

APPENDIX A

DOEE Comprehensive Site Assessment Directive Letter, dated December 10, 2020, Approved
Comprehensive Site Assessment Work Plan, dated May 7, 2021

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Department of Energy and Environment
Environmental Services Administration



Toxic Substances Division

Underground Storage Tank Branch

Directive for Comprehensive Site Assessment

December 10, 2020

Ms. Claire Fox
Washington Metropolitan Area Transit Authority
Office of Environmental Management & Industrial Hygiene
3500 Pennsy Drive
Landover, MD 20785

Re: FACILITY NAME: WMATA Northern Bus Division
FACILITY ADDRESS: 4615 14th Street, NW, Washington, DC 20011
FACILITY ID #: 4000709
LUSTCASE #: 2021011

Dear Ms. Fox:

The Department of Energy and Environment (DOEE), Underground Storage Tank Branch (UST Branch), is issuing this Directive Letter in reference to the property located at **4615 14th Street, NW, Washington, DC 20011 (the “Site”)**, pursuant to the Underground Storage Tank Management Act of 1990 (D.C. Code § 8-113.01 *et seq.*) (the “Act”) and the District of Columbia Underground Storage Tank Regulations, as set forth at Title 20 of the District of Columbia Municipal Regulations (DCMR), Chapters 55-70 (20 DCMR §§ 5500-7099), updated February 21, 2020.

The UST Branch has received and reviewed the Environmental Subsurface Investigation Report dated February 7, 2020 prepared by Intertek PSI for the above mentioned Site. The results indicate concentrations for several chemicals of concern (COCs) above DC Risk Based Corrective Action (DRBCA) Tier 1 Risk Based Screening Level for the applicable exposure pathways and receptors. We are also aware of USTs onsite pending removal, source removal is a critical first step in LUST corrective action. Therefore, the UST Branch has reopened the LUST Case with a new LUST Case #2021011 associated with this property.

In accordance with the above laws and regulations, based on the determination of the UST Branch, the Responsible Party is hereby directed to perform the followings:

- 1. Work Plan - Within 45 days** of this CSA Directive Letter (i.e. by **January 25, 2020**) submit a work plan that defines the scope, schedule, and approaches for the task required for the comprehensive site assessment. The work plan should include a site diagram depicting the placement of all borings, wells, and soil vapor monitoring points.

The sampling work plan should show the position of existing and new ground water monitoring wells, if any, ground water flow direction, as well as proposed monitoring well and soil sampling locations. Monitoring wells and sampling locations must be positioned so that samples taken from them accurately represent the nature and extent of contamination associated with the release of petroleum product(s) on the Site. Please note that the work plan may need to include investigation for potential offsite impact.

2. **Comprehensive Site Assessment Report** - Within sixty (60) days following DOEE approval of the Work Plan, submit a complete Comprehensive Site Assessment (CSA) Report to delineate the extent of both groundwater and soil contamination and include a site conceptual model. This CSA must be prepared in accordance with the District's Comprehensive Site Assessment Protocol (<https://doee.dc.gov/node/8332>). Please note that the results of the CSA report may require additional data collection and further assessment.
3. **Corrective Action Plan** - Upon review and approval of the CSA Report and any subsequent assessment or monitoring reports, a Corrective Action Plan (CAP) may be required. Within forty-five (45) days of submission of the CSA Report, if the contamination levels are found to be higher than DOEE's regulatory standards,¹ prepare and submit a CAP for DOEE approval that proposes a remedial strategy to address contamination in soil and/or ground water. The CAP must be prepared in accordance with the provisions of 20 DCMR § 6207.

Chemicals of Concern - Analyze soil and groundwater samples in accordance with DCRBCA Table 4-1 including: i) full list volatile organic compounds using EPA Method 8260B and polycyclic aromatic hydrocarbons (PAHs) using EPA Method 8270; ii) total petroleum hydrocarbon-diesel range organics (TPH-DRO) using EPA Method 8015; and iii) the Resource Conservation and Recovery Act (RCRA) metals using EPA Method SW846.

4. **CAP Implementation** - Within thirty (30) days of DOEE's approval of the CAP, begin implementation of the CAP on the Site, pursuant to 20 DCMR § 6207.
5. **Monitoring Reports** – Throughout the assessment and CAP implementation and after CAP implementation, continuous groundwater monitoring the Site may be required – a directive to initiate regular periodic groundwater monitoring will be issued by the LUST case manager based on findings of the initial CSA Report. If so, monitoring reports must be submitted on a quarterly basis until DOEE determines that no further action (NFA) is necessary on the Site. Case closure and issuance of a NFA letter by DOEE is contingent upon all closure requirements being met, such as proper abandonment of monitoring wells and removal of equipment from the Site (*see* 20 DCMR § 6211 for a detailed listing of closure requirements).
6. Note a **LUST Activity Notification** shall be sent to the UST Branch at least seven (7) days before the actual field activities.

¹ DOEE's regulatory standards for ground water and soil may be found at 20 DCMR §§ 6208 and 6209.

7. **Greener Cleanups/Green Remediation** – DOEE strongly encourages responsible parties to consider and report green remediation strategies for LUST sites. The UST Branch has begun an initiative to track green remediation strategies being implemented in the District. In alignment with EPA’s “policy to evaluate and minimize the environmental ‘footprint’ of activities undertaken when cleaning up a contaminated site” (U.S. EPA Principles for Greener Cleanups, August 27, 2009), DOEE is making efforts to better track green cleanups and **requests that a statement of the extent of green remediation being used at LUST case sites is included in every CSA and CAP**. RPs may consult ASTM E2893 for standard guidance on greener cleanups. Helpful links to green remediation practices may also be found here:

<https://www.epa.gov/remedytech/green-remediation-best-management-practices-site-investigation>; and

<https://www.epa.gov/remedytech/green-remediation-incorporating-sustainable-environmental-practices-remediation>.

8. A property owner or developer who is not deemed the responsible party may be eligible to enter **Voluntary Remediation Action Program (VRAP)** or Voluntary Cleanup Program (VCP) to clean-up the property during redevelopment. Please see details in link <https://doee.dc.gov/service/voluntary-remediation-action-program-vrap>.

Please note that a permit is required for well installation from the DOEE Regulatory Review Division and a Department of Consumer and Regulatory Affairs (DCRA) construction permit is required for any site operations.

Any requests for extensions of time in which to complete each of the tasks listed above must be received by the UST Branch in writing, no later than ten (10) days before the prescribed deadline. DOEE reserves the right to amend this schedule at any time. If changes are made to the schedule, you will be notified in writing.

Please note that pursuant to D.C. Code § 8-113.08(a) and 20 DCMR § 6300, DOEE is authorized to enter the Site at any reasonable time, including while remediation is in progress, to inspect, obtain copies of relevant documents, obtain samples or conduct monitoring or testing of any tanks, associated equipment, contents, surrounding soils, air, surface water, or groundwater. The UST Branch will review the results of this assessment in accordance with the above-referenced laws and regulations to determine the necessity for additional assessment or corrective action.

Should you have any questions concerning this directive, please do not hesitate to contact me or Nazmul Haque via telephone at 202-499-0438 or via e-mail at nazmul.haque@dc.gov.

Sincerely,



Fianna Phill, Chief
Underground Storage Tank Branch

Links: UST CSA & CAP Protocols - <https://doee.dc.gov/page/lust-forms-guidance-and-public-documents>

Comprehensive Site Assessment Work Plan

For

WMATA Northern Bus Garage
4615 14th Street NW
Washington D.C. 20011

Prepared for

STV Incorporated
7125 Ambassador Road, Suite 200
Baltimore, Maryland 21244

Prepared by

Professional Service Industries, Inc.
2930 Eskridge Road
Fairfax, Virginia 22030

May 7, 2021

PSI Project Number: 0444100



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APPENDIX

Appendix A	DOEE Comprehensive Site Assessment Directive Letter, dated December 10, 2020
Appendix B	PSI Preliminary Environmental Investigation Report, dated February 7, 2020

ACRONYM LIST

AMSL	Above Mean Sea Level
AST	Aboveground Storage Tank
BLS	Below Land Surface
BTEX	Benzene, Toluene, Ethylbenzene, total Xylenes
CSA	Comprehensive Site Assessment
DCRBCA	District of Columbia Risk Based Corrective Action
DOEE	Department of Energy and Environment
DRO	Diesel Range Organics
EPA	United States Environmental Protection Agency
ESA	Environmental Site Assessment
GRO	Gasoline Range Organics
HSA	Hollow Stem Auger
I	Hydraulic Gradient
IDW	Investigative Derived Waste
K	Hydraulic Conductivity
MCL	Maximum Contaminant Level
NAVD 88	North American Vertical Datum of 1988
NELAC	National Environmental Laboratory Accreditation Conference
NPDWR	National Public Drinking Water Regulations
ORO	Oil Range Organics
OVA	Organic Vapor Analyzer
OWS	Oil-Water Separator
PAHs	Polycyclic Aromatic Hydrocarbons
PCA	Preliminary Contamination Assessment
PCE	Tetrachloroethylene
PCBs	Polychlorinated Biphenyls
PEI	Preliminary Environmental Investigation
PID	Photoionization Detector
PSI	Professional Service Industries, Inc.
PVC	Polyvinyl Chloride
QA/QC	Quality Assurance/Quality Control
RBSL	Risk-Based Screening Level
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
SSL	Site Specific Screening Level
STV	STV Incorporated
SVOCs	Semi-Volatile Organic Compounds
TCE	Trichloroethylene
TCLP	Toxicity Characteristic Leaching Procedure
TOC	Top-of-Casing
TPH	Total Petroleum Hydrocarbons



ACRONYM LIST (continued)

USDA	United States Department of Agriculture
USGS	United States Geological Survey
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds
WMATA	Washington Metropolitan Area Transit Authority





1 INTRODUCTION

Professional Service Industries, Inc. (PSI), an Intertek company, has prepared this Comprehensive Site Assessment (CSA) Work Plan for the Washington Metropolitan Area Transit Authority (WMATA) Northern Bus Garage on behalf of STV Incorporated (STV). The project is located at 4615 14th Street NW in Washington, District of Columbia (D.C.). This document has been prepared in general accordance with the Washington D.C. Department of Energy and Environment (DOEE) Directive for Comprehensive Site Assessment letter, dated December 10, 2020 and is a continuation of the assessment activities presented in the previously submitted Preliminary Environmental Investigation (PEI) report, dated February 7, 2020. To comply with DOEE's request, the activities described in this work plan will be conducted to complete the requirements of the CSA. Please note, a CSA work plan was previously submitted in February of 2021; therefore, the activities described herein supplant the previously submitted document.

