

Penn's Trail Environmental, LLC

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February 23, 2024

RE: Phase II Geophysical Investigation

1151 N. Broad Street Site Hatfield Township, Montgomery Co., PA PTE# 6740

Penn's Trail Environmental, LLC has completed the Phase II Geophysical Investigation of the 1151 N. Broad Street site. The investigation did not identify metal anomalies on the site indicative of buried underground tank(s). The investigation also included confirming no hazardous material discharges were evident on the site, existing and former inground lifts were marked out, the garage floor drains are connected to public sewer and that the soil and rock cuttings from the monitoring wells installation are considered clean fill. The following provides details of the investigation.

The Phase II Geophysical Investigation work was initiated due to the findings of the Phase I Environmental Assessment of the Harris Site completed on May 21, 2019 by Boucher & James, Inc. The Phase I Environmental Assessment noted that two underground tanks, a gasoline and waste oil/#2 fuel oil, were reportedly removed from the property with limited documentation of their removal. The Phase I also noted the potential for hazardous material discharges from the aboveground waste oil tank and other containers noted on the site, existing inground lifts and removed lifts which lacked documentation or confirmation testing and whether the garage floor drains are connected to the public sewer system. As a follow up to the Phase I Assessment monitoring wells were installed on the site to determine the overall groundwater quality. The results for the monitoring well testing is provided in a August 22, 2019 letter report by Boucher & James, Inc. The report notes that the soil and rock cuttings, stored in drums, from the monitoring wells installation is clean fill unless the materials have a overwhelming petroleum odor.

The geophysical investigation primary investigative tools included a ground penetrating radar (GPR) scan and electromagnetic (EM) scan. The GPR scan is used to identify underground features such as previous excavations and utilities. The EM scan is used to identity underground metal anomalies. A copy of the geophysical report is attached and provides additional details.

The geophysical investigation focused on the areas surrounding the existing building as well as interior / garage portion of the structure. Investigation of the exterior parking lot revealed several underground utilities, primarily west and south of the structure. Two metal anomalies were noted however neither were large enough to represent a storage tank. One area was identified as previously having been excavated. This location corresponds with the location (east side of building) of an underground gasoline tank noted on older site plans. No other excavations were identified, however, two copper tubes were noted protruding from the floor in the east portion of the garage. The copper tubes are similar to supply and return lines for fuel oil tanks. Based on this information it appears a past addition to the building was constructed

Phase II Geophysical Investigation 1151 N Broad Street

over the fuel oil tank and that a newer reinforced concrete pad in the eastern garage bay is the apparent location of the former tank.

During the geophysical investigation the area of the aboveground waste oil tank as well as other exterior and interior portions of the building were inspected for indications of discharges of hazardous materials. None were noted and the majority of the hazardous material containers previously noted within the building have been removed.

Within the garage portions of the structure the areas of the former removed lifts were delineated and the existing hydraulic lines were marked out.

GPR scanning of the interior of the building, as well as the use of tracer dye, indicate that the garage floor drains within the central portion of the building are connected to the public sewer system piping toward the front of the building. Floor drains in south portion of the building are connected to a pump tank located immediately south of the structure. The pump tank discharges to a line which runs along the western side of the building discharging to the public sewer line near the front of the property.

Lastly the soil and rock cuttings in the drums were inspected. The previously noted letter from Boucher & James, Inc. indicated the material in the drums could be considered clean fill as long as the materials did not have a petroleum odor. All of the drums were opened and none of the materials had a petroleum odor. Therefore the soil and rock cuttings in the drums can be considered clean fill.

If you require further details concerning our investigation, please feel free to contact me.

