0.7	1	10	1	1				
Tier 1 Screening Level		0.30	4	0.2	0.7	3	10	10	10				
	09/04/19	0.14	0.0584	<0.00100	<0.0050	<0.00100	<0.00100	0.516	0.0784	NA	0.00	8.88	4317.98
	01/07/20	0.01	<0.00100	<0.00100	<0.0050	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	9.28	4317.58
	04/01/20	0.00348	<0.00100	<0.00100	<0.0050	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	9.03	4317.83
	10/29/20	0.02040	<0.00100	<0.0001	<0.0050	<0.00100	<0.00300	0.0932	<0.0247	NA	0.00	9.68	4317.18
	01/27/21	0.000131	<0.00100	<0.00100	<0.00500	<0.00100	0.003000	<0.500	<0.100	NA	0.00	10.15	4316.71
	04/07/21	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	0.003000	<0.500	<0.100	4.46	0.00	9.62	4317.24
MW-31	03/27/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.36	4317.50
	09/04/19	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.34	<0.100	NA	0.00	8.85	4317.01
	01/06/20	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.500	<0.100	NA	0.00	9.42	4316.44
	04/01/20	0.03	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.134	<0.100	NA	0.00	9.13	4316.73
	10/29/20	0.39	<0.00100	<0.0001	<0.00100	<0.00100	<0.00100	0.385	<0.02	NA	0.00	9.70	4316.16
	01/27/21	0.25	0.00355	<0.00100	<0.00500	<0.00100	0.000244	0.836	<0.100	NA	0.00	10.23	4315.63
	04/07/21	0.354	0.000428	0.000123	<0.00500	<0.00100	0.000794	1.030	0.0609	4.42	0.00	9.74	4316.12
MW-32	03/27/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.74	4317.15
	01/27/21	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.61	4315.28
	04/07/21	0.000110	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	0.0383	5.45	0.00	10.15	4315.74
MW-33	03/27/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	0.00	8.06	4324.93
MW-34	03/27/19	<0.005	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	NM	NM	-
	09/04/19	0.00	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	0.336	<0.100	NA	0.00	10.48	4321.30
	01/07/20	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.45	4321.33
	03/31/20	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.19	4321.59
MW-35	04/02/19	0.93	<0.012	<0.005	0.017	0.078	0.258	1.84	<1.0	NA	NM	NM	--
	09/04/19	1.52	0.0931	<0.00100	0.0121	0.140	0.558	5.81	0.262	NA	0.00	13.37	4318.82
	01/08/20	1.06	0.0735	<0.00100	0.0255	0.199	0.203	4.70	0.161	NA	0.00	13.72	4318.47
	03/31/20	0.08	0.0292	<0.00100	0.0125	0.00267	0.0673	0.62	0.0710	NA	0.00	13.44	4318.75
MW-36	04/02/19	0.03	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	NM	NM	-
	09/04/19	0.19	<0.00100	<0.00100	<0.00500	<0.00100	0.00352	1.31	<0.100	NA	0.00	11.60	4321.66
	01/07/20	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	11.74	4321.52
	03/31/20	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	11.50	4321.76
MW-37	04/02/19	0.09	<0.012	<0.005	<0.012	<0.012	<0.012	<0.125	<1.0	NA	NM	NM	-
	09/04/19	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	0.334	<0.105	NA	0.00	9.58	4316.90
	01/06/20	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.500	<0.100	NA	0.00	10.10	4316.38
	04/01/20	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.500	<0.100	NA	0.00	9.84	4316.64
	10/29/20	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.00100	<0.100	<0.0329	NA	0.00	10.36	4316.12
	01/27/21	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	NA	0.00	10.79	4315.69
	04/07/21	<0.00100	<0.00100	<0.00100	<0.00500	<0.00100	<0.00300	<0.500	<0.100	2.70	0.00	10.40	4316.08
EW-3	03/31/20	4.14	1.87	<0.0500	0.458	4.290	23.600	82.8	12.2	NA	0.00	10.43	4323.67
	04/08/21	0.0123	0.346	<0.0500	0.0777	0.271	2.11	20.4	8.00	2.24	0.00	11.04	4323.06
EW-4	04/08/21	<0.100	0.462	<0.100	0.181	0.129	6.860	38.9	7.38	1.65	0.00	11.74	-
RW-1	09/18/19	1.21	1.22	<0.100	0.246	3.53	10.6	54.3	5.81	NA	0.00	NM	-
	04/02/20	<0.100	0.36	<0.100	<0.500	0.644	3.14	14.4	2.49	NA	0.00	NM	-
RW-2	09/18/19	11.60	2.20	<0.500	0.303	18.5	16.7	143	6.23	NA	0.00	NM	-
	04/02/20	4.08	1.51	<0.0500	0.148	13.2	12.9	79.7	3.81	NA	0.00	NM	-
	04/08/21	2.43	1.16	<0.100	0.384	9.98	17.4	86.3	13.7	0.33	0.00	NM	-

Notes:
*** The sample labels for MW-3 & MW-4 were reversed on 3/15/19. Resampled on 3/19/19.**
TPH-GRO = Total Petroleum Hydrocarbons as Gasoline
FPT = Free Product Thickness
TPH-DRO = Total Petroleum Hydrocarbons as Diesel
DTW = Depth to Water

Table 3
Relative Percent Difference for Duplicate Pairs
Triple Stop Chevron
1034 West Gentile Street, Layton, Utah
Release NUB; Facility ID 3000500
Terracon Project 61197153

Sample ID	DATE	BENZENE	ETHYL-BENZENE	MTBE	NAPH-THALENE	TOLUENE	XYLENES	TPH-GRO	TPH-DRO
	MM/DD/YY	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
MW-24	04/08/21	**0.374**	**0.0891**	<0.001	**0.0379**	**0.0152**	**0.445**	**7.15**	**5.91**
MW-124 Dupe	04/08/21	**0.401**	**0.123**	<0.001	**0.0561**	**0.0182**	**0.490**	**3.55**	**5.96**
RPD	NA	**6.97**	**31.97**	NA	**38.72**	**17.96**	**9.63**	**67.29**	**0.84**
MW-19	04/07/21	**3.98**	**0.998**	<0.00100	**0.0521**	**4.06**	**4.22**	**36.4**	**2.04**
MW-119 Dupe	04/07/21	**3.93**	**0.980**	<0.00100	**0.0649**	**4.04**	**3.97**	**35.0**	**1.97**
RPD	NA	**1.26**	**1.82**	NA	**21.88**	**0.49**	**6.11**	**3.92**	**3.49**

$RPD = Abs(x_1 - x_2)/((x_2+x_1)/2)$

Table 4
HRSC Soil Confirmation Analytical Results
Triple Stop Chevron
1034 West Gentile Street, Layton, Utah
Release NUB; Facility ID 3000500
Terracon Project 61197153

Method			8015		8260B		8260B		8260B		8260B		8260B		8260B	
Analyte			TPH (GC/FID) HIGH FRACTION		TPH (GC/MS) LOW FRACTION		BENZENE		ETHYLBENZENE		NAPHTHALENE		TOLUENE		XYLENES, TOTAL	
Initial Screening Level (ISL)			150		500		0.2		5		51		9		142	
Tier 1 Screening Level			1500		5000		0.9		23		51		25		142	
Units			mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Client Sample ID	Depth (ft)	Date Collected	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
HRSC1 S-1	9.5-10	03/27/2021	**3.29**	J	<0.535		**0.00255**		**0.000852**	J	<0.00535		**0.00509**	J	**0.00498**	B
HRSC1 S-2	14-15	03/27/2021	**762**		**7760**		**2.85**		**97.3**		**28.6**		**212**		**898**	
HRSC1 S-3	19.5-20	03/27/2021	<4.60		<0.575		**0.00225**		**0.00137**		<0.00575		**0.0052**	J	**0.00934**	
HRSC2 S-1	12.5	03/27/2021	**587**		<1320		<2.63		<2.63		<13.2		<13.2		**33.4**	
HRSC2 S-2	17-17.5	03/27/2021	<4.85		<0.606		**0.0029**		**0.000998**	J	<0.00606		**0.00522**	J	**0.00586**	B

Qualifiers: B: The same analyte is found in the associated blank. **J:** The identification of the analyte is acceptable; the reported value is an estimate.

APPENDIX C
Boring Logs

BORING LOG NO. HRSC 1

PROJECT: Triple Stop Chevron

CLIENT: Utah DEQ, DERR

SITE: 1034 West Gentile Street
Layton, Utah

LOCATION See Exhibit 2

DEPTH	MATERIAL DESCRIPTION	PID (ppm)	Sample
0.5	**FILL - GRASS SURFACE & TOPSOIL**		
	FILL - FILL SOIL	0	
		0	
5.0			
5.5	**FILL - PEAGRAVEL**		
	FINE SAND W/ MINOR SILT (SP), tan, moist, medium dense	0	
		0	
		0	SS
		5.0	
12.0			
	FINE SAND W/ MINOR SILT (SP), gray, wet, medium dense	30	
15.0		1031	SS
	SAND (SP), gray, wet, medium dense, flowing sands, poor recovery		
20.0		5.0	SS
	Boring Terminated at 20 Feet		

GRAPHIC LOG | DEPTH (ft) | WATER LEVEL OBSERVATIONS | SAMPLE TYPE | RECOVERY (%): 100

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
Hand Auger to 5" then Geoprobe to Depth

Abandonment Method:

Notes:
SS: S-1 @ 9.5 - 10', 09:05
SS: S-2 @ 14.5 - 15', 09:15
SS: S-3 @ 19.5 - 20', 09:40

WATER LEVEL OBSERVATIONS

GW Encountered While Drilling

Terracon
6949 S High Tech Dr Ste 100
Midvale, UT

Boring Started: 03-27-2021	Boring Completed: 03-27-2021
Drill Rig: Geoprobe	Driller: Cascade
Project No.: 61197153	Exhibit: C-1

BORING LOG NO. HRSC 2

PROJECT: Triple Stop Chevron

CLIENT: Utah DEQ, DERR

SITE: 1034 West Gentile Street
Layton, Utah

LOCATION See Exhibit 2

DEPTH	MATERIAL DESCRIPTION	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	RECOVERY (%)	PID (ppm)	Sample
0.5	**FILL - GRASS SURFACE & TOPSOIL**						
	FILL - FILL SOIL				100	0	
						0	
5.0	**FINE GRAINED SAND (SP)**, tan, moist, medium dense	5					
						0	
						1.3	
		10					
						60	
12.0	**FINE SAND MINOR SILT (SP)**, gray, wet, medium dense		▽			73	SS
						1.0	
		15					
						0.7	
17.5						4.3	SS
	Boring Terminated at 17.5 Feet						

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
Hand Auger to 5" then Geoprobe to Depth

Abandonment Method:

Notes:
SS: S-1 @ 12.5', 10:00
SS: S-2 @ 17 - 17.5', 10:15

WATER LEVEL OBSERVATIONS

▽ *GW Encountered While Drilling*

Terracon
6949 S High Tech Dr Ste 100
Midvale, UT

Boring Started: 03-27-2021 | Boring Completed: 03-27-2021
Drill Rig: Geoprobe | Driller: Cascade
Project No.: 61197153 | Exhibit: C-2

APPENDIX D

Chain of Custody and Laboratory Data Sheets

ANALYTICAL REPORT

April 06, 2021

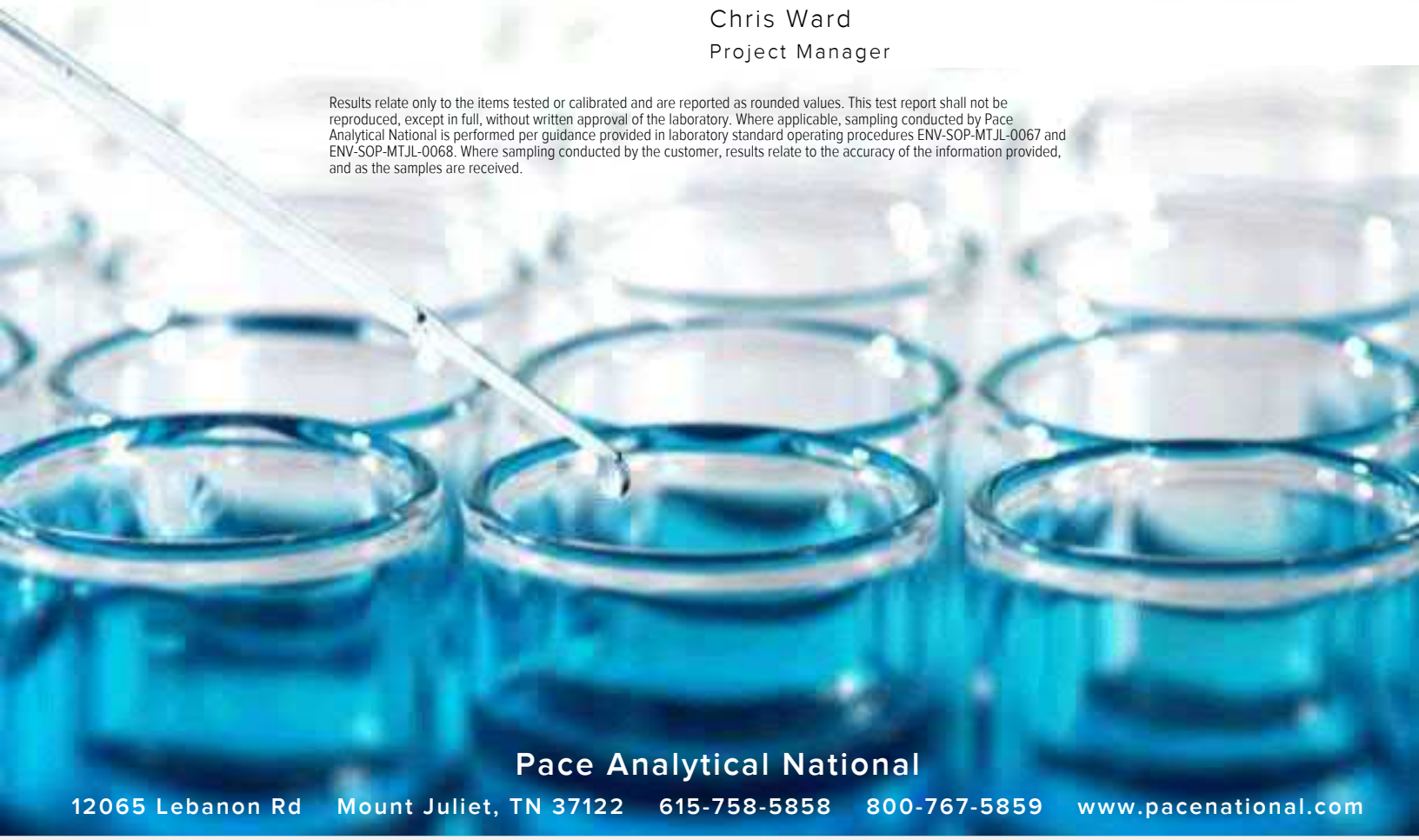
1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Terracon - Salt Lake City, UT

Sample Delivery Group:	L1332099
Samples Received:	03/30/2021
Project Number:	61197153,14.2
Description:	Triple Stop Chevron
Report To:	Curt Stripeika 6949 South High Tech Drive Midvale, UT 84047

Entire Report Reviewed By: Chris Ward

Chris Ward
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

HRSC1 S-1 L1332099-01 Solid

Collected by: Curt Stripeika | Collected date/time: 03/27/21 09:05 | Received date/time: 03/30/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1643159	1	03/31/21 16:12	03/31/21 16:25	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1642597	1	03/31/21 10:24	04/02/21 23:25	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1644150	1	04/02/21 06:07	04/02/21 17:25	JN	Mt. Juliet, TN

HRSC1 S-2 L1332099-02 Solid

Collected by: Curt Stripeika | Collected date/time: 03/27/21 09:15 | Received date/time: 03/30/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1643159	1	03/31/21 16:12	03/31/21 16:25	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1642597	2000	03/31/21 10:24	04/03/21 01:56	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1644150	5	04/02/21 06:07	04/05/21 13:04	CAG	Mt. Juliet, TN

HRSC1 S-3 L1332099-03 Solid

Collected by: Curt Stripeika | Collected date/time: 03/27/21 09:40 | Received date/time: 03/30/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1643159	1	03/31/21 16:12	03/31/21 16:25	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1642597	1	03/31/21 10:24	04/02/21 23:46	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1644150	1	04/02/21 06:07	04/02/21 17:52	JN	Mt. Juliet, TN

HRSC2 S-1 L1332099-04 Solid

Collected by: Curt Stripeika | Collected date/time: 03/27/21 10:00 | Received date/time: 03/30/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1643159	1	03/31/21 16:12	03/31/21 16:25	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1646033	2000	03/31/21 10:24	04/06/21 00:03	TPR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1644150	5	04/02/21 06:07	04/05/21 13:31	CAG	Mt. Juliet, TN

HRSC2 S-2 L1332099-05 Solid

Collected by: Curt Stripeika | Collected date/time: 03/27/21 10:15 | Received date/time: 03/30/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1643159	1	03/31/21 16:12	03/31/21 16:25	KDW	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1642597	1	03/31/21 10:24	04/03/21 00:07	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1644150	1	04/02/21 06:07	04/02/21 18:18	JN	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris Ward

Chris Ward
Project Manager

Volatile Organic Compounds (GC/MS) by Method 8260B

The same analyte is found in the associated blank.

Batch	Analyte	Lab Sample ID
WG1642597	Xylenes, Total	L1332099-01, 05

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	93.4		1	03/31/2021 16:25	WG1643159

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	U		0.196	0.535	1	04/02/2021 23:25	WG1642597
Benzene	0.00255		0.000401	0.00107	1	04/02/2021 23:25	WG1642597
Ethylbenzene	0.000852	J	0.000321	0.00107	1	04/02/2021 23:25	WG1642597
Naphthalene	U		0.00533	0.00535	1	04/02/2021 23:25	WG1642597
Toluene	0.00509	J	0.00132	0.00535	1	04/02/2021 23:25	WG1642597
Xylenes, Total	0.00498	B	0.000535	0.00321	1	04/02/2021 23:25	WG1642597
(S) Toluene-d8	*96.0*			*75.0-131*		*04/02/2021 23:25*	WG1642597
(S) 4-Bromofluorobenzene	*96.8*			*67.0-138*		*04/02/2021 23:25*	WG1642597
(S) 1,2-Dichloroethane-d4	*114*			*70.0-130*		*04/02/2021 23:25*	WG1642597

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	3.29	J	0.823	4.28	1	04/02/2021 17:25	WG1644150
(S) o-Terphenyl	*50.0*			*18.0-148*		*04/02/2021 17:25*	WG1644150

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	84.4		1	03/31/2021 16:25	WG1643159

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	7760		502	1370	2000	04/03/2021 01:56	WG1642597
Benzene	2.85		1.03	2.74	2000	04/03/2021 01:56	WG1642597
Ethylbenzene	97.3		0.822	2.74	2000	04/03/2021 01:56	WG1642597
Naphthalene	28.6		13.6	13.7	2000	04/03/2021 01:56	WG1642597
Toluene	212		3.37	13.7	2000	04/03/2021 01:56	WG1642597
Xylenes, Total	898		1.37	8.22	2000	04/03/2021 01:56	WG1642597
(S) Toluene-d8	*102*			*75.0-131*		*04/03/2021 01:56*	WG1642597
(S) 4-Bromofluorobenzene	*96.3*			*67.0-138*		*04/03/2021 01:56*	WG1642597
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*04/03/2021 01:56*	WG1642597

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	762		4.56	23.7	5	04/05/2021 13:04	WG1644150
(S) o-Terphenyl	*65.9*			*18.0-148*		*04/05/2021 13:04*	WG1644150

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	86.9		1	03/31/2021 16:25	WG1643159

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	U		0.210	0.575	1	04/02/2021 23:46	WG1642597
Benzene	0.00225		0.000431	0.00115	1	04/02/2021 23:46	WG1642597
Ethylbenzene	0.00137		0.000345	0.00115	1	04/02/2021 23:46	WG1642597
Naphthalene	U		0.00573	0.00575	1	04/02/2021 23:46	WG1642597
Toluene	0.00520	J	0.00141	0.00575	1	04/02/2021 23:46	WG1642597
Xylenes, Total	0.00934		0.000575	0.00345	1	04/02/2021 23:46	WG1642597
(S) Toluene-d8	*98.4*			*75.0-131*		*04/02/2021 23:46*	WG1642597
(S) 4-Bromofluorobenzene	*99.2*			*67.0-138*		*04/02/2021 23:46*	WG1642597
(S) 1,2-Dichloroethane-d4	*115*			*70.0-130*		*04/02/2021 23:46*	WG1642597

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.884	4.60	1	04/02/2021 17:52	WG1644150
(S) o-Terphenyl	*47.3*			*18.0-148*		*04/02/2021 17:52*	WG1644150

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	86.4		1	03/31/2021 16:25	WG1643159

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	U		482	1320	2000	04/06/2021 00:03	WG1646033
Benzene	U		0.987	2.63	2000	04/06/2021 00:03	WG1646033
Ethylbenzene	U		0.790	2.63	2000	04/06/2021 00:03	WG1646033
Naphthalene	U		13.1	13.2	2000	04/06/2021 00:03	WG1646033
Toluene	U		3.24	13.2	2000	04/06/2021 00:03	WG1646033
Xylenes, Total	33.4		1.32	7.90	2000	04/06/2021 00:03	WG1646033
(S) Toluene-d8	*104*			*75.0-131*		*04/06/2021 00:03*	WG1646033
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*04/06/2021 00:03*	WG1646033
(S) 1,2-Dichloroethane-d4	*97.3*			*70.0-130*		*04/06/2021 00:03*	WG1646033

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	587		4.46	23.2	5	04/05/2021 13:31	WG1644150
(S) o-Terphenyl	*66.8*			*18.0-148*		*04/05/2021 13:31*	WG1644150

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	82.4		1	03/31/2021 16:25	WG1643159

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	U		0.222	0.606	1	04/03/2021 00:07	WG1642597
Benzene	0.00290		0.000455	0.00121	1	04/03/2021 00:07	WG1642597
Ethylbenzene	0.000998	J	0.000364	0.00121	1	04/03/2021 00:07	WG1642597
Naphthalene	U		0.00604	0.00606	1	04/03/2021 00:07	WG1642597
Toluene	0.00522	J	0.00149	0.00606	1	04/03/2021 00:07	WG1642597
Xylenes, Total	0.00586	B	0.000606	0.00364	1	04/03/2021 00:07	WG1642597
(S) Toluene-d8	*99.3*			*75.0-131*		*04/03/2021 00:07*	WG1642597
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*04/03/2021 00:07*	WG1642597
(S) 1,2-Dichloroethane-d4	*113*			*70.0-130*		*04/03/2021 00:07*	WG1642597

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.933	4.85	1	04/02/2021 18:18	WG1644150
(S) o-Terphenyl	*49.5*			*18.0-148*		*04/02/2021 18:18*	WG1644150

QUALITY CONTROL SUMMARY

L1332099-01,02,03,04,05

Method Blank (MB)

(MB) R3636966-1 03/31/21 16:25

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1331989-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1331989-01 03/31/21 16:25 • (DUP) R3636966-3 03/31/21 16:25

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	76.1	77.0	1	1.14		10

Laboratory Control Sample (LCS)

(LCS) R3636966-2 03/31/21 16:25

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3638269-4 04/02/21 17:09

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/MS) Low Fraction	U		0.183	0.500
Benzene	U		0.000375	0.00100
Ethylbenzene	U		0.000300	0.00100
Naphthalene	U		0.00498	0.00500
Toluene	U		0.00123	0.00500
Xylenes, Total	0.000756	J	0.000500	0.00300
(S) Toluene-d8	*98.3*			*75.0-131*
(S) 4-Bromofluorobenzene	*97.6*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*100*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3638269-1 04/02/21 15:14 • (LCSD) R3638269-2 04/02/21 15:35

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.0250	0.0239	0.0258	95.6	103	70.0-123			7.65	20
Ethylbenzene	0.0250	0.0241	0.0260	96.4	104	74.0-126			7.58	20
Naphthalene	0.0250	0.0237	0.0255	94.8	102	59.0-130			7.32	20
Toluene	0.0250	0.0245	0.0253	98.0	101	75.0-121			3.21	20
Xylenes, Total	0.0750	0.0737	0.0791	98.3	105	72.0-127			7.07	20
(S) Toluene-d8				*97.9*	*98.7*	*75.0-131*				
(S) 4-Bromofluorobenzene				*99.4*	*98.3*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*110*	*110*	*70.0-130*				

Laboratory Control Sample (LCS)

(LCS) R3638269-3 04/02/21 16:26

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/MS) Low Fraction	5.00	5.23	105	52.0-154	
(S) Toluene-d8			*93.7*	*75.0-131*	
(S) 4-Bromofluorobenzene			*101*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*105*	*70.0-130*	

Method Blank (MB)

(MB) R3638414-3 04/05/21 22:34

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/MS) Low Fraction	U		0.183	0.500
Benzene	U		0.000375	0.00100
Ethylbenzene	U		0.000300	0.00100
Naphthalene	U		0.00498	0.00500
Toluene	U		0.00123	0.00500
Xylenes, Total	U		0.000500	0.00300
(S) Toluene-d8	*109*			*75.0-131*
(S) 4-Bromofluorobenzene	*105*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*99.8*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3638414-1 04/05/21 21:26

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0250	0.0244	97.6	70.0-123	
Ethylbenzene	0.0250	0.0254	102	74.0-126	
Naphthalene	0.0250	0.0269	108	59.0-130	
Toluene	0.0250	0.0239	95.6	75.0-121	
Xylenes, Total	0.0750	0.0746	99.5	72.0-127	
(S) Toluene-d8			*105*	*75.0-131*	
(S) 4-Bromofluorobenzene			*105*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*113*	*70.0-130*	

Laboratory Control Sample (LCS)

(LCS) R3638414-2 04/05/21 21:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/MS) Low Fraction	5.00	3.42	68.4	52.0-154	
(S) Toluene-d8			*104*	*75.0-131*	
(S) 4-Bromofluorobenzene			*116*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*106*	*70.0-130*	

QUALITY CONTROL SUMMARY

L1332099-01,02,03,04,05

Method Blank (MB)

(MB) R3637881-1 04/02/21 15:51

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) High Fraction	U		0.769	4.00
(S) o-Terphenyl	*55.4*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3637881-2 04/02/21 16:05

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) High Fraction	50.0	33.8	67.6	50.0-150	
(S) o-Terphenyl			*58.0*	*18.0-148*	

L1332176-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1332176-01 04/02/21 18:32 • (MS) R3637881-3 04/02/21 18:45 • (MSD) R3637881-4 04/02/21 18:58

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	53.5	0.981	37.6	37.9	70.2	71.1	1	50.0-150			0.851	20
(S) o-Terphenyl					*56.0*	*57.4*		*18.0-148*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Terracon
6949 Hight Tech Dr
Midvale

Billing Information: TERRDUT

Pres Chk

Report to: Curt Stripeika

Email To: Curt.Stripeika@Terracon.com

Project Description:

City/State Collected: Layton, Ut

Phone: 801 520 5029
Fax:

Client Project # 61197153, 14.2

Lab Project #

Collected by (print): Curt Stripeika

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

14-15ft

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX	TPH GRO	TPH DRO	Remarks	Sample # (lab only)
HRSC1 S-1	grab	soil	9.5-10	3/27/21	9:05	1	/	/	/		-01
HRSC1 S-2	grab	soil	[illegible]	3/27/21	9:15	1	/	/	/		-02
HRSC1 S-3	grab	soil	19.5-20	3/27/21	9:40	1	/	/	/		-03
HRSC2 S-1	grab	soil	12.5	3/27/21	10:00	1	/	/	/		-04
HRSC2 S-2	grab	soil	17-17.5	3/27/21	10:15	1	/	/	/		-05

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 1332099

Table # F182

Acctnum: TERRDUT

Template:

Prelogin:

TSR: Chris Ward

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other

Remarks: TERRDUT Std. 5 Day TAT.

pH ____ Temp ____
Flow ____ Other ____

Samples returned via:
__ UPS __ FedEx __ Courier __ ____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
	3/27/21	12:00			
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 0.3/0.0 °C 2.4±0.2 2.4 Bottles Received: 5	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 3/30/21 Time: 8:00	Hold: / Condition: NCF / OK

ANALYTICAL REPORT

April 20, 2021

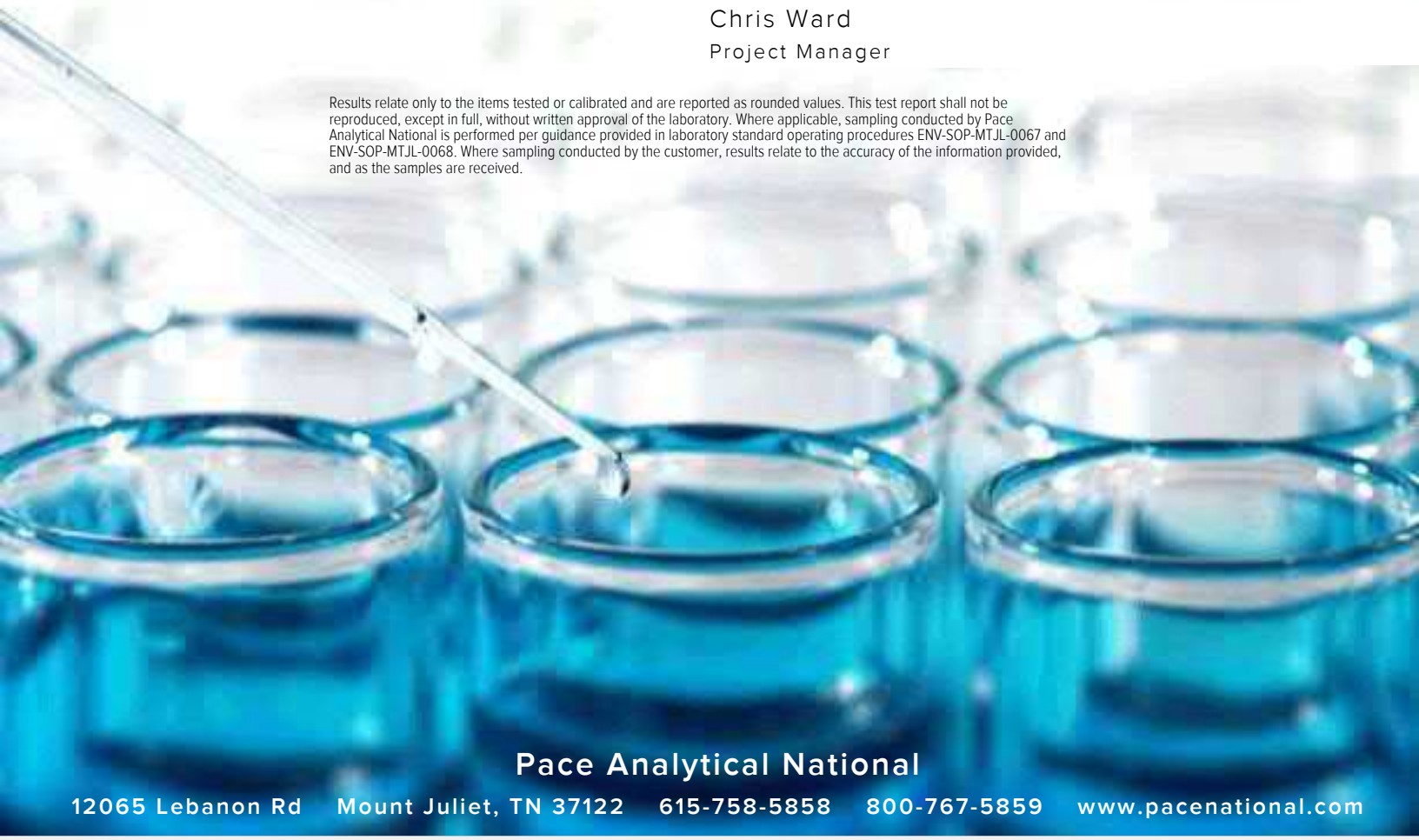
1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Terracon - Salt Lake City, UT

Sample Delivery Group:	L1337042
Samples Received:	04/10/2021
Project Number:	61197153
Description:	Triple Stop Chevron
Report To:	Curt Stripeika 6949 South High Tech Drive Midvale, UT 84047

Entire Report Reviewed By: Chris Ward

Chris Ward
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW-37 L1337042-01 GW

Collected by: Chase Maeser | Collected date/time: 04/07/21 09:55 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1650979	1	04/13/21 22:59	04/13/21 22:59	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1652848	1	04/16/21 18:18	04/17/21 11:42	DMG	Mt. Juliet, TN

MW-32 L1337042-02 GW

Collected by: Chase Maeser | Collected date/time: 04/07/21 10:25 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1650979	1	04/13/21 23:32	04/13/21 23:32	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1652848	1	04/16/21 18:18	04/17/21 14:42	DMG	Mt. Juliet, TN

MW-31 L1337042-03 GW

Collected by: Chase Maeser | Collected date/time: 04/07/21 11:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1650979	1	04/13/21 23:54	04/13/21 23:54	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651330	10	04/14/21 18:19	04/14/21 18:19	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1652848	1	04/16/21 18:18	04/17/21 16:51	DMG	Mt. Juliet, TN

MW-30 L1337042-04 GW

Collected by: Chase Maeser | Collected date/time: 04/07/21 11:28 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1650979	1	04/14/21 00:15	04/14/21 00:15	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651330	1	04/14/21 18:39	04/14/21 18:39	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1652848	1	04/16/21 18:18	04/17/21 17:16	DMG	Mt. Juliet, TN

MW-19 L1337042-05 GW

Collected by: Chase Maeser | Collected date/time: 04/07/21 11:50 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1650979	50	04/14/21 05:12	04/14/21 05:12	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1652848	1	04/16/21 18:18	04/17/21 12:59	DMG	Mt. Juliet, TN

MW-119 L1337042-06 GW

Collected by: Chase Maeser | Collected date/time: 04/07/21 11:55 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1650979	10	04/14/21 05:34	04/14/21 05:34	JSD	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1653983	50	04/18/21 20:48	04/18/21 20:48	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1652848	1	04/16/21 18:18	04/17/21 13:25	DMG	Mt. Juliet, TN

MW-20 L1337042-07 GW

Collected by: Chase Maeser | Collected date/time: 04/07/21 12:45 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1650979	1	04/14/21 00:37	04/14/21 00:37	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651330	20	04/14/21 19:00	04/14/21 19:00	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1652848	1	04/16/21 18:18	04/17/21 17:42	DMG	Mt. Juliet, TN

MW-18 L1337042-08 GW

Collected by: Chase Maeser | Collected date/time: 04/07/21 13:07 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1650979	1	04/14/21 00:58	04/14/21 00:58	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1652848	1	04/16/21 18:18	04/17/21 15:59	DMG	Mt. Juliet, TN

MW-02 L1337042-09 GW

Collected by: Chase Maeser | Collected date/time: 04/07/21 13:38 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1650979	10	04/14/21 05:55	04/14/21 05:55	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1652848	1	04/16/21 18:18	04/17/21 16:25	DMG	Mt. Juliet, TN

MW-01 L1337042-10 GW

Collected by: Chase Maeser | Collected date/time: 04/07/21 14:00 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1650979	200	04/14/21 06:17	04/14/21 06:17	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1653983	5	04/18/21 19:47	04/18/21 19:47	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1652848	1	04/16/21 18:18	04/17/21 12:08	DMG	Mt. Juliet, TN

MW-04 L1337042-11 GW

Collected by: Chase Maeser | Collected date/time: 04/07/21 14:33 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1650979	1	04/14/21 01:20	04/14/21 01:20	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1652848	1	04/16/21 18:18	04/17/21 12:34	DMG	Mt. Juliet, TN

RW-02 L1337042-12 GW

Collected by: Chase Maeser | Collected date/time: 04/08/21 11:28 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1653983	100	04/18/21 20:07	04/18/21 20:07	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1652848	5	04/16/21 18:18	04/19/21 12:06	DMG	Mt. Juliet, TN

MW-10 L1337042-13 GW

Collected by: Chase Maeser | Collected date/time: 04/08/21 12:10 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1650979	50	04/14/21 07:00	04/14/21 07:00	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1652848	5	04/16/21 18:18	04/19/21 12:32	DMG	Mt. Juliet, TN

EW-4 L1337042-14 GW

Collected by: Chase Maeser | Collected date/time: 04/08/21 12:30 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1653983	100	04/18/21 20:28	04/18/21 20:28	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1652848	1	04/16/21 18:18	04/17/21 15:08	DMG	Mt. Juliet, TN

MW-13 L1337042-15 GW

Collected by: Chase Maeser | Collected date/time: 04/08/21 12:54 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1652620	1	04/15/21 20:47	04/15/21 20:47	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1652848	1	04/16/21 18:18	04/17/21 18:08	DMG	Mt. Juliet, TN

MW-08 L1337042-16 GW

Collected by: Chase Maeser | Collected date/time: 04/08/21 13:30 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1650979	1	04/14/21 04:28	04/14/21 04:28	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1652848	1	04/16/21 18:18	04/17/21 15:33	DMG	Mt. Juliet, TN

MW-14 L1337042-17 GW

Collected by: Chase Maeser | Collected date/time: 04/08/21 14:30 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1652620	1	04/15/21 21:07	04/15/21 21:07	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1653520	1	04/16/21 23:45	04/17/21 22:10	DMG	Mt. Juliet, TN

EW-03 L1337042-18 GW

Collected by: Chase Maeser | Collected date/time: 04/08/21 14:36 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651593	50	04/15/21 09:23	04/15/21 09:23	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1653520	2	04/16/21 23:45	04/19/21 11:41	DMG	Mt. Juliet, TN

MW-25 L1337042-19 GW

Collected by: Chase Maeser | Collected date/time: 04/08/21 15:20 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1650979	1	04/14/21 04:50	04/14/21 04:50	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1653520	1	04/16/21 23:45	04/17/21 23:01	DMG	Mt. Juliet, TN

MW-24 L1337042-20 GW

Collected by: Chase Maeser | Collected date/time: 04/08/21 15:55 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651593	25	04/15/21 09:43	04/15/21 09:43	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1653520	1	04/16/21 23:45	04/19/21 11:15	DMG	Mt. Juliet, TN

MW-124 L1337042-21 GW

Collected by: Chase Maeser | Collected date/time: 04/08/21 15:50 | Received date/time: 04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651593	1	04/15/21 03:37	04/15/21 03:37	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1652620	20	04/15/21 21:48	04/15/21 21:48	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1653520	1	04/16/21 23:45	04/19/21 10:50	DMG	Mt. Juliet, TN

MW-22 L1337042-22 GW

Collected by	Collected date/time	Received date/time
Chase Maeser	04/08/21 14:12	04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651593	1	04/15/21 03:58	04/15/21 03:58	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1652620	1	04/15/21 21:27	04/15/21 21:27	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1653520	1	04/16/21 23:45	04/19/21 10:24	DMG	Mt. Juliet, TN

MW-23 L1337042-23 GW

Collected by	Collected date/time	Received date/time
Chase Maeser	04/08/21 16:30	04/10/21 10:20

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1651593	1	04/15/21 04:18	04/15/21 04:18	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1653520	1	04/16/21 23:45	04/19/21 09:59	DMG	Mt. Juliet, TN

Unless qualified or notated within the narrative below, all sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Chris Ward

Chris Ward
Project Manager

Sample Delivery Group (SDG) Narrative

pH outside of method requirement.

Batch	Method	Lab Sample ID
WG1652848	3511/8015	L1337042-02, 04, 07, 13
WG1653520	3511/8015	L1337042-18

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Surrogate recovery limits have been exceeded; values are outside upper control limits.

Batch	Analyte	Lab Sample ID
WG1652848	o-Terphenyl	L1337042-12, 13

Surrogate recovery limits have been exceeded; values are outside lower control limits.

