

Gary – Attached is the revised MIP report from Columbia. It looks like my comments were addressed. Still not too thrilled with the MIP location map (Fig-1) but, am willing to let that slide... What do you think ?

I started working on a summary report last week but...was out of the office for most of last week. Will get back to it...hope to get you something late next week (in the field Mon/Tues)...

...gonna be a hot one today !...



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Remediation Solutions • Environmental Consulting • Drilling Applications

**Subsurface Characterization Using
Membrane Interface Probe (MIP) and
Soil Electrical Conductivity (EC) Technologies
Owego Heat Treat
1646 Marshland Road
Apalachin, New York**

PREPARED FOR

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September 10, 2013

PREPARED BY

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APPENDICES

Appendix A: MIP Logs, Individual Scale

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Introduction

Aztech Technologies, Inc. (Aztech) contracted **COLUMBIA Technologies, LLC (COLUMBIA)** to conduct an investigation of subsurface contamination at the Owego Heat Treat site, located in Apalachin, New York. This investigation involved delineating the depth and horizontal extent of a suspected tetrachloroethylene (PCE) and trichloroethylene (TCE) plume and other total volatile organic compound (VOC) contamination distributions. The former industrial facility, used to treat metals, was badly damaged during Hurricane Irene, and the investigation was completed in order to help determine the future use(s) of the property. Tooling used at the site included the Membrane Interface Probe (MIP) technology to map the dissolved phase, vapor phase and sorbed phase of VOCs and the Electrical Conductivity (EC) technology to characterize soil electrical conductivity. Both technologies are contained in a single downhole tool, the MIP/EC Probe, allowing **COLUMBIA** to collect multiple lines of evidence with a single push at each location.

The investigation was conducted on July 15th, 2013 through July 19th, 2013 and consisted of 18 MIP/EC locations to depths ranging from 25.5 feet to 34.35 feet below ground surface (bgs). A Geoprobe[®] Direct Push Technology (DPT) drilling rig was used to advance the locations.

MIP/EC Equipment Description

The MIP/EC probe is approximately 12-inches (30 cm) in length and 1.5-inches (3.8 cm) in diameter. The probe is driven into the ground at the nominal rate of one foot per minute using a DPT rig.

The MIP/EC probe was developed by Geoprobe Systems[®] and contains two separate systems: the soil Electrical Conductivity, or EC tool; and the Membrane Interface Probe, or MIP. EC, MIP chemical response, MIP operating parameters, rate of push speed and temperature are collected by the MIP/EC Field Instrument, and displayed continuously in real time during each push of the probe.

EC: Soil electrical conductivity, the inverse of soil resistivity, is measured using a dipole arrangement. In this process, an alternating electrical current is transmitted through the soil from the center, isolated pin of the probe. This current is then passed back to the probe body. The voltage response of the imposed current to the soil is measured across these same two points.

Conductivity is measured in Siemens/meter, and due to the low conductivity of earth materials, the EC probe uses milliSiemens/meter (mS/m). The probe is reasonably accurate in the range of 5 to 400 mS/m.

The electrical properties of soil vary by geological setting. Therefore, conductivity measurements will vary both in magnitude and the relative change from one soil type to another in each geological setting. In general, at a given location, lower conductivity values are characteristic of larger particles such as cobbles and sands, while higher conductivities are characteristic of finer sized particles such as finer sand, silts and clays. Observed conductivities significantly higher than 400 mS/m are indicative of ionic materials other than soil. Examples include saltwater intrusion, presence of ionic chemicals from storage or injection, or potentially soil mixtures with metallic compounds.

MIP: The MIP portion of the probe is used to create high resolution, real-time profiles of subsurface VOC contamination. The operating principle is based on heating the soil and/or water around a semi-permeable polymer membrane to 121° Celsius (C), which allows VOCs to partition across this membrane. The MIP can be used in saturated or unsaturated soils, as water does not pass through the membrane. Nitrogen is used as an inert carrier gas, and travels from a surface supply down a transfer tubing which sweeps across the back of the membrane and returns any captured VOCs to the installed detectors at the surface. It takes approximately 60 seconds for the nitrogen gas stream to travel through 150 feet of inert tubing and reach the detectors.

COLUMBIA utilizes three detectors: a Photo Ionization Detector (PID), a Flame Ionization Detector (FID) and an Electron Capture Detector (ECD), mounted on a laboratory grade Shimadzu Model 14A gas chromatograph. The output signal from the detectors is captured by a MIP data logging system installed on a MIP Field Computer or laptop computer.

The PID detector consists of a special ultraviolet (UV) lamp mounted on a thermostatically controlled, low volume, flow-through cell. The temperature is adjustable from ambient temperature to 250°C. The 10.2 electron volt (eV) UV lamp emits energy at a wavelength of 120 nanometers, which is sufficient to ionize most aromatics such as benzene, toluene, xylene, etc., and many other molecules such as hydrogen sulfide (H₂S), hexane, and ethanol whose ionization potential is below 10.2 eV. The PID also emits a response for

chlorinated compounds containing double-bonded carbons (halogenated ethylenes), such as TCE and PCE. Methanol and water, which have ionization potentials greater than 10.2 eV, do not respond on the PID. Since the PID is non-destructive, it is often run first in series with other detectors for multiple analyses from a single injection.

The FID utilizes a hydrogen flame to combust compounds in the carrier gas. The FID responds linearly over several orders of magnitude, and the response is very stable from day to day. This detector responds to any molecule with a carbon-hydrogen bond, but poorly to compounds such as H₂S, carbon tetrachloride, or ammonia. The carrier gas effluent from the GC column is mixed with hydrogen and burned. This combustion ionizes the analyte molecules. A collector electrode attracts the negative ions to the electrometer amplifier, producing an analog signal, which is directed to the data system input.

The ECD detector consists of a sealed stainless steel cylinder containing radioactive Nickel-63. The Nickel-63 emits beta particles (electrons), which collide with the carrier gas molecules, ionizing them in the process. This forms a stable cloud of free electrons in the ECD cell. When electro-negative compounds (especially chlorinated, fluorinated or brominated molecules), such as carbon tetrachloride or TCE, enter the cell, they immediately combine with the free electrons, temporarily reducing the number remaining in the electron cloud. The detector electronics, which maintain a constant current of about 1 nanoampere through the electron cloud, are forced to pulse at a faster rate to compensate for the decreased number of free electrons. The pulse rate is converted to an analog output, which is transmitted to the data system.

The ECD detector provides for extremely sensitive detection of common contaminants such as PCE and TCE, typically in the range of 100-200 parts per billion (ppb) in-situ concentrations for these compounds. However, the relatively small linear range of the detector as compared to the other detectors, the maximum response of the detector will be reached early, typically at in-situ concentration of 1 to 2 ppm for these polychlorinated compounds. Additionally, ECD detector response varies considerably for different compounds. Of particular note the response factor of the ECD to polychlorinated compounds such as PCE is a factor of 1000 to 10,000 as compared to dichloro compounds, such as the common degradation product cis-1,2 Dichloroethylene (DCE). Performance testing for the compounds of interest is critical to understanding the system response to in-situ chemical distributions.

Depth in feet is measured and recorded using a precision potentiometer with a 100-inch linear range. The potentiometer is mounted onto the mast of the DPT rig and a counter-weight anchored to the foot of the rig. Measurements are recorded on the down stroke of the mast, as the tooling string is pushed into the ground, and is accurate within $1/10^{\text{th}}$ of an inch. The reference elevation (depth) reported for each individual boring is established by setting the data logger to zero feet with the membrane on the MIP/EC probe aligned with the ground surface. True boring elevations can be established with the addition of survey data if provided for in the scope of work.

MIP System Performance Test

As a quality control check, the MIP system response is evaluated prior to and upon completion of each MIP location. An aqueous phase performance test is performed using specific compounds designed to evaluate the sensitivity of the particular probe, transfer line and detector suite to be used. The resulting values are recorded and compared to predetermined values.

The EC dipole is also evaluated using a brass and stainless steel test jig, resulting in known values of 55 and 290 mS. Results must fall within 10% of the expected values; otherwise corrective action must be performed.

Investigation Methods

A total of 18 MIP/EC locations were completed at the Owego Heat Treat site. Each location was selected by **Aztech's** representative onsite, and the termination depth of each location was also determined by **Aztech's** representative onsite. Immediately upon completion of each location, the dataset is wirelessly delivered to **COLUMBIA's** remote servers for Quality Assurance/Quality Control (QA/QC) review and upload to a password secure website using Columbia's patented **SmartData Solutions**[®] technology. The results from each location are shown in Appendices A and B.

General MIP/EC Log Interpretation

Each MIP/EC log includes five separate graphs of data. The first graph displays the soil electrical conductivity and is measured in mS/m. In general, lower conductivities are indicative of coarser grained particles, such as sands and silty sands, and higher conductivities are indicative of finer grained particles, such as clays and silty clays. The next three graphs are

measures of chemical detector response: PID, FID, and ECD, measured in microvolts (μV). These graphs are a linear scale, and provide a relative comparison of total detector response between boring locations. The last graph is temperature of the probe as it is advanced in the subsurface. This graph is monitored to make sure the heating elements of the MIP/EC probe are sufficient to volatilize the VOCs the system comes in contact with.

Interpreting MIP Results and Comparison to Sampling and Laboratory Analyses

A typically configured MIP system is effective at profiling the relative distribution of certain VOCs and relative soil types versus depth. The typical MIP system will detect VOCs with boiling points of 121°C or less; with vapor pressures above approximately 0.14 psi; and with non-polar hydrophobic compound structures. The sensitivity or in-situ detection level of a MIP system is dependent on many different factors. **COLUMBIA's** systems and protocols are standardized to provide reliable and comparable detection and logging of chlorinated VOCs (CVOCs) on the order of 200 ppb in-situ concentrations. Petroleum based VOCs are reliably logged at 1 part per million (ppm) in-situ concentrations. Each of **COLUMBIA's** MIP system configurations are performance tested prior to use and if requested, MIP systems may be specially configured for atypical compounds of concern (COCs) and site conditions.

An understanding of the principles of operation and performance of the configured MIP detectors is essential to properly interpreting the MIP log results. For example, a CVOC with an ionization potential greater than 10.2 eV will respond on the ECD detector but not on the PID equipped with a 10.2 eV lamp. A hydrophilic compound such as an alcohol or ketone will normally be scrubbed out of the MIP gas stream by the MIP Membrane and the installed dryer and never reach the detectors. Each CVOC has a different response factor on the ECD. For example the primary contaminant has a 1000 to 10000 higher level response on the ECD than the degradation product cis-1,2 DCE. Each variation in detector or system performance can be overcome by properly configuring and testing the MIP system for the site specific COCs prior to use. Additionally, the in-field performance tests performed before and after each boring are critical to monitor the performance of the MIP system from the membrane through to the data logging system.

Generalized correlations between MIP response and laboratory sample results can be inferred, but cannot be viewed as a linear comparison. MIP response and laboratory results are

collected, analyzed and reported in different units and by different procedures, so correlation is not an exact one-to-one comparison. For example, not all VOCs present and analyzed in laboratory instruments with compound separation are detected and measured by a typical MIP system. The MIP process uses a membrane extraction process from a heated zone of varying subsurface matrix of soil, water, and/or vapor. Soil and groundwater results involve the collection of a sample, extraction of sub-sample at the surface, and then transporting them to a laboratory for further extraction and analysis. These two processes are different by definition.

Unusual or invalid responses on the MIP system can result from malfunctions such as carrier or makeup gas leakage, gas flow blockage, heater failure, and carryover of water vapor or excessive chemical saturation. Each MIP detector will respond differently to each of these malfunctions. The most common cause of false positive responses for CVOCs is water carryover or blockage of carrier gas flow. The most common causes of false negative are improperly adjusted gas flows or leakage and inoperative detectors. **COLUMBIA's** operators are trained to recognize these problems and to take the appropriate corrective action in the field.

SmartData Solutions®

COLUMBIA's *SmartData Solutions*® is a patented process (U.S. Patent No, 7,058,509) that enables the rapid processing of field data into easy to understand 2D/3D visualizations posted to a password protected website. This process includes QA/QC review, formatting and rapid visualization of the data for the project team and enables a complete check of the dataset prior to completion of fieldwork.

As a result of the high sensitivity of the ECD to chlorinated compounds, and the elevated levels of contamination encountered, the extended depth response presented by the ECD data does not accurately reflect the true vertical extent of contamination. Visualization of the PID response is more representative of the contamination source area.

Delineation

The *SmartData Solutions*® graphics display a 3D view of the contamination plume. These plumes are calculated by extrapolating data in three dimensions between measured data points, and the plumes are only calculated within the bounds of the outermost measured points. A plume is considered to be unbounded when it extends to the bounds of those outermost

measured points. A fully bounded plume will exist entirely within the confines of the outermost measured points.

3-Dimensional Orientation

The *SmartData Solutions*[®] graphics use a relative azimuth system to describe map orientation as a map may not be oriented with true North at the top of the map. The relative azimuth system uses a 360° compass to describe the position *from which* the graphic is being viewed. For example, a viewer “looking east” on a North oriented map would have a relative azimuth of 270°, i.e. the viewer would be standing on the “western” 270° azimuth point looking through the center to the “east”.

Observations

All locations exhibited a response on the ECD, indicating the presence of chlorinated solvents. At 15 of the 18 locations, the ECD encountered chlorinated compounds at concentrations high enough to saturate, or “flat-line” the detector. At this point, the detector electronics cannot pulse any faster, to produce more free electrons, to combine with the incoming electron-negative chlorinated compounds, and the chlorinated compounds overwhelm the detector. When this happens, it is useful to view the PID response to determine the most heavily contaminated zone, as the PID is sensitive to chlorinated compounds, but not as sensitive, and has a larger linear range, and will rarely saturate. The ECD exhibited response as shallow as 1.5 feet bgs (MIP15) and as deep as 31 feet bgs (MIP01, MIP02, MIP05 and MIP12). The highest responses (detector saturation) occurred between 7 feet bgs and 31 feet bgs.

Extremely elevated PID response (greater than 5.0E+06μV, sustained over multiple feet bgs) occurred at locations MIP01, MIP02, MIP04, MIP06, MIP07 and MIP12, all located in the central portion of the property. Of the above mentioned six locations, logs MIP02 and MIP07 exhibited response at shallow depth, at 8 feet bgs and 9.5 feet bgs, respectively. These two locations are the easternmost locations of the above mentioned group, and likely correspond to the source area.

Locations MIP01, MIP04 and MIP06 are located to the west of MIP02 and MIP07. Depth of first response occurred at 11 feet bgs, 13.5 feet bgs and 11 feet bgs, respectively. MIP12, located further to the west of MIP01, MIP04 and MIP06, exhibited a small, minimal response at 12.5 feet bgs and the start of a larger, more significant response at 16.5 feet bgs.

This indicates the plume is sinking as it moves downgradient. This movement is also shown in the Figures.

Many locations exhibited a response on the FID, at the same depths as the ECD response, and the two detectors are likely responding to the same compound. Independent FID responses were observed shallow at locations MIP05, MIP11, MIP13, MIP14 and MIP17, and are an indication of compounds with combustible carbon-hydrogen bonds, such as methane or vinyl chloride. These locations are all located in the asphalt, and it is likely the asphalt is acting as a cap to trap the vapors.

Log Anomalies

COLUMBIA's field operator noted the EC was not working properly, as a result of a grounding issue with the MIP equipment, on locations MIP06 and MIP07. The signal appeared as a "blocky" response, and should not be considered valid. Further analysis of the MIP logs indicates a similar "blocky" response on logs MIP10 through MIP18, and this data is considered suspect.

An erroneous peak on the PID, caused by changing the range settings on the field computer and GC too rapidly, were identified during the final QA/QC and removed. Logs affected include MIP06 at 18.80 feet bgs and MIP07 at 14.65 feet bgs.

No other log anomalies were noted.

Recommendations

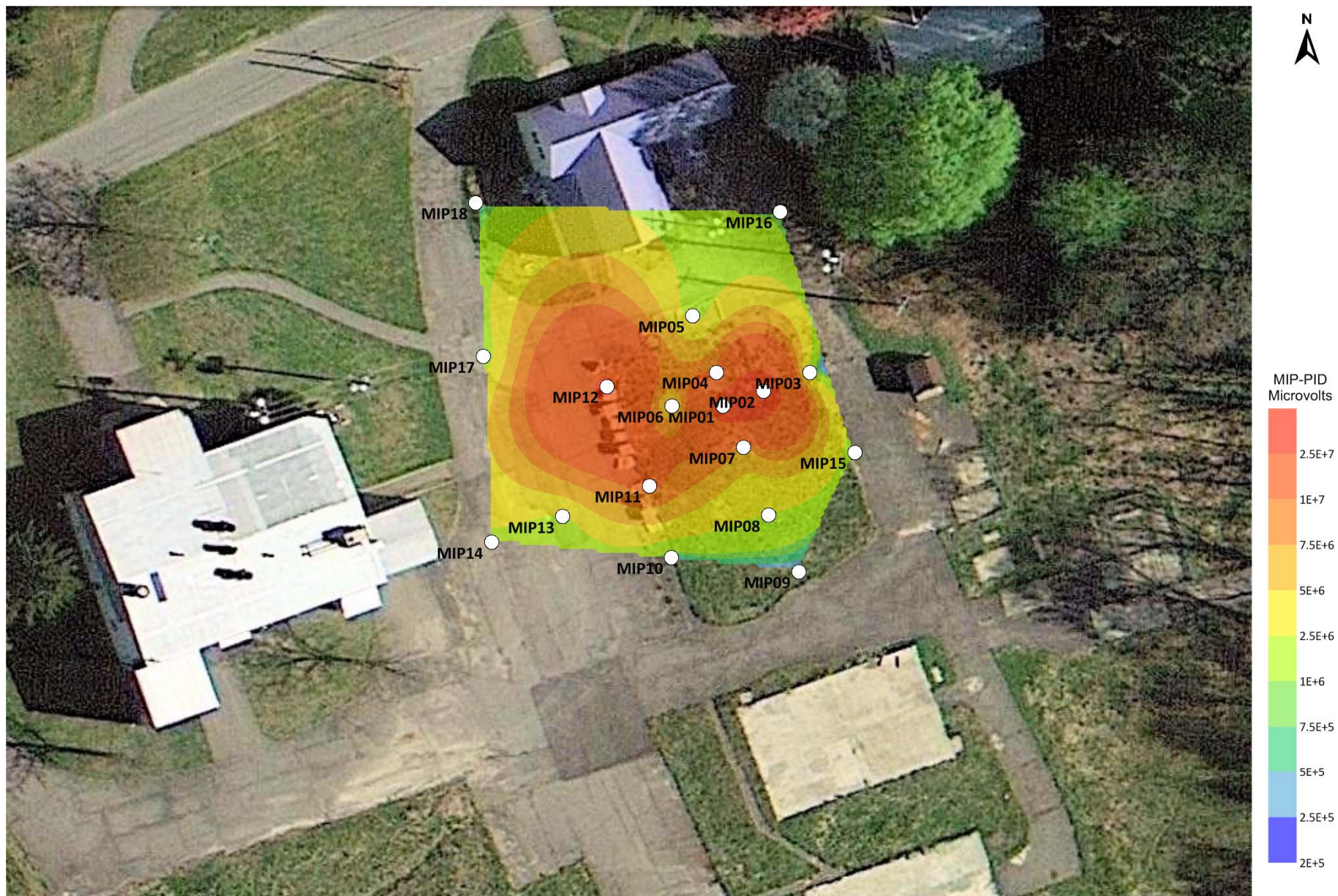
COLUMBIA recommends the use of the Hydraulic Profiling Tool (HPT) technology to better delineate pathways for the various contaminants. HPT information can also be useful for creating contaminate fate and transport models, selecting monitoring well location and screen intervals, and targeting zones for remedial injections

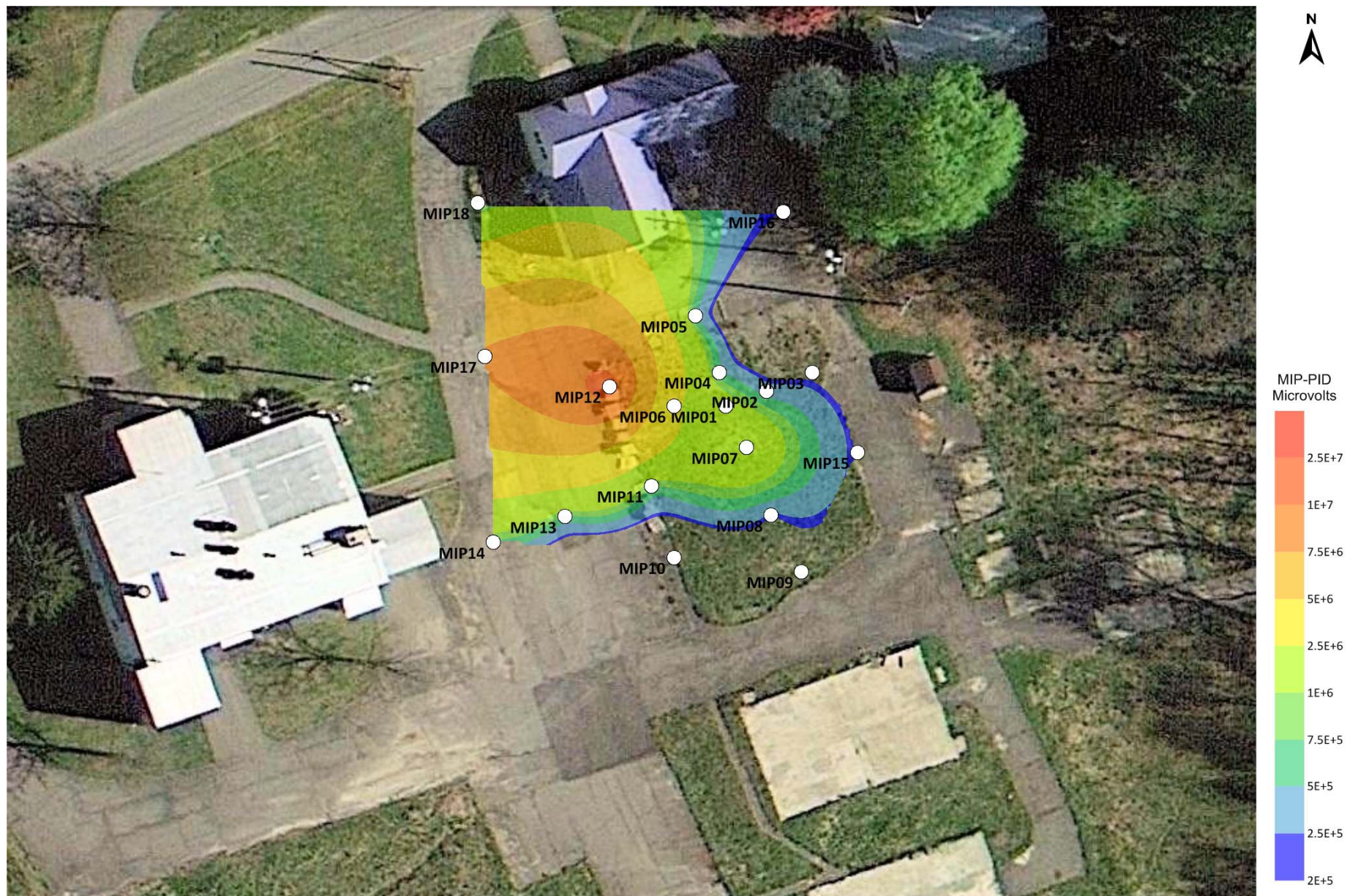
SmartData Solutions® is a registered trademark of COLUMBIA Technologies LLC.

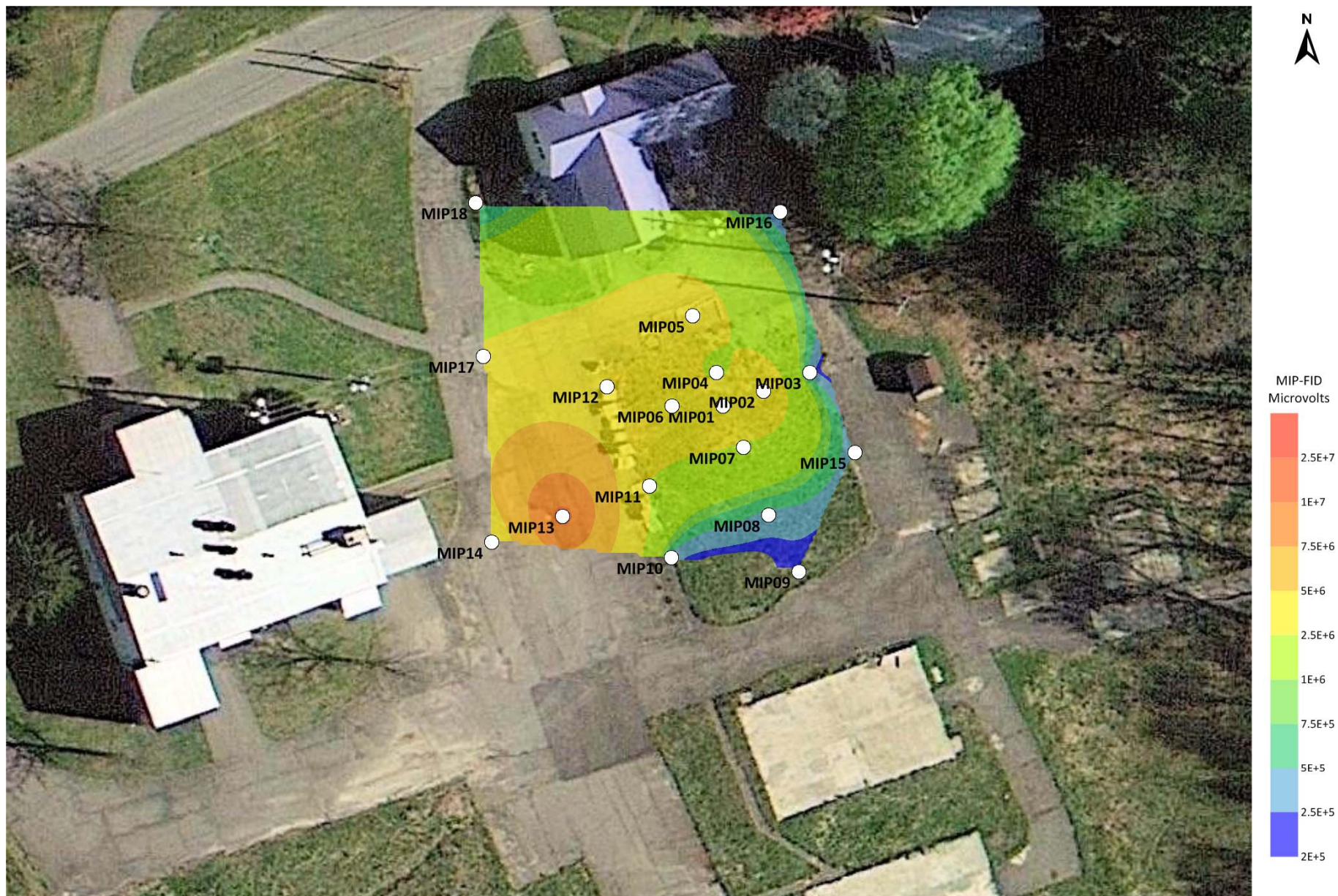
Geoprobe® is a registered trademark of Geoprobe Systems, Inc.