The activities described in this work plan will be conducted in accordance with the DOEE Risk-Based Corrective Action Technical Guidance document, dated June 2011 (<https://doee.dc.gov/publication/dc-risk-based-corrective-action-dcrbca-or-risk-based-decision-making-dcrbdm-process>). This Work Plan is organized in the following manner:

- Section 2.0 – Site Description and History
- Section 3.0 – Environmental Setting
- Section 4.0 – Current Site Environmental Conditions
- Section 5.0 – Proposed CSA Activities
- Section 6.0 – Proposed Schedule



2 SITE DESCRIPTION AND HISTORY

2.1 Site Location

The subject property is located in a mixed-use neighborhood surrounded by residential housing and commercial properties. The site is improved with an approximately 270,000 square foot multi-story building, with the oldest portion of the building constructed in 1906. The subject property is owned by WMATA and is located on Square 2811/2815 and Property ID 2811 0802 of the Washington D.C. Real Estate Map. The on-site building historically has been used for bus storage and maintenance, and consists of administrative offices, employee parking deck, maintenance/repair bays, bus wash areas, storage rooms, and a garage with capacity for approximately 175 buses.

Site Location Map



Currently, the site is inactive as a WMATA bus division and has limited occupancy for staff planning the reconstruction; however, infrastructure associated with the former bus storage/maintenance facility remains on-site. WMATA plans to demolish the majority of the existing on-site building to redevelop the site for mixed use (new bus garage and retail space) and will preserve a limited portion of the original 1906 trolley barn. The site is bounded by residential and commercial properties to the north and east along Iowa Ave NW and Arkansas Ave NW, to the west by 14th St NW, and to the south by Buchanan St NW.

The site is fully serviced by public utilities including water and sewer. Groundwater is not used as a source of potable water on or in the vicinity of the site.



2.2 Site History

A public transit support facility has operated at the 4615 14th Street NW, Washington, D.C. location since approximately 1906. The location has primarily been utilized for the operation and maintenance of transit vehicles beginning with trolley cars. The facility was managed by a private busing business in the 1940s-1950s; however, in the mid-1970s, WMATA assumed control of operation and maintenance responsibilities of the facility and buses in the metropolitan area. Historically usage of portions of the subject property included use as a trolley carriage house, bus storage and maintenance, vehicle fueling, auto-maintenance and vehicle washing.

Various facility modifications were performed between the early 1980s through early 2000s, which included the construction of a wall around the facility to minimize community impacts from the on-site activities. During a site geotechnical investigation for the planned renovations/construction activities performed in late 2019/early 2020, petroleum-related vapors were identified in the site soils in the vicinity of the existing on-site underground storage tanks (USTs). Previous USTs were removed from the ground during the renovation/construction activities, which were completed in the early 1990s.

Complete historic information regarding maintenance practices and chemical usage at the facility is not available. Several petroleum USTs and aboveground storage tanks (ASTs) have been installed and removed from the site. Additionally, laundry/dry-cleaning facilities existed along 14th Street (west of the subject property) between 1927 and 1985. Additional information is provided in Section 2.3.

A review of available fire insurance maps (Sanborn) and aerial photographs indicated the following information:

- 1927 (Sanborn) - The site depicts the original Car Barn structure for Washington Rapid Transit Co. Bus Station, built in 1907. Structures depicting shops and garages also appear on the southern portion of the property.
- 1951- 1960 (Aerials & Sanborn) - The site is improved with a bus garage with a gas pump to the eastern portion of the original building. The Sanborn depicts a filling station to the southwest corner.
- 1963-1985 (Aerials) – Bus operations continue.
- 1988-1991 (Aerials) - The shops and garage structures on the southern portion of the property have been removed by approximately 1989.
- 1992-2017 (Aerials) - The on-site structure was improved with a roof parking lot and bus repair shop over the eastern and southern portion of the property.

2.3 Summary of Previous Investigations

Previous investigations at the Site have been conducted by Versar, Inc., PSI, and others. This section provides a basic overview of activities.



Petroleum Impacts (Information obtained from Versar 2003 ESA report)

Based on historical information provided in the Versar 2003 ESA report, petroleum-related soil and/or groundwater impacts have been identified on the subject property at various times during the facility operation. The petroleum-related impacts have been attributed to leaking USTs utilized at the facility for storing fuel and/or automotive oils. During a geotechnical investigation performed in 1984, petroleum-related odors were observed in soils in the vicinity of several on-site USTs. Following the discovery of the soil impacts, the USTs were scheduled to be removed from the site during planned renovation work. A preliminary contamination assessment (PCA) was performed in 1989 during which five (5) monitoring wells were installed for groundwater monitoring purposes. A groundwater recovery and treatment system was installed in the southeastern portion of the subject property in late 1989 and removed in mid-1990. Site renovation activities were also performed from 1990-1991, during which the USTs and approximately 13,750 cubic yards of petroleum-impacted soil were removed from the site for proper disposal.

An aquifer pump test was performed in 1992 to collect hydrologic information for the design of a groundwater treatment system to remediate the identified on-site petroleum-related groundwater impacts. A in-well separator free product recovery pump was installed in one of the on-site monitoring wells with plumbing connected to a storage tank located within the bus garage where the free product would be collected. In 1999, an air sparge unit replaced the in-well separator due to insufficient product recovery.

The historical information additionally indicated that the on-site petroleum-related groundwater impacts appear to be degrading and/or are naturally attenuating. The report also stated that the lack of off-site detected impacts indicate that the bus garage operations and maintenance activities have not significantly impacted the surrounding area.

Chlorinated Solvents (Information obtained from Versar 2003 ESA Report)

In 1993, chlorinated solvent groundwater impacts were identified on the southern portion of the subject property. A risk assessment was performed to address concerns regarding the detected concentrations in the groundwater samples collected from Monitoring Wells MW-21 and MW-22. The risk assessment concluded that the detected concentrations posed no excess risk to human health at that time. An ESA report prepared in 2003, indicated that chlorinated solvents impacts were still present in the vicinity of Monitoring Wells MW-21 and MW-22; however, appear to be natural attenuating as observed by the breakdown components associated with tetrachloroethylene (PCE). Additionally, the ESA indicates that the most likely source of these chlorinated solvent groundwater impacts to be historic dry-cleaning facilities previously located adjacent-west of the subject property along 14th Street NW.

The findings of PEI report and the current site environmental conditions are discussed in Section 4.0 of this work plan. Soil and groundwater sampling results (PSI, November/December 2019) and the most recent soil and groundwater sampling results (Versar, September/July 2020) have been included on Figures 1 and 2.

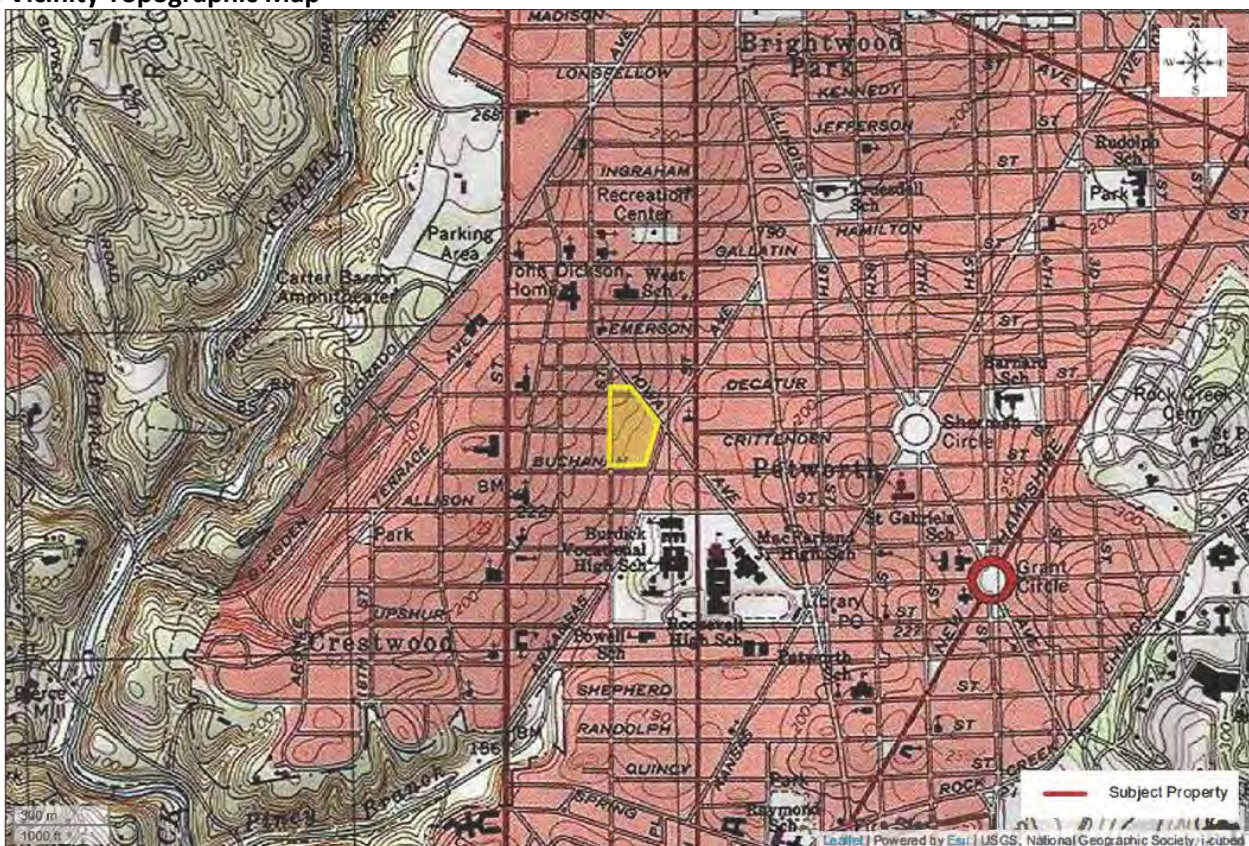


3 ENVIRONMENTAL SETTING

3.1 Regional Geology

The subject property is located within the Piedmont physiographic province and is mapped as the Laurel Gneiss (granitic gneiss) which grades into early Paleozoic-aged Wissahickon Formation. The Laurel Gneiss was apparently derived from the Wissahickon Formation rock by hydrothermal alteration. The Wissahickon Formation, as seen in the Washington, D.C. area, consists of quartz-mica schist, phyllite, and quartzite (Johnston, 1964). At lower elevations (eastern and southern portions of the site), the subject property is underlain by unconsolidated valley bottom materials (soil) of the Patuxent Formation containing clay, silt, sand, gravel, along with weathered/decomposed rock fragments from upslope areas.