Batch	Analyte	Lab Sample ID
WG1652848	o-Terphenyl	L1337042-14

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	U		0.108	0.500	1	04/13/2021 22:59	WG1650979
Benzene	U		0.0000941	0.00100	1	04/13/2021 22:59	WG1650979
Ethylbenzene	U		0.000137	0.00100	1	04/13/2021 22:59	WG1650979
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/13/2021 22:59	WG1650979
Naphthalene	U		0.00100	0.00500	1	04/13/2021 22:59	WG1650979
Toluene	U		0.000278	0.00100	1	04/13/2021 22:59	WG1650979
Xylenes, Total	U		0.000174	0.00300	1	04/13/2021 22:59	WG1650979
(S) Toluene-d8	*96.3*			*80.0-120*		*04/13/2021 22:59*	WG1650979
(S) 4-Bromofluorobenzene	*90.2*			*77.0-126*		*04/13/2021 22:59*	WG1650979
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*04/13/2021 22:59*	WG1650979

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0312	J	0.0247	0.100	1	04/17/2021 11:42	WG1652848
(S) o-Terphenyl	*106*			*31.0-160*		*04/17/2021 11:42*	WG1652848

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	U		0.108	0.500	1	04/13/2021 23:32	WG1650979
Benzene	0.000110	J	0.0000941	0.00100	1	04/13/2021 23:32	WG1650979
Ethylbenzene	U		0.000137	0.00100	1	04/13/2021 23:32	WG1650979
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/13/2021 23:32	WG1650979
Naphthalene	U		0.00100	0.00500	1	04/13/2021 23:32	WG1650979
Toluene	U		0.000278	0.00100	1	04/13/2021 23:32	WG1650979
Xylenes, Total	U		0.000174	0.00300	1	04/13/2021 23:32	WG1650979
(S) Toluene-d8	*97.9*			*80.0-120*		*04/13/2021 23:32*	WG1650979
(S) 4-Bromofluorobenzene	*88.9*			*77.0-126*		*04/13/2021 23:32*	WG1650979
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*04/13/2021 23:32*	WG1650979

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0383	J	0.0247	0.100	1	04/17/2021 14:42	WG1652848
(S) o-Terphenyl	*101*			*31.0-160*		*04/17/2021 14:42*	WG1652848

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	1.03		0.108	0.500	1	04/13/2021 23:54	WG1650979
Benzene	0.354		0.000941	0.0100	10	04/14/2021 18:19	WG1651330
Ethylbenzene	0.000428	J	0.000137	0.00100	1	04/13/2021 23:54	WG1650979
Methyl tert-butyl ether	0.000123	J	0.000101	0.00100	1	04/13/2021 23:54	WG1650979
Naphthalene	U		0.00100	0.00500	1	04/13/2021 23:54	WG1650979
Toluene	U		0.000278	0.00100	1	04/13/2021 23:54	WG1650979
Xylenes, Total	0.000794	J	0.000174	0.00300	1	04/13/2021 23:54	WG1650979
(S) Toluene-d8	*95.8*			*80.0-120*		*04/13/2021 23:54*	WG1650979
(S) Toluene-d8	*103*			*80.0-120*		*04/14/2021 18:19*	WG1651330
(S) 4-Bromofluorobenzene	*88.4*			*77.0-126*		*04/13/2021 23:54*	WG1650979
(S) 4-Bromofluorobenzene	*85.4*			*77.0-126*		*04/14/2021 18:19*	WG1651330
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*04/13/2021 23:54*	WG1650979
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*04/14/2021 18:19*	WG1651330

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0609	J	0.0247	0.100	1	04/17/2021 16:51	WG1652848
(S) o-Terphenyl	*100*			*31.0-160*		*04/17/2021 16:51*	WG1652848

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	U		0.108	0.500	1	04/14/2021 00:15	WG1650979
Benzene	U		0.0000941	0.00100	1	04/14/2021 18:39	WG1651330
Ethylbenzene	U		0.000137	0.00100	1	04/14/2021 00:15	WG1650979
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/14/2021 00:15	WG1650979
Naphthalene	U		0.00100	0.00500	1	04/14/2021 00:15	WG1650979
Toluene	U		0.000278	0.00100	1	04/14/2021 00:15	WG1650979
Xylenes, Total	U		0.000174	0.00300	1	04/14/2021 00:15	WG1650979
(S) Toluene-d8	*96.4*			*80.0-120*		*04/14/2021 00:15*	WG1650979
(S) Toluene-d8	*108*			*80.0-120*		*04/14/2021 18:39*	WG1651330
(S) 4-Bromofluorobenzene	*88.6*			*77.0-126*		*04/14/2021 00:15*	WG1650979
(S) 4-Bromofluorobenzene	*89.9*			*77.0-126*		*04/14/2021 18:39*	WG1651330
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*04/14/2021 00:15*	WG1650979
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*04/14/2021 18:39*	WG1651330

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	04/17/2021 17:16	WG1652848
(S) o-Terphenyl	*80.5*			*31.0-160*		*04/17/2021 17:16*	WG1652848

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	36.4		5.40	25.0	50	04/14/2021 05:12	WG1650979
Benzene	3.98		0.00471	0.0500	50	04/14/2021 05:12	WG1650979
Ethylbenzene	0.998		0.00685	0.0500	50	04/14/2021 05:12	WG1650979
Methyl tert-butyl ether	U		0.00505	0.0500	50	04/14/2021 05:12	WG1650979
Naphthalene	0.0521	J	0.0500	0.250	50	04/14/2021 05:12	WG1650979
Toluene	4.06		0.0139	0.0500	50	04/14/2021 05:12	WG1650979
Xylenes, Total	4.22		0.00870	0.150	50	04/14/2021 05:12	WG1650979
(S) Toluene-d8	*96.4*			*80.0-120*		*04/14/2021 05:12*	WG1650979
(S) 4-Bromofluorobenzene	*90.7*			*77.0-126*		*04/14/2021 05:12*	WG1650979
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*04/14/2021 05:12*	WG1650979

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.04		0.0247	0.100	1	04/17/2021 12:59	WG1652848
(S) o-Terphenyl	*112*			*31.0-160*		*04/17/2021 12:59*	WG1652848

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	35.0		1.08	5.00	10	04/14/2021 05:34	WG1650979
Benzene	3.93		0.00471	0.0500	50	04/18/2021 20:48	WG1653983
Ethylbenzene	0.980		0.00137	0.0100	10	04/14/2021 05:34	WG1650979
Methyl tert-butyl ether	U		0.00101	0.0100	10	04/14/2021 05:34	WG1650979
Naphthalene	0.0649		0.0100	0.0500	10	04/14/2021 05:34	WG1650979
Toluene	4.04		0.0139	0.0500	50	04/18/2021 20:48	WG1653983
Xylenes, Total	3.97		0.00174	0.0300	10	04/14/2021 05:34	WG1650979
(S) Toluene-d8	*96.0*			*80.0-120*		*04/14/2021 05:34*	WG1650979
(S) Toluene-d8	*107*			*80.0-120*		*04/18/2021 20:48*	WG1653983
(S) 4-Bromofluorobenzene	*90.9*			*77.0-126*		*04/14/2021 05:34*	WG1650979
(S) 4-Bromofluorobenzene	*110*			*77.0-126*		*04/18/2021 20:48*	WG1653983
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*04/14/2021 05:34*	WG1650979
(S) 1,2-Dichloroethane-d4	*96.9*			*70.0-130*		*04/18/2021 20:48*	WG1653983

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.97		0.0247	0.100	1	04/17/2021 13:25	WG1652848
(S) o-Terphenyl	*113*			*31.0-160*		*04/17/2021 13:25*	WG1652848

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	3.36		0.108	0.500	1	04/14/2021 00:37	WG1650979
Benzene	1.43		0.00188	0.0200	20	04/14/2021 19:00	WG1651330
Ethylbenzene	0.0210		0.000137	0.00100	1	04/14/2021 00:37	WG1650979
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/14/2021 00:37	WG1650979
Naphthalene	0.00222	J	0.00100	0.00500	1	04/14/2021 00:37	WG1650979
Toluene	0.0127		0.000278	0.00100	1	04/14/2021 00:37	WG1650979
Xylenes, Total	0.0169		0.000174	0.00300	1	04/14/2021 00:37	WG1650979
(S) Toluene-d8	*96.6*			*80.0-120*		*04/14/2021 00:37*	WG1650979
(S) Toluene-d8	*102*			*80.0-120*		*04/14/2021 19:00*	WG1651330
(S) 4-Bromofluorobenzene	*92.1*			*77.0-126*		*04/14/2021 00:37*	WG1650979
(S) 4-Bromofluorobenzene	*87.4*			*77.0-126*		*04/14/2021 19:00*	WG1651330
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*04/14/2021 00:37*	WG1650979
(S) 1,2-Dichloroethane-d4	*113*			*70.0-130*		*04/14/2021 19:00*	WG1651330

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0686	J	0.0247	0.100	1	04/17/2021 17:42	WG1652848
(S) o-Terphenyl	*86.8*			*31.0-160*		*04/17/2021 17:42*	WG1652848

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	0.150	J	0.108	0.500	1	04/14/2021 00:58	WG1650979
Benzene	0.0181		0.0000941	0.00100	1	04/14/2021 00:58	WG1650979
Ethylbenzene	U		0.000137	0.00100	1	04/14/2021 00:58	WG1650979
Methyl tert-butyl ether	0.000169	J	0.000101	0.00100	1	04/14/2021 00:58	WG1650979
Naphthalene	U		0.00100	0.00500	1	04/14/2021 00:58	WG1650979
Toluene	U		0.000278	0.00100	1	04/14/2021 00:58	WG1650979
Xylenes, Total	0.00117	J	0.000174	0.00300	1	04/14/2021 00:58	WG1650979
(S) Toluene-d8	*98.4*			*80.0-120*		*04/14/2021 00:58*	WG1650979
(S) 4-Bromofluorobenzene	*91.3*			*77.0-126*		*04/14/2021 00:58*	WG1650979
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*04/14/2021 00:58*	WG1650979

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0531	J	0.0247	0.100	1	04/17/2021 15:59	WG1652848
(S) o-Terphenyl	*91.6*			*31.0-160*		*04/17/2021 15:59*	WG1652848

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	1.45	J	1.08	5.00	10	04/14/2021 05:55	WG1650979
Benzene	0.264		0.000941	0.0100	10	04/14/2021 05:55	WG1650979
Ethylbenzene	0.0441		0.00137	0.0100	10	04/14/2021 05:55	WG1650979
Methyl tert-butyl ether	U		0.00101	0.0100	10	04/14/2021 05:55	WG1650979
Naphthalene	U		0.0100	0.0500	10	04/14/2021 05:55	WG1650979
Toluene	0.0102		0.00278	0.0100	10	04/14/2021 05:55	WG1650979
Xylenes, Total	0.121		0.00174	0.0300	10	04/14/2021 05:55	WG1650979
(S) Toluene-d8	*97.0*			*80.0-120*		*04/14/2021 05:55*	WG1650979
(S) 4-Bromofluorobenzene	*90.8*			*77.0-126*		*04/14/2021 05:55*	WG1650979
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*04/14/2021 05:55*	WG1650979

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.418		0.0247	0.100	1	04/17/2021 16:25	WG1652848
(S) o-Terphenyl	*99.5*			*31.0-160*		*04/17/2021 16:25*	WG1652848

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	2.79		0.540	2.50	5	04/18/2021 19:47	WG1653983
Benzene	2.89		0.0188	0.200	200	04/14/2021 06:17	WG1650979
Ethylbenzene	0.0644		0.000685	0.00500	5	04/18/2021 19:47	WG1653983
Methyl tert-butyl ether	U		0.000505	0.00500	5	04/18/2021 19:47	WG1653983
Naphthalene	0.00837	J	0.00500	0.0250	5	04/18/2021 19:47	WG1653983
Toluene	1.12		0.0556	0.200	200	04/14/2021 06:17	WG1650979
Xylenes, Total	0.396		0.000870	0.0150	5	04/18/2021 19:47	WG1653983
(S) Toluene-d8	*96.4*			*80.0-120*		*04/14/2021 06:17*	WG1650979
(S) Toluene-d8	*106*			*80.0-120*		*04/18/2021 19:47*	WG1653983
(S) 4-Bromofluorobenzene	*89.3*			*77.0-126*		*04/14/2021 06:17*	WG1650979
(S) 4-Bromofluorobenzene	*108*			*77.0-126*		*04/18/2021 19:47*	WG1653983
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*04/14/2021 06:17*	WG1650979
(S) 1,2-Dichloroethane-d4	*96.4*			*70.0-130*		*04/18/2021 19:47*	WG1653983

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.50		0.0247	0.100	1	04/17/2021 12:08	WG1652848
(S) o-Terphenyl	*105*			*31.0-160*		*04/17/2021 12:08*	WG1652848

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	U		0.108	0.500	1	04/14/2021 01:20	WG1650979
Benzene	0.0101		0.0000941	0.00100	1	04/14/2021 01:20	WG1650979
Ethylbenzene	U		0.000137	0.00100	1	04/14/2021 01:20	WG1650979
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/14/2021 01:20	WG1650979
Naphthalene	U		0.00100	0.00500	1	04/14/2021 01:20	WG1650979
Toluene	U		0.000278	0.00100	1	04/14/2021 01:20	WG1650979
Xylenes, Total	0.000772	J	0.000174	0.00300	1	04/14/2021 01:20	WG1650979
(S) Toluene-d8	*98.0*			*80.0-120*		*04/14/2021 01:20*	WG1650979
(S) 4-Bromofluorobenzene	*90.4*			*77.0-126*		*04/14/2021 01:20*	WG1650979
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*04/14/2021 01:20*	WG1650979

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0421	J	0.0247	0.100	1	04/17/2021 12:34	WG1652848
(S) o-Terphenyl	*97.4*			*31.0-160*		*04/17/2021 12:34*	WG1652848

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	86.3		10.8	50.0	100	04/18/2021 20:07	WG1653983
Benzene	2.43		0.00941	0.100	100	04/18/2021 20:07	WG1653983
Ethylbenzene	1.16		0.0137	0.100	100	04/18/2021 20:07	WG1653983
Methyl tert-butyl ether	U		0.0101	0.100	100	04/18/2021 20:07	WG1653983
Naphthalene	0.384	J	0.100	0.500	100	04/18/2021 20:07	WG1653983
Toluene	9.98		0.0278	0.100	100	04/18/2021 20:07	WG1653983
Xylenes, Total	17.4		0.0174	0.300	100	04/18/2021 20:07	WG1653983
(S) Toluene-d8	*105*			*80.0-120*		*04/18/2021 20:07*	WG1653983
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*04/18/2021 20:07*	WG1653983
(S) 1,2-Dichloroethane-d4	*97.8*			*70.0-130*		*04/18/2021 20:07*	WG1653983

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	13.7		0.123	0.500	5	04/19/2021 12:06	WG1652848
(S) o-Terphenyl	*319*	J1		*31.0-160*		*04/19/2021 12:06*	WG1652848

Sample Narrative:

L1337042-12 WG1652848: Surrogate failure due to matrix interference

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	23.1	J	5.40	25.0	50	04/14/2021 07:00	WG1650979
Benzene	0.0662		0.00471	0.0500	50	04/14/2021 07:00	WG1650979
Ethylbenzene	0.119		0.00685	0.0500	50	04/14/2021 07:00	WG1650979
Methyl tert-butyl ether	U		0.00505	0.0500	50	04/14/2021 07:00	WG1650979
Naphthalene	0.177	J	0.0500	0.250	50	04/14/2021 07:00	WG1650979
Toluene	0.710		0.0139	0.0500	50	04/14/2021 07:00	WG1650979
Xylenes, Total	6.88		0.00870	0.150	50	04/14/2021 07:00	WG1650979
(S) Toluene-d8	*94.9*			*80.0-120*		*04/14/2021 07:00*	WG1650979
(S) 4-Bromofluorobenzene	*90.9*			*77.0-126*		*04/14/2021 07:00*	WG1650979
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*04/14/2021 07:00*	WG1650979

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	10.8		0.123	0.500	5	04/19/2021 12:32	WG1652848
(S) o-Terphenyl	*326*	J1		*31.0-160*		*04/19/2021 12:32*	WG1652848

Sample Narrative:

L1337042-13 WG1652848: Surrogate failure due to matrix interference

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	38.9	J	10.8	50.0	100	04/18/2021 20:28	WG1653983
Benzene	U		0.00941	0.100	100	04/18/2021 20:28	WG1653983
Ethylbenzene	0.462		0.0137	0.100	100	04/18/2021 20:28	WG1653983
Methyl tert-butyl ether	U		0.0101	0.100	100	04/18/2021 20:28	WG1653983
Naphthalene	0.181	J	0.100	0.500	100	04/18/2021 20:28	WG1653983
Toluene	0.129		0.0278	0.100	100	04/18/2021 20:28	WG1653983
Xylenes, Total	6.86		0.0174	0.300	100	04/18/2021 20:28	WG1653983
(S) Toluene-d8	*107*			*80.0-120*		*04/18/2021 20:28*	WG1653983
(S) 4-Bromofluorobenzene	*109*			*77.0-126*		*04/18/2021 20:28*	WG1653983
(S) 1,2-Dichloroethane-d4	*97.8*			*70.0-130*		*04/18/2021 20:28*	WG1653983

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	7.38		0.0247	0.100	1	04/17/2021 15:08	WG1652848
(S) o-Terphenyl	*17.7*	J2		*31.0-160*		*04/17/2021 15:08*	WG1652848

Sample Narrative:

L1337042-14 WG1652848: Surrogate failure due to matrix interference

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	0.272	J	0.108	0.500	1	04/15/2021 20:47	WG1652620
Benzene	0.00200		0.0000941	0.00100	1	04/15/2021 20:47	WG1652620
Ethylbenzene	0.00305		0.000137	0.00100	1	04/15/2021 20:47	WG1652620
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/15/2021 20:47	WG1652620
Naphthalene	U		0.00100	0.00500	1	04/15/2021 20:47	WG1652620
Toluene	U		0.000278	0.00100	1	04/15/2021 20:47	WG1652620
Xylenes, Total	0.000462	J	0.000174	0.00300	1	04/15/2021 20:47	WG1652620
(S) Toluene-d8	*108*			*80.0-120*		*04/15/2021 20:47*	WG1652620
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*04/15/2021 20:47*	WG1652620
(S) 1,2-Dichloroethane-d4	*97.0*			*70.0-130*		*04/15/2021 20:47*	WG1652620

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.267		0.0247	0.100	1	04/17/2021 18:08	WG1652848
(S) o-Terphenyl	*107*			*31.0-160*		*04/17/2021 18:08*	WG1652848

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	U		0.108	0.500	1	04/14/2021 04:28	WG1650979
Benzene	U		0.0000941	0.00100	1	04/14/2021 04:28	WG1650979
Ethylbenzene	U		0.000137	0.00100	1	04/14/2021 04:28	WG1650979
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/14/2021 04:28	WG1650979
Naphthalene	U		0.00100	0.00500	1	04/14/2021 04:28	WG1650979
Toluene	U		0.000278	0.00100	1	04/14/2021 04:28	WG1650979
Xylenes, Total	U		0.000174	0.00300	1	04/14/2021 04:28	WG1650979
(S) Toluene-d8	*98.0*			*80.0-120*		*04/14/2021 04:28*	WG1650979
(S) 4-Bromofluorobenzene	*89.4*			*77.0-126*		*04/14/2021 04:28*	WG1650979
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*04/14/2021 04:28*	WG1650979

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0379	J	0.0247	0.100	1	04/17/2021 15:33	WG1652848
(S) o-Terphenyl	*102*			*31.0-160*		*04/17/2021 15:33*	WG1652848

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	0.292	J	0.108	0.500	1	04/15/2021 21:07	WG1652620
Benzene	U		0.0000941	0.00100	1	04/15/2021 21:07	WG1652620
Ethylbenzene	U		0.000137	0.00100	1	04/15/2021 21:07	WG1652620
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/15/2021 21:07	WG1652620
Naphthalene	U		0.00100	0.00500	1	04/15/2021 21:07	WG1652620
Toluene	U		0.000278	0.00100	1	04/15/2021 21:07	WG1652620
Xylenes, Total	U		0.000174	0.00300	1	04/15/2021 21:07	WG1652620
(S) Toluene-d8	*109*			*80.0-120*		*04/15/2021 21:07*	WG1652620
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*04/15/2021 21:07*	WG1652620
(S) 1,2-Dichloroethane-d4	*97.9*			*70.0-130*		*04/15/2021 21:07*	WG1652620

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0247	J	0.0247	0.100	1	04/17/2021 22:10	WG1653520
(S) o-Terphenyl	*91.5*			*31.0-160*		*04/17/2021 22:10*	WG1653520

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	20.4	J	5.40	25.0	50	04/15/2021 09:23	WG1651593
Benzene	0.0123	J	0.00471	0.0500	50	04/15/2021 09:23	WG1651593
Ethylbenzene	0.346		0.00685	0.0500	50	04/15/2021 09:23	WG1651593
Methyl tert-butyl ether	U		0.00505	0.0500	50	04/15/2021 09:23	WG1651593
Naphthalene	0.0777	J	0.0500	0.250	50	04/15/2021 09:23	WG1651593
Toluene	0.271		0.0139	0.0500	50	04/15/2021 09:23	WG1651593
Xylenes, Total	2.11		0.00870	0.150	50	04/15/2021 09:23	WG1651593
(S) Toluene-d8	*108*			*80.0-120*		*04/15/2021 09:23*	WG1651593
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*04/15/2021 09:23*	WG1651593
(S) 1,2-Dichloroethane-d4	*98.0*			*70.0-130*		*04/15/2021 09:23*	WG1651593

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	8.00		0.0494	0.200	2	04/19/2021 11:41	WG1653520
(S) o-Terphenyl	*96.5*			*31.0-160*		*04/19/2021 11:41*	WG1653520

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	U		0.108	0.500	1	04/14/2021 04:50	WG1650979
Benzene	0.000130	J	0.0000941	0.00100	1	04/14/2021 04:50	WG1650979
Ethylbenzene	0.00348		0.000137	0.00100	1	04/14/2021 04:50	WG1650979
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/14/2021 04:50	WG1650979
Naphthalene	U		0.00100	0.00500	1	04/14/2021 04:50	WG1650979
Toluene	0.000415	J	0.000278	0.00100	1	04/14/2021 04:50	WG1650979
Xylenes, Total	0.00809		0.000174	0.00300	1	04/14/2021 04:50	WG1650979
(S) Toluene-d8	*96.5*			*80.0-120*		*04/14/2021 04:50*	WG1650979
(S) 4-Bromofluorobenzene	*87.6*			*77.0-126*		*04/14/2021 04:50*	WG1650979
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*04/14/2021 04:50*	WG1650979

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0501	J	0.0247	0.100	1	04/17/2021 23:01	WG1653520
(S) o-Terphenyl	*93.5*			*31.0-160*		*04/17/2021 23:01*	WG1653520

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	7.15	J	2.70	12.5	25	04/15/2021 09:43	WG1651593
Benzene	0.374		0.00235	0.0250	25	04/15/2021 09:43	WG1651593
Ethylbenzene	0.0891		0.00343	0.0250	25	04/15/2021 09:43	WG1651593
Methyl tert-butyl ether	U		0.00253	0.0250	25	04/15/2021 09:43	WG1651593
Naphthalene	0.0379	J	0.0250	0.125	25	04/15/2021 09:43	WG1651593
Toluene	0.0152	J	0.00695	0.0250	25	04/15/2021 09:43	WG1651593
Xylenes, Total	0.445		0.00435	0.0750	25	04/15/2021 09:43	WG1651593
(S) Toluene-d8	*106*			*80.0-120*		*04/15/2021 09:43*	WG1651593
(S) 4-Bromofluorobenzene	*107*			*77.0-126*		*04/15/2021 09:43*	WG1651593
(S) 1,2-Dichloroethane-d4	*98.3*			*70.0-130*		*04/15/2021 09:43*	WG1651593

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	5.96		0.0247	0.100	1	04/19/2021 11:15	WG1653520
(S) o-Terphenyl	*112*			*31.0-160*		*04/19/2021 11:15*	WG1653520

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	3.55		0.108	0.500	1	04/15/2021 03:37	WG1651593
Benzene	0.401		0.00188	0.0200	20	04/15/2021 21:48	WG1652620
Ethylbenzene	0.123		0.000137	0.00100	1	04/15/2021 03:37	WG1651593
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/15/2021 03:37	WG1651593
Naphthalene	0.0561		0.00100	0.00500	1	04/15/2021 03:37	WG1651593
Toluene	0.0182		0.000278	0.00100	1	04/15/2021 03:37	WG1651593
Xylenes, Total	0.490		0.00348	0.0600	20	04/15/2021 21:48	WG1652620
(S) Toluene-d8	*99.4*			*80.0-120*		*04/15/2021 03:37*	WG1651593
(S) Toluene-d8	*106*			*80.0-120*		*04/15/2021 21:48*	WG1652620
(S) 4-Bromofluorobenzene	*110*			*77.0-126*		*04/15/2021 03:37*	WG1651593
(S) 4-Bromofluorobenzene	*106*			*77.0-126*		*04/15/2021 21:48*	WG1652620
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*04/15/2021 03:37*	WG1651593
(S) 1,2-Dichloroethane-d4	*96.4*			*70.0-130*		*04/15/2021 21:48*	WG1652620

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	5.91		0.0247	0.100	1	04/19/2021 10:50	WG1653520
(S) o-Terphenyl	*111*			*31.0-160*		*04/19/2021 10:50*	WG1653520

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	0.997		0.108	0.500	1	04/15/2021 03:58	WG1651593
Benzene	0.00627		0.0000941	0.00100	1	04/15/2021 21:27	WG1652620
Ethylbenzene	0.0408		0.000137	0.00100	1	04/15/2021 03:58	WG1651593
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/15/2021 03:58	WG1651593
Naphthalene	0.00714		0.00100	0.00500	1	04/15/2021 03:58	WG1651593
Toluene	0.0212		0.000278	0.00100	1	04/15/2021 03:58	WG1651593
Xylenes, Total	0.134		0.000174	0.00300	1	04/15/2021 03:58	WG1651593
(S) Toluene-d8	*105*			*80.0-120*		*04/15/2021 03:58*	WG1651593
(S) Toluene-d8	*107*			*80.0-120*		*04/15/2021 21:27*	WG1652620
(S) 4-Bromofluorobenzene	*111*			*77.0-126*		*04/15/2021 03:58*	WG1651593
(S) 4-Bromofluorobenzene	*105*			*77.0-126*		*04/15/2021 21:27*	WG1652620
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*04/15/2021 03:58*	WG1651593
(S) 1,2-Dichloroethane-d4	*98.9*			*70.0-130*		*04/15/2021 21:27*	WG1652620

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.664		0.0247	0.100	1	04/19/2021 10:24	WG1653520
(S) o-Terphenyl	*112*			*31.0-160*		*04/19/2021 10:24*	WG1653520

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/MS) Low Fraction	0.437	J	0.108	0.500	1	04/15/2021 04:18	WG1651593
Benzene	0.00889		0.0000941	0.00100	1	04/15/2021 04:18	WG1651593
Ethylbenzene	0.0266		0.000137	0.00100	1	04/15/2021 04:18	WG1651593
Methyl tert-butyl ether	U		0.000101	0.00100	1	04/15/2021 04:18	WG1651593
Naphthalene	0.00190	J	0.00100	0.00500	1	04/15/2021 04:18	WG1651593
Toluene	0.000575	J	0.000278	0.00100	1	04/15/2021 04:18	WG1651593
Xylenes, Total	0.0450		0.000174	0.00300	1	04/15/2021 04:18	WG1651593
(S) Toluene-d8	*107*			*80.0-120*		*04/15/2021 04:18*	WG1651593
(S) 4-Bromofluorobenzene	*109*			*77.0-126*		*04/15/2021 04:18*	WG1651593
(S) 1,2-Dichloroethane-d4	*99.4*			*70.0-130*		*04/15/2021 04:18*	WG1651593

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.260		0.0247	0.100	1	04/19/2021 09:59	WG1653520
(S) o-Terphenyl	*113*			*31.0-160*		*04/19/2021 09:59*	WG1653520

Method Blank (MB)

(MB) R3641596-3 04/13/21 22:37

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/MS) Low Fraction	U		0.108	0.500
Benzene	U		0.0000941	0.00100
Ethylbenzene	U		0.000137	0.00100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
Toluene	U		0.000278	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	*96.0*			*80.0-120*
(S) 4-Bromofluorobenzene	*88.4*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3641596-1 04/13/21 21:03

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.00500	0.00536	107	70.0-123	
Ethylbenzene	0.00500	0.00519	104	79.0-123	
Methyl tert-butyl ether	0.00500	0.00487	97.4	68.0-125	
Naphthalene	0.00500	0.00403	80.6	54.0-135	
Toluene	0.00500	0.00537	107	79.0-120	
Xylenes, Total	0.0150	0.0155	103	79.0-123	
(S) Toluene-d8			*95.5*	*80.0-120*	
(S) 4-Bromofluorobenzene			*91.9*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*106*	*70.0-130*	

Laboratory Control Sample (LCS)

(LCS) R3641596-2 04/13/21 21:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/MS) Low Fraction	5.00	4.06	81.2	66.0-132	
(S) Toluene-d8			*93.2*	*80.0-120*	
(S) 4-Bromofluorobenzene			*106*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*103*	*70.0-130*	

Method Blank (MB)

(MB) R3642316-3 04/14/21 09:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
(S) Toluene-d8	*98.5*			*80.0-120*
(S) 4-Bromofluorobenzene	*85.3*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3642316-1 04/14/21 08:06 • (LCSD) R3642316-2 04/14/21 08:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00539	0.00489	108	97.8	70.0-123			9.73	20
(S) Toluene-d8				*99.0*	*99.4*	*80.0-120*				
(S) 4-Bromofluorobenzene				*87.7*	*84.0*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*112*	*112*	*70.0-130*				

Method Blank (MB)

(MB) R3642400-3 04/15/21 01:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/MS) Low Fraction	U		0.108	0.500
Benzene	U		0.0000941	0.00100
Ethylbenzene	U		0.000137	0.00100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
Toluene	U		0.000278	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	*109*			*80.0-120*
(S) 4-Bromofluorobenzene	*109*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3642400-1 04/15/21 00:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.00500	0.00456	91.2	70.0-123	
Ethylbenzene	0.00500	0.00445	89.0	79.0-123	
Methyl tert-butyl ether	0.00500	0.00544	109	68.0-125	
Naphthalene	0.00500	0.00456	91.2	54.0-135	
Toluene	0.00500	0.00451	90.2	79.0-120	
Xylenes, Total	0.0150	0.0134	89.3	79.0-123	
(S) Toluene-d8			*106*	*80.0-120*	
(S) 4-Bromofluorobenzene			*107*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*102*	*70.0-130*	

Laboratory Control Sample (LCS)

(LCS) R3642400-2 04/15/21 01:15

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/MS) Low Fraction	5.00	4.74	94.8	66.0-132	
(S) Toluene-d8			*100*	*80.0-120*	
(S) 4-Bromofluorobenzene			*111*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*106*	*70.0-130*	

Method Blank (MB)

(MB) R3643243-3 04/15/21 16:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/MS) Low Fraction	U		0.108	0.500
Benzene	U		0.0000941	0.00100
Ethylbenzene	U		0.000137	0.00100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
Toluene	U		0.000278	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*107*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*98.6*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3643243-1 04/15/21 14:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.00500	0.00498	99.6	70.0-123	
Ethylbenzene	0.00500	0.00492	98.4	79.0-123	
Methyl tert-butyl ether	0.00500	0.00472	94.4	68.0-125	
Naphthalene	0.00500	0.00424	84.8	54.0-135	
Toluene	0.00500	0.00502	100	79.0-120	
Xylenes, Total	0.0150	0.0147	98.0	79.0-123	
(S) Toluene-d8			*107*	*80.0-120*	
(S) 4-Bromofluorobenzene			*106*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*100*	*70.0-130*	

Laboratory Control Sample (LCS)

(LCS) R3643243-2 04/15/21 15:17

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/MS) Low Fraction	5.00	4.26	85.2	66.0-132	
(S) Toluene-d8			*99.0*	*80.0-120*	
(S) 4-Bromofluorobenzene			*118*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*109*	*70.0-130*	

Method Blank (MB)

(MB) R3643468-4 04/18/21 13:42

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/MS) Low Fraction	U		0.108	0.500
Benzene	U		0.0000941	0.00100
Ethylbenzene	U		0.000137	0.00100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
Toluene	U		0.000278	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	*108*			*80.0-120*
(S) 4-Bromofluorobenzene	*107*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*96.4*			*70.0-130*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3643468-1 04/18/21 10:31 • (LCSD) R3643468-2 04/18/21 10:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.00500	0.00484	0.00493	96.8	98.6	70.0-123			1.84	20
Ethylbenzene	0.00500	0.00488	0.00491	97.6	98.2	79.0-123			0.613	20
Methyl tert-butyl ether	0.00500	0.00460	0.00464	92.0	92.8	68.0-125			0.866	20
Naphthalene	0.00500	0.00378	0.00391	75.6	78.2	54.0-135			3.38	20
Toluene	0.00500	0.00492	0.00502	98.4	100	79.0-120			2.01	20
Xylenes, Total	0.0150	0.0146	0.0147	97.3	98.0	79.0-123			0.683	20
(S) Toluene-d8				*108*	*108*	*80.0-120*				
(S) 4-Bromofluorobenzene				*106*	*107*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*99.5*	*98.9*	*70.0-130*				

Laboratory Control Sample (LCS)

(LCS) R3643468-3 04/18/21 11:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/MS) Low Fraction	5.00	4.33	86.6	66.0-132	
(S) Toluene-d8			*99.2*	*80.0-120*	
(S) 4-Bromofluorobenzene			*113*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*107*	*70.0-130*	

QUALITY CONTROL SUMMARY

L1337042-01,02,03,04,05,06,07,08,09,10,11,12,13,14,15,16

Method Blank (MB)

(MB) R3643437-1 04/17/21 00:59

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*104*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3643437-2 04/17/21 01:25 • (LCSD) R3643437-3 04/17/21 01:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.76	1.64	117	109	50.0-150			7.06	20
(S) o-Terphenyl				*124*	*115*	*31.0-160*				

Method Blank (MB)

(MB) R3643438-1 04/17/21 20:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*91.5*			*31.0-160*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3643438-2 04/17/21 21:18 • (LCSD) R3643438-3 04/17/21 21:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.66	1.66	111	111	50.0-150			0.000	20
(S) o-Terphenyl				*116*	*117*	*31.0-160*				

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Terracon
6949 S. High Tech Dr.
Midvale, Utah 84047

Billing Information:

Report to: Curt Stripeka

Email To: curt.stripeka@terracon.com

Project Description: Triple stop Chevron

City/State Collected: Layton, Utah

Please Circle: PT MT CT ET

Phone: 801.746.5464

Client Project # 61197153

Lab Project # Layton, Utah

Collected by (print): Chase Maeser

Site/Facility ID #

P.O. #

Collected by (signature): [signature]

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Terracon Standard

Analysis / Container / Preservative

Pres Chk

Chain of Custody Page ___ of ___

Pace Analytical® National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # L1337042
B075

Acctnum:
Template:
Prelogin:
PM:
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	TPH - GRO/MBTEXN 8260B	TPH - DRO 8015B	Remarks	Sample # (lab only)
MW-37	Grab	GW		4/07/21	0955	5	X	X		-01
MW-32	Grab	GW		4/07/21	1025	5	X	X		-02
MW-31	Grab	GW		4/07/21	1100	5	X	X		-03
MW-30	Grab	GW		4/07/21	1128	5	X	X		-04
MW-19	Grab	GW		4/07/21	1150	5	X	X		-05
MW-119	Grab	GW		4/07/21	1155	5	X	X		-06
MW-20	Grab	GW		4/07/21	1245	5	X	X		-07
MW-18	Grab	GW		4/07/21	1307	5	X	X		-08
MW-02	Grab	GW		4/07/21	1338	5	X	X		-09
MW-01	Grab	GW		4/07/21	1400	5	X	X		-10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
[signature]	4/9/21	10:13	[signature]		
Relinquished by : (Signature) [signature] PNSLCUT	Date: 4/9/21	Time: 17:00	Received by: (Signature)	Temp: 3.4 1=33 °C Bottles Received: 115	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) [signature]	Date: 4/10/21 Time: 08:20	Hold: Condition: NCF / OK

Terracon
6949 S. High Tech Dr.
Midvale, Utah 84047

Billing Information:

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to: Curt Stripeka

Email To: curt.stripeka@terracon.com

Project Description: Triple Stop Chevron

City/State Collected: Layton, Utah

Please Circle: PT MT CT ET

Phone: 801.746.5464

Client Project # 61197153

Lab Project #

SDG # U337042

Table #

Collected by (print): Chase Maeser

Site/Facility ID #

P.O. #

Acctnum:

Template:

Prelogin:

PM:

PB:

Collected by (signature): Chase Maeser

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Terracon standard

Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	TPH - GRO/MBTEXN 8260B	TPH - DRO 8015B								Remarks	Sample # (lab only)
MW-04	Grab	GW		4/07/21	1433	5	X	X									-11
RW-02	Grab	GW		4/08/21	1128	5	X	X									-12
MW-10	Grab	GW		4/08/21	1210	5	X	X									-13
EW-4	Grab	GW		4/08/21	1230	5	X	X									-14
MW-13	Grab	GW		4/08/21	1254	5	X	X									-15
MW-08	Grab	GW		4/08/21	1330	5	X	X									-16
MW-14	Grab	GW		4/08/21	1430	5	X	X									-17
EW-03	Grab	GW		4/08/21	1436	5	X	X									-18
MW-25	Grab	GW		4/08/21	1520	5	X	X									-19
MW-24	Grab	GW		4/08/21	1555	5	X	X									-20

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: Hold MW-10

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
[signature]	4/9/21	10:13	[signature]		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	If preservation required by Login: Date/Time
[signature] PASLCOT	4/9/21	17:00		A60T 3.4-3.3 115	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:	Hold: / Condition: NCF / OK
			[signature]	4/10/21 0:20	

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Midvale, Utah 84047

Billing Information:

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Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

Report to: Curt Stripeka

Email To: curt.stripeka@terracon.com

Project Description: Triple Stop Chevron

City/State Collected: Layton, Utah

Please Circle: PT MT CT ET

Phone: 801.746.5464

Client Project # 61197153

Lab Project #

SDG # L1337042

Table #

Collected by (print): Chase Maeser

Site/Facility ID #

P.O. #

Acctnum:

Template:

Prelogin:

PM:

PB:

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed: Terracon standard

Shipped Via:

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	TPH - GRO/MBTEXN 8260B	TPH - DRO 8015B	Remarks	Sample # (lab only)
MW-124	Grab	GW		4/08/21	1550		X	X		-21
MW-22	Grab	GW		4/08/21	1412		X	X		-22
MW-23	Grab	GW		4/08/21	1630		X	X		-23

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

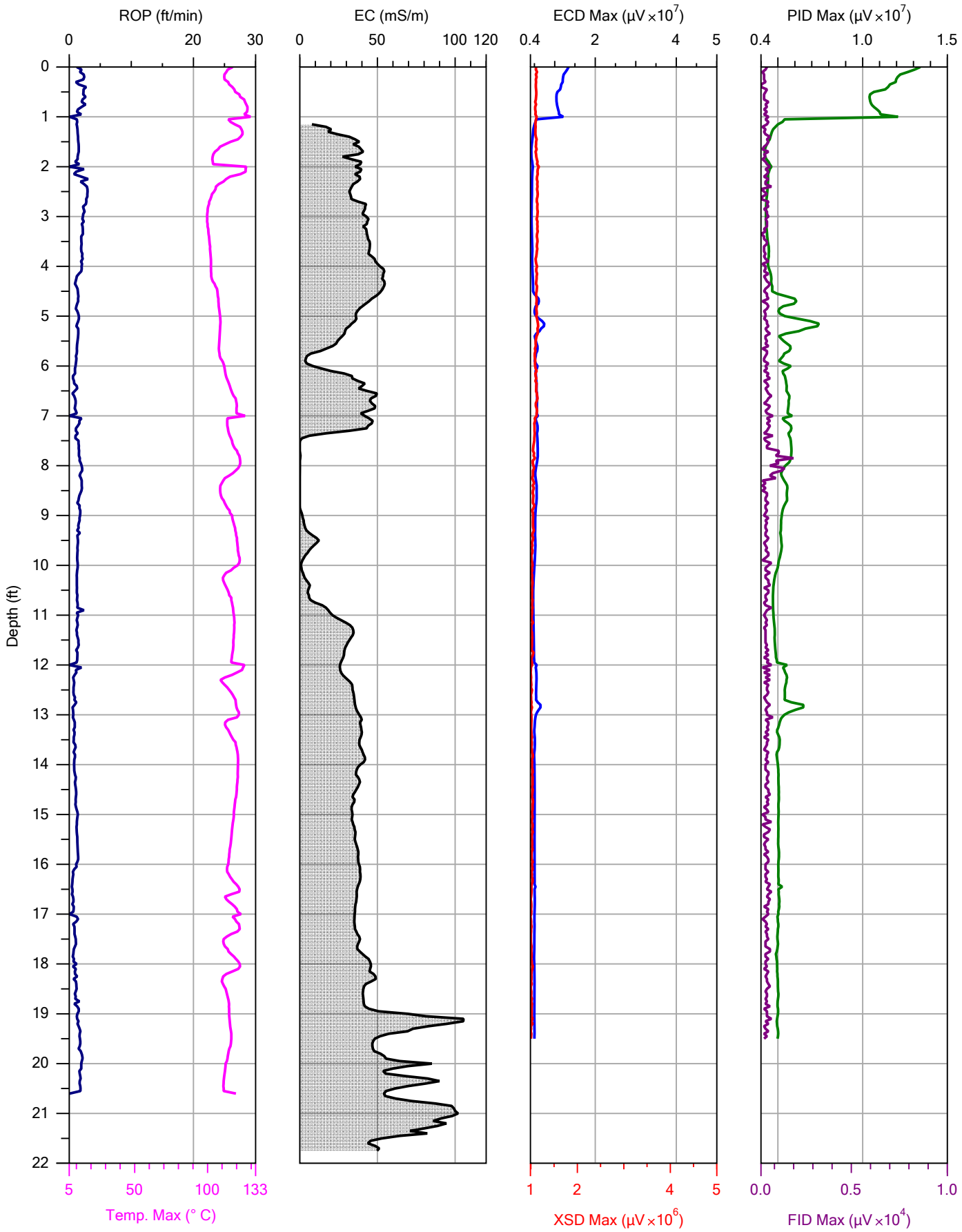
Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: __Y __N
Bottles arrive intact: __Y __N
Correct bottles used: __Y __N
Sufficient volume sent: __Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N
RAD Screen <0.5 mR/hr: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
	4/9/21	10:13			
Relinquished by : (Signature) PNSLCUT	Date: 4/9/21	Time: 17:00	Received by: (Signature)	Temp: 3.4-1=3.3 °C Bottles Received: 115	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4/10/21 Time: 10:20	Hold: Condition: NCF / OK

APPENDIX E
HRSC Logs



CASCADE
DRILLING | TECHNICAL SERVICES

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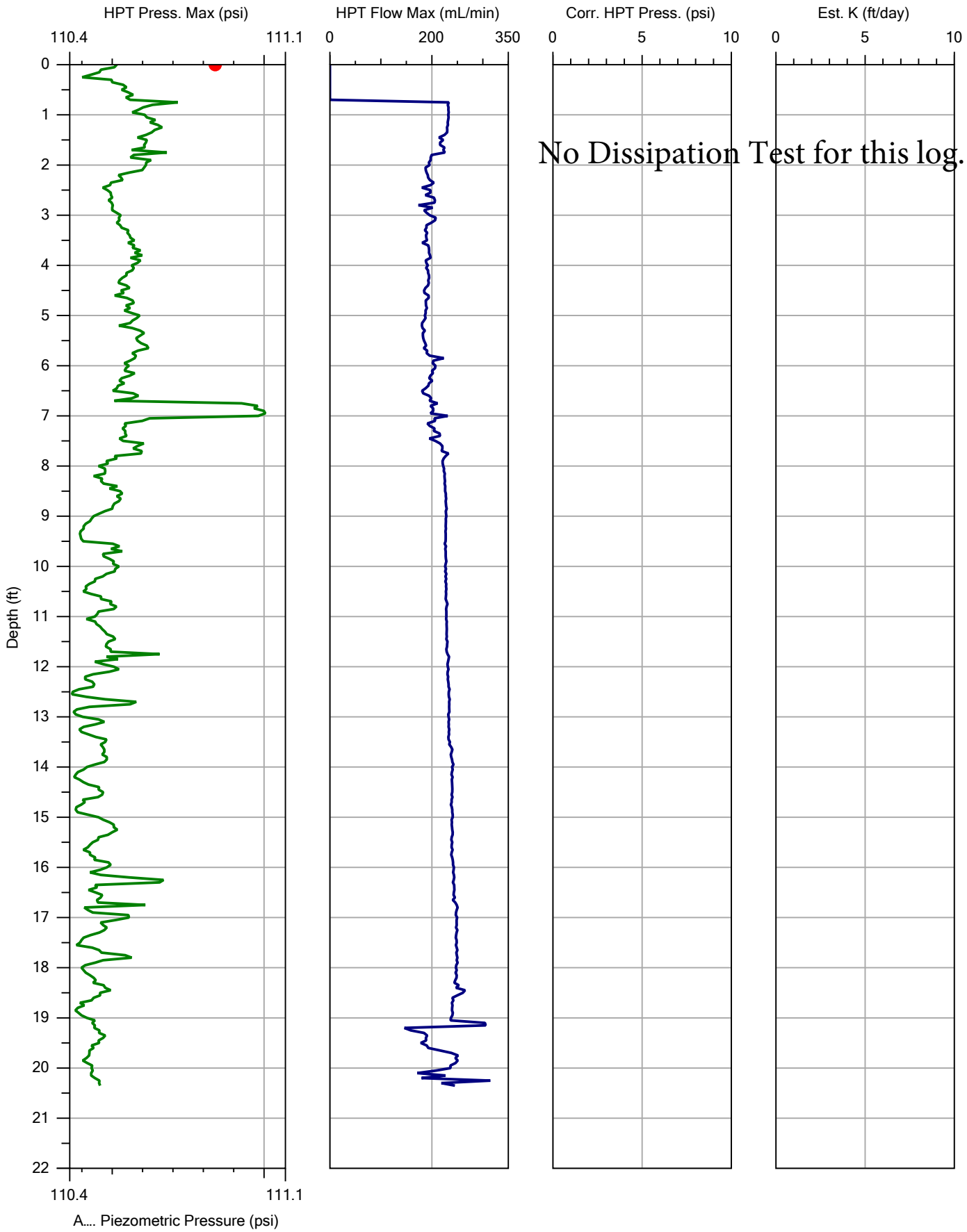
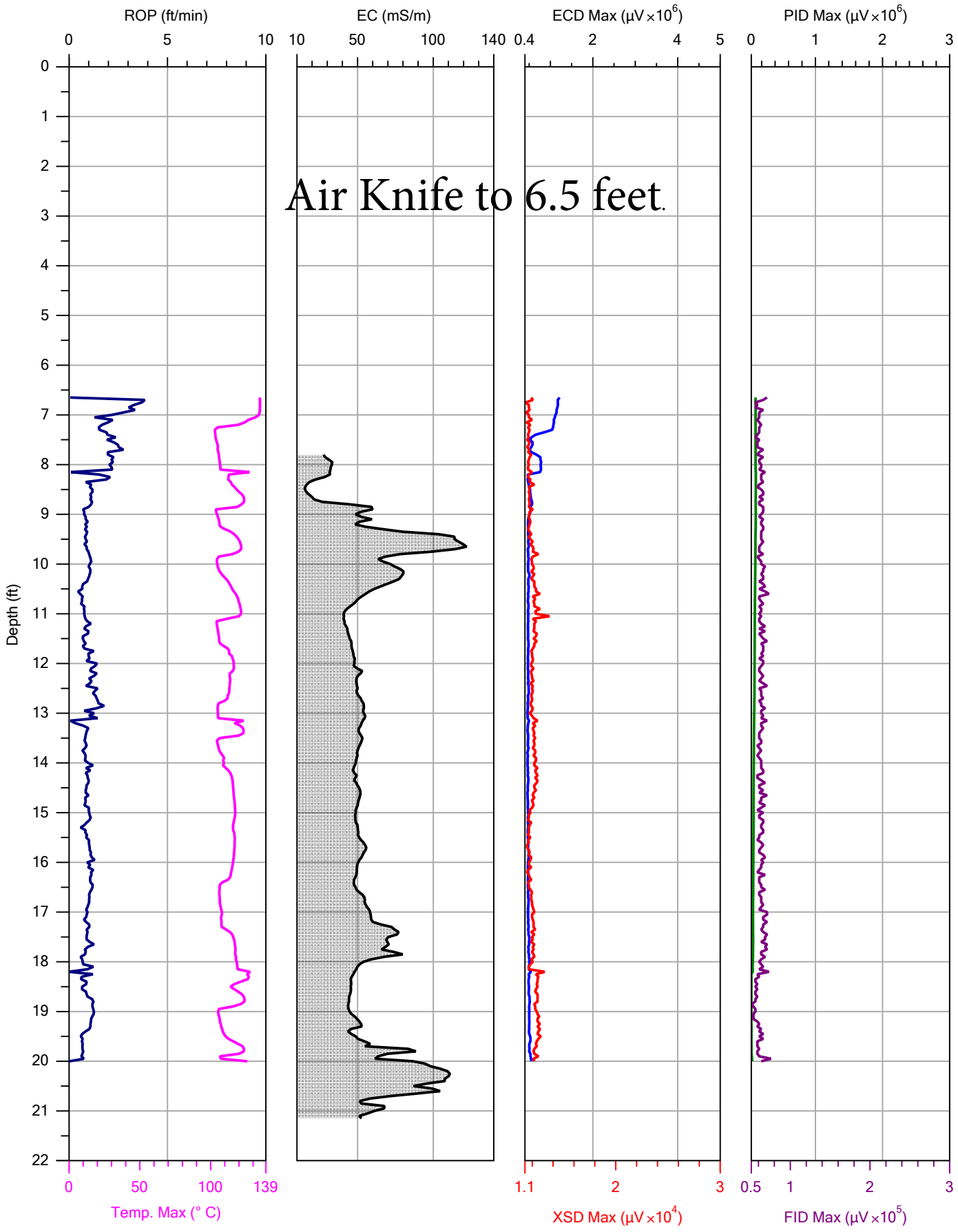
Company: Cascade Remediation Services	Operator: Jonathan Pooler	Date: 03/24/21
Project ID: TSC- Layton Chevron	Client: Terracon	Location: Layton, UT



