



PIER 69 PACKAGE STORE

CORRECTIVE ACTION PLAN DEVELOPMENT

ATTF CP-14

January 26, 2026



3918 Highway 69 & Georgia Mountain Road
Guntersville, Marshall County, AL

Fac ID 24464-095-018113
UST 23-03-09

PREPARED FOR

Deep, Inc. DBA Pier 69
140 Georgia Mountain Road
Guntersville, AL 35976

PREPARED BY

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CERTIFICATION PAGE

"I hereby certify that, in my professional judgment, the components of this document and associated work satisfy the applicable requirements set forth in Chapter 335-6 of the ADEM Administrative Code, and are consistent with generally accepted professional consulting principles and practices. The information submitted herein, to the best of my knowledge and belief, is true accurate, and complete. I am aware that there are significant penalties for submitting false information."

This document has been prepared based on historical site assessment data and has been prepared to address soil and groundwater contamination at the Pier 69 Package Store site (Facility Identification Number 24464-095-018113) in Guntersville, Marshall County, Alabama. The recommended action should not be construed to apply to any other site.



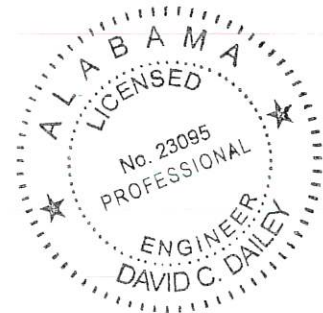
Signature

David Dailey

Registered Engineer in the State of Alabama

Registration No. 23095

1/26/2026
Date



INTRODUCTION

The Pier 69 Package Store facility is a commercial property that operates as a gasoline station and convenience store. The site currently has one 10,000-gallon unleaded gasoline Underground Storage Tank (UST), one 10,000-gallon premium grade gasoline UST, and one 8,000-gallon unleaded gasoline and on road diesel UST. On February 22, 2023, Three Notch Group, Inc. (Three Notch) closed product piping by removal and submitted a UST closure report to the Alabama Department of Environmental Management (ADEM).

Results of the UST Closure Assessment, dated March 9, 2023, revealed that petroleum products had been released, which either polluted or posed a threat of pollution to waters of the state. As a result of the closure assessment, ADEM sent the responsible party, Deep, Inc. DBA Pier 69, a Notification of Requirement to conduct Investigative and Corrective Actions on March 30, 2023. In a second letter dated April 5, 2023, ADEM issued a Notice of Alabama Tank Trust Fund Eligibility. In a third letter dated April 6, 2023, ADEM issued the Pre-Approved Cost Proposal (CP-01) for conducting Preliminary Investigation activities. Mr. Sat Paul with Deep, Inc. DBA Pier 69 contracted Three Notch as the Alabama Tank Trust Fund (ATTF) contractor.

To date, a Preliminary Investigation, Secondary Investigation, and Mobile Enhanced Multi-phase Extraction (MEME) events have been conducted at the site. During these assessment activities, a total of eighteen Type II monitoring wells and one Type III vertical delineation well were installed at the site.

In order to address the on-site dissolved hydrocarbon plume, Three Notch Group, Inc. (Three Notch) recommended the installation of a dedicated remedial system utilizing Multi-Phase Extraction (MPE) technologies. ADEM approved the recommendation and requested that a Corrective Action Plan (CAP) Development report be prepared for implementation. The following report details the CAP Development as approved under CP-14.

Topographically, the site is in an area of moderate relief in central Marshall County. The site is in the Southwestern $\frac{1}{4}$ of the Northwestern $\frac{1}{4}$ of the Southwestern $\frac{1}{4}$ of Section 5, Township 8 South, Range 3 East. The geographical coordinates are Latitude 34° 21' 49.58" North, Longitude 86° 21' 10.53" West. The site is surrounded by commercial and residential property. A topographic map identifying the general location of the site and a site diagram are located in Appendix B.

The majority of the site is covered by asphalt and concrete. The location of the current UST and fuel dispenser areas are paved with concrete. Utility service in the general vicinity of the site includes

overhead electric and telephone lines and buried fiber optic, gas, water, and sewer lines. Underground lines are located approximately 3-8 feet below land surface (ft-bls). The depth to groundwater at the site indicates underground utilities could be affected by the contamination in this area.

A water well inventory has been completed for the area surrounding the site. Based on information available on the Geological Survey of Alabama's website, there is one public water supply well within one mile of the site. Public well 095O04001, located approximately 0.14 miles southeast of the site, is 268 ft-bls and has a 6-inch diameter and is operated by Arab Water Works. In addition, there are three observation wells located within one mile of the site.

SUMMARY OF PREVIOUS SITE INVESTIGATIONS

On May 8, 2023, Three Notch mobilized personnel and equipment to the site to conduct the Preliminary Investigation activities. Seven soil borings were completed, and permanent groundwater monitoring wells were constructed in each boring. Soil samples were collected from two intervals in each soil boring. Groundwater sampling was conducted on May 15, 2023, following the installation of the monitoring wells. An 8-hour Mobile Enhanced Multi-Phase Extraction (MEME) event was conducted at the site on May 31, 2023.

On October 18, 2023, Three Notch mobilized to the site to conduct Preliminary Investigation activities. Four soil borings were completed, and permanent groundwater monitoring wells were constructed in each boring. Soil samples were collected from two intervals in each soil boring. Groundwater sampling was conducted on October 19, 2023, following the installation of the monitoring wells.

Based on the results of the Preliminary Investigation, Three Notch recommended that a Secondary Investigation be initiated at the site. A plan and cost proposal CP-02 for the Secondary Investigation was submitted to ADEM on August 23, 2023 and was approved in the ADEM letter dated August 28, 2023. On December 4, 2023, Three Notch mobilized personnel and equipment to the site to conduct the Secondary Investigation activities. Twelve soil borings were completed, and permanent groundwater monitoring wells were constructed in each boring. Soil samples were collected from two intervals in each soil boring. Groundwater sampling was conducted on January 2, 2024, following the installation of the monitoring wells. An 8-hour MEME event was conducted at the site on December 7, 2023.

On June 5, 2022, Three Notch mobilized personnel and equipment to the site to conduct soil boring and additional well installation activities. Four soil borings were completed, and permanent groundwater monitoring wells were constructed in each boring. Soil samples were collected from two intervals in each

soil boring. No groundwater sampling was conducted during this installation of these additional monitoring wells.

SUMMARY OF PREVIOUSLY CONDUCTED CORRECTIVE ACTION

To date, five groundwater monitoring events have been conducted at the site between April 2024 and July 2025. Additionally, seven MEME events were conducted throughout the investigation.

REMEDIAL OBJECTIVES AND EXPOSURE ASSESSMENT

General Remedial Objectives

The general objectives of this corrective action plan and the remedial efforts for the facility are as follows:

- Ensure that the health and safety of all project personnel is maintained during remediation activities.
- Prevent hydrocarbon contaminant migration to sensitive receptors.
- Reduce adsorbed phase petroleum hydrocarbons from soils within the vadose and saturated zone, to below approved Site-Specific Target Levels (SSTLs).
- Reduce dissolved petroleum hydrocarbons from groundwater to below approved SSTLs.
- Accomplish these objectives within the proposed period of operation.

Exposure Assessment

An exposure assessment was conducted by Three Notch during the ARBCA evaluation. The current land use site conceptual exposure model indicates that complete exposure pathways exist on-site for indoor and outdoor vapor inhalation from soil and groundwater for commercial workers. Under future conditions complete pathways for exposure exist for indoor and outdoor vapor inhalation for soil and groundwater for on-site commercial and construction workers, along with dermal contact with soil for construction workers. Complete exposure pathways exist for exposure under current and future conditions for both soil and groundwater for off-site residents, commercial workers, and construction workers, with dermal contact with soil under future conditions for construction workers. Future land use of the site and the surrounding area is expected to remain the same.

Free product has historically been observed in MW-1, MW-2, MW-3, and MW-5. However, no free product has been observed at the site since the November 2024 sampling event. Multiple wells contain concentrations of COC above the approved SSTLs. The presence of dissolved hydrocarbon concentrations above the SSTLs will require remediation.

Site Specific Target Levels

To assess the risk to human health and the environment of the dissolved hydrocarbon plume associated with the Pier 69 Package Store site, an ARBCA Tier I/Tier II Evaluation was performed in March 2025. Based on the ARBCA Tier II Evaluation, SSTLs for site remediation were calculated for the various media (soil and groundwater) at the site. The SSTLs developed during this process, which have been approved by ADEM, would not pose a significant risk to any recognized actual or potential receptors. The individual Groundwater Resource Protection (GRP) SSTLs generated for each of the site monitoring wells are presented on the attached Monitoring Point Data Summary Tables located in Appendix A and are summarized below.

Chemicals of Concern	Soil (mg/Kg)				Groundwater (mg/L)	
	Dermal Contact	On-Site Indoor Inhalation	Off-Site Indoor Inhalation	Groundwater Resource Protection	On-Site Indoor Inhalation	Off-Site Indoor Inhalation
Benzene	235	0.411	0.0628	0.441	16.9	2.59
Toluene	1050	77.3	7.20	184	526	159
Ethylbenzene	482	284	26.5	184	169	169
Xylenes	601	114	10.6	601	175	131
MTBE	377	803	74.8	0.479	29,300	2,730
Naphthalene	280	101	9.44	29.2	31	4.31
Anthracene	13.5	13.5	13.5	13.5	0.0434	0.0434
Benzo(a)anthracene	44.4	44.4	44.4	44.4	0.0094	0.0094
Benzo(a)pyrene	20.7	20.7	20.7	20.7	0.00162	0.00162
Benzo(b)fluoranthene	24.4	24.4	24.4	24.4	0.0015	0.0015
Benzo(g,h,i)perylene	14.6	14.6	14.6	14.6	0.0007	0.0007
Benzo(k)fluoranthene	13.0	13.0	13.0	13.0	0.0008	0.0008
Chrysene	8.41	8.41	8.41	8.41	0.0016	0.0016
Fluoranthene	134	134	134	134	0.206	0.206
Fluorene	202	202	202	202	1.98	1.98
Phenanthrene	186	186	186	186	1.0	1.0

Chemicals of Concern	Soil (mg/Kg)				Groundwater (mg/L)	
	Dermal Contact	On-Site Indoor Inhalation	Off-Site Indoor Inhalation	Groundwater Resource Protection	On-Site Indoor Inhalation	Off-Site Indoor Inhalation
Pyrene	121	121	121	121	0.135	0.135

RECENT MONITORING ACTIVITIES, RESULTS, AND COMPARISONS TO SSTLS

As part of CAP development, current representative concentrations for the COC are needed in the evaluation and design of a plan to effectively treat and reduce contaminants. The site has had multiple approved groundwater monitoring events conducted. The most recent groundwater monitoring event was completed in September 2025.

Groundwater Monitoring Activities

Personnel from Three Notch mobilized to the site on September 3, 2025, to collect groundwater samples for Chemicals of Concern (COC), which include benzene, toluene, ethylbenzene, total xylenes (BTEX), methyl tertiary-butyl ether (MTBE), naphthalene, and polycyclic aromatic hydrocarbon (PAH) analyses. Upon arriving at the site, the technician removed the well caps from twenty-three monitoring wells and the water levels in the wells were allowed to stabilize. Potentiometric levels were then measured with an electronic water level indicator and recorded in the site field book. Based on the results from the September 3, 2025, groundwater monitoring event, the groundwater flow direction beneath the site is predominately to the southwest. After all measurements were completed, the twenty-three monitoring wells were properly purged in preparation for groundwater sampling activities. Approximately 87 gallons of purge water were removed from the wells, stored in a drum, and treated using a portable carbon unit prior to being discharged on-site. A sample of the treated water was collected for BTEX/MTBE/Naphthalene analysis to verify that the carbon did not have breakthrough.

Groundwater samples were collected from each of the twenty-three monitoring wells for BTEX/MTBE/Naphthalene and PAH analyses using new, disposable bailers and transferred to 40 mL glass VOA vials preserved with HCl. The samples were placed on ice and transported under chain of custody to Waypoint Analytical where they were analyzed by EPA Method 8260B for the presence of BTEX/MTBE/Naphthalene constituents and by EPA Method 8270D-SIM for the presence of PAH constituents.

The BTEX/MTBE/Naphthalene and PAH analyses for this event indicate that COC concentrations were present at the site at levels above the Groundwater Resource Protection (GRP) Site Specific Target Levels (SSTLs) in seven (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, and MW-15) of the twenty-three sampled

monitoring wells. Concentrations were reported to be above the established SSTLs for Streams in three (MW-3, MW-5, and MW-15) of the twenty-three sampled monitoring wells. None of the monitoring wells contained COC concentrations above the Indoor Inhalation SSTLs.

The ADEM UST Release Fact Sheet and UST Site Classification System Checklist are included in Appendix F. A list of personnel performing tasks at the site is included in Appendix G.

REMEDATION RATIONALE AND APPROACH

Full-scale technologies addressing both soil and groundwater were reviewed for applicability to the Pier 69 Package Store site. A detailed discussion of the various corrective action alternatives is provided in the CAP Evaluation report submitted in June 2025. Based on all collected data, it has been determined that the most viable approach would be the installation of a dedicated Multi-Phase Extraction (MPE) with air sparge (AS) system connected to a network of eight recovery wells and eight air sparge wells installed at the site.

MPE/AS involves applying vacuum to remove liquid and vapor phase contaminants from low to moderately permeable, heterogenous soils while injecting air into saturated zones in effect creating a subsurface air stripper, which removes contaminants through volatilization, which is also captured by the MPE system. MPE typically provides a more efficient remedial approach as opposed to conventional pump and treat technology. The application of vacuum to a recovery well increases the hydraulic driving force that enables groundwater to flow into a recovery well, while conventional pumping relies mainly on a difference in elevation head. The vapor phase and absorbed phase hydrocarbon contaminant removal in the soil source area and for dissolved-phase hydrocarbon contaminant removal in the groundwater plume at the Pier 69 Package Store site can be efficiently addressed with the use of a multi-phase extraction with air sparge system.

REMEDATION RECOMMENDATION PLAN

The corrective action approach has four main remedial objectives: removal of free product, if present; removal of vapor phase concentrations; removal of absorbed phase concentrations; and removal of dissolved phase concentrations. In an effort to decrease chemicals of concern (COC) concentrations in both soil and groundwater to levels protective of human health and the environment, a dedicated MPE/AS system has been deemed the appropriate remediation approach for the Pier 69 Package Store site.

An illustration of the estimated extent of the dissolved phase contaminant plume based on the September 2025 monitoring event is shown in the figures located in Appendix B. Three Notch completed a Cap Evaluation in June 2025 which concludes that the remedial approach described herein is designed to perform in a cost effective and reliable manner throughout the life of the project. Based on the clean-up time calculations, the estimated clean-up time under ideal conditions would be approximately 3 - 5 years. Based on Three Notch's professional experience with similar sites, this clean-up time estimate would be a reasonable expectation of the period that the system would remain in operation at the site followed by an additional two years of rebound and natural attenuation monitoring before the remediation goals would be achieved and the site eligible for No Further Action (NFA) status.

SYSTEM DETAIL

The proposed MPE/AS system to be installed at the Pier 69 Package Store site will utilize a 40 hp single stage oil sealed liquid ring pump (LRVP) to produce the high vacuum and airflow rate necessary to remove petroleum constituents from the subsurface. Additionally, an air compressor with the capacity for a minimum air flow of 40 cfm at 15 psi will be included to provide the sparging component for the system. A comprehensive detail of the system components is provided in the quotes included in Appendix C. The LRVP will be connected to a network of eight recovery wells, and the compressor will be connected to a network of eight air sparge wells. An Underground Injection Control (UIC) permit will be obtained prior to system startup. All system components, excluding air treatment operations, will be enclosed in an insulated building with removable panels. Above ground system components will be enclosed in a wooden security fence complete with locking gates in an effort to prevent unauthorized personnel from entering the remediation compound. The fence will be placarded with a sign listing Three Notch's emergency contact information.

Recovered fluids will travel from the extraction wells to a primary Air/Water Separator (AWS), utilized to separate vapors and groundwater. Vapors will subsequently pass through the LRVP to for off-gas treatment prior to discharge to the atmosphere. Groundwater will flow from the AWS through an oil-water separator (OWS) to an air stripper for treatment. The air stripper is capable of decreasing hydrocarbon concentrations to below permit requirements at flows up to 15 gallons per minute (gpm). The treated groundwater will be discharged to the sanitary sewer. A NPDES permit will be obtained prior to system startup.

Figures in Appendix B illustrate the proposed locations of the recovery/air sparge wells, extraction lines, effluent discharge and proposed system location. Equipment specifications and process diagrams are provided in Appendix C.

The system will be outfitted with an intrinsically safe alarm sensor such that, should an alarm condition occur, the system will automatically shut down until the alarm can be relieved and the system reset. These sensors are included in an effort to maintain effective operation of the system and reduce the potential for untreated discharges. The alarms will be integrated with a telemetry system to notify Three Notch of a system fault, so that it can be restarted as soon as possible. The telemetry system will allow Three Notch remotely restart the system, depending on the type of alarm. In addition, remote shut down capabilities will be available. A run time (hour) meter will be installed on the system and the system will be equipped with applicable gauges and meters to allow for measurements as required for monthly and/or quarterly reporting.

OFF-GAS VAPOR TREATMENT

Three off-gas vapor treatment alternatives were reviewed for the site. These alternatives included thermal oxidation, catalytic oxidation, and vapor phase carbon (VPC) absorption. Thermal oxidation is typically utilized for applications having high vapor concentrations and high airflows. Catalytic oxidation is typically utilized for applications having low to moderate vapor concentrations and low to moderate airflows. VPC can be utilized for either situation. Based on the presence of free product, the flame ionization detector (FID) readings taken during the MEME events, and ADEM 's air division guidance, catalytic oxidation has been chosen as the recommended initial air pollution control device (APCD) option for the Pier 69 Package Store site. The off-gas treatment may be eliminated once it is established that nuisance conditions are not present at the site and upon receiving approval from the Air Division. An air emission control request will be submitted to ADEM prior to startup.

SOIL REMEDIATION

Analytical data indicates that soil samples collected during the Preliminary and Secondary Investigations exhibited Benzene, Toluene, Ethylbenzene, Total Xylene, and Naphthalene constituent concentrations above the ISLs.

Based on site conditions and analytical data, a number of soil remedial technologies are available to address hydrocarbon contamination in the soil. The soil remedial technologies that were reviewed and considered for this CAP included excavation, air sparging, and in-situ soil vapor extraction. Based on the hydrogeology of the site and depth of soil contamination, it appears that in-situ soil vapor extraction is the most technically feasible and cost-effective technology to address soil contamination.

Results of the Preliminary and Secondary investigations indicated the constituents of concern (COC) are primarily located in a zone from 7 to 13 feet below land surface (ft-bls). To effectively target the

contamination zone, the recovery wells will be screened approximately 5 to 15 feet bls with 0.02-inch factory slotted well screen to allow for optimal airflow. Each of the recovery wells will be plumbed to the MPE system by way of 2-inch diameter PVC below grade piping. Both vapor and liquid phase hydrocarbons will be removed by applying the vacuum generated by the oil-sealed LRVP directly to the 2" flow lines extending from the recovery wells. The locations of the recovery wells and piping are depicted in Figures in Appendix B.

GROUNDWATER REMEDIATION

Based on a review of the historical groundwater elevation data, one distinct water bearing unit exists beneath the site. The observed depths to groundwater beneath the site average approximately 7.85 (in ARBCA) ft-bls. The depth to groundwater has generally exhibited only small fluctuations between gauging events throughout the sampling history of the site.

Based on previous monitoring well gauging and sampling events conducted at the site, the direction of the shallow groundwater flow is predominantly to the southwest. A potentiometric surface map from the September 2024 sampling event is presented in the figures (Appendix B).