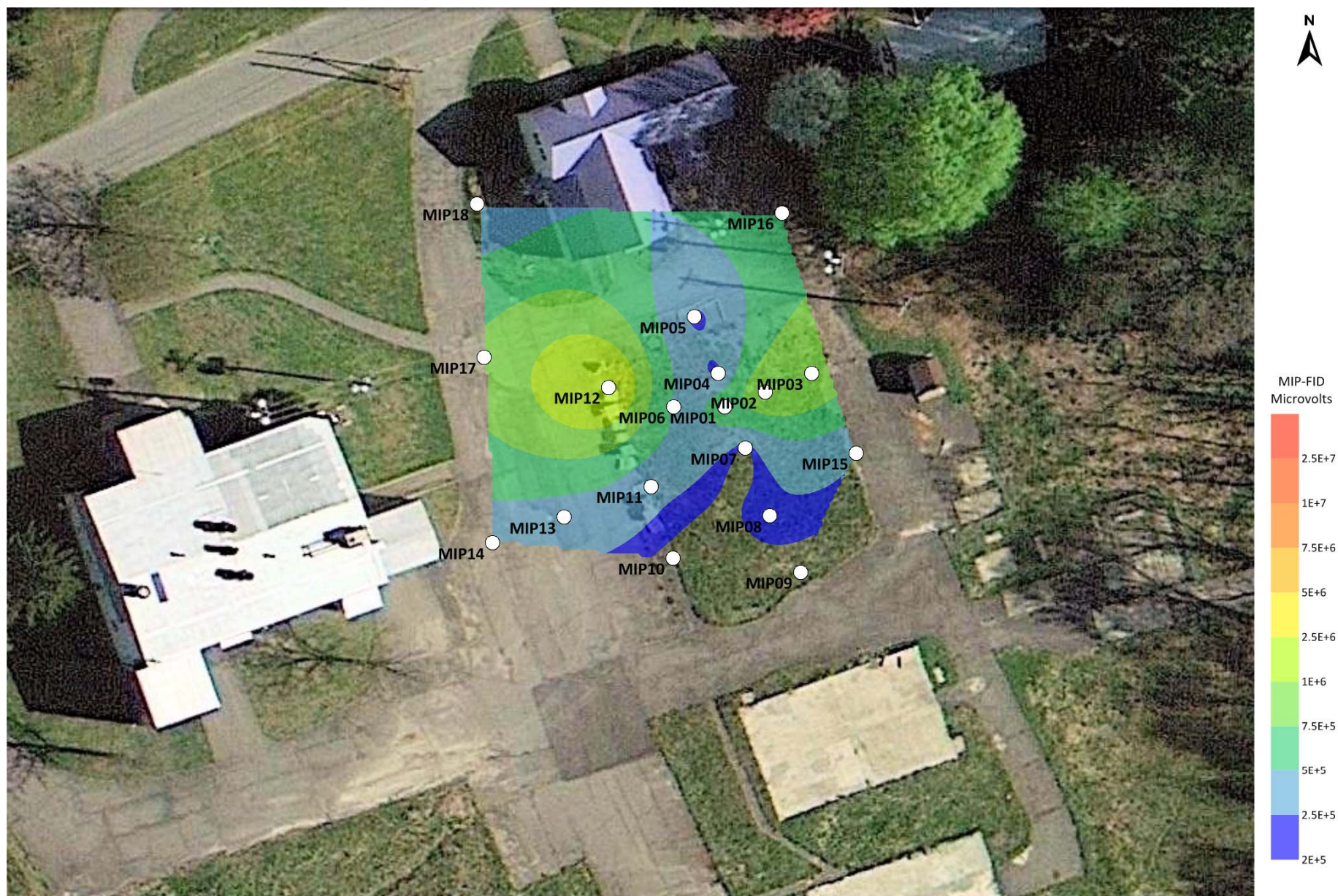


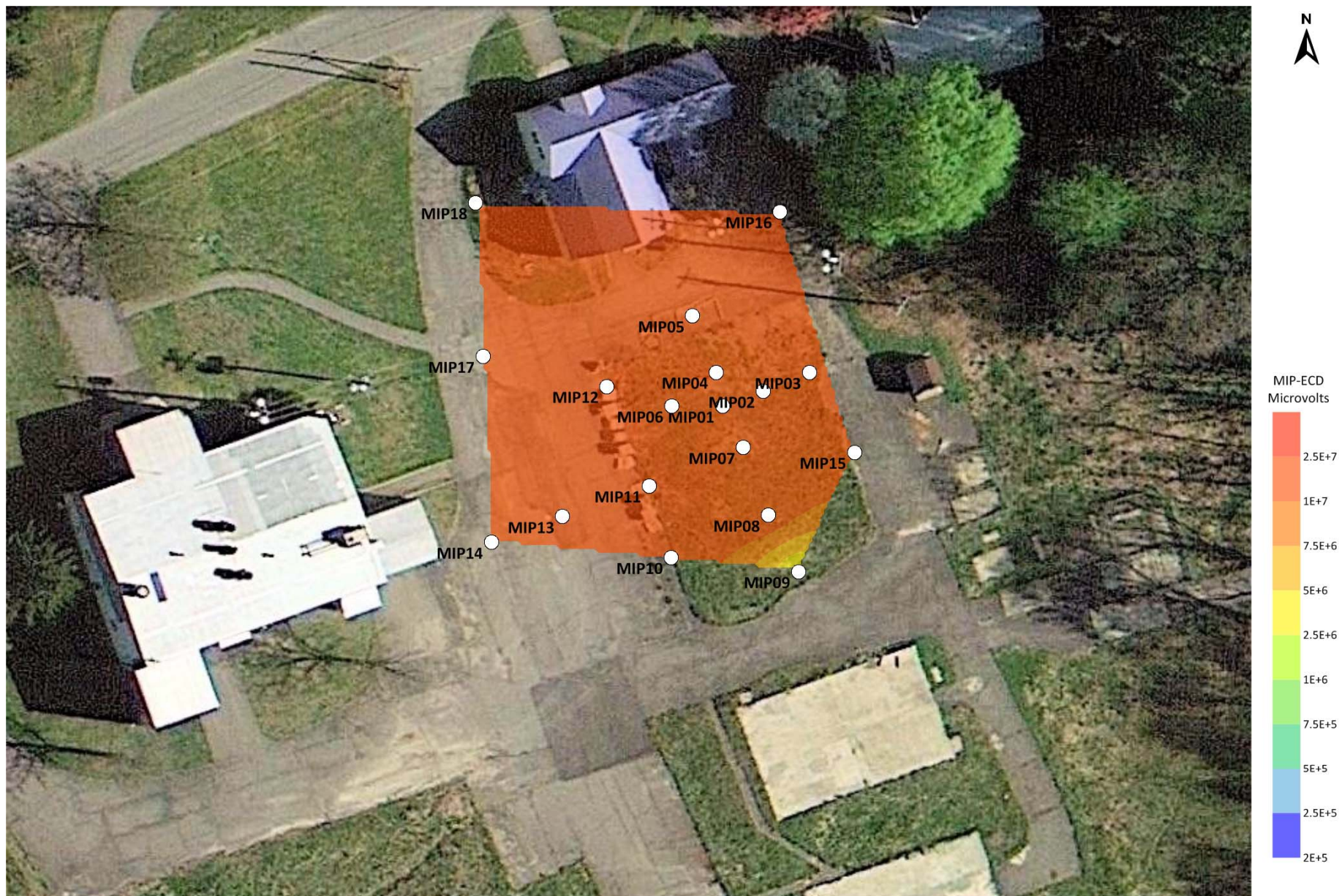
Figure 1 Sitemap and Locations
July 15th, 2013 – July 19th, 2013

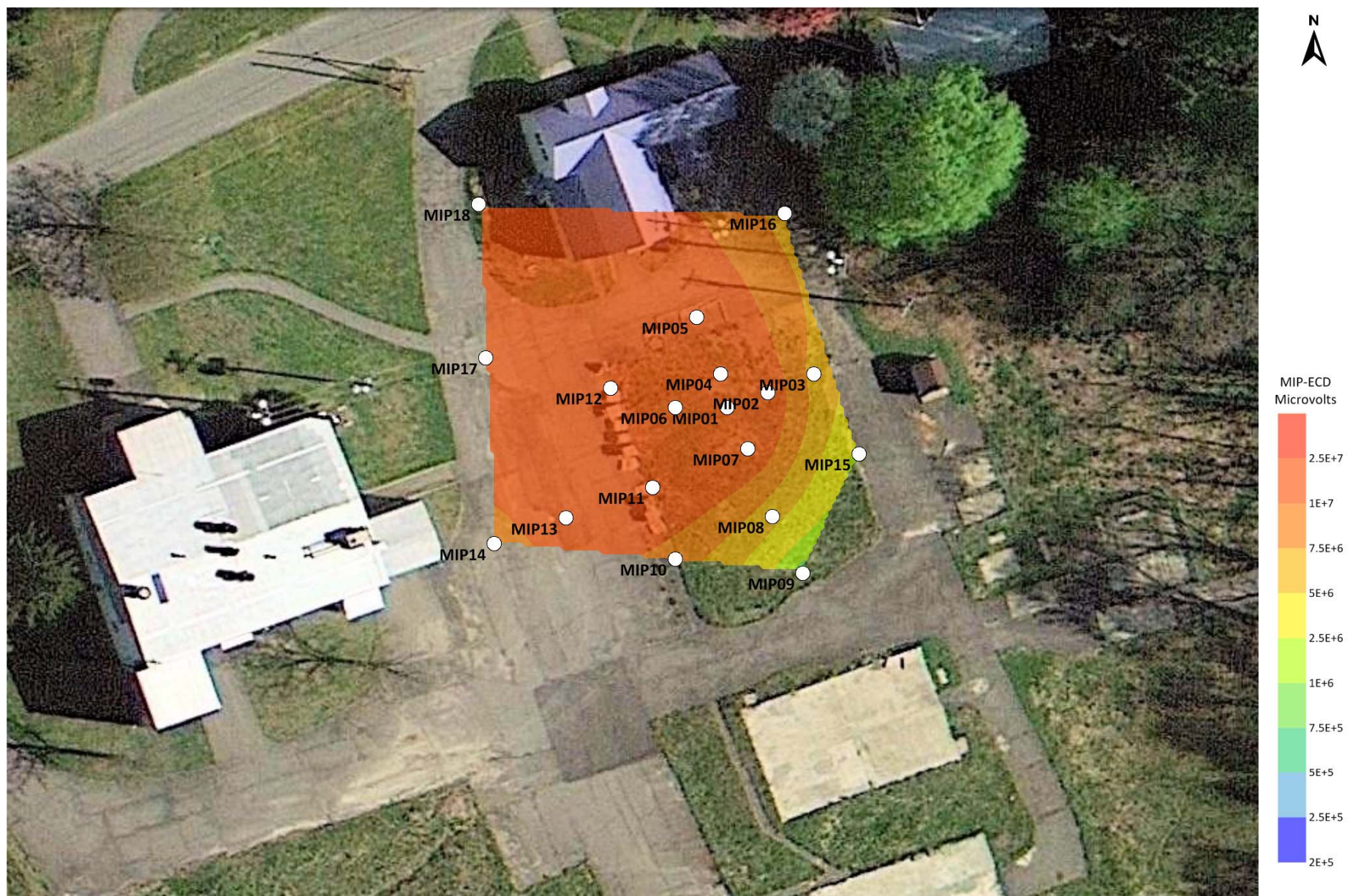












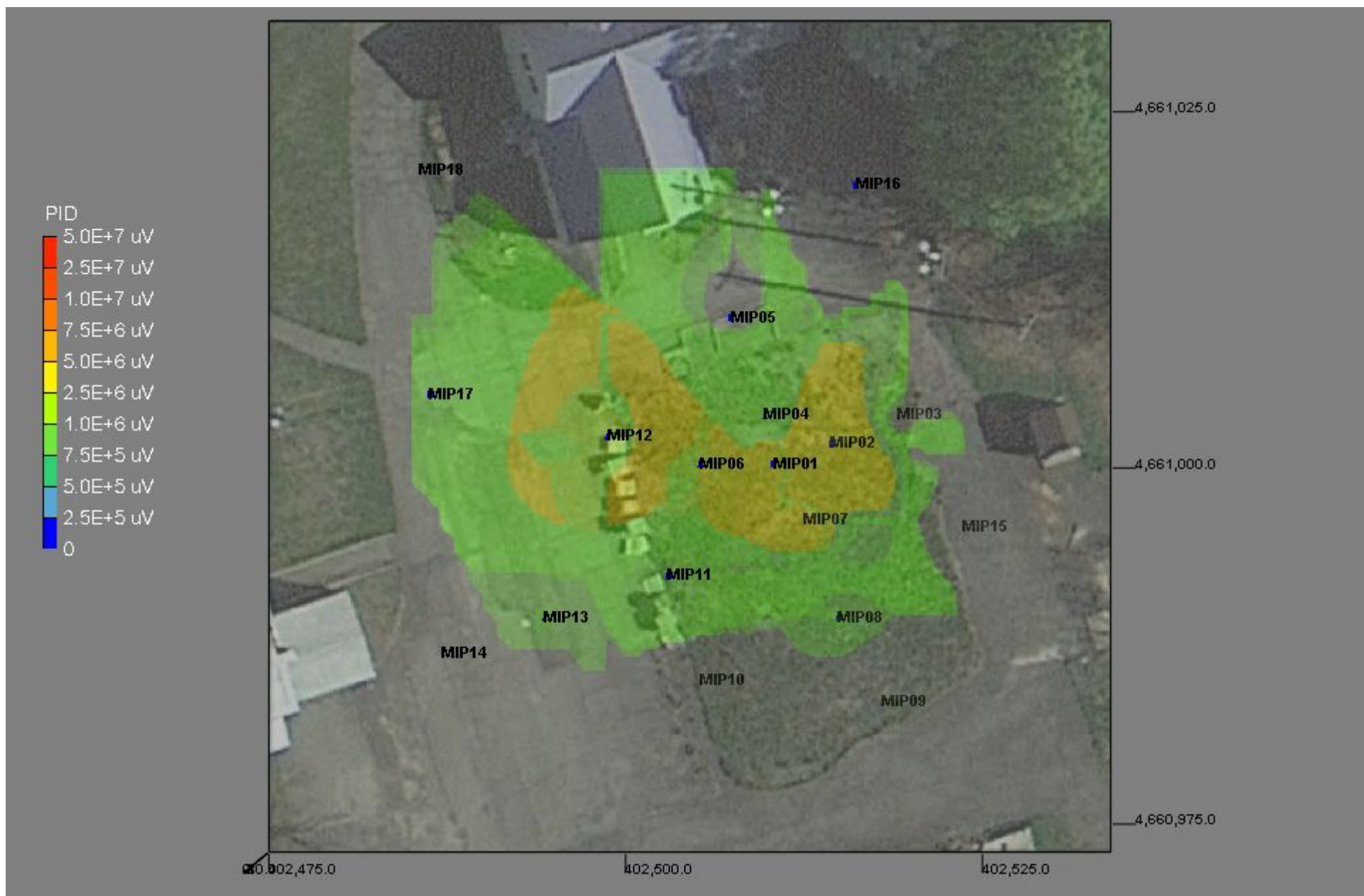


Figure 8 Plan View, PID Response $>1.0 \times 10^6 \mu\text{V}$ and $7.5 \times 10^6 \mu\text{V}$
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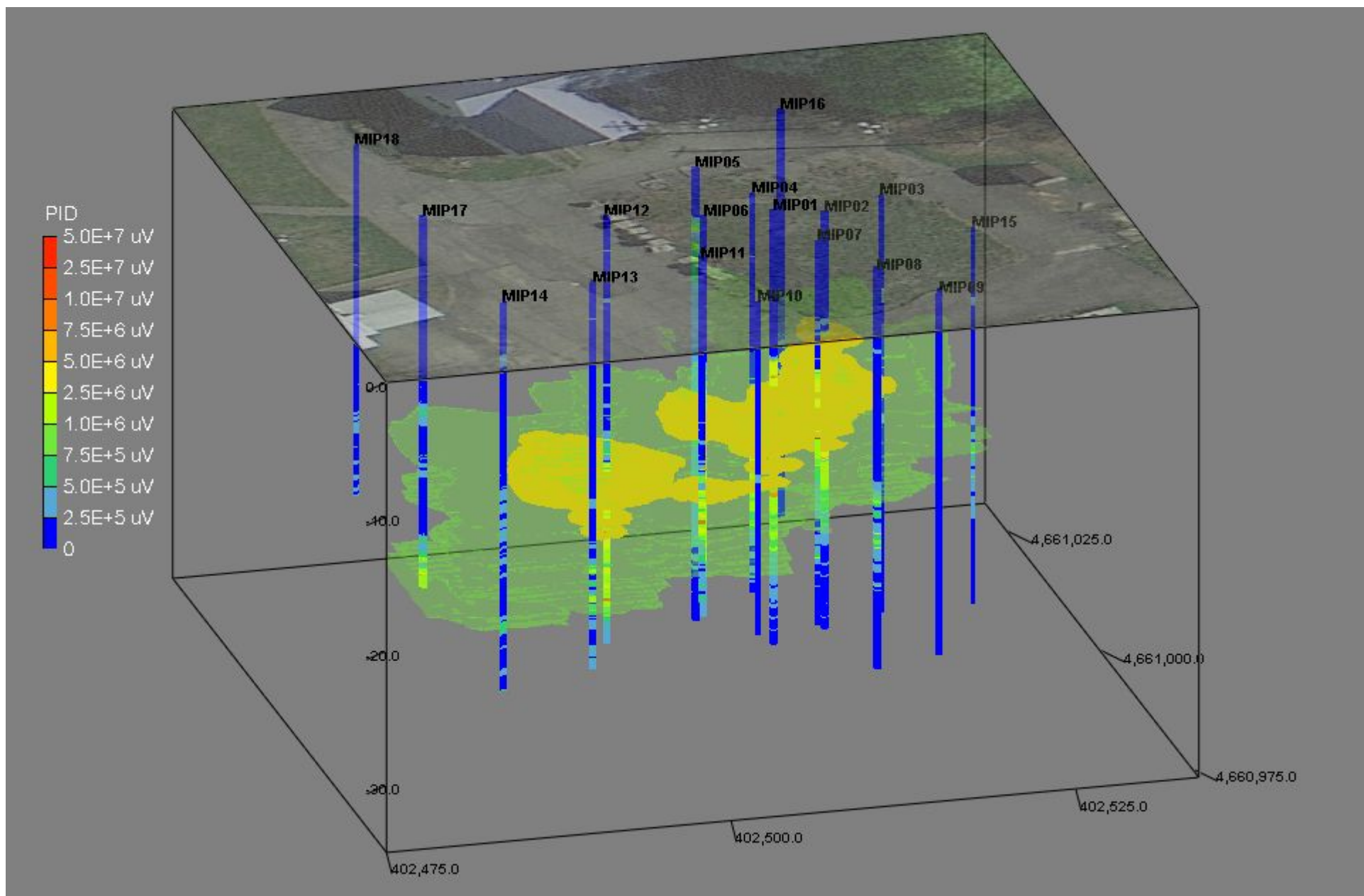


Figure 9 Oblique View Looking Northeast, PID Response $>1.0\text{E}+06\mu\text{V}$ and $7.5\text{E}+06\mu\text{V}$
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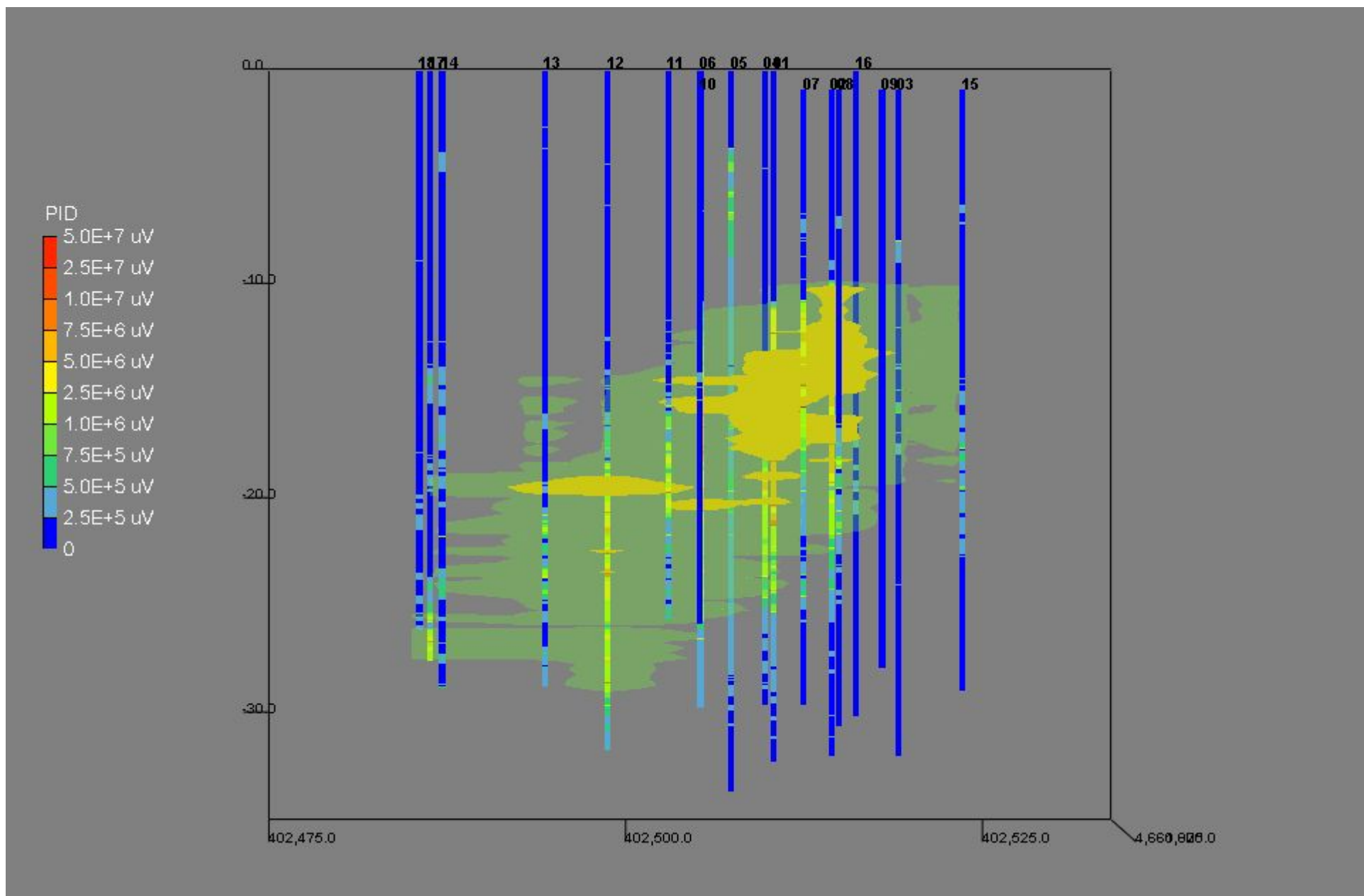


Figure 10 Transect View Looking North, PID Response $>1.0\text{E}+06\mu\text{V}$ and $7.5\text{E}+06\mu\text{V}$
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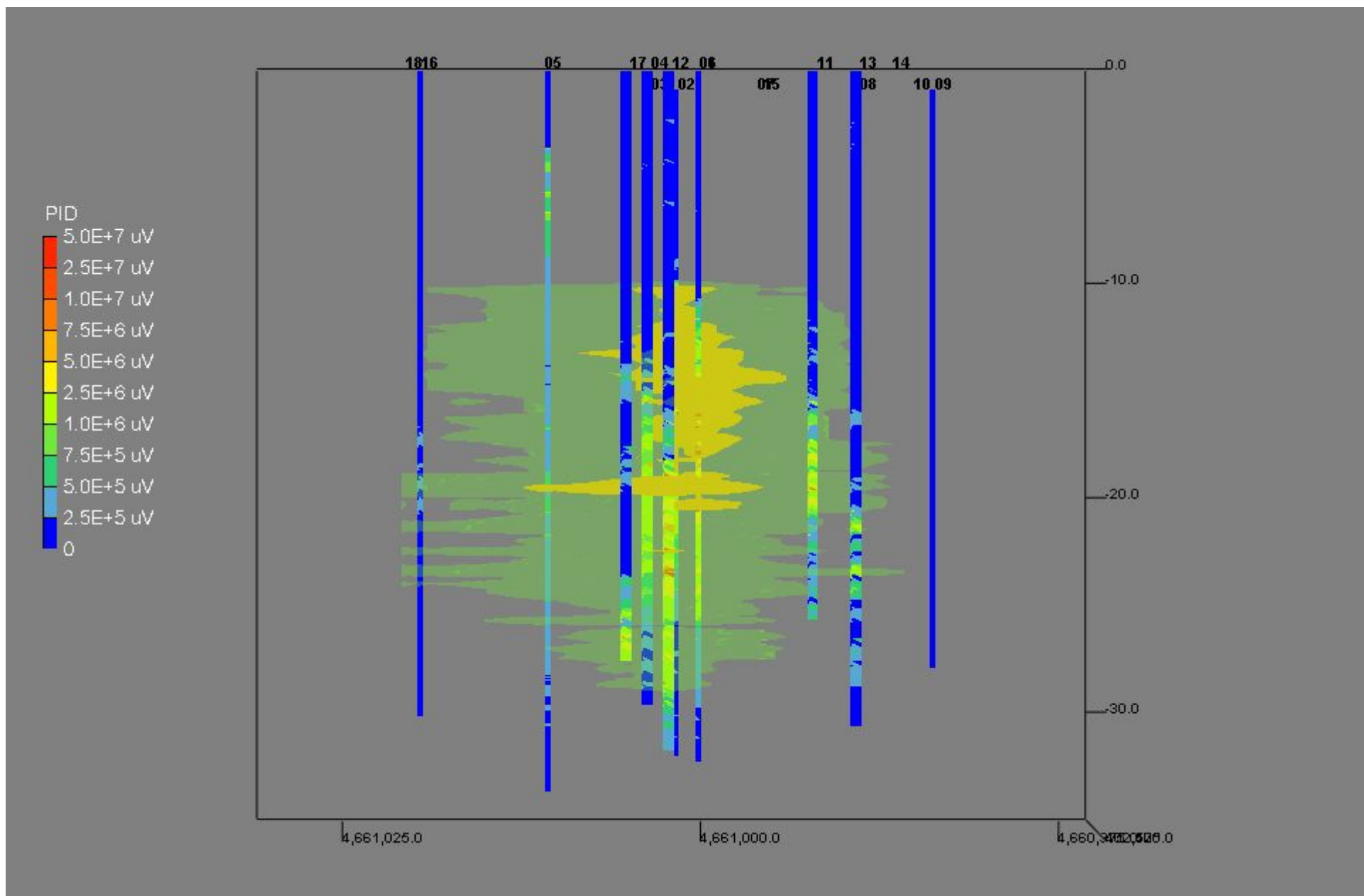