CASCADE
DRILLING | TECHNICAL SERVICES

		File: MIHPT-1.MHP
Company: Cascade Remediation Services	Operator: Jonathan Pooler	Date: 03/24/21
Project ID: TSC- Layton Chevron	Client: Terracon	Location: Layton, UT



CASCADE
DRILLING | TECHNICAL SERVICES

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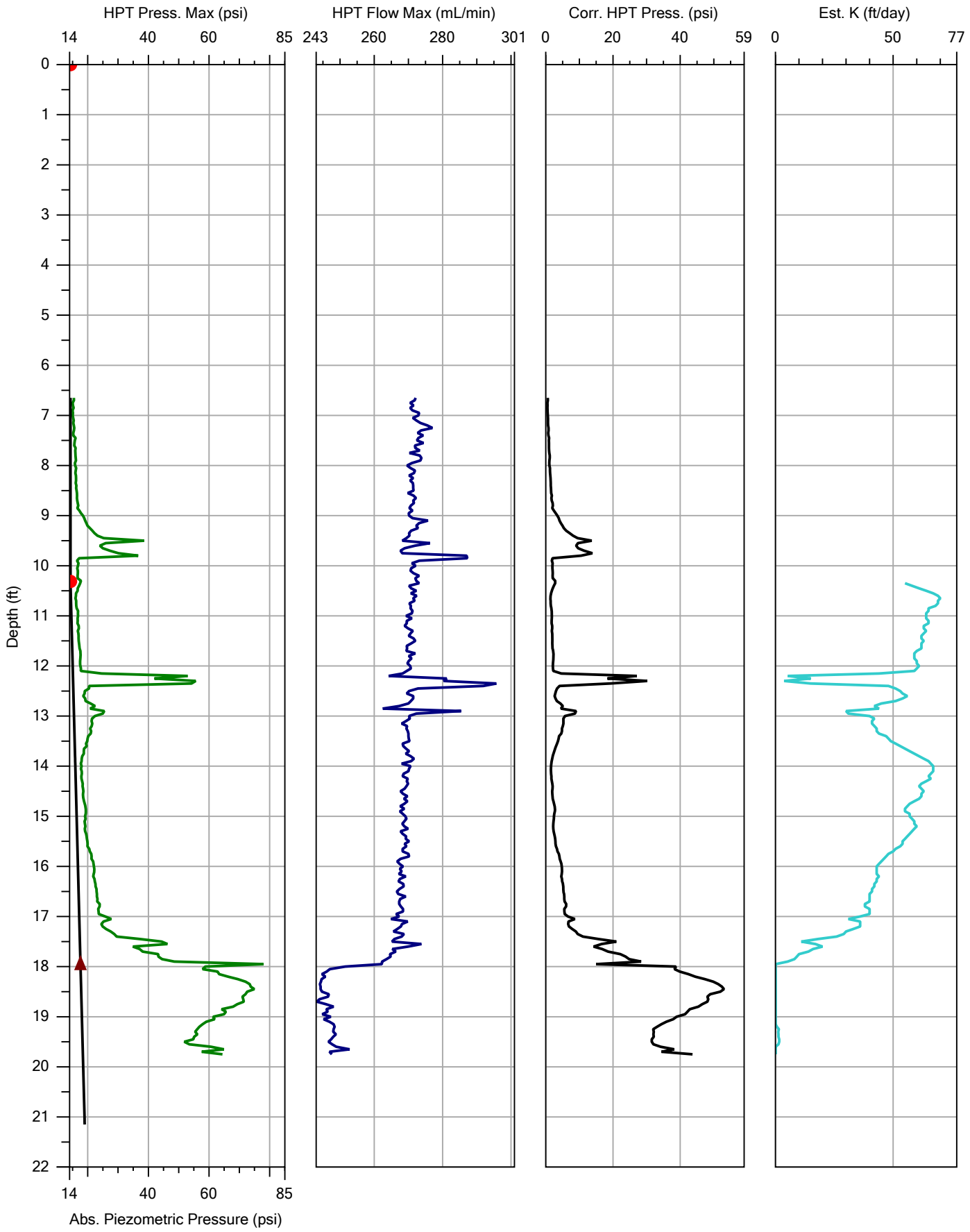
Company: Cascade	Operator: Davis Ocana	Date: 03/25/21
Project ID: 302211012	Client: Terracon	Location: Layton, UT



CASCADE
DRILLING | TECHNICAL SERVICES

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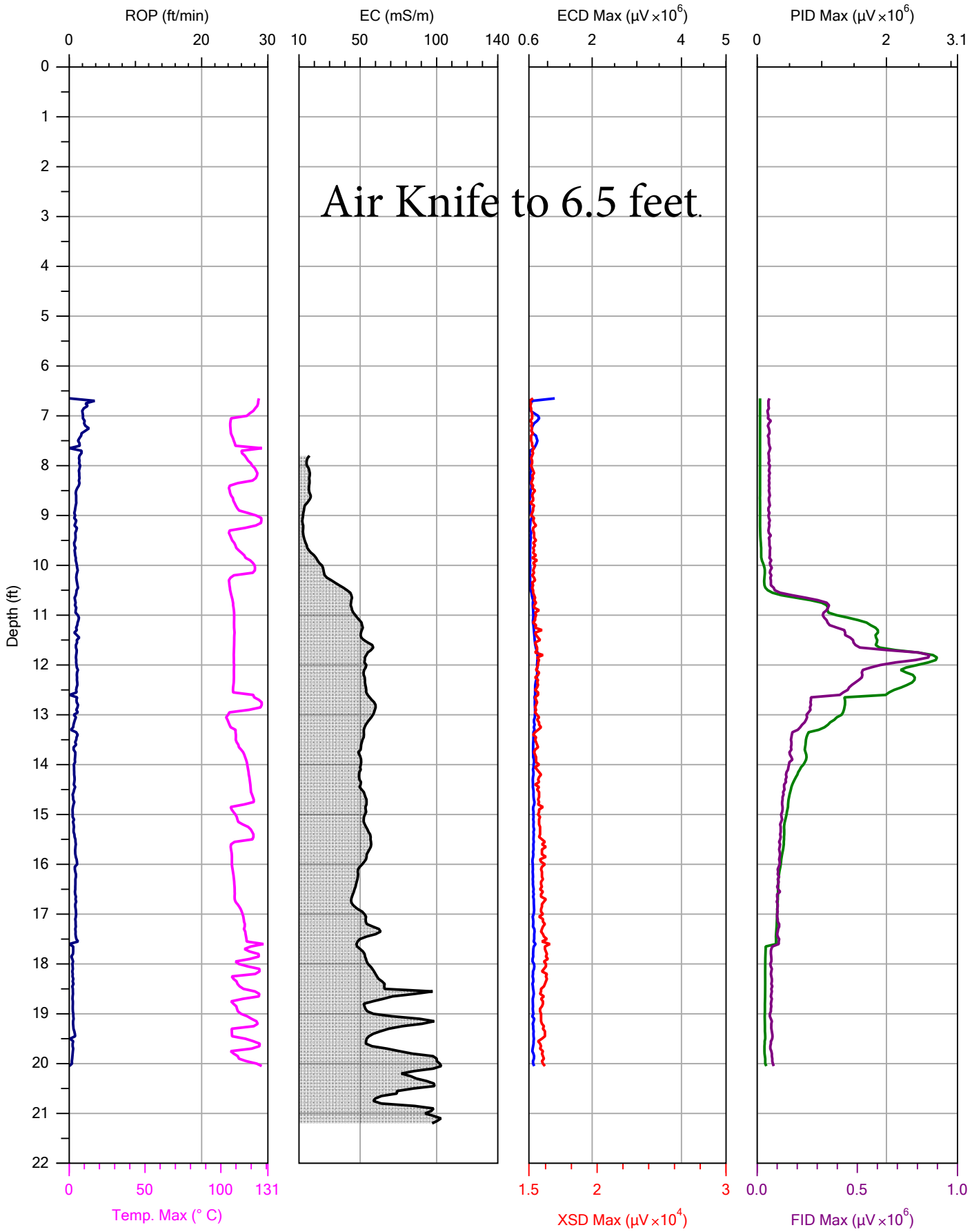
Company: Cascade	Operator: Davis Ocana	Date: 03/25/21
Project ID: 302211012	Client: Terracon	Location: Layton, UT



CASCADE
DRILLING | TECHNICAL SERVICES

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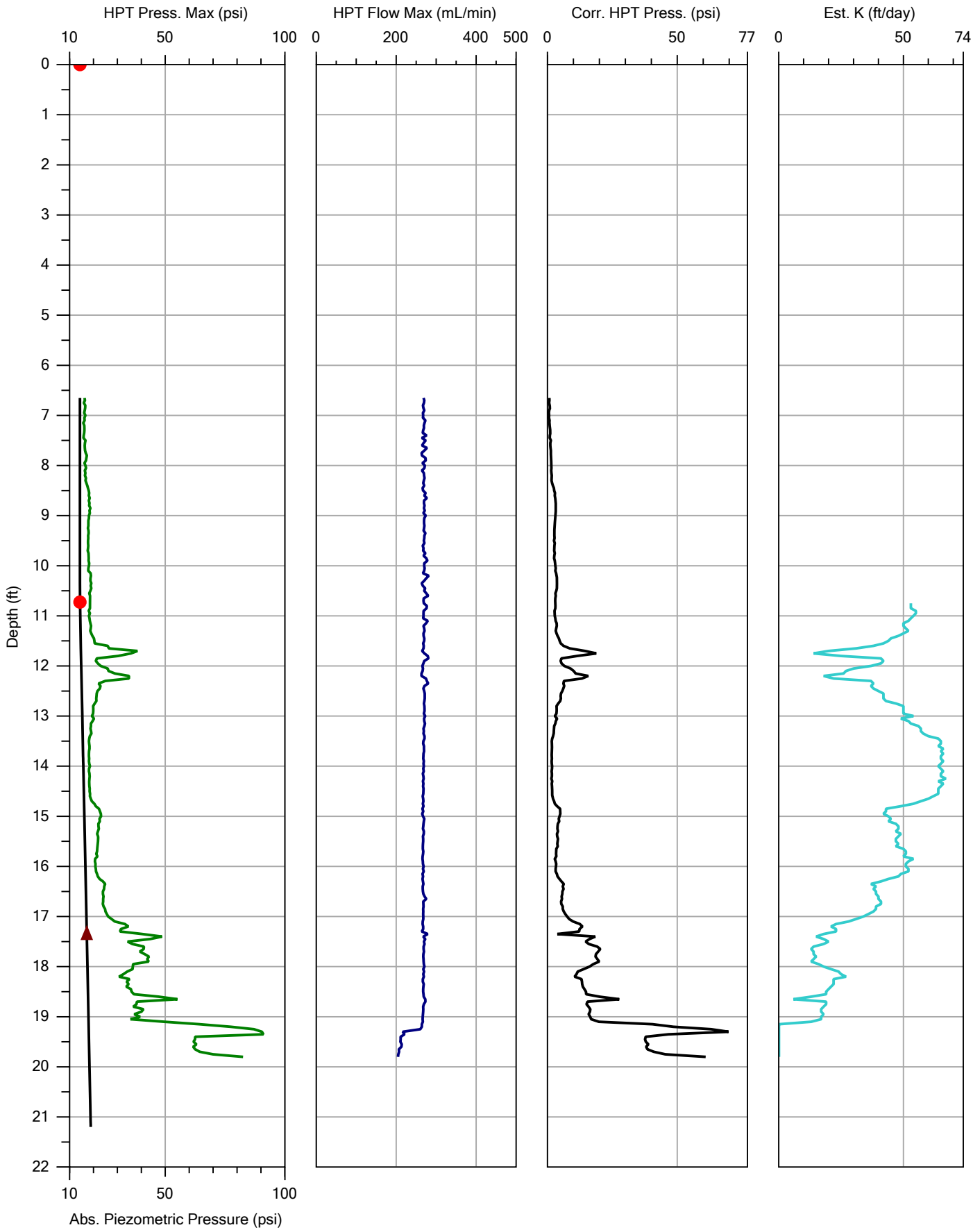
Company: Cascade	Operator: Davis Ocana	Date: 03/25/21
Project ID: 302211012	Client: Terracon	Location: Layton, UT



CASCADE
DRILLING | TECHNICAL SERVICES

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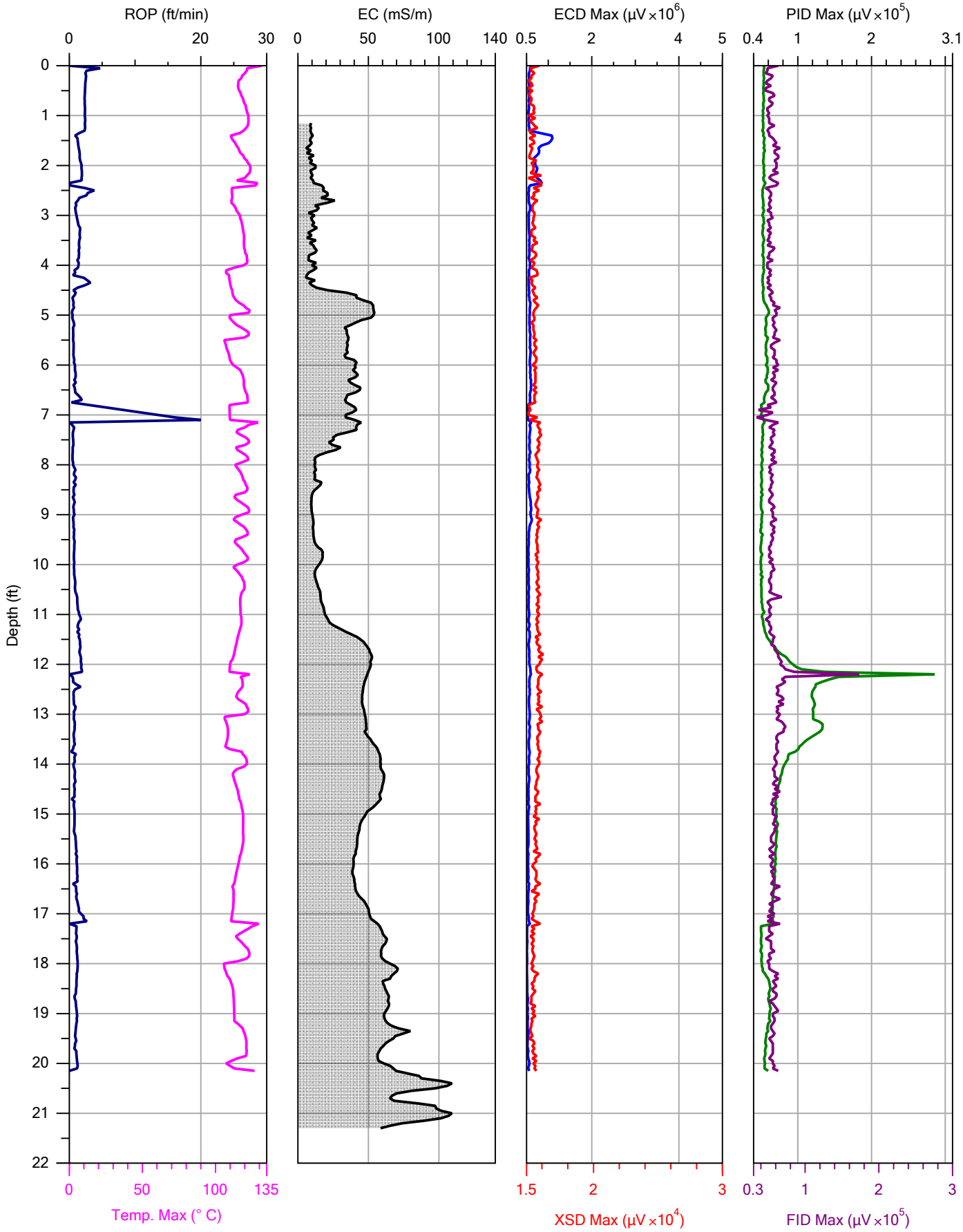
Project ID: 302211012	Client: Terracon	Location: Layton, UT



CASCADE
DRILLING | TECHNICAL SERVICES

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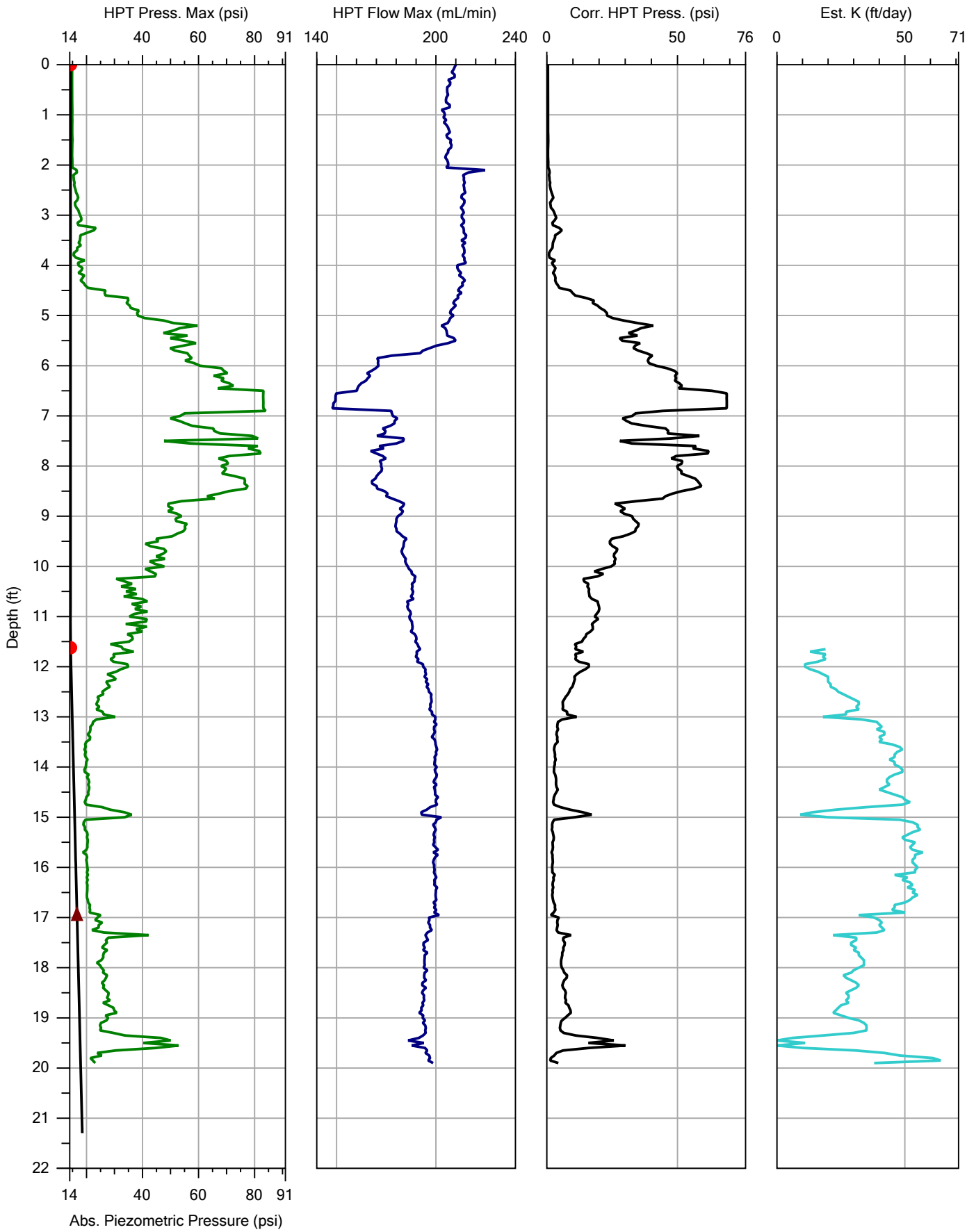
Project ID: 302211012	Client: Terracon	Location: Layton, UT



CASCADE
DRILLING | TECHNICAL SERVICES

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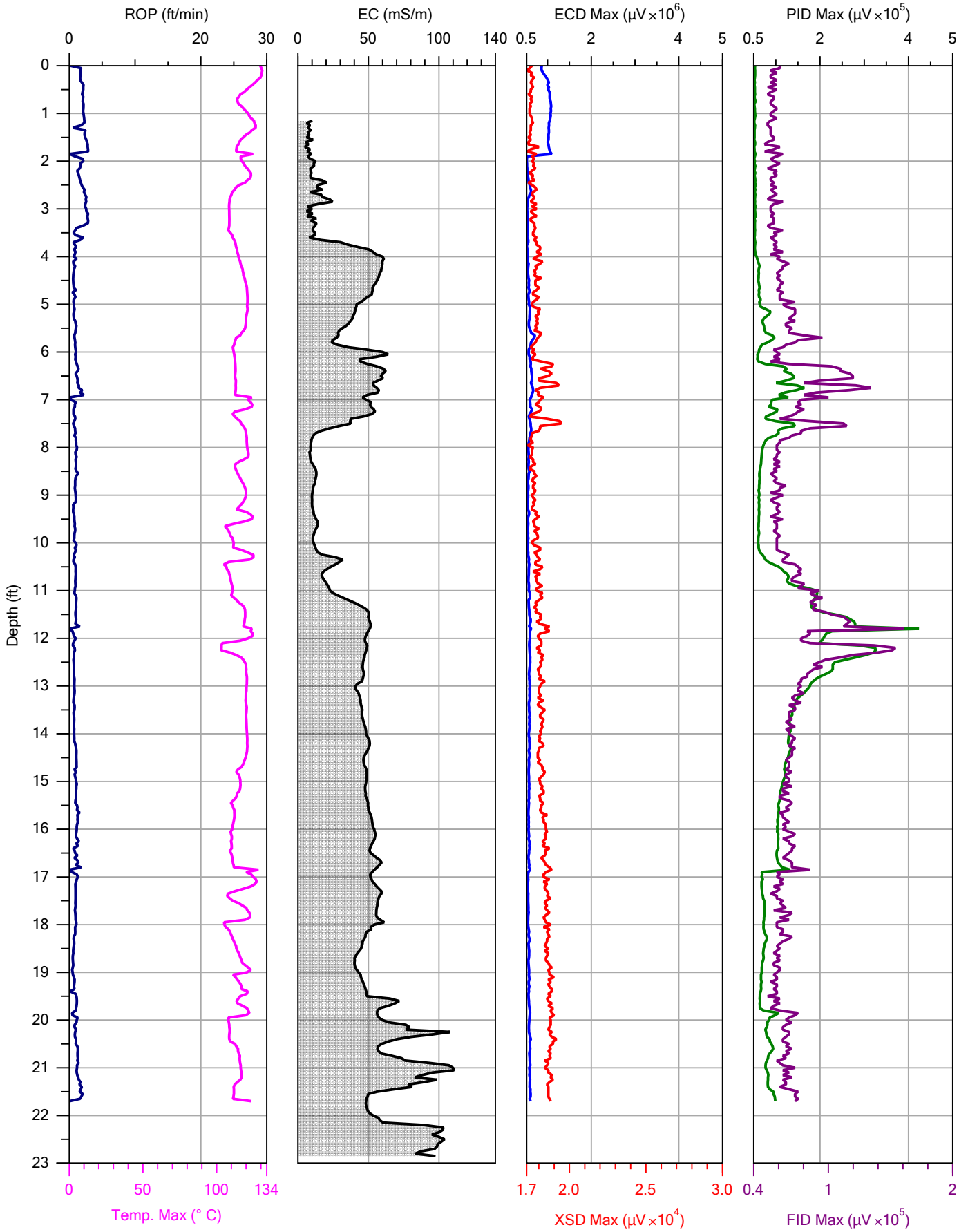
Company: Cascade	Operator: Davis Ocana	Date: 03/25/21
Project ID: 302211012	Client: Terracon	Location: Layton, UT



CASCADE
DRILLING | TECHNICAL SERVICES

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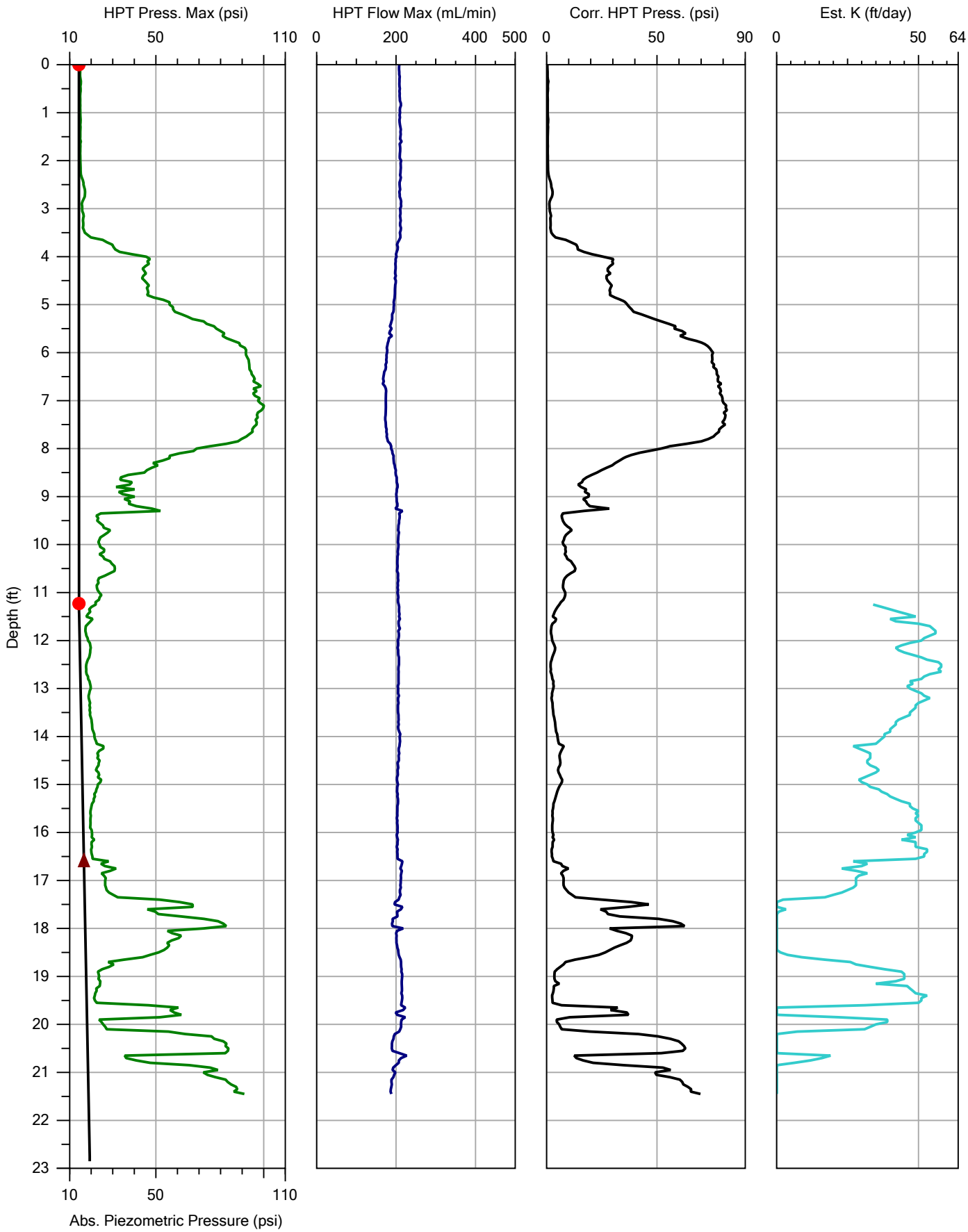
Company: Cascade	Operator: Davis Ocana	Date: 03/25/21
Project ID: 302211012	Client: Terracon	Location: Layton, UT



CASCADE
DRILLING | TECHNICAL SERVICES

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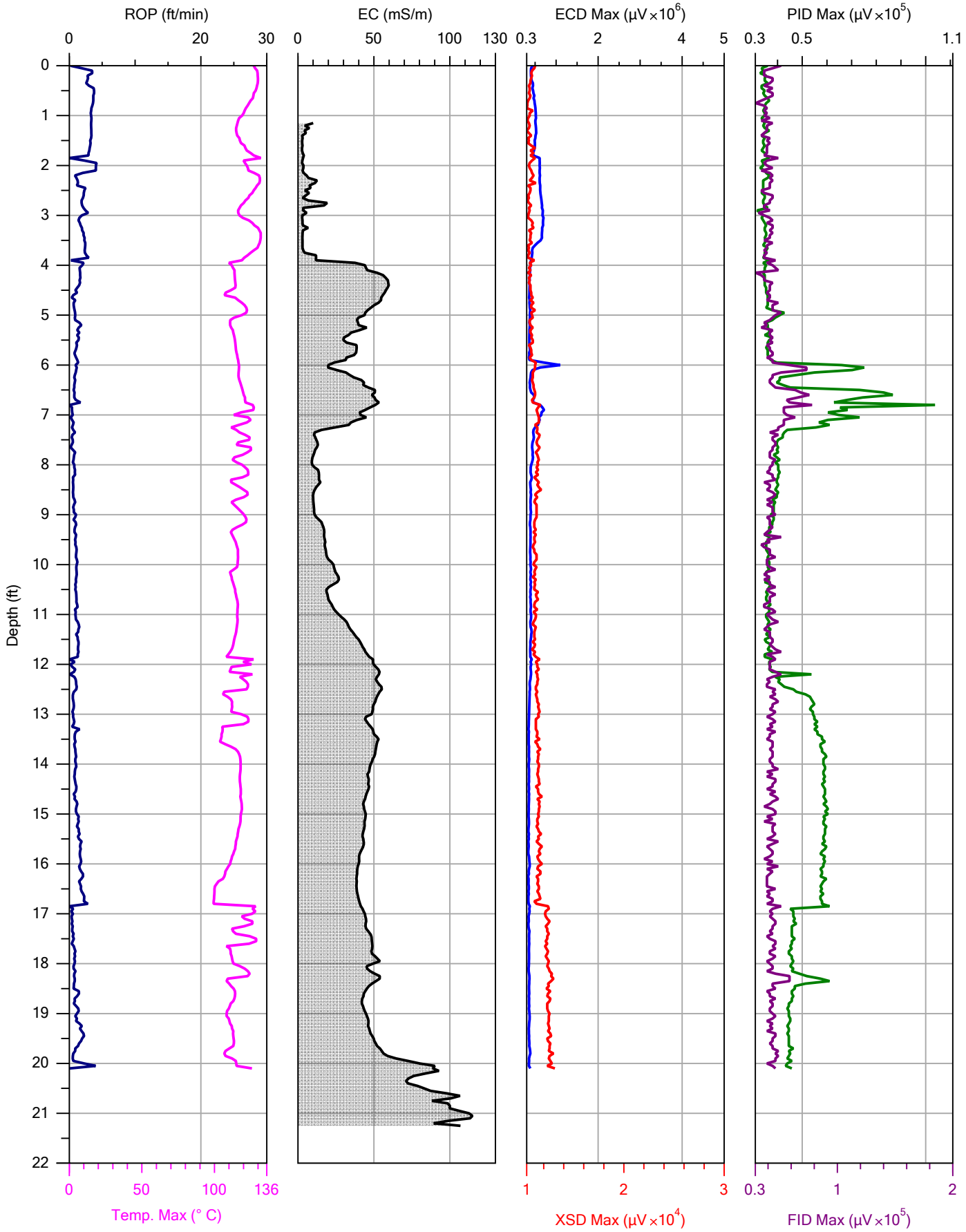
Company: Cascade	Operator: Davis Ocana	Date: 03/25/21
Project ID: 302211012	Client: Terracon	Location: Layton, UT



CASCADE
DRILLING | TECHNICAL SERVICES

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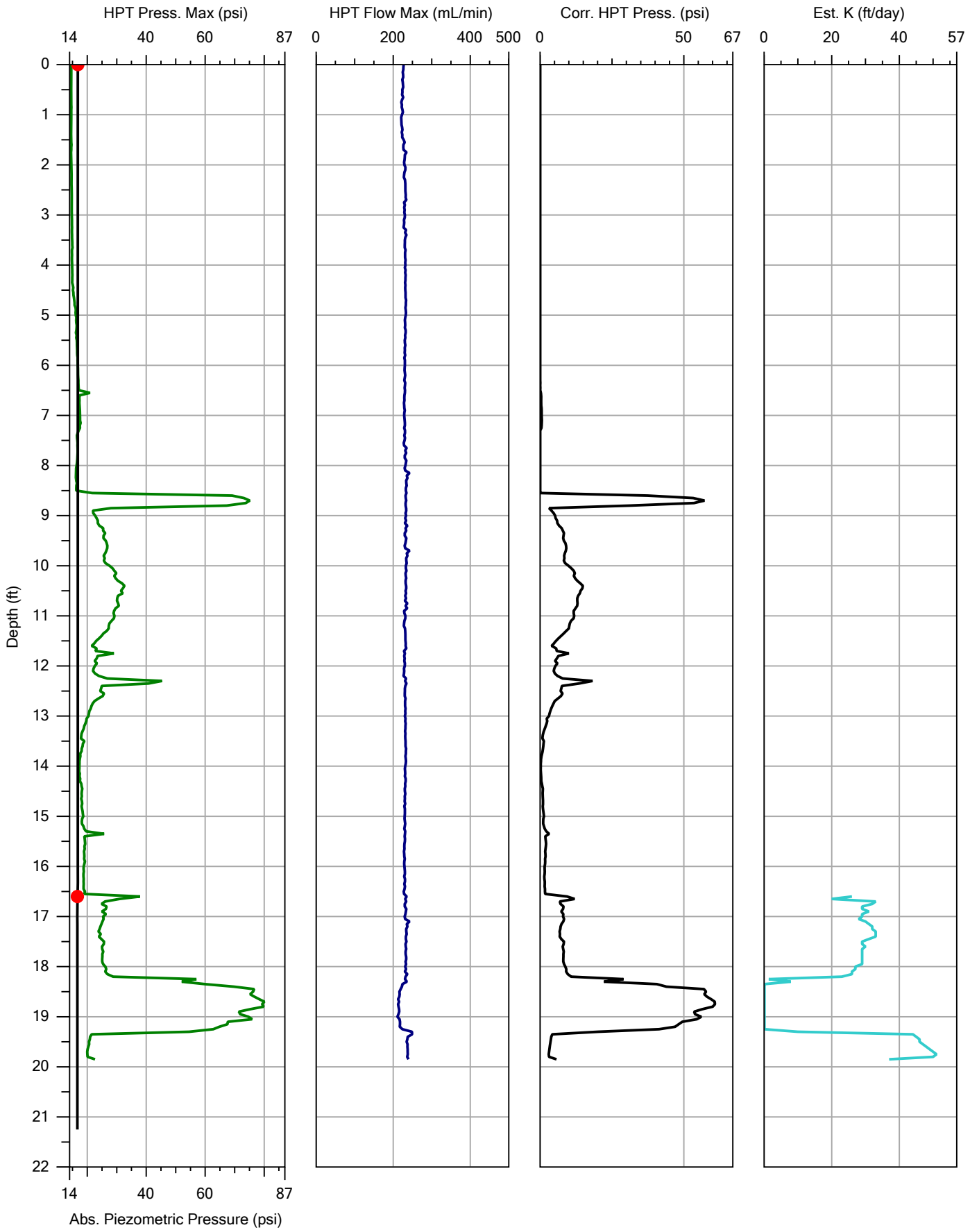
Company: Cascade Remediation Services	Operator: Jonathan Pooler	Date: 03/26/21
Project ID: TSC- Layton Chevron	Client: Terracon	Location: Layton, UT



CASCADE
DRILLING | TECHNICAL SERVICES

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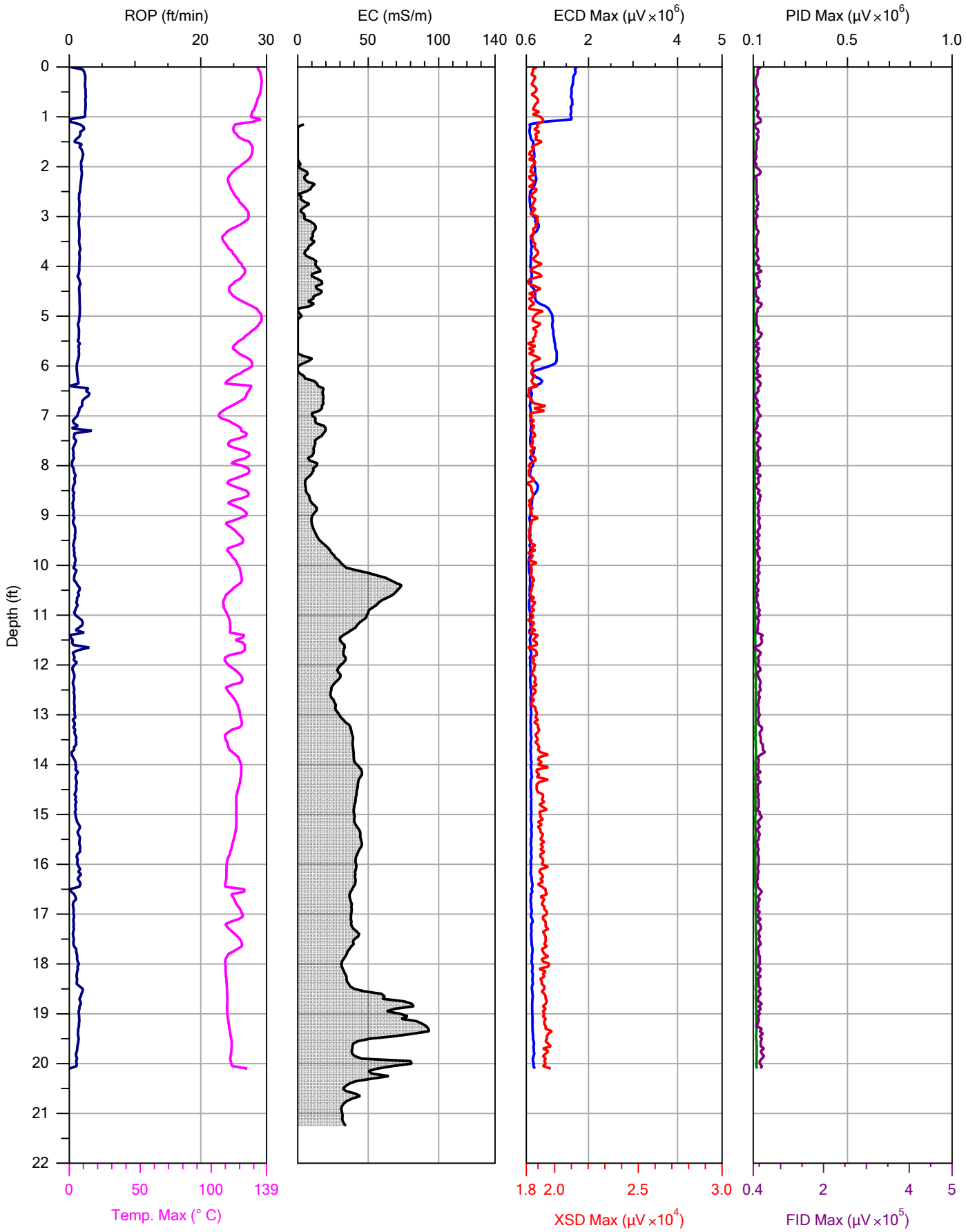
Company: Cascade Remediation Services	Operator: Jonathan Pooler	Date: 03/26/21
Project ID: TSC- Layton Chevron	Client: Terracon	Location: Layton, UT



CASCADE
DRILLING | TECHNICAL SERVICES

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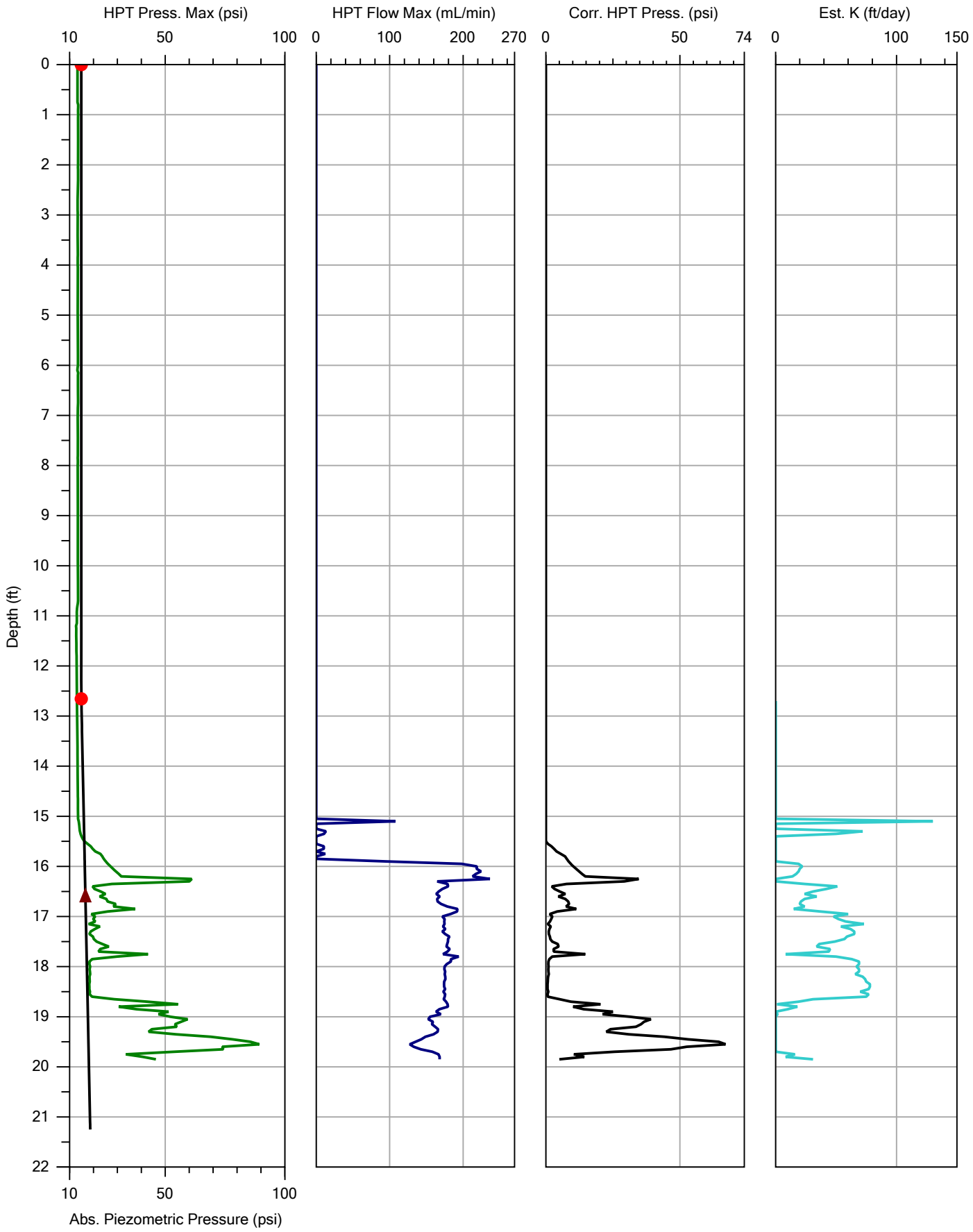
Project ID: TSC- Layton Chevron	Client: Terracon	Location: Layton, UT