To effectively cover the targeted zone, eight 4" recovery MPE wells will be installed at a depth of 15 ft bls. The recovery wells will be constructed of five feet of 4" Schedule 40 PVC solid riser attached to ten feet of factory slotted PVC well screen. Each of the recovery wells will be plumbed to the MPE system by way of 2-inch diameter PVC below grade piping. Both vapor and liquid phase hydrocarbons will be removed by applying the vacuum generated by the oil-sealed LRVP directly to the 2" flow lines extending from the recovery wells. The locations of the recovery wells and piping are depicted in Figures in Appendix B.

Recovered fluids will flow from the well manifold to the air-water separator unit (AWS) where vapor-phase will be separated from groundwater. Groundwater will be transferred from the AWS to the oil-water separator (OWS) for the removal of any phase-separated hydrocarbons. A totalizing flow meter will be placed in line to record the volume of groundwater recovered.

Additionally, eight 1" air sparge (AS) wells will be installed at a depth of 20 ft bls. The AS wells will be constructed of 18 feet of 1" Schedule 40 PVC solid riser attached to two feet of porous media well screen. Each of the AS wells will be plumbed to the system air compressor by way of 1-inch diameter PVC below grade piping. The locations of the AS wells and piping are depicted in Figures in Appendix B.

GROUNDWATER TREATMENT

The selection of an appropriate groundwater treatment system was based on the expected flow rate of the extraction system, the influent contaminant concentrations of the groundwater, and discharge limits. Based on the available data, it appears that air stripping is the most feasible and cost-effective method for treatment of recovered groundwater. The treated effluent will be discharged to the storm sewer. A 2-inch diameter discharge line will be installed from the system compound to the storm sewer.

SITE PREPERATION ACTIVITIES

Site preparation activities will be conducted prior to system arrival at the property and will include the following activities.

LOCAL PERMITTING

Three Notch and any subcontractors engaged to work on this project will obtain all necessary permits from the City of Gunterville for the required construction activities. The anticipated cost for obtaining these permits has been factored into the proposed cost for the system installation phase of this project.

SYSTEM INSTALLATION AND START-UP ACTIVITIES

The MPE/AS system, and all ancillary equipment, will be delivered to the site within 90 days of the approval from ADEM. A professional geologist or engineer experienced in MPE/AS system operation and an environmental technician will be on site to observe installation and start-up activities.

EQUIPMENT REVIEW

An equipment manual and troubleshooting guide will be provided to Three Notch by the equipment supplier prior to system arrival. Appropriate Three Notch personnel will familiarize themselves with the manual before starting and operating equipment.

SYSTEM OFFLOADING AND PLACEMENT

The system and all ancillary equipment will be transported on a trailer and offloaded with a crane. The system will be placed on a concrete slab constructed in the approximate location illustrated in the figures in Appendix B. Above ground system components will be enclosed within wooden privacy fence complete with locking gates in an effort to prevent unauthorized personnel from entering the equipment compound.

UTILITY CONNECTIONS

The electrical connections will be completed by Three Notch's subcontractor in accordance with local requirements.

INITIAL START-UP AND OPTIMIZATION

Three Notch will notify the ADEM project manager within a minimum of 15 days prior to initiating start-up activities. Once all connections have been made, each electric motor will be visually tested prior to initiating long-term operation. This will encompass momentarily operating each motor individually and verifying proper rotation.

The MPE/AS system will be temporarily operated for a period of four to eight hours. During this time, system components will be checked and monitored to ensure the system is operating as expected. Alarm conditions will be manually simulated to verify that automatic shutdown operations will occur if system upset conditions occur.

The following observations will be monitored and analyzed as appropriate:

- Extraction Rate (air and liquids)
- Vacuum at the LRVP and at each extraction well
- Influent and effluent vapor concentrations (PID measurements)

Prior to shutting down system operations, samples will be collected as follows:

- Influent water sample from the sampling port prior to the AWS
- Effluent water sample at discharge point from the AS
- Influent air sample at the inlet of the LRVP

Water samples will be submitted under chain-of-custody protocol to the Waypoint Analytical laboratory in Andalusia, AL to be analyzed for BTEX/MTBE/Naphthalene, and Oil and Grease in accordance with EPA methods 8260B and 1664, respectively. A rapid turnaround time will be requested in an effort to expedite the permanent startup of the system.

In the event that a discharge limit is exceeded, the data will be analyzed and modifications to the system will be performed as needed. The start-up/optimization process will be repeated, and additional samples will be collected in an effort to obtain satisfactory discharge limits prior to permanent start-up of the system.

PERMANENT START-UP

The system will be permanently started once it is observed that the treatment system is capable of producing effluent discharge within the required limits. Once permanent operations are initiated, Three Notch personnel will remain on-site for a minimum of one day to monitor system performance. Modifications will be made as necessary in an effort to enhance system operations. Operation parameters monitored during system testing activities will be evaluated further during this time.

SYSTEM OPERATION AND MAINTENANCE

Upon the completion of the initial optimization, Three Notch will implement an Operation and Maintenance (O&M) program to adequately monitor system performance.

OPERATION AND MAINTENANCE ACTIVITIES

Full scale operations will include O&M of the system and continuing optimization of system performance. Scheduled visits will be made to maintain the system components and ensure the system is operating at the greatest efficiency possible. Minor system components will be regularly inspected and replaced as required. The pumps and compressor within the unit will be serviced on a routine basis. If a shutdown of the system occurs, Three Notch will provide personnel to repair the system within 36 hours of receiving notification of shutdown. The remote start capability of the telemetry system installed in the unit may be utilized to start-up the system following certain shutdown conditions such as interruptions of electrical service. The telemetry can also be utilized to remotely shutdown the system should it become necessary due to an equipment failure or disruption.

Typical O&M activities will include the following:

- Visual inspection of the treatment system components (including pipe connections and bolted flange plates for potential leaks due to vibration)
- Cleaning, inspection, and testing of float switches and conductivity probes
- Monitoring of vacuum/pressure levels at designated points in the system
- Monitoring pressure levels on the exhaust side of the LVRP
- Removal of silt and sludge build up from the knockout tank, filtration system, and other system components
- Removal of air stripper foulants
- Monitor destruction efficiency of the granular activated carbon once employed for off-gas treatment
- Treated groundwater effluent sample collection
- Monitor groundwater levels

In order to ensure the system is working properly, during the first quarter of operation, technicians will visit the site weekly. At least twice per month, routine O&M activities as described above will also be conducted. System data, including total operational system hours, temperatures, total system vacuum, individual recovery well vacuums, flow, and water discharge will be recorded for inclusion in quarterly reports to ADEM.

All activities will be performed in accordance with the Quality Assurance/Quality Control Plan and Site Health and Safety Plan included in Appendices D and E, respectively.

QUARTERLY SAMPLING

As part of O&M activities, a groundwater monitoring event will be conducted once per quarter to evaluate the effectiveness of the remediation system. Three Notch recommends that each of the wells be sampled during the quarterly groundwater monitoring activities.

Prior to sample collection, the depth to groundwater will be measured using an oil/water interface probe. Each monitoring and recovery well will be purged using clean plastic disposable bailers. Approximately three well volumes will be removed from each well. The purge water will be temporarily stored in drums prior to being processed through the MPE system.

Samples will be collected using clean plastic disposable bailers and shipped in laboratory supplied 40-mL vials preserved with hydrochloric acid (HCl). The samples will be placed on ice and transported, under chain-of-custody protocol, to the Waypoint Analytical laboratory for analysis of BTEX/MTBE/Naphthalene in accordance with EPA method 8260B.

Groundwater influent and effluent samples will be collected monthly. Effluent samples will be collected from a sample port downstream of the air-stripper treatment unit. Effluent samples will be collected in laboratory-supplied 40-mL vials preserved with HCl. Oil and Grease samples will be collected in one liter glass jars preserved with sulfuric acid 16 (H₂SO₄). These samples will be packed on ice and transported, under chain-of-custody protocol, to the Waypoint Analytical laboratory for analysis for total BTEX/MTBE/Naphthalene and Oil and Grease in accordance with EPA Methods 8260B, 150.1, and 1664.

Quarterly Corrective Action System Effectiveness Monitoring Reports (CASEMR) will be completed in accordance with ADEM requirements. The reports will include a summary of all current and historic sample analysis data with corresponding figures and tables, summary of gallons of treated groundwater to date, and a discussion of system effectiveness/run time. The reports will include recommendations for

adjustments to the system, if any, and an estimate of the time required for completion of remediation activities.

PROPOSED REPORTING REQUIREMENTS

Three Notch will submit reports in accordance with ADEM requirements. These reports will include the following:

Reporting of CAP Implementation/Well Installation

This report will detail installation of the eight recovery wells and eight air sparge wells. If needed, a new Solid Waste Profile will be obtained under this cost proposal. A copy of either the current or newly obtained Solid Waste Profile will be included in this report.

Star-up Notification

This report will provide start-up notification within 15 days of corrective action start-up.

Reporting of Corrective Action Effectiveness

Three Notch proposes to submit corrective action effectiveness monitoring (CASEMR) reports on a quarterly basis. The CASEMR will summarize field activities and the progress of the system toward meeting the approved corrective action levels (ACALs) for the site. The following data will be included in each report: groundwater elevations, a calculation of the volume of vapor-phase hydrocarbons removed, volume of groundwater treated, groundwater analytical results as compared to target levels, potentiometric surface maps, and COC contour maps. The reports will also include system effectiveness and recommendations concerning additional measures deemed necessary.

Request for Closure Evaluation of Corrective Action

This report will include data that demonstrates that remediation goals have been achieved and will request a status of No Further Action (NFA) for the site. Methods for abandonment of monitoring and recovery wells will be described.

Well Abandonment

This report will describe in detail the closure of the site and removal of all monitoring and recovery wells.

SCHEDULE OF IMPLEMENTATION

It is anticipated that the proposed corrective action plan will begin within 10 days following the approval of the CAP. The following schedule indicates the timetable for major project events to be completed as part of this corrective action plan:

Time Following CAP Approval	Project Event
10 days	Order System Equipment
30 days	Site Preparation Activities
120 days	Install System Components
150 days	Initial Start-up/Optimization
1-2 years	Quarterly Monitoring of system and evaluation of results with recommendations for system enhancements, if necessary
1-2 years	Removal of system equipment; well abandonment; completion and submittal of final report

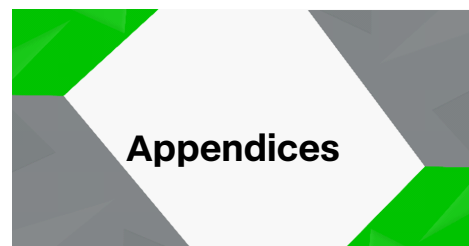
ESTIMATED COSTS

All Costs associated with the system purchase, system installation, and the first four quarters of system O&M will be presented on the ATTF Cost Proposals CP-15: purchase, CP-16: installation, CP-17, 18, 19, 20: first 4 quarters O&M.



APPENDICES

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Site Location USGS Topographic Map	
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**THREE
NOTCH
GROUP**

TABLES



APPENDIX A

Monitoring Point Data Summary Table

SITE NAME:	Pier 69 Package Store	UST NUMBER:	23-03-09	WELL ID:	MW-3				
INSTALLATION DATE:	05/09/23	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	619.11	WELL TYPE: DIAMETER (IN):	II 2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
05/15/23	<1.00	9.93	33.7	9.09	56.1	108.82	<5.00
01/02/24	<0.500	13.5	36.6	4.23	21.7	76.03	0.310
05/21/24	<0.500	16.3	51.7	12.9	73.2	154.1	0.446
08/28/24	<0.200	15.1	29.0	4.26	21.3	69.66	0.324
11/13/24	NOT SAMPLED - FREE PRODUCT (0.21 FT)						
02/25/25	0.157	19.5	53.9	5.77	32.5	111.67	0.624
05/15/25	<0.050	1.24	3.70	0.429	6.15	11.52	<0.250
09/03/25	<0.100	12.9	27.9	3.67	21.1	65.57	0.508
GRP SSTLs:	1.55	0.389	77.7	54.4	175	-	1.55
Inhalation SSTLs:	29300	16.9	526	169	175	-	31
Stream SSTLs:	-	0.306	4.87	12.6	-	-	17.2

Monitoring Point Data Summary Table

SITE NAME:	Pier 69 Package Store			UST NUMBER:	23-03-09	WELL ID:	MW-3				
INSTALLATION DATE:	05/09/23	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	619.11	WELL TYPE: DIAMETER (IN):	II 2		

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)											
SAMPLE DATE	ANTHRACENE	BENZO(a) ANTHRACENE	BENZO(a) PYRENE	BENZO(b) FLUORANTHENE	BENZO(g,h,i) PERYLENE	BENZO(k) FLUORANTHENE	CHRYSENE	FLUORANTHENE	FLUORENE	PHENANTHRENE	PYRENE
05/15/23	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340
01/02/24	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340
05/21/24	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850
08/28/24	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340
11/13/24	NOT SAMPLED - FREE PRODUCT (0.21 FT)										
02/25/25	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850
05/15/25	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	0.00234	0.00583	<0.00170
09/03/25	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170
GRP SSTLS:	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1	0.135
Inhalation SSTLS:	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1	0.135
Stream SSTLS:	0.0434	0.000556	0.000556	0.000556	-	0.000556	0.000556	0.206	1.98	-	0.135

Monitoring Point Data Summary Table								
SITE NAME:	Pier 69 Package Store			UST NUMBER:	23-03-09	WELL ID:	MW-4	
INSTALLATION DATE:	05/09/23	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	619.31	WELL TYPE: II DIAMETER (IN): 2
Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)								

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
05/15/23	<0.050	3.98	0.406	2.67	10.8	17.856	<0.250
01/02/24	<0.050	3.87	0.393	2.40	5.98	12.643	0.256
05/21/24	<0.050	3.91	0.121	2.50	5.80	12.331	0.315
08/28/24	<0.050	4.88	0.225	2.19	1.85	9.145	0.252
11/13/24	0.020	2.71	<0.040	1.23	0.779	4.719	0.141
02/25/25	<0.050	3.64	<0.100	2.11	4.51	10.260	0.249
05/15/25	<0.020	3.50	0.110	2.41	5.00	11.020	0.242
09/03/25	<0.020	3.10	0.132	2.13	2.89	8.252	0.245
GRP SSTLs:	1.55	0.389	77.7	54.4	175	-	1.55
Inhalation SSTLs:	29300	16.9	526	169	175	-	31
Stream SSTLs:	-	-	-	-	-	-	-

Monitoring Point Data Summary Table

SITE NAME:	Pier 69 Package Store	UST NUMBER:	23-03-09	WELL ID:	MW-5				
INSTALLATION DATE:	05/08/23	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	619.23	WELL TYPE: DIAMETER (IN):	II 2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
05/15/23	0.183	11.8	15.4	2.94	22.3	52.44	<0.500
01/02/24	<0.200	9.59	36.8	10.2	52.1	108.69	1.54
05/21/24	<0.500	12.9	55.9	37.6	224	330.4	5.58
08/28/24	0.246	14.2	15.5	5.20	29.3	64.2	0.384
11/13/24	NOT SAMPLED - FREE PRODUCT (0.25 FT)						
02/25/25	<0.010	0.842	0.272	0.498	2.09	3.702	0.112
05/15/25	0.019	1.28	0.114	0.202	0.869	2.465	<0.050
09/03/25	<0.200	13.0	10.6	4.45	21.9	49.95	<1.00
GRP SSTLs:	1.55	0.389	77.7	54.4	175	-	1.55
Inhalation SSTLs:	29300	16.9	526	169	175	-	31
Stream SSTLs:	-	0.306	4.87	12.6	-	-	17.2

Monitoring Point Data Summary Table

SITE NAME:	Pier 69 Package Store			UST NUMBER:	23-03-09	WELL ID:	MW-5			
INSTALLATION DATE:	05/08/23	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	619.23	WELL TYPE: DIAMETER (IN):	II 2	
Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)										

GROUNDWATER ANALYTICAL SUMMARY (mg/L)											
SAMPLE DATE	ANTHRACENE	BENZO(a) ANTHRACENE	BENZO(a) PYRENE	BENZO(b) FLUORANTHENE	BENZO(g,h,i) PERYLENE	BENZO(k) FLUORANTHENE	CHRYSENE	FLUORANTHENE	FLUORENE	PHENANTHRENE	PYRENE
05/15/23	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340
01/02/24	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850
05/21/24	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850
08/28/24	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340
11/13/24	NOT SAMPLED - FREE PRODUCT (0.25 FT)										
02/25/25	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850
05/15/25	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	0.00585	<0.00170
09/03/25	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170
GRP SSTLs:	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1	0.135
Inhalation SSTLs:	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1	0.135
Stream SSTLs:	0.0434	0.000556	0.000556	0.000556	-	0.000556	0.000556	0.206	1.98	-	0.135

Monitoring Point Data Summary Table

SITE NAME:	Pier 69 Package Store			UST NUMBER:	23-03-09	WELL ID:	MW-7		
INSTALLATION DATE:	05/10/23	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	619.48	WELL TYPE: DIAMETER (IN):	II 2
Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)									

GROUNDWATER ANALYTICAL SUMMARY (mg/L)

SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
05/15/23	<1.00	1.25	29.5	26.7	180	237.45	<5.00
01/02/24	<0.050	0.587	1.92	2.05	10.3	14.857	0.337
05/21/24	<0.100	0.506	0.241	3.02	14.6	18.367	0.593
08/28/24	<0.100	0.679	0.381	2.86	11.2	15.120	0.322
11/13/24	<0.020	0.332	0.168	1.88	6.57	8.950	0.276
02/25/25	<0.020	0.135	0.392	1.50	6.43	8.457	0.210
05/15/25	<0.020	0.090	0.282	1.42	6.92	8.712	0.229
09/03/25	<0.010	0.212	0.056	1.44	4.97	6.678	0.274
GRP SSTLs:	1.16	0.289	57.9	40.5	175	-	1.16
Inhalation SSTLs:	29300	16.9	526	169	175	-	31
Stream SSTLs:	-	-	-	-	-	-	-

Monitoring Point Data Summary Table									
SITE NAME:	Pier 69 Package Store		UST NUMBER:	23-03-09	WELL ID:	MW-10			
INSTALLATION DATE:	12/04/23	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	619.34	WELL TYPE: DIAMETER (IN):	II 2
Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)									

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
01/02/24	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	0.00013
05/21/24	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
08/28/24	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
11/13/24	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
02/25/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	0.000031
05/15/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
09/03/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
GRP SSTLs:	0.963	0.241	48.2	33.7	175	-	0.963
Inhalation SSTLs:	29300	16.9	526	169	175	-	31
Stream SSTLs:	-	-	-	-	-	-	-

Monitoring Point Data Summary Table									
SITE NAME:	Pier 69 Package Store		UST NUMBER:	23-03-09	WELL ID:	MW-11			
INSTALLATION DATE:	12/04/23	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	619.27	WELL TYPE: DIAMETER (IN):	II 2
Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)									

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
01/02/24	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	0.000196
05/21/24	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	0.006
08/28/24	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
11/13/24	0.002	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
02/25/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	0.000021
05/15/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
09/03/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
GRP SSTLs:	0.699	0.175	34.9	24.5	175	-	0.699
Inhalation SSTLs:	29300	16.9	526	169	175	-	31
Stream SSTLs:	-	-	-	-	-	-	-

Monitoring Point Data Summary Table

SITE NAME:	Pier 69 Package Store	UST NUMBER:	23-03-09	WELL ID:	MW-12				
INSTALLATION DATE:	12/04/23	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	619.14	WELL TYPE: DIAMETER (IN):	II 2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)

SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
01/02/24	0.005	0.007	<0.002	<0.001	<0.001	0.007	0.00009
05/21/24	0.004	0.003	<0.002	<0.001	<0.001	0.003	<0.005
08/28/24	0.003	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
11/13/24	0.006	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
02/25/25	0.002	<0.001	<0.002	<0.001	<0.001	BDL	0.000038
05/15/25	0.003	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
09/03/25	0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
GRP SSTLs:	1.22	0.305	60.9	42.6	175	-	1.22
Inhalation SSTLs:	29300	16.9	526	169	175	-	31
Stream SSTLs:	-	0.24	3.81	9.87	-	-	13.5