Figure 11 Transect View Looking East, PID Response $>1.0\text{E}+06\mu\text{V}$ and $7.5\text{E}+06\mu\text{V}$
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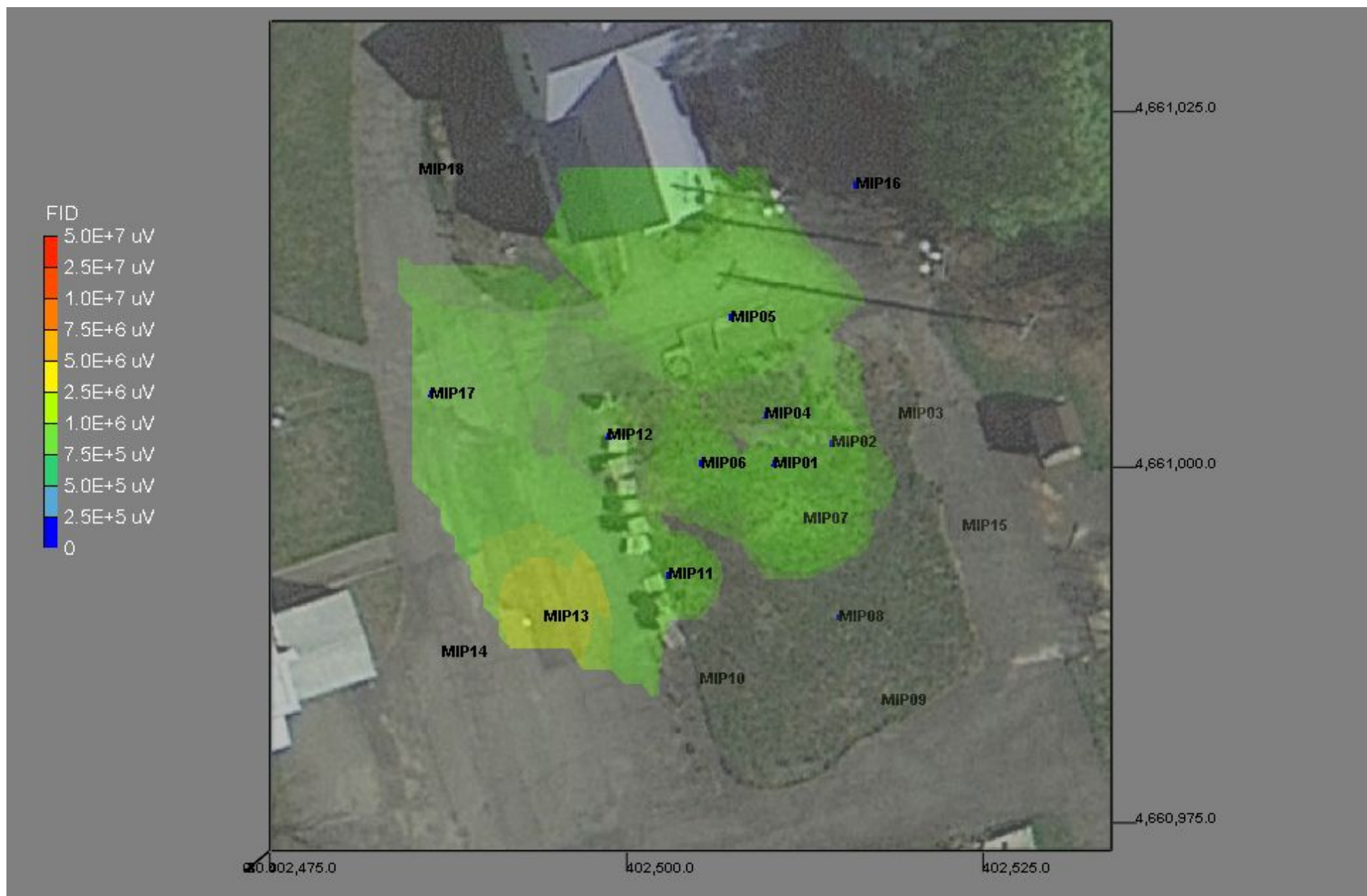


Figure 12 Plan View, FID Response $>1.0\text{E}+06\mu\text{V}$ and $5.0\text{E}+06\mu\text{V}$
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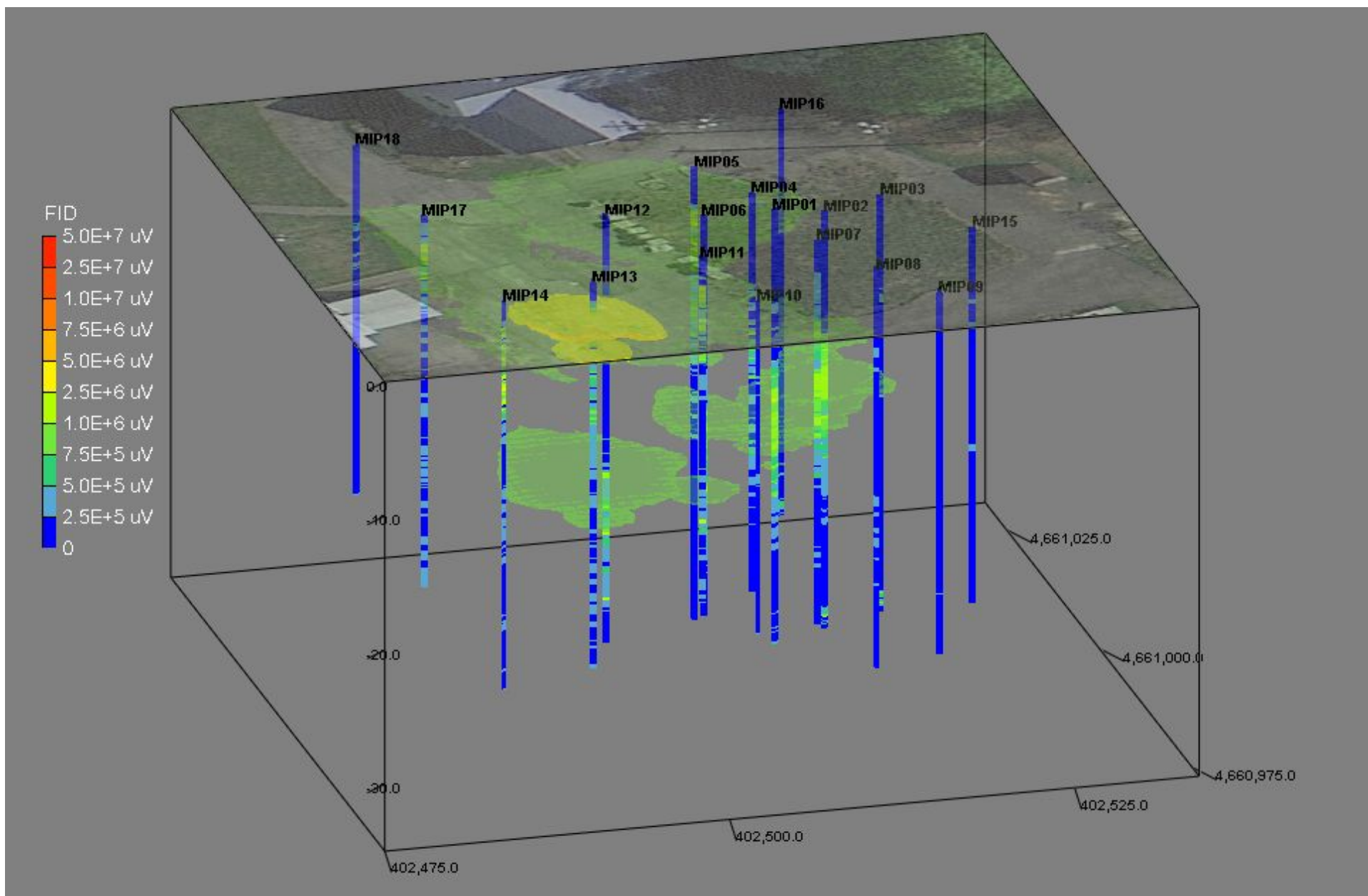


Figure 13 Oblique View Looking Northeast, FID Response $>1.0\text{E}+06\mu\text{V}$ and $5.0\text{E}+06\mu\text{V}$
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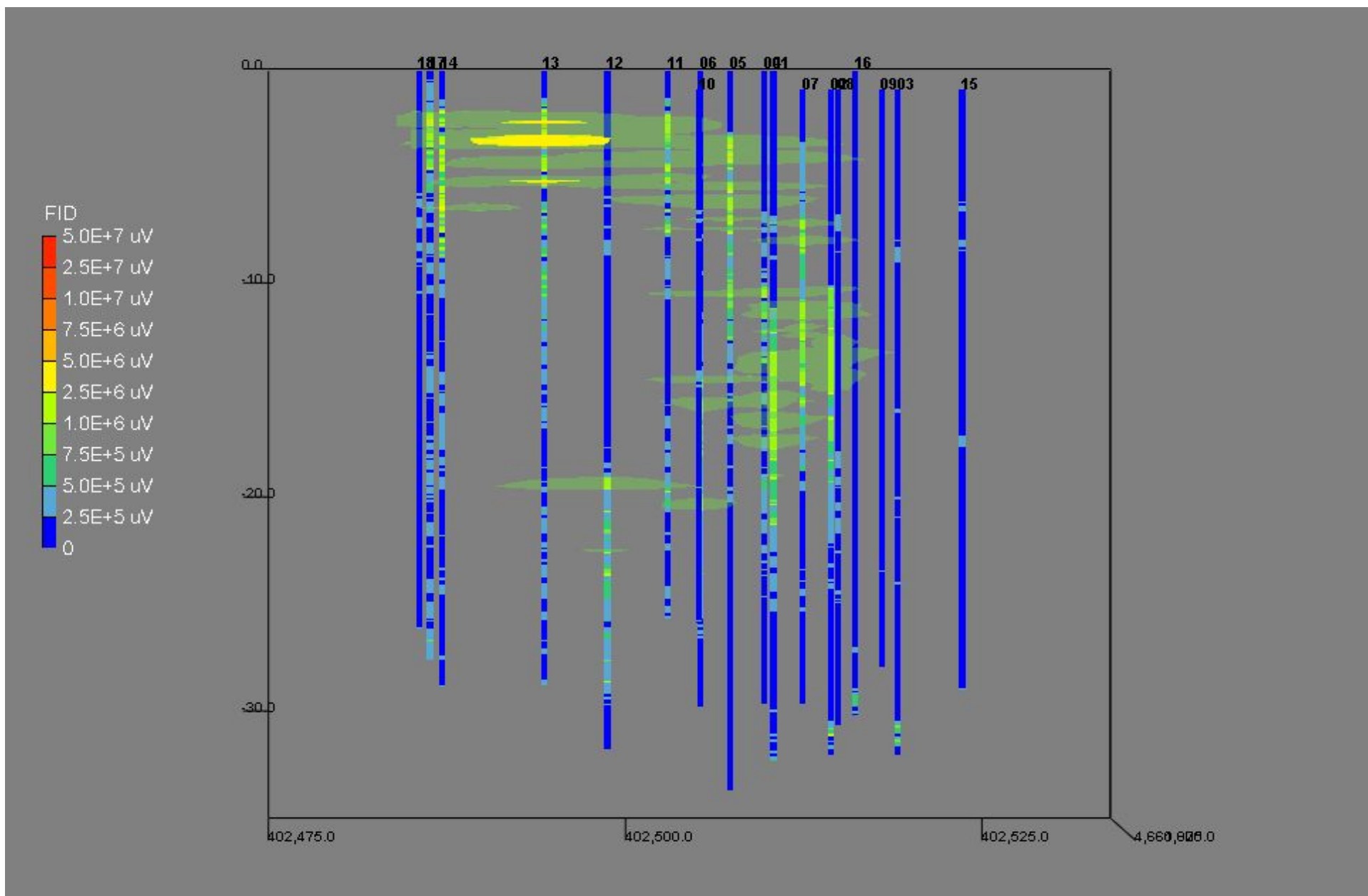


Figure 14 Transect View Looking North, FID Response $>1.0\text{E}+06\mu\text{V}$ and $5.0\text{E}+06\mu\text{V}$
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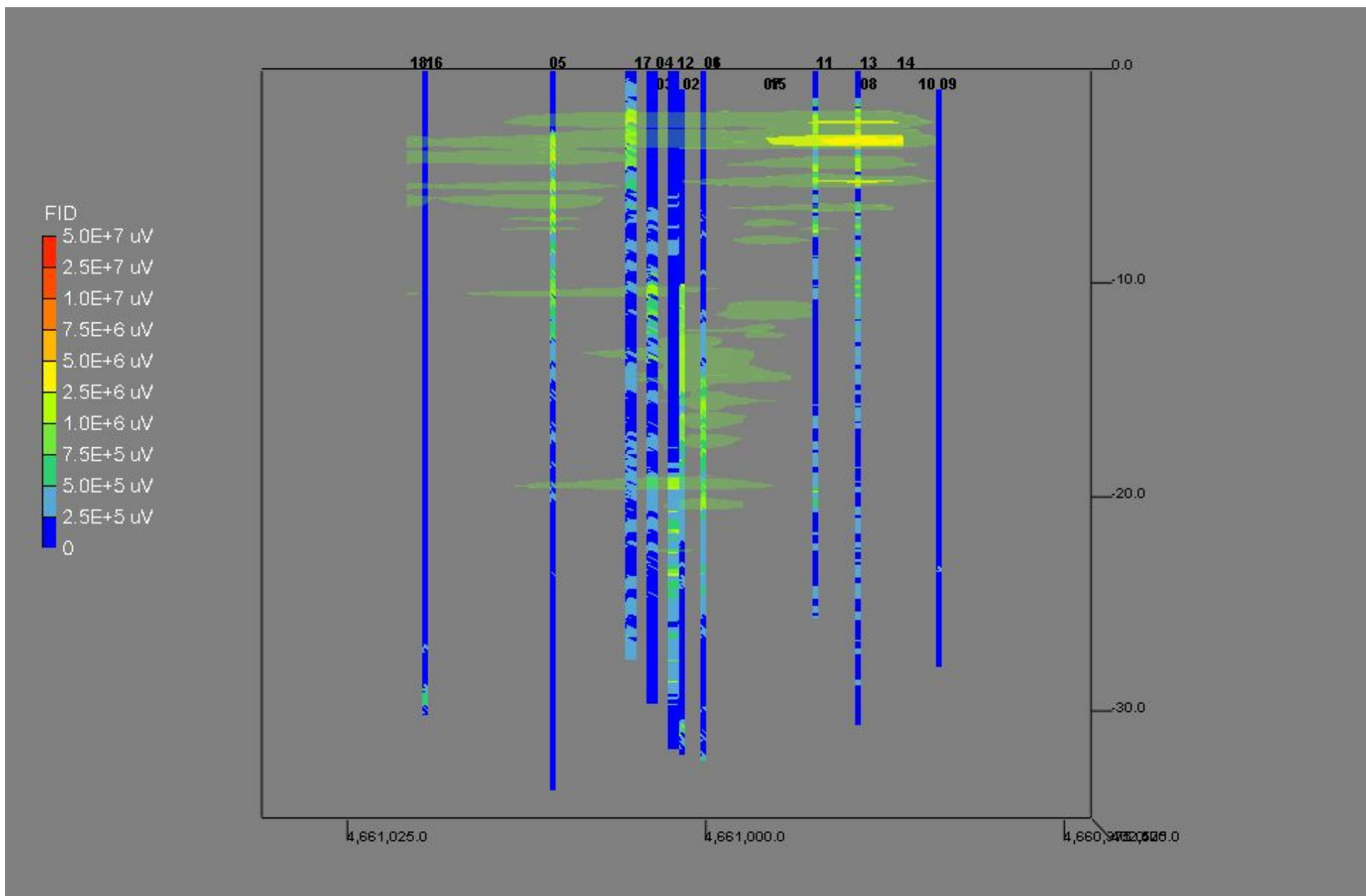
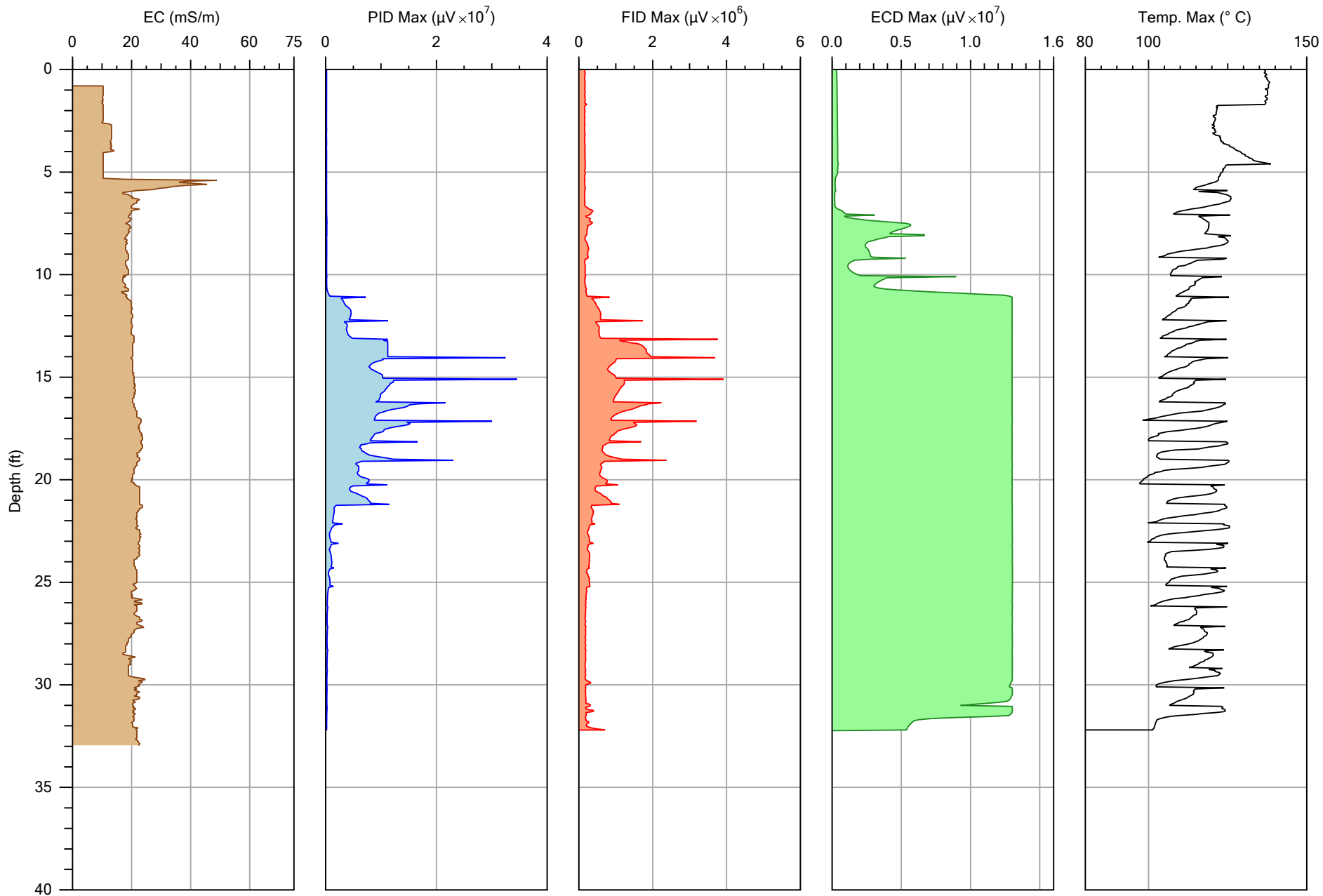


Figure 15 Transect View Looking East, FID Response >1.0E+06μV and 5.0E+06μV
July 15th, 2013 – July 19th, 2013

APPENDIX A

MIP Logs, Individual Scale



Company:
COLUMBIA Technologies

Operator:
RJT

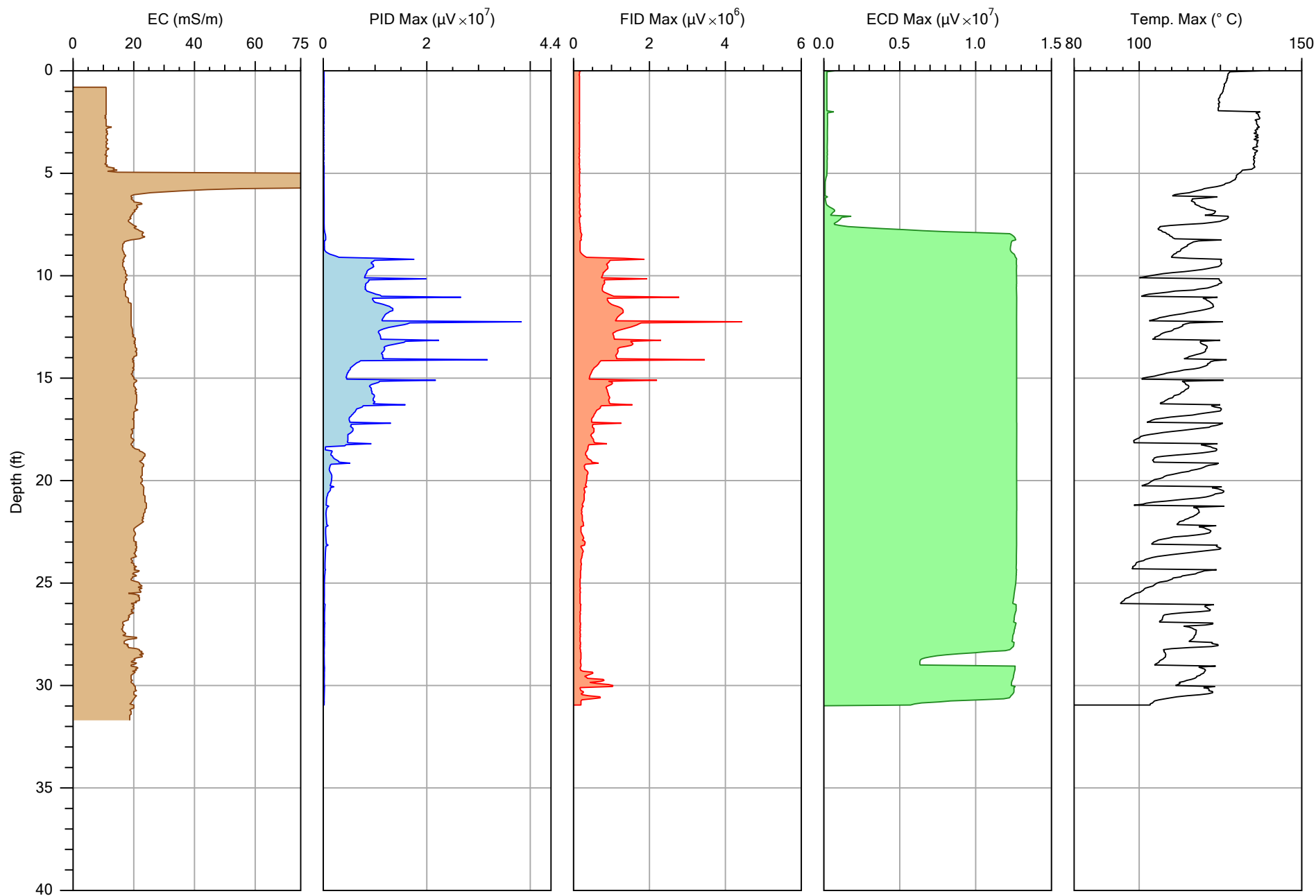
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Owego Heat Treat

Client:
Aztech Technologies

File:
MIP01.DAT

Date:
7/15/2013

Location:



Company:
COLUMBIA Technologies

Project ID:
Owego Heat Treat

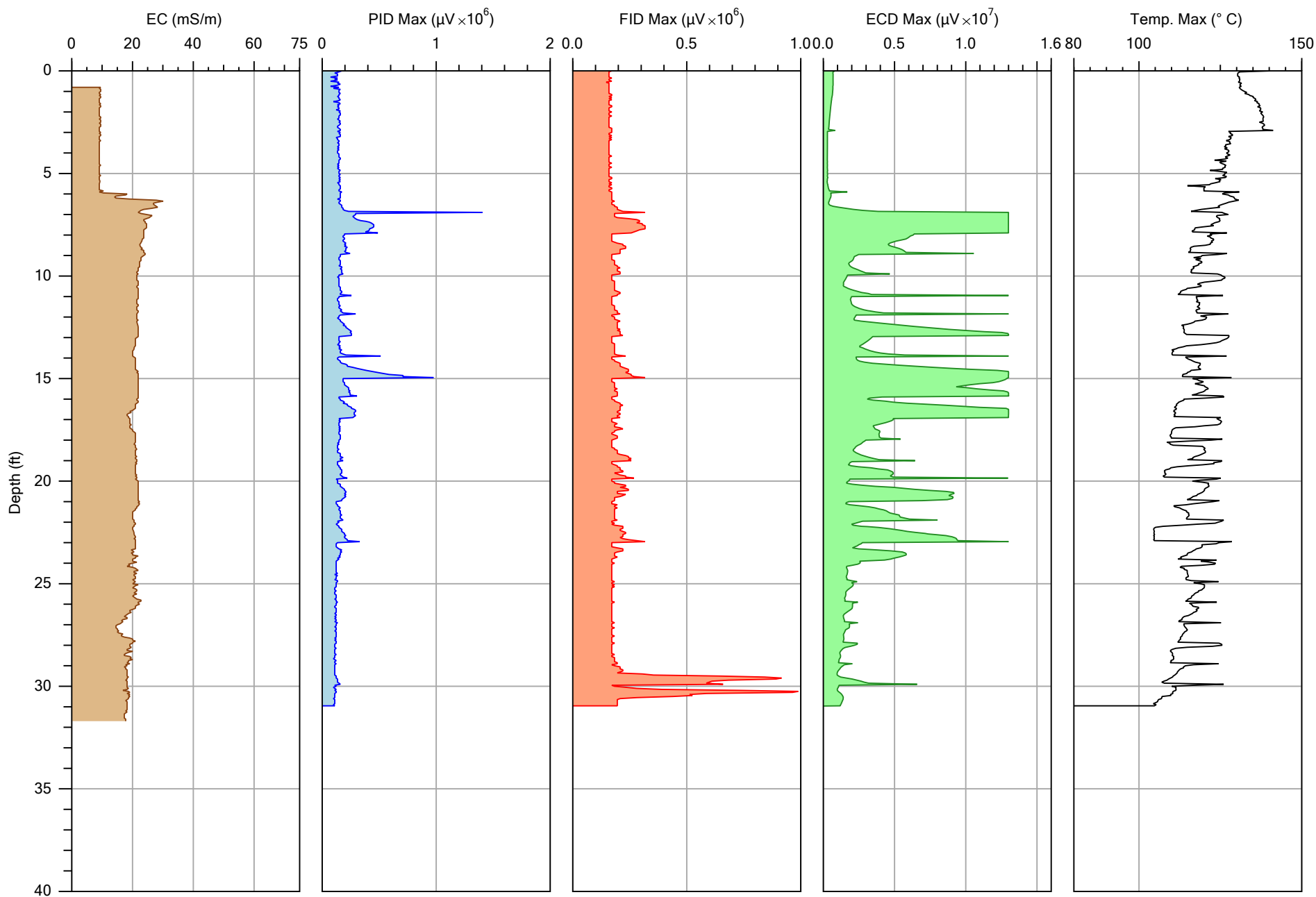
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File:
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Date:
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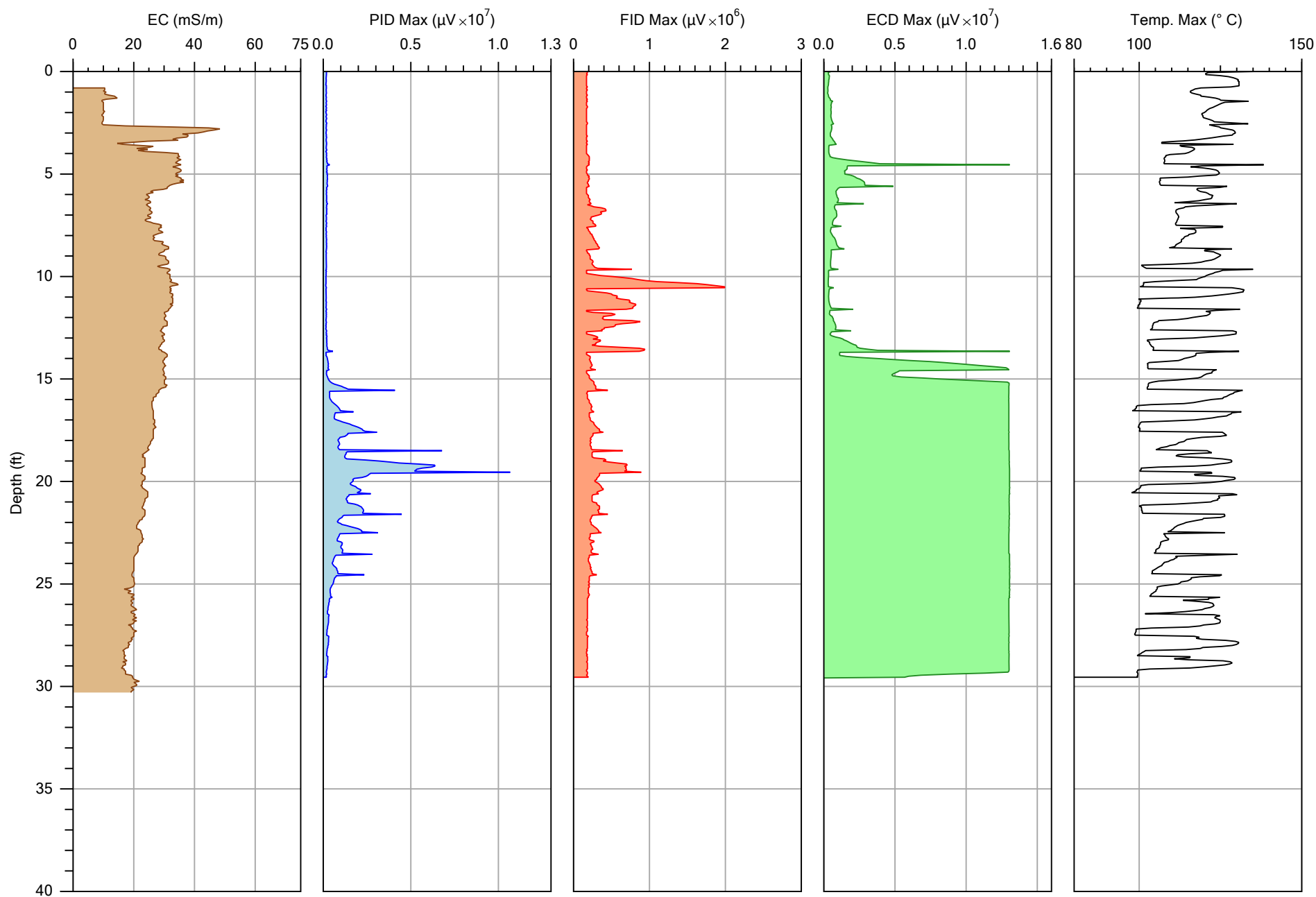
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Owego Heat Treat

Operator:
RJT

Client:
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Date:	7/16/2013
Location:	



Company:
COLUMBIA Technologies

Project ID:
Owego Heat Treat

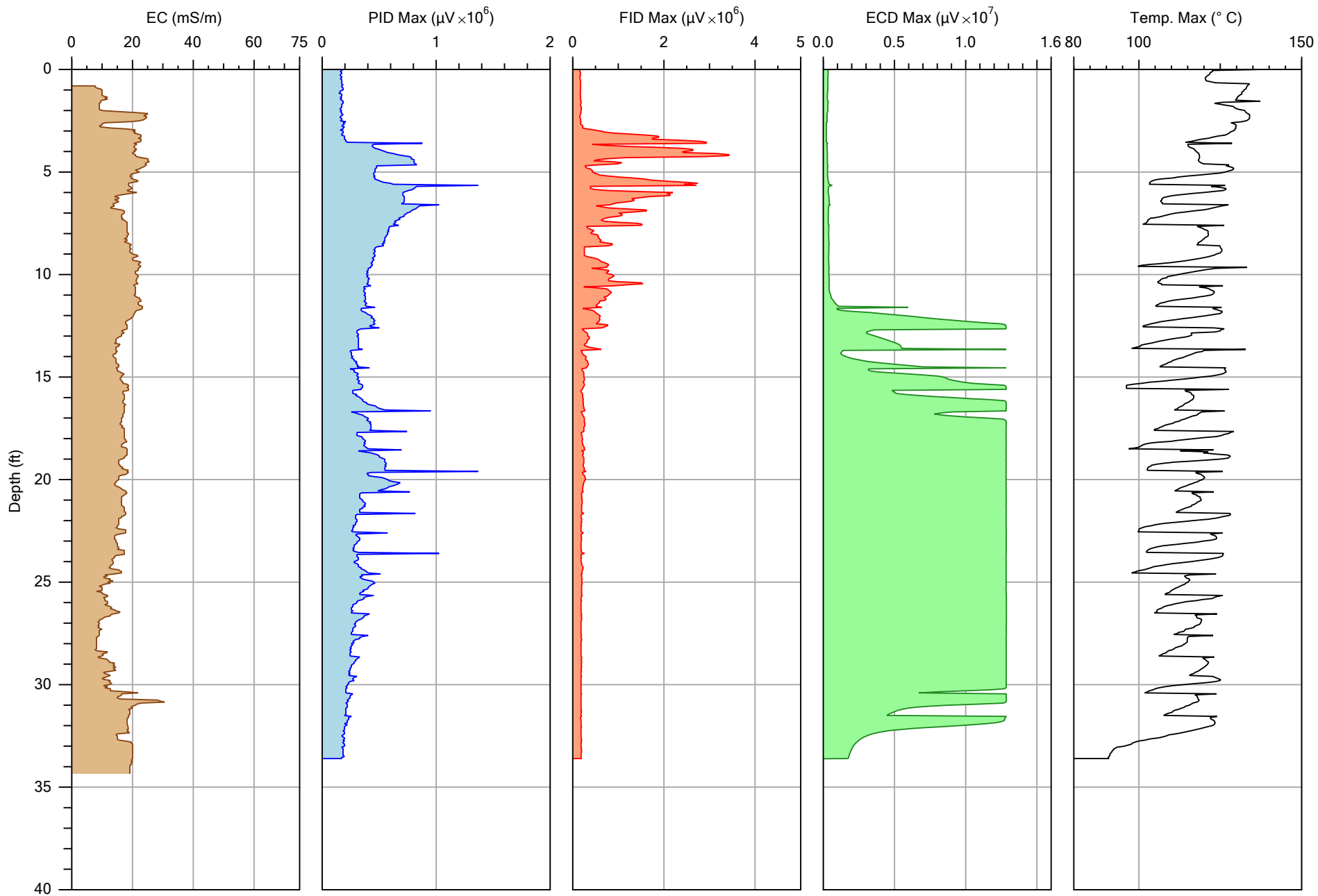
Operator:
RJT

Client:
Aztech Technologies

File:
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Date:
7/16/2013

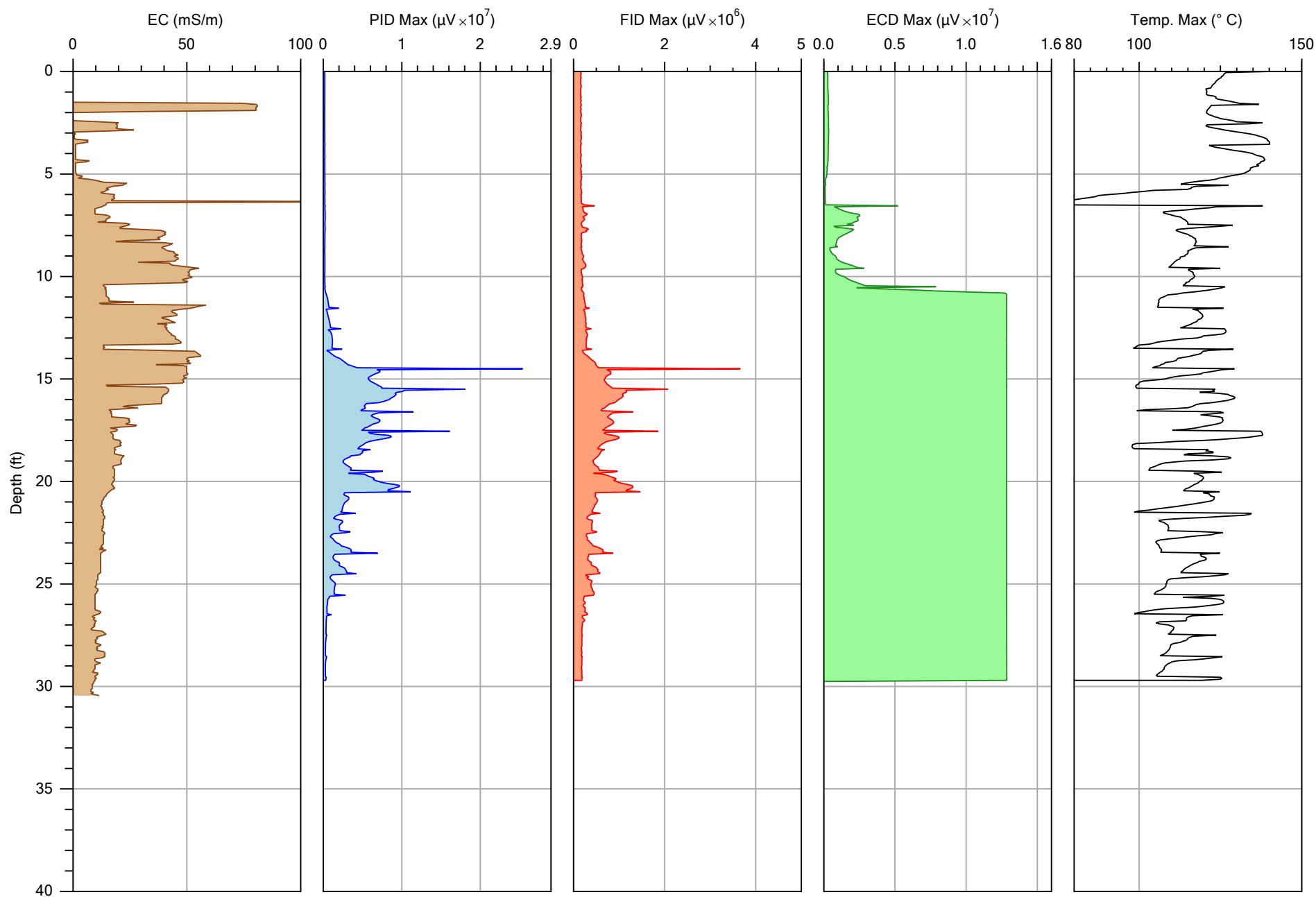
Location:



Company:
COLUMBIA Technologies
Project ID:
Owego Heat Treat

Operator:
RJT
Client:
Aztech Technologies

File:	MIP05.DAT
Date:	7/17/2013
Location:	



Company:
COLUMBIA Technologies

Project ID:
Owego Heat Treat

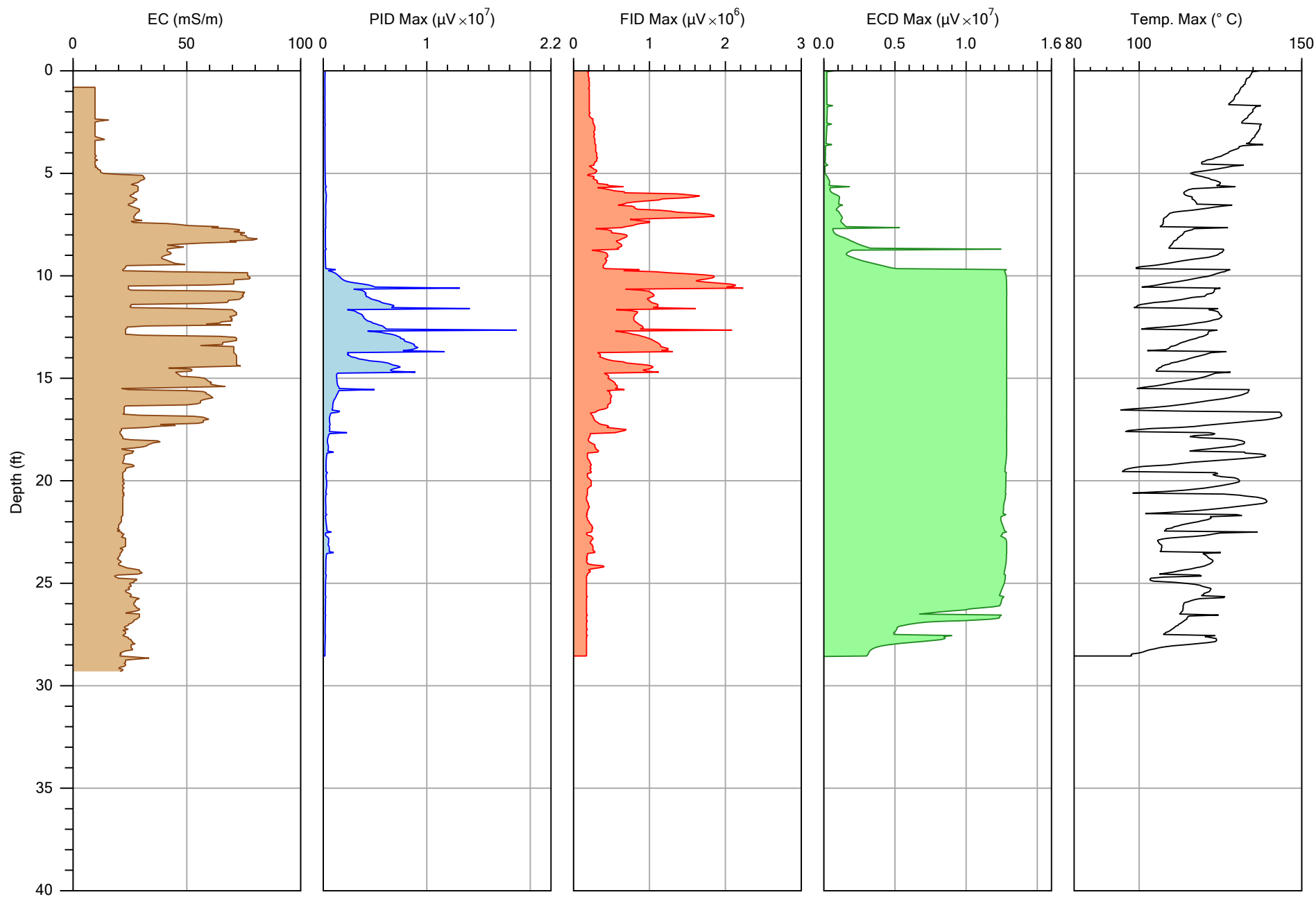
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7/17/2013

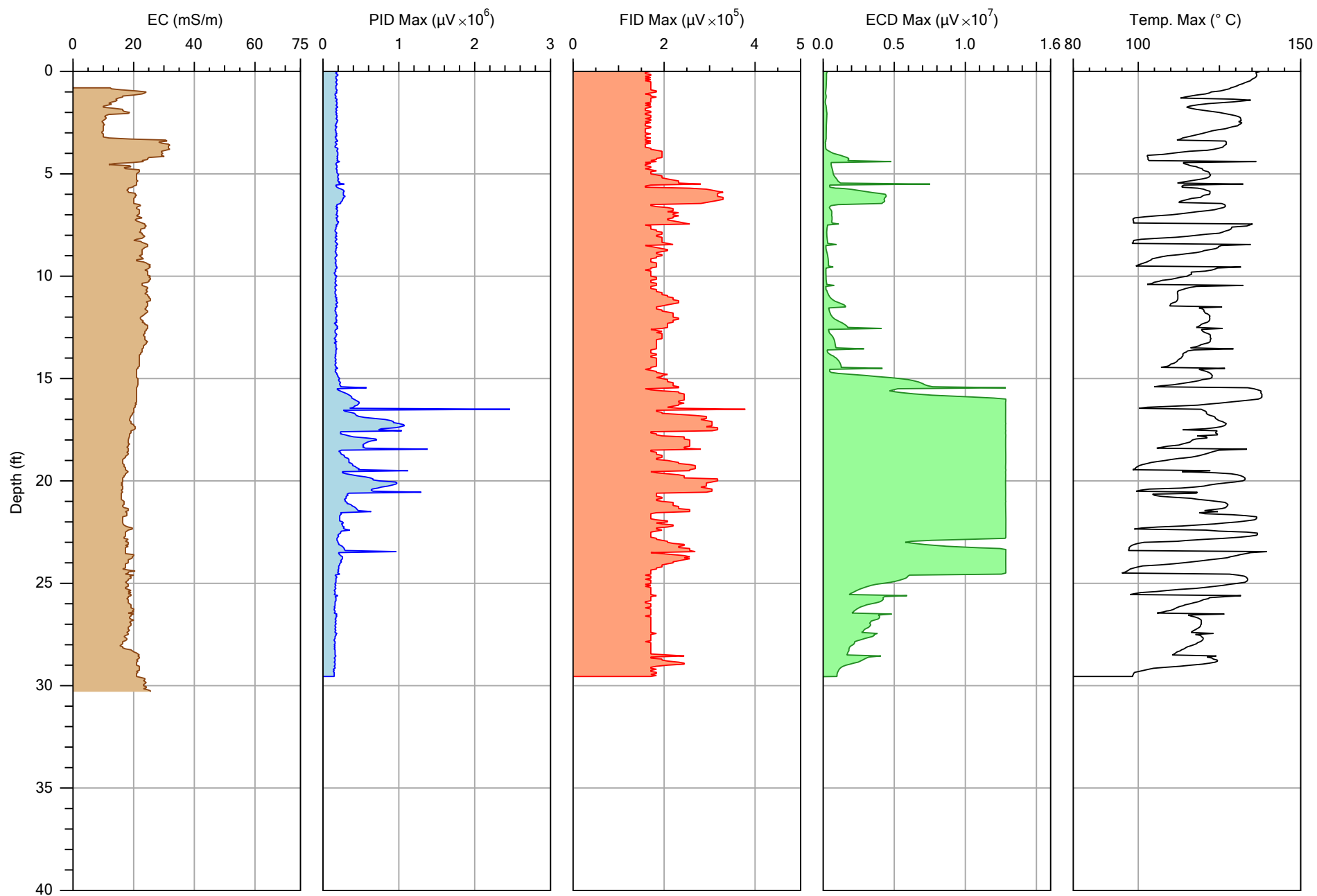
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Company:
COLUMBIA Technologies
Project ID:
Owego Heat Treat

Operator:
RJT
Client:
Aztech Technologies

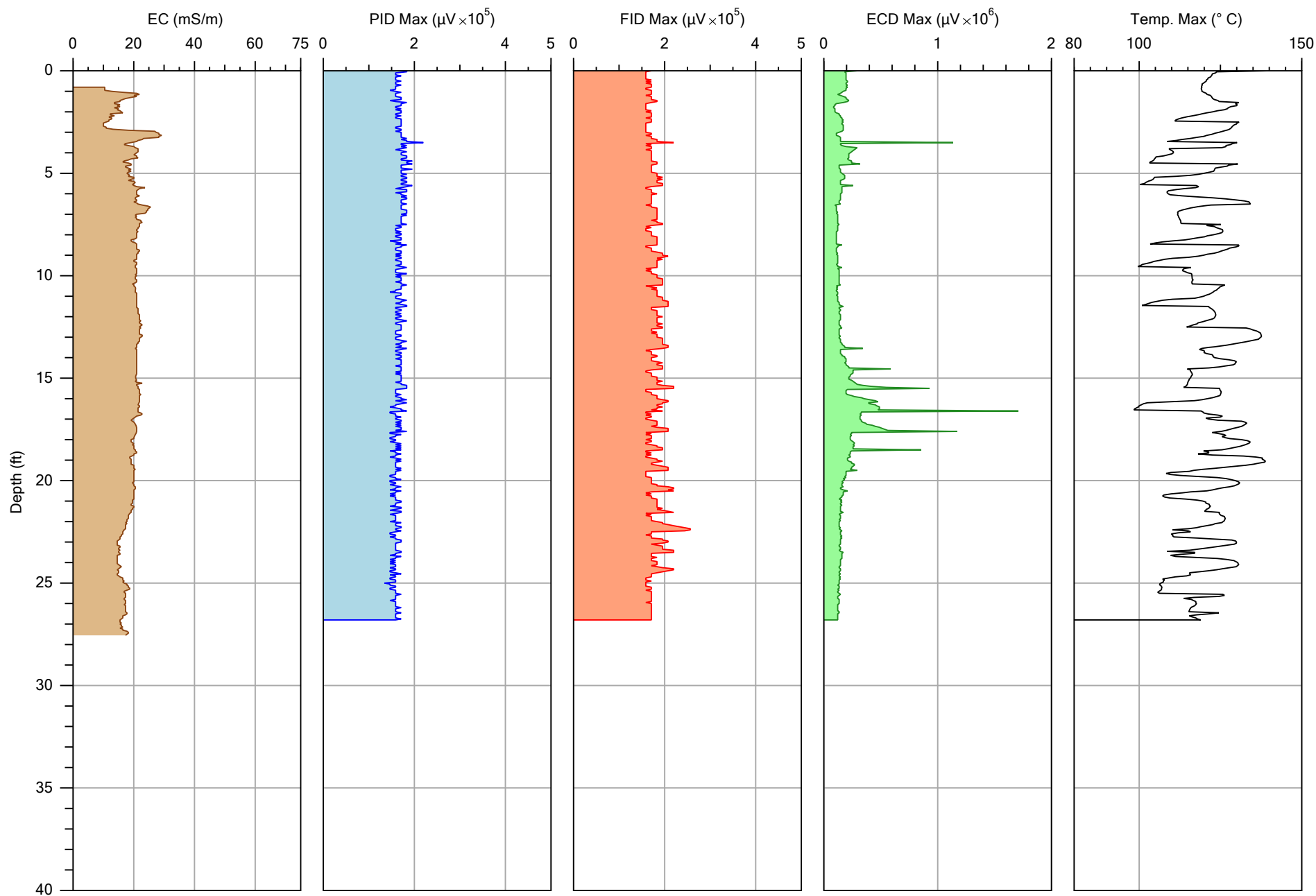
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Company:
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Project ID:
Owego Heat Treat

Operator:
RJT
Client:
Aztech Technologies

File:	MIP08.DAT
Date:	7/18/2013
Location:	