Site Vicinity Topographic Map



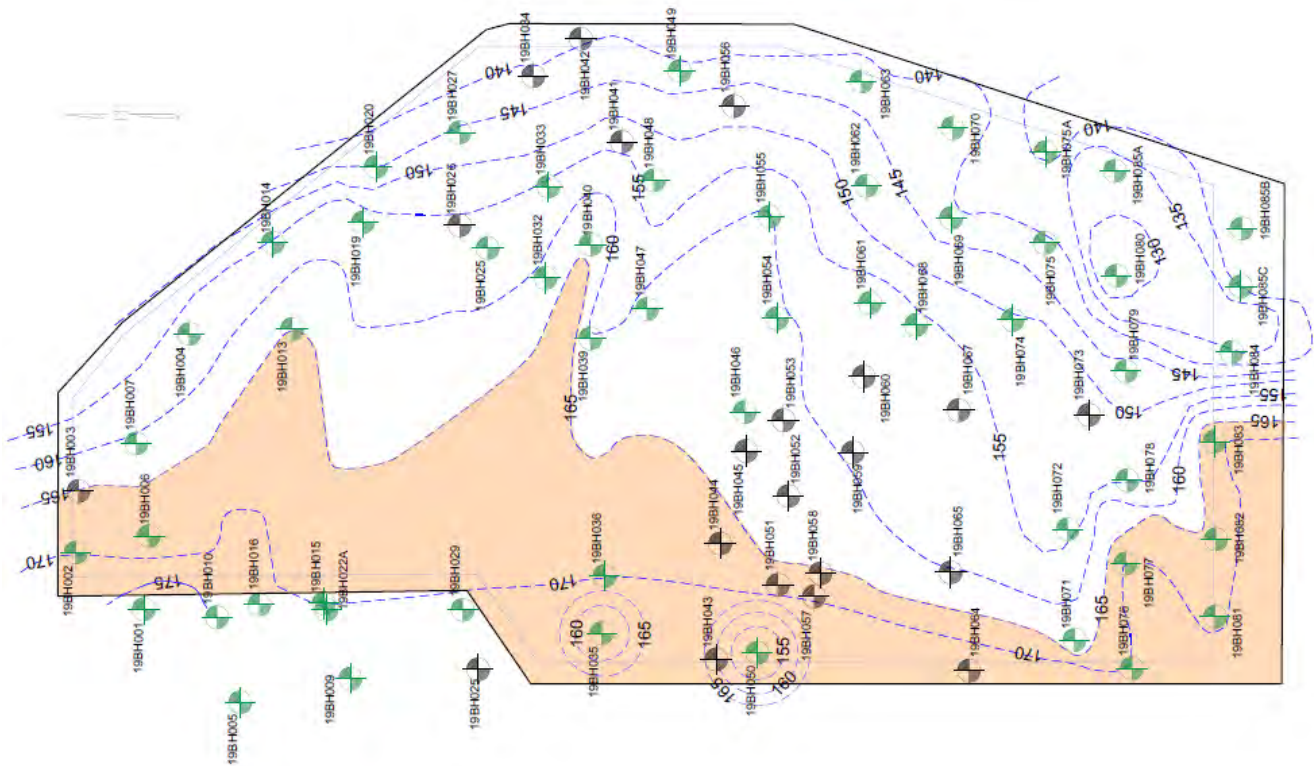
3.2 Site Topography/Geology

The subject property is situated at an approximate average elevation of 199 feet above mean sea level (AMSL) to the north, with a gradual topographic slope to 177 feet AMSL to the south.

The United States Department of Agriculture (USDA) 1976 Soil Survey for the District of Columbia and the current USDA Web Soil Survey listing identify site soils primarily as Urban Land. Urban Land is used to designate areas where natural soils have been disturbed by development or are covered by impervious surface or structures.



Bedrock Contour Map



Shading indicates bedrock to be excavated during construction; bedrock is sloping towards the southeast.

Based on the sub surface investigations, the subject property generally is underlain by two units; bedrock and unconsolidated sedimentary/saprolitic material. The groundwater flow has been mapped on the subject property towards the southeast. The bedrock topographic gradient slopes downwards towards the southeast as well.

Refer to Figure 4 for cross-sections of select portions of the subject property.

3.3 Hydrology

Groundwater on the subject property is encountered under unconfined conditions in the shallow saprolitic aquifer matrix. The depth to groundwater in the shallow monitoring wells varied between approximately 9 and 12 feet below land surface (BLS). The more competent underlying fractured bedrock aquifer becomes semi-confined with increasing depth.

Based on groundwater velocity calculations provided in the Versar Site Assessment Report, the hydraulic gradient (I) across the site for the shallow soils has historically been documented to be approximately 0.07 (foot/foot, dimensionless) in both the northern portion and the southern portion of the site. Previous pumping tests performed on the subject property calculated the average hydraulic conductivity (K) in the vicinity as 9.5×10^3 feet/min with a flow velocity of 1.7 feet per day. Based on the well yield data obtained from the well sampling, this average hydraulic conductivity is likely close to a maximum value for the site.



A top of casing (TOC) survey of temporary monitoring wells installed during performance of the PEI in 2020, indicated a local groundwater flow direction towards the south-southeast. Groundwater elevations and groundwater flow from combined open borehole and monitoring well data are provided on Figure 5.

4 CURRENT SITE ENVIRONMENTAL CONDITIONS

Results of the most recent assessment of site environmental conditions were previously provided to DOEE in the February 7, 2021 PEI report. A summary of the PEI findings is provided below.

4.1 Summary of Unsaturated Soil Conditions

Analytical results for the soil samples collected during the November-December 2019 PEI investigation indicated the presence of metals and petroleum-related compounds at concentrations above their respective DOEE Tier 0 site screening levels (SSLs), District of Columbia Risk-Based Closure Assessment (DCRBCA) contact levels, and/or U.S. Environmental Protection Agency (EPA) regional screening levels (RSLs) at the following locations:

- Lower level east UST; PAHs, DRO
- Former AST storage area; PAHs, DRO
- Bus Wash Area, fuel dispenser; Lead, Arsenic, PAHs, DRO
- Bus wash area, sand filter; PAHs
- North sand filter; PAHs
- OWS, hydraulic lift; DRO
- Bus wash bay, OWS; PAHs, DRO
- Upper floor USTs; GRO, DRO
- Former AST storage area, Non-Haz Waste AST; Arsenic, PAHs, DRO
- Former AST storage area, Non-Haz waste AST; PAHs, DRO
- Bus wash area; Arsenic, PAHs, GRO, DRO
- Bus wash area, fuel dispenser; PAHs, GRO, DRO, Ethylbenzene
- South sand filter; PAHs, DRO
- Lower level southeast wall, storage area, coverage purposes; PAHs, DRO
- Coverage purposes; Arsenic, PAHs, DRO
- Bus wash area, coverage purposes; DRO
- Lower level south AST, pump room AST; Arsenic, GRO, DRO
- Storage area, coverage purposes; DRO
- Lower level south wall, coverage purposes; GRO, DRO
- Lower level south wall, coverage purposes; GRO, Ethylbenzene



4.2 Summary of Groundwater Conditions

Analytical results indicated the presence of PCBs, petroleum-, and/or chlorinated solvent-related test parameters at concentrations above their respective DOEE Tier 1 Screening Levels for Groundwater, DOEE Groundwater Quality Standards, and/or EPA national primary drinking water regulations (NPDWR) maximum contaminant levels (MCLs) in the shallow aquifer. A summary of the locations and types of groundwater impact is provided below:

- Lower level east UST; PCBs
- North sand filter; DRO
- Lower level southern extent, coverage purposes; SVOCs, VOCs
- South sand filter, coverage purposes; VOCs
- Bus wash bay, OWS; VOCs
- Lower level storage room; SVOCs

The PCB and petroleum-related ground water impacts appeared to be localized in areas near conveyances for surface water drainage, which may indicate leakage of this system in these areas or residual impacts from historic discharges. The chlorinated-solvent groundwater impacts appeared to be localized in the southern portion of the subject property; however, based on review of historical environmental assessments performed at the site as well as review of subsurface groundwater flow and bedrock topography, the chlorinated solvents might originate from an offsite source.

Soil and groundwater sampling results (November/December 2019) and the most recent soil and groundwater sampling results performed by Versar are presented on Figures 1 and 2. The report on the most recent (late 2019/early 2020) site assessment activities including a more detailed discussion of the current environmental site conditions is presented in the PEI report, which is attached as Appendix B.



5 PROPOSED CSA ACTIVITIES

This CSA work plan describes additional groundwater investigation activities and confirmatory soil samples from areas planned to be disturbed and those with previously identified impacted soil.

5.1 Groundwater Investigation

As previously discussed, groundwater flows south-southeast. A more refined delineation of the VOC groundwater plume requires collection of samples to determine if the VOCs have migrated beyond the footprint of the bus garage property. Additional assessment activities will be conducted to collect the necessary hydrogeologic data required to prepare an updated comprehensive conceptual site model and complete the required updated baseline risk assessment for the Site. This information will be used to complete the CSA report and, ultimately, prepare a corrective action plan for the site, if necessary. Details of the proposed additional assessment activities are provided below.

5.1.1 Direct Groundwater Sampling

Groundwater samples will be collected at 18 locations throughout the subject property and adjacent areas. At each location, groundwater samples will be collected from the same borehole; however, at two (2) depths; the soil/groundwater interface and at the top of bedrock utilizing low-flow methodologies. Following reaching the desired sampling depth, the direct groundwater sampling point will be purged to clear the direct groundwater sampling point of suspended silts and/or sediment. Upon completion of purging, personnel will then collect groundwater samples for laboratory analysis by EPA Method 8260 for VOCs and EPA Method 8270 for SVOCs.