Monitoring Point Data Summary Table

SITE NAME:	Pier 69 Package Store	UST NUMBER:	23-03-09	WELL ID:	MW-12				
INSTALLATION DATE:	12/04/23	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	619.14	WELL TYPE: DIAMETER (IN):	II 2
Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)									

GROUNDWATER ANALYTICAL SUMMARY (mg/L)											
SAMPLE DATE	ANTHRACENE	BENZO(a) ANTHRACENE	BENZO(a) PYRENE	BENZO(b) FLUORANTHENE	BENZO(g,h,i) PERYLENE	BENZO(k) FLUORANTHENE	CHRYSENE	FLUORANTHENE	FLUORENE	PHENANTHRENE	PYRENE
01/02/24	0.000022	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
05/21/24	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
08/28/24	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
11/13/24	0.000023	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
02/25/25	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
05/15/25	0.000021	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	0.000021	0.000048	<0.000020
09/03/25	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
GRP SSTLs:	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1	0.135
Inhalation SSTLs:	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1	0.135
Stream SSTLs:	0.0434	0.000436	0.000436	0.000436	-	0.000436	0.000436	0.206	1.98	-	0.135

Monitoring Point Data Summary Table

SITE NAME:	Pier 69 Package Store			UST NUMBER:	23-03-09	WELL ID:	MW-14	
INSTALLATION DATE:	12/06/23	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	618.40	WELL TYPE: II DIAMETER (IN): 2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)

SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
01/02/24	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
05/21/24	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
08/28/24	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
11/13/24	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
02/25/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	0.000021
05/15/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
09/03/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
GRP SSTLs:	0.144	0.036	7.21	5.04	72.1	-	0.144
Inhalation SSTLs:	29300	16.9	526	169	175	-	31
Stream SSTLs:	-	0.0284	0.451	1.217	-	-	1.6

Monitoring Point Data Summary Table

SITE NAME:	Pier 69 Package Store			UST NUMBER:	23-03-09	WELL ID:	MW-14				
INSTALLATION DATE:	12/06/23	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	618.40	WELL TYPE:	II	DIAMETER (IN):	2
Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)											

GROUNDWATER ANALYTICAL SUMMARY (mg/L)											
SAMPLE DATE	ANTHRACENE	BENZO(a) ANTHRACENE	BENZO(a) PYRENE	BENZO(b) FLUORANTHENE	BENZO(g,h,i) PERYLENE	BENZO(k) FLUORANTHENE	CHRYSENE	FLUORANTHENE	FLUORENE	PHENANTHRENE	PYRENE
01/02/24	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
05/21/24	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
08/28/24	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
11/13/24	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
02/25/25	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
05/15/25	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	0.000048	<0.000020
09/03/25	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
GRP SSTLs:	0.0434	0.00841	0.00144	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1	0.135
Inhalation SSTLs:	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1	0.135
Stream SSTLs:	0.0434	0.0000516	0.0000516	0.0000516	-	0.0000516	0.0000516	0.103	1.98	-	0.135

Monitoring Point Data Summary Table

SITE NAME:	Pier 69 Package Store		UST NUMBER:	23-03-09	WELL ID:	MW-15			
INSTALLATION DATE:	12/06/23	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	618.02	WELL TYPE: DIAMETER (IN):	II 2
Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)									

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
01/02/24	<0.050	2.95	0.670	3.61	14.3	21.530	0.583
05/21/24	<0.500	6.14	<1.00	9.13	30.5	45.77	0.298
08/28/24	<0.200	5.75	<0.400	2.49	6.26	14.500	0.232
11/13/24	<0.050	4.83	<0.100	1.28	0.224	6.334	0.227
02/25/25	<0.100	3.17	<0.200	1.74	1.38	6.290	0.268
05/15/25	<0.020	2.50	0.068	2.26	2.68	7.508	0.402
09/03/25	<0.020	1.61	<0.040	0.758	0.427	2.795	0.175
GRP SSTLs:	0.272	0.068	13.6	9.52	136	-	0.272
Inhalation SSTLs:	29300	16.9	526	169	175	-	31
Stream SSTLs:	-	0.0535	0.851	2.2	-	-	3.02

Monitoring Point Data Summary Table

SITE NAME:	Pier 69 Package Store			UST NUMBER:	23-03-09	WELL ID:	MW-15		
INSTALLATION DATE:	12/06/23	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	618.02	WELL TYPE: DIAMETER (IN):	II 2
Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)									

GROUNDWATER ANALYTICAL SUMMARY (mg/L)											
SAMPLE DATE	ANTHRACENE	BENZO(a) ANTHRACENE	BENZO(a) PYRENE	BENZO(b) FLUORANTHENE	BENZO(g,h,i) PERYLENE	BENZO(k) FLUORANTHENE	CHRYSENE	FLUORANTHENE	FLUORENE	PHENANTHRENE	PYRENE
01/02/24	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340
05/21/24	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850	<0.00850
08/28/24	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340	<0.00340
11/13/24	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170
02/25/25	<0.000850	<0.000850	<0.000850	<0.000850	<0.000850	<0.000850	<0.000850	<0.000850	0.00111	<0.000850	<0.000850
05/15/25	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	0.00339	0.00653	<0.00170
09/03/25	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170
GRP SSTLs:	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1	0.135
Inhalation SSTLs:	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1	0.135
Stream SSTLs:	0.0434	0.0000973	0.0000973	0.0000973	-	0.0000973	0.0000973	0.194	1.98	-	0.135

Monitoring Point Data Summary Table									
SITE NAME:	Pier 69 Package Store			UST NUMBER:	23-03-09	WELL ID:	MW-16		
INSTALLATION DATE:	12/06/23	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	618.07	WELL TYPE: DIAMETER (IN):	II 2
Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)									

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
01/02/24	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
05/21/24	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
08/28/24	<0.001	<0.001	<0.002	0.001	0.002	0.003	<0.005
11/13/24	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
02/25/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	0.000033
05/15/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
09/03/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
GRP SSTLs:	0.0801	0.02	4	2.8	40	-	0.0801
Inhalation SSTLs*:	2730	2.59	159	169	131	-	4.31
Stream SSTLs*:	-	0.0158	0.251	0.649	-	-	0.888

*Resident Child

Monitoring Point Data Summary Table									
SITE NAME:	Pier 69 Package Store			UST NUMBER:	23-03-09	WELL ID:	MW-16		
INSTALLATION DATE:	12/06/23	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	618.07	WELL TYPE: DIAMETER (IN):	II 2
Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)									

GROUNDWATER ANALYTICAL SUMMARY (mg/L)											
SAMPLE DATE	ANTHRACENE	BENZO(a) ANTHRACENE	BENZO(a) PYRENE	BENZO(b) FLUORANTHENE	BENZO(g,h,i) PERYLENE	BENZO(k) FLUORANTHENE	CHRYSENE	FLUORANTHENE	FLUORENE	PHENANTHRENE	PYRENE
01/02/24	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
05/21/24	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	0.000042	0.000052	<0.000020
08/28/24	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
11/13/24	<0.000170	<0.000170	<0.000170	<0.000170	<0.000170	<0.000170	<0.000170	<0.000170	0.00023	<0.000170	<0.000170
02/25/25	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
05/15/25	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	0.000048	<0.000020
09/03/25	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
GRP SSTLs:	0.0434	0.00467	0.000801	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1	0.135
Inhalation SSTLs:	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1	0.135
Stream SSTLs:	0.0434	0.0000287	0.0000287	0.0000287	-	0.0000287	0.0000287	0.0570	1.38	-	0.135

Monitoring Point Data Summary Table

SITE NAME:	Pier 69 Package Store			UST NUMBER:	23-03-09	WELL ID:	MW-17		
INSTALLATION DATE:	12/05/23	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	616.21	WELL TYPE: DIAMETER (IN):	II 2
Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)									

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
01/02/24	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
05/21/24	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
08/28/24	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
11/13/24	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
02/25/25	<0.001	0.001	<0.002	<0.001	<0.001	0.001	<0.005
05/15/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
09/03/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
GRP SSTLs:	0.258	0.0645	12.9	9.03	129	-	0.258
Inhalation SSTLs:	29300	16.9	526	169	175	-	31
Stream SSTLs:	-	-	-	-	-	-	-

Monitoring Point Data Summary Table

SITE NAME:	Pier 69 Package Store			UST NUMBER:	23-03-09	WELL ID:	MW-19		
INSTALLATION DATE:	06/05/24	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	617.89	WELL TYPE: DIAMETER (IN):	II 2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
06/05/24	NOT SAMPLED						
08/28/24	<0.010	0.126	0.163	1.20	2.96	4.449	0.136
11/13/24	<0.010	0.041	<0.020	0.542	1.27	1.853	0.0893
02/25/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	0.000050
05/15/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
09/03/25	<0.001	0.004	<0.002	0.027	0.070	0.101	0.00510
GRP SSTLs:	0.202	0.0506	10.1	7.09	101	-	0.202
Inhalation SSTLs:	29300	16.9	526	169	175	-	31
Stream SSTLs:	-	0.0398	0.634	1.64	-	-	2.25

Monitoring Point Data Summary Table

SITE NAME:	Pier 69 Package Store	UST NUMBER:	23-03-09	WELL ID:	MW-19				
INSTALLATION DATE:	06/05/24	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	617.89	WELL TYPE: DIAMETER (IN):	II 2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)											
SAMPLE DATE	ANTHRACENE	BENZO(a) ANTHRACENE	BENZO(a) PYRENE	BENZO(b) FLUORANTHENE	BENZO(g,h,i) PERYLENE	BENZO(k) FLUORANTHENE	CHRYSENE	FLUORANTHENE	FLUORENE	PHENANTHRENE	PYRENE
06/05/24	NOT SAMPLED										
08/28/24	<0.000170	<0.000170	<0.000170	<0.000170	<0.000170	<0.000170	<0.000170	<0.000170	0.000171	<0.000170	<0.000170
11/13/24	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170	<0.00170
02/25/25	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
05/15/25	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	0.000033	<0.000020	<0.000020
09/03/25	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
GRP SSTLs:	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1	0.135
Inhalation SSTLs:	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1	0.135
Stream SSTLs:	0.0434	0.0000724	0.0000724	0.0000724	-	0.0000724	0.0000724	0.144	1.98	-	0.135

Monitoring Point Data Summary Table

SITE NAME:	Pier 69 Package Store			UST NUMBER:	23-03-09	WELL ID:	MW-20		
INSTALLATION DATE:	06/05/24	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	619.21	WELL TYPE: DIAMETER (IN):	II 2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
06/05/24	NOT SAMPLED						
08/28/24	0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
11/13/24	0.002	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
02/25/25	0.002	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
05/15/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
09/03/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
GRP SSTLs:	0.115	0.0288	5.76	4.03	57.6	-	0.115
Inhalation SSTLs:	29300	16.9	526	169	175	-	31
Stream SSTLs:	-	0.0227	0.361	0.934	-	-	1.28

Monitoring Point Data Summary Table

SITE NAME:	Pier 69 Package Store	UST NUMBER:	23-03-09	WELL ID:	MW-20
INSTALLATION DATE:	06/05/24	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10
		CASING ELEV (FT ABOVE MSL):	619.21	WELL TYPE: DIAMETER (IN):	II 2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)											
SAMPLE DATE	ANTHRACENE	BENZO(a) ANTHRACENE	BENZO(a) PYRENE	BENZO(b) FLUORANTHENE	BENZO(g,h,i) PERYLENE	BENZO(k) FLUORANTHENE	CHRYSENE	FLUORANTHENE	FLUORENE	PHENANTHRENE	PYRENE
06/05/24	NOT SAMPLED										
08/28/24	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
11/13/24	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
02/25/25	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
05/15/25	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
09/03/25	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
GRP SSTLs:	0.0434	0.00672	0.00115	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1	0.135
Inhalation SSTLs:	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1	0.135
Stream SSTLs:	0.0434	0.0000412	0.0000412	0.0000412	-	0.0000412	0.0000412	0.0821	1.98	-	0.135

Monitoring Point Data Summary Table

SITE NAME:	Pier 69 Package Store		UST NUMBER:	23-03-09	WELL ID:	MW-21			
INSTALLATION DATE:	06/05/24	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	618.28	WELL TYPE: DIAMETER (IN):	II 2

Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)

GROUNDWATER ANALYTICAL SUMMARY (mg/L)

SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
06/05/24	NOT SAMPLED						
08/28/24	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
11/13/24	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
02/25/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	0.000035
05/15/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
09/03/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
GRP SSTLs:	0.156	0.039	7.81	5.46	78.1	-	0.156
Inhalation SSTLs:	29300	16.9	526	169	175	-	31
Stream SSTLs:	-	0.0307	0.489	1.27	-	-	1.73

Monitoring Point Data Summary Table

SITE NAME:	Pier 69 Package Store	UST NUMBER:	23-03-09	WELL ID:	MW-21				
INSTALLATION DATE:	06/05/24	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	618.28	WELL TYPE: DIAMETER (IN):	II 2
Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)									

GROUNDWATER ANALYTICAL SUMMARY (mg/L)											
SAMPLE DATE	ANTHRACENE	BENZO(a) ANTHRACENE	BENZO(a) PYRENE	BENZO(b) FLUORANTHENE	BENZO(g,h,i) PERYLENE	BENZO(k) FLUORANTHENE	CHRYSENE	FLUORANTHENE	FLUORENE	PHENANTHRENE	PYRENE
06/05/24	NOT SAMPLED										
08/28/24	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
11/13/24	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
02/25/25	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
05/15/25	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
09/03/25	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
GRP SSTLs:	0.0434	0.00911	0.00156	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1	0.135
Inhalation SSTLs:	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1	0.135
Stream SSTLs:	0.0434	0.0000559	0.0000559	0.0000559	-	0.0000559	0.0000559	0.111	1.98	-	0.135

Monitoring Point Data Summary Table

SITE NAME:	Pier 69 Package Store	UST NUMBER:	23-03-09	WELL ID:	MW-22				
INSTALLATION DATE:	06/05/24	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	617.96	WELL TYPE:	II
								DIAMETER (IN):	2
Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)									

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
06/05/24	NOT SAMPLED						
08/28/24	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
11/13/24	NOT SAMPLED (DRY)						
02/25/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	0.000038
05/15/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
09/03/25	<0.001	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
GRP SSTLs:	0.0825	0.0206	4.13	2.89	41.3	-	0.0825
Inhalation SSTLs:	29300	16.9	526	169	175	-	31
Stream SSTLs:	-	0.0162	0.258	0.669	-	-	0.915

Monitoring Point Data Summary Table

SITE NAME:	Pier 69 Package Store	UST NUMBER:	23-03-09	WELL ID:	MW-22				
INSTALLATION DATE:	06/05/24	WELL DEPTH (FT BTOC):	15.0	SCREEN LENGTH (FT):	10	CASING ELEV (FT ABOVE MSL):	617.96	WELL TYPE: DIAMETER (IN):	II 2
Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)									

GROUNDWATER ANALYTICAL SUMMARY (mg/L)											
SAMPLE DATE	ANTHRACENE	BENZO(a) ANTHRACENE	BENZO(a) PYRENE	BENZO(b) FLUORANTHENE	BENZO(g,h,i) PERYLENE	BENZO(k) FLUORANTHENE	CHRYSENE	FLUORANTHENE	FLUORENE	PHENANTHRENE	PYRENE
06/05/24	NOT SAMPLED										
08/28/24	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
11/13/24	NOT SAMPLED (DRY)										
02/25/25	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
05/15/25	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
09/03/25	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
GRP SSTLs:	0.0434	0.00481	0.000825	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1	0.135
Inhalation SSTLs:	0.0434	0.0094	0.00162	0.0015	0.0007	0.0008	0.0016	0.206	1.98	1	0.135
Stream SSTLs:	0.0434	0.0000295	0.0000295	0.0000295	-	0.0000295	0.0000295	0.0588	1.43	-	0.135

Monitoring Point Data Summary Table

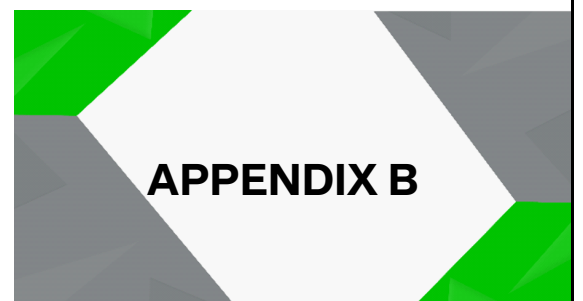
SITE NAME:	Pier 69 Package Store		UST NUMBER:	23-03-09	WELL ID:	VW-1			
INSTALLATION DATE:	12/05/23	WELL DEPTH (FT BTOC):	40.0	SCREEN LENGTH (FT):	2	CASING ELEV (FT ABOVE MSL):	619.76	WELL TYPE: DIAMETER (IN):	III 2
Notes: BTOC (Below Top of Casing); MSL (Mean Sea Level); BDL (Below Detection Limit); CA (Corrective Action)									

GROUNDWATER ANALYTICAL SUMMARY (mg/L)							
SAMPLE DATE	MTBE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENES	TOTAL BTEX	NAPHTHALENE
01/02/24	0.005	0.001	<0.002	<0.001	<0.001	0.001	<0.005
05/21/24	0.008	0.006	<0.002	<0.001	<0.001	0.006	<0.005
08/28/24	0.007	0.003	<0.002	<0.001	<0.001	0.003	<0.005
11/13/24	0.004	0.001	<0.002	<0.001	<0.001	0.001	<0.005
02/25/25	0.005	<0.001	<0.002	<0.001	<0.001	BDL	0.000097
05/15/25	0.004	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
09/03/25	0.003	<0.001	<0.002	<0.001	<0.001	BDL	<0.005
GRP SSTLs:	0.767	0.192	38.4	26.9	175	-	0.767
Inhalation SSTLs:	29300	16.9	526	169	175	-	31
Stream SSTLs:	-	-	-	-	-	-	-