CASCADE
DRILLING | TECHNICAL SERVICES

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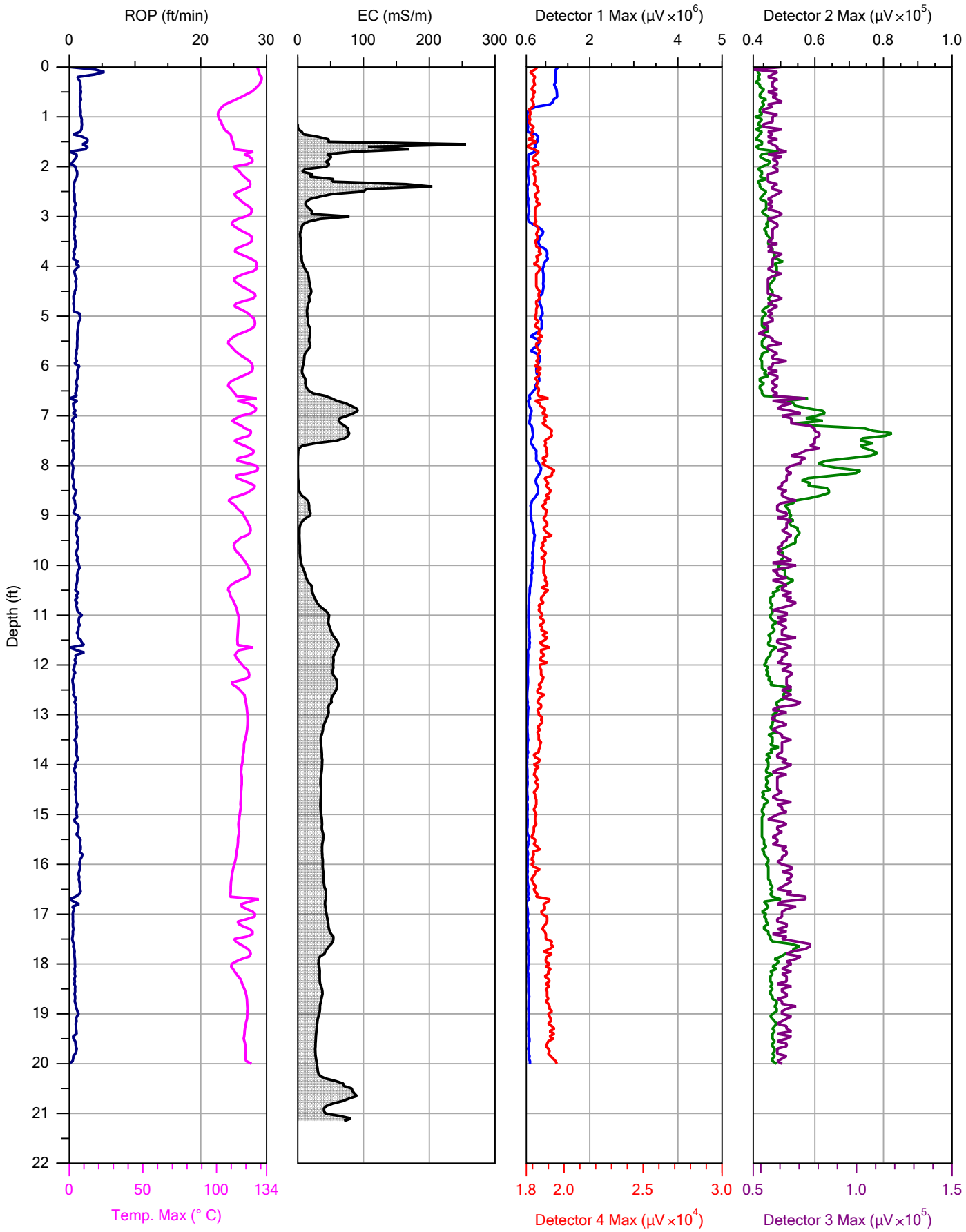
Project ID: TSC- Layton Chevron	Client: Terracon	Location: Layton, UT



CASCADE
DRILLING | TECHNICAL SERVICES

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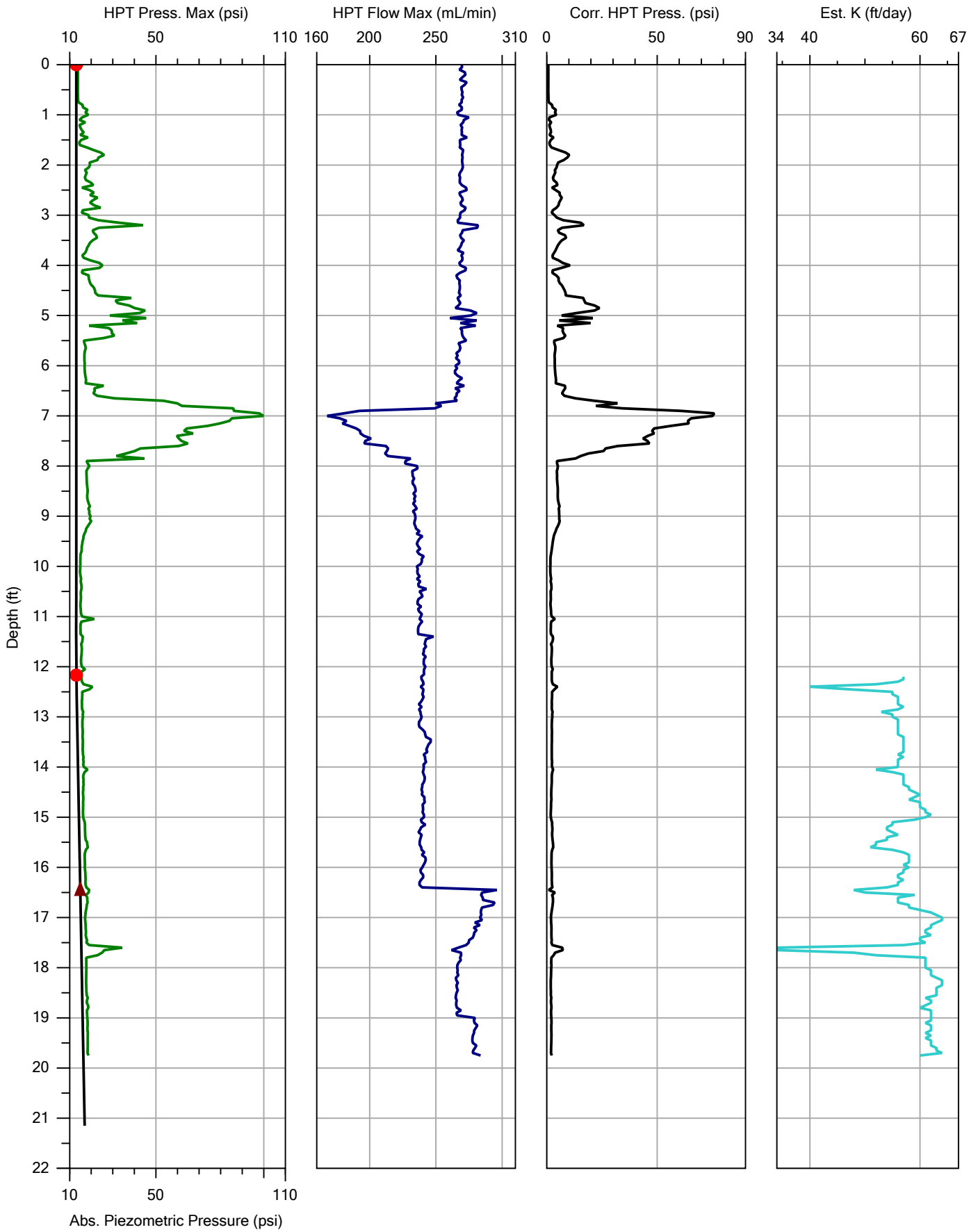
Project ID: TSC- Layton Chevron	Client: Terracon	Location: Layton, UT



CASCADE
DRILLING | TECHNICAL SERVICES

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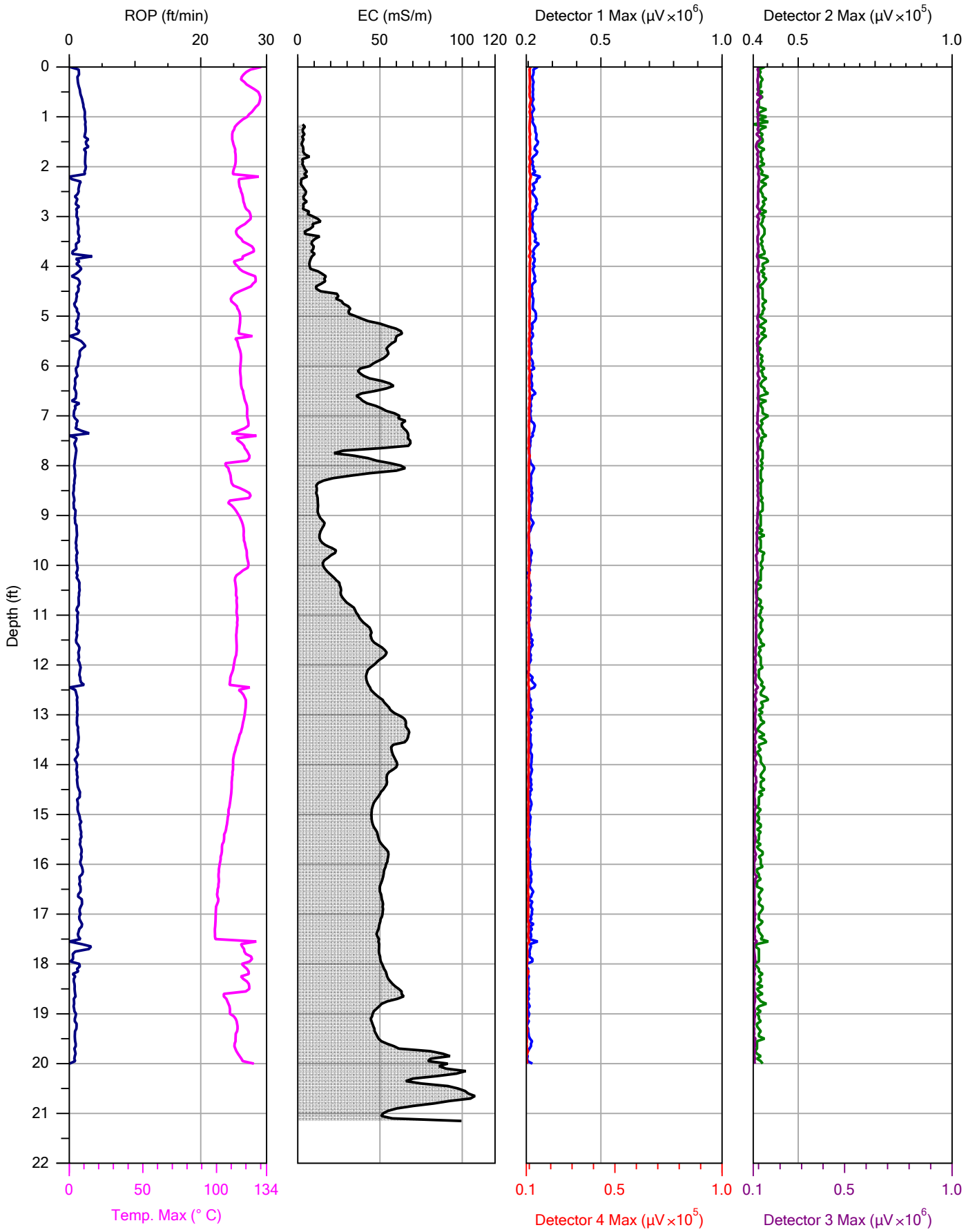
Project ID: TSC- Layton Chevron	Client: Terracon	Location: Layton, UT



CASCADE
DRILLING | TECHNICAL SERVICES

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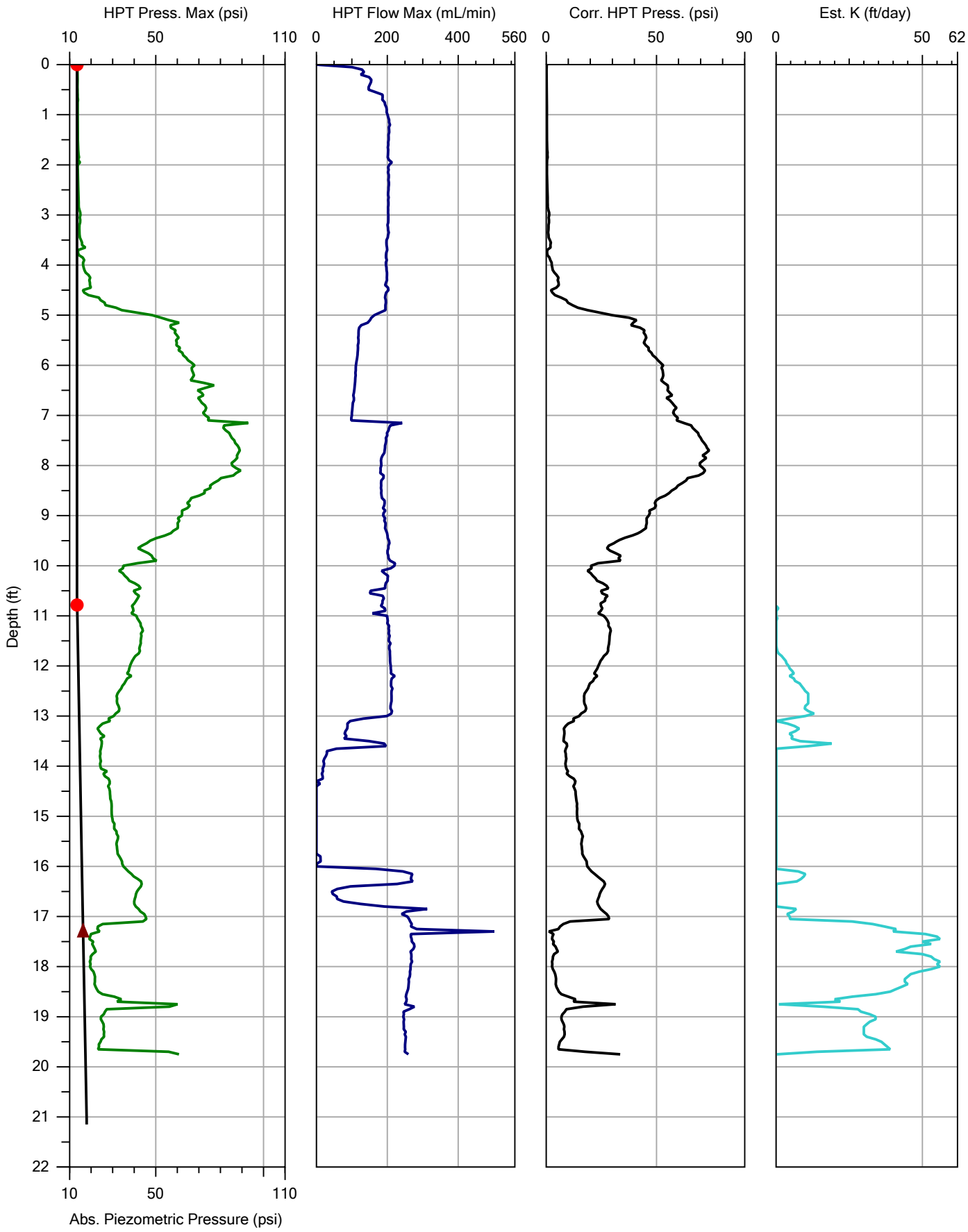

CASCADE
DRILLING | TECHNICAL SERVICES

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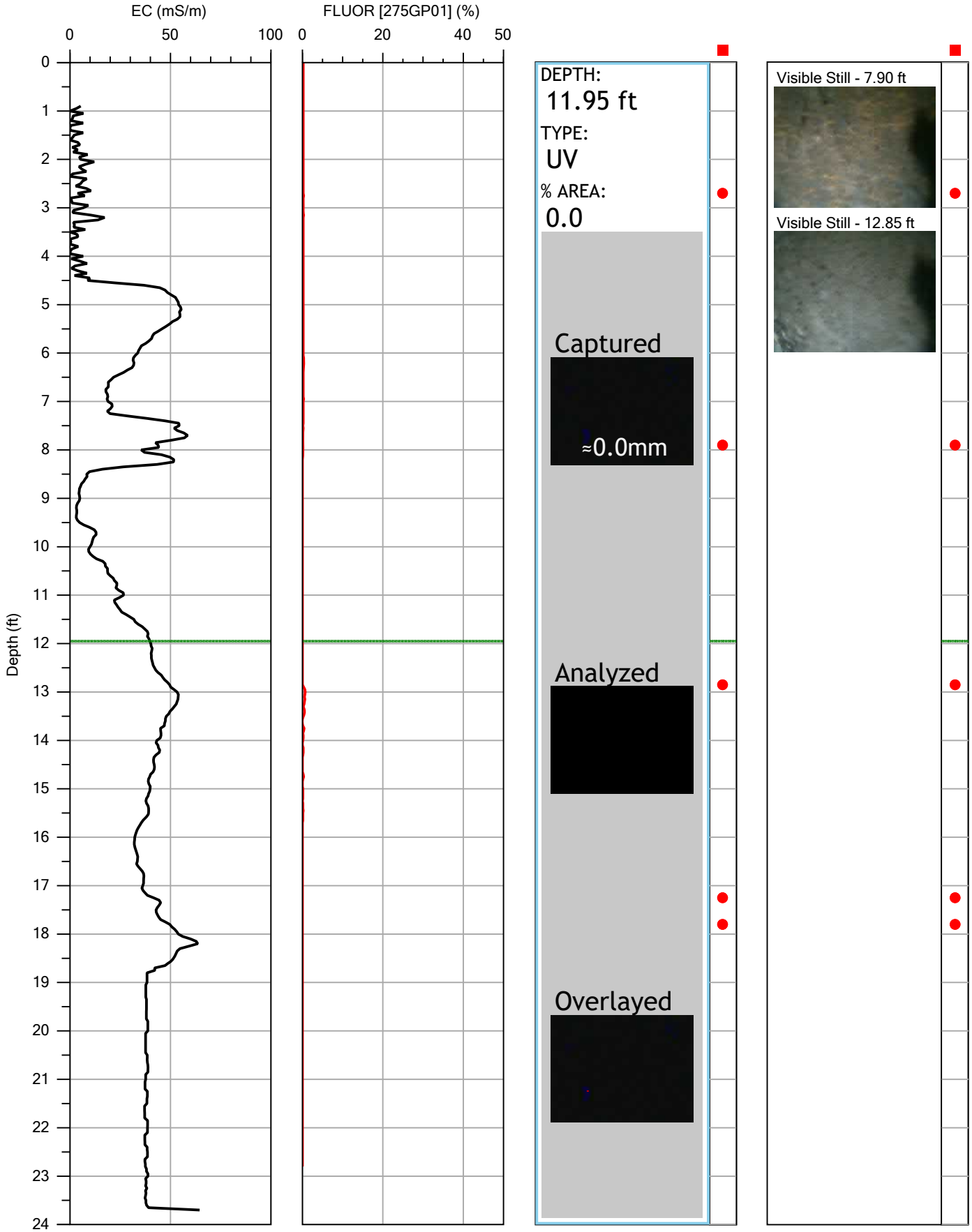

CASCADE
DRILLING | TECHNICAL SERVICES

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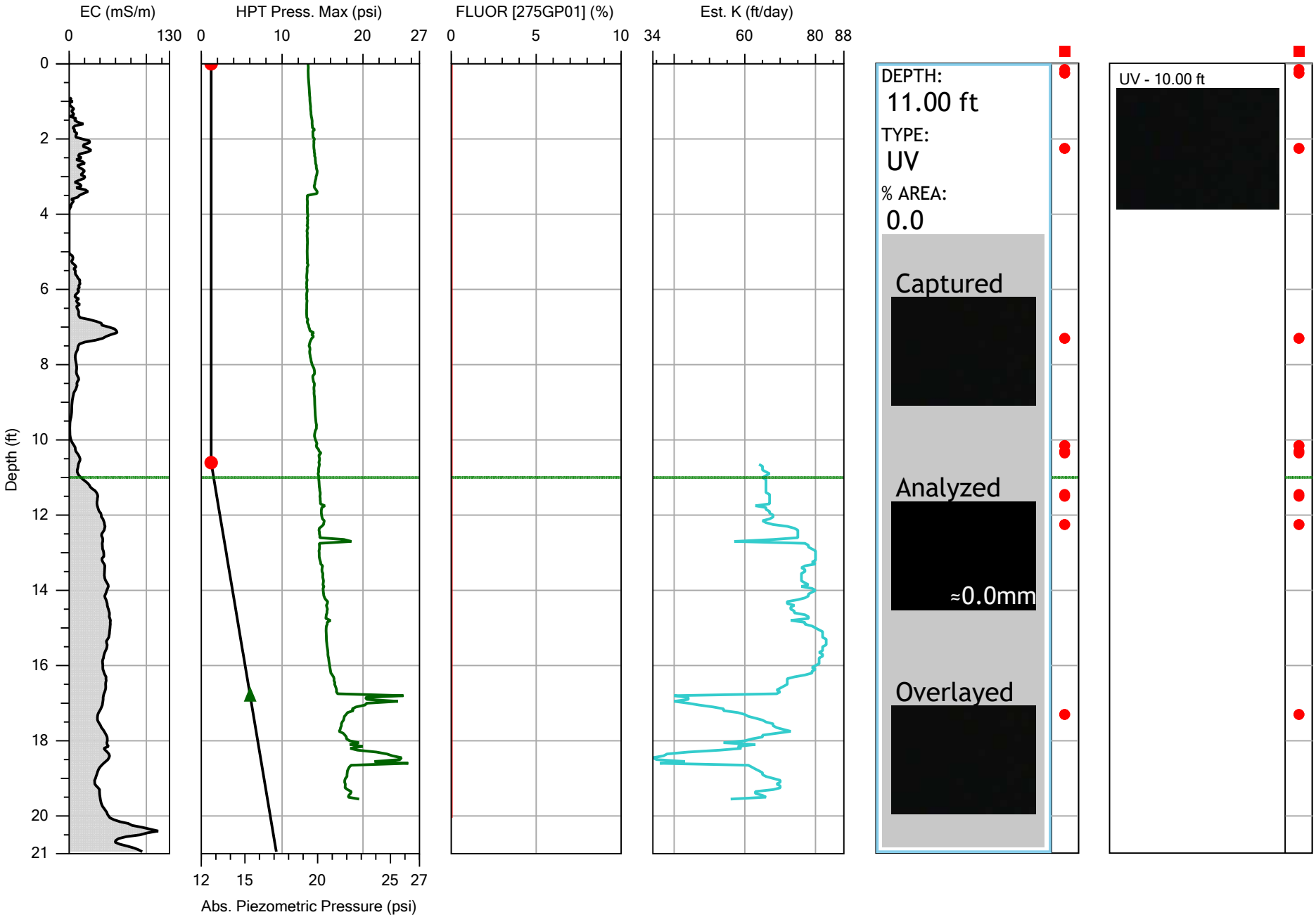
Project ID: TSC- Layton Chevron	Client: Terracon	Location: Layton, UT



CASCADE
DRILLING | TECHNICAL SERVICES

		File: OIHPT-2.OIHP
Company: Cascade	Operator: Davis Ocana	Date: 03/25/21
Project ID: 302211012	Client: Terracon	Location: Layton, UT

APPENDIX F
Cascade HRSC Report

CASCADE
DRILLING | TECHNICAL SERVICES

05/07/2021

FINAL DATA REPORT

High Resolution Site Characterization

Optical Image Profiler (OIP) and Membrane Interface Probe – Hydraulic Profiling Tool (MIHPT)

Chevron Site

Layton, Utah

302211012

Prepared for:
Terracon
Curt Stripeika
6949 South High Tech Drive
Midvale, Utah 84047

TABLE OF CONTENTS

PROGRAM NARRATIVE

Cascade Technical Services (Cascade) is pleased to present this data report to Terracon for the Optical Image Profiler – Hydraulic Profiling Tool (OIHPT, or "OIP" hereafter) and Membrane Interface Probe – Hydraulic Profiling Tool (MIHPT) services provided between March 23rd and 26th, 2021 at the Chevron Site in Layton, Utah.

In total, Cascade advanced two OIP and ten MIHPT investigation borings to depths up to approximately 22 feet below ground surface (bgs). The locations are shown on Figure 1. For each of these locations, Cascade generated a continuous log of the electrical conductivity (EC), and either the fluorescence response (for the OIP) or the relative (semi-quantitative) concentration of volatile organic compounds versus depth. Those logs are attached to this report.

Field work, including the operation of the OIP, MIP, EC and HPT was conducted by trained professionals and quality assurance/quality control (QA/QC) measurements associated with these data were found to be within the tolerances set forth in the Standard Operating Procedures (SOPs) with no exceptions/deviations. These QA/QC measurements and tests conducted during this field program included: tests of the down-hole camera, ultraviolet fluorescence, the EC dipole, and response and dissipation testing.

Additional information regarding the OIP, MIP, EC, and HPT is provided in the reference material included in this report.

I certify that the data package is in compliance with the terms and conditions of the contract and meets Cascade's data quality standards, with the exceptions detailed above (if any). Release of the data contained in this package has been authorized by the data manager or his/her designee, as verified by the following signature.

Brad Carlson
Regional Manager, Site Characterization

OIP QA/QC SUMMARY TABLE

Provided below is a summary of QA/QC information and any deviations from the SOPs that occurred during the field activities.

Location	Date	Time	Total Depth (ft bgs)	Response Test	Comments / Deviations
OIHPT-1	March 23, 2021	11:48:29	22.80	Pass	HPT was not done at this location.
OIHPT-2	March 25, 2021	12:26:28	20.05	Pass	None

MIHPT QA/QC SUMMARY TABLE

Provided below is a summary of QA/QC information and any deviations from the standard operating procedure that occurred during the field activities.

Location	Date	Time	Total Depth (ft bgs)	Response Test	Comments / Deviations
MIHPT-1	March 24, 2021	11:58:00	20.60	Pass	Problems with the detector gas flows
MIHPT-2	March 25, 2021	13:53:30	20.00	Pass	Started logging at 6.5 feet.
MIHPT-3	March 25, 2021	15:04:41	20.05	Pass	Started logging at 6.5 feet.
MIHPT-4	March 25, 2021	16:34:39	20.15	Pass	None
MIHPT-5	March 25, 2021	17:52:14	21.70	Pass	None
MIHPT-6	March 26, 2021	09:30:29	20.10	Pass	None
MIHPT-7	March 26, 2021	11:54:16	20.10	Pass	None
MIHPT-8	March 26, 2021	13:42:05	20.00	Pass	None
MIHPT-9	March 26, 2021	15:47:34	20.00	Pass	None
MIHPT-10	March 26, 2021	17:34:41	20.1	Pass	None
OIHPT-1	March 23, 2021	11:48:29	22.80	Pass	None
OIHPT-2	March 25, 2021	12:26:28	20.05	Pass	None

PROJECT DETAILS

This section provides information regarding the Cascade personnel present at the site during the field activities and the specific equipment used during field activities.

Cascade Personnel

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

- Jonathon Pooler and Davis Ocana, HRSC Technicians
- Alex Hogan, Direct-Push Rig Operator

Cascade Equipment

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

- Geoprobe 78 Series direct push drill rig
- Geoprobe OIP 6100 OIP Interface Instrument
- 150-foot OIHPT trunkline
- 1.75-inch O.D. H6750 OIHPT-UV probe
- Geoprobe 78-Series direct push drill rig
- 1.75-inch O.D. MH6534 MIHPT probe
- Geoprobe MP6500 MIP Controller (Nitrogen Flow and Heater)
- Geoprobe K6300 HPT Controller
- Geoprobe FI 6000 Computer
- HP 5890 Gas Chromatograph
- Electrical conductivity dipole
- Electron Capture Detector (ECD)
- Halogen Specific Detector (XSD)
- Photoionization Detector (PID) with 10.6 eV Lamp
- Flame Ionization Detector (FID)
- 150-foot MIHPT trunkline
- 1.75-inch O.D. drive rods
- Ultra-high purity nitrogen
- Ultra-high purity hydrogen

INTERPRETATION AND RECOMMENDATIONS

This section provides a summary of the data collected during this investigation program, Cascade's recommendations for updating the conceptual site model, and suggestions for next steps in the site management process, including remediation, if appropriate.

Data Interpretation

A detailed, written interpretation of this data set was not included in the contracted scope of work, however, Cascade HRSC experts were in communication with the client team throughout the project.

Recommendations

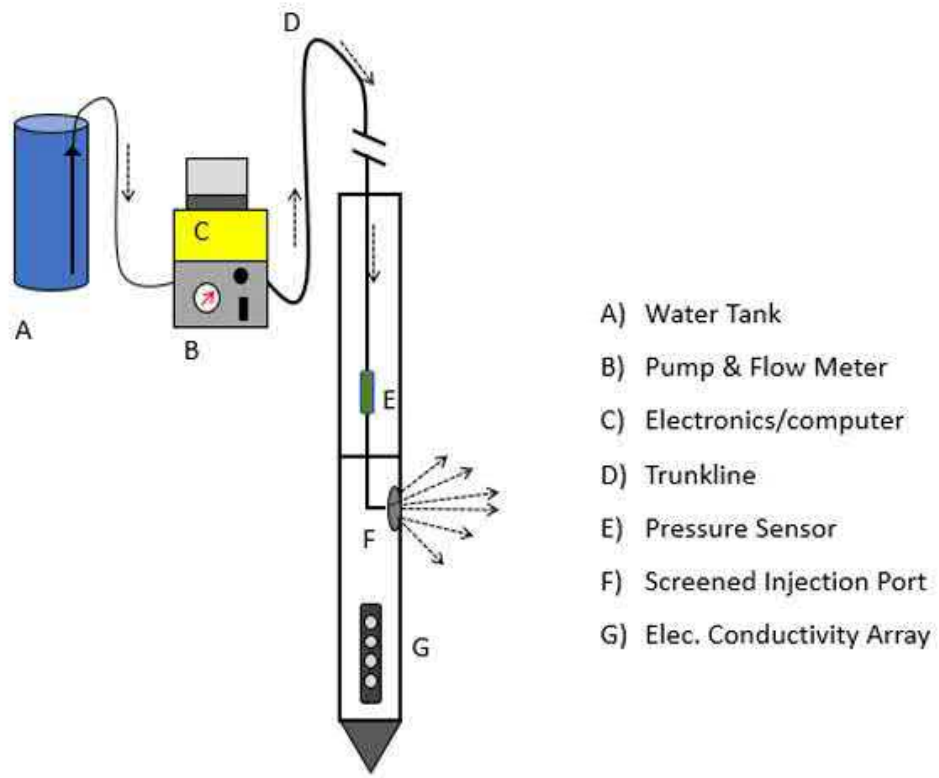
Additional recommendations were not included in this scope of work. Please contact the Cascade Project Manager if you would like to discuss further investigation or remediation alternatives. We would be excited to continue to learn about this site and assist you in meeting your site management goals

REFERENCE MATERIAL

This section provides information useful in understanding and interpreting the data logs generated as part of this HRSC investigation.

HPT System Overview

The hydraulic profiling tool creates a log of the relative formation permeability versus depth in real time as the probe is advanced into the subsurface. It operates by injecting clean water at a constant flow rate from an aboveground reservoir through the direct push rods and out into the surrounding soil via an injection port on the side of the probe. Simultaneously, sensors record



the flow rate, the back pressure required by the pump to maintain that flow rate, and the current depth of the probe. These measurements are collected by the onboard software and an estimated hydraulic conductivity (K) value is calculated and plotted alongside the other measurements in real time.

Generalized schematic of the HPT tool. Source: Geoprobe HPT Standard Operating Procedure

Reference Testing and Dissipation Tests

Reference testing is conducted to ensure that the HPT pressure transducer is working correctly and to evaluate the condition of the HPT injection screen. The HPT reference test also calculates atmospheric pressure which is required to obtain static water level readings and to determine the estimated K values for the log. The reference test utilizes an apparatus consisting of a tube with a valve located 6 inches above the HPT injection screen and the top of the tube located another 6 inches above the valve. When the tube is filled completely with water, the 12 inches of water will supply an additional 0.433 pounds per square inch (psi) of pressure on the injection screen (in addition to atmospheric pressure). When the valve is opened that additional pressure drops to 0.217 psi at the HPT injection screen. The accuracy of the pressure transducer can be assessed by comparing the pressure readings when the tube is filled and when the tube is filled only to the valve; this is done both with and without the pump running. A tolerance of plus or minus 10 percent is applied for a passing test.

Dissipation tests are conducted to determine the hydrostatic pressure of the water column above the transducer during logging. To conduct a dissipation test, advancement of the tooling is stopped, the HPT pump is stopped, and flow drops to zero. The pressure applied to the HPT pressure transducer by the injection of water into the formation begins to dissipate. This pressure should dissipate to a value equal to atmospheric pressure plus the hydrostatic pressure applied by water in the formation. In post-processing of the HPT log, the dissipation value and the atmospheric pressure determined during reference testing can be used to remove the influence of atmospheric and hydrostatic pressures from the values recorded by the transducer. These adjustments result in the corrected HPT pressure log which is a measure of the properties of the subsurface material.

HPT Data Interpretation

An HPT log typically includes several types of data, many of which are reduced by the software to generate the estimated K values. The dissipation testing results conducted by the operator during the advancement of the tool are used to adjust the HPT back pressure values to account for the hydrostatic pressure of the water column above the probe during advancement. This adjustment results in the corrected HPT pressure data set. Subsequently, the corrected HPT pressure and the HPT flow data sets are used to calculate the estimated K values.

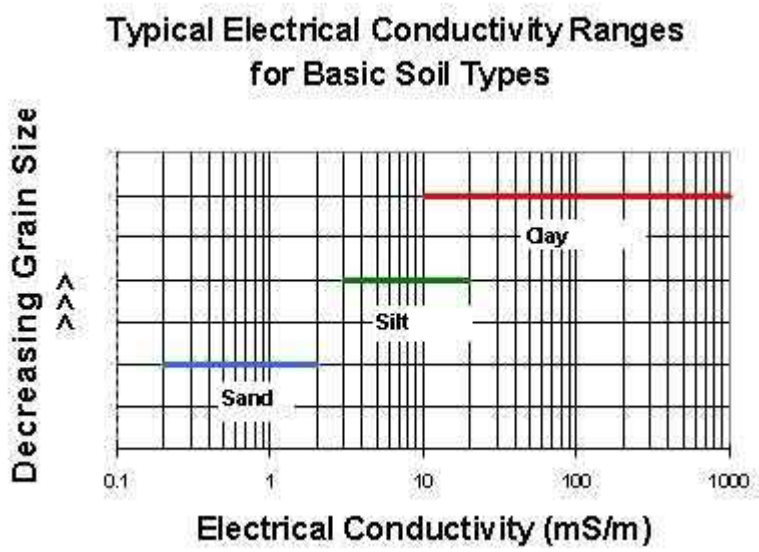
The most useful measurement from the HPT is the estimated K log, which as noted above, is a measure of the relative permeability of the formation versus depth. Despite the fact that these data are presented in units typical of traditional hydraulic conductivity (feet per day), they are not traditional K values and should not be used in many of the applications where a traditional K value would be appropriate. The accuracy of the estimated K values is typically one to two orders of magnitude, which would clearly generate a significant amount of uncertainty if used for any seepage velocity or risk-based calculations. The estimated K values are, however, extremely useful for understanding what zones of the subsurface are exhibiting higher or lower relative permeability.

As a secondary data set from this tool, the HPT back pressure can be helpful in the design of injected remedies. The back pressure is a measure of the level of difficulty faced injecting the

clean water from the HPT system into the formation; this is analogous to level of success an injection may achieve at the same depths.

EC Data Interpretation

In a general sense, the electrical conductivity of a soil varies with grain size. This correlation can be utilized to gather an understanding of the subsurface from the EC data. The EC measured in the subsurface can also vary based on changes in mineralogy, groundwater geochemistry, and contamination. It is important, then, to confirm the accuracy of the EC data for this use by collecting confirmatory soil borings from your site.



Relationship between electrical conductivity and grain size. Source: Geoprobe Electrical Conductivity System Standard Operating Procedure

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 responses 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 three-dimensional images of contaminant distribution can all be produced from the electronic data generated by the MIP logs. The 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 Celsius. This volatilizes the VOCs and allows them to transfer through a Teflon membrane via a combination of concentration and pressure gradients. These VOC are then swept into a nitrogen gas loop that carries them to a series of detectors housed at ground surface. Continuous chemical profiles are generated from each hole. The 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 is also commonly deployed with an integrated Hydraulic

Profiling Tool (HPT) which uses an injection logging system to generate a continuous log of relative formation permeability versus depth. The following section discusses the various detection systems that are commonly used with the MIP system.

An MIHPT probe and trunkline. Source: Geoprobe

Halogen Specific Detector

Responds to halogenated compounds (i.e., chlorinated, fluorinated, brominated) only.

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

Electron Capture Detector

Responds to halogenated compounds (i.e., chlorinated, fluorinated, brominated) only, and is more sensitive to compounds that a more highly halogenated. This results in a greater response to compounds like tetrachloroethene and trichloroethene versus cis-1,2-dichloroethene and vinyl chloride.

The ECD uses a radioactive beta emitter to ionize some of the carrier gas and produce a current between a biased pair of electrodes. When organic molecules contain electronegative functional groups, such as halogens, phosphorous, and nitro groups pass by the detector, they capture some of the electrons and reduce the current measured between the electrodes.

Photoionization Detector

Responds to all VOCs, including chlorinated compounds and petroleum hydrocarbons.

The PID 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 (10.6 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.

Flame Ionization Detector

Responds to combustible VOCs only (i.e., petroleum hydrocarbons), though will also respond to landfill gases and other combustible organics.

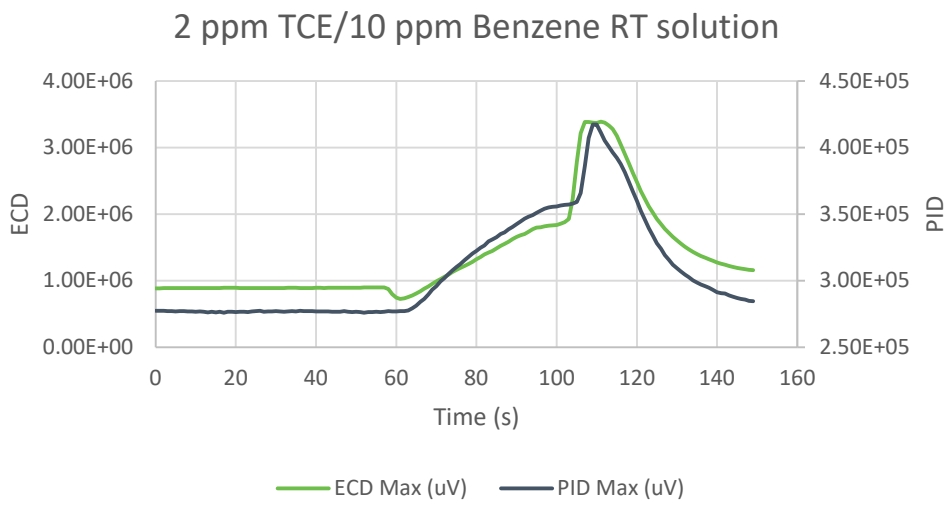
The FID consists of a hydrogen / air flame and a collector plate. The effluent from the gas chromatograph (trunkline) passes through the flame, which breaks down organic molecules and produces ions. The ions are collected on a biased electrode and produce an electric signal.

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 to ensure 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 as described in the manufacturer’s SOP. The acceptable criteria for an RT is defined for specified concentrations of RT solution and a specified carrier gas trunkline flow rate. Documenting the RTs provides a level of quality assurance for each MIP project and allows operators and data reviewers to identify systems in need of maintenance.

The trip time is measured by recording the time between the moment when the testing vial 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, thereby increasing the accuracy of depth measurements.



An example response test for trichloroethene and benzene

MIP Data Interpretation

Detector responses, measured in microVolts (µV), are a semi-quantitative indication of relative contaminant concentrations. Minimum and maximum detector responses are collected at each depth interval. A comparison of the responses of the four detectors at each interval is necessary to gather the most information about the compounds present. In general, responses on the XSD, ECD, and PID indicate the presence of chlorinated compounds (i.e., no response on the FID). Responses only on the PID and FID indicate that petroleum hydrocarbons are present. In some cases, comparison of the magnitudes of the XSD and ECD responses can indicate whether the mix of chlorinated compounds is more degraded (e.g., lower ECD responses than those on the XSD) or more source-enriched (e.g., higher ECD responses than those on the XSD). Similar comparison can be accomplished with the PID and FID data: higher responses on the FID indicate the presence of a higher percentage of combustible hydrocarbon compounds.

Confirmatory soil borings are recommended following each MIP investigation. The confirmatory program should be designed to include a small number of boring locations advanced in the immediate vicinity of the MIP locations. The design of this confirmatory boring program will be dependent on the goals of the overall investigation and the specific site conditions. Generally, areas with high detector responses should be targeted for soil sample collection, as well as areas on the boundary of the impacted zone where there are important considerations (nearby receptors, property boundaries, important design considerations for future remediation, etc.).