Additionally, soil samples will be collected at continuous 2-foot intervals to depths extending to two-feet into the groundwater table, or refusal, whichever is encountered first at three locations. Each soil sample will be visually classified, and field screened for organic vapors utilizing a organic vapor analyzer equipped with a photoionization detector (OVA-PID). Based on field observation and OVA-PID screening responses, personnel will collect up to two (2) soil samples from each borehole. One soil sample will be collected from the soil/groundwater interface and one soil sample will be collected from the soil interval exhibiting the highest OVA-PID response. The soil samples will be submitted for laboratory analysis by EPA Method 8260 for VOCs, EPA Method 8270 for SVOCs, TPH-GRO/DRO/ORO, and 4 RCRA metals.

Please note, analysis of the soil/groundwater samples collected on the north side of Arkansas Avenue, may be requested to be held pending receipt of the soil/groundwater analytical results for the samples collected along the south side portion of Arkansas Avenue. Refer to Figure 6 for the locations of the proposed direct groundwater sampling locations.

5.1.2 Monitoring Well Installation

Four monitoring wells will be installed to a depth of up to 25 feet below grade within the eastern portion of the on-site building. Soil samples will be collected at continuous 2-foot intervals to depths extending to 25 feet BLS, bedrock, or refusal, whichever is encountered first. Each soil sample will be visually classified, and field screened for organic vapors utilizing a OVA-PID.

Upon reaching the depth of termination, a shallow (soil) temporary monitoring well will be installed within three (3) of the soil borings, and one deep temporary monitoring well will be installed within the remaining borehole. The deep temporary monitoring well will be installed in the vicinity of one of the shallow



temporary monitoring wells to determine vertical contaminant migration; however, the wells will not be installed as nested pairs. The shallow wells will be installed utilizing hand auger and hollow stem auger (HSA) methodologies to top of rock and will be constructed of 2-inch diameter schedule 40 polyvinyl chloride (PVC) 0.006-inch factory slotted screen coupled with a 2-inch diameter solid PVC riser. The shallow well screen will be placed so that it brackets the water table and a filter pack will be placed around the screen interval followed by fine sand and a hydrated bentonite seal. The deep monitoring well will be similarly installed/constructed; however, the deep monitoring well will be installed with the bottom of the screen interval placed at the top of the bedrock.

Refer to Figure 6 for the proposed monitoring well installation locations.

5.1.3 Monitoring Well Development

Upon the completion of each newly installed monitoring well, personnel will allow at least 24 hours to pass before development commences. A stainless-steel submersible pump in conjunction with a surge block as a means of removing fine sediment from the well will be used to develop/purge the wells. Once visual observations indicate a reduction in sediments, a submersible pump will be used in conjunction with a multi-parameter water meter and flow cell to collect field measurements. Measurements for pH, specific conductance, and temperature will be periodically taken until at least three consecutive measurements show temperature and specific conductance within 10 percent, and pH within 0.2 units. A separate turbidity meter will be used to take turbidity readings until stabilization is achieved.

5.1.4 Groundwater Monitoring/Analysis

Following a period of stabilization (at least 24-hours after well development), groundwater samples will be collected from the monitoring wells and submitted for laboratory analysis. Parameters will include:

- EPA Method 8260 for VOCs
- EPA Method 8270 for SVOCs
- TPH – DRO/GRO
- 4 RCRA Metals

At the time of sample collection, field readings for pH, specific conductance, temperature, dissolved oxygen, and turbidity will be collected to ensure the samples collected are representative of groundwater in the aquifer.

The monitoring well installation and baseline sampling event will be documented in the initial CSA report. The report(s) will include a description of the field activities, analytical results, and provide conclusions and recommendations applicable to the planned site development. Groundwater analytical results will be compared to the DOEE Tier 1 Screenings Levels and applicable Federal regulatory limits for the test parameters identified in the applicable media.

5.2 Confirmatory Sampling

During demolition and construction activities, soils in the vicinity of the structures being removed or installed will entail the removal of soils and bedrock from the work areas. Historic environmental assessments performed on the subject property have identified petroleum-related soil impacts along the eastern portion of the subject



property. Based on a discussion with DOEE, confirmatory soil samples will be collected from the subgrade of all major structure excavations prior to installation of new project underground features; however, the extent of soil excavation will be determined based on the presence of impacted soils above DOEE Tier 1 soil screening levels. All testing initially will be performed following removal of existing structures/soils associated with the demolition/installation of existing/planned site improvements. Below is a general outline of the sampling and analytical methodologies that will be employed for the confirmatory sampling activities.

5.2.1 Soil Sample Collection

Soil sampling procedures will be performed in general accordance with the EPA Soil Sampling Operating Procedures, dated June 11, 2020, and Chapter 20 Sections 6100 and 6205 of the District of Columbia Municipal Regulations, where applicable.

At locations where site improvements will be removed/installed and/or soils removed from the ground, soils will be screened visually and with an OVA or PID of the bottoms of the excavations to identify any petroleum-related staining and/or odors. Soil samples will be collected from the bottom of the excavation approximately every 50 linear feet for large structures and linear trenches. The bottom of smaller excavations will be sampled approximately every 10 linear feet. At locations where existing USTs are present two (2) soil samples will be collected beneath each UST.

5.2.2 Soil Sample Analysis

Based on previous environmental site assessments performed at the site, detected soil impacts, and usage of diesel, diesel exhaust fluid, and automotive oils, collected soil samples will be submitted for laboratory analysis for the following analysis/compounds:

- EPA Method 8260 for BTEX.
- EPA Method 8015 for ethanol
- EPA Method 8270 for PAHs
- TPH-GRO/DRO/ORO

Refer to Figures 3 and 4 for the locations of the planned structure demolition/installation where soil and rock removal will be required, as well as the planned soil sample locations associated with each area.

5.3 Investigative Derived Waste

Due to the presence of contaminated soils at the site, it is anticipated that decontamination of the drilling equipment between boring locations will be required using a decontamination pad. Borings will be backfilled with grout. Boring cuttings, decontamination/development/purge water and disposable sampling equipment will be collected into clean, clearly labeled 55-gallon drums. The drums will be sealed and temporarily stored in designated areas established by WMATA at the site for management pending receipt of analytical results. A designated temporary storage area for up to 8 drums as well as space to work will be identified. Drums will remain on site until completion of logging, characterization, and disposal facility acceptance.

Based on the presence and nature of contamination, the most cost effective option to dispose of IDW containerized within drums at the subject property will be to assume all drums contain some level of impacted



material, perform composite sampling for additional analytical characterization required for disposal, and to dispose of all IDW at a licensed facility based on their acceptance of the composite sampling and environmental assessment analytical results.

To facilitate this necessary documentation, up to two (2) composite samples will be collected from the drums and submit the sample to a licensed laboratory following standard chain-of-custody and shipping procedures. The composite sample will be analyzed for Toxicity Characteristic Leaching Procedure (TCLP) including Resource Conservation and Recovery Act (RCRA)-8 Metals via EPA Method 1311, VOCs via EPA Method 8260, and SVOCs via EPA Method 8270. Upon the licensed disposal facility's receipt and acceptance of the analytical results, IDW drums to be shipped to the licensed disposal facility for processing.

5.4 Surveying

A certified land surveyor will survey the newly installed monitoring wells. The survey will include the ground elevation at each monitoring well location and top of casing elevations. The survey will facilitate preparation of an updated groundwater elevation contour map, which will be used to derive accurate direction of groundwater flow and gradients. All elevations will be logged against the NGVD 88 Geodetic datum

5.5 CSA Report

To comply with DOEE's request, the activities described in this work plan will be conducted to complete the requirements of the CSA. Field activities will be conducted in accordance with the procedures and methodology described in this workplan and the DOEE Risk-Based Corrective Action Technical Guidance document, dated June 2011 (<https://doee.dc.gov/publication/dc-risk-based-corrective-action-dcrbca-or-risk-based-decision-making-dcrbdm-process>).

The CSA will include all of the components required as detailed in the guidance document as well as the documentation of the installation and sampling activities associated with the requested monitoring wells; however, the second groundwater sampling event, and confirmatory soil sampling results and the documentation on the disposal of IDW will be provided via CSA addendums once those activities have been completed.

5.6 Quality Assurance/Quality Control

All field decontamination and sampling procedures will be performed in general accordance with the EPA Operating Procedures for Soil and Groundwater Sampling, and Chapter 20 Sections 6100 and 6205 of the District of Columbia Municipal Regulations, where applicable. Quality Assurance and Quality Control (QA/QC) samples included trip blanks for laboratory analysis of VOCs per EPA Method 8260 will be collect for laboratory analysis. All downhole equipment utilized during the field activities will be decontaminated prior to and between each soil boring. Decontamination of said equipment will be accomplished by washing the equipment with a non-phosphate detergent and distilled water solution followed by a final distilled water rinse. Single-use disposable gloves and disposable tubing will be used for each sampling point in an attempt to eliminate cross-contamination between sampling locations.

Laboratory analytical procedures will be performed by National Environmental Laboratory Accreditation Conference (NELAC)-certified Hampton-Clarke, Inc. (NELAC/NJ #07071) located in Fairfield, New Jersey.



6 PROPOSED SCHEDULE

A summary schedule of activities is presented in the following table.

Summary Schedule Table

Task	Target Completion Date
CSA Work Plan Submittal	May 7, 2021
CSA Work Plan Approval by DOEE (approximately 30 days)	June 7, 2021
Complete All Field Activities and Baseline Groundwater Sampling	June 28, 2021
Submit the CSA Report (60 days from work plan approval)	July 28, 2021



7 REFERENCES

- Reed, J. C. and S. F. Obermeier. 1989. The geology beneath Washington, D.C.—the foundations of a nation’s capital, p. 27–59. In J. E. Moore and J. A. Jackson (eds.), *Geology, Hydrology, and History of the Washington, D.C. Area*. American Geological Institute. Alexandria, Virginia.
- Southworth, Scott, and Denenny, Danielle, 2006, *Geologic map of the National Parks in the National Capital Region, Washington, D.C., Virginia, Maryland, and West Virginia*: U.S. Geological Survey Open-File Report 2005-1331, available only online at: <http://pubs.usgs.gov/of/2005/1331/>.
- Thornberry-Ehrlich, T. 2009. *Rock Creek Park Geologic Resources Inventory Report*. Natural Resource Report NPS/NRPC/GRD/NRR—2009/146. National Park Service, Denver, Colorado.
- Versar, Inc. (2003). *Environmental Site Assessment Report – Northern Bus Division*
- Environmental Protection Agency Region 1, *Low Stress (low flow) Purging and Sampling Procedure For the collection of Ground water Samples from Monitoring Wells*, EQASOP#: GW4, September 19, 2017.
- Environmental Protection Agency Region 4, *Operating Procedure for Soil Sampling*, LSASDPROC-300-R4, June 11, 2020.