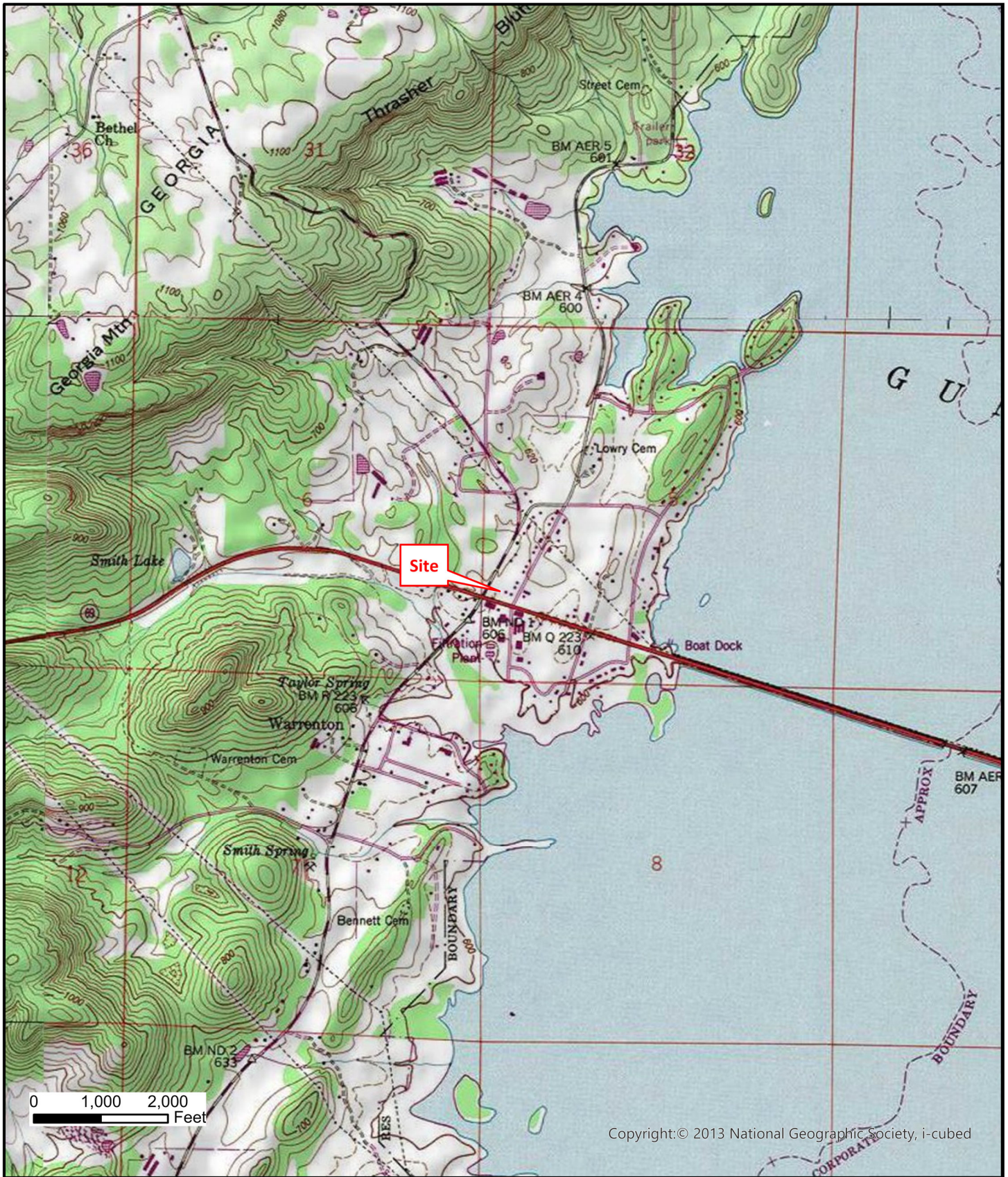


THREE
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FIGURES

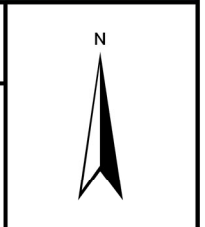


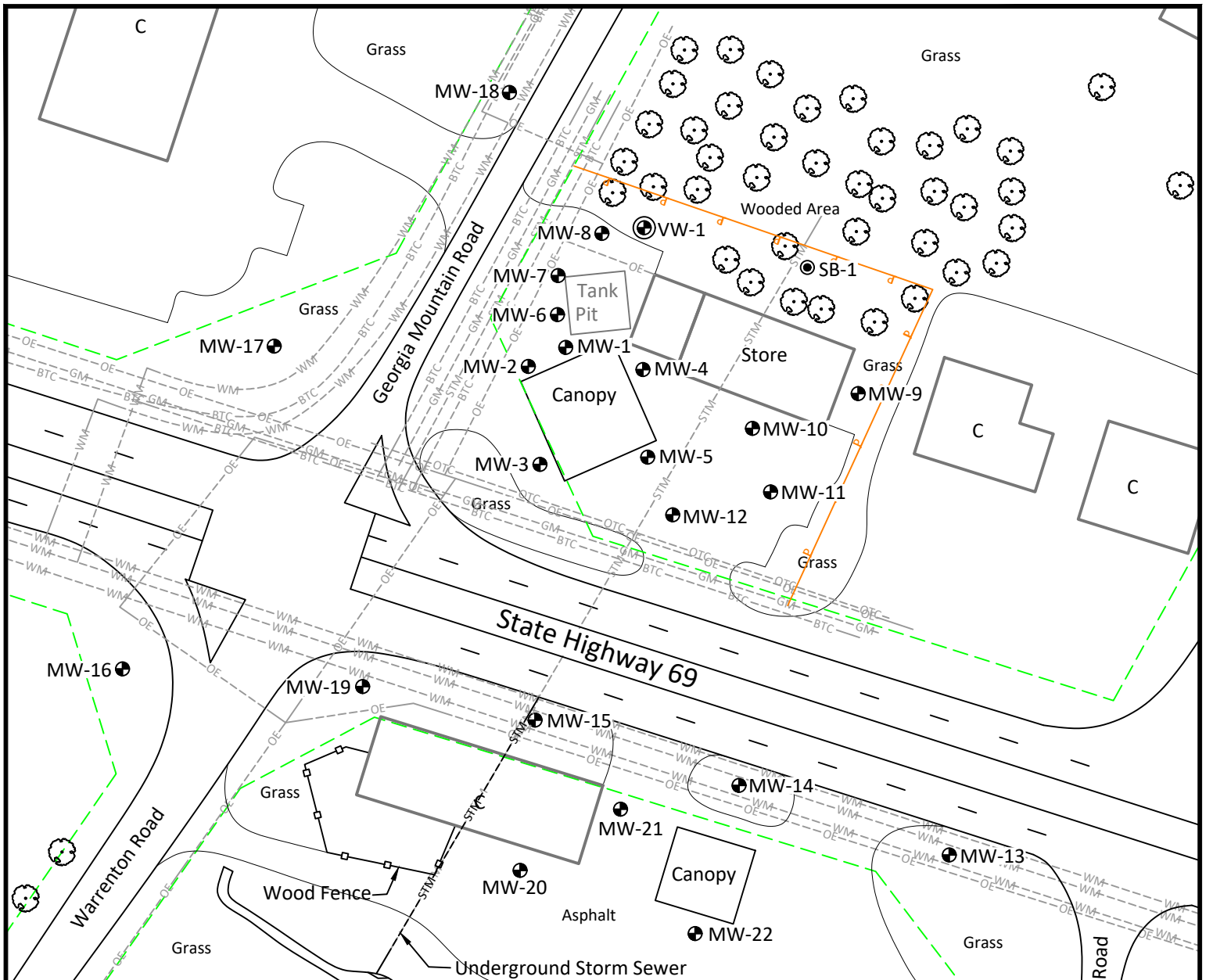
APPENDIX B



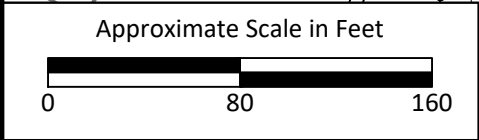
Site Location USGS Topographic Map

Pier 69 Package Store
 3918 Highway 69
 Guntersville, Marshall County, Alabama



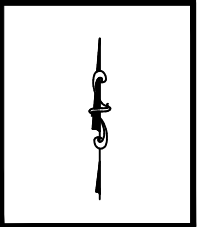


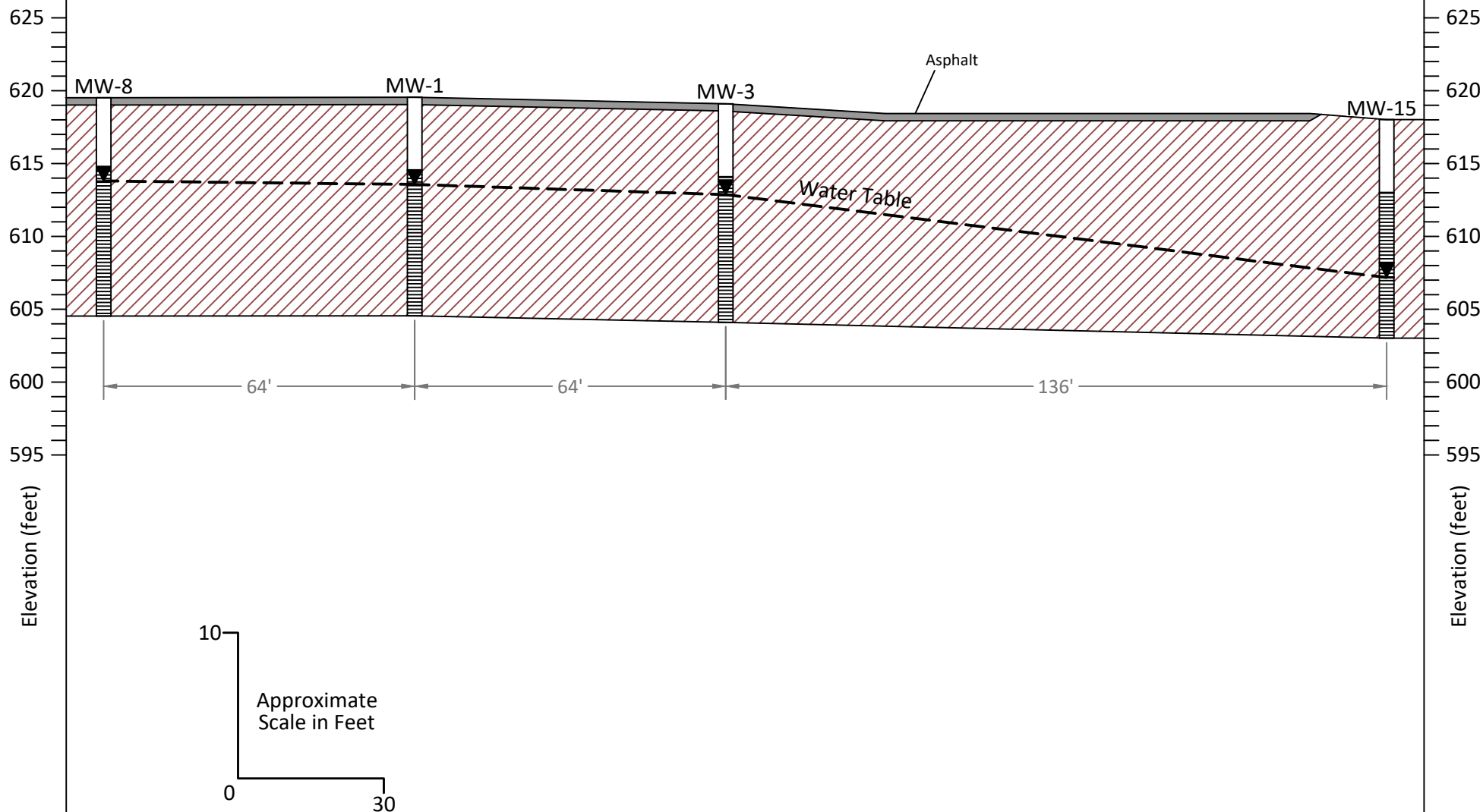
LEGEND	
	Type II Monitoring Well
	Type III Monitoring Well
	Soil Boring
	Commercial Building
	Property Line
	Right of Way
	Overhead Telephone Cable
	Overhead Electric Cable
	Buried Telephone Cable
	Gas Line
	Storm Sewer
	Water Line



Site Map with Utility and Well Locations

Pier 69 Package Store
3918 Highway 69
Guntersville, Marshall County, Alabama





Lithologic Cross-Section

Pier 69 Package Store
3918 Highway 69
Guntersville, Marshall County, Alabama

Legend



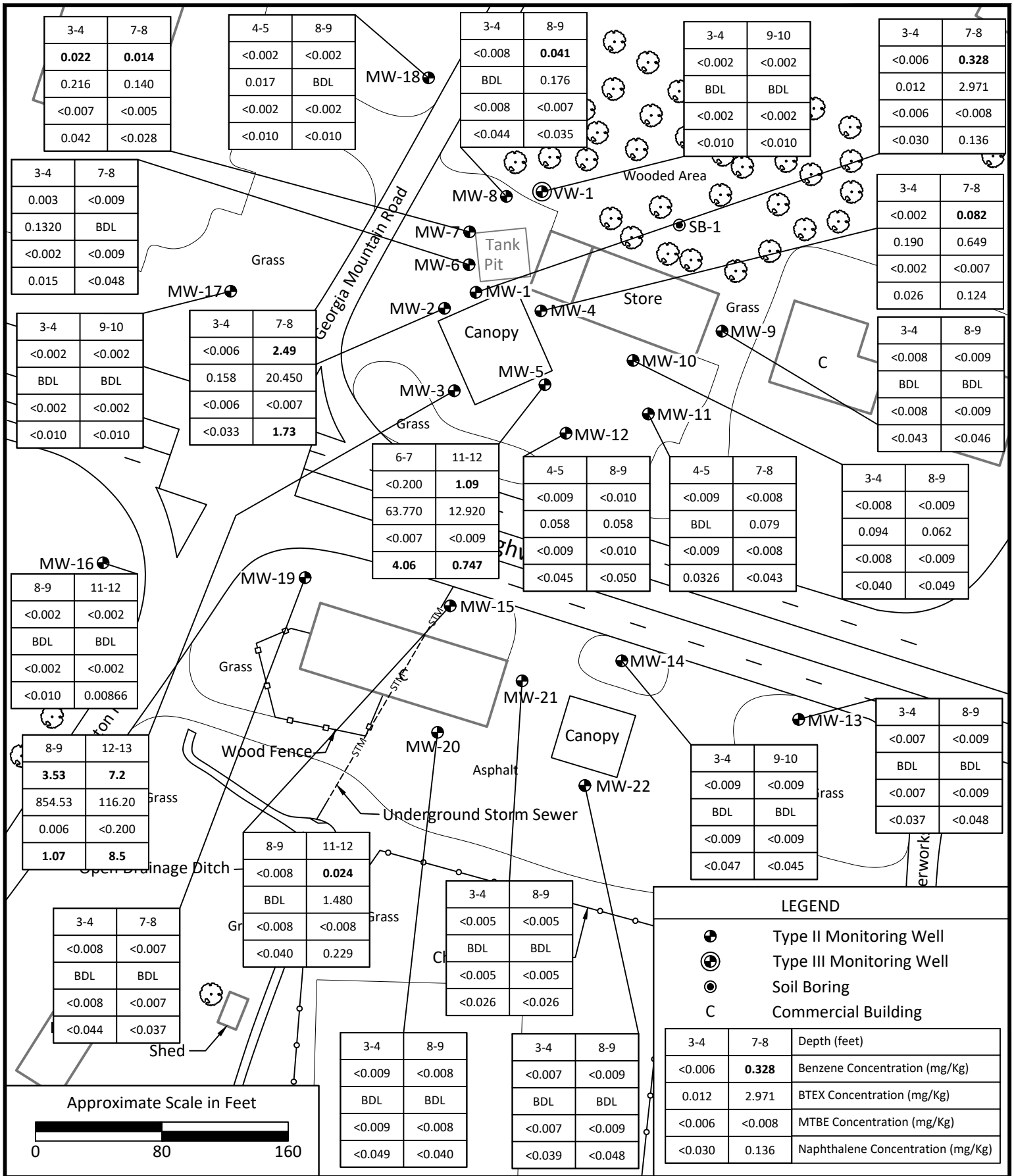
Silty Clay



Screened Interval



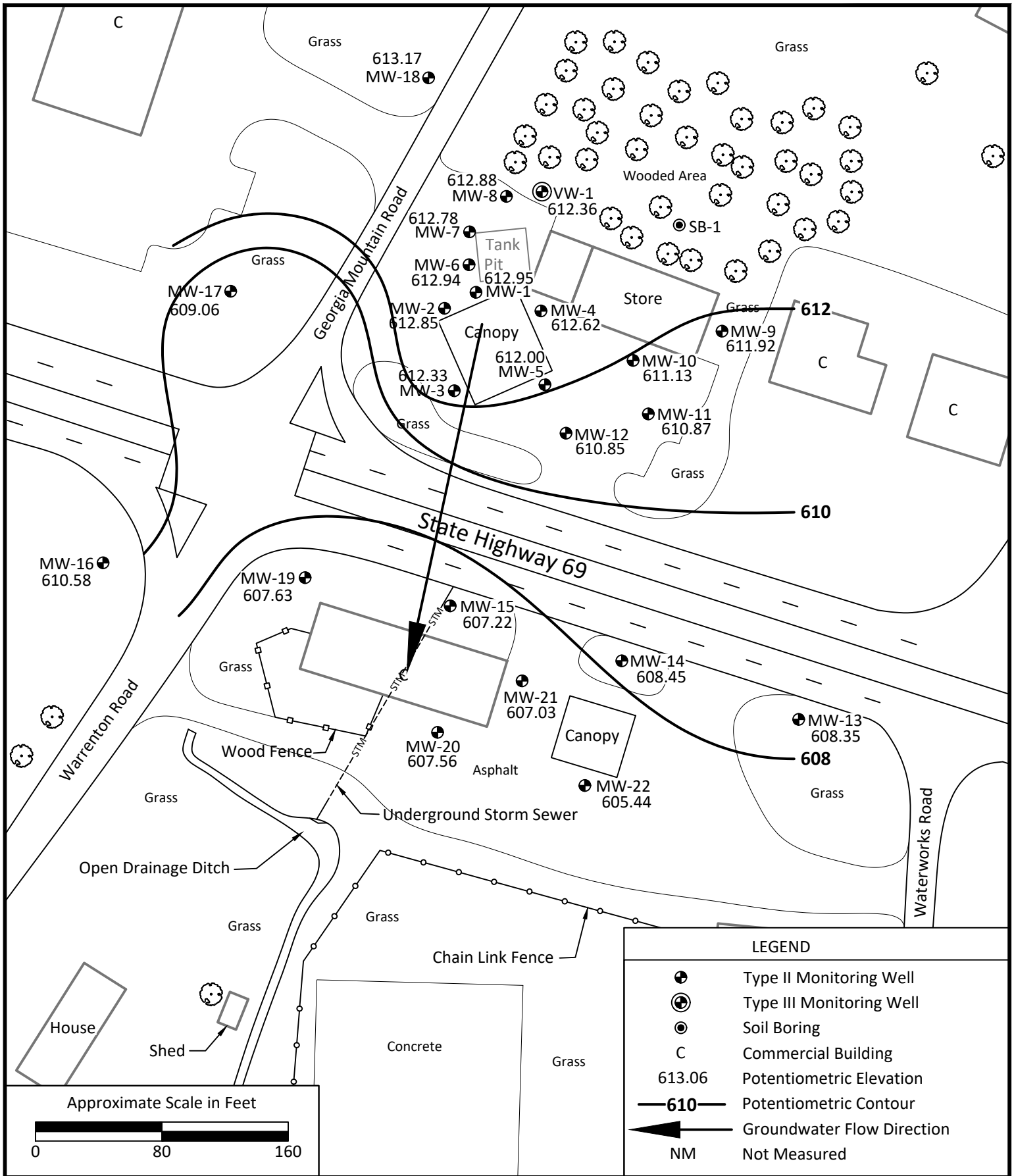
Groundwater Level

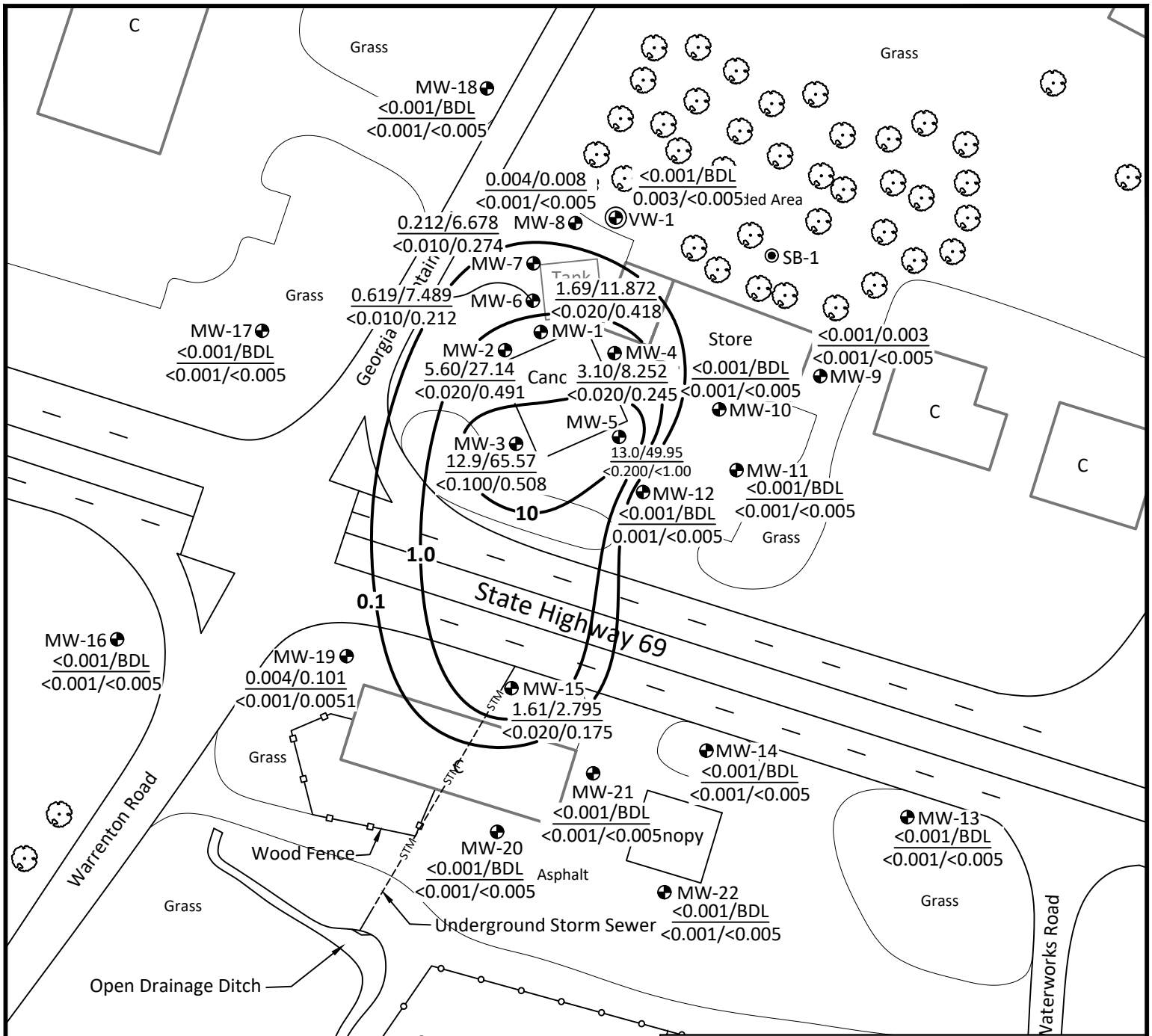


Soil Analytical Map

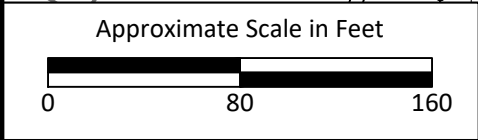
Pier 69 Package Store
 3918 Highway 69
 Guntersville, Marshall County, Alabama