Sincerely;

Penn's Trail Environmental, LLC by;

Mr. Terry Harris

Environmental Science Division Manager

Attachment



Summit Drilling, LLC 81 Chimney Rock Road Bridgewater, NJ 08807 Phone: (888)-204-3266 Fax:

February 19, 2024 Report number R4762

Terry Harris
Penn's Trail Environmental, LLC
21 E. Lincoln Ave.
Suite 160
Hatfield, PA

Subject: Geophysical Investigation Results

1151 N Broad St, Lansdale, PA 1150 N Broad St, Lansdale, PA

Dear Terry,

Summit Drilling, LLC (Summit), has prepared this report for Penn's Trail Environmental, LLC(PennTrail) of Hatfield, PA to describe the methods and results of a geophysical investigation conducted at the Lansdale sites. The sites consist of an auto dealership. The investigation area for this project was located throughout the two properties. The field work for this investigation was completed by Summit on January 30, 2024 and January 31, 2024.

Objectives

The primary objective of this investigation was to locate metallic anomalies and anomalous features. Summit was also tasked with locating potential buried utility pipelines or anomalies directly below and in the immediate vicinity of twenty-two (22) proposed drilling locations. To meet this objective, Summit used a GSSI SIR 4000 GPR data acquisition system with a 350-megahertz (MHz) ground-penetrating radar (GPR) antenna, a hand-held electromagnetic (HHEM) Fisher TW-6 M-Scope and an RD8000 radio frequency (RF) device by Radiodetection, Inc.

Instrumentation

Ground Penetrating Radar (GPR)

Ground penetrating radar (GPR) is a near surface geophysical method based on the transmission of repetitive, high-frequency electromagnetic (EM) pulses emitted from a transmitting antenna to probe the Earth. The EM pulses emitted from the transmitting antenna propagate through the subsurface at a velocity that is directly related to the electrical properties of the subsurface. When an EM wave contacts an interface of differing electrical properties (e.g., dielectric constant), part of that energy is returned to the surface in the form of a reflected signal. The reflected signal is detected by a receiving transducer, displayed on the control screen, and recorded on an internal hard drive. The control unit records a continuous cross-section of the subsurface by plotting the two-way travel time of the EM pulse, relative to the distance traveled by the GPR antenna along to the ground surface. To determine depth, two-way travel time values are converted using known soil velocity functions. GPR field procedures include:

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system calibration, test run completion, and profile collection and interpretation. GPR data collected in the field can be analyzed both in the field and in the office, should further analysis be required.

Radio Frequency Method (RF)

The instrument consists of a receiver/tracer and a remote transmitter, which operates at frequencies between 8 kilohertz (kHz) and 200 kHz. The unit provides audio and visual feedback to the operator when a utility that is coupled with the transmitted signal is crossed. The transmitter provides a radio-frequency signal in the utility to be traced by either induction coupling or direct hookup. The receiver output provides measured field strength of the received signal and varies an audible pitch that is dependent upon the distance to the utility. By carefully adjusting the gain of the receiver, it is possible to determine the location of the utility and to separate it from possible adjacent utilities. In addition, the receiver can be used in 60kHz passive mode to identify active electrical lines or lines that possess an induced current.

Fisher TW-6 M-Scope

The M-Scope is an EM instrument used to detect the presence of buried metallic objects such as buried drums, metallic conduits, or miscellaneous metallic debris buried within the upper 3 to 5 feet of the subsurface. The Fisher M-Scope uses the principles of electromagnetic induction. A primary coil broadcasts a radio signal from a transmitting antenna, and induces secondary electrical currents along buried metallic objects. The secondary electrical current in turn produces a secondary magnetic field, which is then detected by a receiving antenna. Peak responses are observed when the instrument is moved directly over a metallic object. Peak responses are observed by the operator in real time using the analog meter and audible output signals.

Results and Discussions

Proposed Drilling Locations

Summit investigated a total of twenty-two (22) proposed exterior drilling locations. All of the final boring locations displayed geophysical characteristics which did not indicate the presence of a buried utility pipeline/corridor or anomalous GPR features that may adversely impact drilling operations. Summit determined these locations as final when the RF and GPR instrument responses did not indicate the presence of potential buried objects. Proposed boring locations were marked on the ground with paint as a dot inside of a circle. The boring locations are indicated on **Figures 1-2**.