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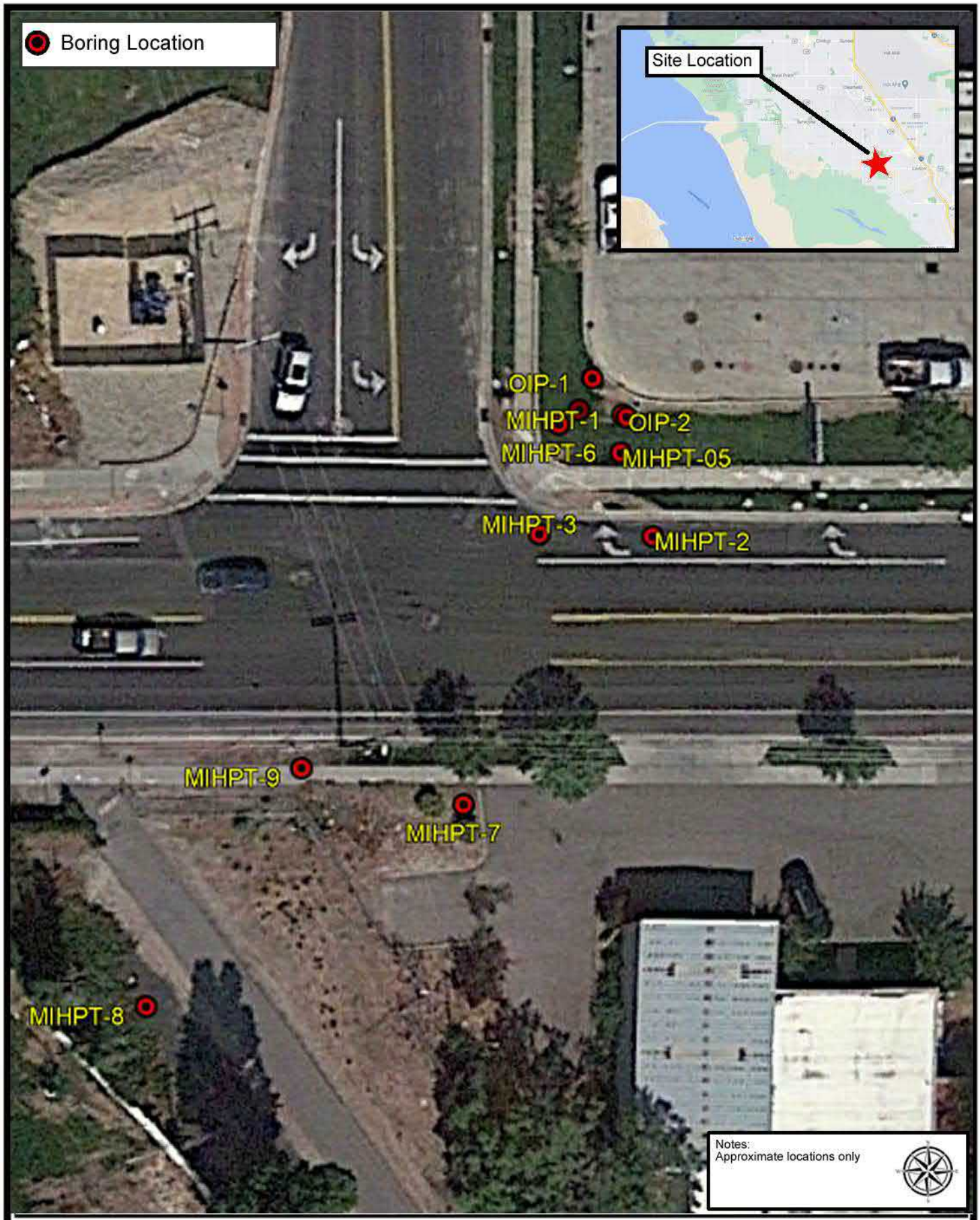
SITE PLAN



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Cheveron Site
Layton Utah

Weston Solutions
MIHPT & OIHPT
Investigtion Locations

Prepared by: WBC	Date: 04/09/2021	Project No.302211012	Figure 1

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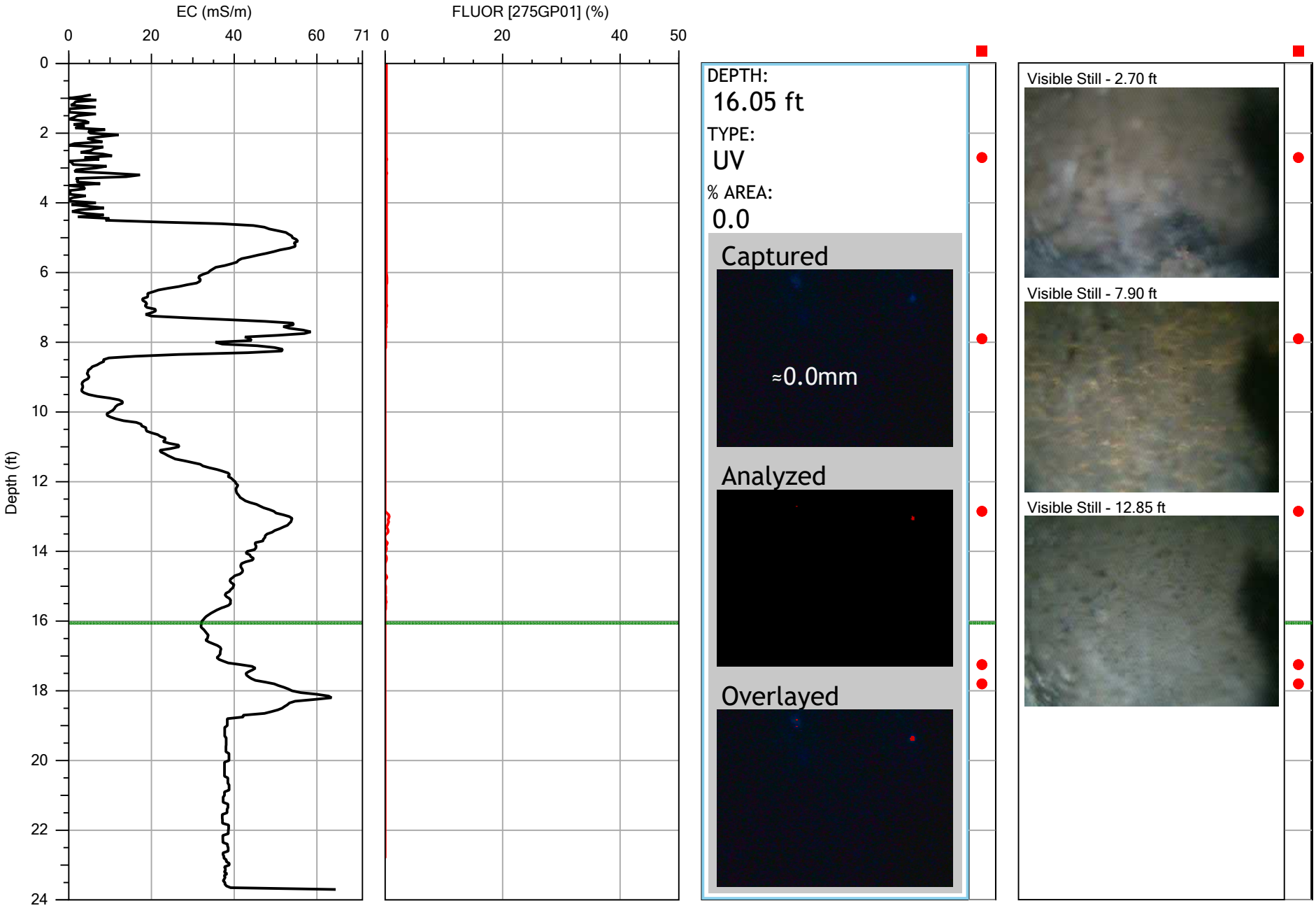
OIP INVESTIGATION DATA PLOTS



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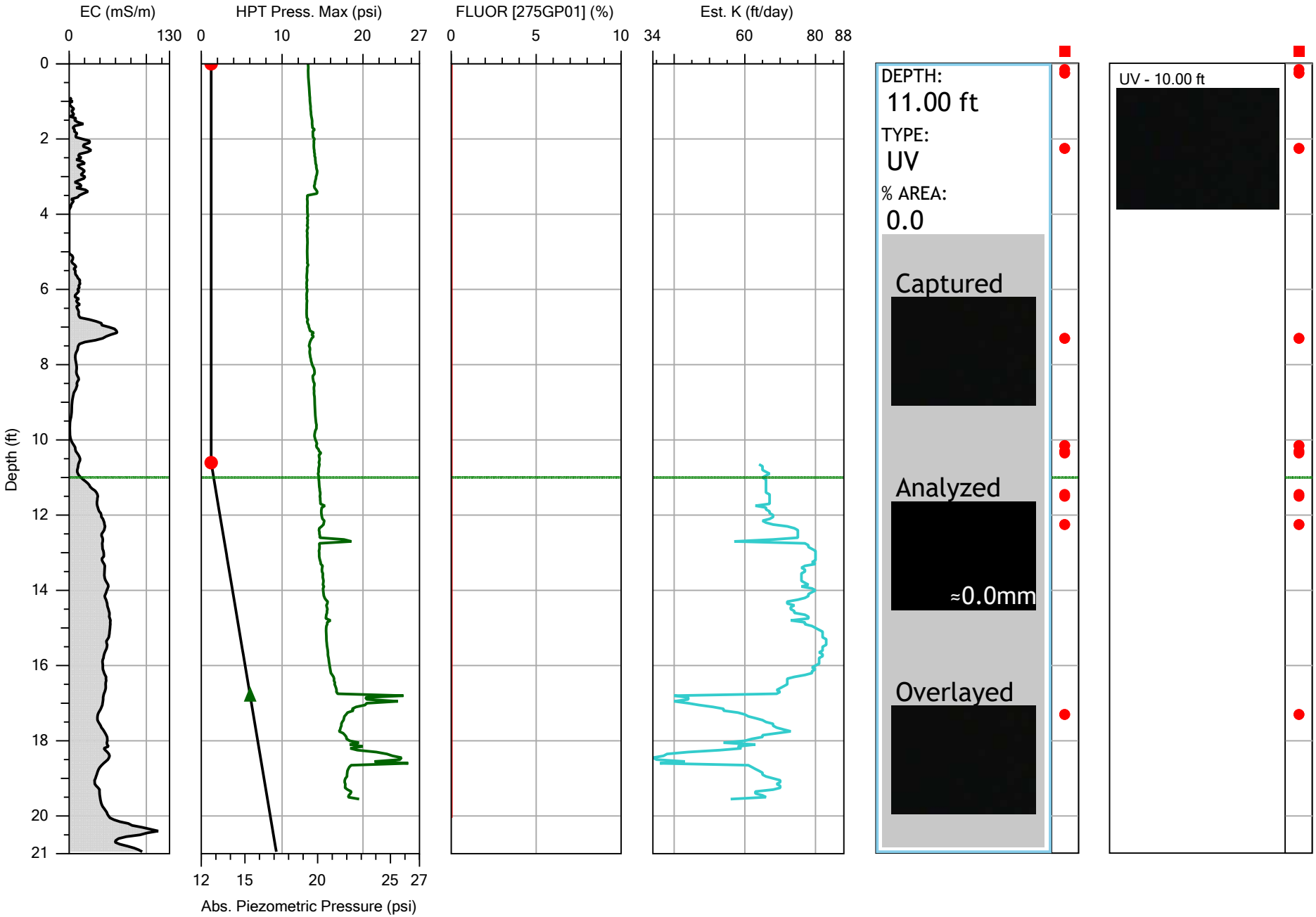

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Project ID: 302211012	Client: Terracon	Location: Layton, UT

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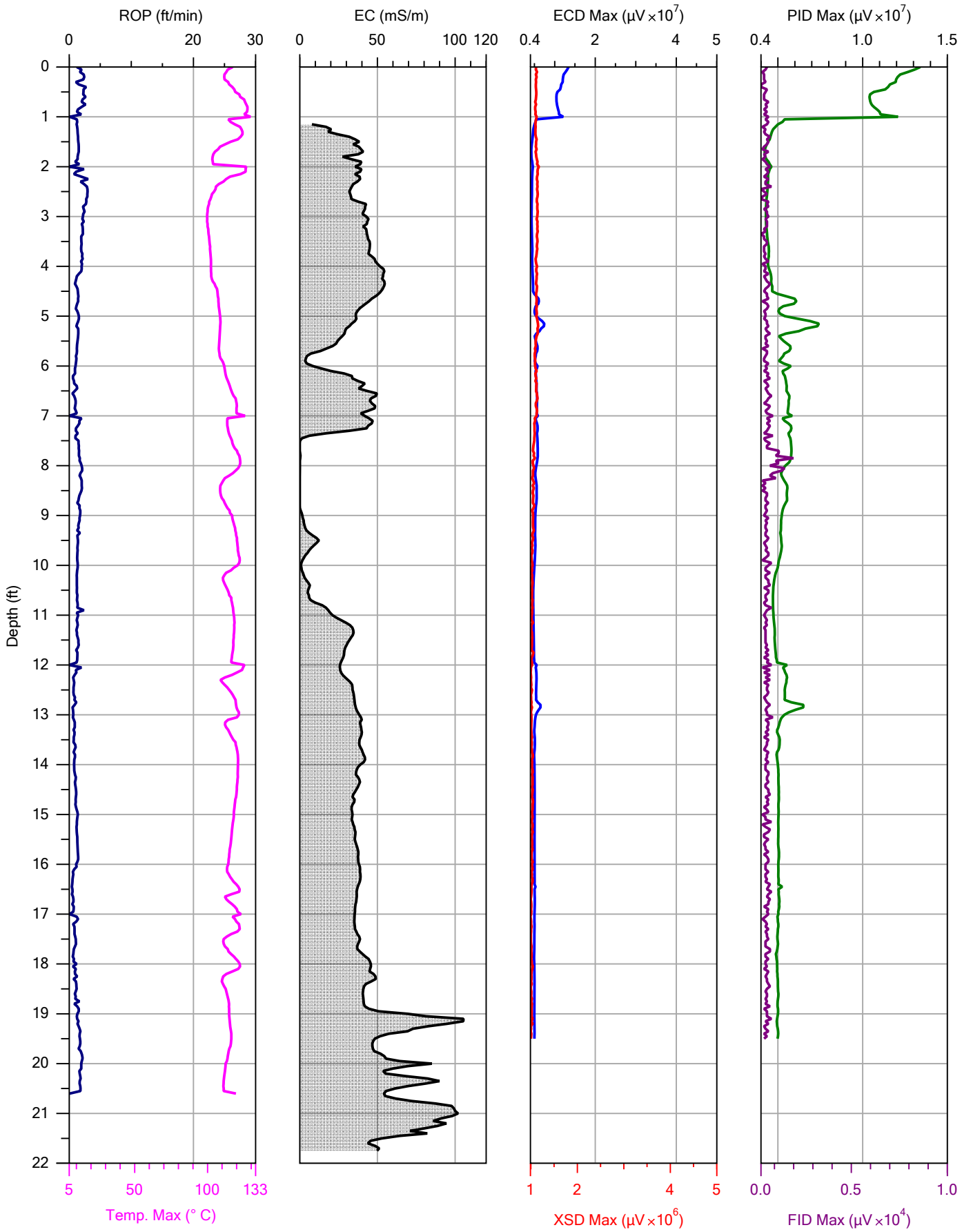
MIHPT INVESTIGATION DATA PLOTS



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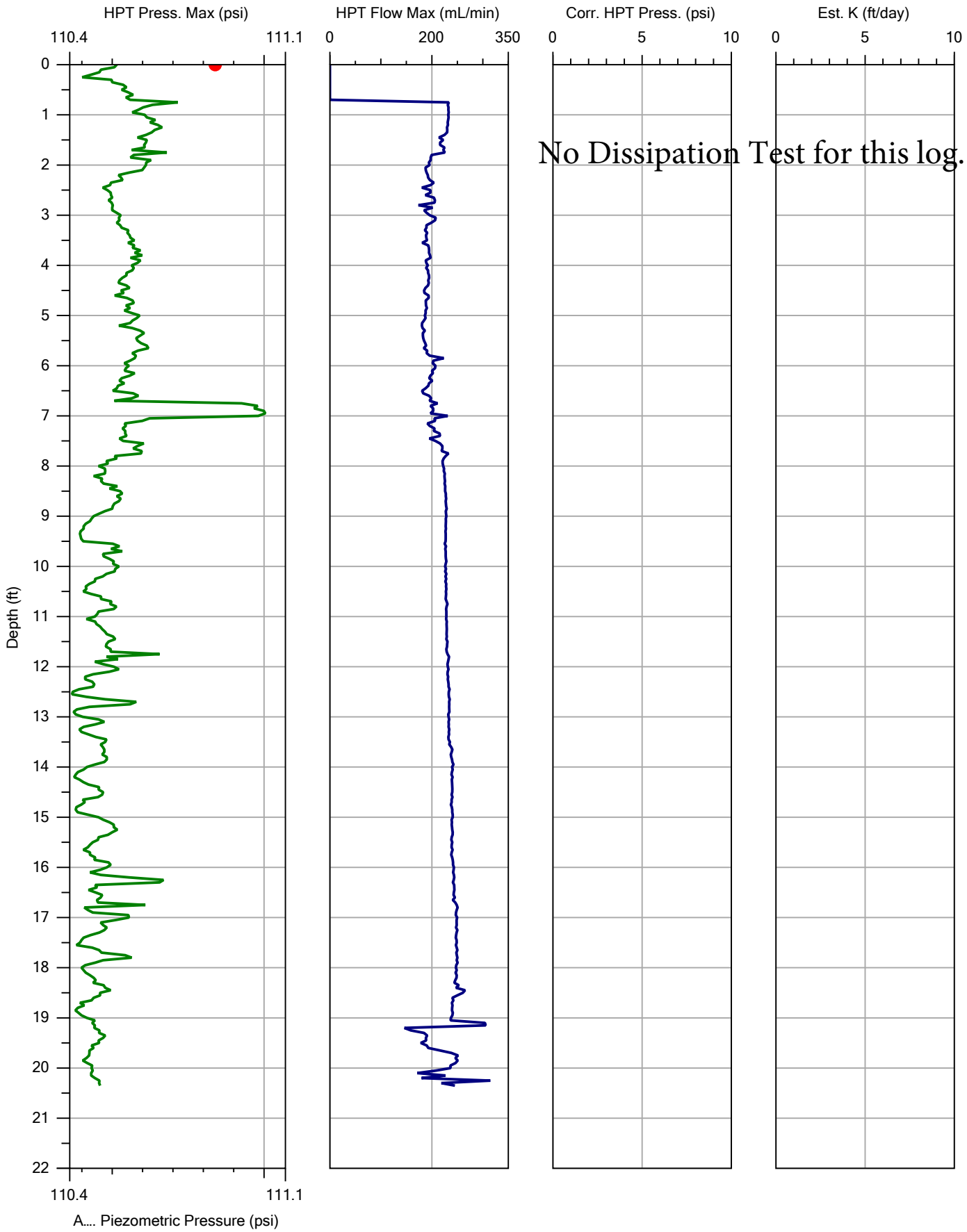

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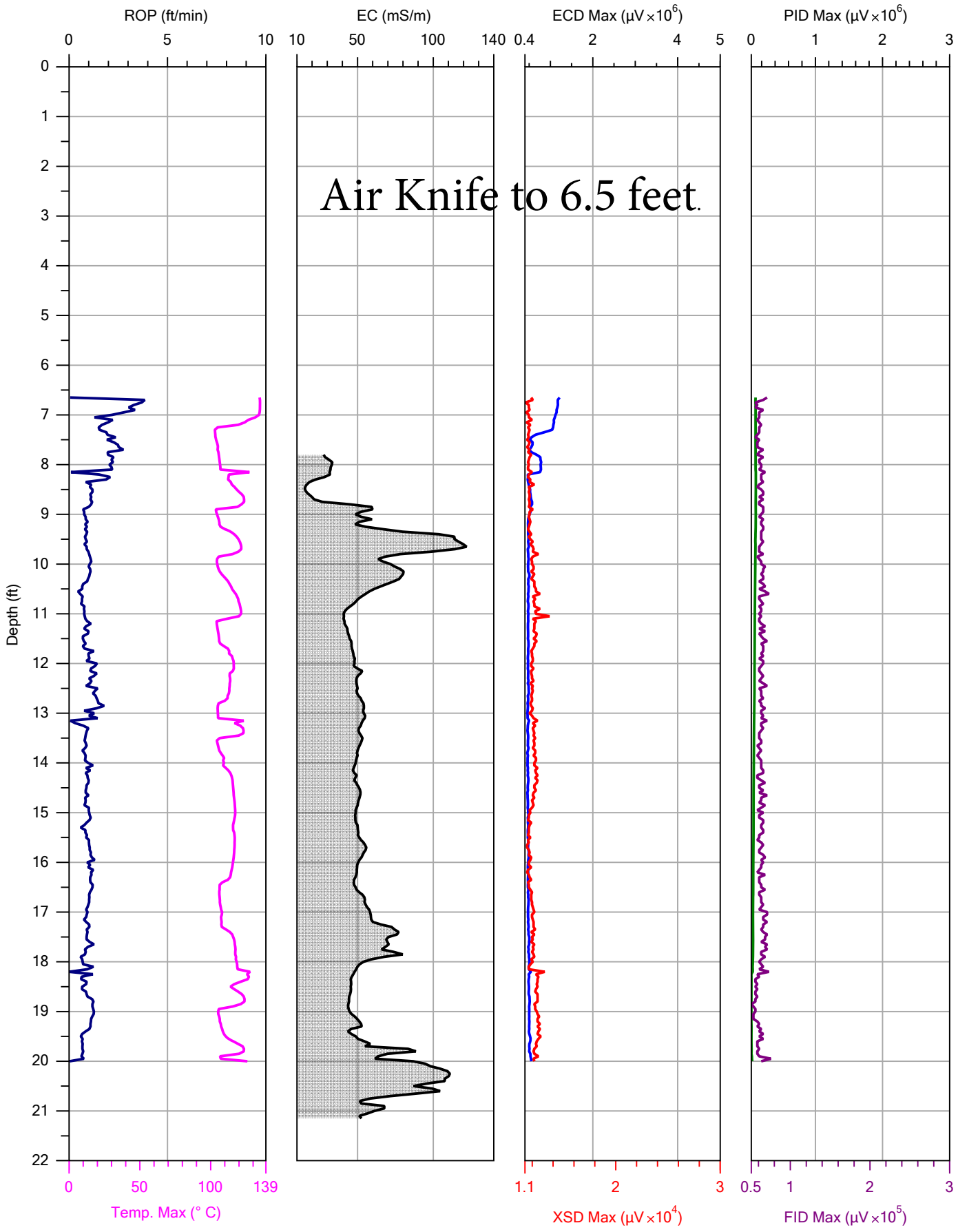

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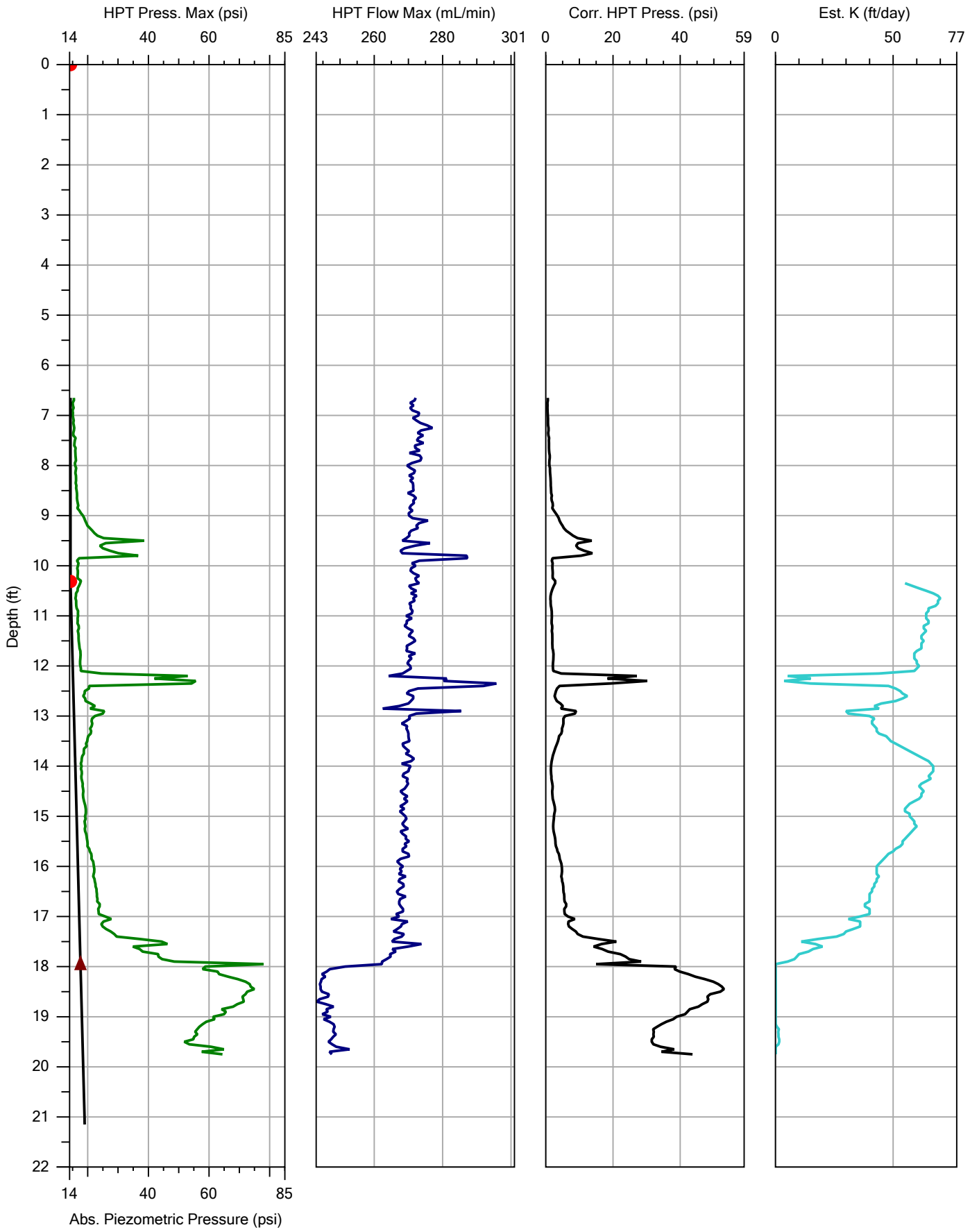

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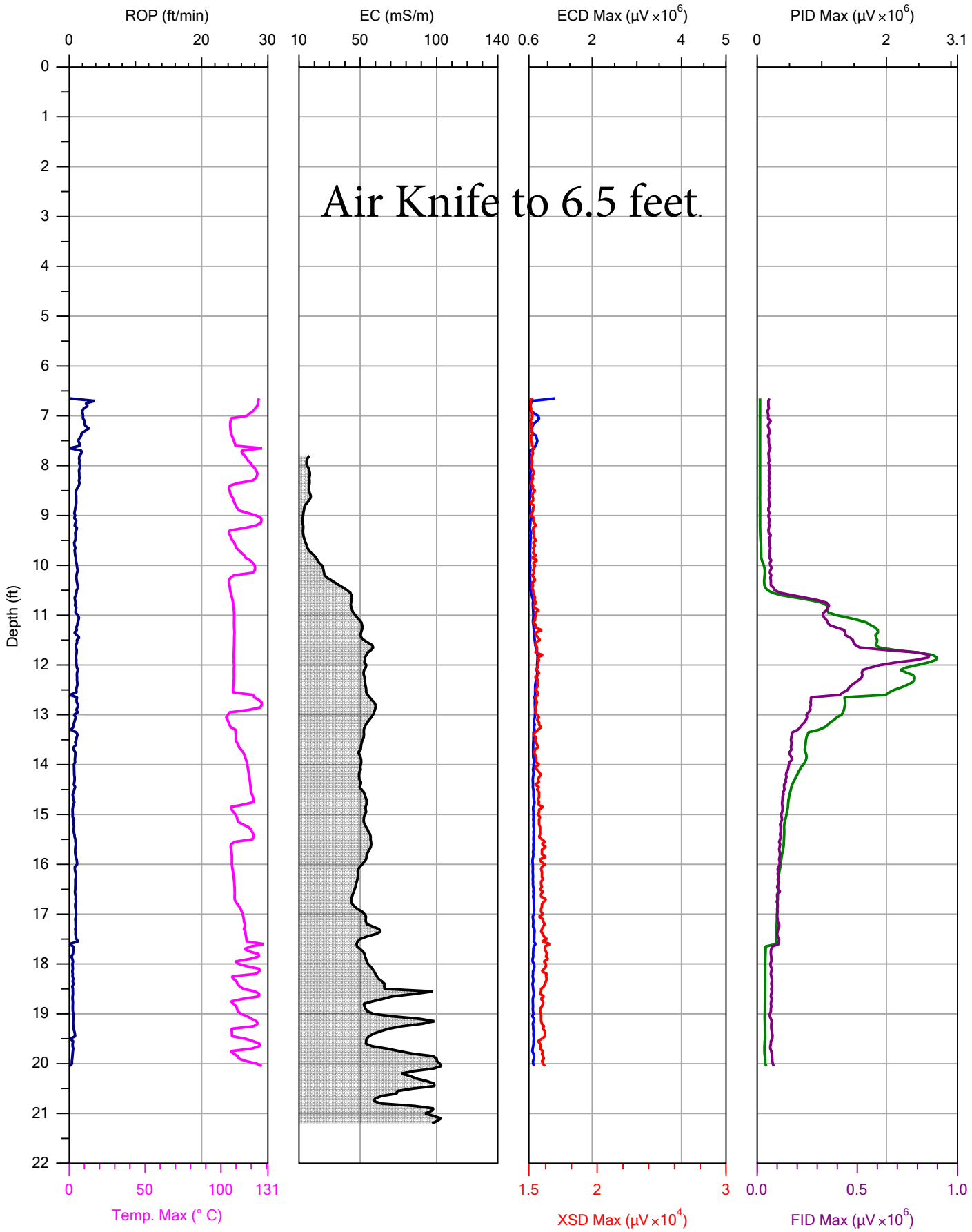

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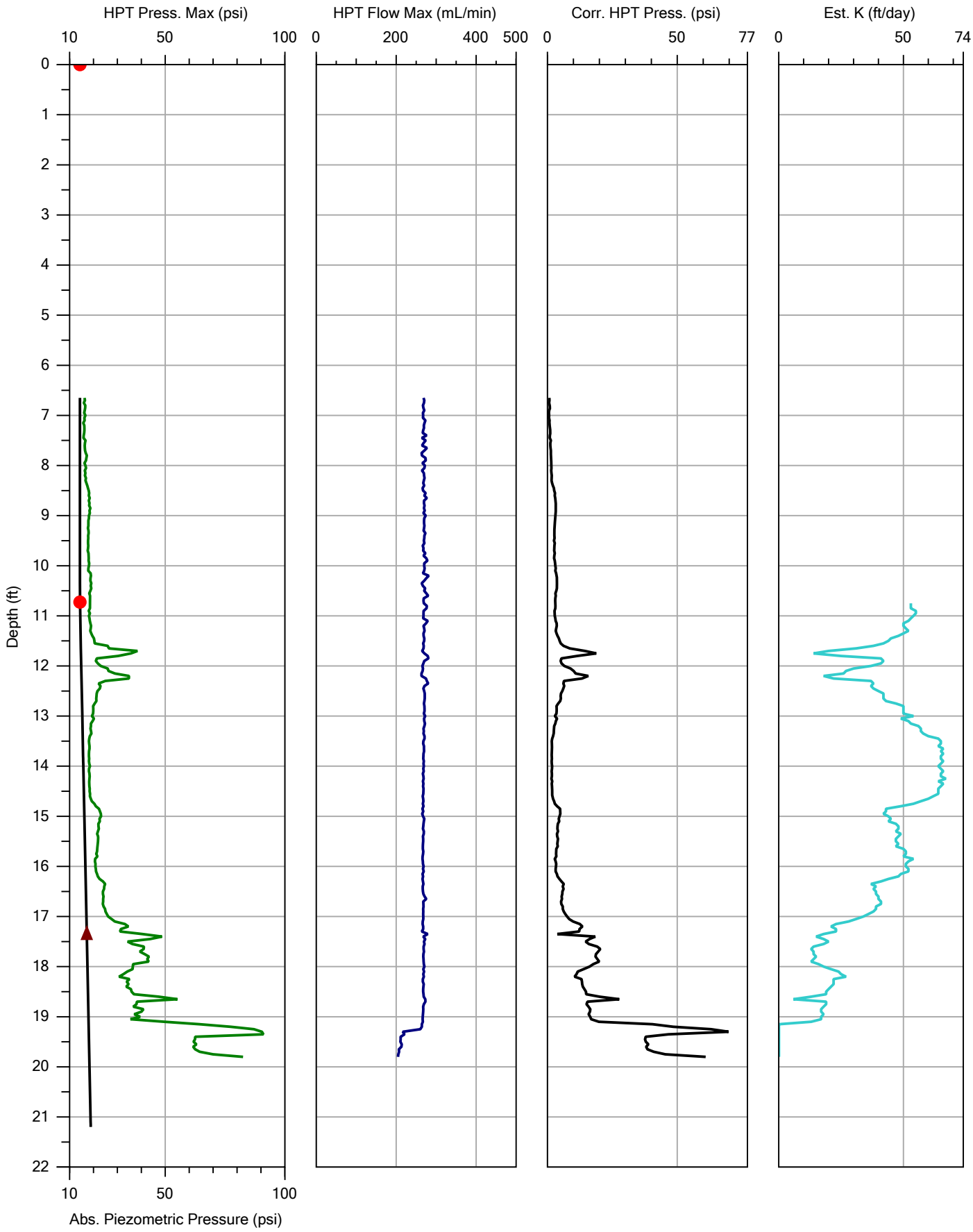

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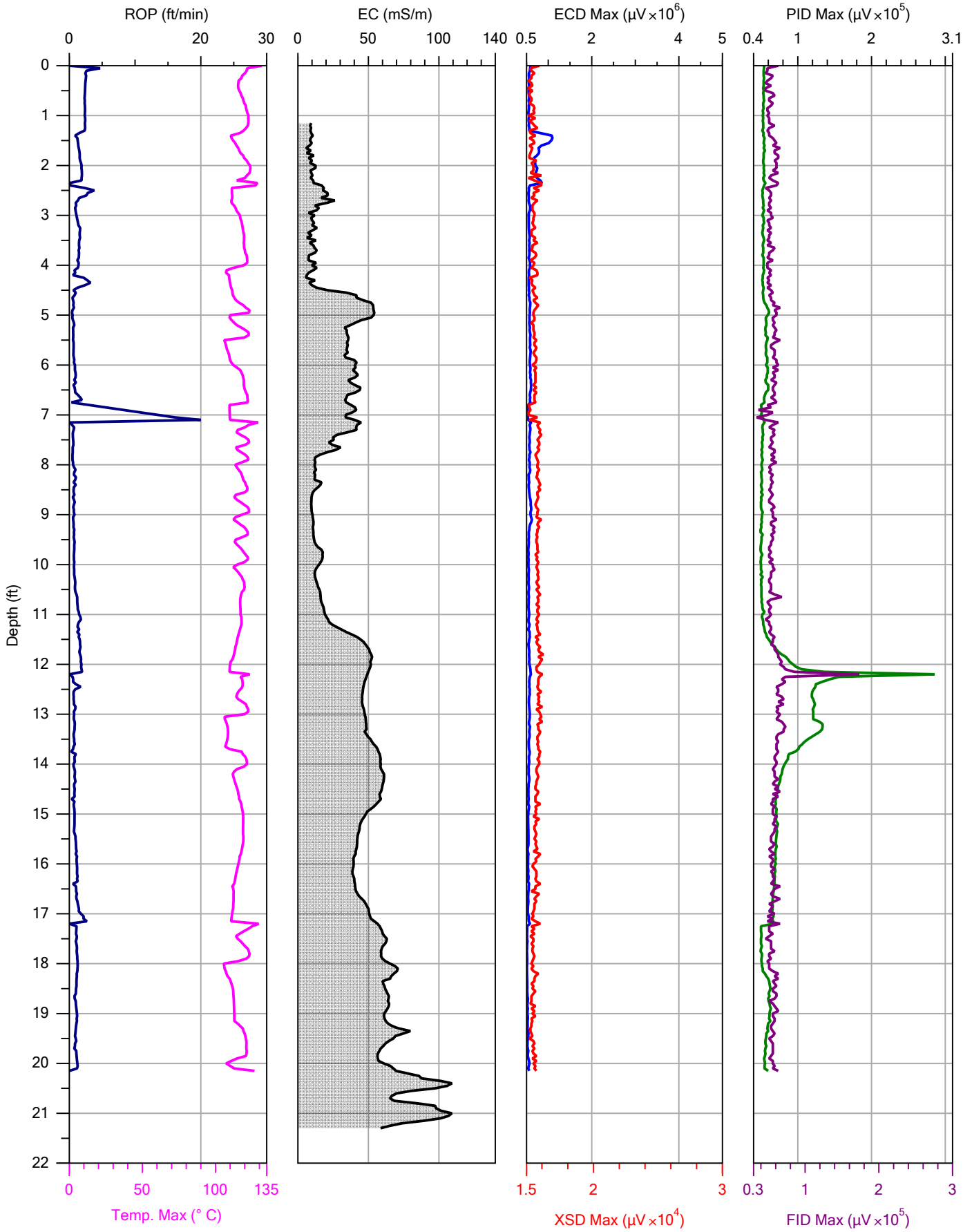

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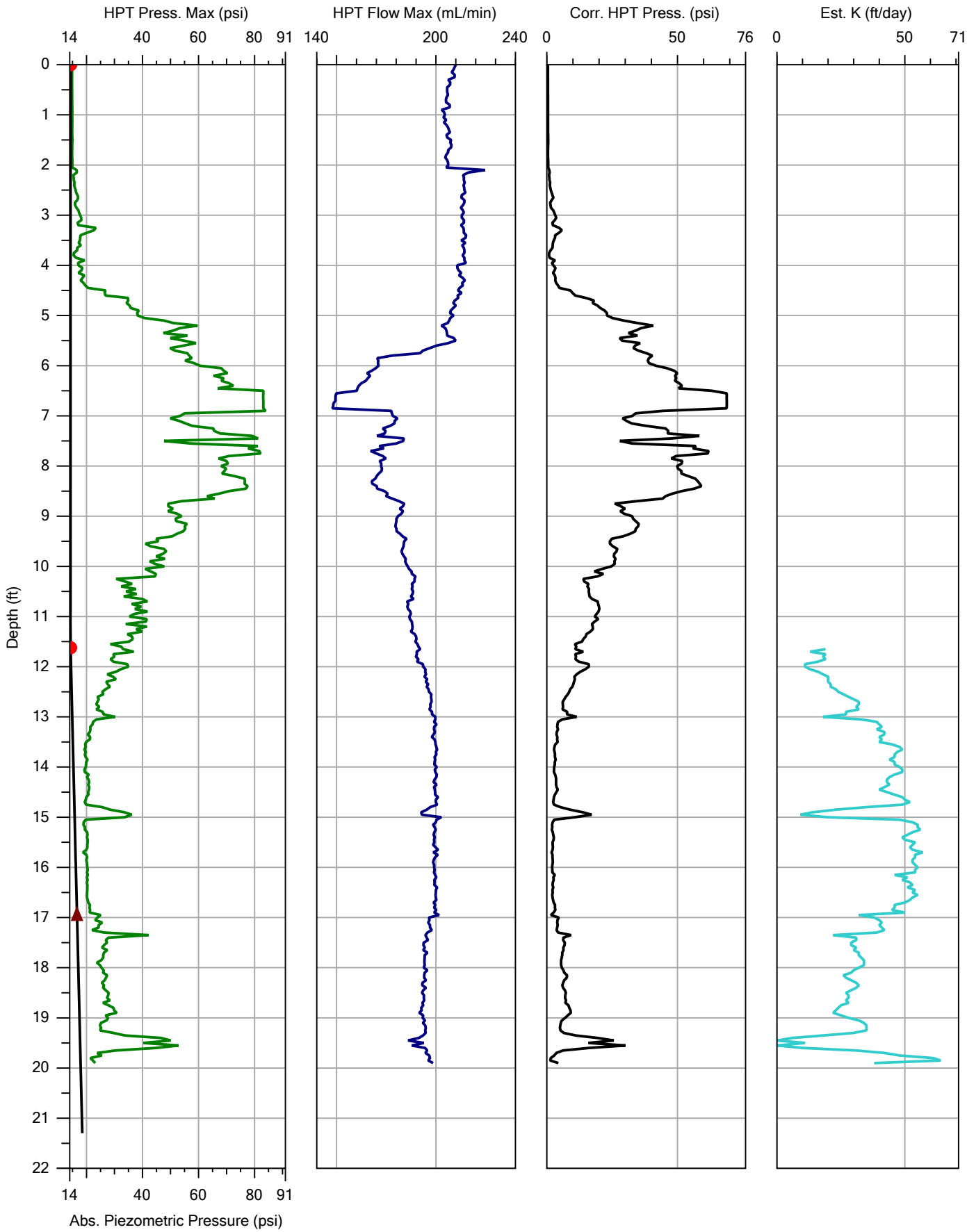

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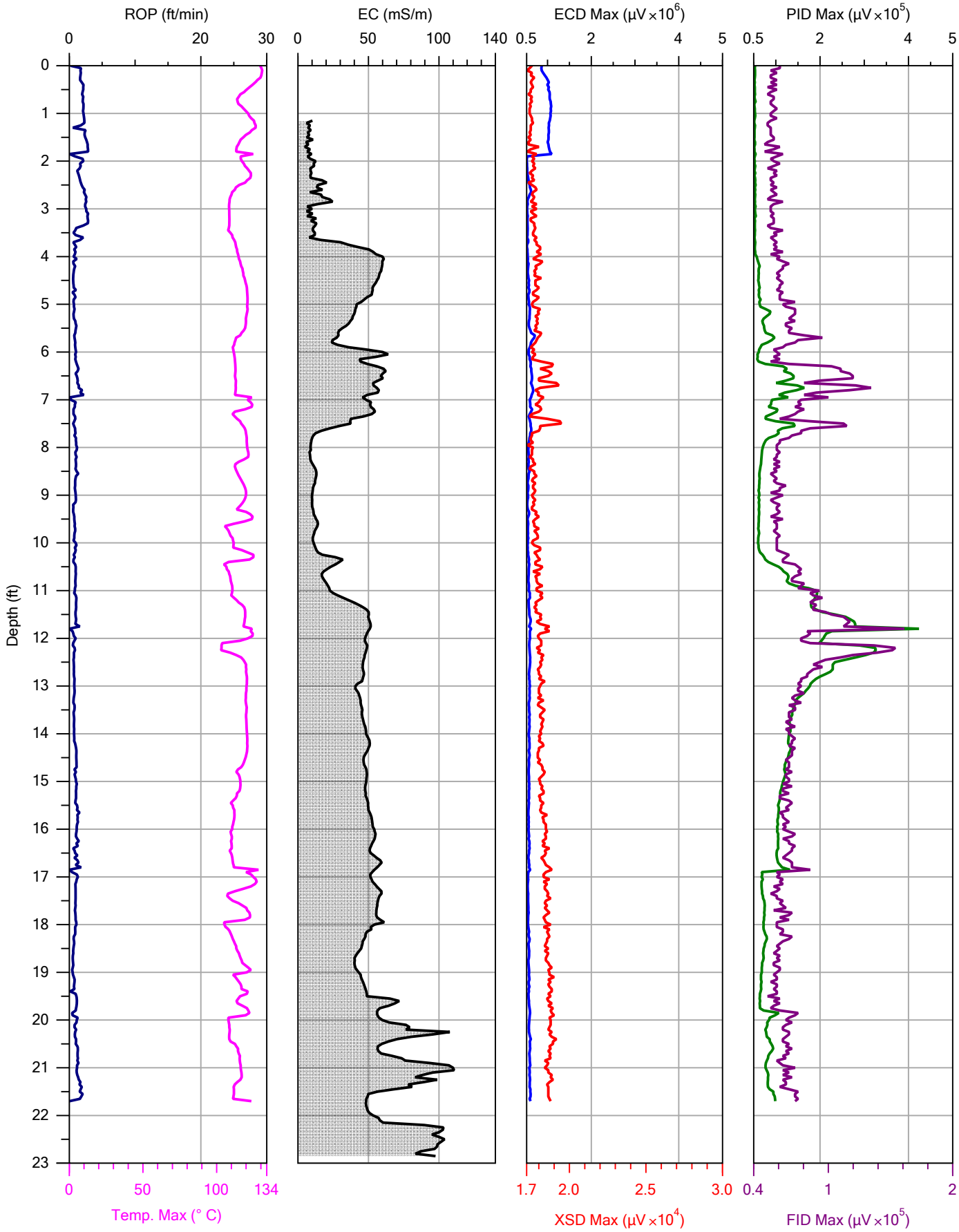