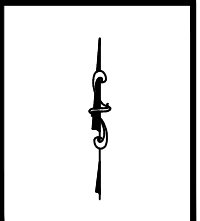


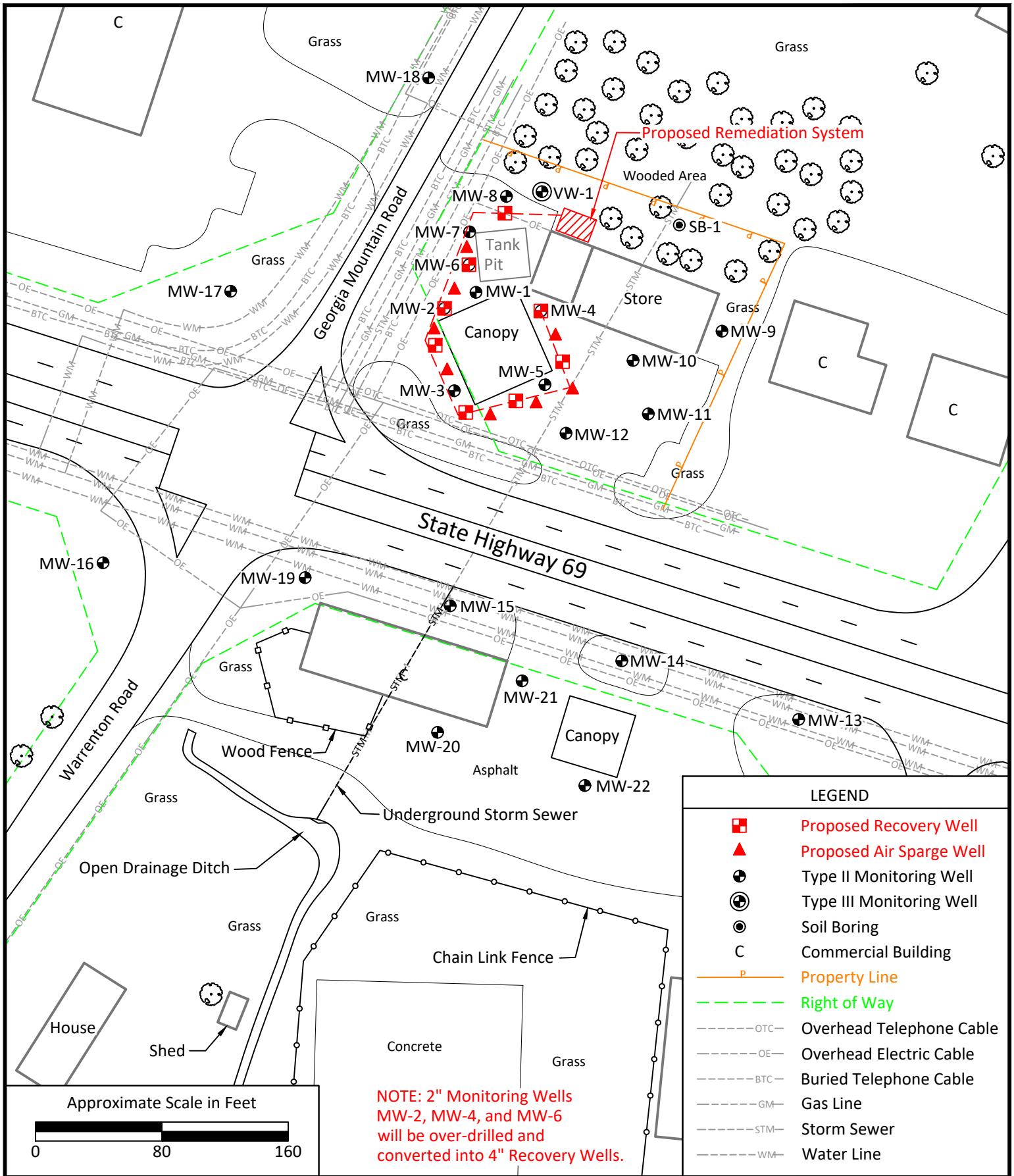
LEGEND	
	Type II Monitoring Well
	Type III Monitoring Well
	Soil Boring
	Commercial Building
	Benzene/BTEX Concentration (mg/L)
	MTBE/Naphthalene Concentration (mg/L)
	0.01 Benzene Contour
	BDL Below Detection Limit
	NS Not Sampled



Groundwater Analytical and Benzene Contour Map
September 03, 2025

Pier 69 Package Store
3918 Highway 69
Guntersville, Marshall County, Alabama



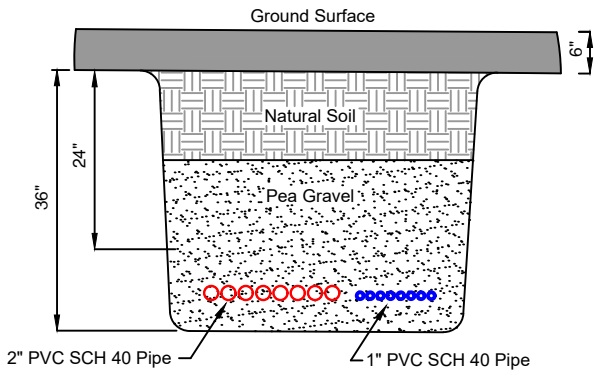


Proposed System Layout Map

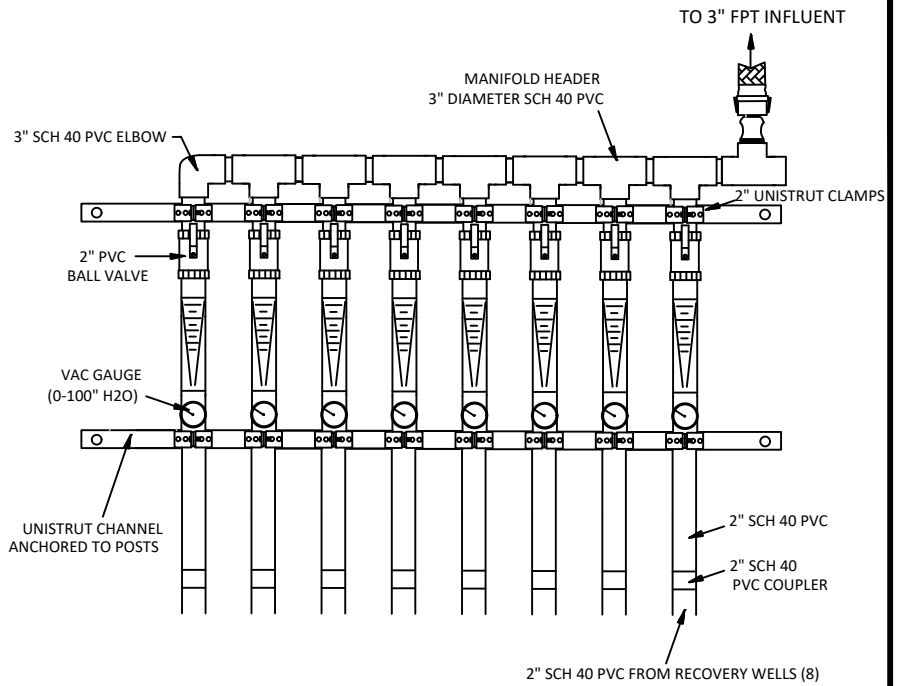
Pier 69 Package Store
 3918 Highway 69
 Guntersville, Marshall County, Alabama



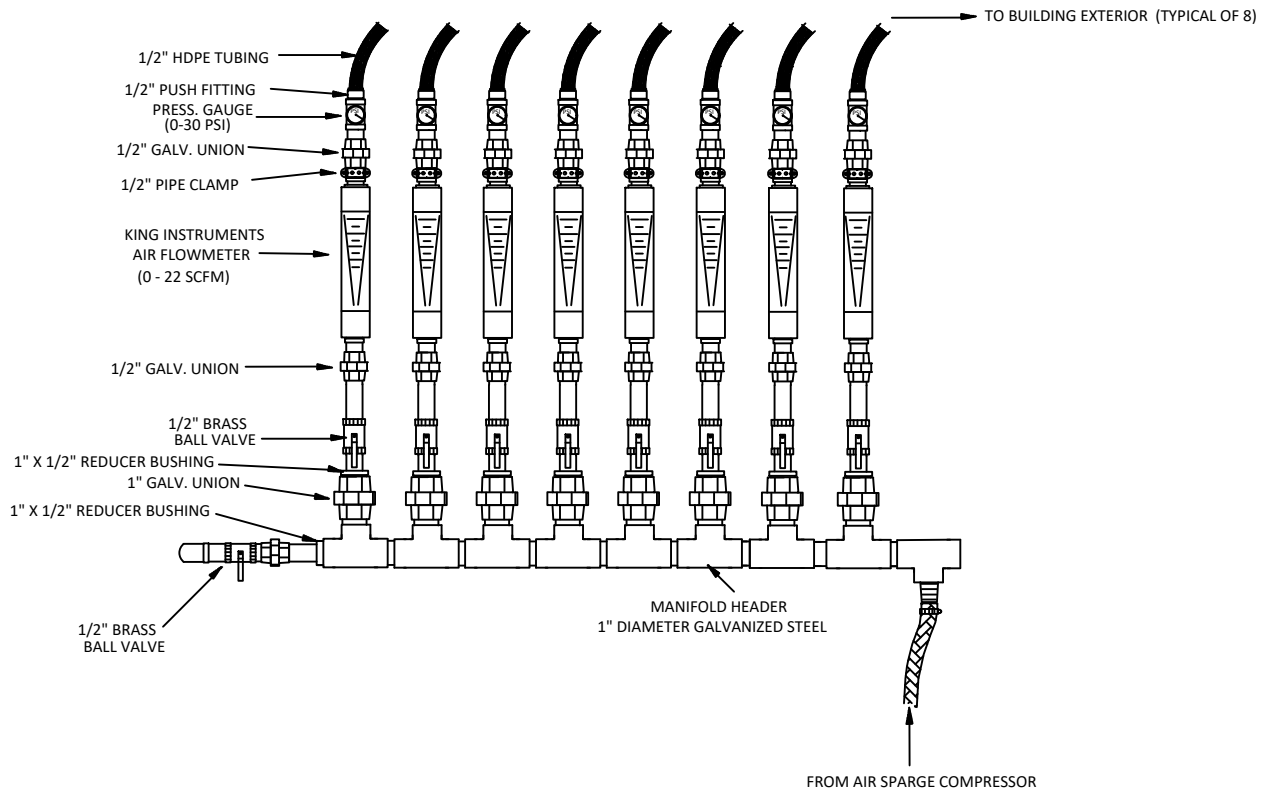
Piping Trench Cross Section



RECOVERY MANIFOLD DETAIL



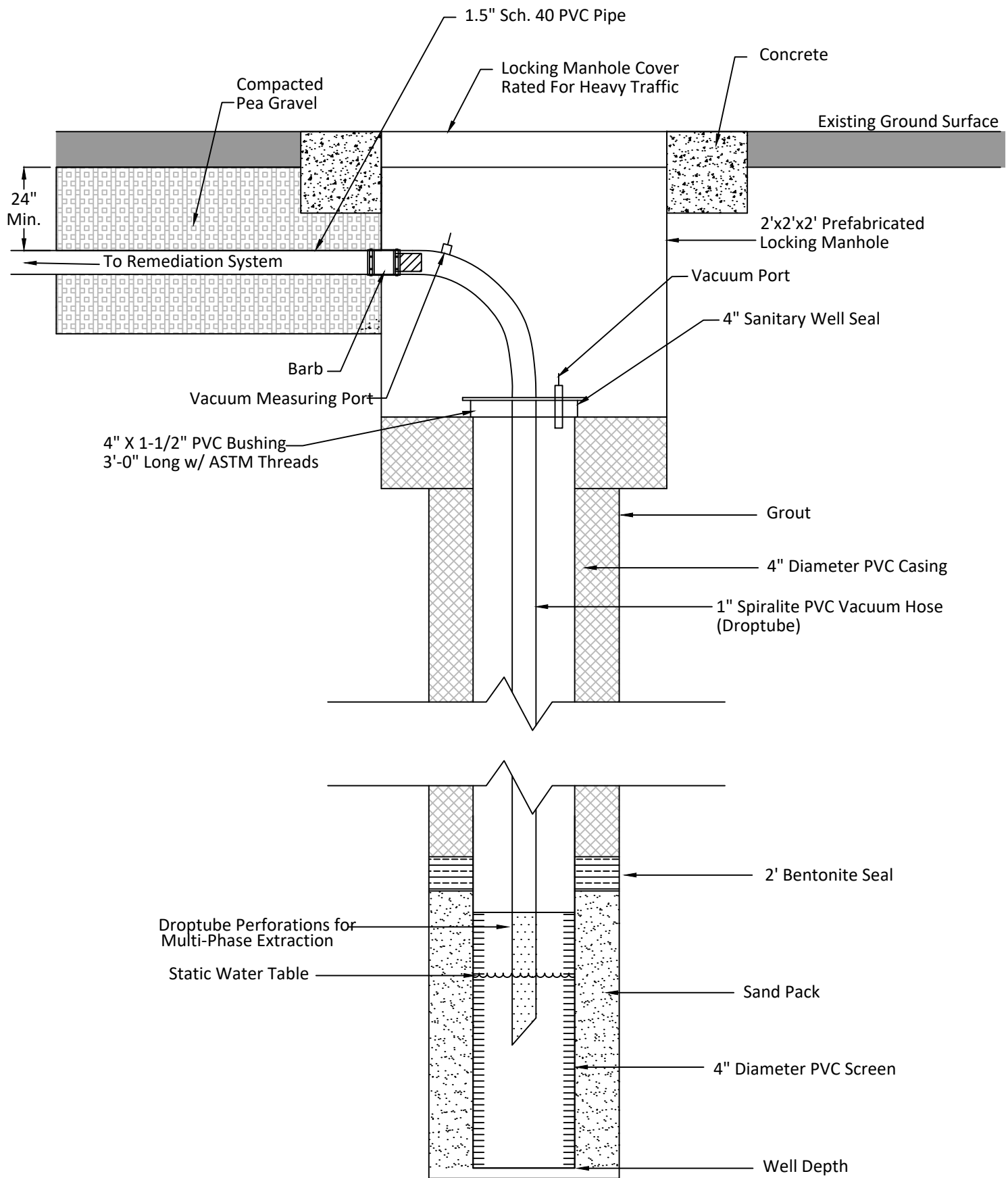
AIR SPARGE MANIFOLD DETAIL



Piping Cross Section and Manifold Detail

Pier 69 Package Store
3918 Highway 69
Guntersville, Marshall County, Alabama

NOT TO SCALE

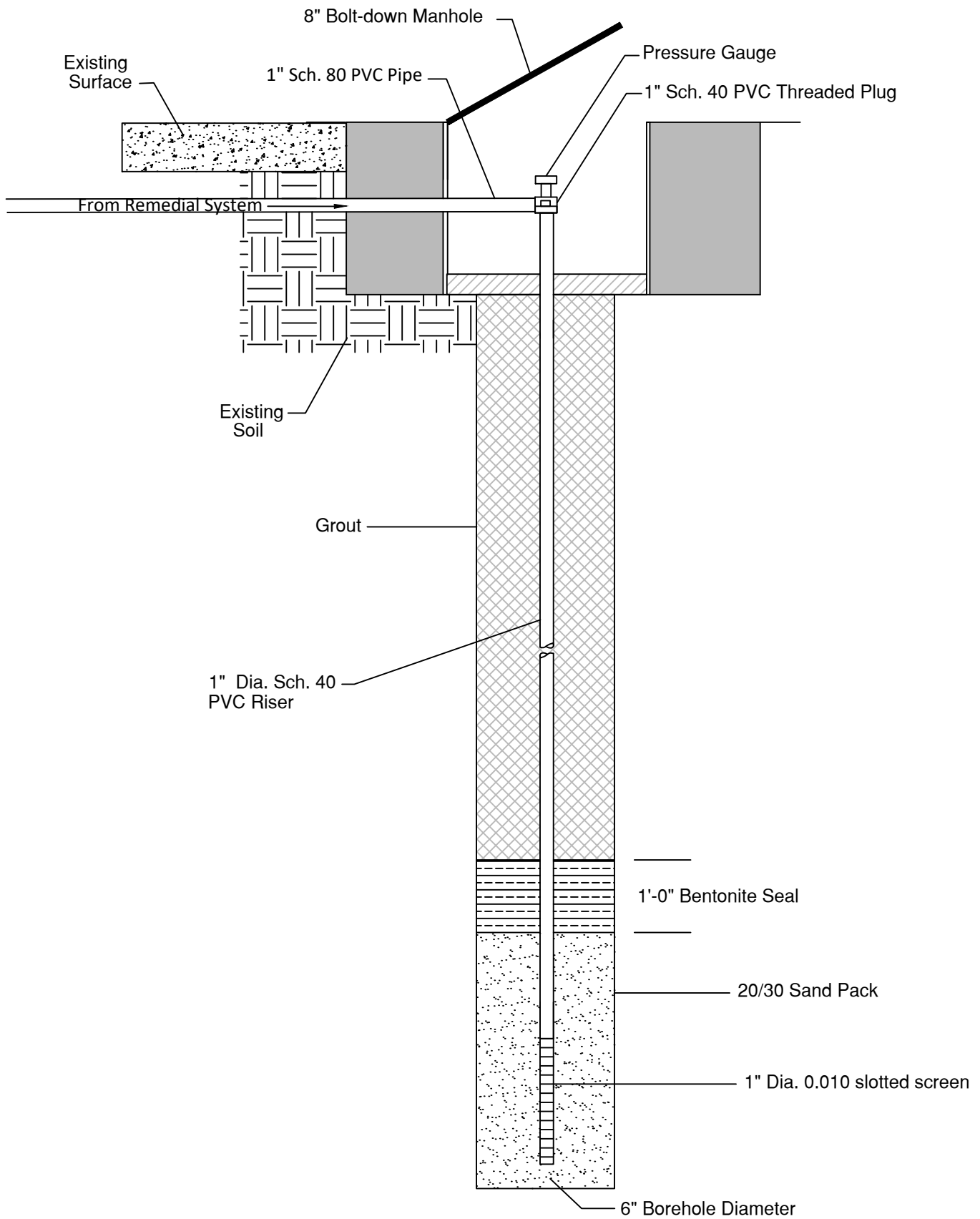


Recovery Well Construction Detail

Pier 69 Package Store
 3918 Highway 69
 Guntersville, Marshall County, Alabama

NOT TO SCALE





Air Sparge Well Construction Detail

Pier 69 Package Store
 3918 Highway 69
 Guntersville, Marshall County, Alabama

NOT TO SCALE





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EQUIPMENT SPECIFICATIONS



APPENDIX C

MK ENVIRONMENTAL INC.