EM (Metallic) and GPR Anomalies

Summit detected a total of four anomalous features within the survey areas. Of the four, two were found to contain elevated EM values (A1 and A2). The remaining anomalies (E1 and E2) did not contain any elevated metallic readings. The table below (**Table 1**) contains details of the anomalies including a brief description of noteworthy features identified on the date of the field survey. The anomalies were

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delineated using the EM instruments, scanned using the GPR unit, and field marked using paint and pin flags. Summit also detected several areas containing steel-reinforced concrete. While no additional UST-style anomalies were detected under the reinforced slabs, the steel-reinforcement negates the use of the EM instrument and severely limits the effectiveness of GPR. As a result of this, Summit can never eliminate the possibility of a UST or any metallic structure beneath any steel-reinforced slab.

Table 1: EM and GPR Anomaly Descriptions

Anomaly	GPR and EM Description	Transect #
A1	5' x 3' EM anomaly containing a layer-style GPR anomaly at ~1.5' bgs	/
A2	4' x 4' EM anomaly containing a point-style GPR anomaly at ~1.5' bgs /	
E1	24' x 10' Nonmetallic excavation-style GPR anomaly /	
E2	24' x 21' Nonmetallic excavation-style GPR anomaly	/

Buried Utilities

Summit identified several buried utility pipelines throughout site including private electric, hydraulic lift piping, water, gas, storm sewer, and sanitary sewer drain lines. Additionally, several unknown linear pipe-style GPR anomalies were also detected within the survey areas. All detected piping was marked in the field using a combination of chalk, spray paint, and colored pin flags. The lines are annotated on the attached figures following the American Public Works Association (APWA) uniform color code standards for utility mark-outs. See **Table 2** below for APWA color code standards.

Table 2: APWA Uniform Color Code Standards for Utility Mark-outs

Color		Designation
Red		Electric power lines, cables or conduit
Orange		Telecommunication, alarm and signal lines
Green		Sanitary or storm sewer, drainage lines
Yellow		Gas, oil, steam, petroleum, or gaseous material
Blue		Potable water lines
White		Proposed intrusive work (drilling/ excavating)
Pink		Temporary survey markings/ geophysical anomaly
Purple		Reclaimed water, irrigation, and slurry lines

Data Quality and Closing

The GPR data quality for this project was poor. Penetration of GPR signals within the subsurface in the investigation areas on this project extended to a depth of approximately 3' below ground surface. The RF instrument encountered minimal interference throughout the property.

The interpretations made in this report are based on measured geophysical responses and visual observations made in the field using the best available equipment and techniques. The geophysical data collection and interpretation methods used in this investigation are consistent with standard practices applied to similar geophysical investigations. The correlation of geophysical responses is based on past results of similar surveys, although it is possible that some variation could exist at this site. Due to the nature of geophysical data, no guarantees have been made or inferred regarding the presence or

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absence of additional objects or targets beyond those identified or beyond the detection limits of the instrumentation used in this investigation. Summit does not accept responsibility for survey limitations due to inherent technological limitations or unforeseen and varying site-specific conditions. In practical terms, Summit serves to reduce the risk of encountering subsurface infrastructure during intrusive operations or greatly increase the chance of locating underground targets depending on the goal of the project.

If you should have any questions or concerns, please do not hesitate to contact us.