Company:
COLUMBIA Technologies

Project ID:
Owego Heat Treat

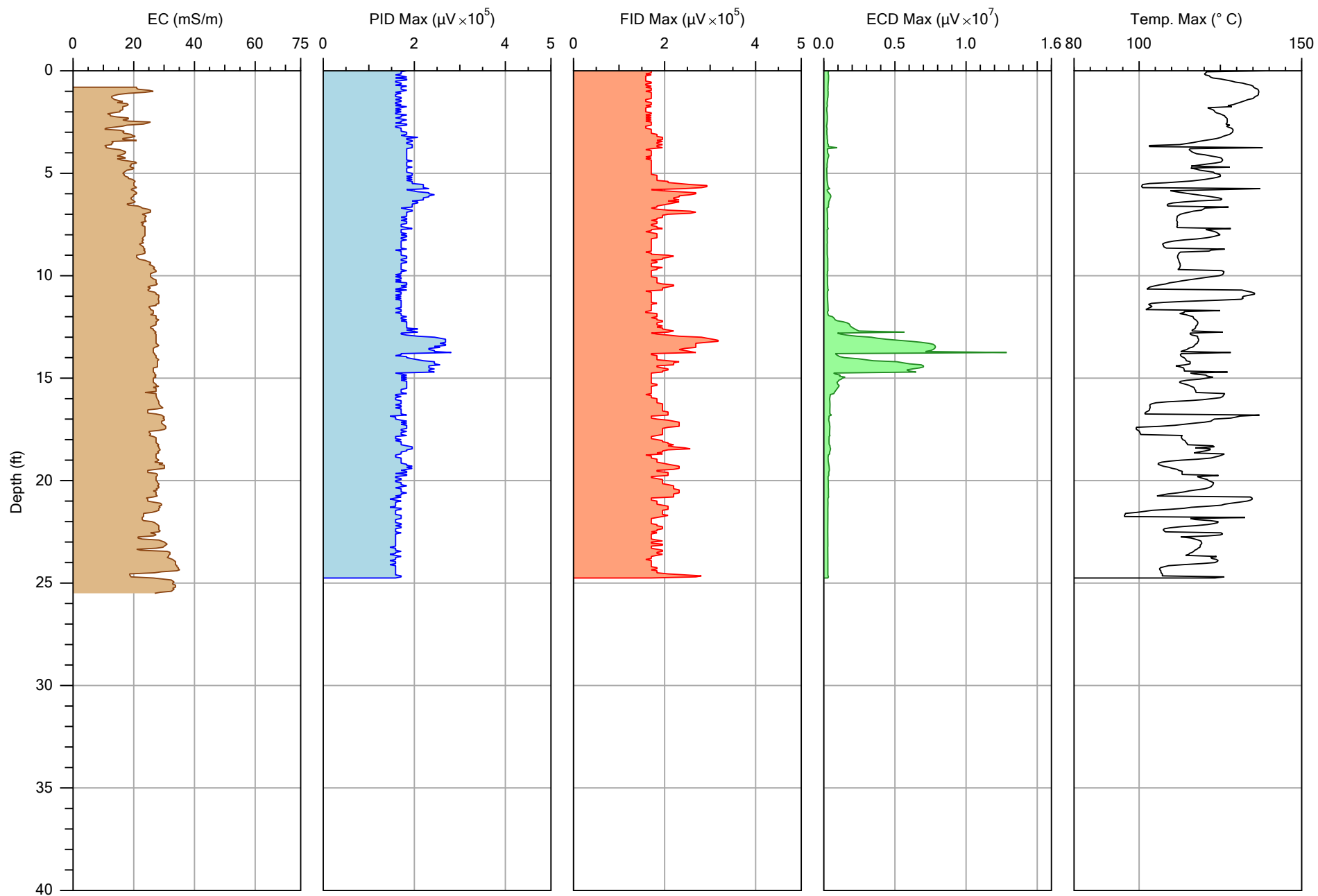
Operator:
RJT

Client:
Aztech Technologies

File:
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Date:
7/18/2013

Location:



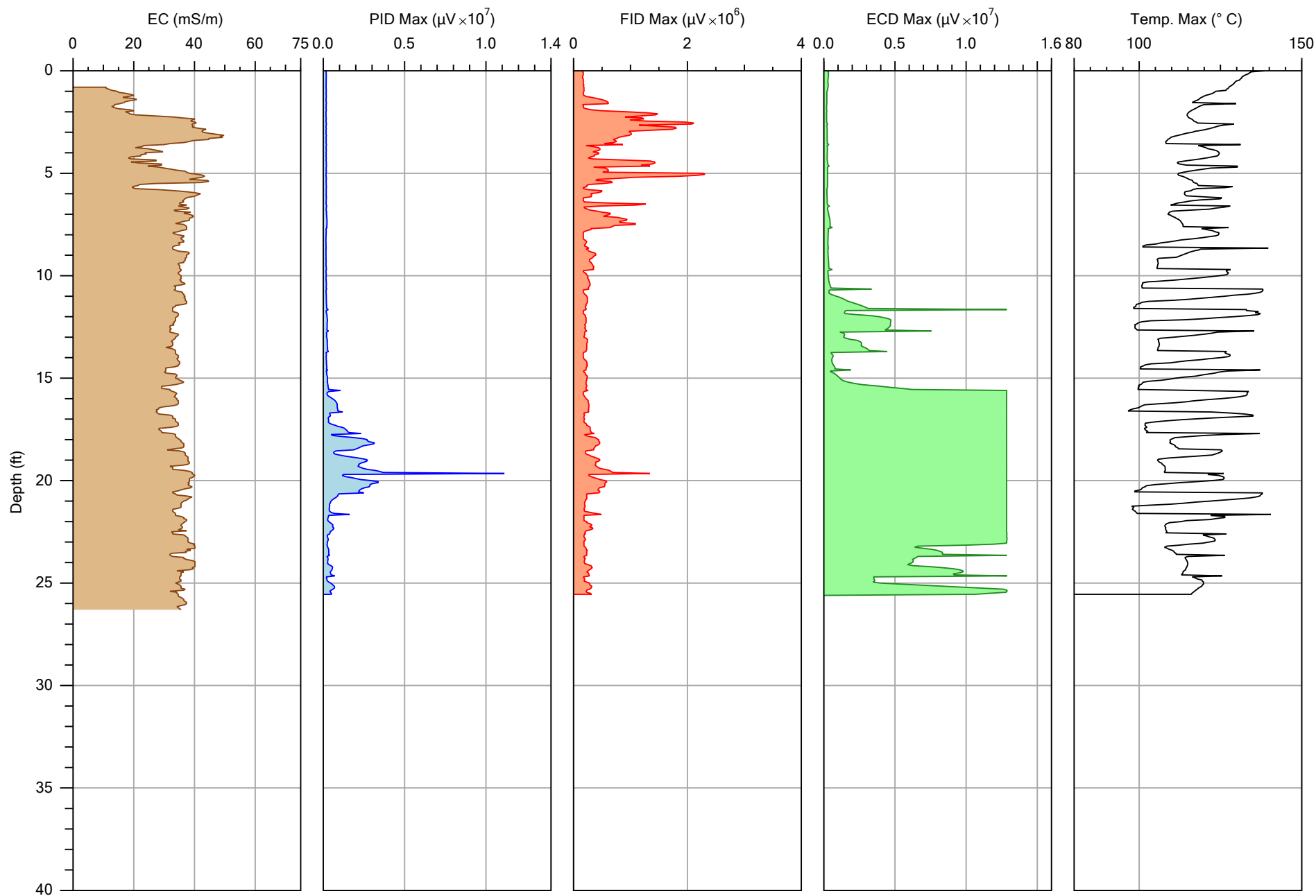
Company:
COLUMBIA Technologies

Operator:
RJT

Project ID:
Owego Heat Treat

Client:
Aztech Technologies

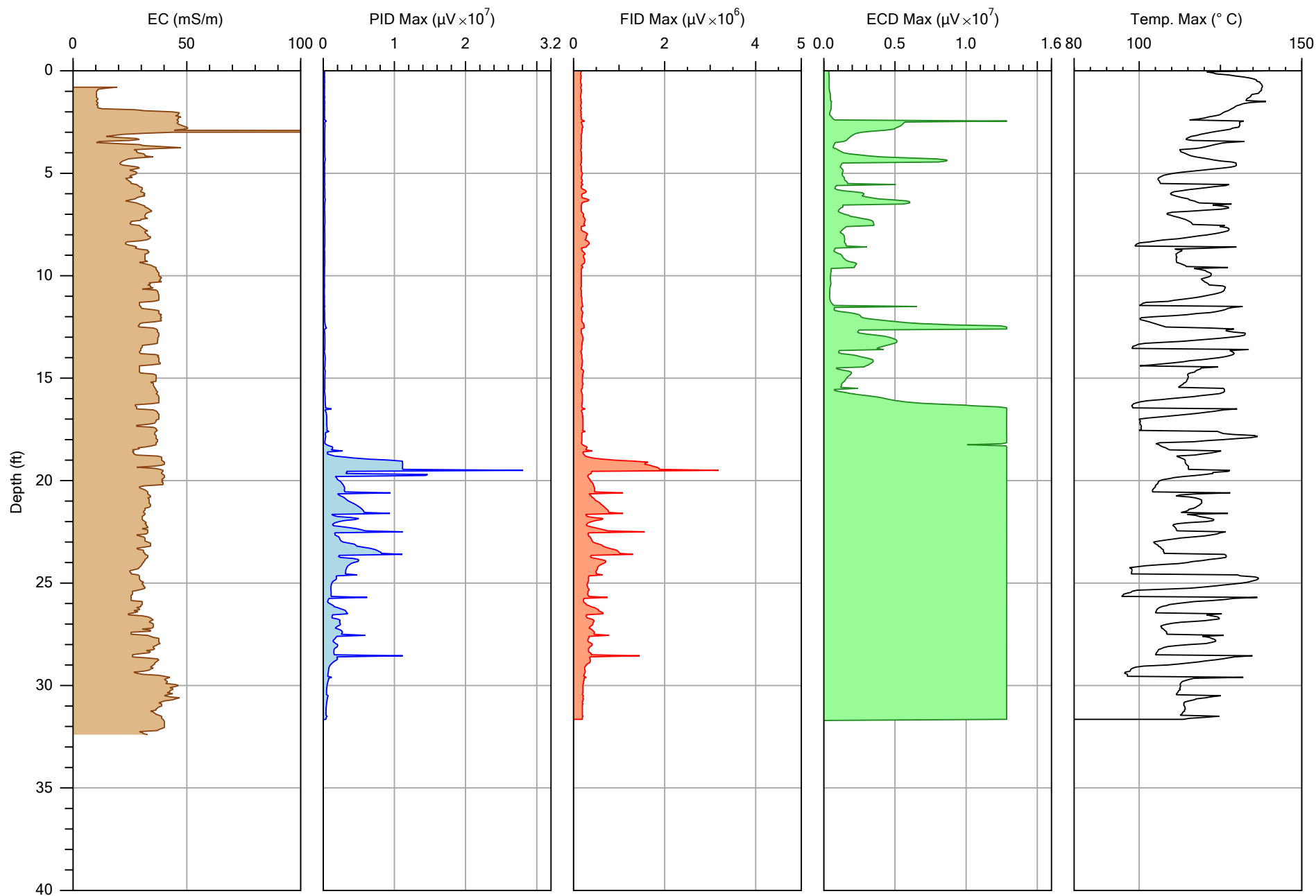
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Date:	7/18/2013
Location:	



Company:
COLUMBIA Technologies
Project ID:
Owego Heat Treat

Operator:
RJT
Client:
Aztech Technologies

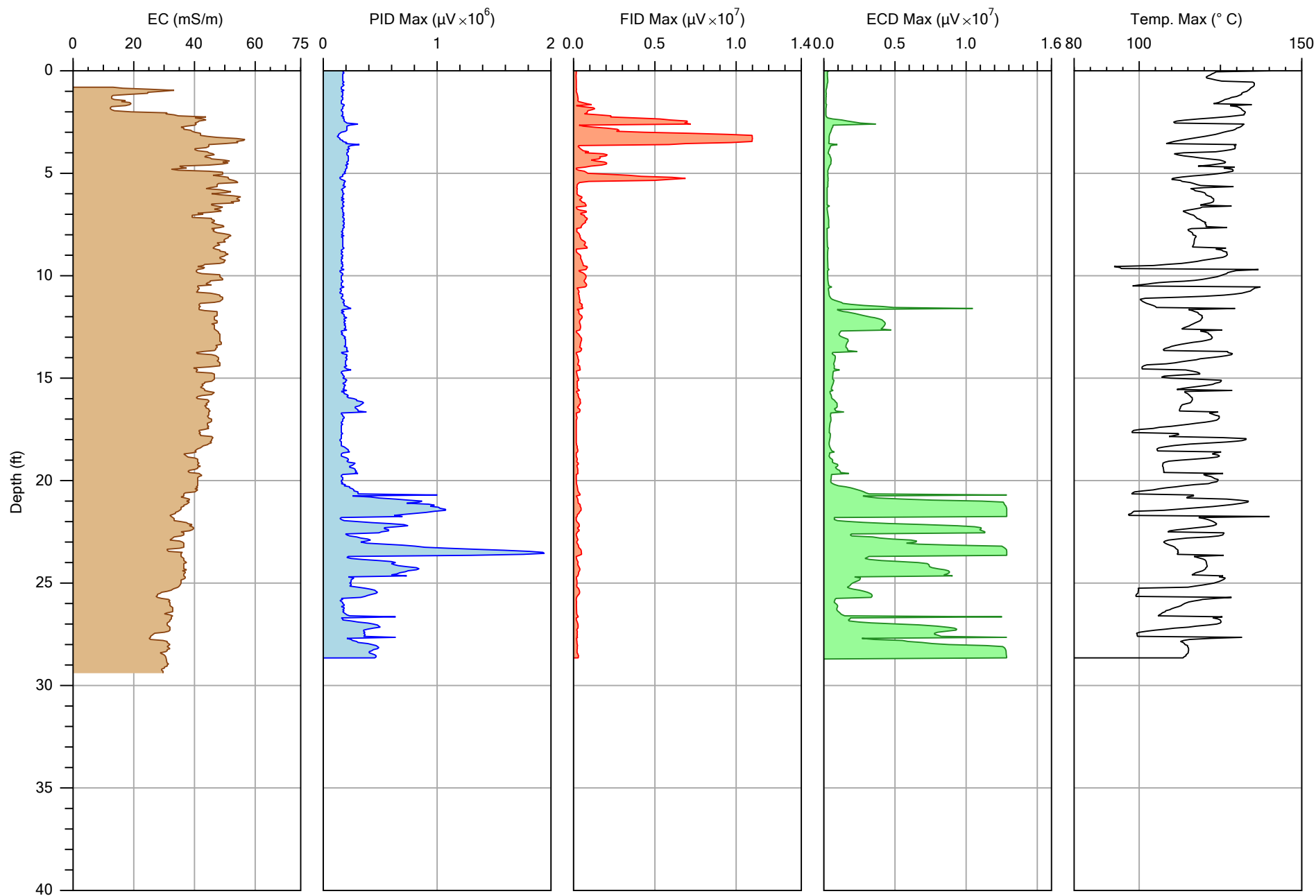
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Location:	



Company:
COLUMBIA Technologies
Project ID:
Owego Heat Treat

Operator:
RJT
Client:
Aztech Technologies

File:	MIP12.DAT
Date:	7/18/2013
Location:	



Company:
COLUMBIA Technologies

Project ID:
Owego Heat Treat

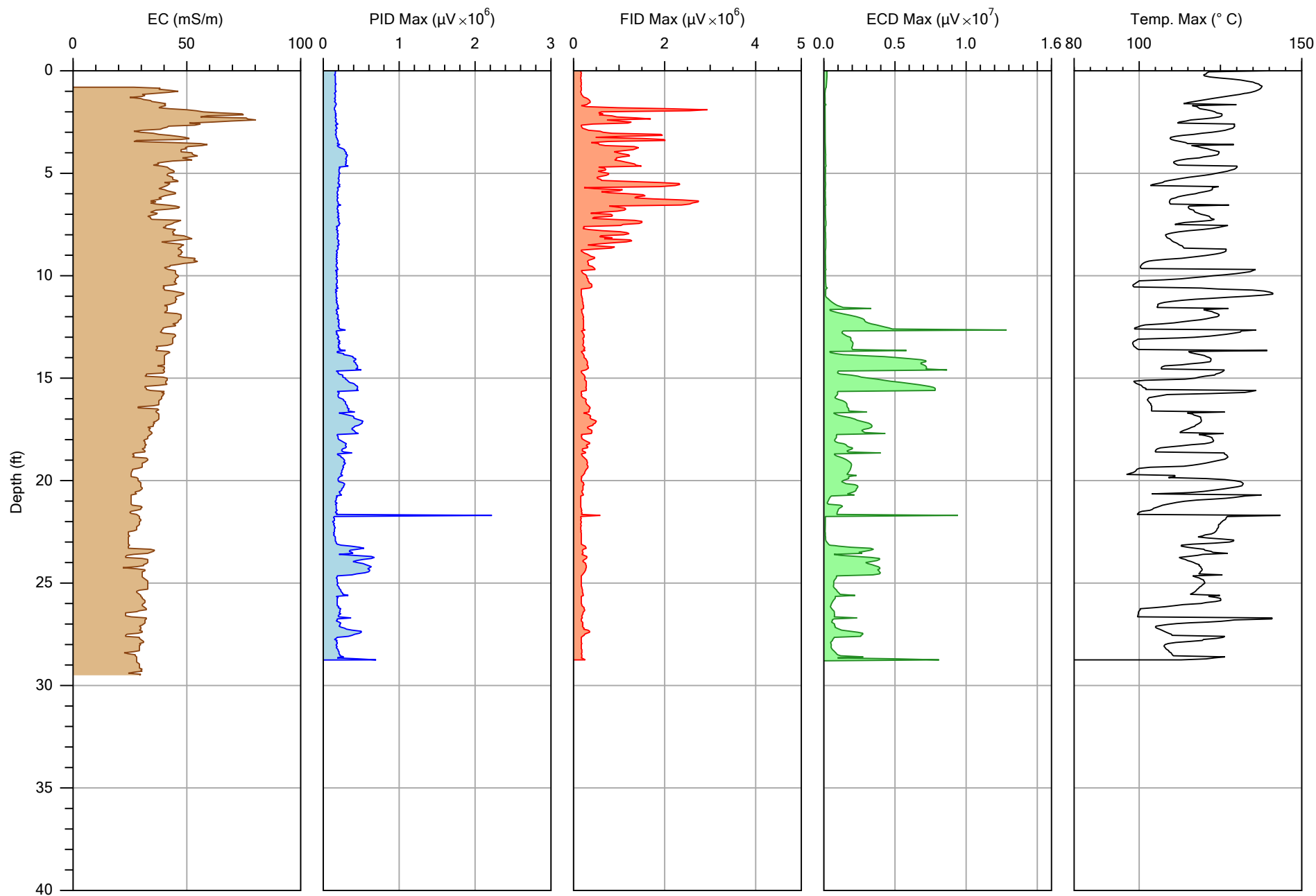
Operator:
RJT

Client:
Aztech Technologies

File:
MIP13.DAT

Date:
7/18/2013

Location:



Company:
COLUMBIA Technologies

Project ID:
Owego Heat Treat

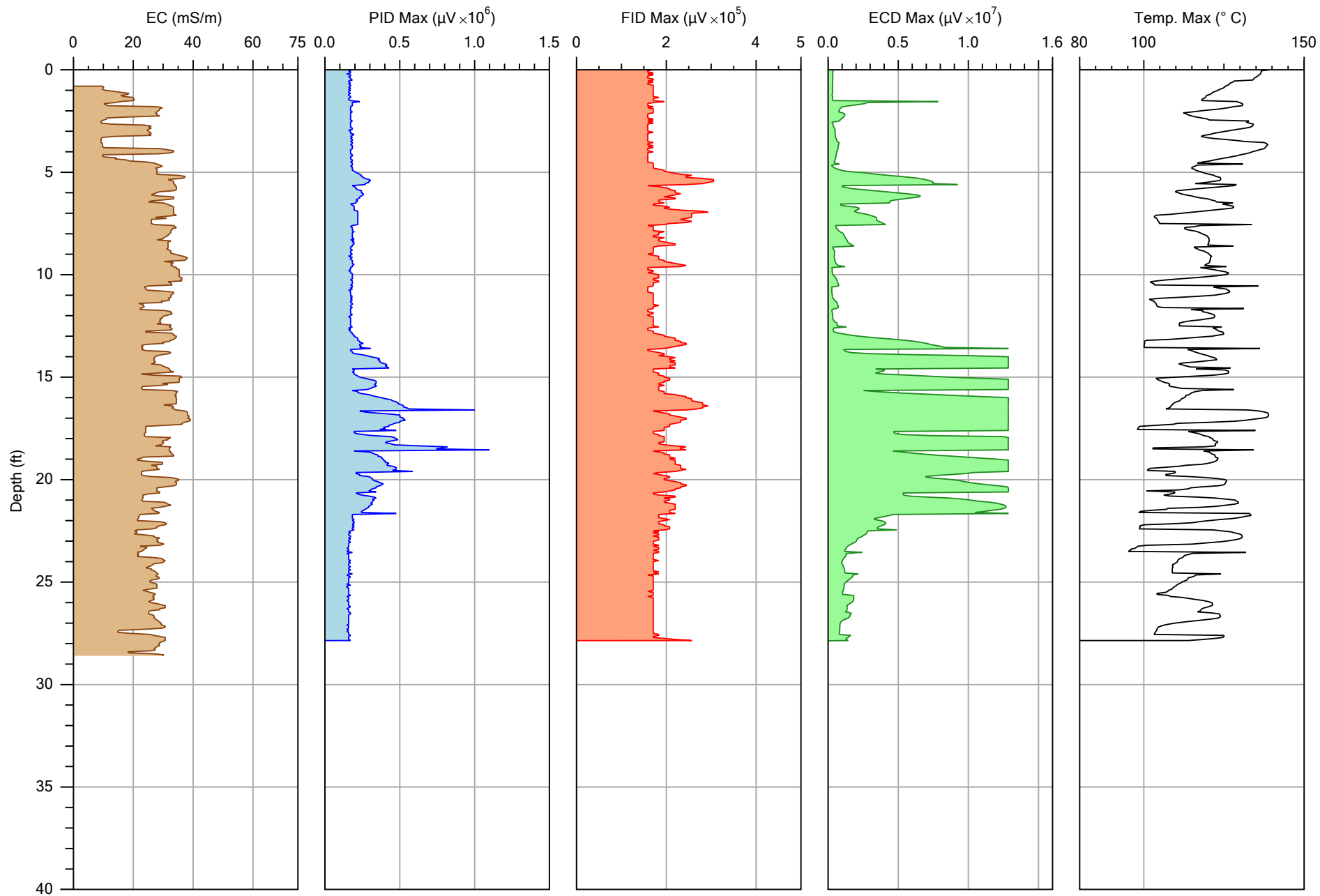
Operator:
RJT

Client:
Aztech Technologies

File:
MIP14.DAT

Date:
7/19/2013

Location:



Company:
COLUMBIA Technologies

Project ID:
Owego Heat Treat

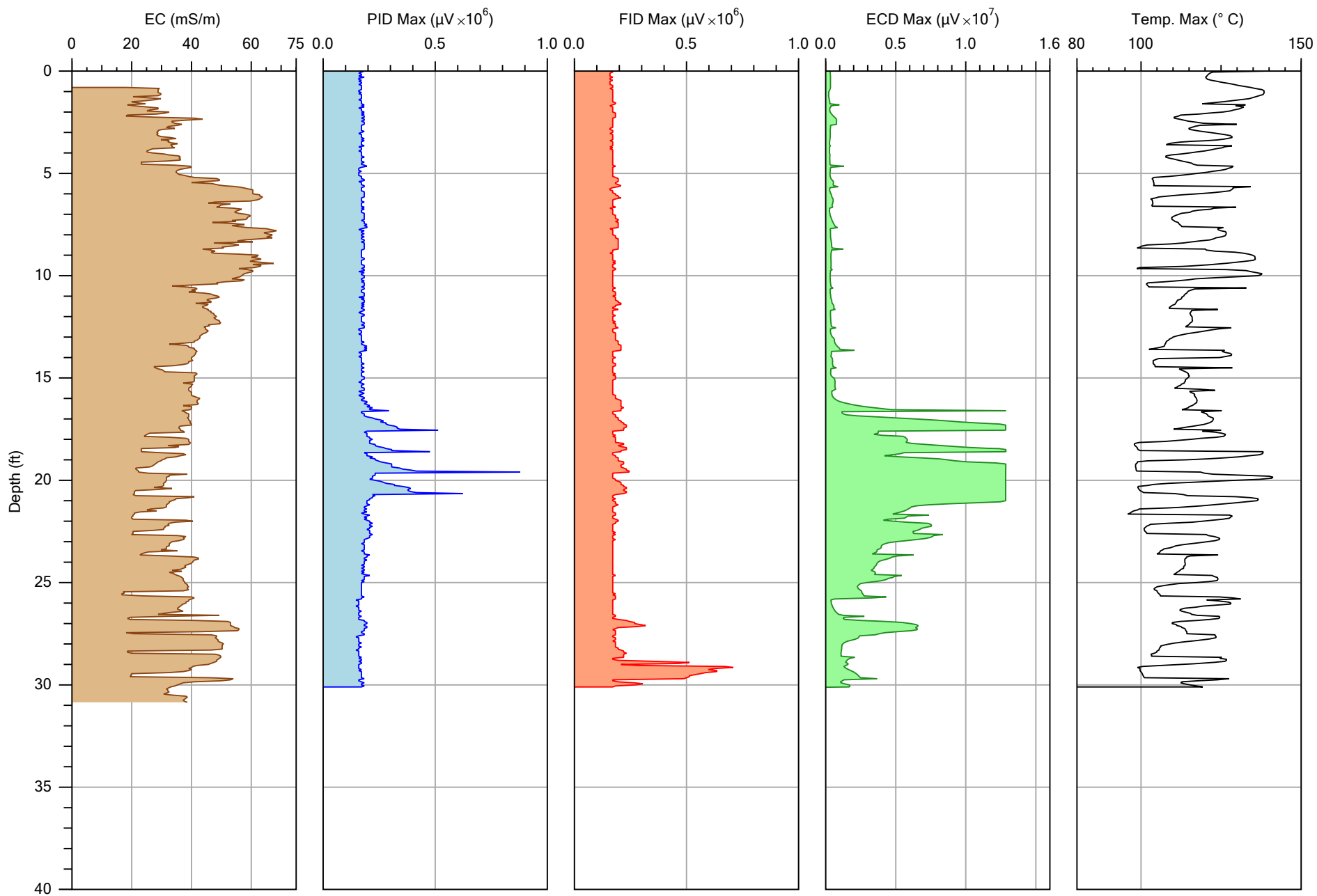
Operator:
RJT

Client:
Aztech Technologies

File:
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Date:
7/19/2013

Location:



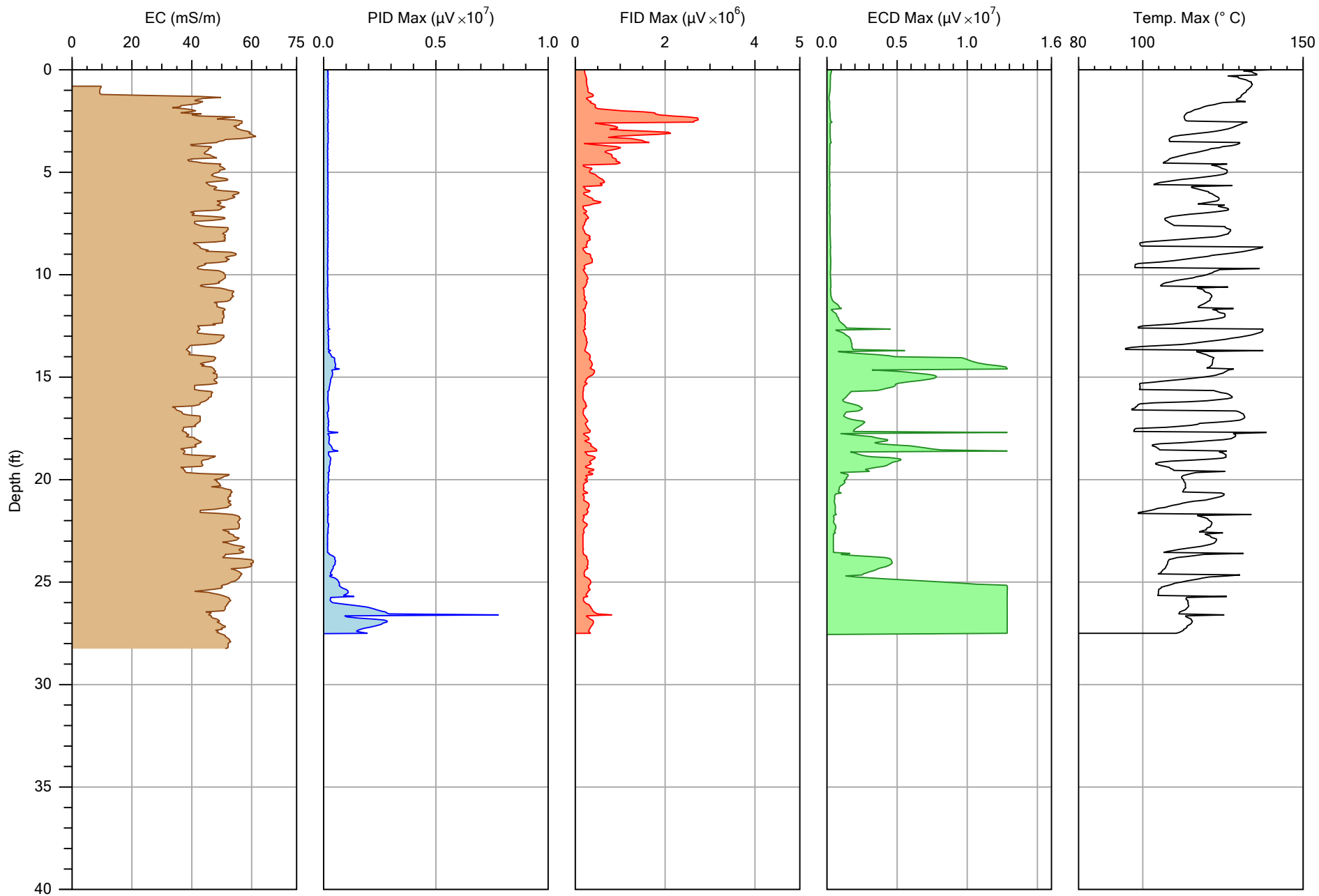
Company:
COLUMBIA Technologies

Operator:
RJT

Project ID:
Owego Heat Treat

Client:
Aztech Technologies

File:	MIP16.DAT
Date:	7/19/2013
Location:	



Company:
COLUMBIA Technologies

Operator:
RJT

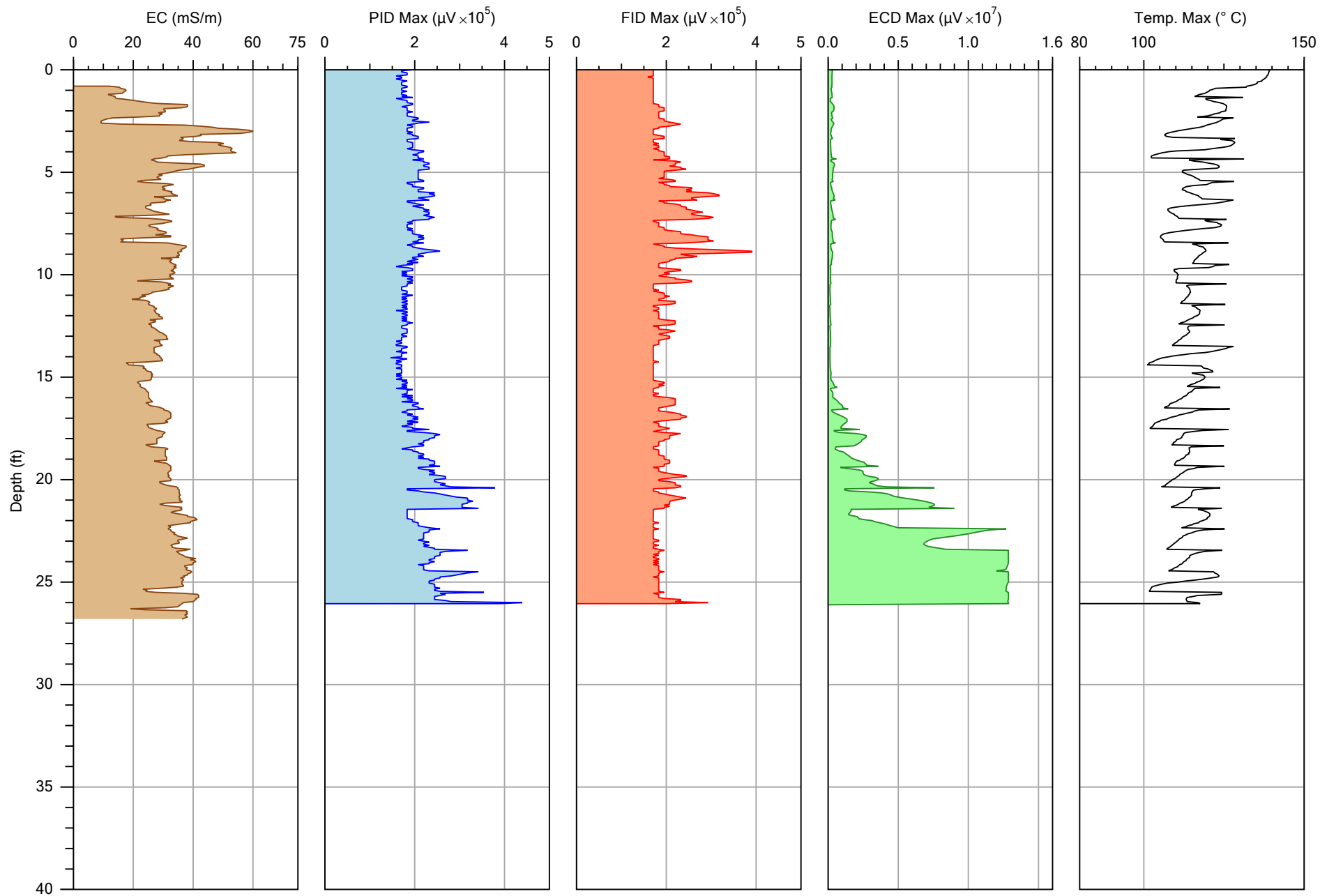
Project ID:
Owego Heat Treat

Client:
Aztech Technologies

File:
MIP17.DAT

Date:
7/19/2013

Location:



Company:
COLUMBIA Technologies

Project ID:
Owego Heat Treat

Operator:
RJT

Client:
Aztech Technologies

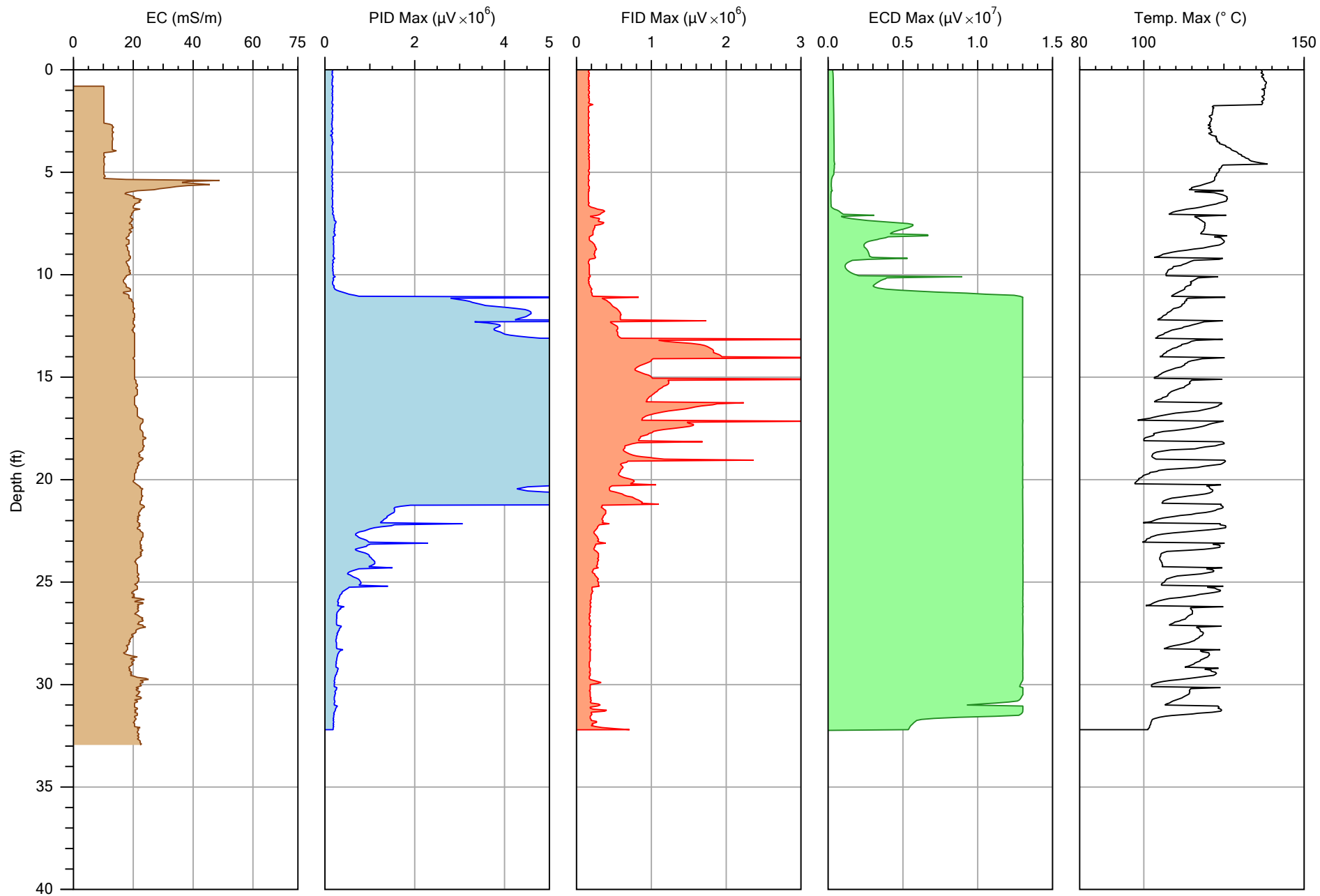
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Date:
7/19/2013

Location:

APPENDIX B

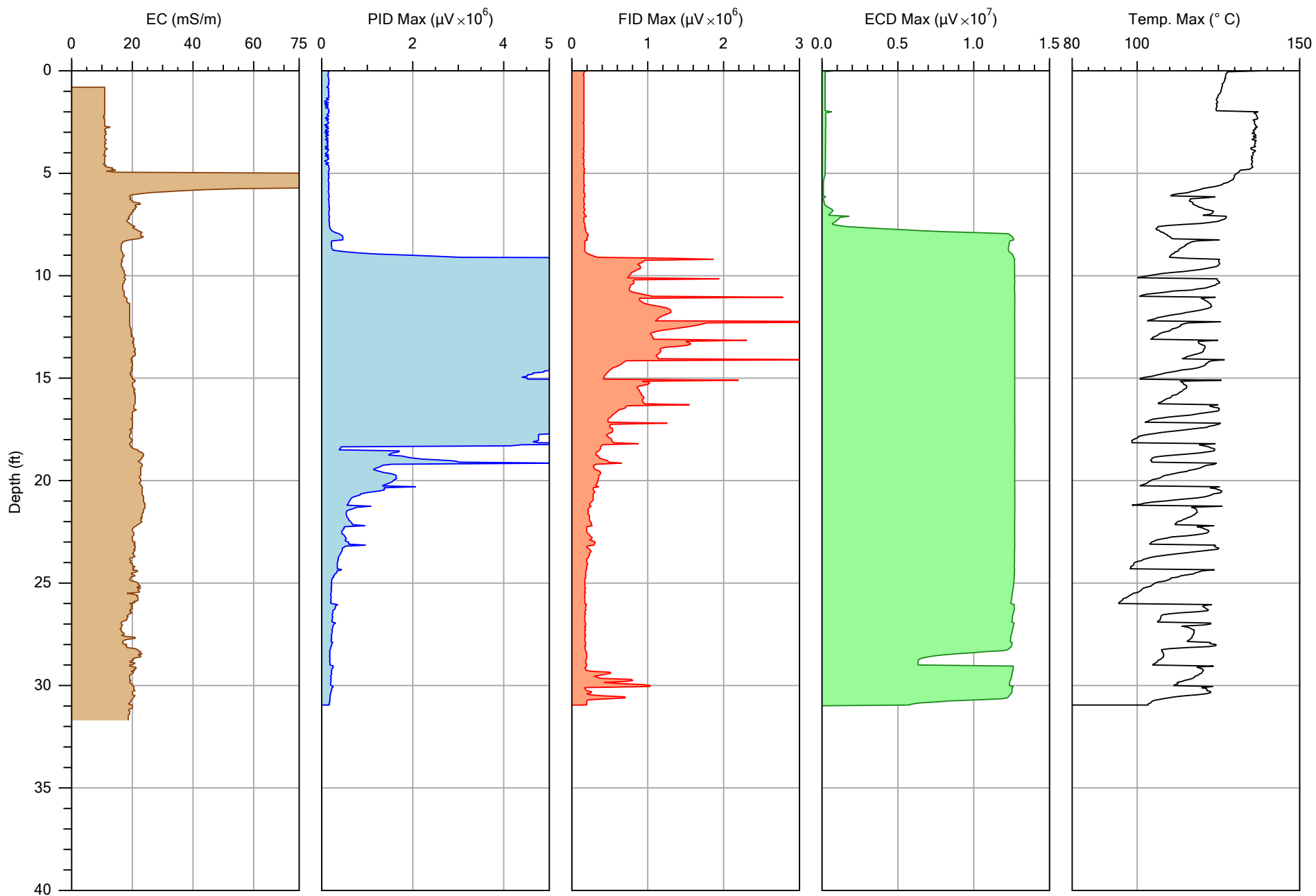
MIP Logs, Standardized Scale



Company:
COLUMBIA Technologies
Project ID:
Owego Heat Treat

Operator:
RJT
Client:
Aztech Technologies

File:	MIP01.DAT
Date:	7/15/2013
Location:	



Company:
COLUMBIA Technologies

Project ID:
Owego Heat Treat

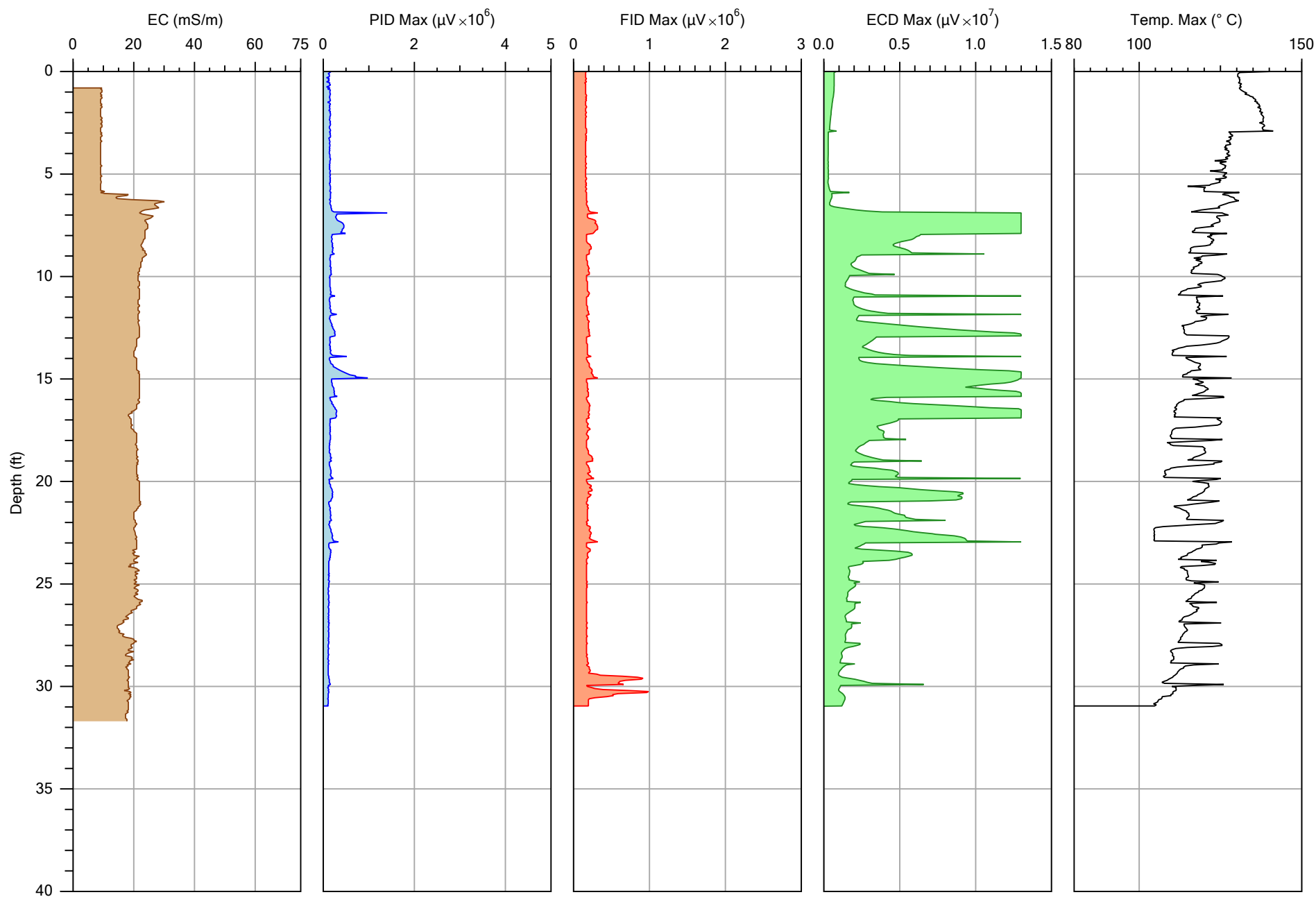
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RJT

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Aztech Technologies

File:
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Date:
7/15/2013

Location:



Company:
COLUMBIA Technologies

Project ID:
Owego Heat Treat

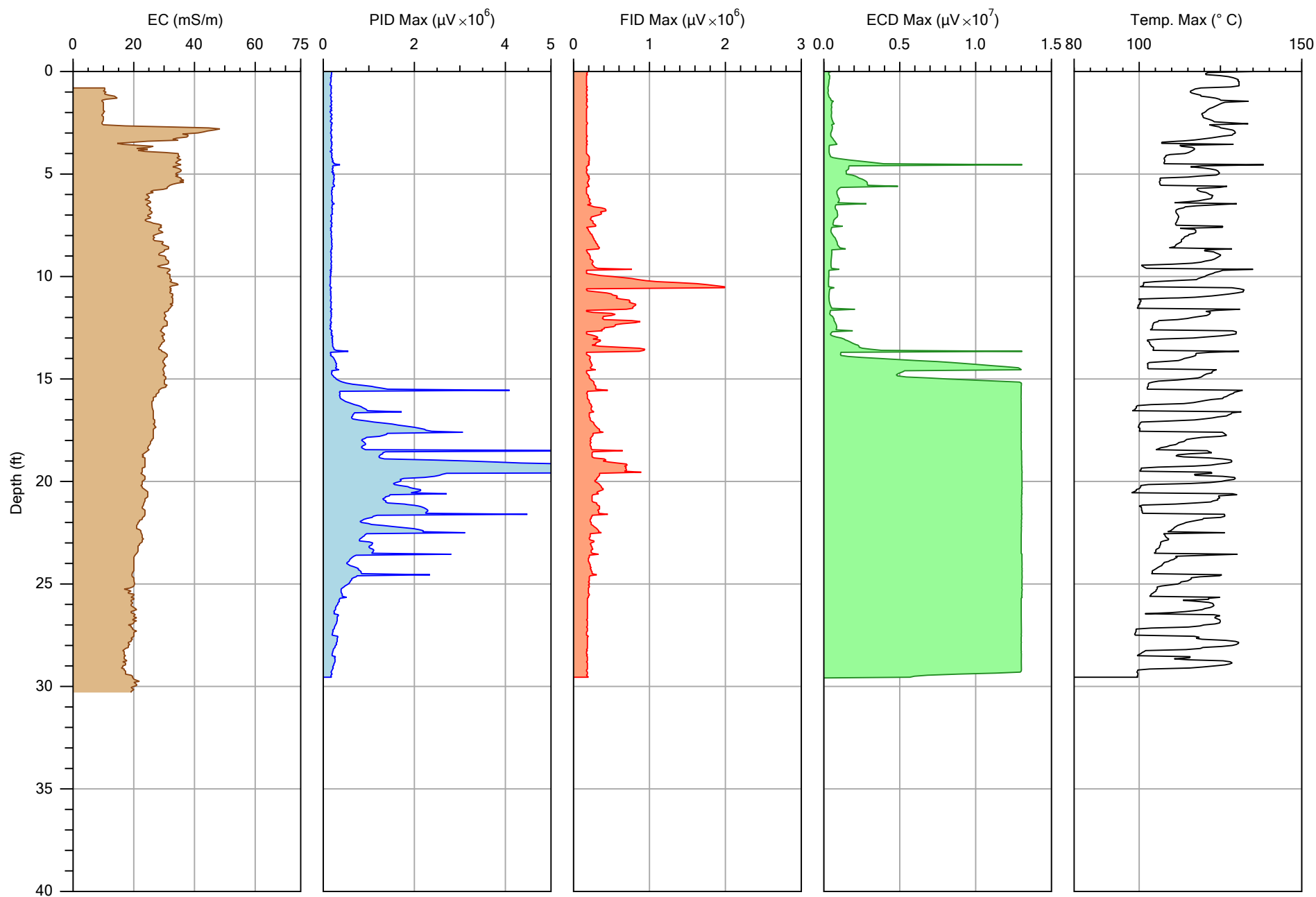
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File:
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Date:
7/16/2013

Location:



Company:
COLUMBIA Technologies

Project ID:
Owego Heat Treat

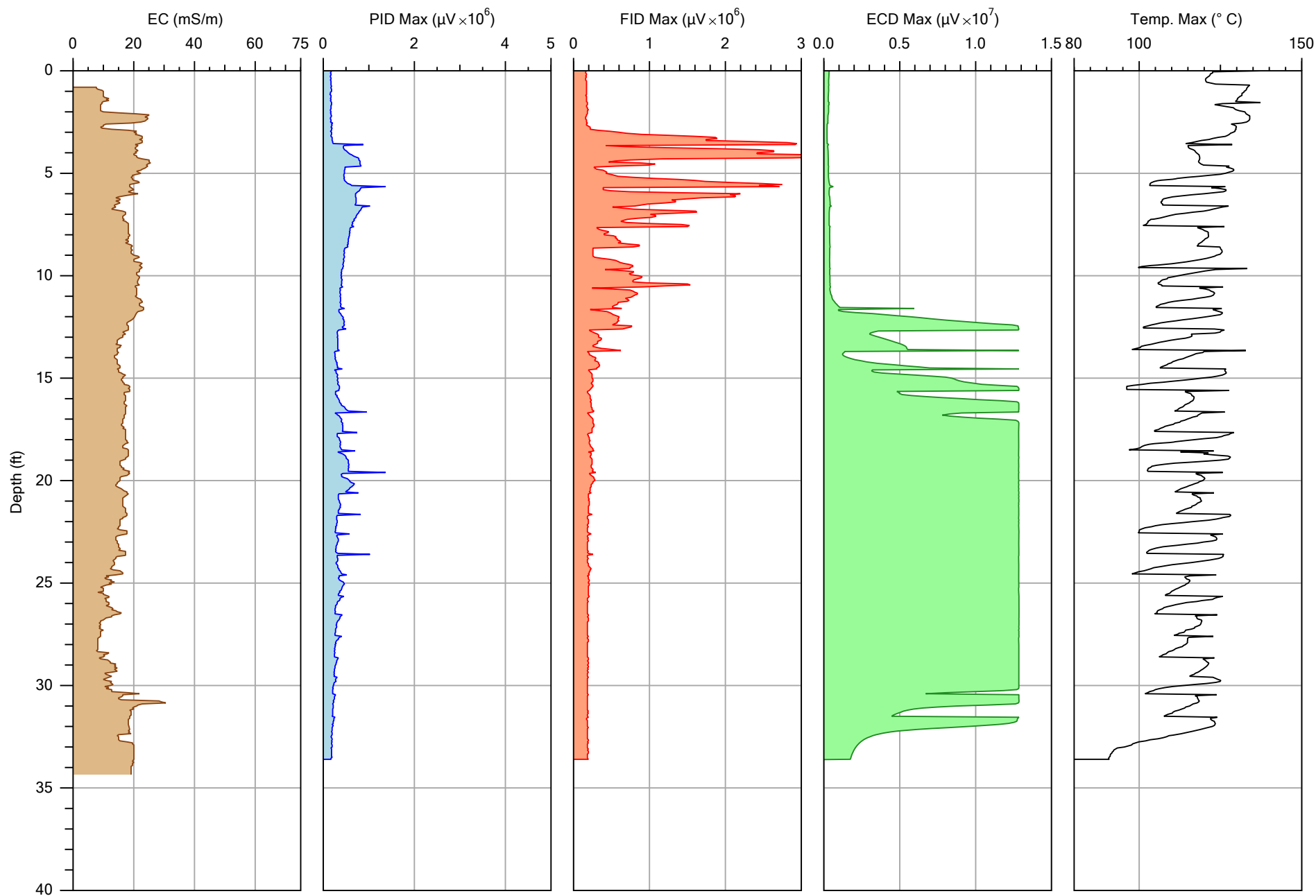
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Date:
7/16/2013