765 Springer Drive
 Lombard, IL. 60148-6412
 615-392-7737

igiltz@mkenv.com

QUOTATION

Date | 11/5/2025
 Quote No. | 225084
 Reference | Pier 69
 Page No. | 1 of 3
 Freight | Included
 Terms | See Notes
 Ship Via | FLATBED
 F.O.B. | Factory

SOLD TO:	SHIP TO:
Mike Kotar Three Notch Group 6767 Old Madison Pike, Suite 40C Huntsville, AL. 35806 256-539-7470	Pier 69 Package Store 3918 Highway 69 & Georgia Mountain Rd Guntersville, AL.

Quotation valid for 30 days

QUANTITY		UNIT PRICE	AMOUNT
	400 amp 3/60/230 volt 4 wire plus ground electrical service Brought to NEMA 3R control Panel Interior electrical will comply with NEC requirements for Class 1, Division 2, Group D Hazardous locations Motors will be TEFC construction		
1	40 HP single stage oil sealed liquid ring blower or equal ~500 ACFM @ 20"Hg. Capacity 3/60/230-460 volt, 40 HP TEFC motor Direct drive motor Oil Scavenge line Backpressure gauge Air/Oil Separator Temperature gauge Y strainer with clean out plug High temperature switch low and high oil level switches inlet filter inlet check valve (1) extra 5-gallon bucket of seal oil for top off	148,898.00	\$148,898.00
1	~200 gallon Air/water separator with conductivity probe level switches 10" diameter clean out ports with vacuum rated quick release lid Liquid filled vacuum gauge Vacuum assist hose tank drain valve Vacuum relief valve Dilution valve with filter/silencer Inlet screen		
1	1.5 hp transfer pump, 3450 rpm, TEFC motor Cast Iron housing with bronze impeller, anti air lock design manual "Pump ON" button inside building for sampling		
1	MKE Model S15b Stripperator or equal 15 GPM capacity Oil/Water Separator and air stripper treatment system Coalescing separator with product skimming weir Polyethylene coalescing pack with reduced spacing for efficient oil removal Low profile air stripper with 2 hp AMCA Type B spark resistant aluminum blower Nylon tube aeration air stripper for high mass removal rates with low maintenance Low, high, and high-high sump conductivity probes 12" clean out hatch Low blower pressure alarm Blower silencer		
1	1.5 hp transfer pump, 3450 rpm, TEFC motor Cast Iron housing with composite impeller, anti air lock design manual "Pump ON" button inside building for sampling		
1	Groundwater flow totalizer with pulse output for remote totalization Flow calibration button		
1	Master Control Panel System, Including: NEMA 3R control panel with blank front cover Swing out sub panel for gauges, control operators, and switches IEC Magnetic motor starters, safety switches, H-O-A controls Control transformer (8) intrinsically safe relays, (8) alarm indicator LED's, (16) output channels Hard wired relay logic (1) exterior GFCI utility outlet		

MK ENVIRONMENTAL INC.

Three Notch Group
6767 Old Madison Pike, Suite 400

Date 11/5/2025
Quote No. 225084
Reference Pier 69
Page No. 2 of 3

QUANTITY		UNIT PRICE	AMOUNT
	System run time totalizing hour meter Blower low pressure alarm Anti-falsing alarm circuit to prevent nuisance tripping Auto-release restart timer for remote restarts via telemetry Three phase voltage and phase monitor Emergency E-stop LED red indicator light located on swing out sub panel Catox interlock controls		
1	Fused Main Disconnect Includes: 200 amp disconnect box mounted to the system building (1) Weatherhead with extension pole and bracket support (1) 200 amp Electric meter socket base installed		
1	400 amp meter socket base upgrade and a separate 100A disconnect or breaker for the catox power supply		
1	FleetZOOM Cellular Wireless Monitoring Unit or Equal Digital Inputs, Digital Outputs, Analog Inputs. Cellular antenna. Web based monitoring capabilities with graphing. Email & SMS alarming capabilities Monthly monitoring service by others		
1	Vacuum transducer integrated into telemetry system for real time monitoring, 4-20mA		
1	System building (refurbished) 8.5'W x 12'L x 9.5'H aluminum/steel enclosure, fully insulated with Removable sliding wall panels for ease of maintenance Exterior grade plywood floor, structural steel frame Includes 100 watt XP interior light, and removable center grate for ease of maintenance The breaker panel and control panel will be mounted on a vertical steel bracket attached to platform end. The bracket, panels and all conduits will allow for the removal of the enclosure panels by one person. 10" structural steel base with 4" steel cross members Steel corner posts and roof frame Continuous sheet aluminum roof for superior protection 12,000 BTU XP heater with XP thermostat. All components fully piped, wired and factory tested		
1	Equipment Electrical Installation Includes XP wiring, XP seal off connectors, liquid tight flexible conduit		
1	Equipment Mechanical Installation Includes mounting, piping and connectors		
1	Air Sparging System Becker Model KDT 3.80 Rotary Vane Compressor Pump and Motor. Capacity: 45 SCFM open flow. Maximum pressure 21.75 psig Oil less rotary vane Compressor pump with carbon vanes, built-in suction filter, built in carbon dust filter, air cooled aftercooler, pressure regulating valve, and coupled to a 6.0 HP, TEFC motor, 1750 RPM, 230/460 Volt, 3 Phase, 60 Hz. Air sparge starter controls and logic located in the master control panel.		
Notes:			
1. Payment terms for the MK DPVE system package above will be pay when paid up to 180 days or two weeks after ADEM reimbursement which ever comes first.			
2. Off loading and placement by others			

Does not include permits, fees, etc...
Offloading & placement by others.

Jerry Giltz
MK ENVIRONMENTAL, INC.

EQUIP. SUB TOTAL	\$148,898.00
START UP/TRAINING	\$2,500.00
FREIGHT	\$2,500.00
NET TOTAL	\$153,898.00

QUANTITY		UNIT PRICE	AMOUNT
	<u>MK Offgas Treatment Page: (Add to the Net Total)</u>		
6	Month minimum rental commitment of an oxidizer unit, 300 SCFM capacity or equal Electric or gas oxidizer provided, based on availability at time of order. Month to month rental at the same rate unit successfully returned and inspected by the manufacturer.	4,000.00	\$24,000.00
1	MK rental oxidizer freight (before and after rental) Freight to site, off loading by others Return freight to MK factory after rental in completed, on loading & supervision by others	5,000.00	\$5,000.00
1	AWS3 knock out tank prior to oxidizer to minimize condensed liquids from entering burner or vapor phase carbon bed.	1,250.00	\$1,250.00
1	Oxidizer start up and training assistance Startup and training services for the oxidizer rental.	1,500.00	\$1,500.00
	Notes:		
	1. Please allow up to 2 weeks after power is installed for MK startup & training services.		
	2. Oxidizer power terminations and interlock conduits w/wires will require to be ran prior to MK startup services. MK will provide a detailed wiring and conduit schedule.		
	3. Oxidizer rental clock starts the day of shipment from the CatOx factory. Rental clock stops upon receipt of the oxidizer rental back at CatOx factory & inspected.		
		EQUIP. SUB TOTAL	\$31,750.00
		EQUIP. SALES TAX	
		START UP/TRAINING	
		FREIGHT	
		NET TOTAL	\$31,750.00

Does not include permits, fees, etc...
Offloading & placement by others.

Jerry Giltz,
MK ENVIRONMENTAL, INC.

QUALITY ASSURANCE/ QUALITY CONTROL PLAN

QA/QC MONITORING/SAMPLING PLAN

FIELD ACTIVITIES

Air Sampling

Air samples are collected utilizing an air sampling pump system or Summa canister. The pump is primed, prior to collection of each sample, to displace any trapped air or gases with the targeted air make-up. The air is drawn in and exits through polyethylene tubing. The sample is collected directly into and stored in a Tedlar air/gas sampling bag or Summa canister. The sample bag or canister is provided to Three Notch Group (Three Notch) by the analytical laboratory. The air sampling pump system is also used to extract air/gases from a vacuum and drive them into a field-screening instrument. The air sample collection and screening protocols are described below.

Air Screening

Air screening is conducted to provide a field indication of the levels of hydrocarbon gases in vapor phase. The air/gases are screened with an organic vapor analyzer, equipped with a methane filter (as applicable). The field instrument is field calibrated to a gas standard of known concentration. Field air/gas samples are screened at ambient conditions and the data recorded. The field screening test form contains the following information:

- Project name (client and location);
- Data table number;
- Personnel collecting samples;
- Field screening instrument used and I.D. number;
- Calibration information;
- Description of field screening method;
- Sample identification information; and
- Screening data, including time collected/screened, ambient temperature/results.

Air Sampling Protocols

Air samples designated for laboratory analysis are collected in Tedlar bags or a Summa canister. The sample bags or canister are provided to Three Notch directly by the analytical laboratory. If Tedlar bags are used, two Tedlar bags are filled for each sample, in the event the bags are damaged during shipment. Upon collection, each sample bag is immediately placed in a cooler or other secure

shipping container, following laboratory instructions and appropriate chain of custody documentation. The samples are sent direct to the laboratory via overnight carrier, or are picked up from the Three Notch office by a representative of the laboratory.

Groundwater Monitoring/Sampling Activity Protocols

Groundwater monitoring/sampling includes the following associated activities:

- 1) Measurement for the presence of free product;
- 2) Measurement of static water level;
- 3) Calculation of standing water volume (in well);
- 4) Sample collection; and
- 5) Equipment decontamination.

Groundwater sampling parameters are recorded in the field on a monitor well sampling record form. The details for each of the above referenced monitoring/sampling activities are described in the following sections.

Free Product Detection and Measurement

The presence of free product is measured prior to free product recovery, and purging/sampling the selected monitor well. Free product is detected/measured using a hydrocarbon/water interface probe. The probe is lowered slowly into the well until an instrument tone is heard (a constant tone indicates that free product is present, and an intermittent tone indicates that water is present). The point at which a constant tone is first heard is considered the top of free product. The measurement from the top of the PVC well casing to the top of free product is recorded. The measurement is checked at least twice. The probe is then slowly lowered further into the well until an intermittent tone is heard (indicating that the probe has passed through the free product layer into the underlying groundwater interval). Once the intermittent tone is encountered, the probe is slowly raised until the constant tone is again indicated. This point is considered the interface between the floating free product layer and the groundwater table. The measurement from the top of the PVC casing to the interface is recorded. This measurement is also checked at least twice.

The free product thickness is determined by calculating the difference between the measurement to the top of free product and the measurement to the free product/water interface (the interface probe measures free product and water levels to an accuracy of 0.01 feet). If free product is identified by the interface probe, a clear bailer is lowered into the well to collect a sample for visual

confirmation of the free product. Remarks regarding visual characteristics of the free product are recorded (black, clear, colored, etc.).

Calculation of Standing Water Volume

The standing water volume in a monitor well is calculated using the equation:

$v = 3.14 \times r^2 \times l$ (where v = well volume, r = well radius, and l = length of the column of water in the well).

The column of water in the well can be calculated using the equation:

$l = w - d$ (where w = distance from the top of casing to the bottom of the well and d = distance from the top of casing to the top of the water).

Well Evacuation

Well evacuation is initiated after the static water level is measured and the standing water volume has been calculated. Well evacuation is conducted by either using a new disposable (single-use) bailer, a well-dedicated PVC bailer, or a surface mounted pneumatic operated diaphragm pump (a diaphragm pump is only used in deep wells (greater than 25 feet) or in wells that yield such large volumes that hand-bailing is not practical).

Well evacuation with a bailer is performed by attaching a new nylon line to the bailer, and then lowering the bailer in to the well until the bailer is submerged. The bailer is then retrieved from the well in such a manner that the bailer and nylon line do not contact the ground or surrounding vegetation (to prevent contaminating the bailer or line). The water removed from the well is poured into a graduated bucket so that the amount of water removed can be determined. This procedure is repeated until three well volumes of water are removed, or until the well is purged dry. For wells that recharge very slowly, the purge water is limited to one well volume. The volume of groundwater purged from each well will be recorded.

Well evacuation with a diaphragm pump is conducted by lowering disposable tubing (hose) into the well, to sufficient depth. For deeper wells, a PVC pipe, equipped with a foot valve (to stage-lift the water out of the well) will be employed. The piping will be well-dedicated to prevent cross-contamination. Pumping will be performed until at least three well volumes are recovered (purge volume will be recorded).

Petroleum contaminated water (PCW) purged from wells in conjunction with groundwater monitoring/sampling activities will be containerized on-site in labeled 55-gallon drums. PCW will be removed periodically from the site to an appropriate disposal/treatment/recycling facility approved by the ADEM. Records will be maintained as to the volume of PCW accumulated at the site, and identification labels will be affixed to PCW containers. Prior to disposal, samples will be collected and analyzed as required by the ADEM and the disposal/treatment/recycling facility. No waste will be removed from the site without ADEM knowledge/approval.

Groundwater Sample Collection

Groundwater samples are collected from monitor wells not containing free product, unless otherwise directed by the ADEM. Groundwater sampling is performed using a new disposable bailer for each sampled well. The disposable bailers are purchased in individually wrapped packages, and are not opened until ready to use. Once opened, the bailers are attached to a length of new nylon string. The bailer and string are not allowed to touch the ground or vegetation, and are disposed of after each well. Sampling is accomplished by slowly lowering the bailer into the well to a depth where the bailer is almost completely submerged. The bailer is then slowly retrieved from the well to minimize agitation of the sample. Once collected, the water sample is immediately transferred (poured slowly to minimize agitation and formation of air bubbles) into the designated sample containers.

Groundwater samples collected for BTEX/MTBE and naphthalene analysis (volatile organics) are transferred very slowly down the inside of the sample vial to avoid aeration. The sample vials, consisting of 40 ml glass with a Teflon septum cap, are shipped to Three Notch directly from the analytical laboratory. The groundwater sample is added to the vial until a convex meniscus is formed across the top of the vial. The Teflon septum cap is placed on the vial and the vial is upended to check for trapped air bubbles. If bubbles are present, the sample container is opened, and topped off again until an air-free sample is obtained. If the vial cannot be closed "air-free" after three tries, it is discarded. Two samples are collected for each BTEX/MTBE (volatile) analysis. The preservation employed for BTEX/MTBE (volatile) analysis will include either of the following (depending on holding time constraints):

- Cool collected sample to 4°C and maintain (7 day holding time), or

- Add 4 drops concentrated HCl to sample vial (typically the acid is pre-added by the laboratory to the sample vial) and then cool sample to 4°C and maintain (14 day holding time).

Immediately following collection of each groundwater sample, the sample is labeled, placed in bubble pack (to prevent the glass vial from breaking during shipping), and stored in a well-iced ice chest. Each sample label includes the site location, sample identification number, name of collector, date/time of collection, and parameter(s) requested.

Following collection of all samples, the iced chest will be sealed and transported to the laboratory following appropriate chain of custody protocols (refer to description of Chain of Custody protocols provided below).

Decontamination of Groundwater Sampling Equipment

All equipment used for groundwater sampling is either well-dedicated or is used only once and disposed of. As a result, cleaning/decontamination of sampling equipment is minimal.

QA/QC PROCEDURES DISCUSSION

Chain of Custody

Sample custody begins with the subcontracted laboratory when sample kits are prepared and shipped for Three Notch use at a specified project location. Responsibility for sample container materials and preparation lies with the subcontracted laboratory. Sample containers and kits are normally shipped to Three Notch by common carrier or are dropped off by a laboratory representative. Upon receipt of the kits, Three Notch personnel complete an inventory of the contents to confirm that the containers, etc. are adequate for the number of wells and specified analytes. Sample bottles may be pre-labeled and contain the proper preservative. The individual sample vials and/or other sample containers are not opened until used in the field. Three Notch will secure the sample kits inside the office until the specific sampling project is to be performed.

The samples remain in the custody of the Three Notch representative until delivered to the subcontract laboratory or dispatched via common carrier for shipment to the laboratory. In cases where samples leave the direct control of Three Notch personnel, such as shipment to a laboratory by a common carrier (FedEx, UPS, etc.), a seal will be provided on the shipping container or individual

sample bottles to ensure that the samples have not been opened or otherwise disturbed during transportation.

To establish and maintain the documentation necessary to trace sample possession from the time of collection, a chain of custody record will be completed and will accompany every sample. The record contains the following types of information:

- Sample number
- Signature of collector
- Date and time of collection
- Sample type (soil, groundwater, air, etc.)
- Identification of well
- Number of containers
- Parameters requested for analysis
- Required detection limit
- Signature of person(s) involved in the chain of possession.

Field QA/QC Program

Various types of field blanks are collected to verify that the sample collection and handling process has not affected the quality or integrity of the samples.

- 1) Trip Blanks – A trip blank is a field blank that is transported from the laboratory to the sampling site, handled in the same manner as other samples, and then returned to the laboratory for analysis in determining QA/QC of sample handling procedures. The trip blank is prepared in the laboratory with distilled/organic free water and is utilized at a frequency of 1 trip blank for each cooler (or other shipping container) used to transport samples from the laboratory to the field and back to the laboratory.
- 2) Duplicate Sample – Duplicate samples are collected simultaneously from the same source, under identical conditions, into separate sample containers. These samples provide a check on the sampling techniques as well as laboratory equipment. Duplicate samples are only collected on groundwater samples at a frequency of one sample per sampling event.

The results of the analysis of the blanks will not be used to correct the groundwater data. If contaminants are found in the blanks, an attempt to identify the source of contamination will be initiated and corrective action, including re-sampling if necessary, will be evaluated.

After completing a sampling program, the field data package (field logs, calibration records, chain of custody forms, etc.) will be reviewed for completeness and accuracy. Some of the items considered in the Field Data Package Validation Procedure include but are not limited to the following:

- A completeness review of field data contained on water and soil sampling logs;
- A verification that sampler blanks were properly prepared, identified, and analyzed;
- A check on field analyses for equipment calibration and condition; and
- A review of chain of custody forms for proper completion, signatures of field personnel and the laboratory sample custodian, and dates.

Laboratory QA/QC Program

The selection of a contract laboratory can be directed either by the client or by Three Notch. In either case, the selection is typically based upon several facts, including cost; laboratory certification; quality data and reporting; and turn around time. The most critical factor in the selection of an analytical laboratory by Three Notch is the quality of data and reporting provided by the laboratory. Typically, the results of analytical laboratory testing dictate the activities conducted at a site. The activities conducted when selecting a laboratory include discussions with current and past customers, discussions with regulators, and review of laboratory QA/QC practices.

The normal turn around for samples will be two weeks for most samples. Prior to contracting a laboratory to conduct analysis, an estimate of the turn around time is obtained. If the expected turn around is in excess of three weeks then a backup laboratory is contacted to determine their availability. A decision of which laboratory to use in a particular instance is made on a case-by-case basis.