Sincerely,

Summit Drilling, LLC Geophysics Group

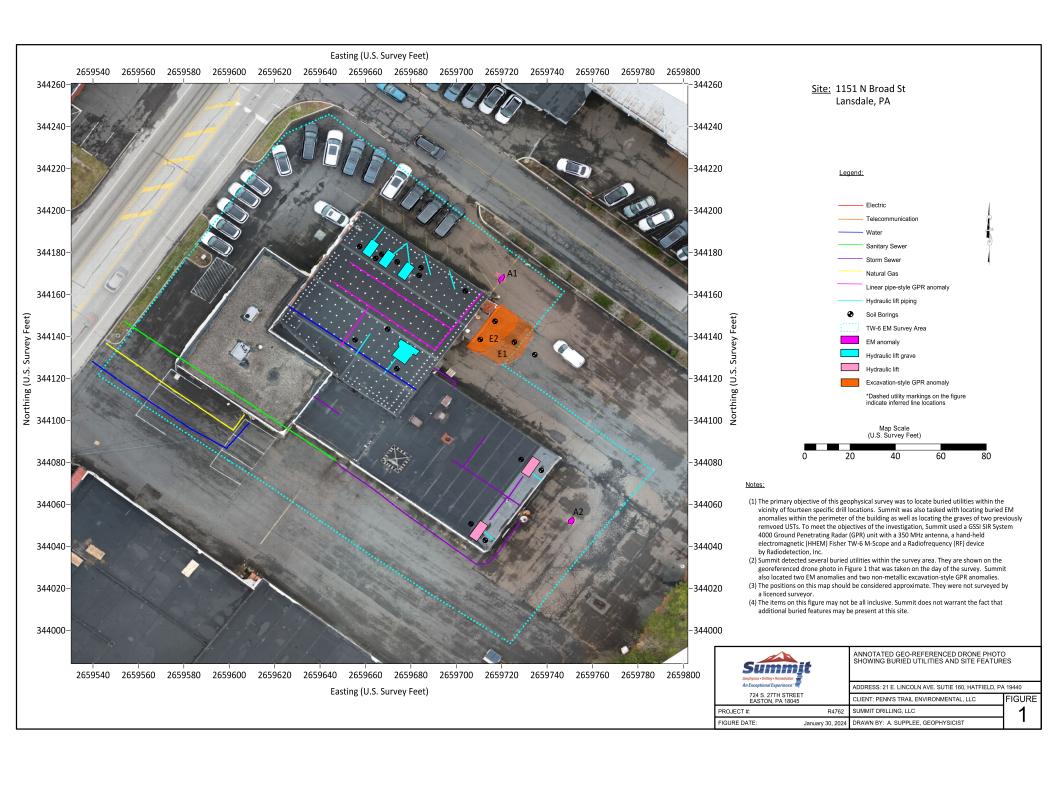
Andrew Supplee, B.S.

Geophysicist

Attachments:

Figure 1: Annotated geo-referenced drone photo showing buried utilities and site features.

Figure 2: Annotated drone photo showing buried utilities and site features.





Site: 1150 N Broad St Landsdale, PA

Legend:

Electric

Telecommunication

Water

Sanitary Sewer

Storm Sewer

Natural Gas

Linear pipe-style GPR anomaly

Reinforced concrete pad

TW-6 Survey area

Soil Borings

'Dashed utility markings on the figure indicate inferred line locations

Notes:

- (1) The primary objective of this geophysical survey was to locate buried utilities within the vicinity of eight specific drill locations. Summit was also tasked with locating buried EM anomalies within the preimeter of the building. To meet the objectives of the investigation, Summit used a GSSI SIR System 4000 Ground Penetrating Radar (GPR) unit with a 350 MHz antenna, a hand-held electromagnetic (HHEM) Fisher TW-6 M-Scope and a Radiofrequency (RF) device by Radiodetection, Inc.
- (2) Summit detected several buried utilities within the survey area. They are shown on the drone photo in Figure 2 that was taken on the day of the survey.
- (3) The positions on this map should be considered approximate. They were not surveyed by a licenced surveyor.
- (4) The items on this figure may not be all inclusive. Summit does not warrant the fact that additional buried features may be present at this site.