TABLE

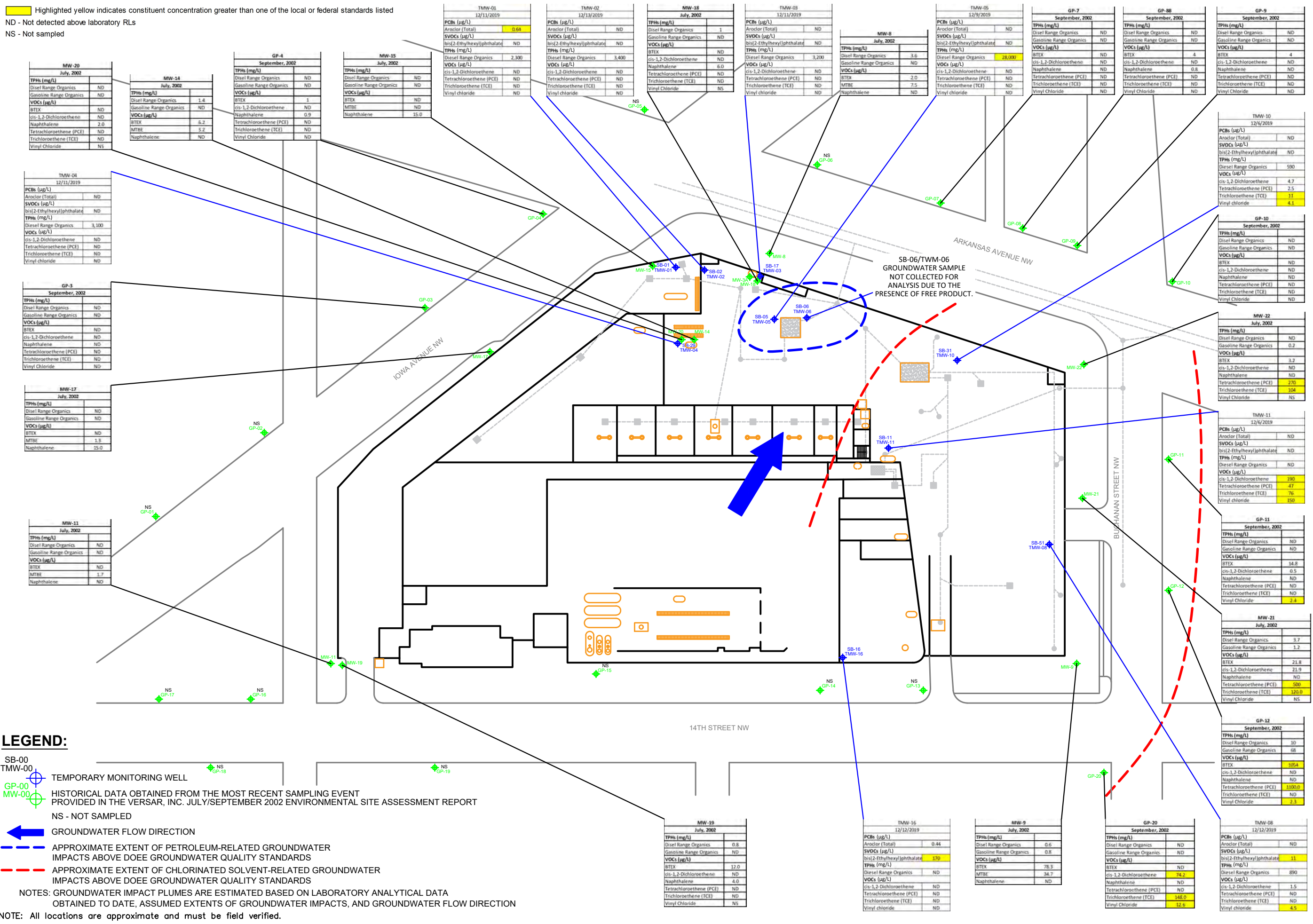
Table 1
Soil and Groundwater Sampling Summary - WMATA Northern Bus Facility
April 26, 2021

SAMPLE	DESCRIPTION	QUANTITY	NO. OF SAMPLES	ANALYSIS	PURPOSE
Groundwater Wells	2" diameter permanent wells (reference figure 6)	4 Total; 3 x Installed at groundwater interface, 1 x Installed at bedrock interface	4 Groundwater samples	EPA Method 8260 for VOCs EPA Method 8270 for SVOCs TPH-DRO/GRO/ORO 4 RCRA metals	Assess hydrocarbon impact to groundwater at hotspot.
Well Points	Well points excavated to bedrock (reference figure 6)	18 Locations	36 Groundwater samples	EPA Method 8260 for VOCs EPA Method 8270 for SVOCs	Assess hydrocarbon and chlorinated solvent impact to shallow aquifer at groundwater interface and bedrock interface.
Confirmatory Soil Sampling	Boreholes to bedrock (reference figure 6)	18 Locations	18 Discrete soil samples	EPA Method 8260 for VOCs EPA Method 8270 for SVOCs TPH-DRO/GRO/ORO 4 RCRA metals	Assess hydrocarbon and chlorinated solvent impact to vadose zone soil where well points are being installed.
Confirmatory Soil Sampling	Confirm soil (reference figure 6)	TBD	TBD	EPA Method 8260 for BTEX, EPA Method 8015 for ethanol EPA Method 8270 for PAHs TPH-DRO/GRO/ORO	Post excavation confirmatory sampling.
IDW Sampling	---	2 Composites soil samples	2 Composite samples	TCLP	Disposal
Survey	---	4 Permanent monitoring wells	N/A	N/A	Updated groundwater elevation survey



FIGURES

Highlighted yellow indicates constituent concentration greater than one of the local or federal standards listed
 ND - Not detected above laboratory RLs
 NS - Not sampled



LEGEND:

- SB-00 TEMPORARY MONITORING WELL
- TMW-00 HISTORICAL DATA OBTAINED FROM THE MOST RECENT SAMPLING EVENT PROVIDED IN THE VERSAR, INC. JULY/SEPTEMBER 2002 ENVIRONMENTAL SITE ASSESSMENT REPORT
- NS - NOT SAMPLED
- ← GROUNDWATER FLOW DIRECTION
- - - APPROXIMATE EXTENT OF PETROLEUM-RELATED GROUNDWATER IMPACTS ABOVE DOEE GROUNDWATER QUALITY STANDARDS
- - - APPROXIMATE EXTENT OF CHLORINATED SOLVENT-RELATED GROUNDWATER IMPACTS ABOVE DOEE GROUNDWATER QUALITY STANDARDS

NOTES: GROUNDWATER IMPACT PLUMES ARE ESTIMATED BASED ON LABORATORY ANALYTICAL DATA OBTAINED TO DATE, ASSUMED EXTENTS OF GROUNDWATER IMPACTS, AND GROUNDWATER FLOW DIRECTION

NOTE: All locations are approximate and must be field verified.

MW-20 July, 2002	
TPHs (mg/L)	
Diesel Range Organics	ND
Gasoline Range Organics	ND
VOCs (µg/L)	
BTEX	ND
cis-1,2-Dichloroethene	ND
Naphthalene	2.0
Tetrachloroethene (PCE)	ND
Trichloroethene (TCE)	ND
Vinyl Chloride	NS

MW-14 July, 2002	
TPHs (mg/L)	
Diesel Range Organics	1.4
Gasoline Range Organics	ND
VOCs (µg/L)	
BTEX	ND
cis-1,2-Dichloroethene	5.2
Naphthalene	5.2
MTBE	ND

GP-4 September, 2002	
TPHs (mg/L)	
Diesel Range Organics	ND
Gasoline Range Organics	ND
VOCs (µg/L)	
BTEX	1
cis-1,2-Dichloroethene	ND
Naphthalene	0.9
Tetrachloroethene (PCE)	ND
Trichloroethene (TCE)	ND
Vinyl Chloride	ND

MW-15 July, 2002	
TPHs (mg/L)	
Diesel Range Organics	ND
Gasoline Range Organics	ND
VOCs (µg/L)	
BTEX	ND
cis-1,2-Dichloroethene	ND
Naphthalene	15.0

TMW-01 12/11/2019	
PCBs (µg/L)	
Aroclor (Total)	0.64
SVOCs (µg/L)	
bis(2-Ethylhexyl)phthalate	ND
TPHs (mg/L)	
Diesel Range Organics	2,300
VOCs (µg/L)	
cis-1,2-Dichloroethene	ND
Tetrachloroethene (PCE)	ND
Trichloroethene (TCE)	ND
Vinyl Chloride	ND

TMW-02 12/13/2019	
PCBs (µg/L)	
Aroclor (Total)	ND
SVOCs (µg/L)	
bis(2-Ethylhexyl)phthalate	ND
TPHs (mg/L)	
Diesel Range Organics	3,400
VOCs (µg/L)	
cis-1,2-Dichloroethene	ND
Tetrachloroethene (PCE)	ND
Trichloroethene (TCE)	ND
Vinyl Chloride	ND

MW-18 July, 2002	
TPHs (mg/L)	
Diesel Range Organics	1
Gasoline Range Organics	ND
VOCs (µg/L)	
BTEX	ND
cis-1,2-Dichloroethene	ND
Naphthalene	6.0
Tetrachloroethene (PCE)	ND
Trichloroethene (TCE)	ND
Vinyl Chloride	NS

TMW-03 12/11/2019	
PCBs (µg/L)	
Aroclor (Total)	ND
SVOCs (µg/L)	
bis(2-Ethylhexyl)phthalate	ND
TPHs (mg/L)	
Diesel Range Organics	3,200
VOCs (µg/L)	
cis-1,2-Dichloroethene	ND
Tetrachloroethene (PCE)	ND
Trichloroethene (TCE)	ND
Vinyl Chloride	ND