Location:



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COLUMBIA Technologies

Project ID:
Owego Heat Treat

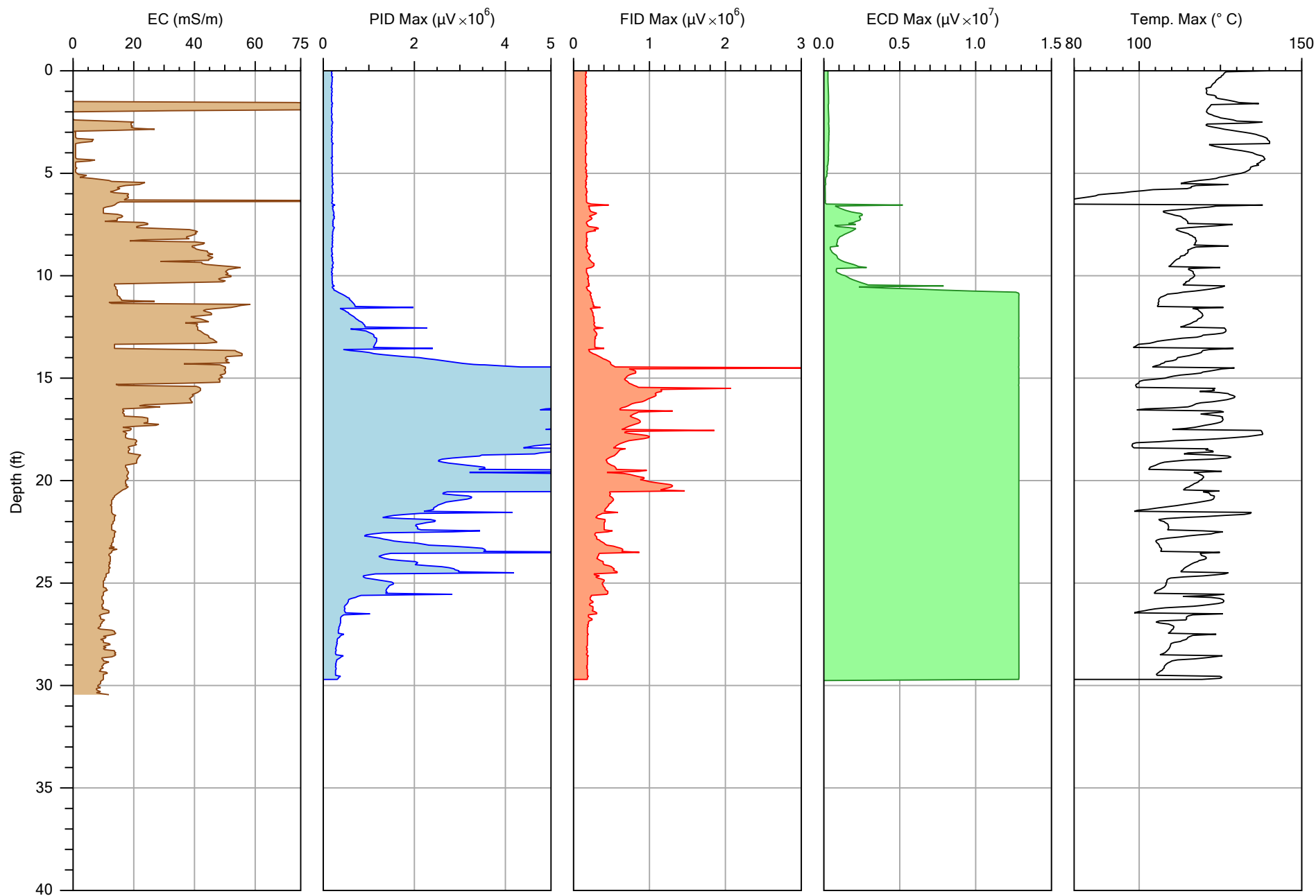
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Date:
7/17/2013

Location:



Company:
COLUMBIA Technologies

Operator:
RJT

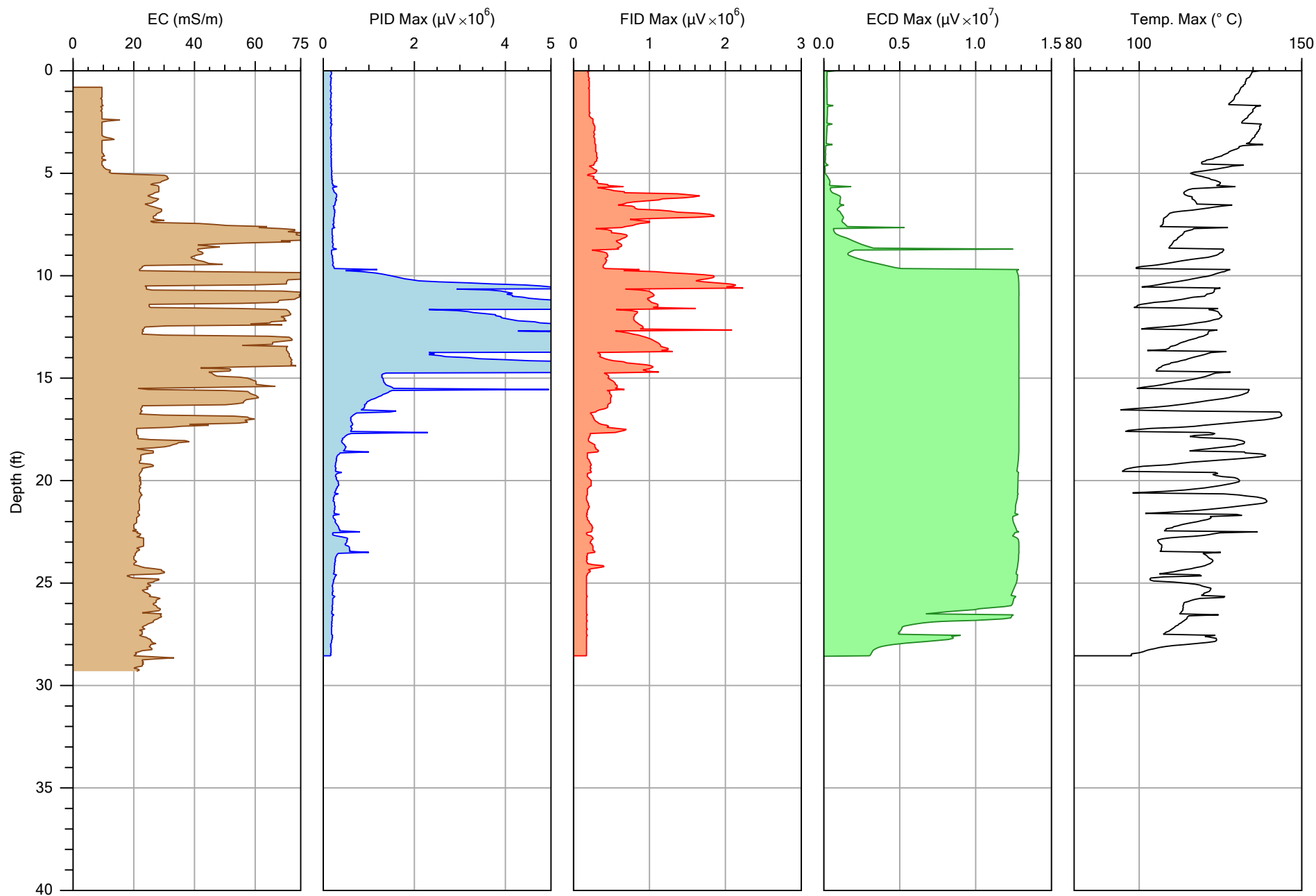
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Owego Heat Treat

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Aztech Technologies

File:
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Date:
7/17/2013

Location:



Company:
COLUMBIA Technologies

Operator:
RJT

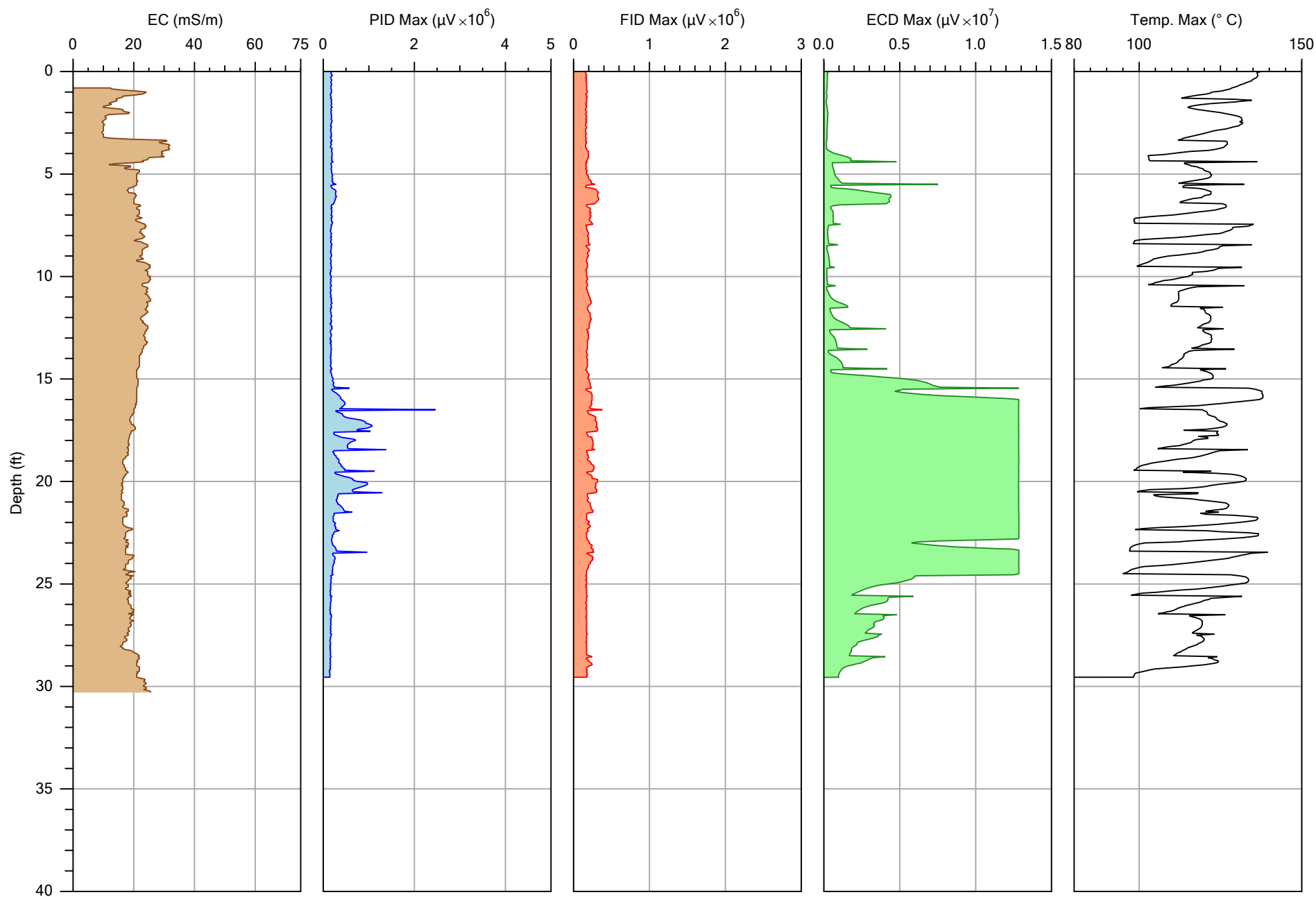
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Owego Heat Treat

Client:
Aztech Technologies

File:
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Date:
7/17/2013

Location:



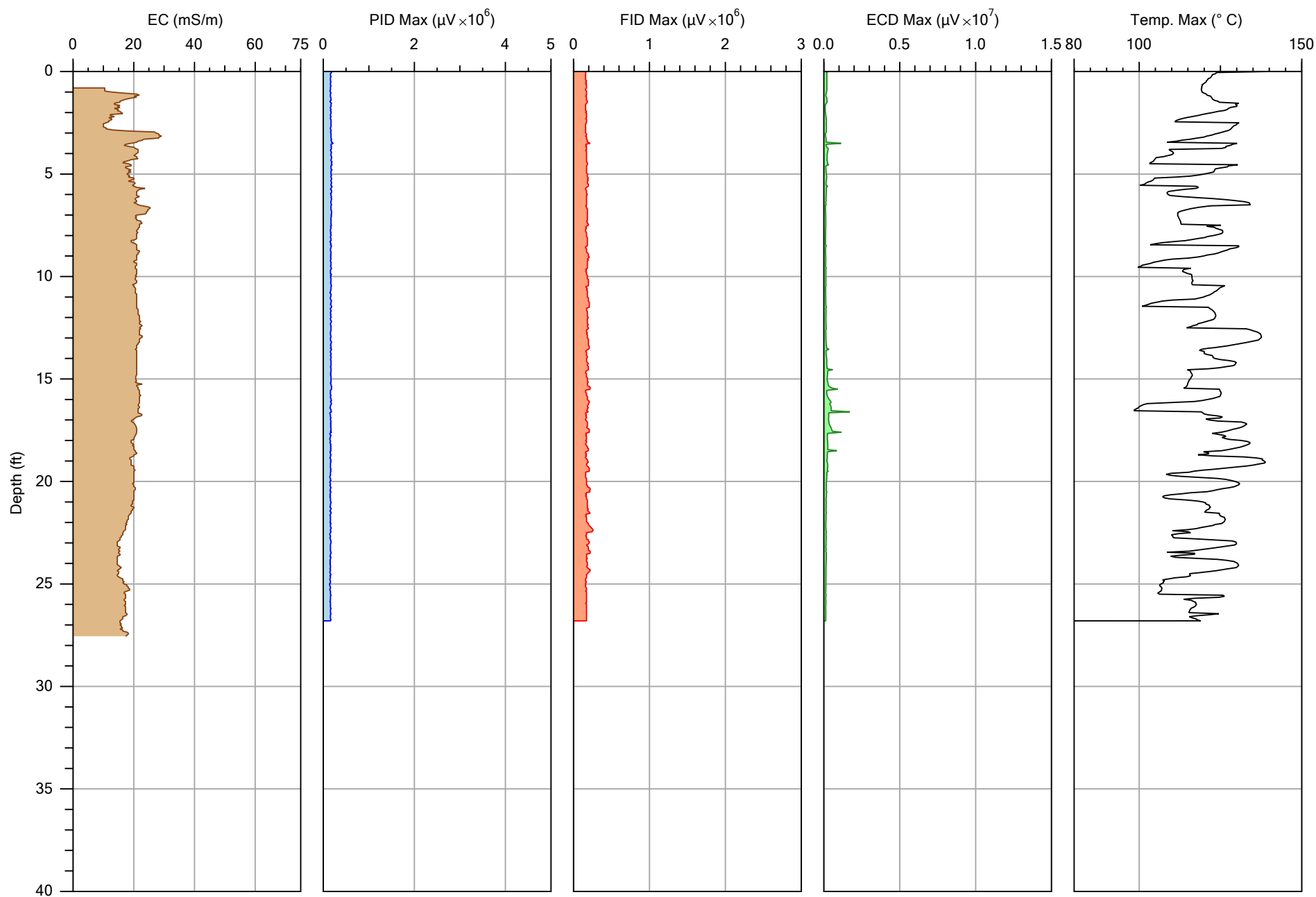
Company:
COLUMBIA Technologies

Project ID:
Owego Heat Treat

Operator:
RJT

Client:
Aztech Technologies

File:	MIP08.DAT
Date:	7/18/2013
Location:	



Company:
COLUMBIA Technologies

Operator:
RJT

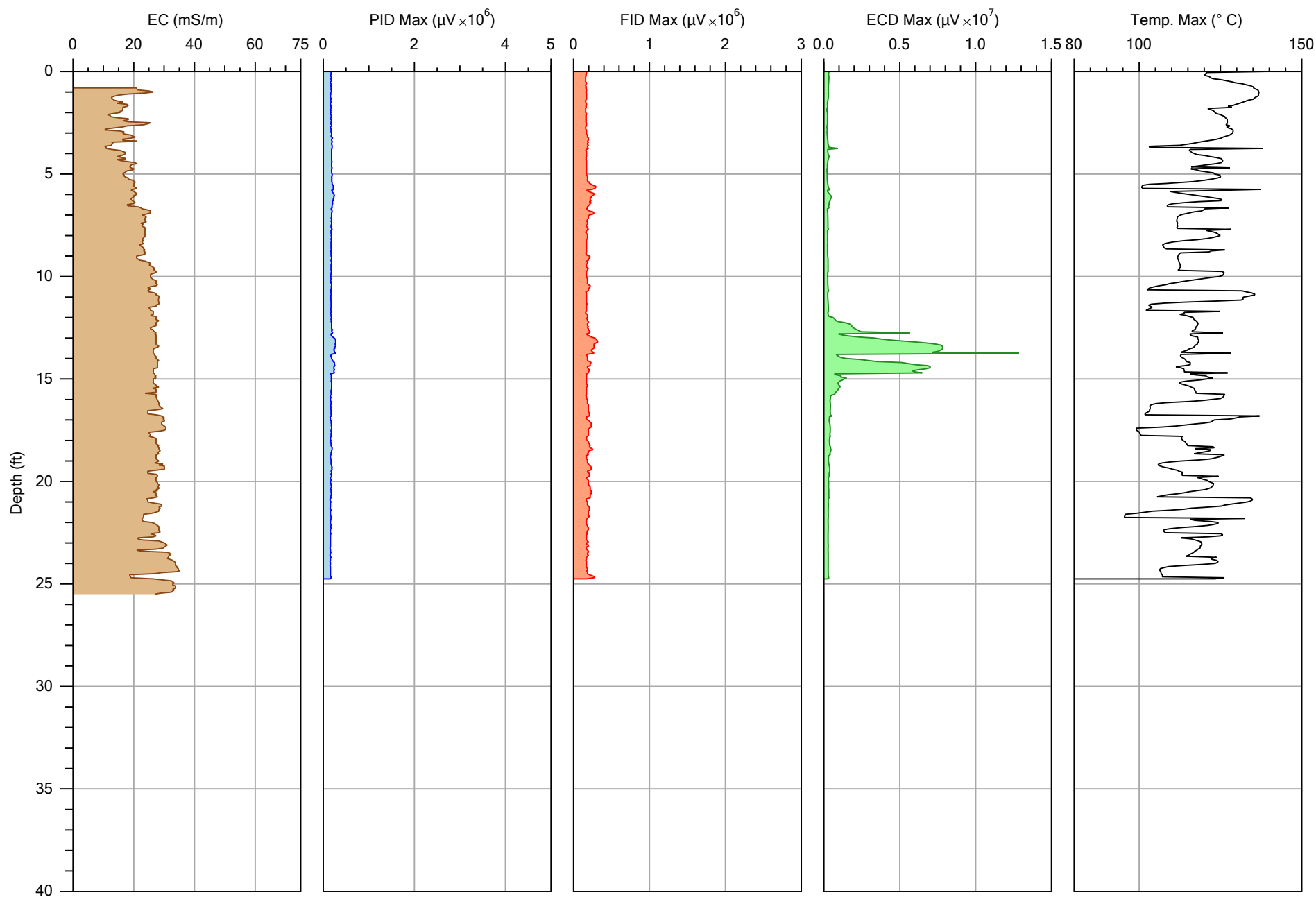
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Client:
Aztech Technologies

File:
MIP09.DAT

Date:
7/18/2013

Location:



Company:
COLUMBIA Technologies

Operator:
RJT

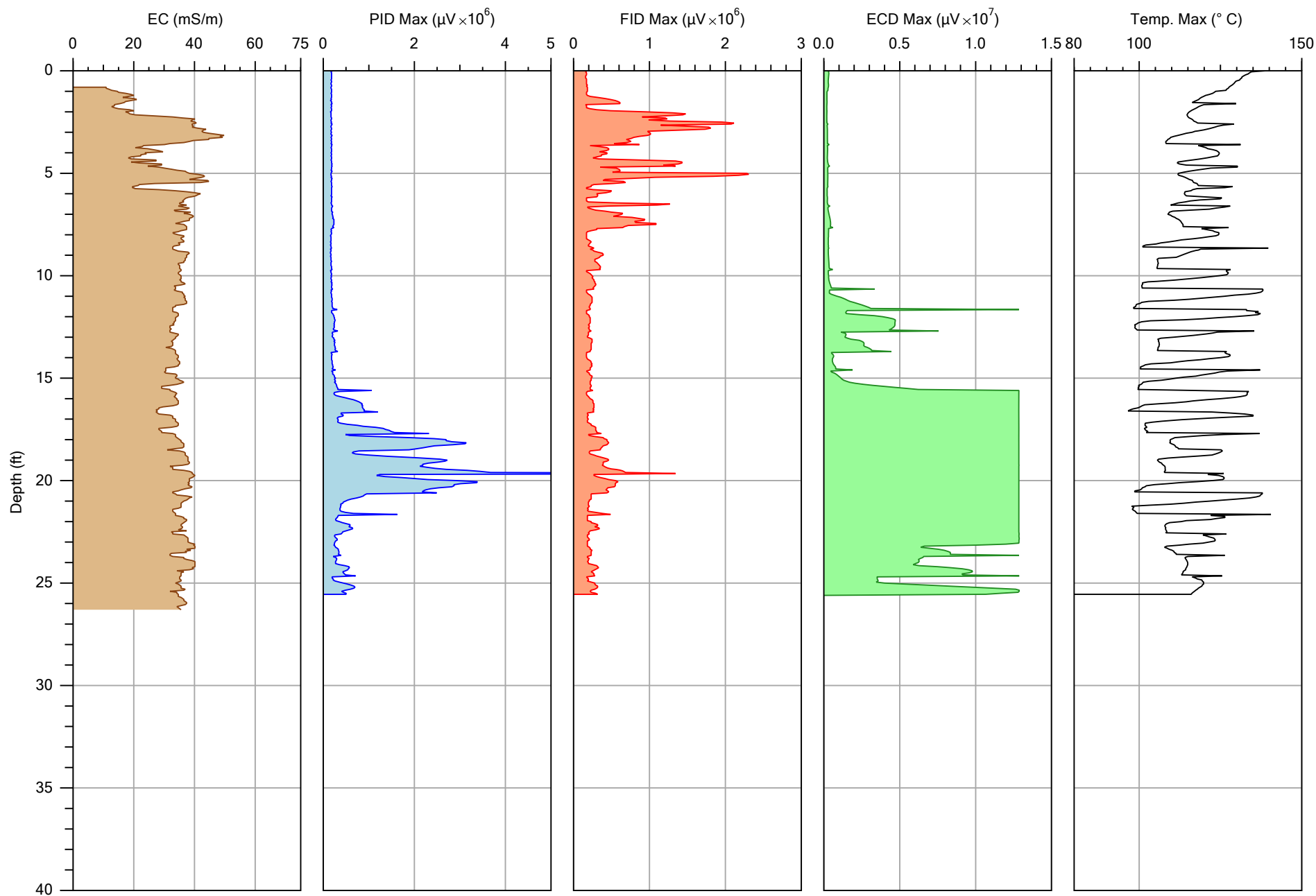
Project ID:
Owego Heat Treat

Client:
Aztech Technologies

File:
MIP10.DAT

Date:
7/18/2013

Location:



Company:
COLUMBIA Technologies

Project ID:
Owego Heat Treat

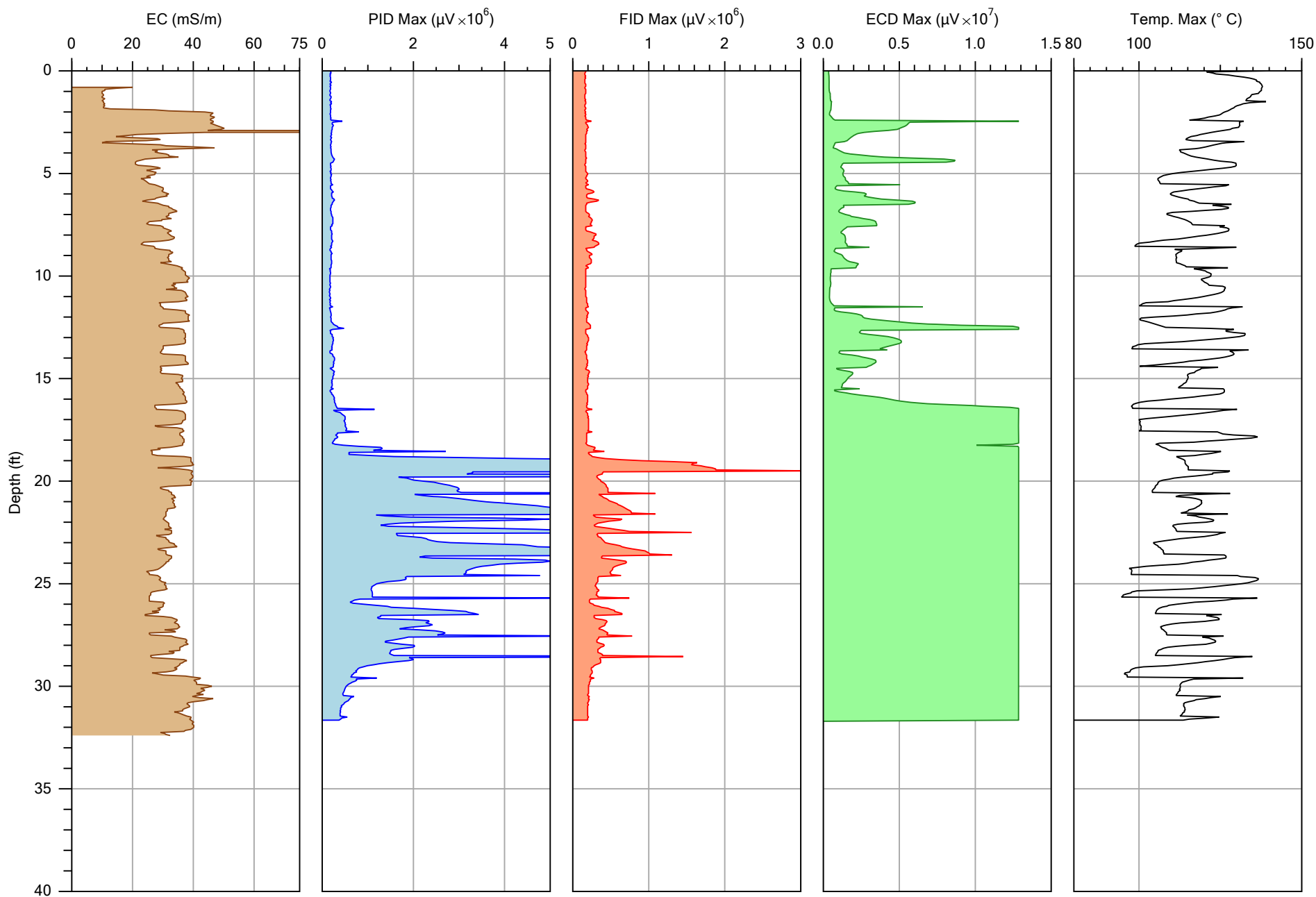
Operator:
RJT

Client:
Aztech Technologies

File:
MIP11.DAT

Date:
7/18/2013

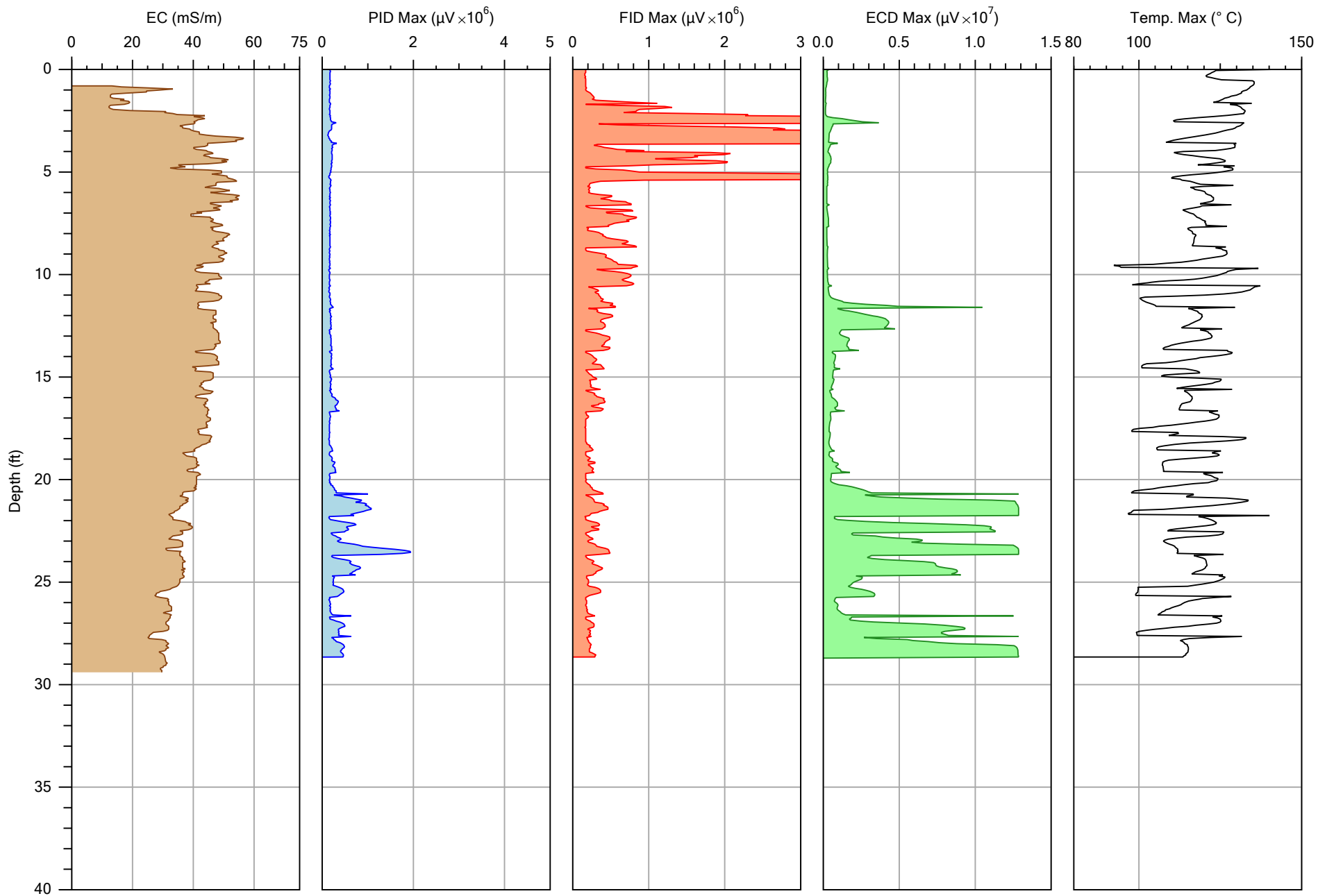
Location:



Company:
COLUMBIA Technologies
Project ID:
Owego Heat Treat

Operator:
RJT
Client:
Aztech Technologies

File:	MIP12.DAT
Date:	7/18/2013
Location:	



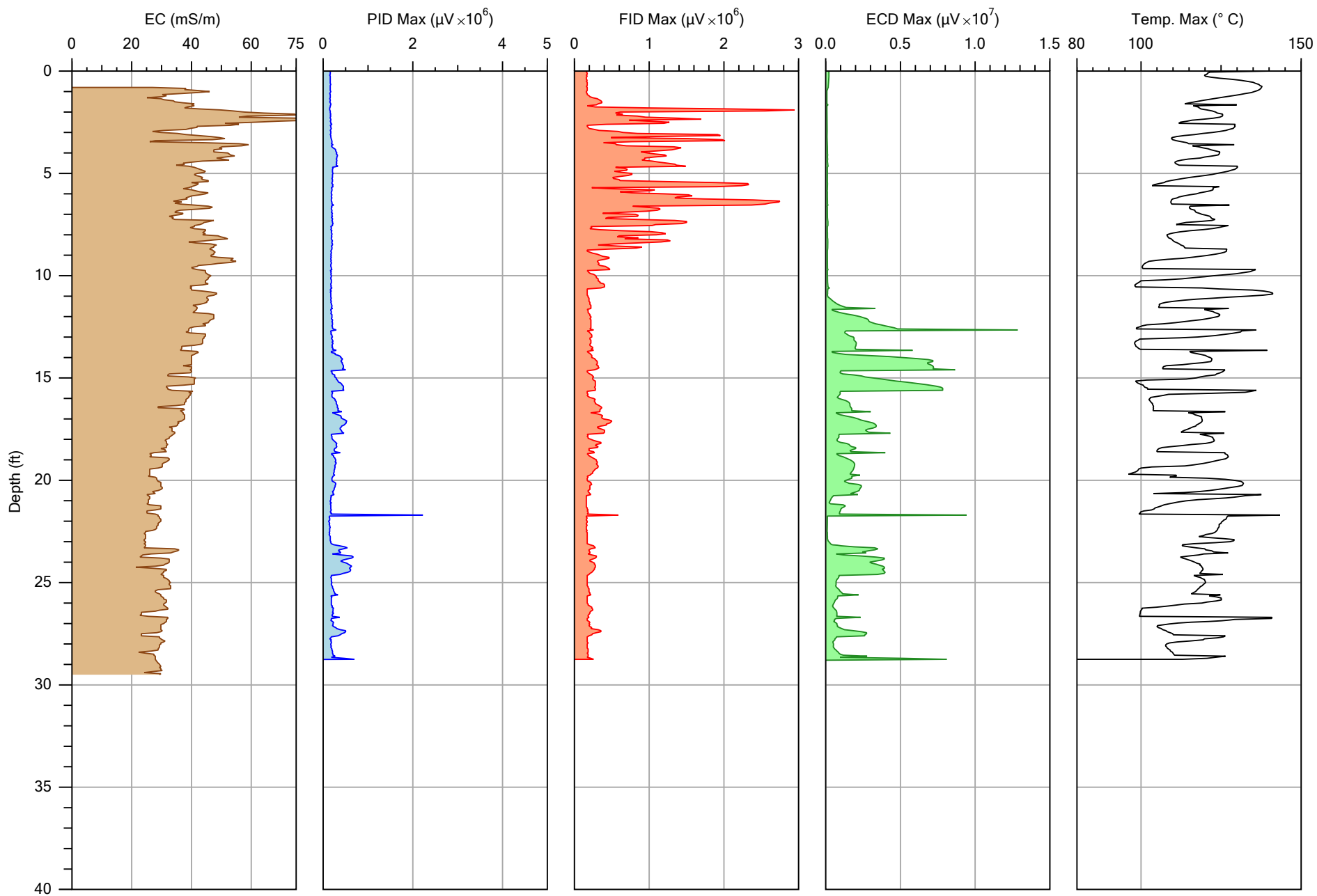
Company:
COLUMBIA Technologies

Operator:
RJT

Project ID:
Owego Heat Treat

Client:
Aztech Technologies

File:	MIP13.DAT
Date:	7/18/2013
Location:	



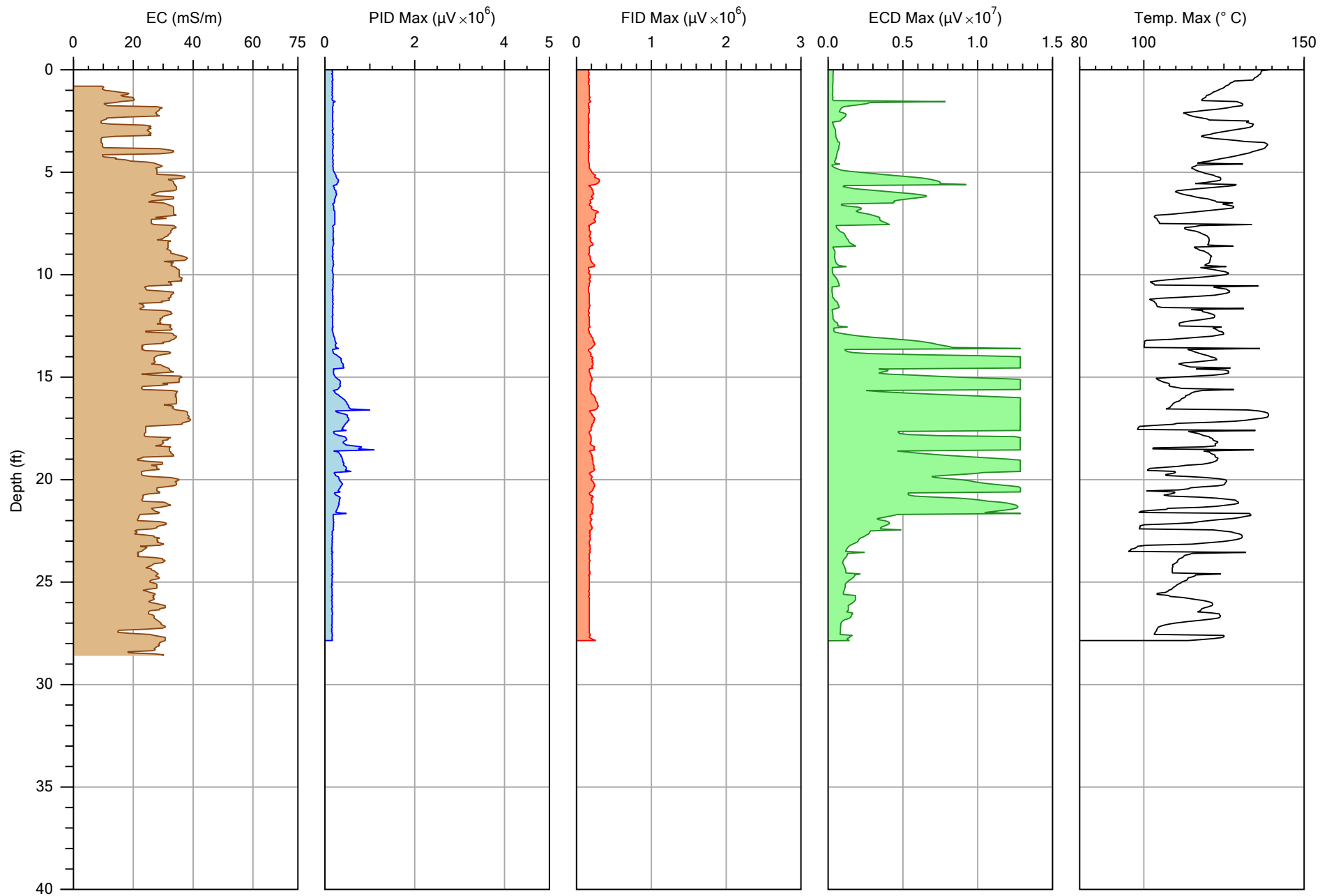
Company:
COLUMBIA Technologies

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RJT

Project ID:
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Aztech Technologies

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Date:	7/19/2013
Location:	



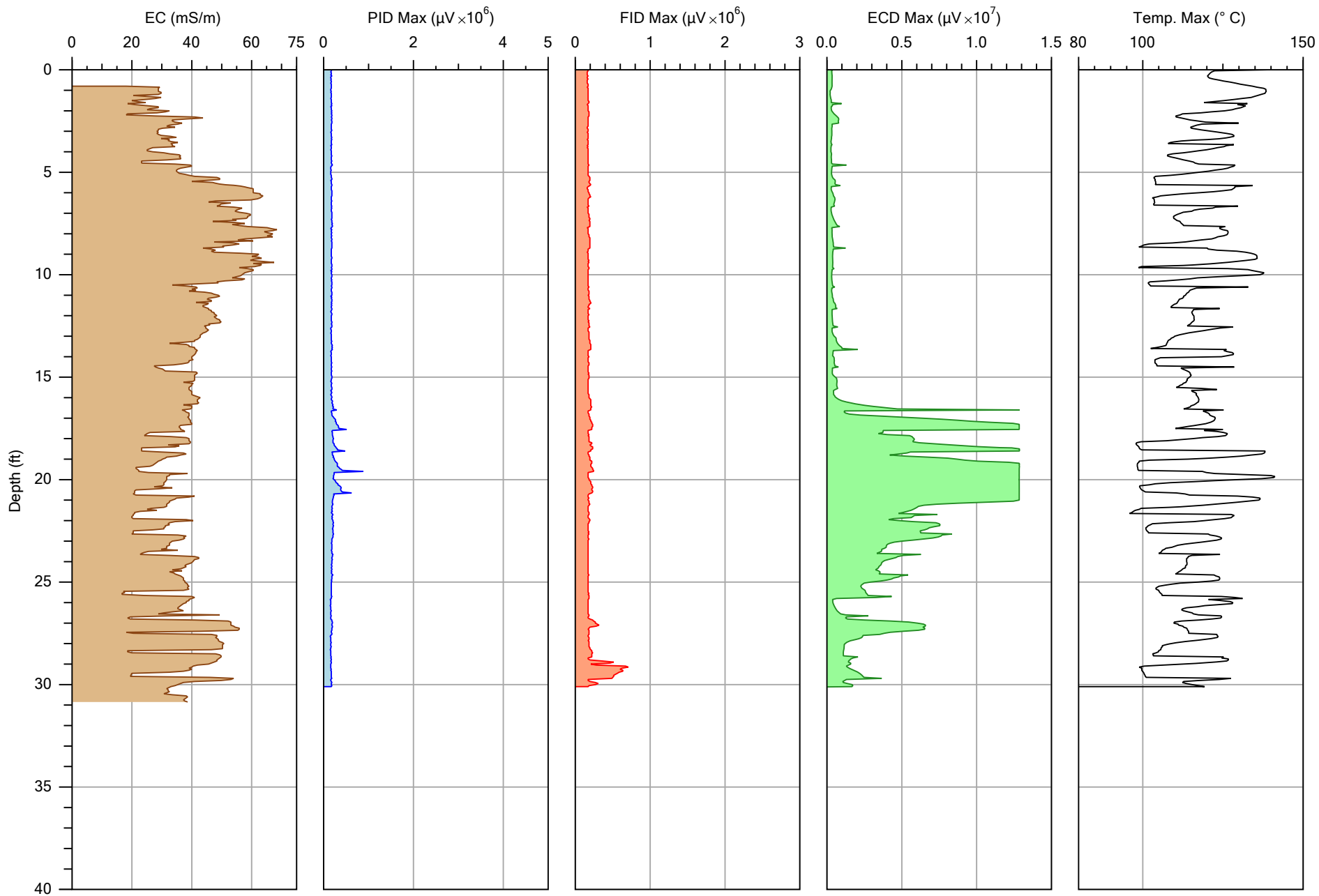
Company:
COLUMBIA Technologies

Operator:
RJT

Project ID:
Owego Heat Treat

Client:
Aztech Technologies

File:	MIP15.DAT
Date:	7/19/2013
Location:	



Company:
COLUMBIA Technologies

Operator:
RJT

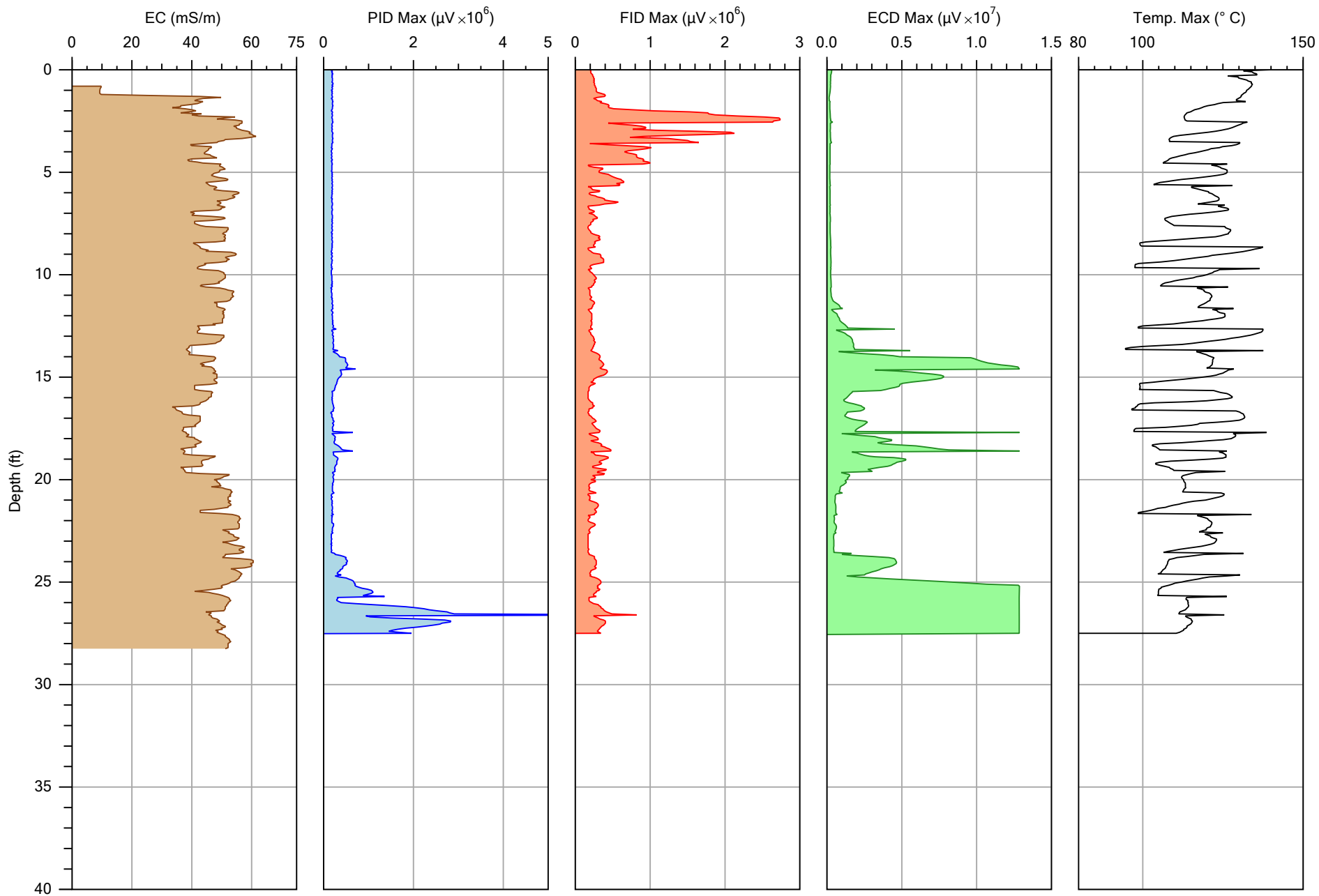
Project ID:
Owego Heat Treat

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File:
MIP16.DAT

Date:
7/19/2013

Location:



Company:
COLUMBIA Technologies

Project ID:
Owego Heat Treat

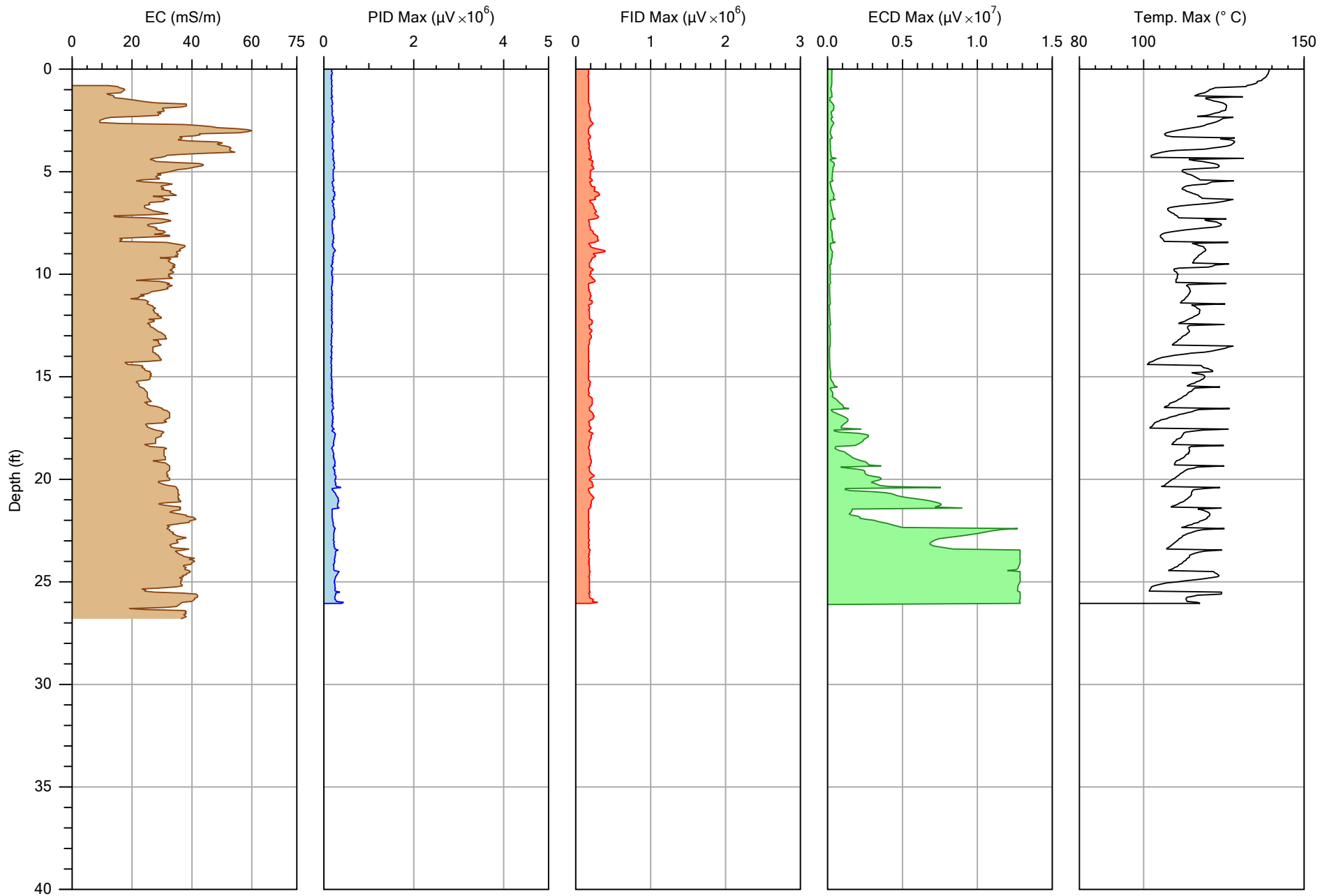
Operator:
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Client:
Aztech Technologies

File:
MIP17.DAT

Date:
7/19/2013

Location:



Company:
COLUMBIA Technologies

Operator:
RJT

Project ID:
Owego Heat Treat

Client:
Aztech Technologies

File:	MIP18.DAT
Date:	7/19/2013
Location:	