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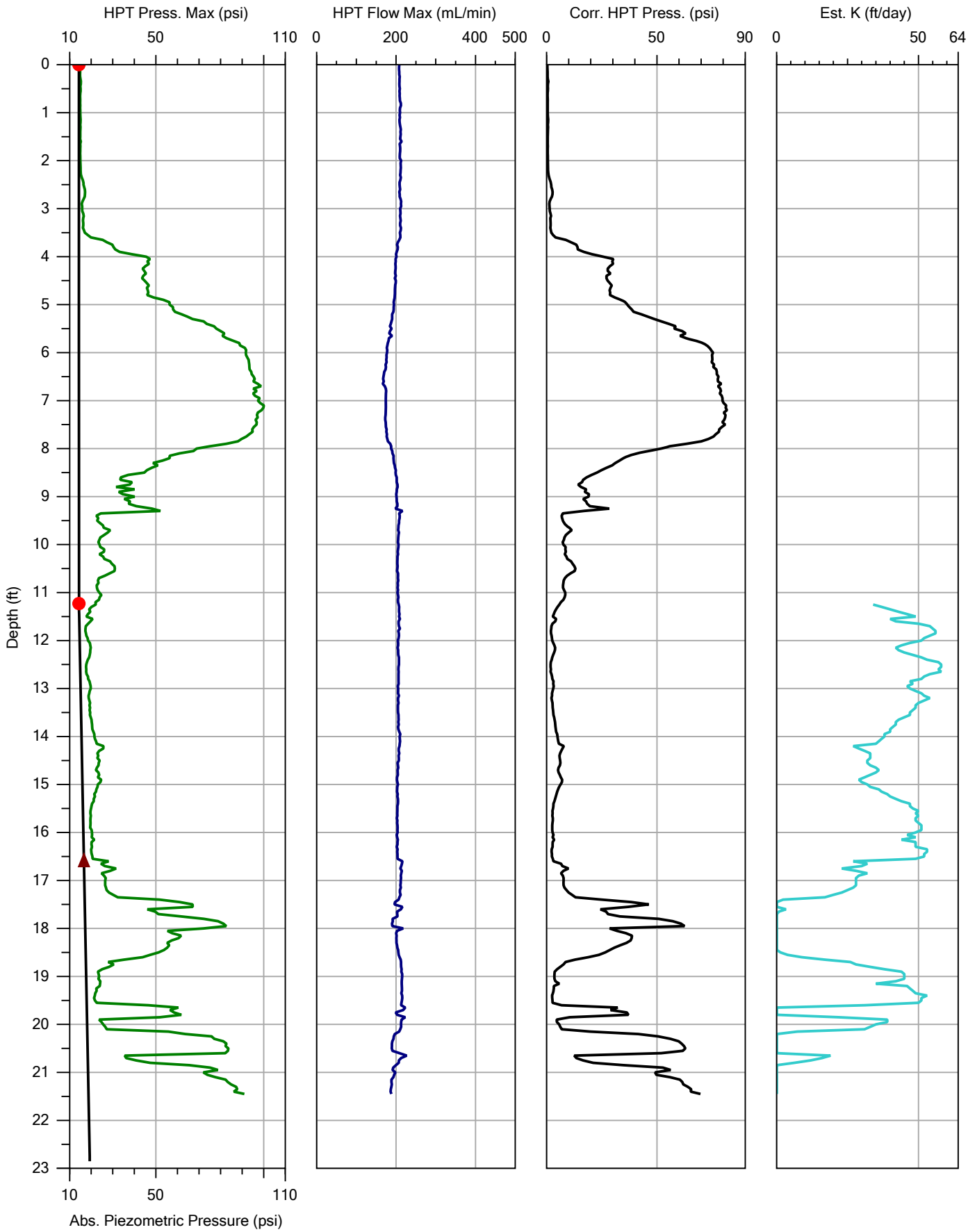

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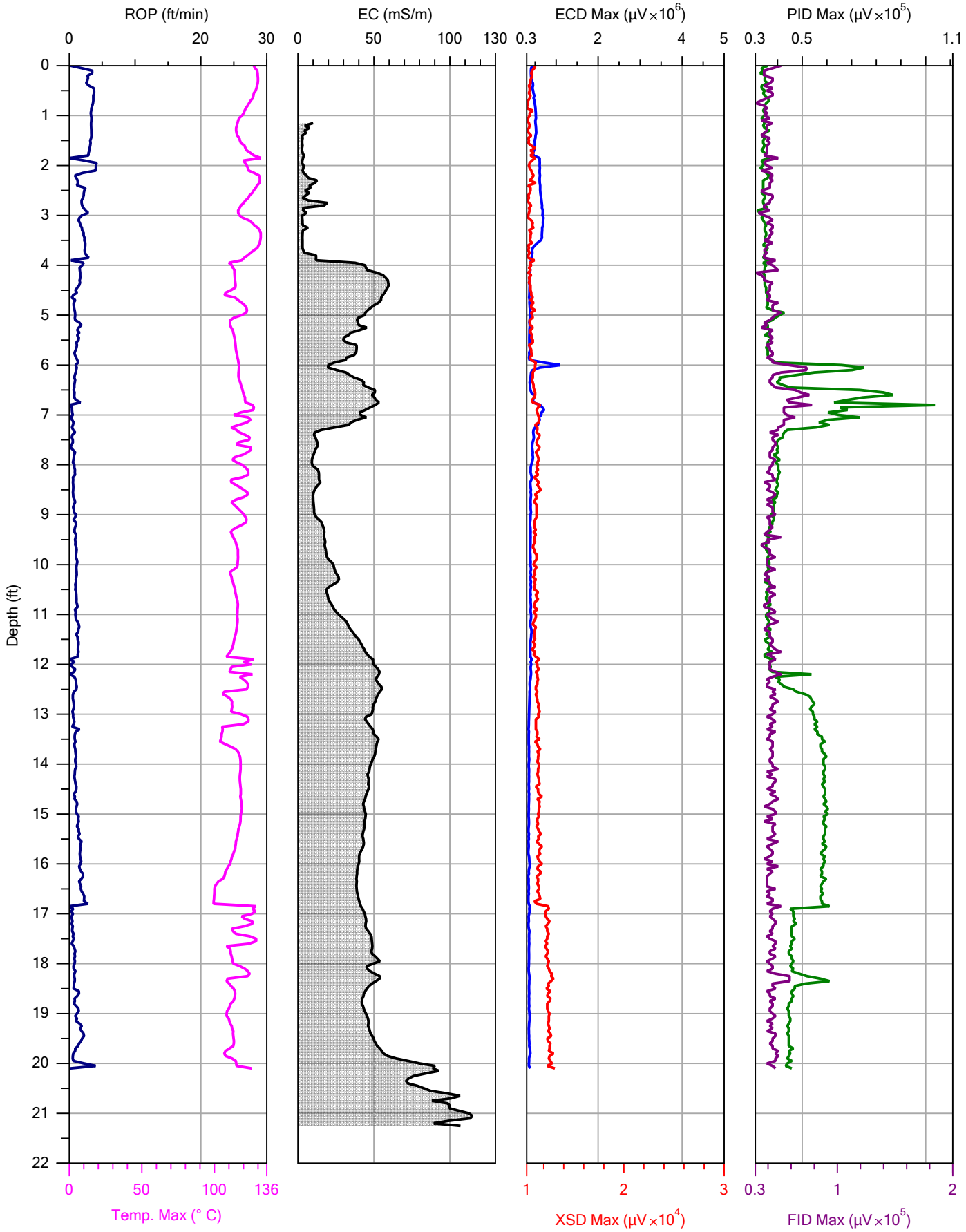

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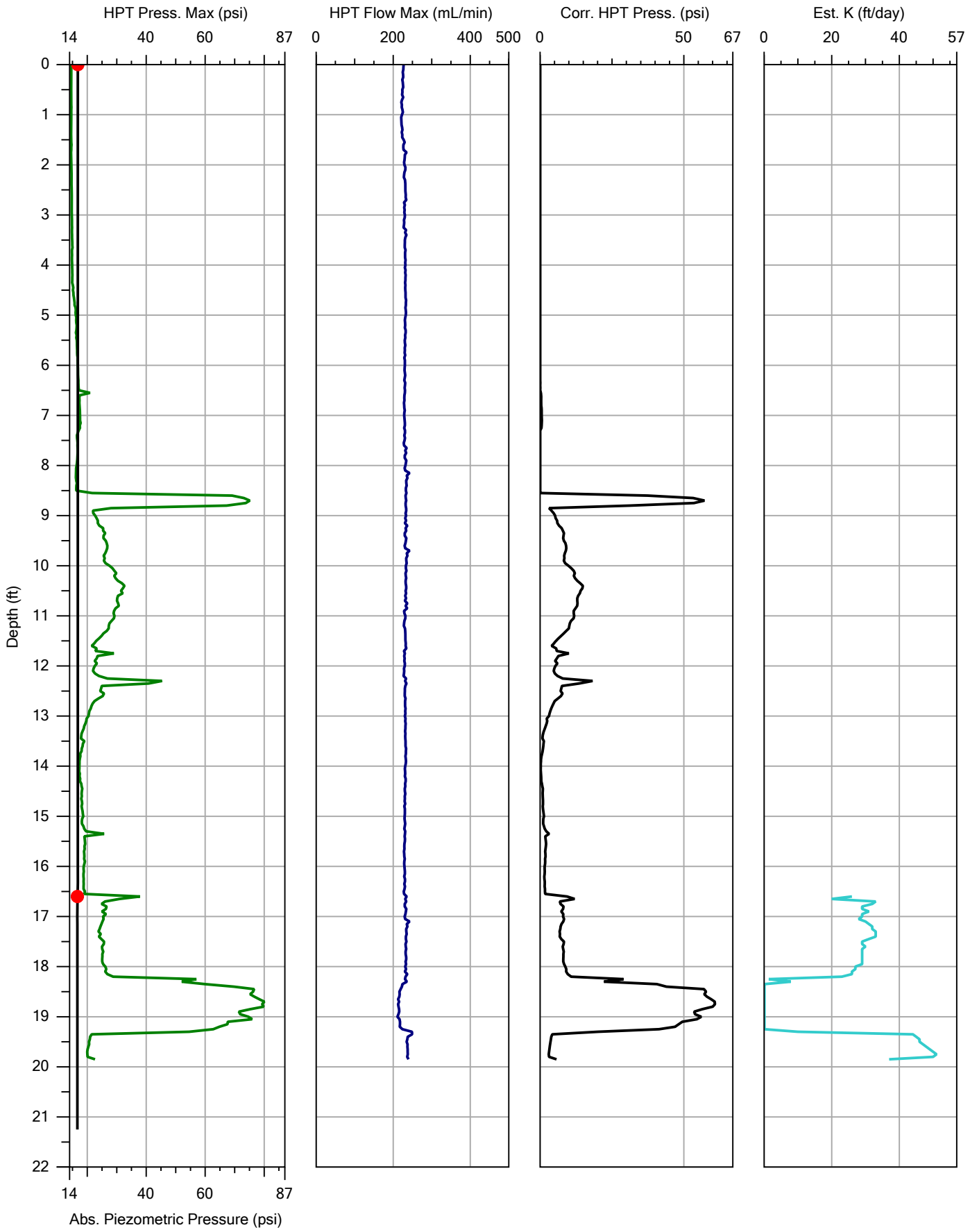

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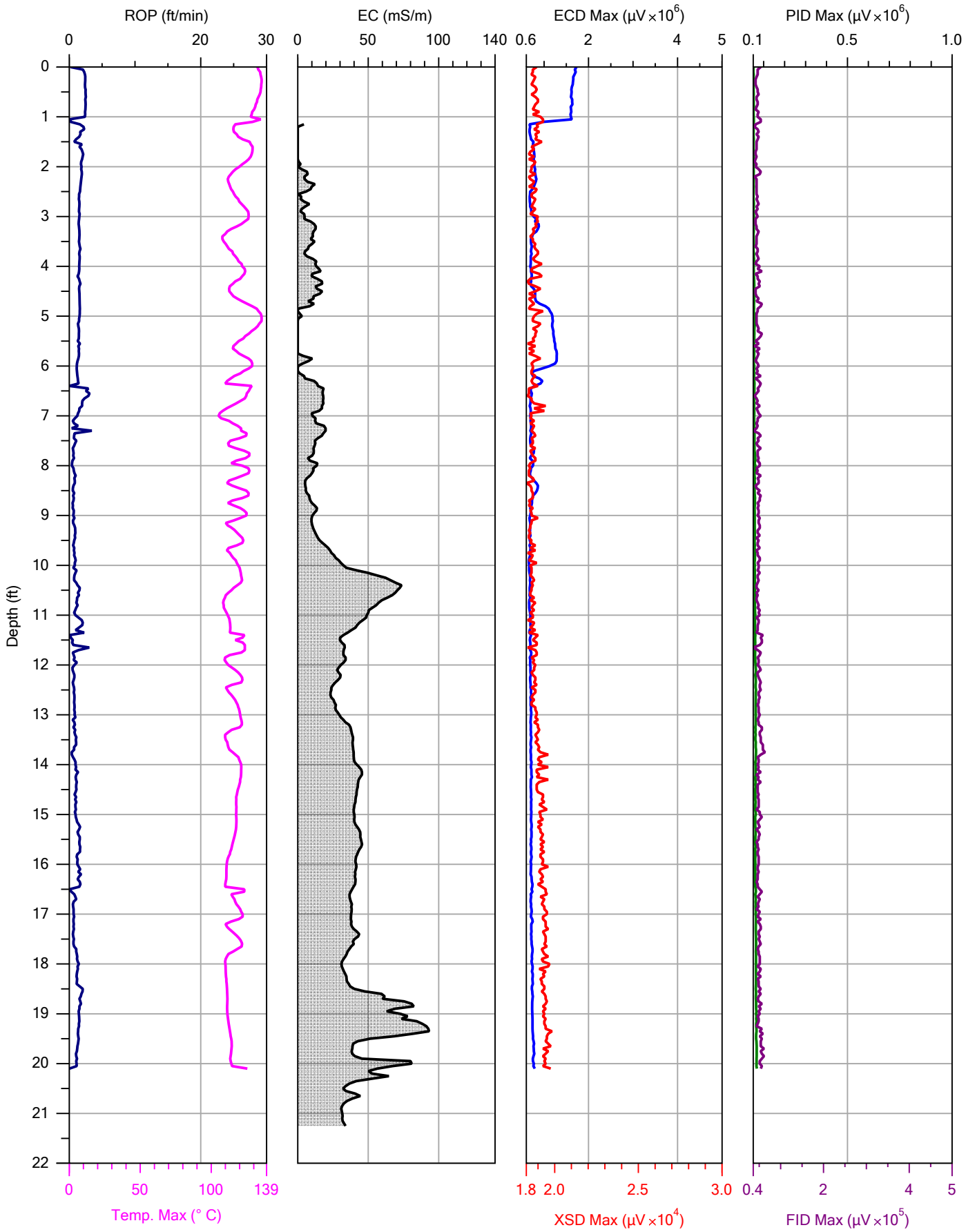

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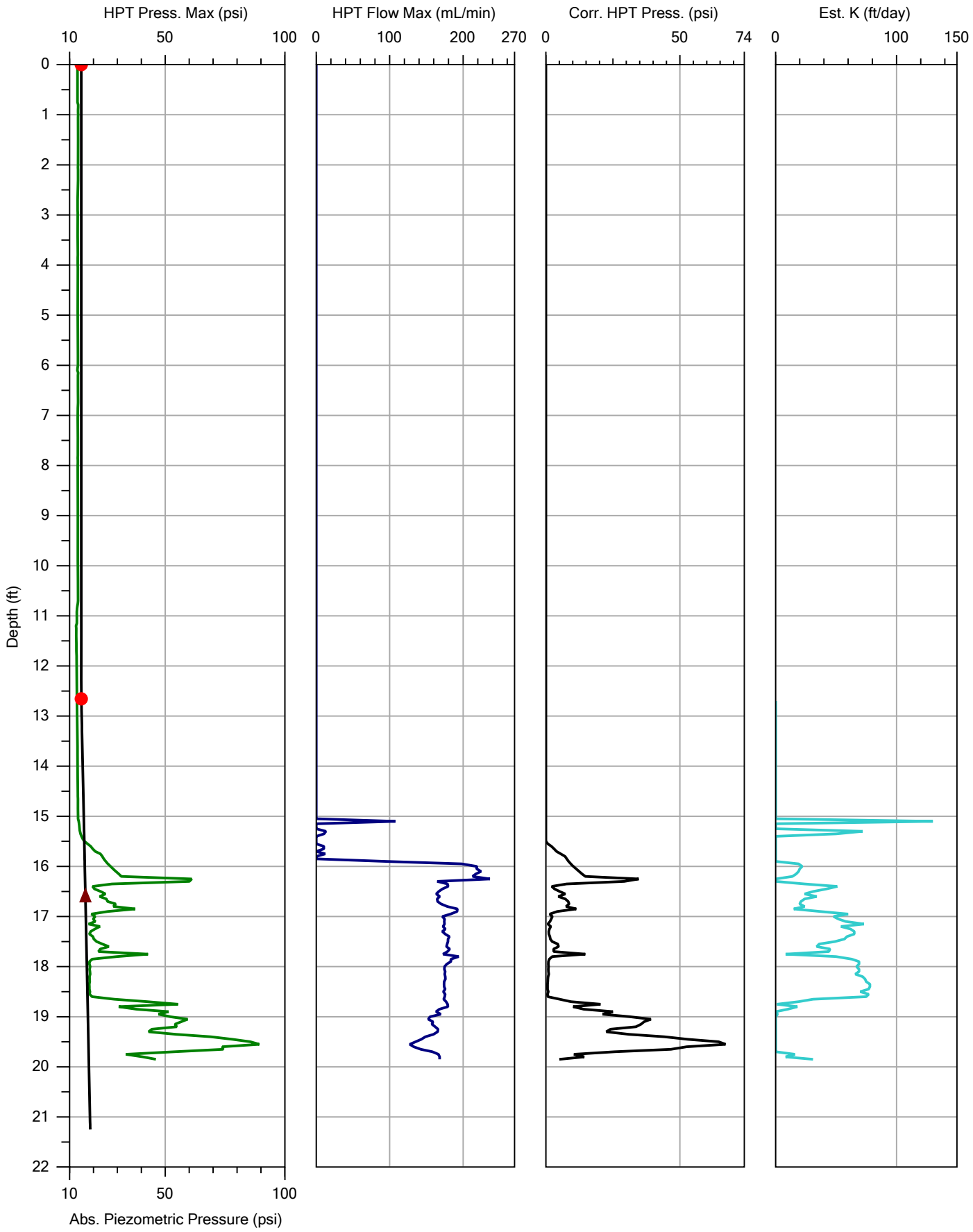

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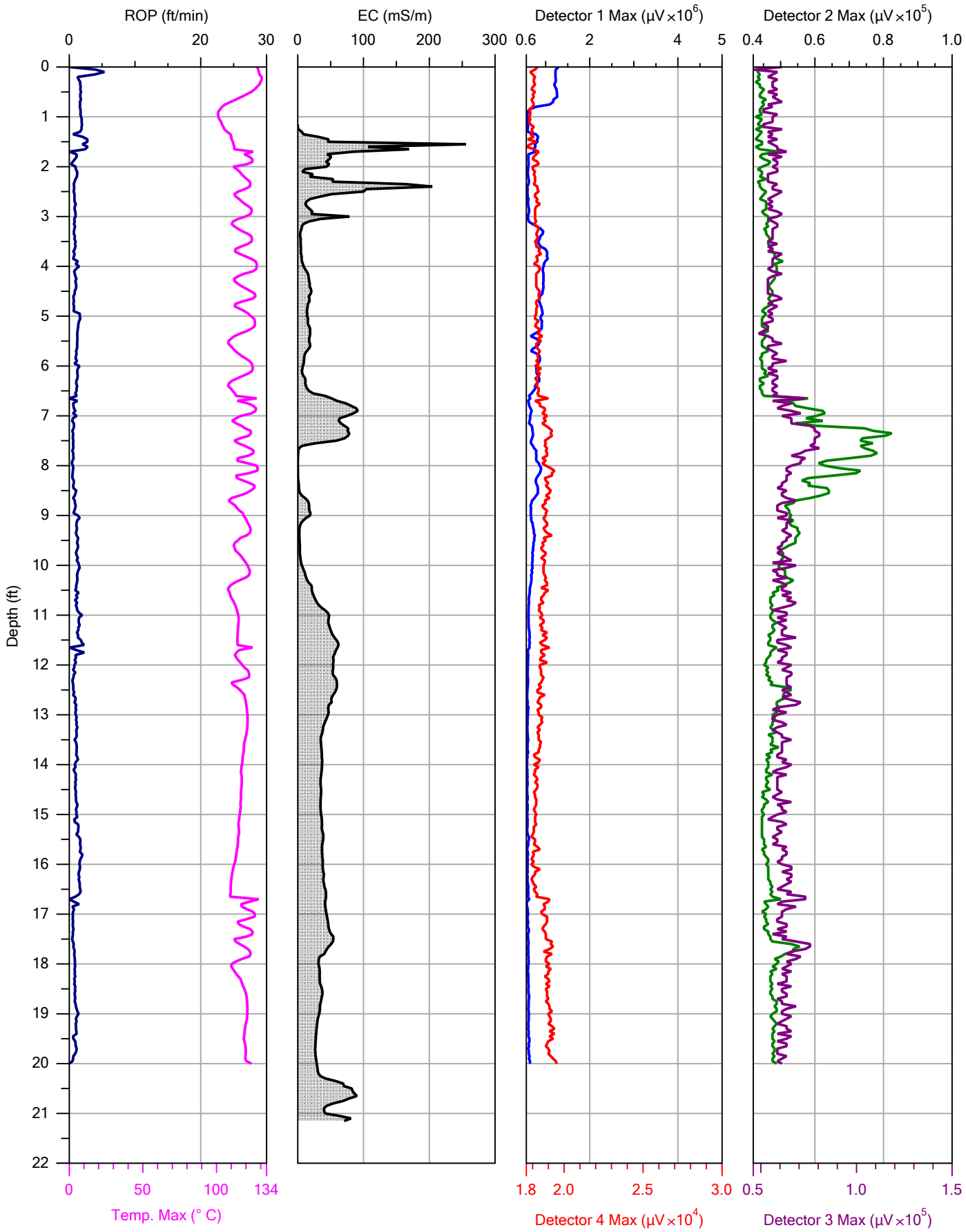

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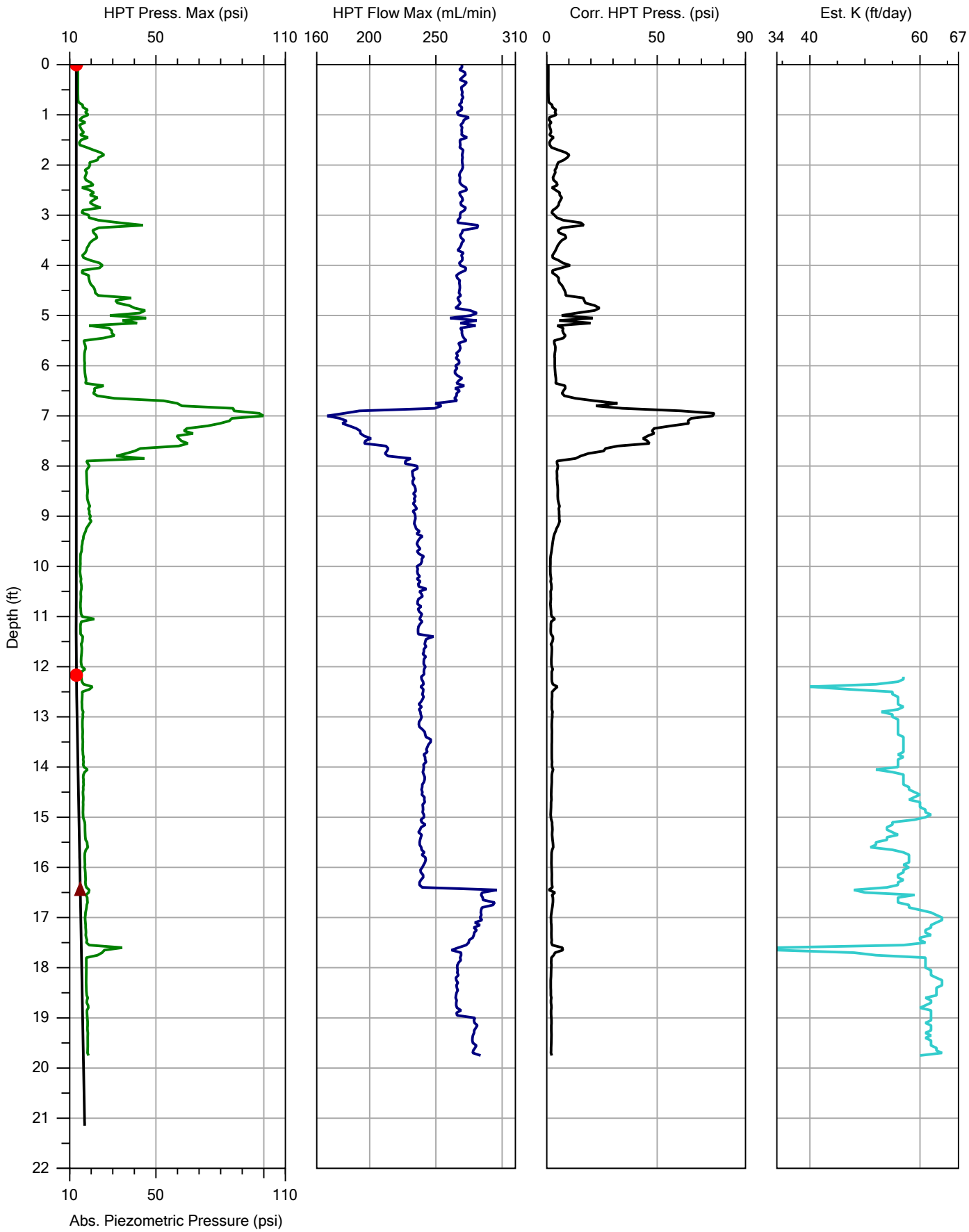

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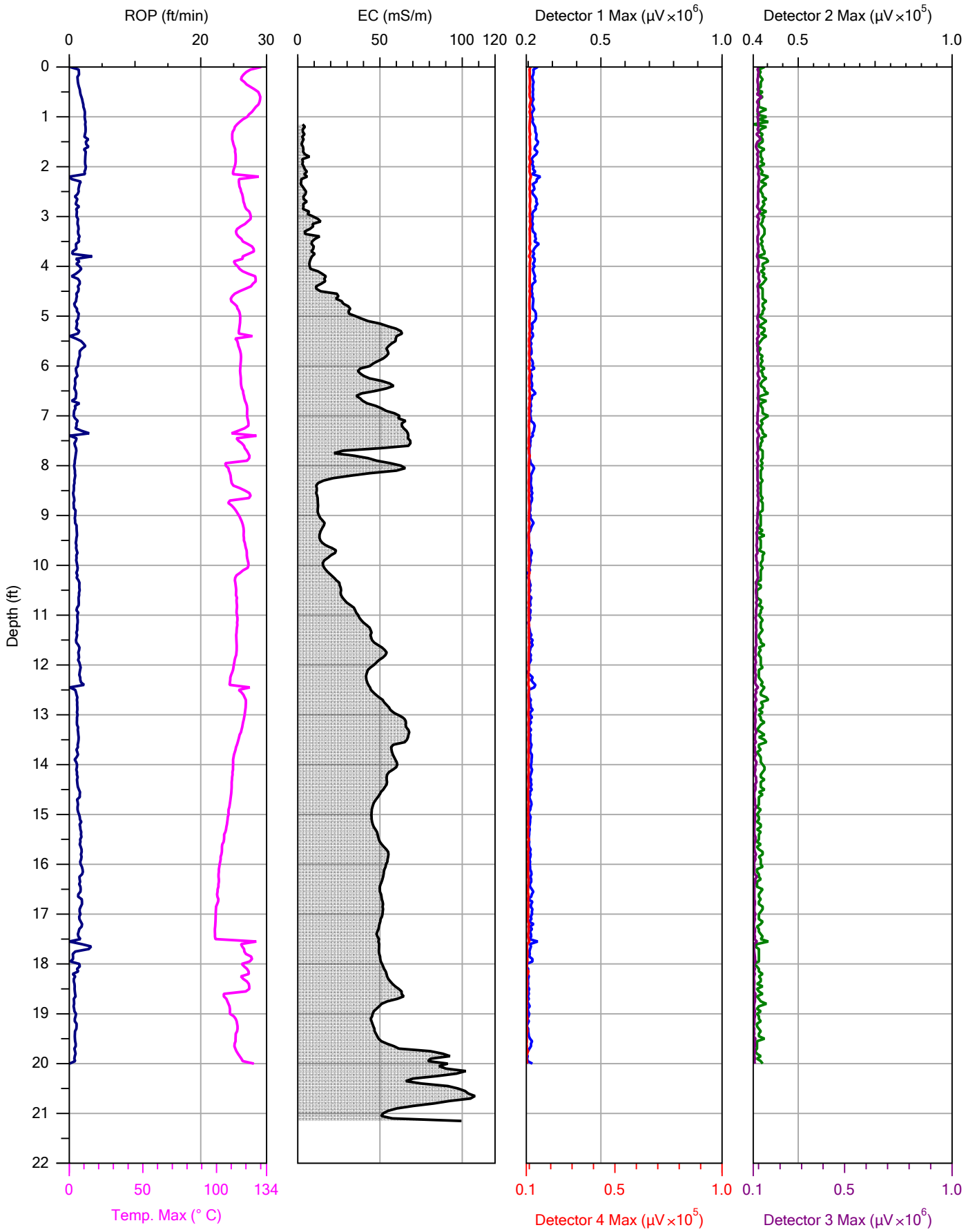

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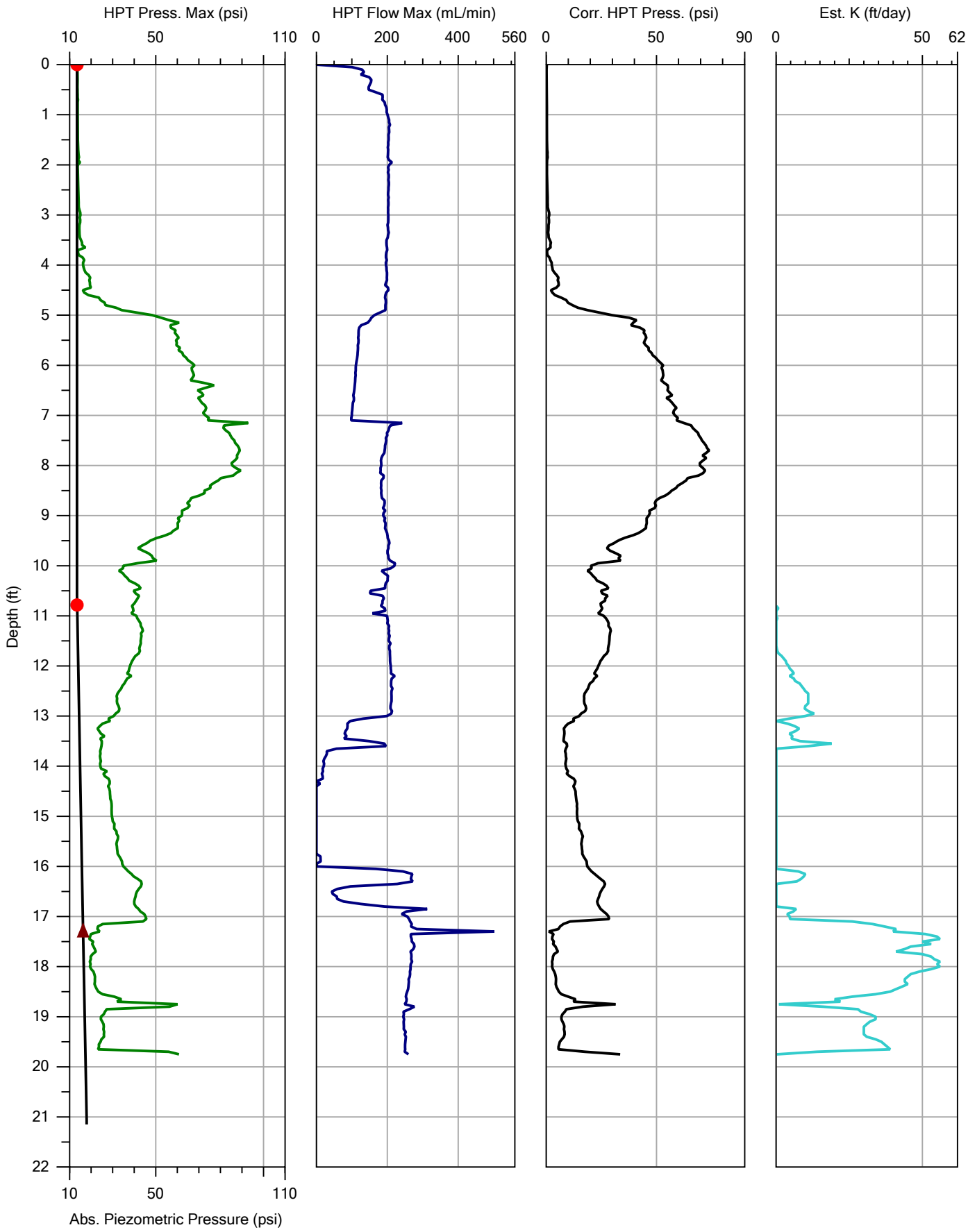

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Project ID: TSC- Layton Chevron	Client: Terracon	Location: Layton, UT

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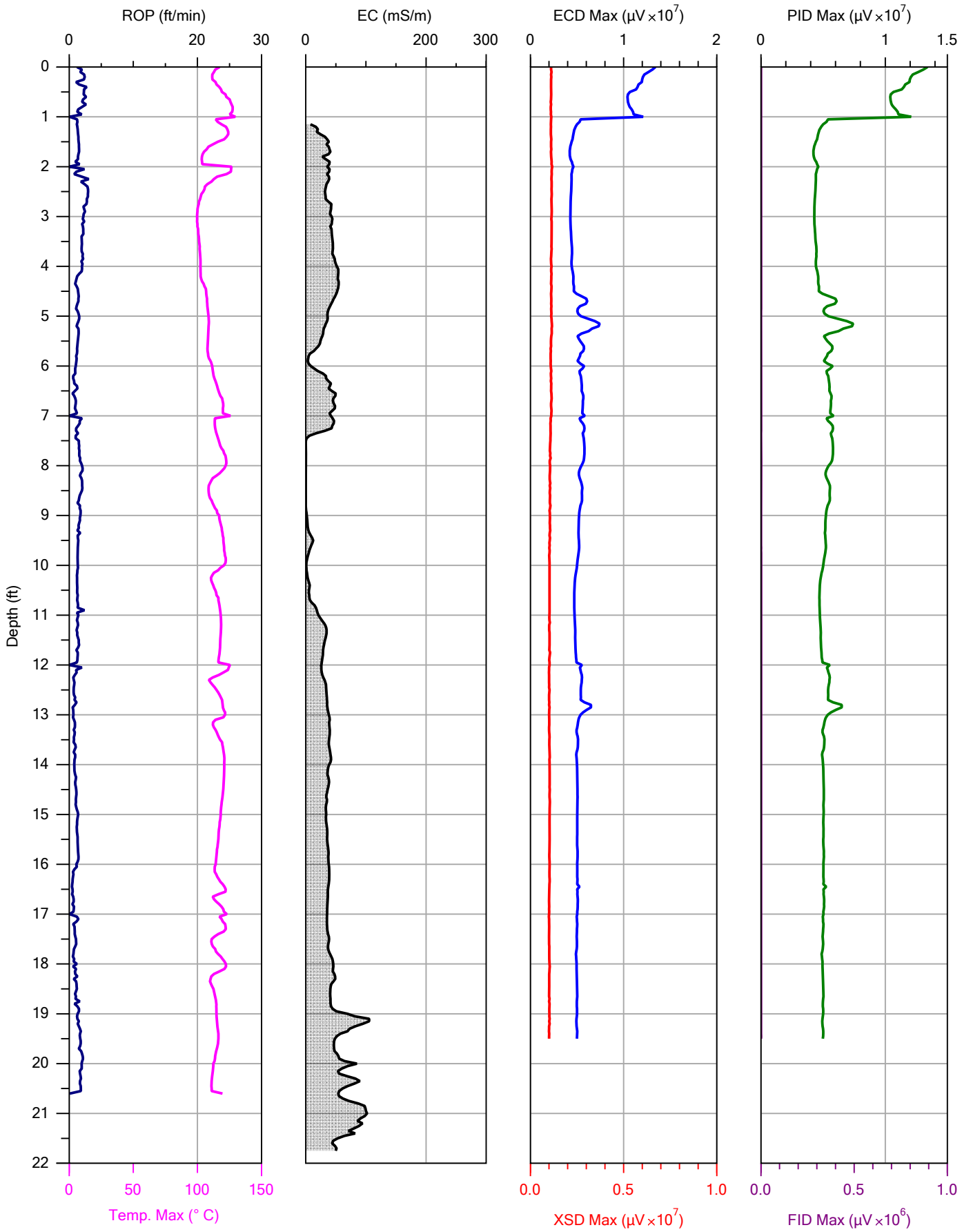
MIHPT INVESTIGATION DATA PLOTS COMMON SCALE



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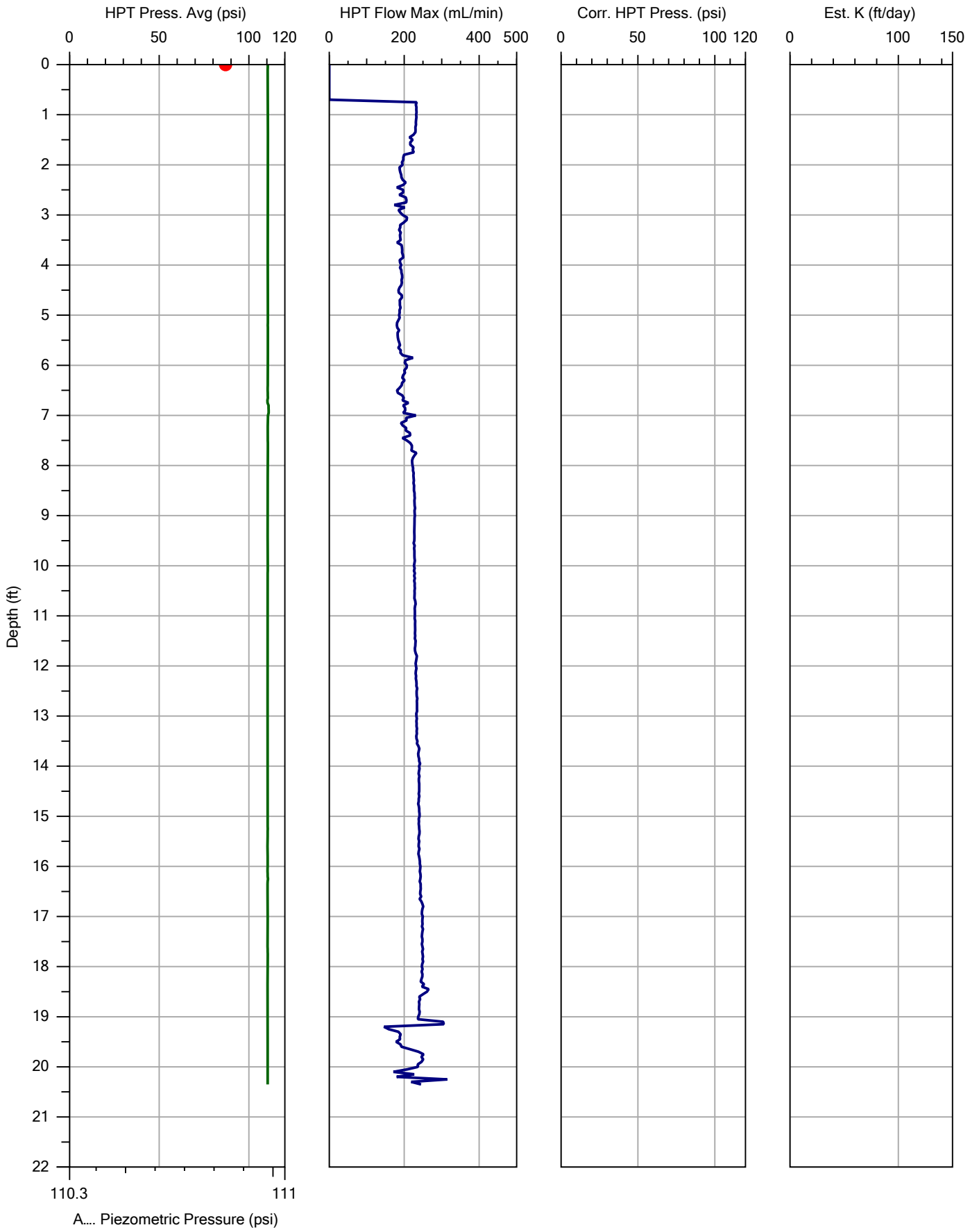

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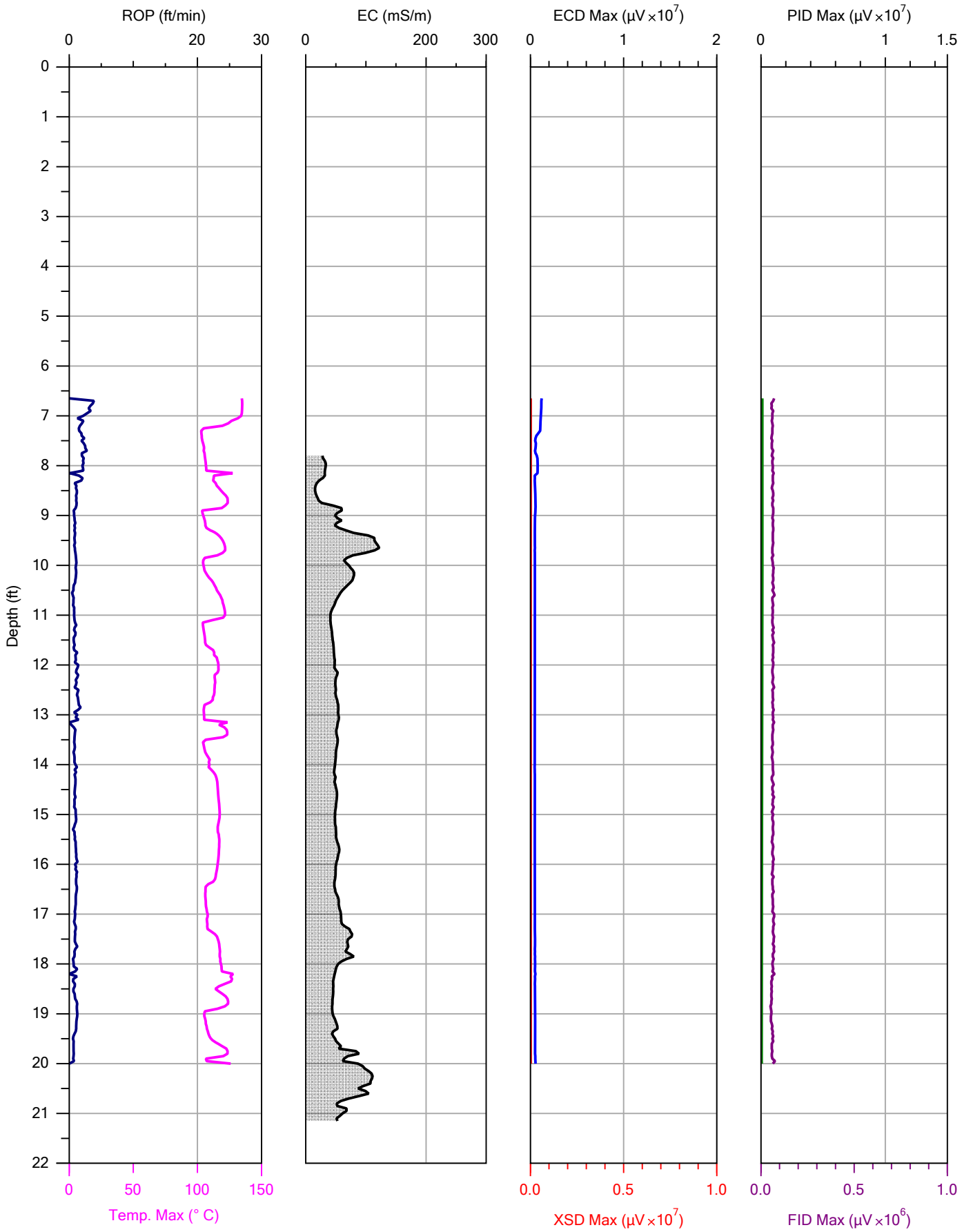