MW-8 July, 2002	
TPHs (mg/L)	
Diesel Range Organics	3.6
Gasoline Range Organics	ND
VOCs (µg/L)	
BTEX	2.0
MTBE	7.5
Naphthalene	ND

TMW-05 12/9/2019	
PCBs (µg/L)	
Aroclor (Total)	ND
SVOCs (µg/L)	
bis(2-Ethylhexyl)phthalate	ND
TPHs (mg/L)	
Diesel Range Organics	28,000
VOCs (µg/L)	
cis-1,2-Dichloroethene	ND
Tetrachloroethene (PCE)	ND
Trichloroethene (TCE)	ND
Vinyl Chloride	ND

GP-7 September, 2002	
TPHs (mg/L)	
Diesel Range Organics	ND
Gasoline Range Organics	ND
VOCs (µg/L)	
BTEX	ND
cis-1,2-Dichloroethene	ND
Naphthalene	ND
Tetrachloroethene (PCE)	ND
Trichloroethene (TCE)	ND
Vinyl Chloride	ND

GP-8B September, 2002	
TPHs (mg/L)	
Diesel Range Organics	ND
Gasoline Range Organics	ND
VOCs (µg/L)	
BTEX	4
cis-1,2-Dichloroethene	0.8
Naphthalene	ND
Tetrachloroethene (PCE)	ND
Trichloroethene (TCE)	ND
Vinyl Chloride	ND

GP-9 September, 2002	
TPHs (mg/L)	
Diesel Range Organics	ND
Gasoline Range Organics	ND
VOCs (µg/L)	
BTEX	4
cis-1,2-Dichloroethene	ND
Naphthalene	ND
Tetrachloroethene (PCE)	ND
Trichloroethene (TCE)	ND
Vinyl Chloride	ND

TMW-10 12/6/2019	
PCBs (µg/L)	
Aroclor (Total)	ND
SVOCs (µg/L)	
bis(2-Ethylhexyl)phthalate	ND
TPHs (mg/L)	
Diesel Range Organics	590
VOCs (µg/L)	
cis-1,2-Dichloroethene	4.7
Tetrachloroethene (PCE)	2.5
Trichloroethene (TCE)	11
Vinyl Chloride	4.1

GP-10 September, 2002	
TPHs (mg/L)	
Diesel Range Organics	ND
Gasoline Range Organics	ND
VOCs (µg/L)	
BTEX	ND
cis-1,2-Dichloroethene	ND
Naphthalene	ND
Tetrachloroethene (PCE)	ND
Trichloroethene (TCE)	ND
Vinyl Chloride	ND

MW-22 July, 2002	
TPHs (mg/L)	
Diesel Range Organics	ND
Gasoline Range Organics	0.2
VOCs (µg/L)	
BTEX	3.2
cis-1,2-Dichloroethene	ND
Naphthalene	ND
Tetrachloroethene (PCE)	270
Trichloroethene (TCE)	104
Vinyl Chloride	NS

TMW-11 12/6/2019	
PCBs (µg/L)	
Aroclor (Total)	ND
SVOCs (µg/L)	
bis(2-Ethylhexyl)phthalate	ND
TPHs (mg/L)	
Diesel Range Organics	ND
VOCs (µg/L)	
cis-1,2-Dichloroethene	190
Tetrachloroethene (PCE)	4.7
Trichloroethene (TCE)	76
Vinyl Chloride	150

GP-11 September, 2002	
TPHs (mg/L)	
Diesel Range Organics	ND
Gasoline Range Organics	ND
VOCs (µg/L)	
BTEX	14.8
cis-1,2-Dichloroethene	0.5
Naphthalene	ND
Tetrachloroethene (PCE)	ND
Trichloroethene (TCE)	ND
Vinyl Chloride	2.4

MW-21 July, 2002	
TPHs (mg/L)	
Diesel Range Organics	3.7
Gasoline Range Organics	1.2
VOCs (µg/L)	
BTEX	21.8
cis-1,2-Dichloroethene	21.9
Naphthalene	ND
Tetrachloroethene (PCE)	500
Trichloroethene (TCE)	120.0
Vinyl Chloride	NS

GP-12 September, 2002	
TPHs (mg/L)	
Diesel Range Organics	30
Gasoline Range Organics	68
VOCs (µg/L)	
BTEX	1164
cis-1,2-Dichloroethene	ND
Naphthalene	ND
Tetrachloroethene (PCE)	1100.0
Trichloroethene (TCE)	ND
Vinyl Chloride	2.3

TMW-08 12/12/2019	
PCBs (µg/L)	
Aroclor (Total)	ND
SVOCs (µg/L)	
bis(2-Ethylhexyl)phthalate	11
TPHs (mg/L)	
Diesel Range Organics	890
VOCs (µg/L)	
cis-1,2-Dichloroethene	1.5
Tetrachloroethene (PCE)	ND
Trichloroethene (TCE)	ND
Vinyl Chloride	4.5

MW-19 July, 2002	
TPHs (mg/L)	
Diesel Range Organics	0.8
Gasoline Range Organics	ND
VOCs (µg/L)	
BTEX	12.0
cis-1,2-Dichloroethene	ND
Naphthalene	4.0
Tetrachloroethene (PCE)	ND
Trichloroethene (TCE)	ND
Vinyl Chloride	NS

TMW-16 12/12/2019	
PCBs (µg/L)	
Aroclor (Total)	0.44
SVOCs (µg/L)	
bis(2-Ethylhexyl)phthalate	170
TPHs (mg/L)	
Diesel Range Organics	ND
VOCs (µg/L)	
BTEX	76.3
cis-1,2-Dichloroethene	ND
Naphthalene	34.7

MW-9 July, 2002	
TPHs (mg/L)	
Diesel Range Organics	0.6
Gasoline Range Organics	0.8
VOCs (µg/L)	
BTEX	76.3
MTBE	34.7
Naphthalene	ND

GP-20 September, 2002	
TPHs (mg/L)	
Diesel Range Organics	ND
Gasoline Range Organics	ND
VOCs (µg/L)	
BTEX	ND
cis-1,2-Dichloroethene	74.2
Naphthalene	ND
Tetrachloroethene (PCE)	ND
Trichloroethene (TCE)	148.0
Vinyl Chloride	12.6



Environmental Services

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Project Name:

WMATA Bus Facility
Northern Site
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Washington, DC 20011

Figure Title:

Groundwater Analytical Summary Plume Map (Select Contaminants of Concern Only)

Drawn By:

Adam Smak

Project Manager:

Andy Acosta

Figure Legend:



0 50' 100'
APPROXIMATE SCALE IN FEET

Project Number:

0444100

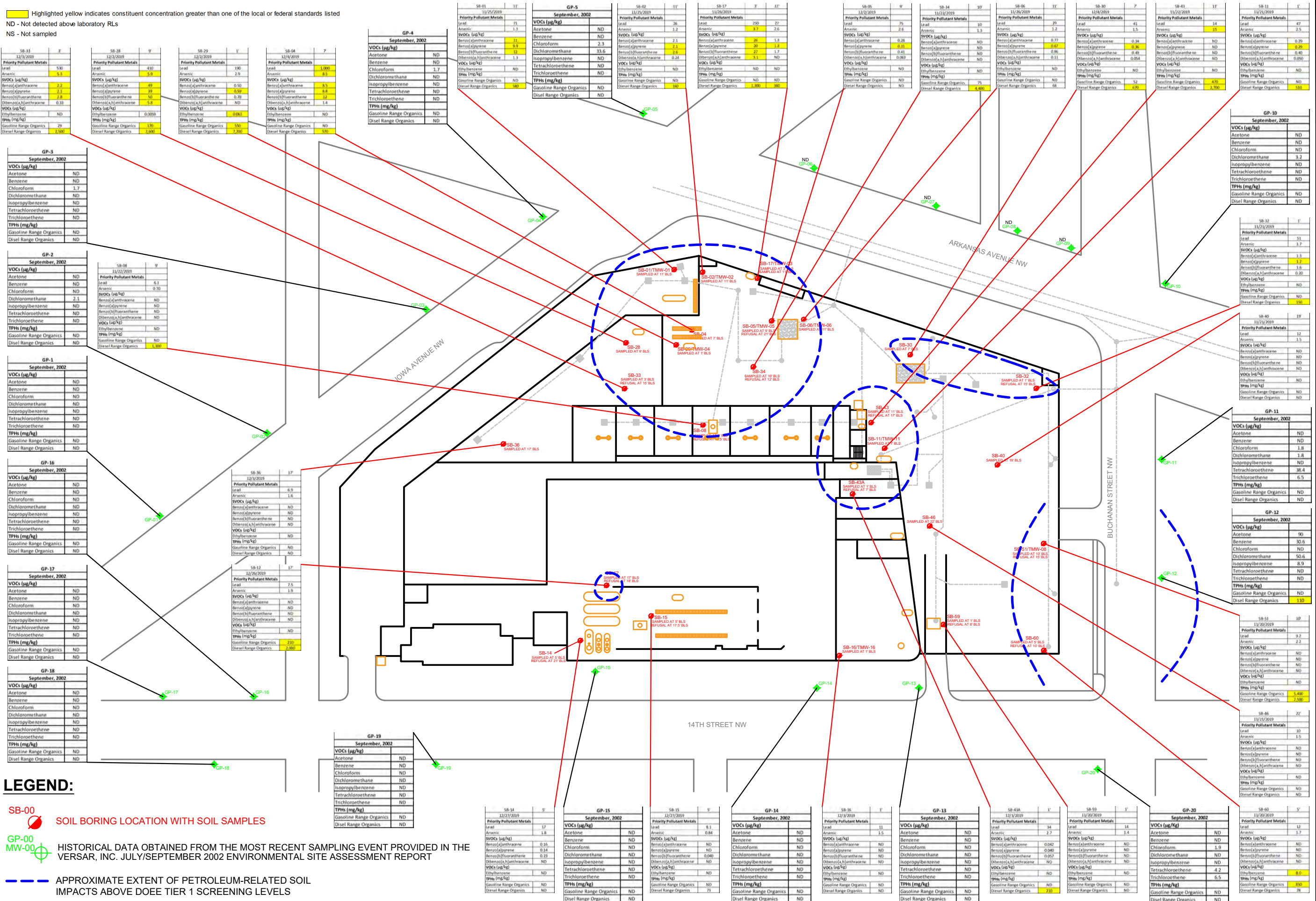
Figure Date:

04-15-2021

Figure Number:

1

Highlighted yellow indicates constituent concentration greater than one of the local or federal standards listed
 ND - Not detected above laboratory RLs
 NS - Not sampled



LEGEND:

SB-00 SOIL BORING LOCATION WITH SOIL SAMPLES

GP-00 HISTORICAL DATA OBTAINED FROM THE MOST RECENT SAMPLING EVENT PROVIDED IN THE VERSAR, INC. JULY/SEPTEMBER 2002 ENVIRONMENTAL SITE ASSESSMENT REPORT

--- APPROXIMATE EXTENT OF PETROLEUM-RELATED SOIL IMPACTS ABOVE DOE TIER 1 SCREENING LEVELS

NOTE: All locations are approximate and must be field verified.