Once an analytical report is received by Three Notch, validation of the analytical data package will be performed. The Analytical Data Package Validation procedure will include but is not limited to the following:

- A comparison of the Data Package to the reporting level requirements designed for the project, to ensure completeness;
- A comparison of sampling dates, sample extraction dates, and analysis dates to determine if samples were extracted and/or analyzed within the proper holding times' as failure in this area may render the data unusable;

- A review of analytical methods and required detection limits to verify that they agree with set standards; as failure in this area may render the data unusable;
- A review of sample blanks to evaluate possible sources of contamination. The preparation techniques and frequencies, and the analytical results (if appropriate) will be considered; and
- A review of blanks (trip blanks, reagent blanks, method blanks, and extraction blanks) to assure that they are contamination free at the lowest possible detection limit. All blank contaminants must be explained or the data applicable to those blanks will be labeled suspect and may only be sufficient for qualitative purposes.
- A review of detection limits, to ensure sample results are accurate to below the levels specified as ADEM Initial Screening Levels.
- A review of data “qualifiers” reported by the laboratory for significance to the results.



**THREE
NOTCH
GROUP**

SITE HEALTH AND SAFETY PLAN



APPENDIX E

Site Health and Safety Plan

**Pier 69 Package Store
Facility ID# 24464-095-018113
UST No. 23-03-09**

Prepared For:

Deep, Inc.

**140 Georgia Mountain Road
Guntersville, AL 35976**

Prepared By:

**Three Notch Group, Inc.
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1.0 Introduction

This Health and Safety Plan (HASP) has been prepared specifically for corrective action activities to be conducted by Three Notch Group, Inc. (Three Notch) for the Pier 69 Package Store site located in Guntersville, Marshall County, Alabama. These activities include all fieldwork necessary to conduct soil and groundwater remediation of petroleum hydrocarbons at the site.

2.0 Purpose

This HASP describes the preventative measures, person protection, and safety procedures to be followed by Three Notch personnel and subcontractors during all field activities. The HASP has been prepared in accordance with and meets the requirements of the Occupation Safety and Health Administration (OSHA) General Safety Standards for industry under 29 CFR 1910 and construction under 29 CFR 1926, the joint NIOSH/OSHA/USCG/EPA, *Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities*, dated October 1985, and NFPA Safety Guidelines. Should any unexpected conditions arise, the HASP will be amended to accommodate site specific conditions.

3.0 Key Personnel and Responsibilities

All Three Notch personnel have received an initial 40-hour HAZWOPER certification, which is updated annually through an 8-hour refresher course. This training course meets the requirements of the OSHA 29 CFR 1910.120 standards. Three Notch personnel assigned to the project include:

NAME	TITLE	RESPONSIBILITIES
David Dailey	Professional Engineer/ Corporate HSO	Overall management of entire project from beginning to completion. Responsible for preparation and implementation of the HASP and reporting of all hazard incidents to appropriate enforcement agencies. Coordinates and oversees all field activities.
Alecia Hamilton	Project Manager / Site HSO	Performs all field activities and is responsible for recognizing site hazards and reporting hazard incidents to Corporate HSO.

4.0 Scope of Work

Work to be performed may include installation activities.

4.1 Installation Activities

Installation activities generally involve preparing the site for installation activities and also the construction of the MEME manifold onsite. More specifically this may include:

- Preparing the site for work to be performed
- Saw-cutting concrete surface, excavating, and installing well vaults
- Installing polyvinyl chloride (PVC) extraction piping
- Installing piping connections from extraction piping to wellhead

5.0 Chemical Hazards

When conducting the corrective action activities, the primary chemicals of concern are gasoline or diesel.

5.1 Gasoline and Diesel

Gasoline and diesel are substances to be potentially encountered in the soil and groundwater at the site. Gasoline components include benzene, toluene, ethylbenzene, and xylenes (BTEX). Diesel components may include anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, fluoranthene, fluorene, naphthalene, phenanthrene, and pyrene.

5.2 Hazard Identification

During the corrective action activities, many hazards or potential hazards may be encountered when dealing with gasoline or diesel. This section serves as a guideline in recognizing hazards associated with these chemicals that exist or may potentially arise during field activities. Recognition is the first step in eliminating exposure to these hazards.

Occasionally methyl tertiary-butyl ether (MTBE) is encountered. MTBE has been used since 1979 as an oxygenate to gasoline in order to decrease carbon monoxide production in cars, particularly older model cars; however, MTBE has been determined to be a potential carcinogen. MTBE has low taste and odor thresholds, which can make a water supply non-potable even at low concentrations.

Exposure to MTBE will only be seen through exposure to gasoline containing MTBE and the effects of gasoline containing MTBE are relatively similar to gasoline not containing MTBE. The following are hazards associated with exposure to gasoline:

- Contact may irritate or burn the skin and eyes and absorption through the skin may be poisonous
- Vapors may be poisonous if inhaled and are irritating to the respiratory tract
- Vapors are an explosion hazard and may travel to a source of ignition and produce flashback
- A gasoline fire may produce irritating and poisonous gases
- Gasoline and diesel are flammable/combustible materials that may be ignited by heat, sparks, or flames, and a gasoline container may explode when exposed to heat or fire

The primary hazard associated with exposure to gasoline is the inhalation of vapors. The Safety Data Sheet (SDS) is attached to this Health & Safety Plan.

5.3 Hazard Prevention

Preventing exposure to chemical hazards generally requires the use of personal protective equipment (PPE). Level D equipment will provide the protection necessary to prevent exposure to these hazards. Level D equipment is discussed further in Section 10.1, Personal Protective Equipment.

5.4 Symptoms and First Aid Procedures

Many of the constituents found in gasoline and diesel act as central nervous system (CNS) depressants. The following table includes first aid measures for CNS depressants, which affect a person through inhalation (breathing), dermal (skin), or ingestion (mouth) exposure. In addition, the eye can be very sensitive to exposure to chemicals and is therefore included in the following table:

ROUTES OF EXPOSURE	SYMPTOMS	TREATMENT
Inhalation	Dizziness, nausea, lack of coordination, headache, irregular and rapid breathing, weakness, loss of consciousness, coma	Bring victim to fresh air. Rinse eyes or throat with plenty of water, if irritated. If symptoms are severe (victim vomits, is very dizzy or groggy, etc.), evacuate to hospital. Be prepared to administer CPR if certified. Monitor victim for at least 48 hours.
Dermal	Irritation, rash, or burning	Flush affected area with water for at least 15 minutes. Apply clean dressing and get medical attention.
Ingestion	Dizziness, nausea with stomach, cramps, loss of consciousness, coma	Evacuate victim to hospital. Do not induce vomiting.
Eye	Redness, irritation, pain, impaired vision	Flush with an abundant amount of water for at least 15 minutes. If severe, seek medical attention immediately.

6.0 Equipment/Operational Hazards

The following sections will address the hazards, preventative measures, and first aid procedures associated with the drill rig, backhoes, and other heavy equipment. The drill rig used during these field activities generally requires the use of augers for probing. These augers are designed to rotate in a circular motion while being forced downward through the soil. Field personnel are required to assemble and disassemble these parts. Contact with these rotating parts is one recognized hazard. In addition, the machinery also contains parts that become increasingly heated during operation.

6.1 Hazard Identification

There are several hazards associated with use of any type of drill rig and heavy machinery while performing corrective action activities. Generally during these field operations, the general public may become fascinated with the operation and approach the work area. All unauthorized personnel are required to remain 100 feet away from the work area. The site HSO officer will be responsible for keeping all unauthorized personnel away from the work area. The hazardous associated with the use of a drill rig or other heavy machinery is as follows:

- Gasoline vapors from nearby dispensers can potentially enter the diesel-operated engine thereby causing fire/explosion hazards
- Rotating augers may catch onto gloves or clothing thereby pulling hands arms into the rotating machinery
- Drilling equipment may rupture hydraulic hoses thereby releasing hydraulic fluids
- Engine and exhaust system of an engine are extremely hot during and following operation
- Potential contact with overhead and underground utilities
- Open excavations/boreholes can be the source of trips and falls
- Digging machinery such as backhoes may puncture subsurface utilities
- Operators of heavy machinery may be unable to locate pedestrians near the operating equipment; therefore, all field personnel are to remain within view of the operator at all times during operation

6.2 Hazard Prevention

Hazards associated with heavy machinery can easily be avoided with additional planning. The key to avoiding these hazards includes being familiar with the equipment and the process. In addition, being familiar with and implementing the precautionary measures listed below may reduce or eliminate the risks of a hazardous situation.

- Wear hard hat when working near or around the machinery
- Wear safety glasses when performing maintenance to machinery or power tools
- Shut down the machine engine when repairing or adjusting equipment
- Prevent accidental starting of engine during maintenance procedures by removing or tagging ignition key
- Block wheels or lower leveling jacks and set hand brakes to prevent equipment from moving during drilling procedures

- When possible, release all pressure on hydraulic systems, drilling fluid systems, and air pressure systems of heavy machinery prior to performing maintenance
- Know the location of the emergency shut-off switch for all equipment
- Avoid contact with engine or exhaust system of engine following its operation
- Avoid using gasoline or other volatile/flammable liquids as a cleaning agent on or around heavy machinery
- Replace all caps, filler plugs, protective guards or panels, and high-pressure hose clamps, chains or cables moved during maintenance prior to excavation
- Avoid wearing rings or jewelry during drilling or installation procedures
- Be aware of all overhead and underground utilities
- Avoid alcohol or other CNS depressants or stimulants prior to excavation
- Avoid contact with equipment parts during freezing weather. Freezing of moist skin to metal can occur almost instantaneously
- Shut all field operations during an electrical storm
- Do not operate heavy equipment within 20 feet of overhead power lines

6.3 Symptoms and First Aid Procedure

Hazards associated with heavy equipment were identified in Section 6.1. Unlike hazards associated with temperature or chemicals, symptoms will not be apparent with these types of hazards. In addition, these hazards will occur rapidly as opposed to over a period of time. Due to the size and composition of hydraulic vehicles, exposure to these hazards will range from extremely serious to life-threatening; therefore Three Notch requires that exposed field personnel seek medical attention at the nearest medical facility and the Project Manager be notified immediately. A site location map to the nearest hospital is attached to this Health & Safety Plan.

7.0 Temperature Hazards

Another hazard associated with corrective action activities involves working in extreme weather conditions. Temperatures in the Southeast USA during the spring, summer, and occasionally the fall seasons can vary from mild to extremely hot. During this season, extra precautions are necessary to prevent hazards associated with elevated temperatures, which result in various forms of heat stress. In addition, the Southeast is known for its rather mild winter conditions; however, on occasion, the Southeast may experience freezing conditions; therefore, precautions are also necessary to prevent hazards associated with these extreme temperatures.

7.1 Heat

As stated in OSHA's regulatory guidelines for heat exposure operations involving high air temperatures, radiant heat sources, high humidity, direct physical contact with hot objects, or strenuous physical activities have a high potential for inducing heat stress. Additional factors to consider in the determination of heat stress on an individual include age, weight, degree of physical fitness, degree of acclimatization, metabolism, use of alcohol or

drugs, and a variety of medical conditions such as hypertension (high blood pressure). The following sections will identify the hazards associated with heat stress, the measures needed in order to prevent exposure to these hazards, and first aid procedures in the event exposure to these hazards should occur.

7.1.1 Hazard Identification

Heat stress is a major hazard, especially for workers wearing protective clothing. Depending on the ambient conditions and the work being performed, heat stress can occur very rapidly- within as little as 15 minutes. The key to preventing excessive heat stress is educating personnel on the hazards associated with working in heat and the benefits of implementing proper controls and work practices. The hazards associated with heat stress range from heat fatigue (mild discomfort) to heat stroke (extreme danger, which may result in death, and are discussed in the following sections.

7.1.1.1 Heat Fatigue

Heat fatigue occurs due to a lack of acclimatization (adjusting one's tolerance to work in elevated temperatures). Acclimatization is a gradual process. This process should include all field personnel being permitted to work in elevated temperatures in specified increments. On a daily basis, the maximum allowable work period should gradually be increased until the worker is able to perform his/her duties more proficiently under these conditions. The use of an acclimatization program is recommended in the regulatory guidelines established by OSHA.

7.1.1.2 Heat Rash

Heat rash (prickly heat) is the most common heat stress factor and may result from continuous exposure to heat or humid air where the skin remains wet due to lack of evaporation. Under these conditions, sweat ducts become plugged, and a skin rash appears, generally in areas where clothing is restrictive. This uncomfortable rash can be prevented by resting in a cool place during breaks and by implementing good daily personal hygiene.

7.1.1.3 Heat Collapse

Heat collapse is commonly referred to as "fainting." Fainting generally occurs when the brain does not receive enough oxygen. As a result of this condition, the exposed individual may lose consciousness. Heat collapse is rapid and unpredictable; therefore, acclimatization is an important factor in preventing this condition.

7.1.1.4 Heat Cramps

Heat cramps are muscular spasms, which usually occur in the abdomen or limbs due to loss of electrolytes following profuse sweating. Cramps are caused by either too much or too little salt intake. During the sweating process, salt exits the body; therefore, without the proper replenishment, the body experiences an electrolyte imbalance thereby inducing heat cramps. Thirst cannot be relied upon as a guide to the need for water. When working in hot environments, water must be replenished every 15 to 20 minutes.

7.1.1.5 Heat Exhaustion

Heat exhaustion is a result of overexertion in hot or warm weather. It is highly possible for an onsite worker to experience heat exhaustion due to the use of worker-protective coveralls, boots, gloves, and respirator protection, even when ambient temperatures are mild. Fainting may also occur with heat exhaustion. This can become an extreme hazard if operating heavy machinery.

Caution: Individuals with heart problems or on a “low sodium” diet who work in these environments should consult a physician and Corporate HSO prior to working in these conditions.

7.1.1.6 Heat Stroke

Heat stroke is the most severe form of heat stress. The body’s temperature control system is maintained through sweat production. Perspiration is a cooling process for the body and keeps the body core temperature within a stable range. During heat stroke, sweat production is inhibited and the body temperature begins to rapidly rise. Brain damage and death may occur if body core temperature is extremely elevated and is not reduced.

7.1.2 Hazard Prevention

Hazards associated with temperature extremes can also be prevented with additional planning and preparation. The hazards associated with temperature can range from heat fatigue to heat stroke as described previously in Section 7.1.1 Measures to ensure the prevention of temperature hazards are as follows:

- Adhere to acclimatization process by exposing field personnel to progressively longer periods of time in hot environments.
- Schedule work for early morning or evening during warm weather
- Work in shifts; limit exposure time of personnel and allow frequent breaks
- Have cool liquids at an Exclusion Zone border for exposed personnel to continuously replace body fluids. As stated in the previous section, OSHA recommends that fluids, preferably water and/or a water-electrolyte solution be replenished every 15 to 20 minutes.
- Avoid caffeine and alcoholic beverages both during work hours and 24 hours prior to performing field activities

The site HSO or designee should continually monitor personnel for signs of heat stress. If any signs of heat disorders are apparent, all field personnel must immediately rest and replenish fluids until body core temperature is lowered and remains stable.

7.1.3 Symptoms and First Aid Procedures

As discussed previously in Section 7.1.1, hazards associated with heat stress range from heat fatigue to heat stroke. Taking precautionary measures to ensure that personnel are not exposed to extreme temperatures for long

periods of time can prevent these hazards. First aid measures for heat fatigue, heat rash, and heat collapse include taking frequent breaks so that the body core temperature can cool down. The following table includes first aid measures for signs of overexposure to heat.

TEMPERATURE HAZARDS	SYMPTOMS	TREATMENT
Heat Fatigue	Impaired performance of skilled sensorimotor, mental or vigilance jobs	No known treatment. Victim should be placed under cooler conditions until body core temperature lowers.
Heat Rash	Rash due to plugged sweat ducts, generally where clothing is restrictive	Keep dry towels or paper towels at the site to dry skin when excessive sweating occurs. Rash usually disappears when affected individual returns to cooler environment.
Heat Collapse	Loss of consciousness	Attempt to awaken individual. Relocate victim to a cooler area until body core temperature lowers and replenish fluids. Victim should rest for a few days.
Heat Cramps	Uncontrollable muscle spasms	Apply warm, moist heat and pressure to reduce pain. Give electrolyte drinks by mouth. Victim should intake additional potassium (Bananas are good potassium source).
Heat Exhaustion	Pale, clammy skin, profuse perspiration, weakness, headache, and nausea	Get victim into shade or cooler place. Immediately remove any protective clothing. Victim should drink plenty of fluids. Victim should lie down with feet raised. Fan and cool victim with wet compresses. If vomiting occurs, transport to hospital. Victim should rest for a few days.
Heat Stroke	Pale, dry skin due to lack of perspiration, weakness, unconsciousness	Immediately take precautions to cool body core temperature by removing clothing and sponging body with cool water or placing in tub of cool water until temperature is lowered sufficiently (102°F). Stop cooling and observe victim for 10 minutes. Once temperature remains lowered, dry person off. Use fans or air conditioning, if available. Do not give the victim stimulants. Transfer to medical facility. Under no condition is the victim to be left unattended unless authorized by a physician.

8.0 Explosion/Electrocution Hazards

As stated previously in Section 4.1, extensive efforts are made in order to determine the location of subsurface utilities prior to corrective action activities. Efforts are made to obtain the location of underground utilities through the Line Locator Services, and utility companies are notified in advance to perform a site inspection and utility marking; however, the potential for a subsurface utility to go unnoticed exists. Therefore, the hazards associated with exposure to these utilities are identified and preventative measures and first aid procedures are discussed further in the following sections.

8.1 Explosion

Primarily when dealing with subsurface utilities, two potentially life-threatening hazards exist. The first hazard identified in association with subsurface utilities during excavation activities are discussed further in the following section.

8.1.1 Hazard Identification

The main hazard associated with puncturing a subsurface utility gas line is explosion. By releasing gas (usually natural gas, which is generally methane gas or propane gas) into the atmosphere, explosive conditions are favorable; therefore, ignition sources must be immediately eliminated in the event a gas release occurs. Due to the flammability of gasoline, ignition sources will be minimized; however, the engines are needed during field activities. Therefore, the only alternative to reducing the explosion hazard is to stop the release as soon as possible. However, when dealing with gases under pressure, the volatilization process may occur at such a rapid speed that an explosive situation is inevitable.

8.1.2 Hazard Prevention

Preventative measures are ensured prior to field activities. These measures generally encompass locating subsurface utilities. In addition, Three Notch will request local utility companies to perform site inspections and mark all subsurface utilities. In addition to this notification, if a particular subsurface utility is not identified and Three Notch suspects the utility to exist, Three Notch will take additional precautionary measures to ensure the suspected utility does not exist. These measures generally include locating utility meter boxes, etc. In addition, a field technician or subcontractor will generally probe the ground with a small rod in order to possibly identify the existence of subsurface utilities. This is conducted usually when machinery reaches 2-3 feet below land surface (ft-bl).

8.2 Electrocution

8.2.1 Hazard Identification

The main hazard associated with puncturing a subsurface electrical line or coming into contact with an overhead power line is electrocution. When dealing with electricity, all things are classified as either conductors or

insulators. Conductors allow electricity to pass through them while insulators prevent electricity to pass through. Examples of conductors are metals, wood, and water, and examples of insulators are rubber and PVC. Humans are also classified as conductors; therefore, contact with electrical sources can be fatal.

Because the heavy machinery is metal, which has been classified as one of the best sources of electrical conduction, contact with exposed electrical lines will allow current to flow. The National Electrical Code (NEC) has determined that 20 milliamps (mA) of current can be fatal. For comparison, a common household circuit breaker may conduct 15, 20, or 30 amps of electrical current.

8.2.2 Hazard Prevention

As stated previously in Section 8.1.2, preventative measures to locate subsurface and overhead electrical lines prior to corrective action activities are required by Three Notch. Three Notch will notify local utility companies to provide a site inspection and mark any existing subsurface electrical lines. In addition, Three Notch will contact the local power provider to insulate overhead lines if necessary. When dealing with the electrical components of the dewatering system, the following precautionary measures may prevent exposure to electrocution:

- Avoid contact with exposed connections/wiring and other related components
- If unfamiliar with the system, do not attempt contact with any component
- Call the Project Manager if unsure of any connections associated with the operations of the system.

8.2.3 Symptoms and First Aid Procedures

As discussed previously in Section 8.2.1, the hazard associated with puncturing subsurface electrical utilities and contacting electrical components of dewatering system is electrocution. The primary route of exposure is contact. The transmission of electricity is allowed because the metal equipment serves as a conductor for electrical current. Symptoms and treatment for exposure to electrical current is presented in the following table:

Caution: NEVER attempt to dislodge or remove someone that is contacting a high voltage line. Use an insulating material (PVC) to release the victim from the electrocution source.