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DRILLING | TECHNICAL SERVICES

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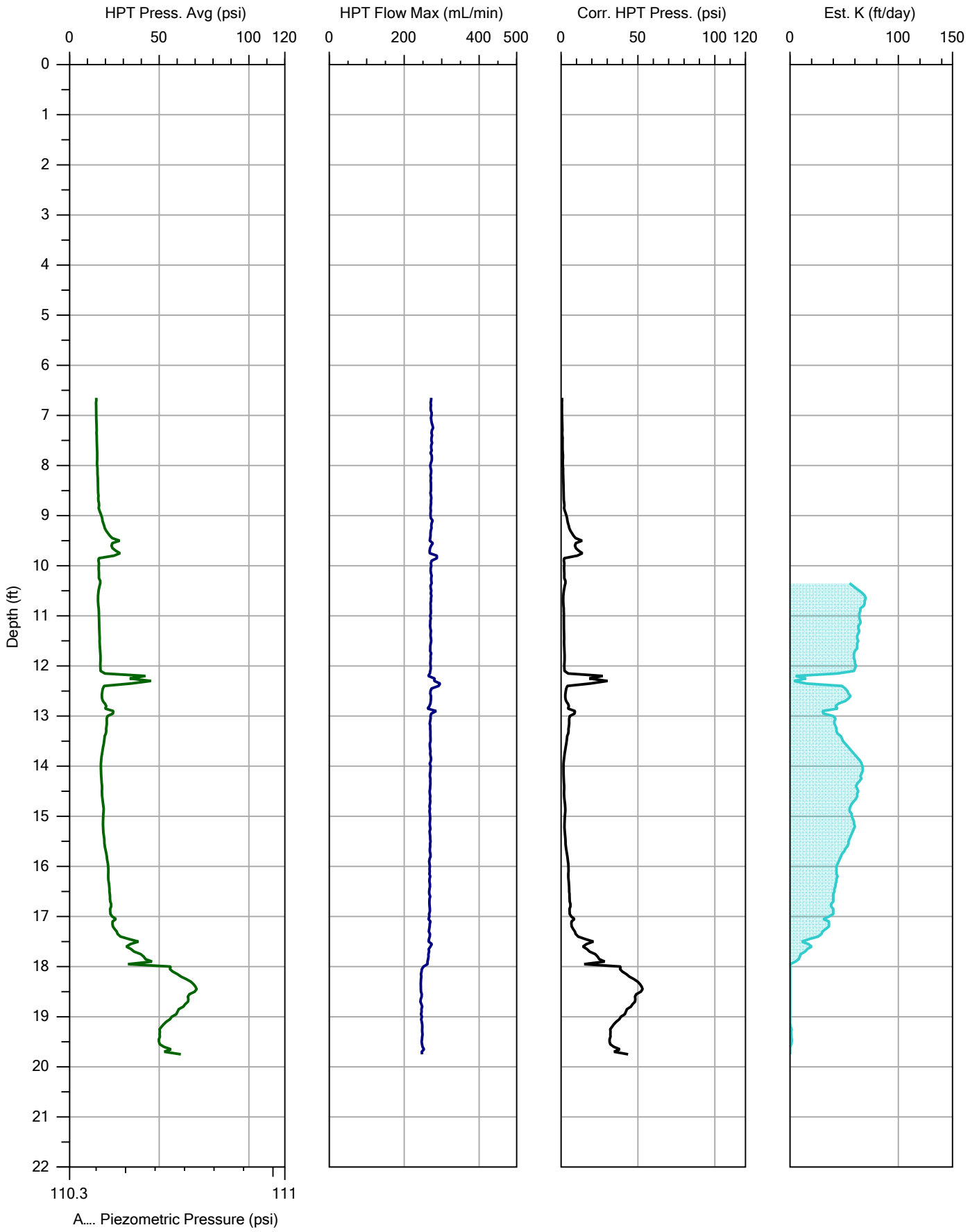

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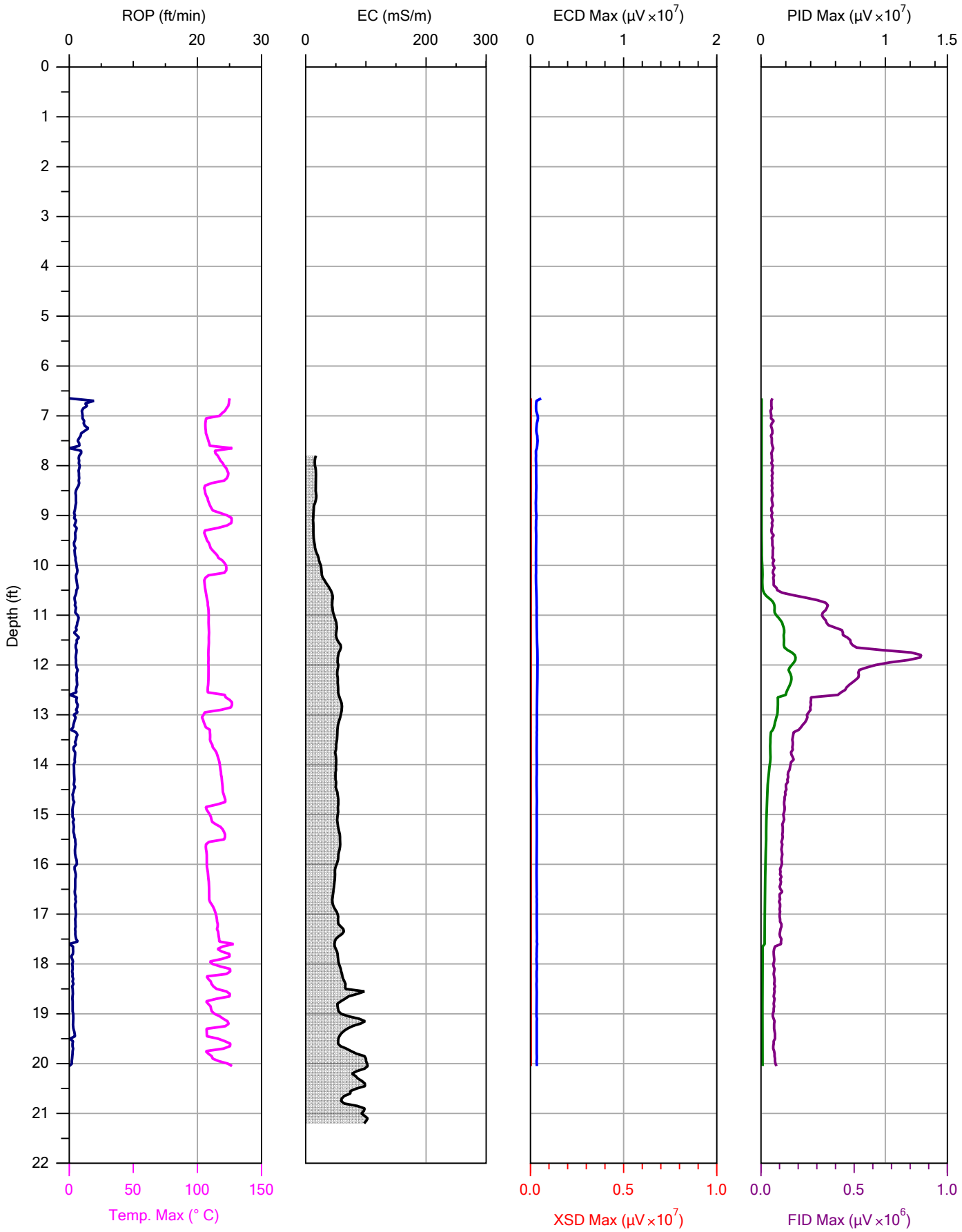

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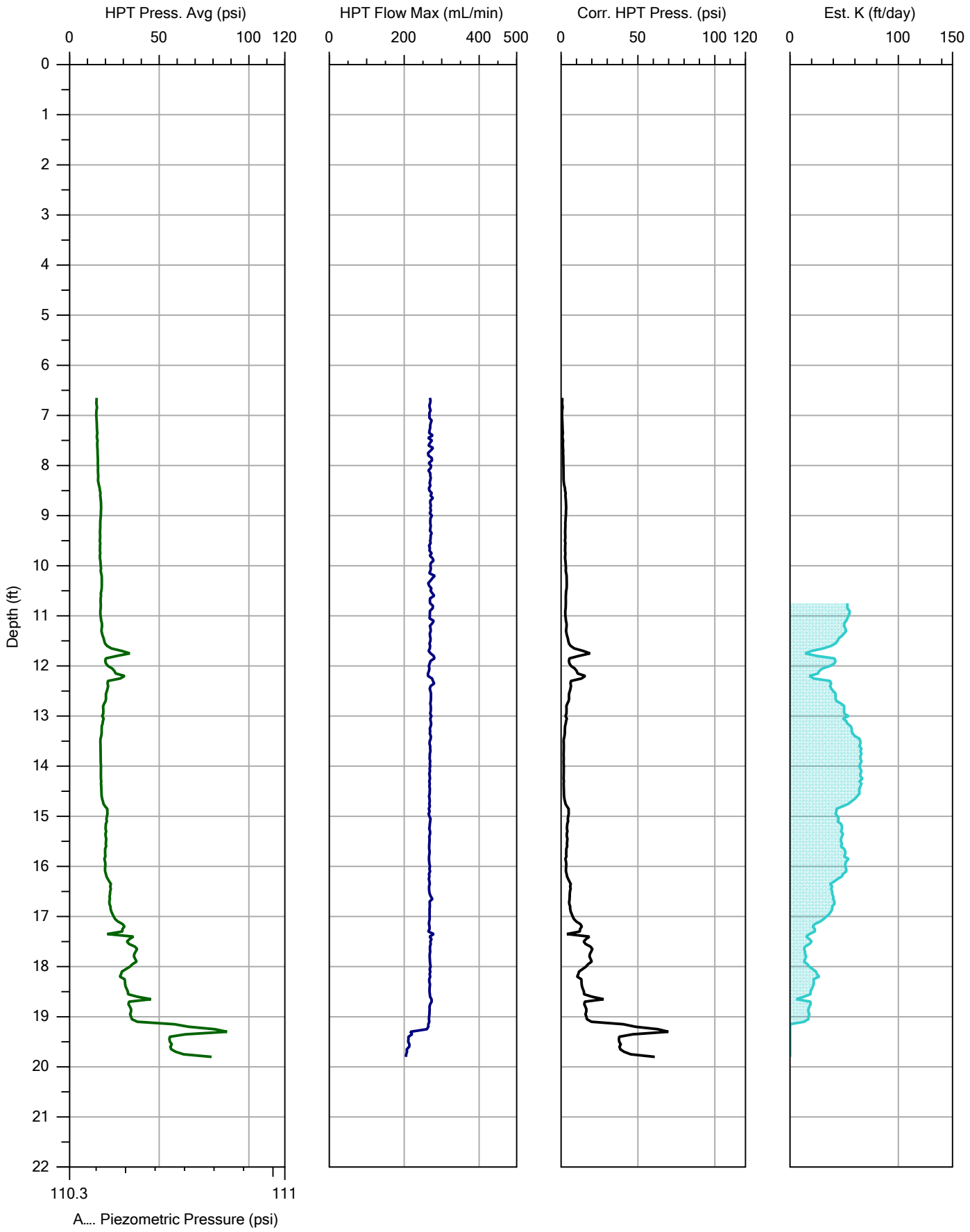

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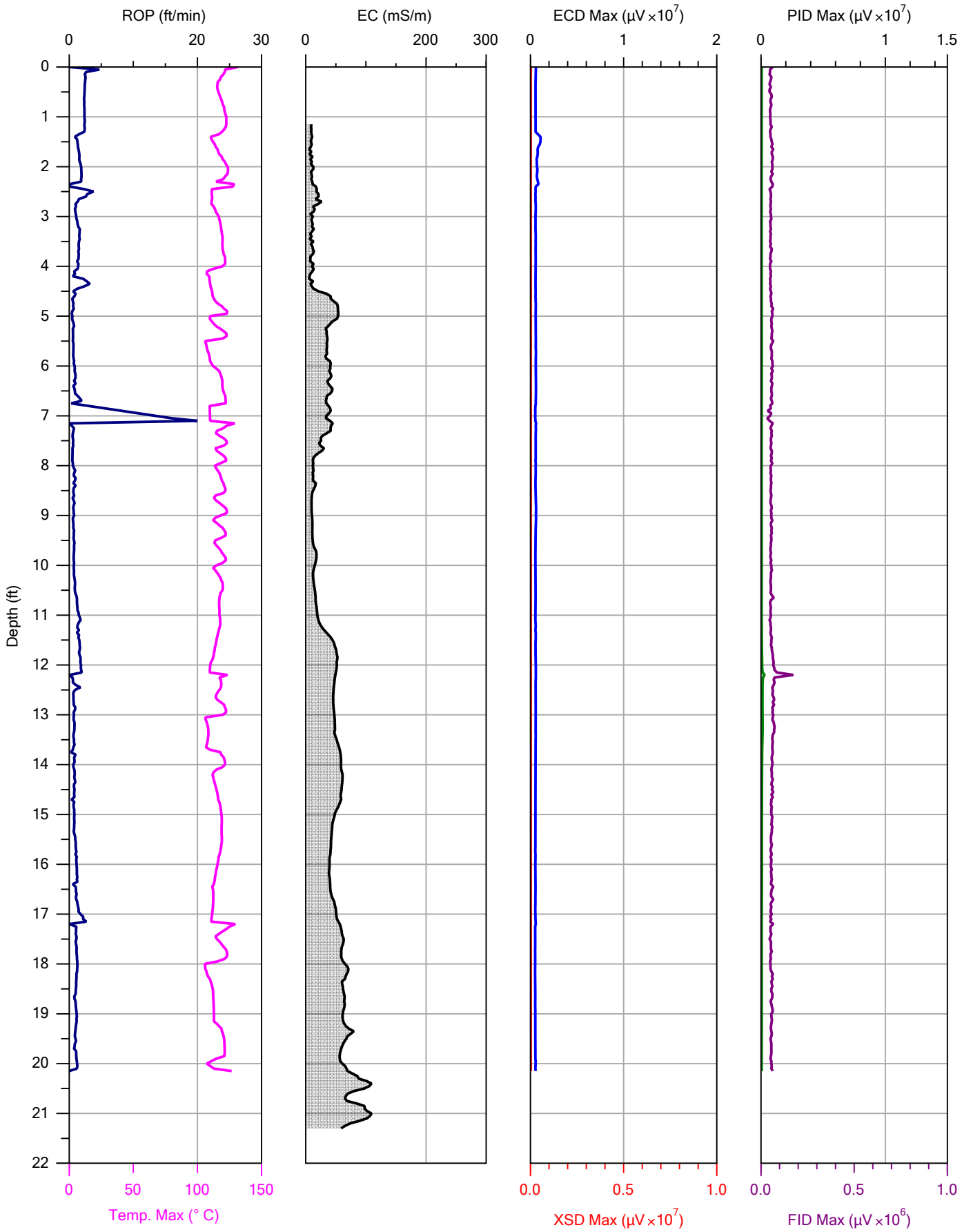
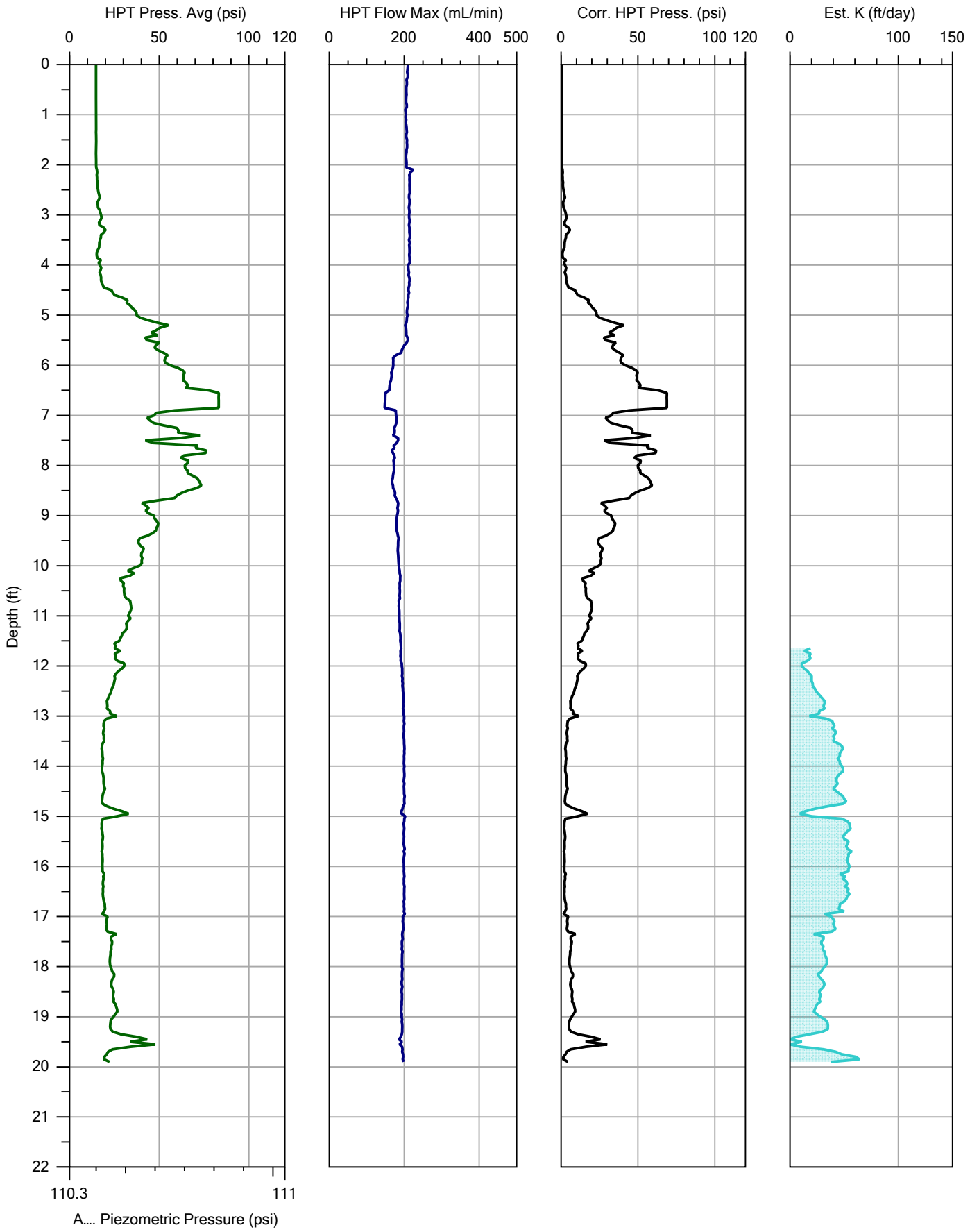
Company: Cascade	Operator: Davis Ocana	Date: 03/25/21
Project ID: 302211012	Client: Terracon	Location: Layton, UT



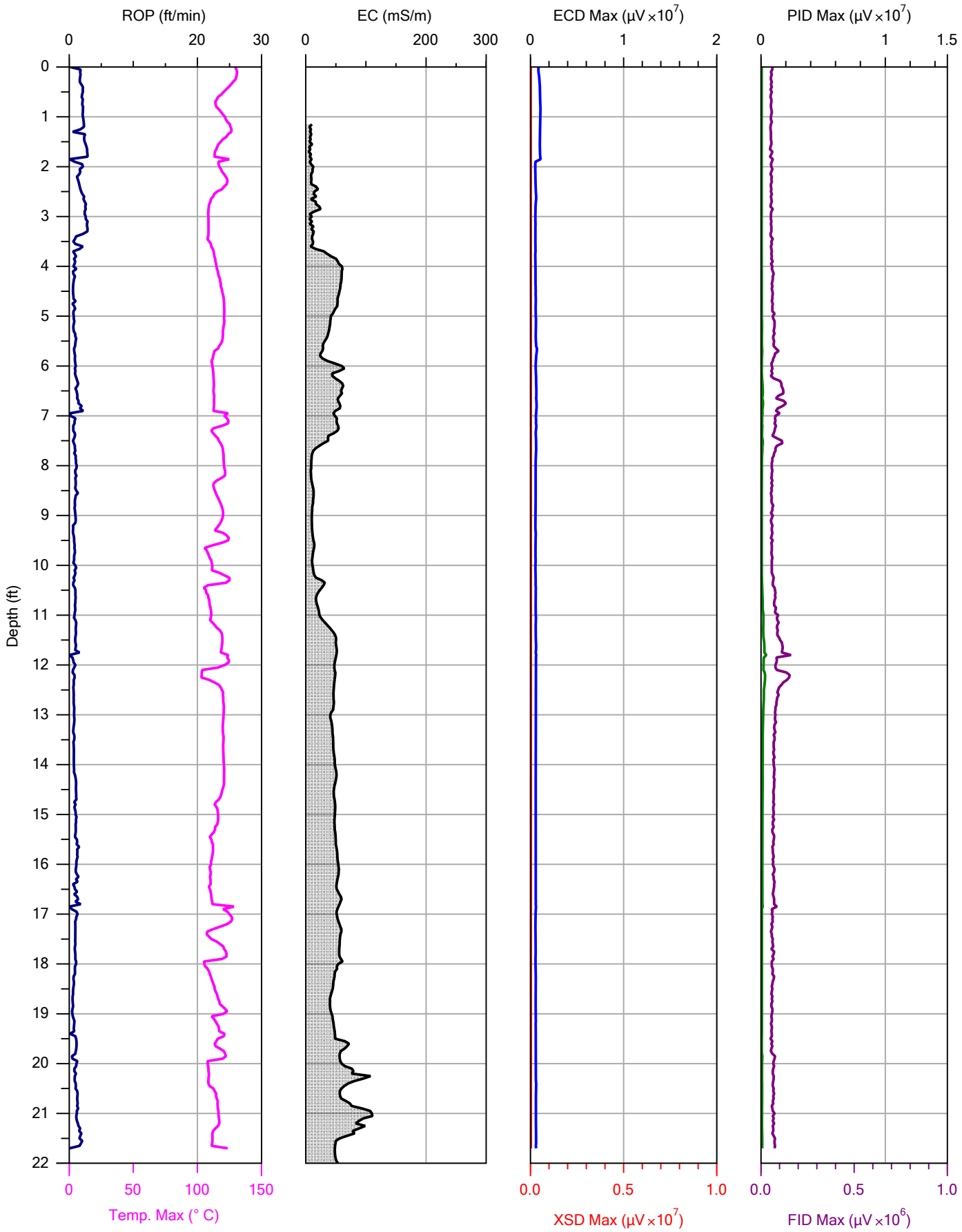
CASCADE
DRILLING | TECHNICAL SERVICES

		File: MIHPT-4.MHP
Company: Cascade	Operator: Davis Ocana	Date: 03/25/21
Project ID: 302211012	Client: Terracon	Location: Layton, UT



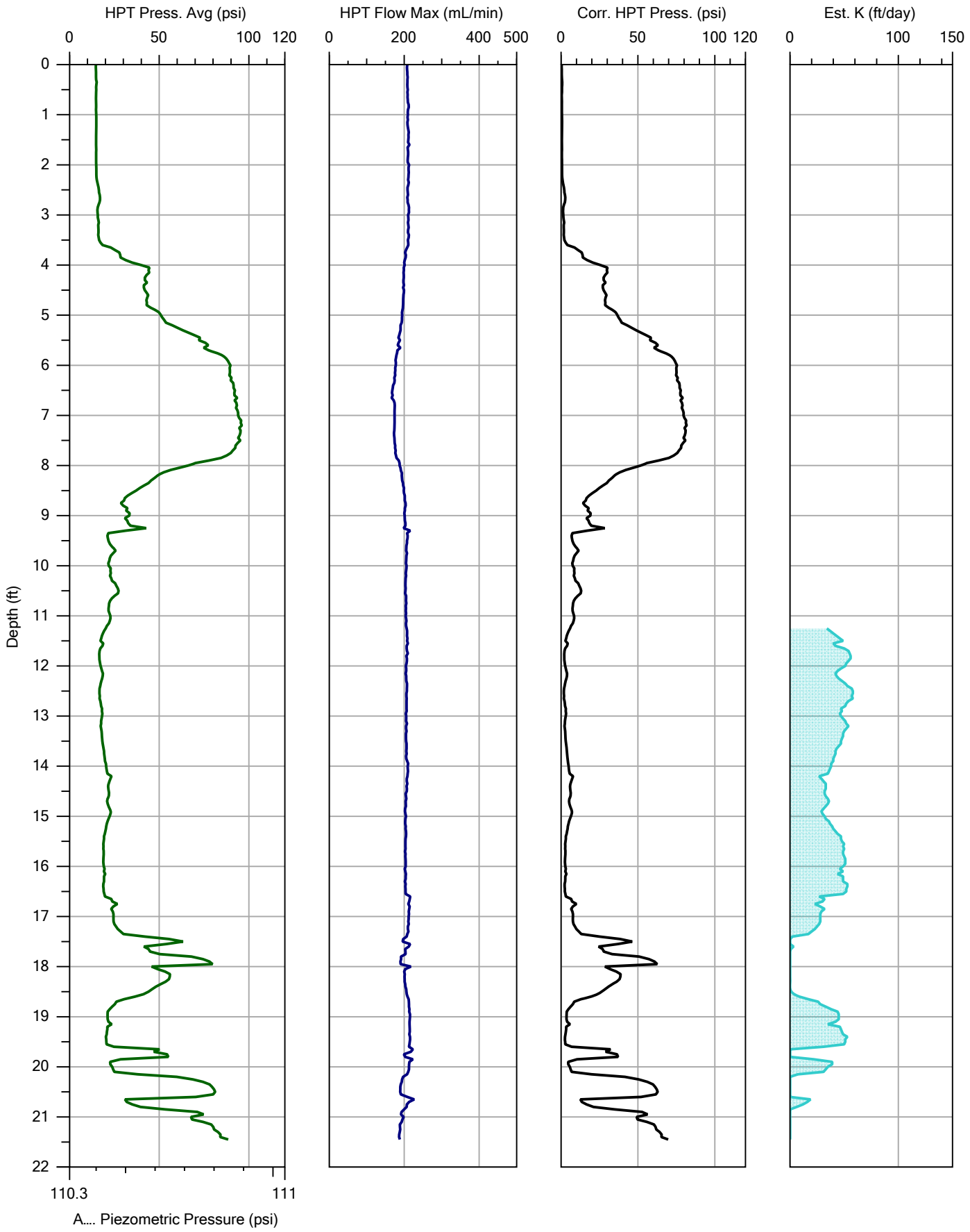
CASCADE
DRILLING | TECHNICAL SERVICES

		File: MIHPT-4.MHP
Company: Cascade	Operator: Davis Ocana	Date: 03/25/21
Project ID: 302211012	Client: Terracon	Location: Layton, UT



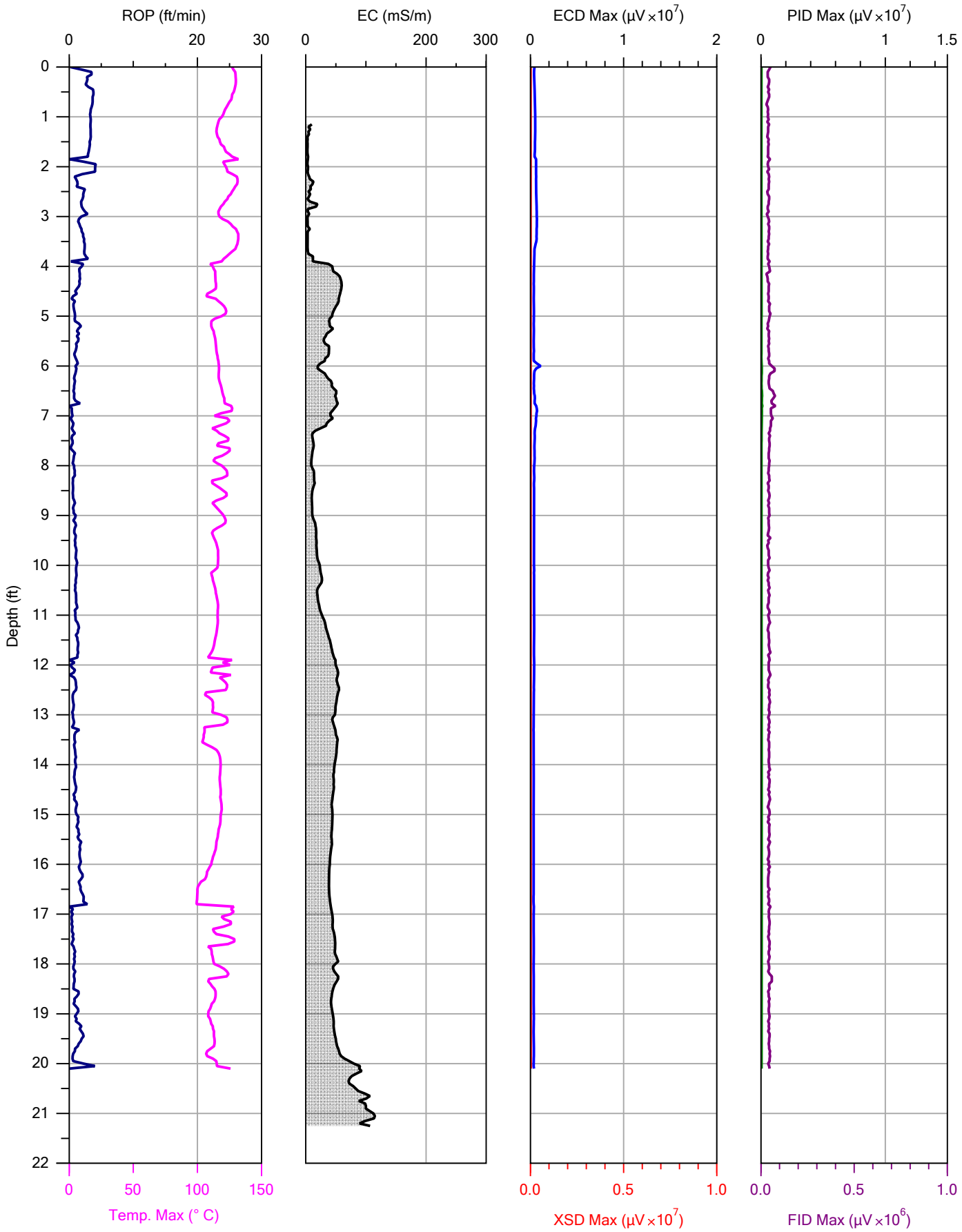
CASCADE
DRILLING | TECHNICAL SERVICES

		File: MIHPT-5.MHP
Company: Cascade	Operator: Davis Ocana	Date: 03/25/21
Project ID: 302211012	Client: Terracon	Location: Layton, UT



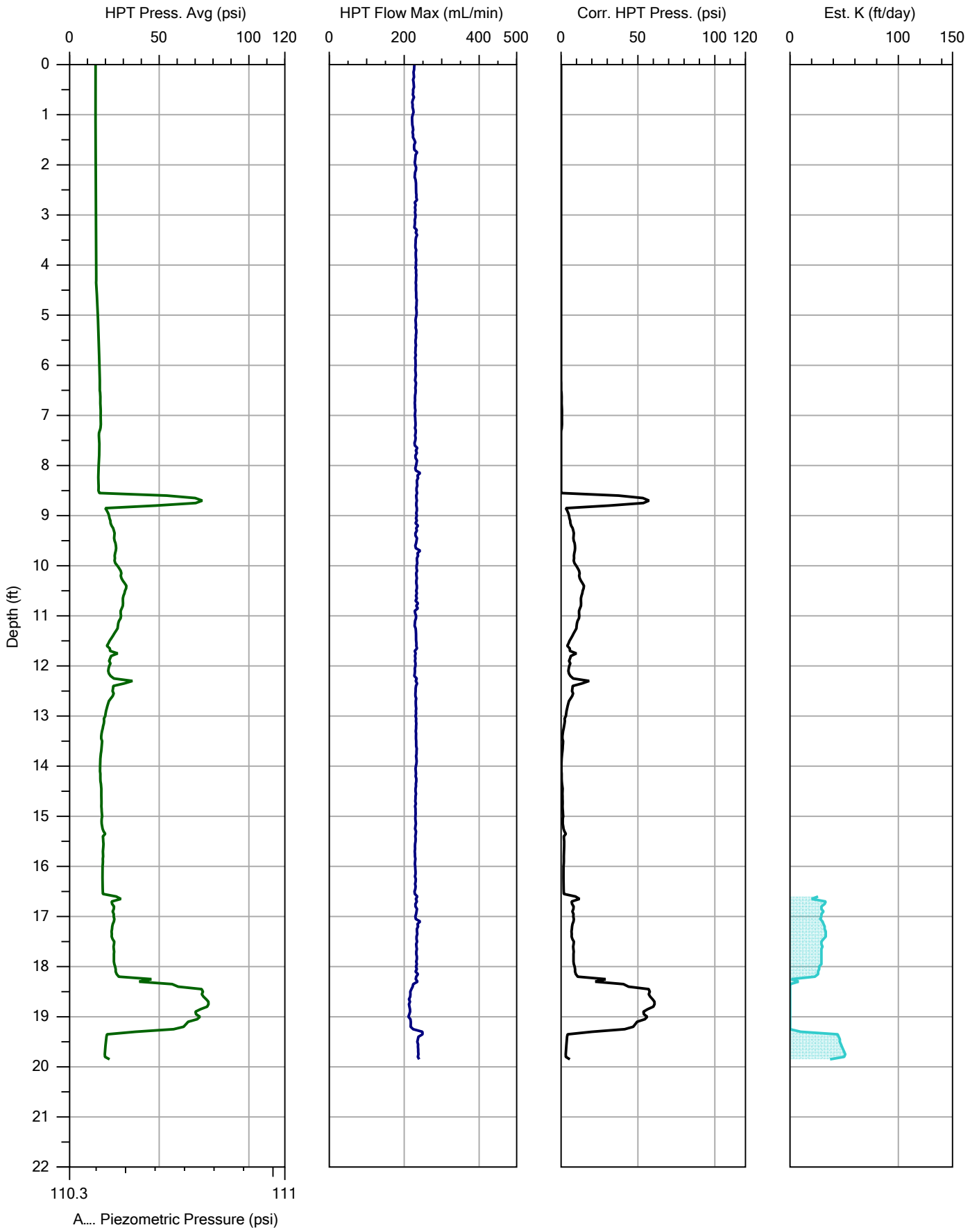
CASCADE
DRILLING | TECHNICAL SERVICES

		File: MIHPT-5.MHP
Company: Cascade	Operator: Davis Ocana	Date: 03/25/21
Project ID: 302211012	Client: Terracon	Location: Layton, UT



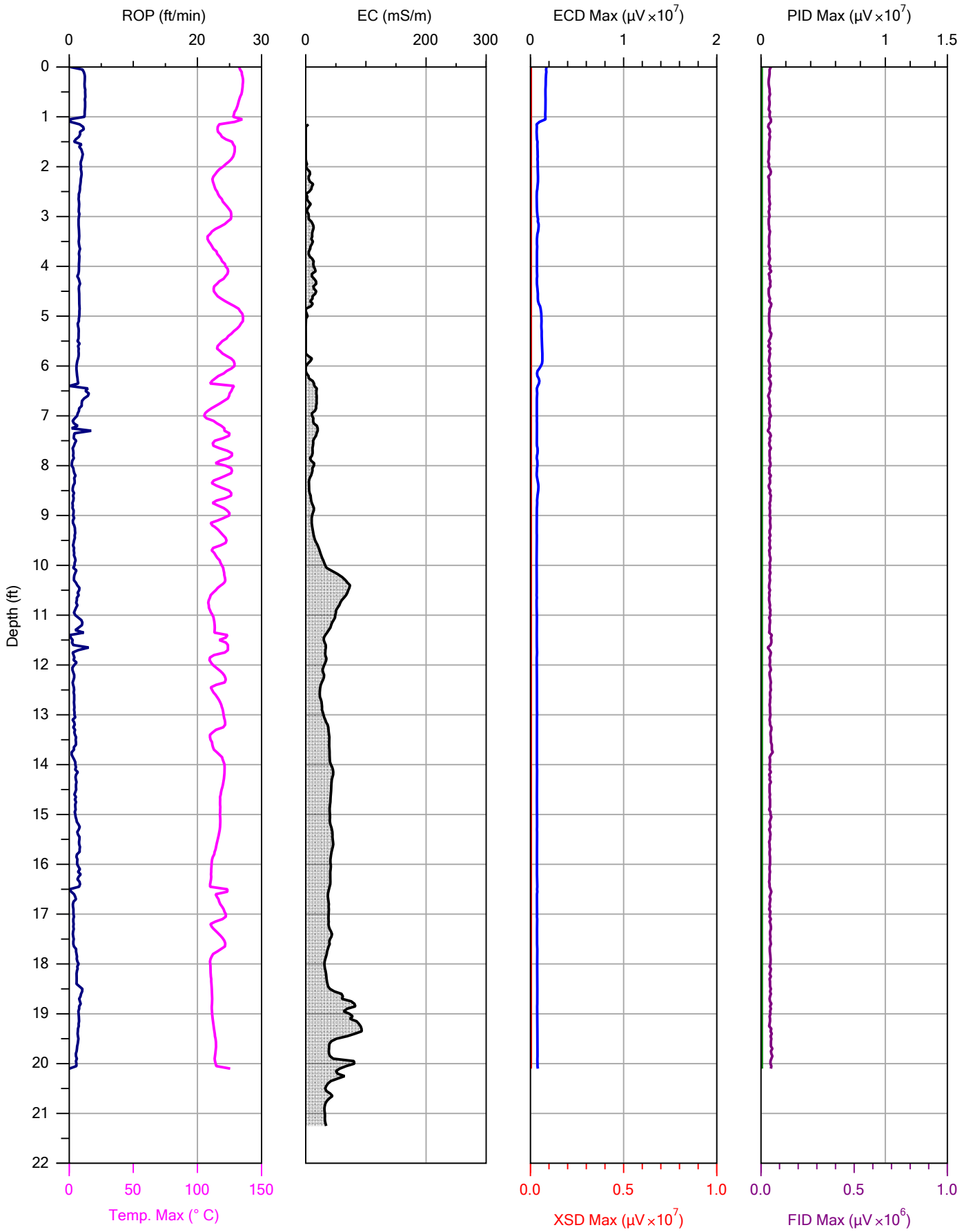
CASCADE
DRILLING | TECHNICAL SERVICES

		File: MIHPT-6.MHP
Company: Cascade Remediation Services	Operator: Jonathan Pooler	Date: 03/26/21
Project ID: TSC- Layton Chevron	Client: Terracon	Location: Layton, UT



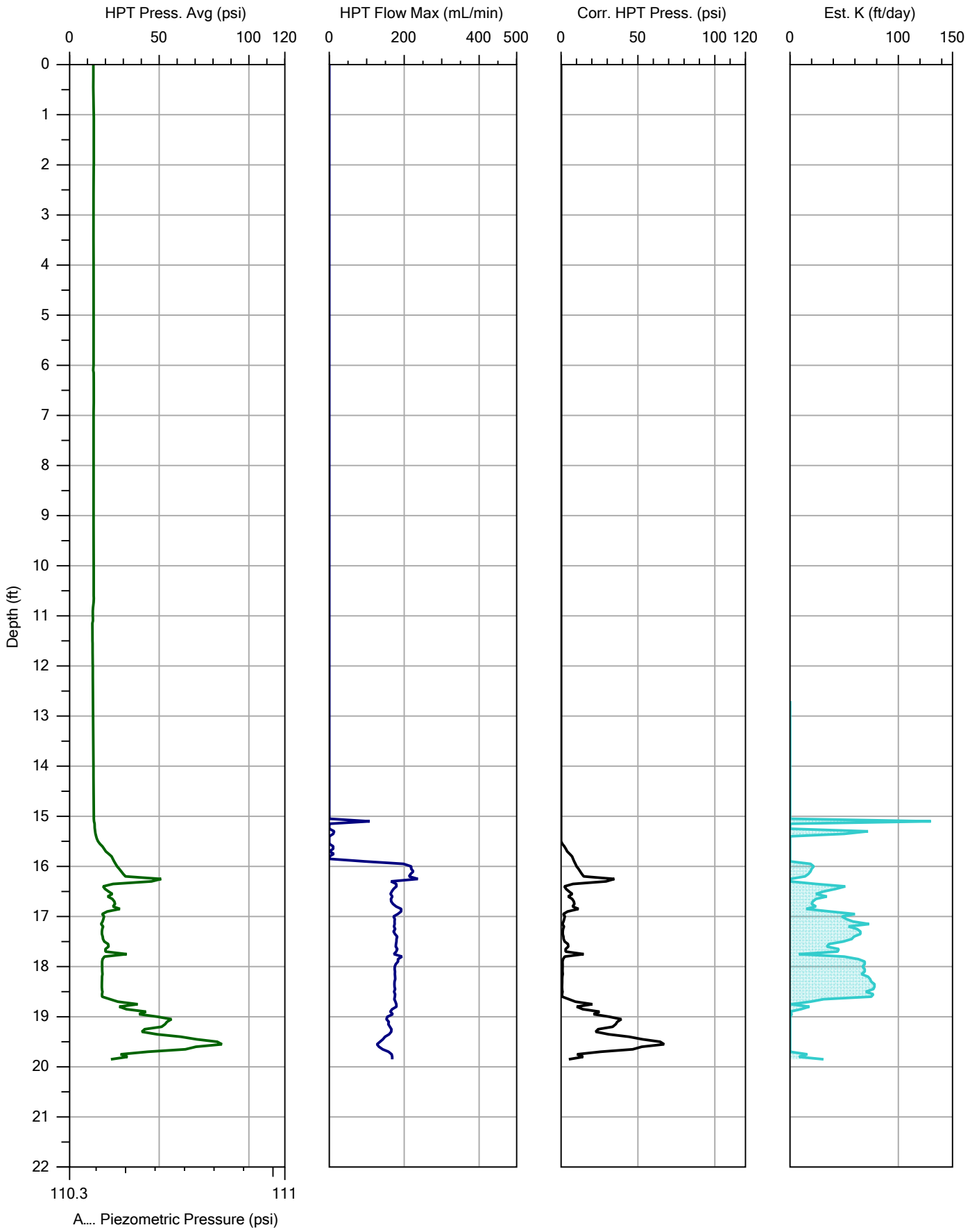
CASCADE
DRILLING | TECHNICAL SERVICES

		File: MIHPT-6.MHP
Company: Cascade Remediation Services	Operator: Jonathan Pooler	Date: 03/26/21
Project ID: TSC- Layton Chevron	Client: Terracon	Location: Layton, UT



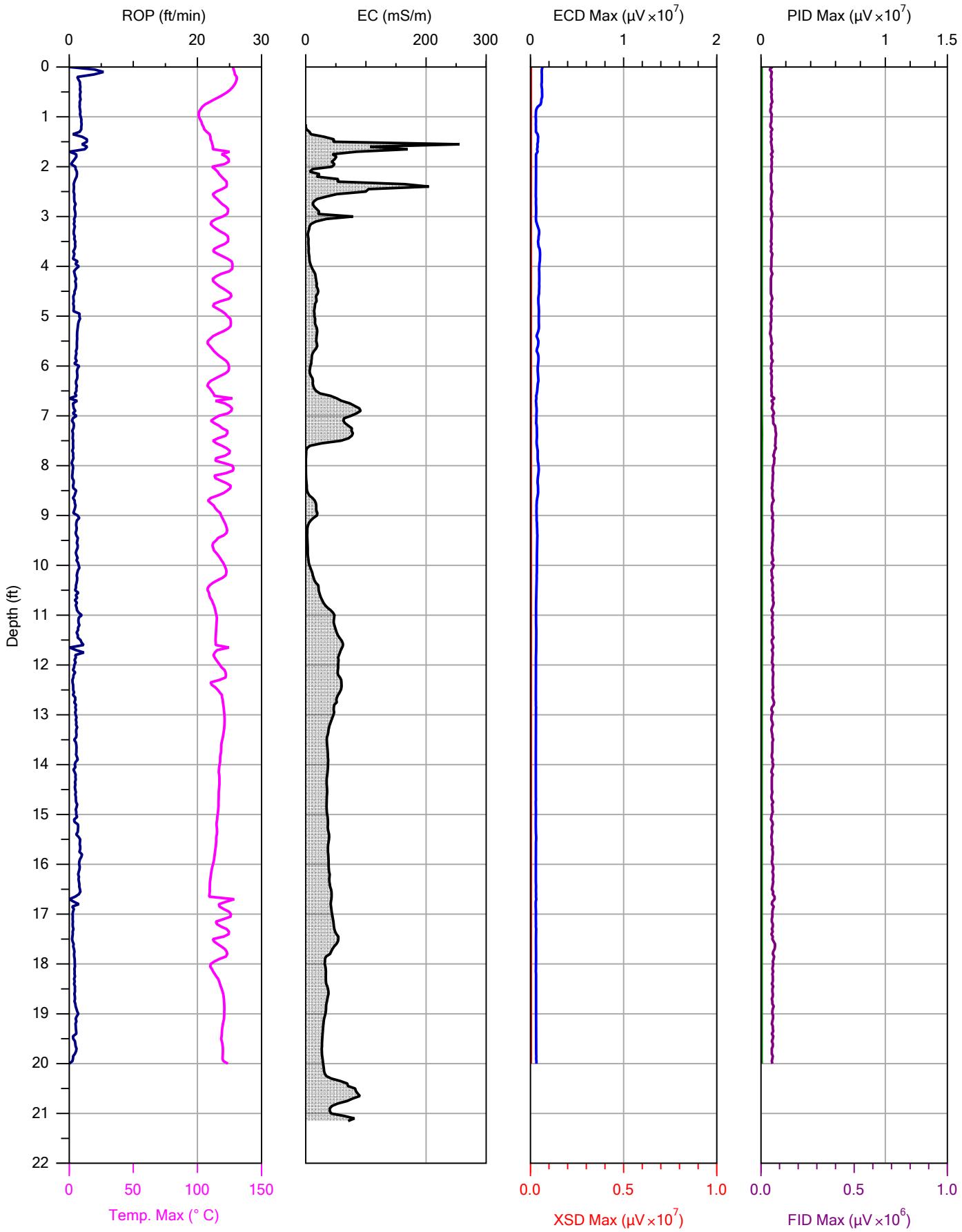
CASCADE
DRILLING | TECHNICAL SERVICES

		File: MIHPT-7.MHP
Company: Cascade Remediation Services	Operator: Jonathan Pooler	Date: 03/26/21
Project ID: TSC- Layton Chevron	Client: Terracon	Location: Layton, UT



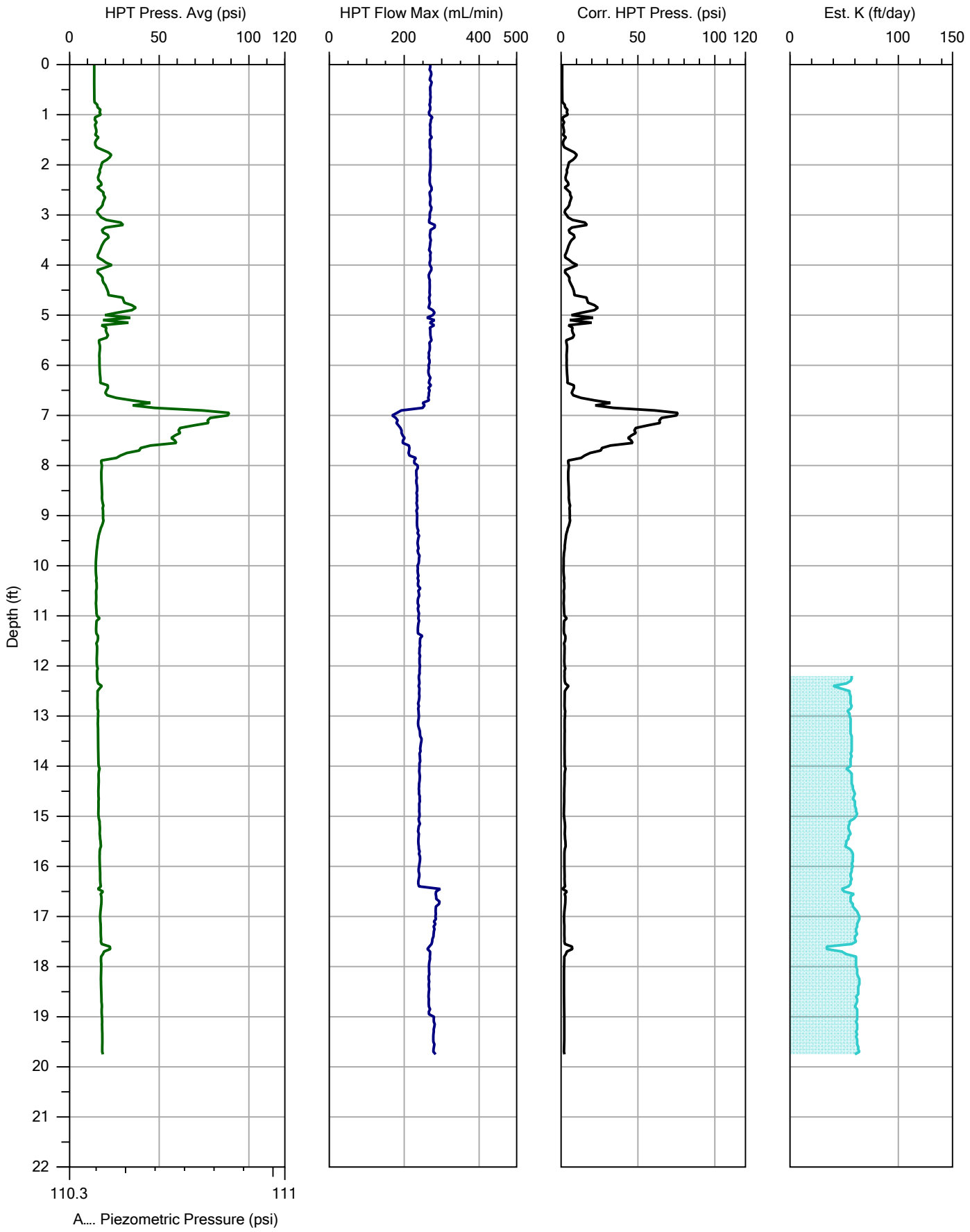
CASCADE
DRILLING | TECHNICAL SERVICES

		File: MIHPT-7.MHP
Company: Cascade Remediation Services	Operator: Jonathan Pooler	Date: 03/26/21
Project ID: TSC- Layton Chevron	Client: Terracon	Location: Layton, UT



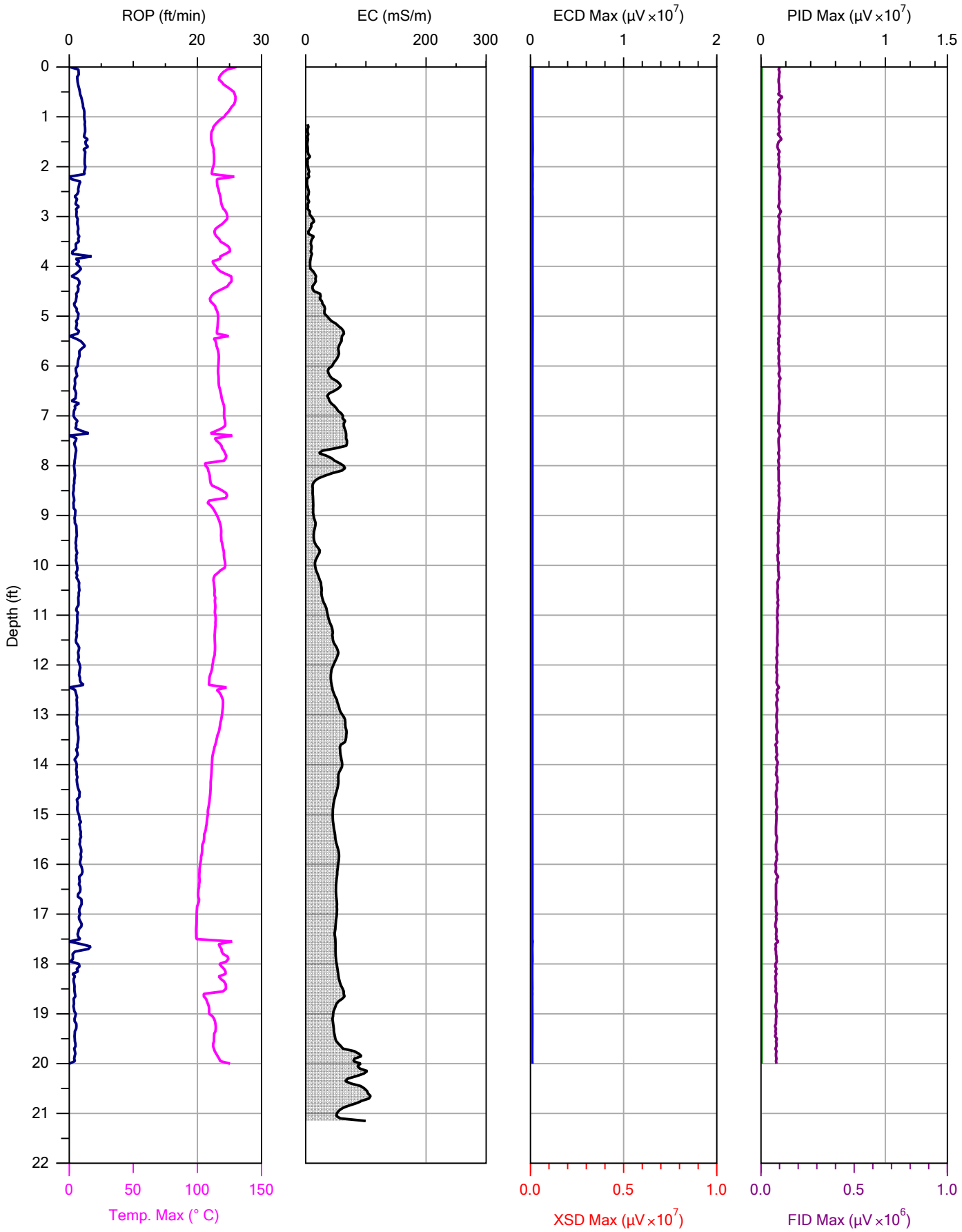
CASCADE
DRILLING | TECHNICAL SERVICES

		File: MIHPT-8.MHP
Company: Cascade Remediation Services	Operator: Jonathan Pooler	Date: 03/26/21
Project ID: TSC- Layton Chevron	Client: Terracon	Location: Layton, UT



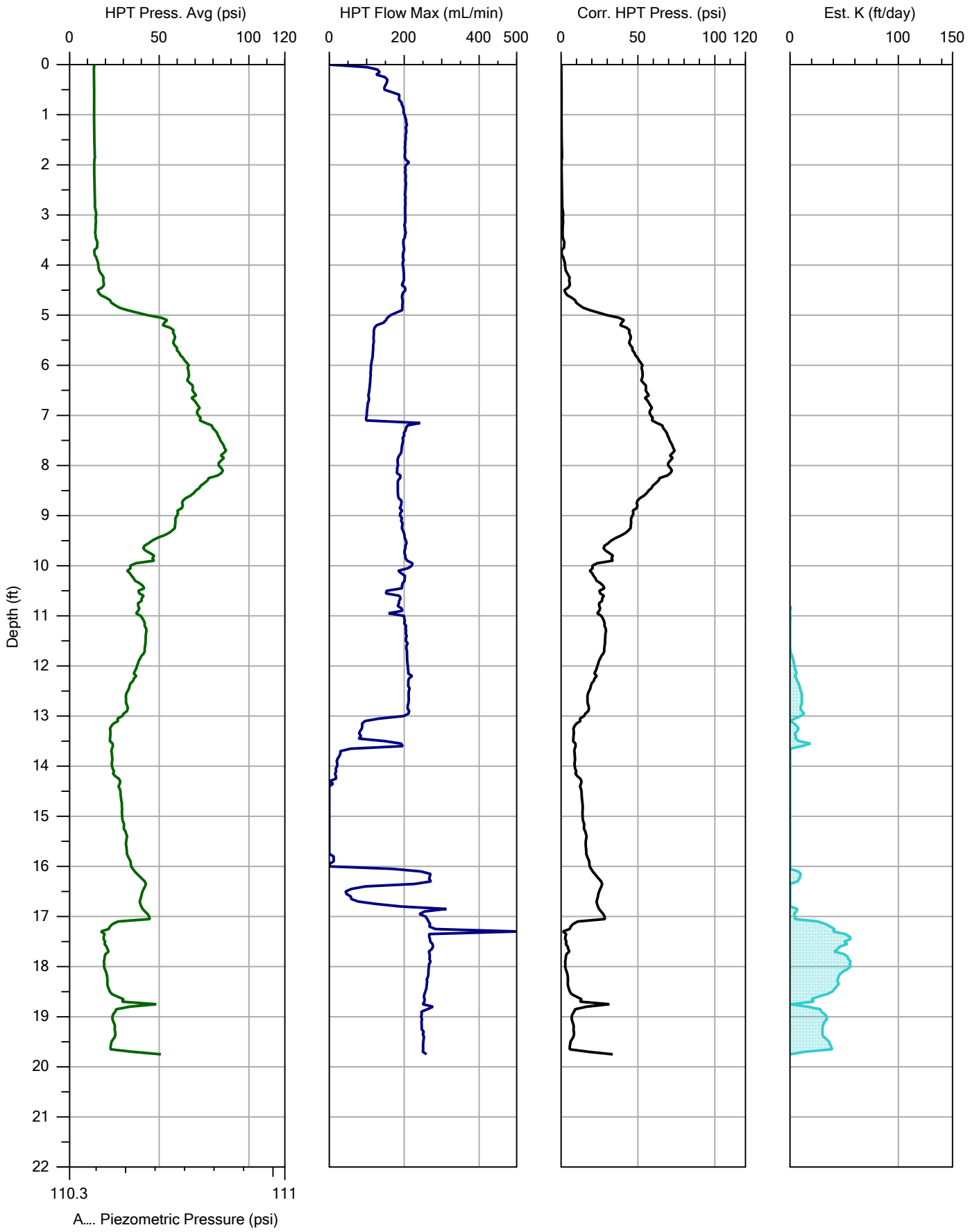
CASCADE
DRILLING | TECHNICAL SERVICES

		File: MIHPT-8.MHP
Company: Cascade Remediation Services	Operator: Jonathan Pooler	Date: 03/26/21
Project ID: TSC- Layton Chevron	Client: Terracon	Location: Layton, UT



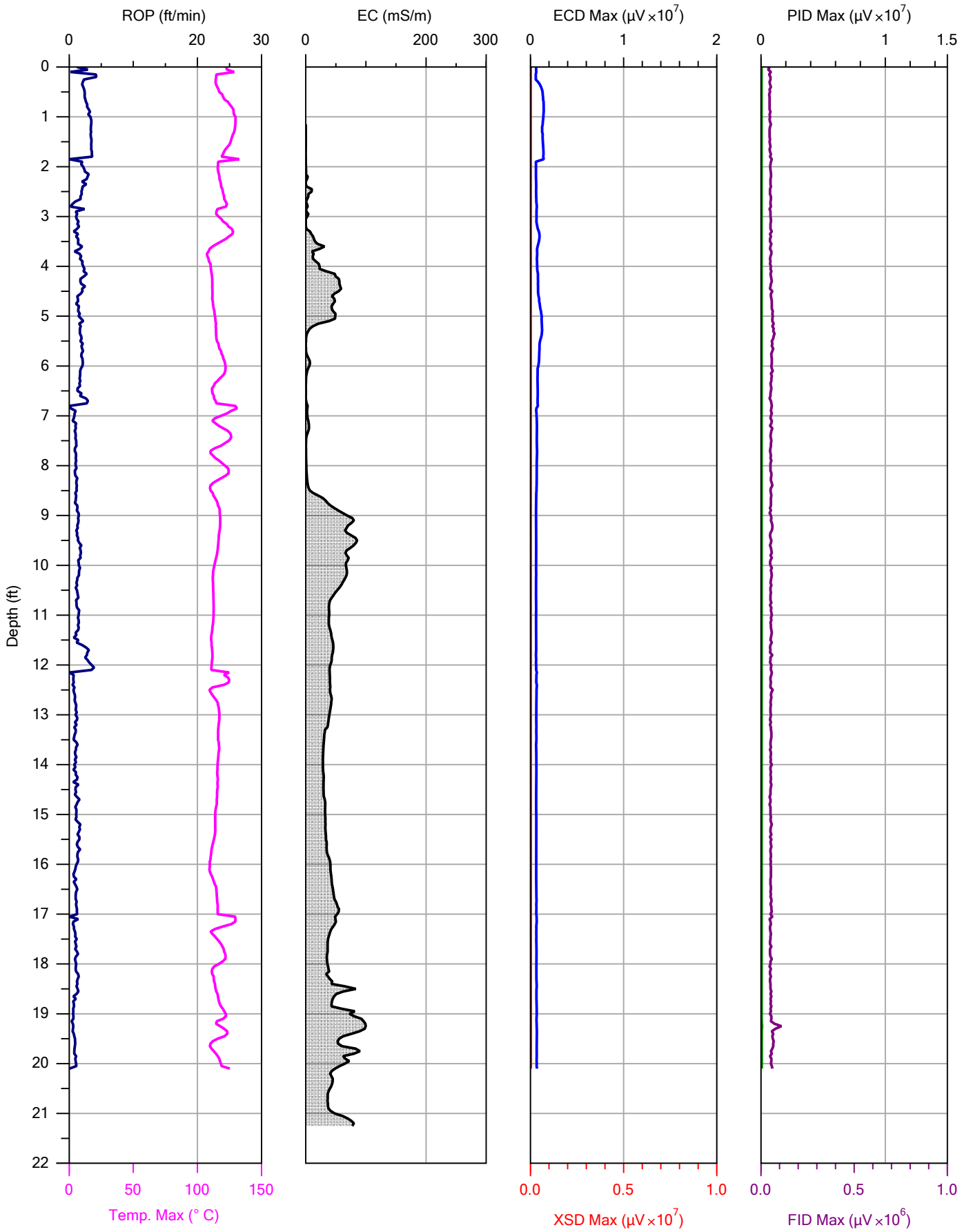
CASCADE
DRILLING | TECHNICAL SERVICES

		File: MIHPT-9.MHP
Company: Cascade Remediation Services	Operator: Jonathan Pooler	Date: 03/26/21
Project ID: TSC- Layton Chevron	Client: Terracon	Location: Layton, UT



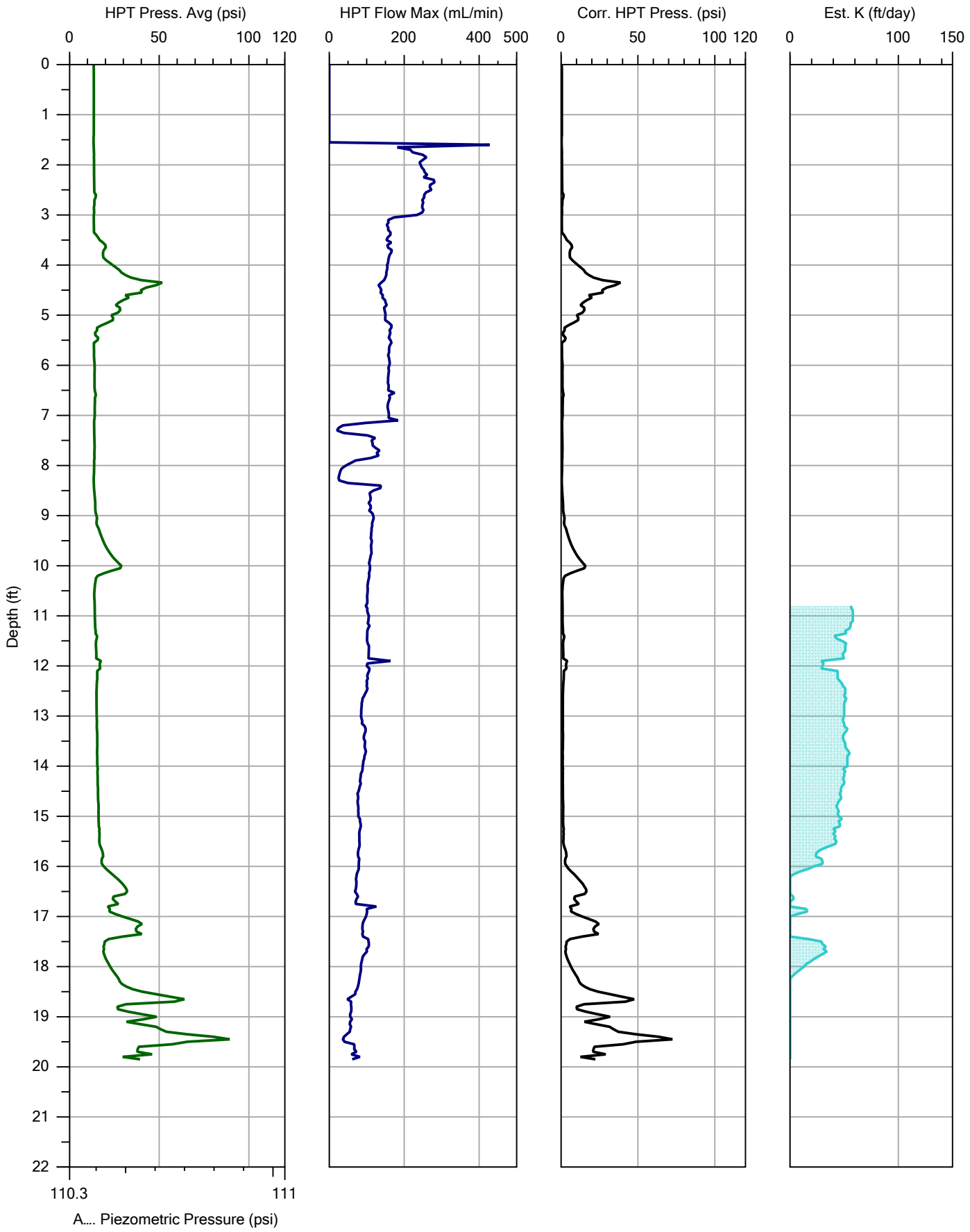
CASCADE
DRILLING | TECHNICAL SERVICES

		File: MIHPT-9.MHP
Company: Cascade Remediation Services	Operator: Jonathan Pooler	Date: 03/26/21
Project ID: TSC- Layton Chevron	Client: Terracon	Location: Layton, UT



CASCADE
DRILLING | TECHNICAL SERVICES

		File: MIHPT-10.MHP
Company: Cascade Remediation Services	Operator: Jonathan Pooler	Date: 03/26/21
Project ID: TSC- Layton Chevron	Client: Terracon	Location: Layton, UT



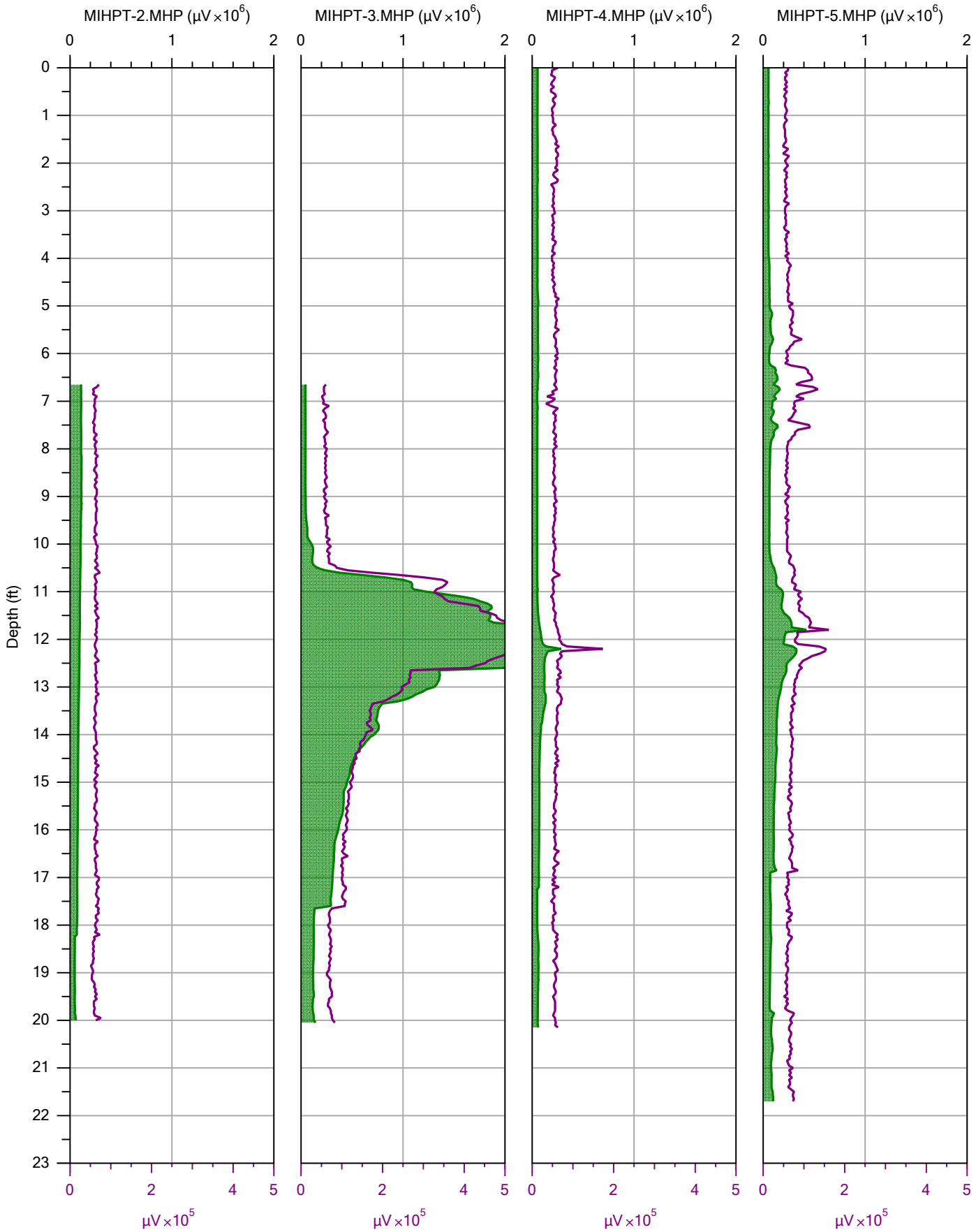
CASCADE
DRILLING | TECHNICAL SERVICES

		File: MIHPT-10.MHP
Company: Cascade Remediation Services	Operator: Jonathan Pooler	Date: 03/26/21
Project ID: TSC- Layton Chevron	Client: Terracon	Location: Layton, UT

CASCADE

DRILLING | TECHNICAL SERVICES

POINT TO POINT COMPARISONS

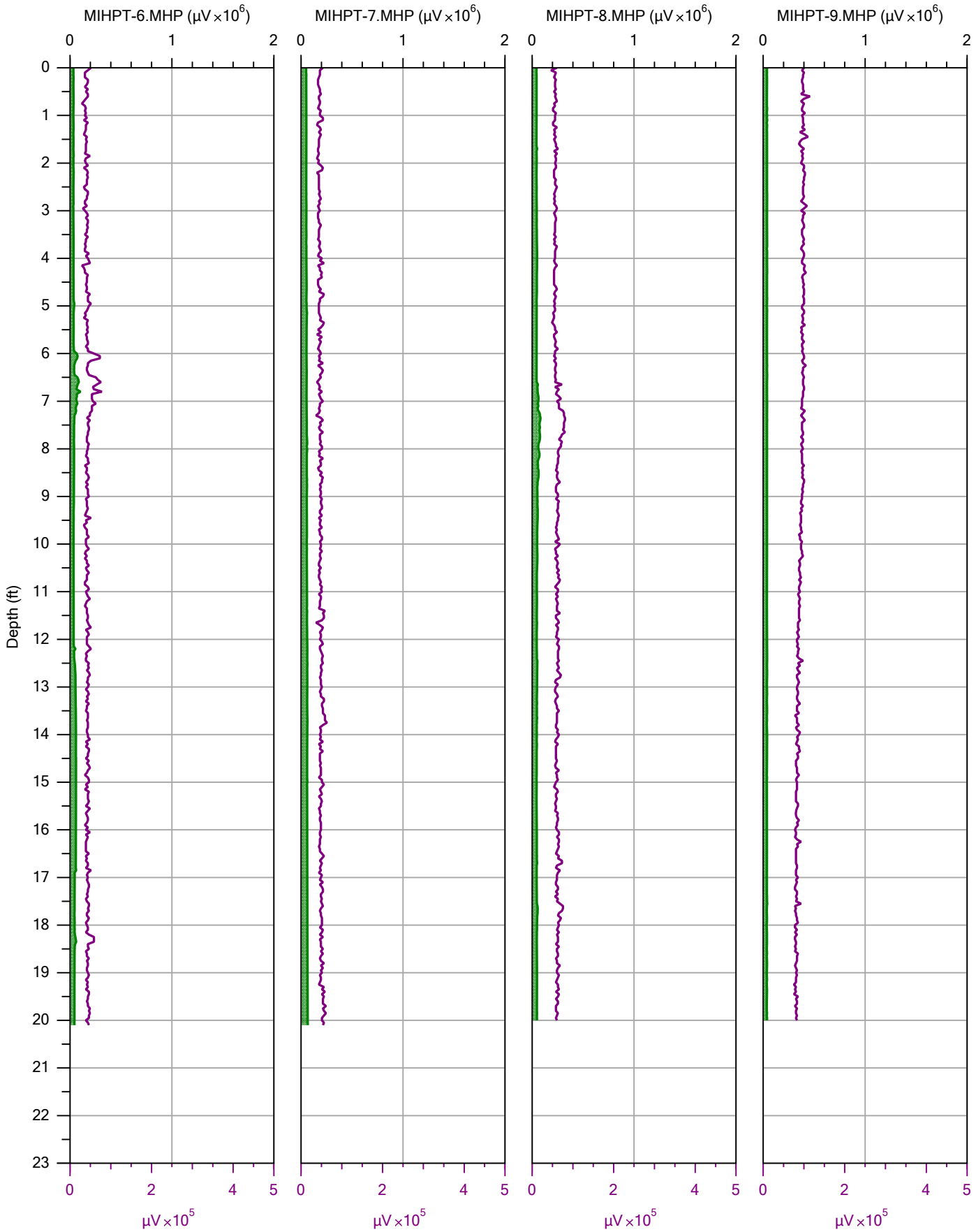


CASCADE
DRILLING | TECHNICAL SERVICES

PID Max / FID Max

Company: Cascade	Operator: Davis Ocana
Project ID: 302211012	Client: Terracon

MIHPT-2.MHP	03/25/21
MIHPT-3.MHP	03/25/21
MIHPT-4.MHP	03/25/21
MIHPT-5.MHP	03/25/21

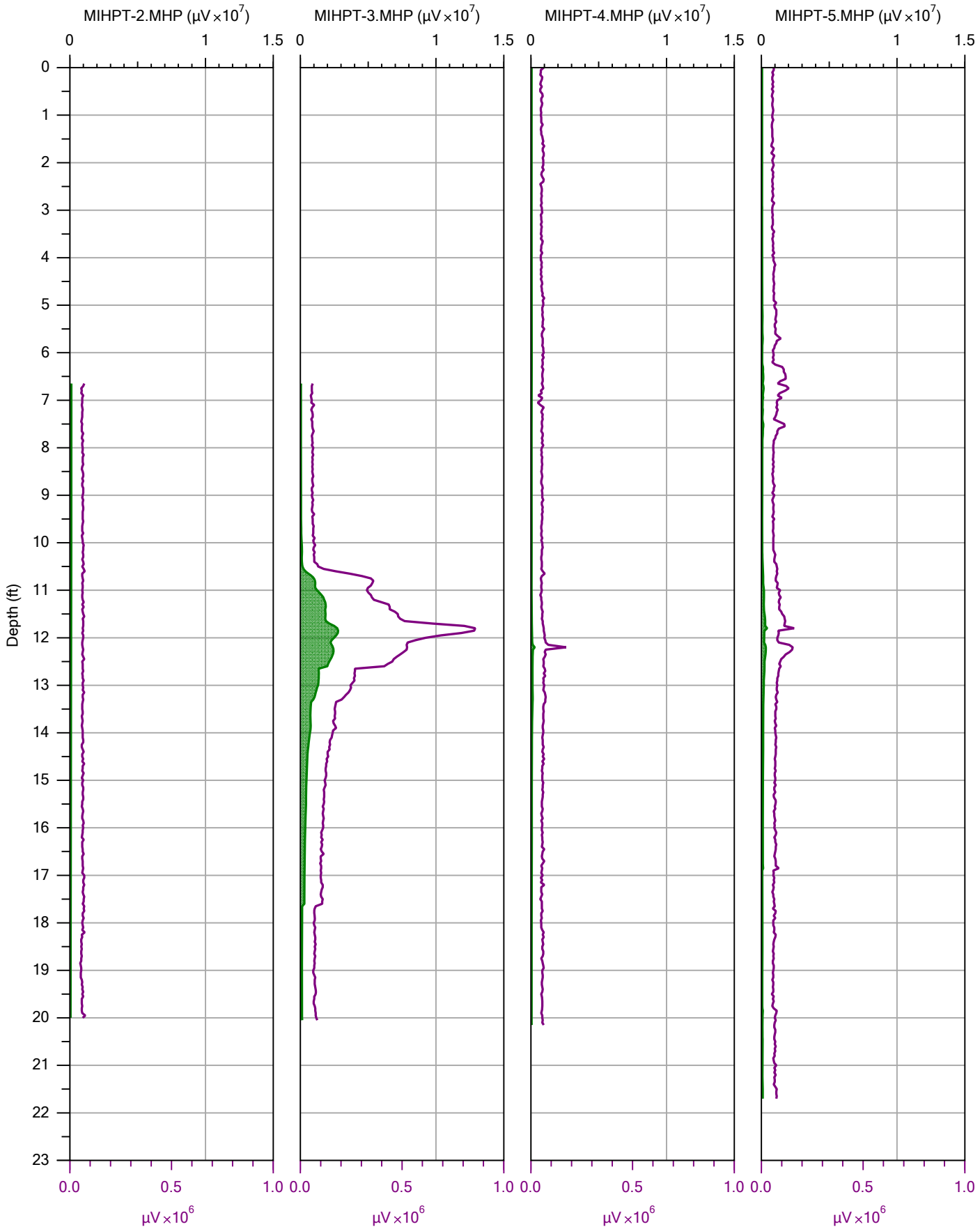


CASCADE
DRILLING | TECHNICAL SERVICES

PID Max / FID Max

Company: Cascade	Operator: Davis Ocana
Project ID: 302211012	Client: Terracon

MIHPT-6.MHP	03/26/21
MIHPT-7.MHP	03/26/21
MIHPT-8.MHP	03/26/21
MIHPT-9.MHP	03/26/21

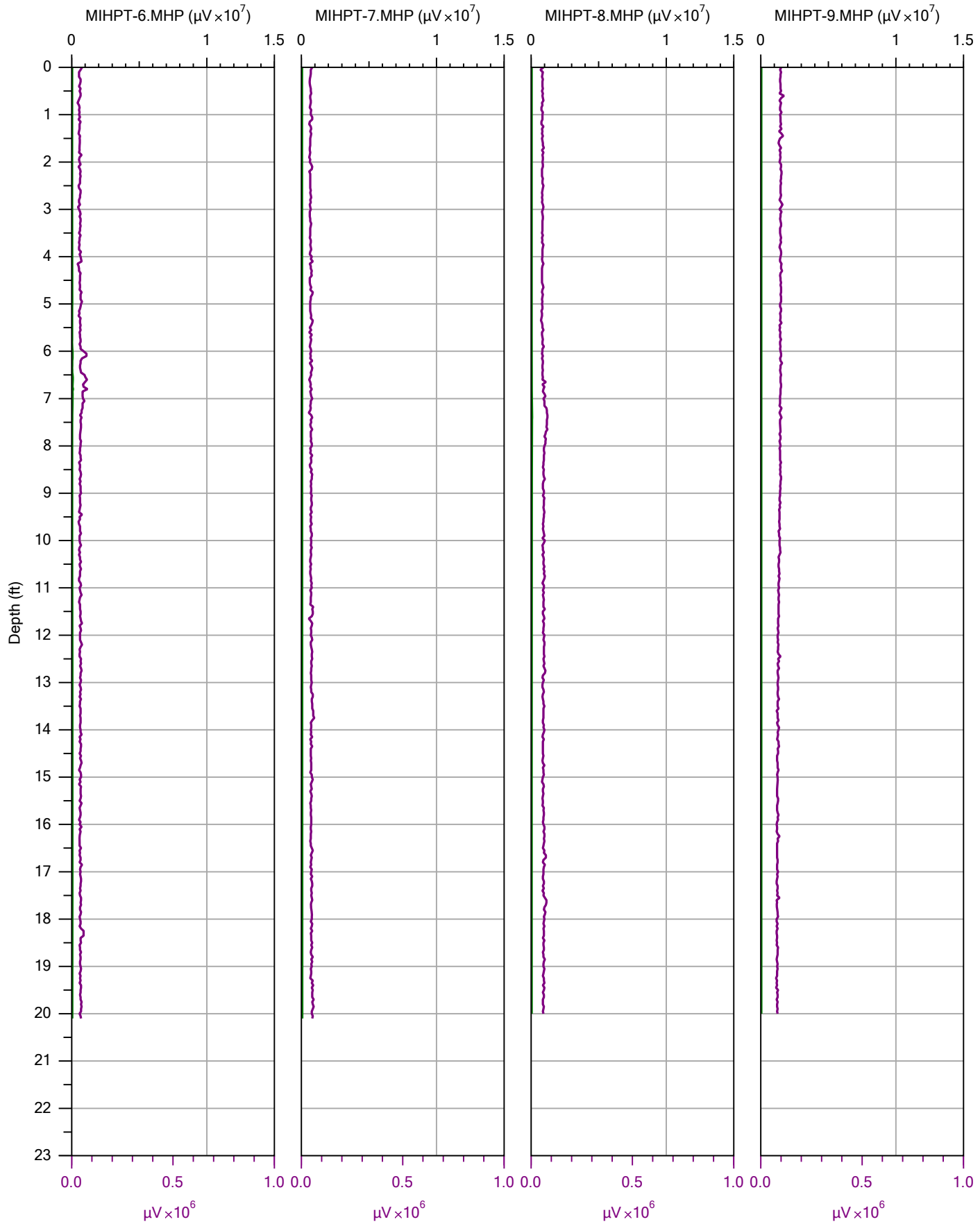


CASCADE
DRILLING | TECHNICAL SERVICES

PID Max / FID Max

Company: Cascade	Operator: Davis Ocana
Project ID: 302211012	Client: Terracon

MIHPT-2.MHP	03/25/21
MIHPT-3.MHP	03/25/21
MIHPT-4.MHP	03/25/21
MIHPT-5.MHP	03/25/21

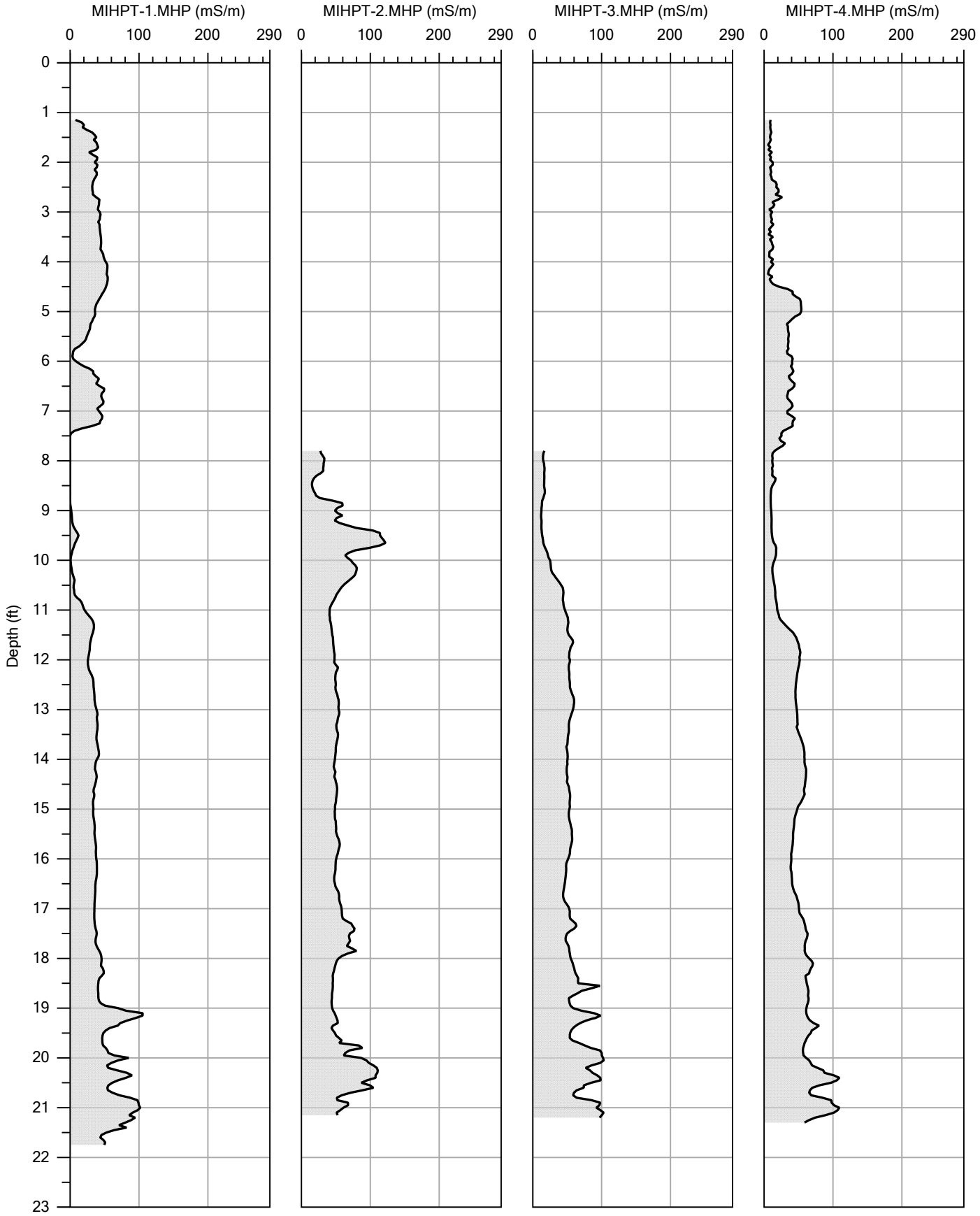


CASCADE
DRILLING | TECHNICAL SERVICES

PID Max / FID Max

Company: Cascade	Operator: Davis Ocana
Project ID: 302211012	Client: Terracon

MIHPT-6.MHP	03/26/21
MIHPT-7.MHP	03/26/21
MIHPT-8.MHP	03/26/21
MIHPT-9.MHP	03/26/21



CASCADE
DRILLING | TECHNICAL SERVICES

EC

Company: Cascade Remediation Services	Operator: Jonathan Pooler
Project ID: TSC- Layton Chevron	Client: Terracon

MIHPT-1.MHP	03/24/21
MIHPT-2.MHP	03/25/21
MIHPT-3.MHP	03/25/21
MIHPT-4.MHP	03/25/21