9.0 Miscellaneous Hazards

The last hazard identified when performing corrective action activities has been classified as miscellaneous hazards due to the variety of these hazards. These hazards generally are nothing more than nuisances and with additional planning should be entirely avoidable; however, there are instances in which exposure to these hazards will occur. Therefore, these hazards are identified and preventative measures and first aid procedures are discussed in further detail in the following sections.

9.1 Hazard Identification

Occasionally, exposure to common nuisances may potentially result in a life-threatening situation. For example, a wasp or bee sting for some individuals only causes irritation or localized soreness; however, to others with little tolerance for wasp or bee venom, an allergic reaction can result which could potentially lead to death if not treated immediately. Therefore, allergic reactions to these insects have been identified as a potential hazard. In addition to the insects, contact with black widow spiders (red hourglass), brown recluse spiders (violin shape on back), and snakes are also potential hazard.

9.2 Hazard Prevention

Prevention, with regards to miscellaneous hazards, is more difficult to plan ahead. Generally, prior to conducting corrective action activities, the primary location for the activities has been established; therefore, barricades such as cones and company vehicles can be placed around the work area to prevent exposure to incoming and ongoing vehicles. However, the limitation to using cones is that they are often small and unnoticeable to drivers once inside the vehicles; therefore, the best prevention with regards to this miscellaneous hazard is to constantly be aware of your surroundings. This preventative measure can also be applied to exposure to insects, snakes, and spiders. Be aware of your surrounding when working around dark, secluded areas such as cracks and crevices, where snakes, spiders, and mice like to hide.

9.3 Symptoms and First Aid Procedures

If an employee or subcontractor shows any signs of an allergic reaction (anaphylactic shock, hives, or difficulty breathing) to a sting or bite, immediately seek medical attention at the nearest hospital. In the event that an operating vehicle strikes a person, seek medical attention immediately. In the meantime, a first aid kit and eye wash bottle will be provided by Three Notch and should be kept in all company vehicles. If field personnel are aware of their allergic reactions to insect bites, Three Notch requires that medication be kept on hand during field activities and at least one other field technician be made aware of the medication in the event of an allergic reaction should occur.

10.0 Additional Precautions

Additional precautions have been implemented in order to ensure overall safety for all field personnel. The safety protocols listed in this segment are to be considered the minimum requirements to be met by all field personnel engaging in corrective action activities.

10.1 Personal Protective Equipment

PPE is the most effective measure to prevent exposure to chemical hazards. There are four levels of PPE protection ranging from Level A to Level D equipment. Level A protection serves as the most conservative protective equipment, and Level D protection serves as the least conservative protective equipment. These levels are

described further in the following table:

LEVELS OF PPE PROTECTION	PPE REQUIREMENTS
Level A	Worn when the highest level of respiratory, skin, and eye protection is necessary.
Level B	Worn when the highest level of respiratory protection is needed, but a lesser level of skin protection is necessary.
Level C	Worn when the criteria for using air-purifying respirators are met, and a lesser level of skin protection is necessary.
Level D	Refers to work conducted without respiratory protection. This level should be used only when the atmosphere contains no know or suspected airborne chemical or radiological contaminants and oxygen concentrations are between 19.5 % and 23.0%

Level D protective clothing, as indicated below, shall be considered the minimum requirements for installation and excavation operations:

- Hard hat
- Coveralls*
- Non permeable gloves
- Steel-toe, non-permeable boots
- Hearing protection*
- Safety goggles (chemical)*

*These items area mandatory on an “as needed” basis. Generally, normal site conditions do not warrant the use of this equipment; however, under certain conditions where large amounts of free product are encountered, the issue of coveralls and safety goggles may be warranted. Safety goggles and hearing protection are mandatory when near the drill rig to reduce stress on the ear and also prevent objects from the soil or drill rig from lodging in the eye.

Equipment may be upgraded to Level C depending on the site conditions and/or monitoring results. Level C protection, in addition to Level D protection, includes the following:

- Rubber/chemical resistant outer gloves
- Face-shield if splash hazards exist
- Outer disposable booties
- Half-mask respirator

10.2 Signs, Signals, and Barricades

As stated previously in Section 9.1, corrective action activities are generally conducted at retail gasoline facilities and convenience stores, and are therefore, high traffic areas. All Three Notch field personnel must be aware of his/her surroundings at all times. In addition, the items listed below will be provided to secure the area in order to protect all field personnel as well as the general public.

- Utilize barricades to protect workers, pedestrians and vehicles from work activities
- Post area for “NO SMOKING”
- Utilize cones to protect workers from incoming and ongoing vehicles

10.3 Fire Protection and Prevention

As stated previously in Section 5.1, gasoline is a highly flammable substance. Three Notch requires that the work area be posted with “NO SMOKING” signs in an attempt to prevent fires from occurring; however, as a secondary precaution Three Notch plans to implement the following:

- Maintain a 20 lb. ABC Dry Chemical fire extinguisher on site at all times
- Eliminate ALL ignition sources in the vicinity of any releases
- The contractor will clean up all small spills using absorbent materials or by pumping

10.4 Storage and Decontamination

During the corrective action activities, impacted soils will be encountered. Groundwater will be treated and pumped to an NPDES outfall. Contaminated soil will be temporarily stored until transported for disposal. Decontamination procedures will be implemented should chemical exposure occur. The procedures are detailed below:

- Avoid contact with liquid gasoline or diesel
- Place contaminated soil on visqueen and cover once removed from the excavation
- Change any product contaminated soil immediately
- Wash any contaminated skin surfaces immediately with soap and water

Caution: All personnel are required to wash hands at the completion of work, before and after restroom use and before eating in order to prevent dermal contact with or ingestion of contaminants encountered during field activities.

11.0 Emergency Contingency Plan

If an incident occurs that requires declaring an emergency, all personnel will assemble at a designated emergency

meeting location for further instruction. Arrangement for decontamination, evacuation and/or transport will be made at that time. The client and appropriate Three Notch personnel will be notified of the incident as soon as possible.

11.1 Notification/Reporting Procedures

In the event of an emergency, Three Notch Project Manager will be notified as soon as possible regarding the nature of the incident and emergency service contact will be notified as needed (see Section 11.7, Contingency Contacts). It is the responsibility of the Site HSO to report all incidents to the Three Notch Corporate HSO so that the required reporting procedures may be implemented.

11.2 Hazardous Substance Release

In the event that potentially hazardous substances migrate from the work zone and potentially endanger unprotected personnel or the community all on site activities will cease until the release is brought under control. Three Notch will immediately notify the proper authorities so that they may be able to ensure that public health and safety is maintained throughout this process event to the extent of evacuation if necessary.

11.3 Personnel Injury

In the event of an injury, all personnel will assemble at the designated emergency meeting location. The Site HSO, prior to the beginning of filed activities should designate this location. If the injured person is immobile one or more persons should remain nearby to provide any necessary first aid techniques. If medical help is necessary, the Site HSO will summon the appropriate assistance for transportation to the nearest medical facility. Due to the potential for these situations, Three Notch recommends that at least one qualified person be CPR/First Aid certified.

11.4 Evacuation Plan

Gasoline and diesel are flammable substances; therefore, a fire/explosion potential exists during the excavation activities. In the event of an onsite evacuation, the following plan will be implemented:

- A signal consisting of one continuous blast of a vehicle or air horn will be used
- All personnel will immediately evacuate the area and report to the designated emergency meeting location for further instruction

11.5 Spill Prevention and Response

In the event of a leak or spill, the area will be blocked using barricades, and the spill contained until absorbed and removed by authorized personnel. Unauthorized persons will be denied access to the area until all spills have been removed and field operations completed. Three Notch will follow prescribed procedures for reporting and responding to large releases by notifying the National Response Center (see Section 11.7). All materials will be

disposed of according to regulatory guidelines.

11.6 Emergency Communication

In the event of an emergency situation, the following standard hand signals will be used onsite as a means of communication:

- Hand gripping throat (cannot breathe)
- Grip partner’s wrist or both hands around waist (leave area immediately)
- Hands on top of head (need assistance)
- Thumbs up (OK, I am all right, I understand)
- Thumbs down (No, negative)

11.7 Contingency Contacts

In the event of an emergency, Three Notch has provided several emergency contacts. These contacts, along with phone numbers, are listed in the following table. The Site HSO will be responsible for the notification of these contacts in the event of an emergency.

AGENCY	CONTACT	TELEPHONE NO.
Fire Department		911
Police Department		911
Ambulance		911
Hospital		1-256-571-8000
Corporate HSO	David Dailey	1-205-403-2600
Project Manager	Hayley Benson	1-334-466-9431
EPA RCRA-Superfund Hotline		1-800-424-9346
Chemtrec (24 hours)		1-800-424-9300
Bureau of Explosives (24 hours)		1-202-293-4048
Centers for Disease Control (Biological Agents)		1-404-633-5353
National Response Center		1-800-424-8802

11.8 Medical Facility

Name of Hospital: Marshall Medical Center North

Address: 8000 AL 69, Guntersville, AL 35976

Phone: (256) 571-8000

Route to Hospital: see attached map with driving directions

Travel Time from Site: 5 minutes

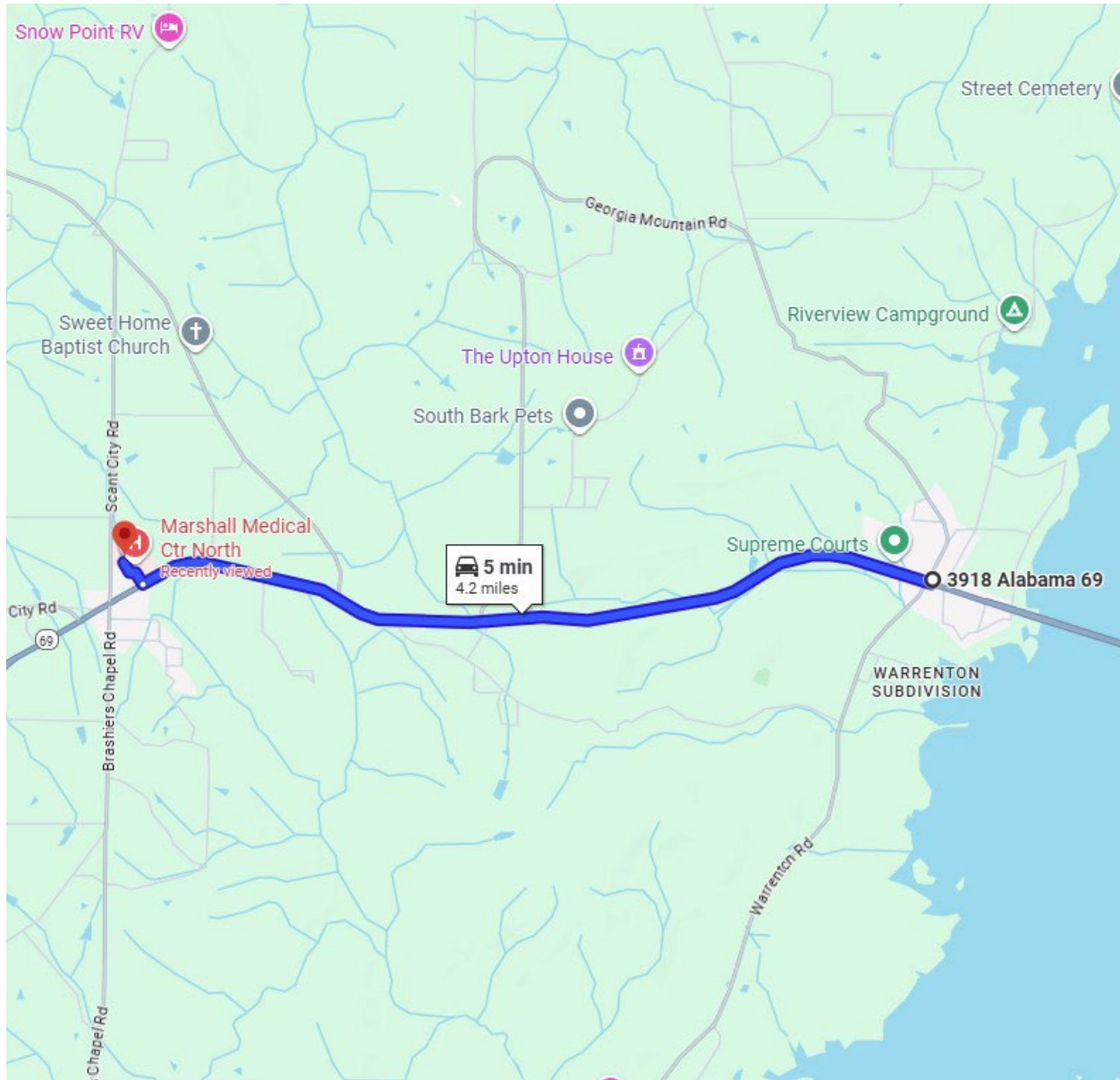
Distance to Hospital: 4.2 miles

Name/Number of 24-hour Ambulance Service: 911

In cases of construction accidents, rapid notification to OSHA is required.

A 3918 AL Highway 69, Guntersville, AL

B 8000 AL Highway 69, Guntersville, AL





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ADEM FORMS



APPENDIX F

UST RELEASE FACT SHEET

GENERAL INFORMATION:

SITE NAME: Pier 69 Package Store
 ADDRESS: 3918 Highway 69 & Georgia Mountain Road
Guntersville, Marshall County, Alabama

FACILITY I.D. NO.: 24464-095-018113
 INCIDENT NO.: UST23-03-09

RESULTS OF EXPOSURE ASSESSMENT:

How many private drinking water wells are located within 1,000 ft. of site?	0
How many public water supply wells are located within 1 mile of the site?	1
Have any drinking water supply wells been impacted by contamination from this release?	No
Is there an imminent threat of contamination to any drinking water wells?	{ } Yes {X} No
Have vapors or contaminated groundwater posed a threat to the public?	{ } Yes {X} No
Are any underground utilities impacted or imminently threatened by the release?	{X} Yes { } No
Have surface waters been impacted by the release?	{ } Yes {X} No
Is there an imminent threat of contamination to surface waters?	{ } Yes {X} No
What is the type of surrounding population?	Commercial/Residential

CONTAMINATION DESCRIPTION:

Type of contamination at site: {X} Gasoline, {X} Diesel, { } Waste Oil
 { } Kerosene, { } Other _____

Free product present in wells? { } Yes { X } No Maximum thickness measured: 1.0' in MW-5 on 10/9/24

Maximum TPH concentrations measured in soil: N/M

Maximum BTEX or PAH concentrations measured in groundwater: 330.4 mg/L in MW-5 on 5/21/24

ADEM GROUNDWATER BRANCH
UST SITE CLASSIFICATION SYSTEM
CHECKLIST

Please read all of the following statements and mark either yes or no if the statement applies to your site. If you have conducted a Preliminary or Secondary Investigation, all questions should be answered. Closure site assessment reports may not provide you with all the necessary information but answer the statements with the knowledge obtained during the closure site assessment.

SITE NAME: Pier 69 Package Store
 SITE ADDRESS: 3918 Highway 69 & Georgia Mountain Road
Guntersville, Marshall County, AL
 FACILITY I.D. NO.: 24464-095-018113
 UST INCIDENT NO.: UST23-03-09

OWNER NAME: Deep, Inc. DBA Pier 69
 OWNER ADDRESS: 140 Georgia Mountain Road
Guntersville, AL 35976

NAME & ADDRESS OF PERSON
 COMPLETING THIS FORM: Hayley Benson
Three Notch Group, Inc
100 N. Gay Street, Suite 350
Auburn, AL 36830

CLASSIFICATION	DESCRIPTION	YES	NO
CLASS A	IMMEDIATE THREAT TO HUMAN HEALTH, HUMAN SAFETY OR SENSITIVE ENVIRONMENTAL RECEPTOR		
A.1	Vapor concentrations at or approaching explosive levels that could cause health effects, are present in a residence or building.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
A.2	Vapor concentrations at or approaching explosive levels are present in subsurface utility system(s), but no buildings or residences are impacted.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CLASS B	IMMEDIATE THREAT TO HUMAN HEALTH, HUMAN SAFETY OR SENSITIVE ENVIRONMENTAL RECEPTOR		
B.1	An active public water supply well, public water supply line or public surface water intake is impacted or immediately threatened.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
B.2	An active domestic water supply well, domestic water supply line or domestic surface water intake is impacted or immediately threatened.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
B.3	The release is located within a designated Wellhead Protection Area I.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CLASS C	IMMEDIATE THREAT TO HUMAN HEALTH, HUMAN SAFETY OR SENSITIVE ENVIRONMENTAL RECEPTOR		
C.1	Ambient vapor/particulate concentrations exceed concentrations of concern from an acute exposure, or safety viewpoint.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
C.2	Free product is present on the groundwater, at ground surface, on surface water bodies, in utilities other than water supply lines, or in surface water runoff.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

CLASSIFICATION	DESCRIPTION	YES	NO
CLASS D	SHORT TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS		
D.1	There is a potential for explosive levels, or concentrations of vapors that could cause acute effects, to accumulate in a residence or other building.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
D.2	A non-potable water supply well is impacted or immediately threatened.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
D.3	Shallow contaminated surface soils are open to public access, and dwellings, parks, playgrounds, day care centers, schools or similar use facilities are within 500 feet of those soils.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CLASS E	SHORT TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS		
E.1	A sensitive habitat or sensitive resources (sport fish, economically important species, threatened and endangered species, etc.) are impacted and affected.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CLASS F	SHORT TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS		
F.1	Groundwater is impacted, and a public well is located within 1 mile of the site.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
F.2	Groundwater is impacted and a domestic well is located within 1,000 feet of the site.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
F.3	Contaminated soils and/or groundwater are located within designated Wellhead Protection Areas (Areas II or III).	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CLASS G	SHORT TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS		
G.1	Contaminated soils and/or groundwater are located within areas vulnerable to contamination from surface sources.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
CLASS H	SHORT TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS		
H.1	Impacted surface water, storm water or groundwater discharges within 500 feet of a surface water body used for human drinking water, whole body water-contact sports, or habitat to a protected or listed endangered plant and animal species.	<input type="checkbox"/>	<input checked="" type="checkbox"/>
CLASS I	LONG TERM THREAT TO HUMAN HEALTH, SAFETY, OR SENSITIVE ENVIRONMENTAL RECEPTORS		
I.1.	Site has contaminated soils and/or groundwater but does not meet any of the above-mentioned criteria.	<input type="checkbox"/>	<input checked="" type="checkbox"/>

ADDITIONAL COMMENTS:

Wellhead Protection Area information will be provided when it becomes available.

Complete the classification evaluation questions listed above. Upon completion, determine the highest rank of the site (A.1 is the highest rank) based on the statements answered with a yes.

Enter the determined classification ranking:	F.1
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TASKS PERFORMANCE SUMMARY



APPENDIX G

TASK PERFORMANCE SUMMARY

CAP Development

CP-14

Pier 69 Package Store

3918 Highway 69 & Georgia Mountain Road

Guntersville, Marshall County, Alabama

Task Completed by Personnel/Title:	Project Management	Work Plan Preparation/ Review	Cost Proposal Preparation/ Review	Field Work	Data Interpretation/ Tabulations	Drafting	Report Preparation/ Review	Payment Request Preparation/ Review
Michelle Grantham, Practice Leader	X		X					X
David Dailey, PE					X		X	
Mike Kotar, PM					X		X	
Hayley Benson, PM	X		X					X
Ray Hollinghead, Drafter						X		
Patricia Horwath, Admin	X		X				X	X

Notes:

DO=Drilling Oversight

BL=Boring Log Description/Soil Classification

WG=Well Gauging

GSC=Groundwater Sample Collection

MEME=MEME Oversight

PM=Project Management

O&M=Routine Operation & Maintenance

HRS=High Resolution Study

VM=Vapor Monitoring

SVY=Survey