GP-1	GP-2	GP-3	GP-4	GP-5	GP-6	GP-7	GP-8	GP-9	GP-10	GP-11	GP-12	GP-13	GP-14	GP-15	GP-16	GP-17	GP-18	GP-19	GP-20
September, 2002 VOCs (ug/kg) Acetone ND Benzene ND Chloroform ND Dichloromethane 2.1 Isopropylbenzene ND Tetrachloroethene ND Trichloroethene ND TPHs (mg/kg) Gasoline Range Organics ND Diesel Range Organics ND	September, 2002 VOCs (ug/kg) Acetone ND Benzene ND Chloroform ND Dichloromethane 2.1 Isopropylbenzene ND Tetrachloroethene ND Trichloroethene ND TPHs (mg/kg) Gasoline Range Organics ND Diesel Range Organics ND	September, 2002 VOCs (ug/kg) Acetone ND Benzene ND Chloroform ND Dichloromethane 2.1 Isopropylbenzene ND Tetrachloroethene ND Trichloroethene ND TPHs (mg/kg) Gasoline Range Organics ND Diesel Range Organics ND	September, 2002 VOCs (ug/kg) Acetone ND Benzene ND Chloroform ND Dichloromethane 2.1 Isopropylbenzene ND Tetrachloroethene ND Trichloroethene ND TPHs (mg/kg) Gasoline Range Organics ND Diesel Range Organics ND	September, 2002 VOCs (ug/kg) Acetone ND Benzene ND Chloroform ND Dichloromethane 2.1 Isopropylbenzene ND Tetrachloroethene ND Trichloroethene ND TPHs (mg/kg) Gasoline Range Organics ND Diesel Range Organics ND	September, 2002 VOCs (ug/kg) Acetone ND Benzene ND Chloroform ND Dichloromethane 2.1 Isopropylbenzene ND Tetrachloroethene ND Trichloroethene ND TPHs (mg/kg) Gasoline Range Organics ND Diesel Range Organics ND	September, 2002 VOCs (ug/kg) Acetone ND Benzene ND Chloroform ND Dichloromethane 2.1 Isopropylbenzene ND Tetrachloroethene ND Trichloroethene ND TPHs (mg/kg) Gasoline Range Organics ND Diesel Range Organics ND	September, 2002 VOCs (ug/kg) Acetone ND Benzene ND Chloroform ND Dichloromethane 2.1 Isopropylbenzene ND Tetrachloroethene ND Trichloroethene ND TPHs (mg/kg) Gasoline Range Organics ND Diesel Range Organics ND	September, 2002 VOCs (ug/kg) Acetone ND Benzene ND Chloroform ND Dichloromethane 2.1 Isopropylbenzene ND Tetrachloroethene ND Trichloroethene ND TPHs (mg/kg) Gasoline Range Organics ND Diesel Range Organics ND	September, 2002 VOCs (ug/kg) Acetone ND Benzene ND Chloroform ND Dichloromethane 2.1 Isopropylbenzene ND Tetrachloroethene ND Trichloroethene ND TPHs (mg/kg) Gasoline Range Organics ND Diesel Range Organics ND	September, 2002 VOCs (ug/kg) Acetone ND Benzene ND Chloroform ND Dichloromethane 2.1 Isopropylbenzene ND Tetrachloroethene ND Trichloroethene ND TPHs (mg/kg) Gasoline Range Organics ND Diesel Range Organics ND	September, 2002 VOCs (ug/kg) Acetone ND Benzene ND Chloroform ND Dichloromethane 2.1 Isopropylbenzene ND Tetrachloroethene ND Trichloroethene ND TPHs (mg/kg) Gasoline Range Organics ND Diesel Range Organics ND	September, 2002 VOCs (ug/kg) Acetone ND Benzene ND Chloroform ND Dichloromethane 2.1 Isopropylbenzene ND Tetrachloroethene ND Trichloroethene ND TPHs (mg/kg) Gasoline Range Organics ND Diesel Range Organics ND	September, 2002 VOCs (ug/kg) Acetone ND Benzene ND Chloroform ND Dichloromethane 2.1 Isopropylbenzene ND Tetrachloroethene ND Trichloroethene ND TPHs (mg/kg) Gasoline Range Organics ND Diesel Range Organics ND	September, 2002 VOCs (ug/kg) Acetone ND Benzene ND Chloroform ND Dichloromethane 2.1 Isopropylbenzene ND Tetrachloroethene ND Trichloroethene ND TPHs (mg/kg) Gasoline Range Organics ND Diesel Range Organics ND	September, 2002 VOCs (ug/kg) Acetone ND Benzene ND Chloroform ND Dichloromethane 2.1 Isopropylbenzene ND Tetrachloroethene ND Trichloroethene ND TPHs (mg/kg) Gasoline Range Organics ND Diesel Range Organics ND	September, 2002 VOCs (ug/kg) Acetone ND Benzene ND Chloroform ND Dichloromethane 2.1 Isopropylbenzene ND Tetrachloroethene ND Trichloroethene ND TPHs (mg/kg) Gasoline Range Organics ND Diesel Range Organics ND	September, 2002 VOCs (ug/kg) Acetone ND Benzene ND Chloroform ND Dichloromethane 2.1 Isopropylbenzene ND Tetrachloroethene ND Trichloroethene ND TPHs (mg/kg) Gasoline Range Organics ND Diesel Range Organics ND	September, 2002 VOCs (ug/kg) Acetone ND Benzene ND Chloroform ND Dichloromethane 2.1 Isopropylbenzene ND Tetrachloroethene ND Trichloroethene ND TPHs (mg/kg) Gasoline Range Organics ND Diesel Range Organics ND	September, 2002 VOCs (ug/kg) Acetone ND Benzene ND Chloroform ND Dichloromethane 2.1 Isopropylbenzene ND Tetrachloroethene ND Trichloroethene ND TPHs (mg/kg) Gasoline Range Organics ND Diesel Range Organics ND



Environmental Services

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Project Name:

WMATA Bus Facility
Northern Site
4615 14th Street NW,
Washington, DC 20011

Figure Title:

Soil Analytical Summary Map
(Select Petroleum Contaminants of Concern Only)

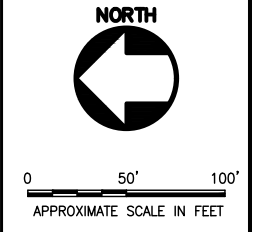
Drawn By:

Adam Smak

Project Manager:

Andy Acosta

Figure Legend:



Project Number:

0444100

Figure Date:

04-15-2021

Figure Number:

2

Project Name:

WMATA Bus Facility
Northern Site
4615 14th Street NW,
Washington, DC 20011

Figure Title:

Planned Structure
Installation/Removal
(Excavation)
Areas and
Proposed Sample
Locations

Drawn By:

Adam Smak

Project Manager:

Andy Acosta

Figure Legend:



0 30' 60'
APPROXIMATE SCALE IN FEET

Project Number:

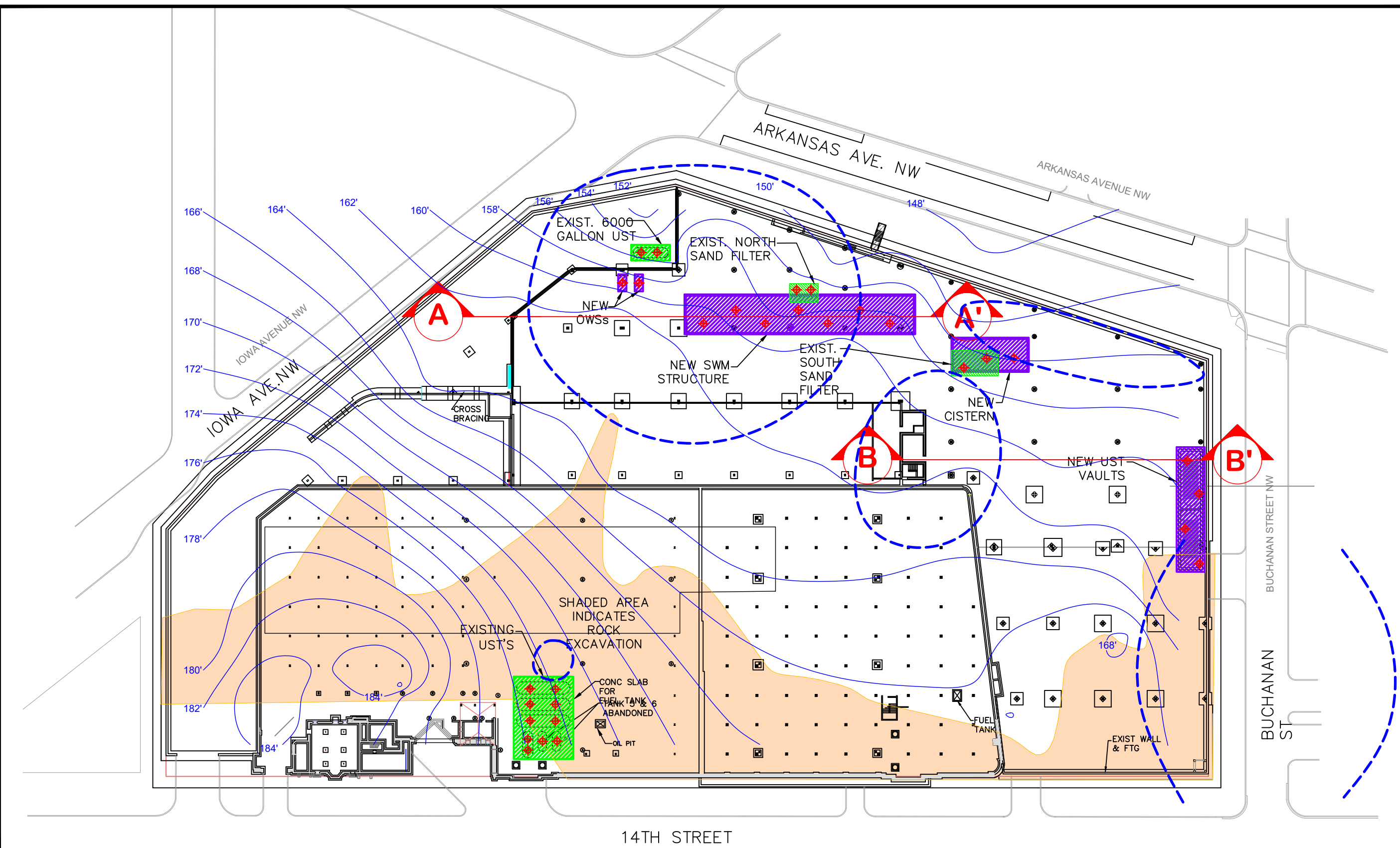
0444100

Figure Date:

04-15-2021

Figure Number:

3



LEGEND:

- PROPOSED SOIL SAMPLE LOCATIONS
- NEW UST/FILTER FEATURE LOCATIONS
- EXISTING UST/FILTER FEATURE LOCATIONS
- GROUNDWATER ELEVATION CONTOUR LINES
- EXCAVATION INTO WEATHERED/COMPETENT BEDROCK TO REACH THE PROPOSED GENERAL EXCAVATION ELEVATION OF 165 ft NAD88
- EXCAVATION INTO FILL AND NATURAL SOIL TO REACH THE PROPOSED GENERAL EXCAVATION ELEVATION OF 165 ft NAD88
- PROJECTED CROSS-SECTION VIEW INDICATOR
NUMERATOR INDICATES PROJECTED CROSS-SECTION DIAGRAM AND DENOMINATOR INDICATES DRAWING FIGURE NUMBER
PROJECTED CROSS-SECTION VIEW INDICATORS CORRESPOND TO DRAWING FIGURE NUMBER 4
- APPROXIMATE EXTENT OF PETROLEUM-RELATED SOIL IMPACTS ABOVE DOEE TIER 1 SCREENING LEVELS

NOTE: All locations are approximate and must be field verified.

NOTE: DATUM USED FOR GROUNDWATER ELEVATION: NAD88
GROUNDWATER ELEVATION CONTOURS ESTIMATED BASED ON TWO DATA SETS
(OPEN BOREHOLE AND TEMPORARY MONITORING WELL MEASUREMENTS).

Project Name:

WMATA Bus Facility
Northern Site
4615 14th Street NW,
Washington, DC 20011

Figure Title:

Proposed Sample
Locations.
Projected
Cross-Sections
East Viewing

Drawn By:

Adam Smak

Project Manager:

Andy Acosta

Figure Legend:



0 10' 20'
APPROXIMATE SCALE IN FEET

Project Number:

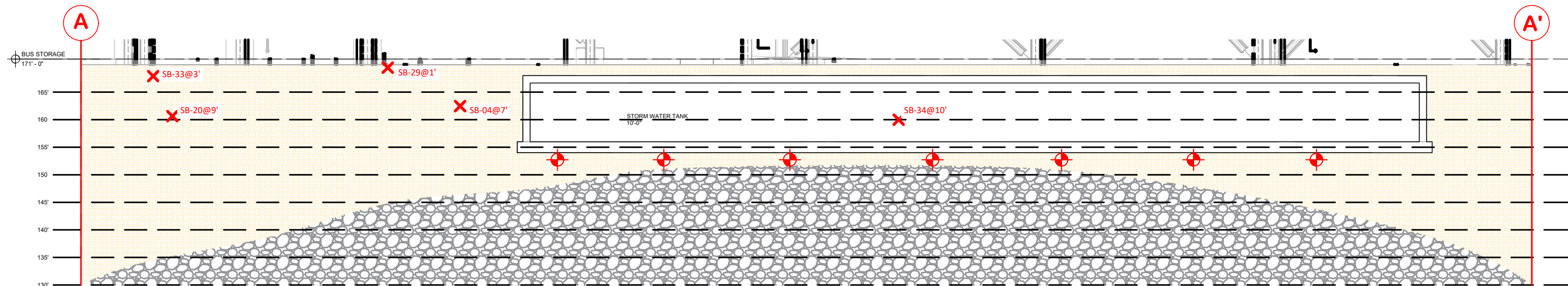
0444100

Figure Date:

04-15-2021

Figure Number:

4







A-A' SECTION (LOOKING EAST)



B-B' SECTION (LOOKING EAST)

LEGEND:

-  PSI PROPOSED SOIL SAMPLE LOCATION
-  LOCATION OF SOIL SAMPLE WITH PETROLEUM RELATED SOIL IMPACTS ABOVE DOEER TIER I SCREENING LEVELS.
-  OVERBURDEN
-  BEDROCK

NOTE: All locations are approximate and must be field verified.

Project Name:

WMATA Bus Facility
Northern Site
4615 14th Street NW,
Washington, DC 20011

Figure Title:

Groundwater
Elevation Map –
December 2019

Drawn By:

Adam Smak

Project Manager:

Andy Acosta

Figure Legend:



0 30' 60'
APPROXIMATE SCALE IN FEET

Project Number:

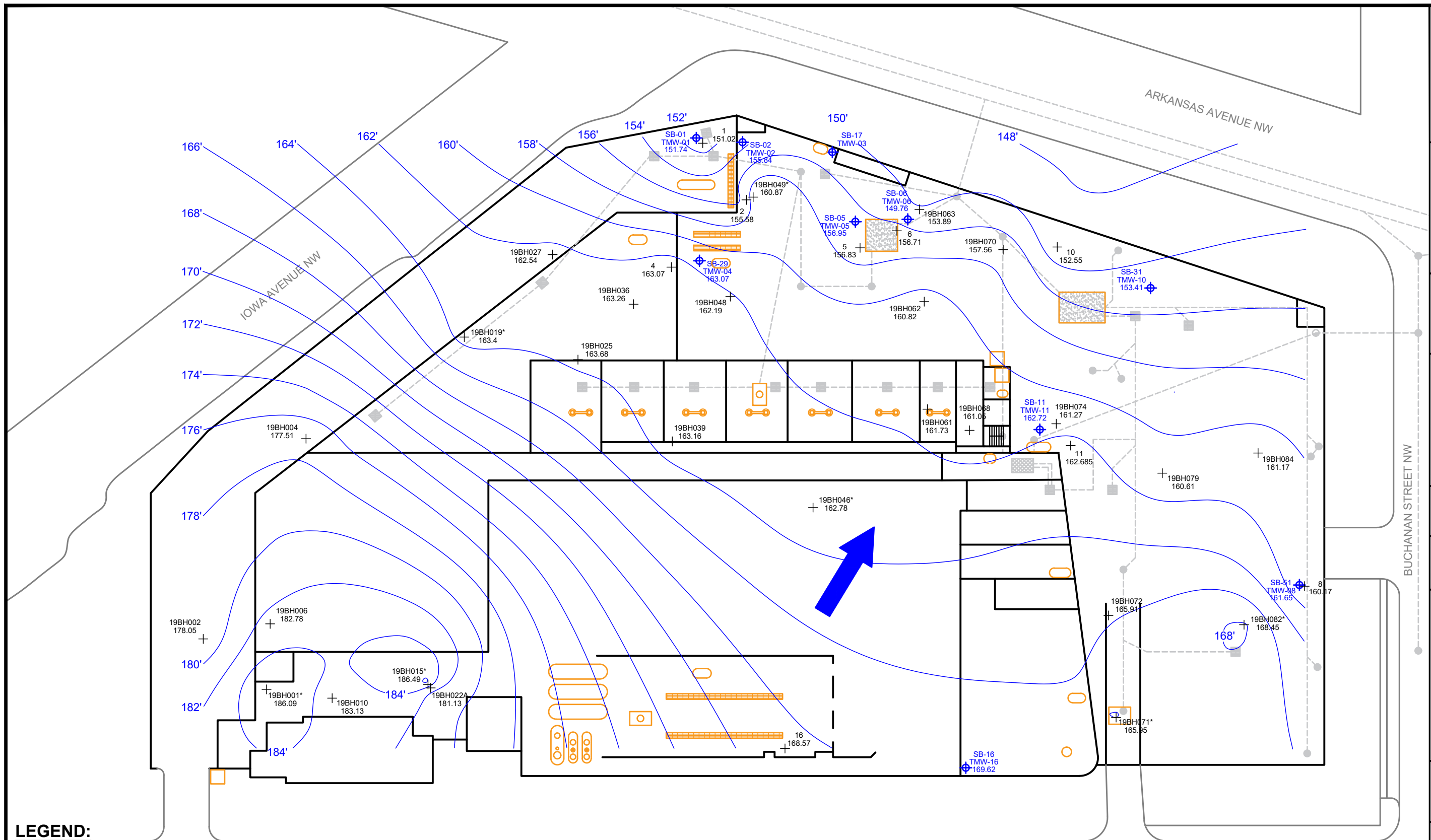
0444100

Figure Date:

04-15-2021

Figure Number:

5



LEGEND:

- ENVIRONMENTAL SURVEY LOCATIONS
- SOIL BORING LOCATIONS
- GROUNDWATER ELEVATION CONTOUR LINES
- GROUNDWATER FLOW DIRECTION
- 19BH006 - SAMPLE LOCATION
- 182.78 - GROUNDWATER ELEVATION

NOTE: DATUM USED FOR GROUNDWATER ELEVATION: NAD88
GROUNDWATER ELEVATION CONTOURS ESTIMATED BASED ON TWO DATA SETS
(OPEN BOREHOLE AND TEMPORARY MONITORING WELL MEASUREMENTS).

NOTE: All locations are approximate and must be field verified.

Project Name:

WMATA Bus Facility
Northern Site
4615 14th Street NW,
Washington, DC 20011

Figure Title:

Proposed
Groundwater
Sampling
Location Map

Drawn By:

Adam Smak

Project Manager:

Andy Acosta

Figure Legend:



0 40' 80'
APPROXIMATE SCALE IN FEET

Project Number:

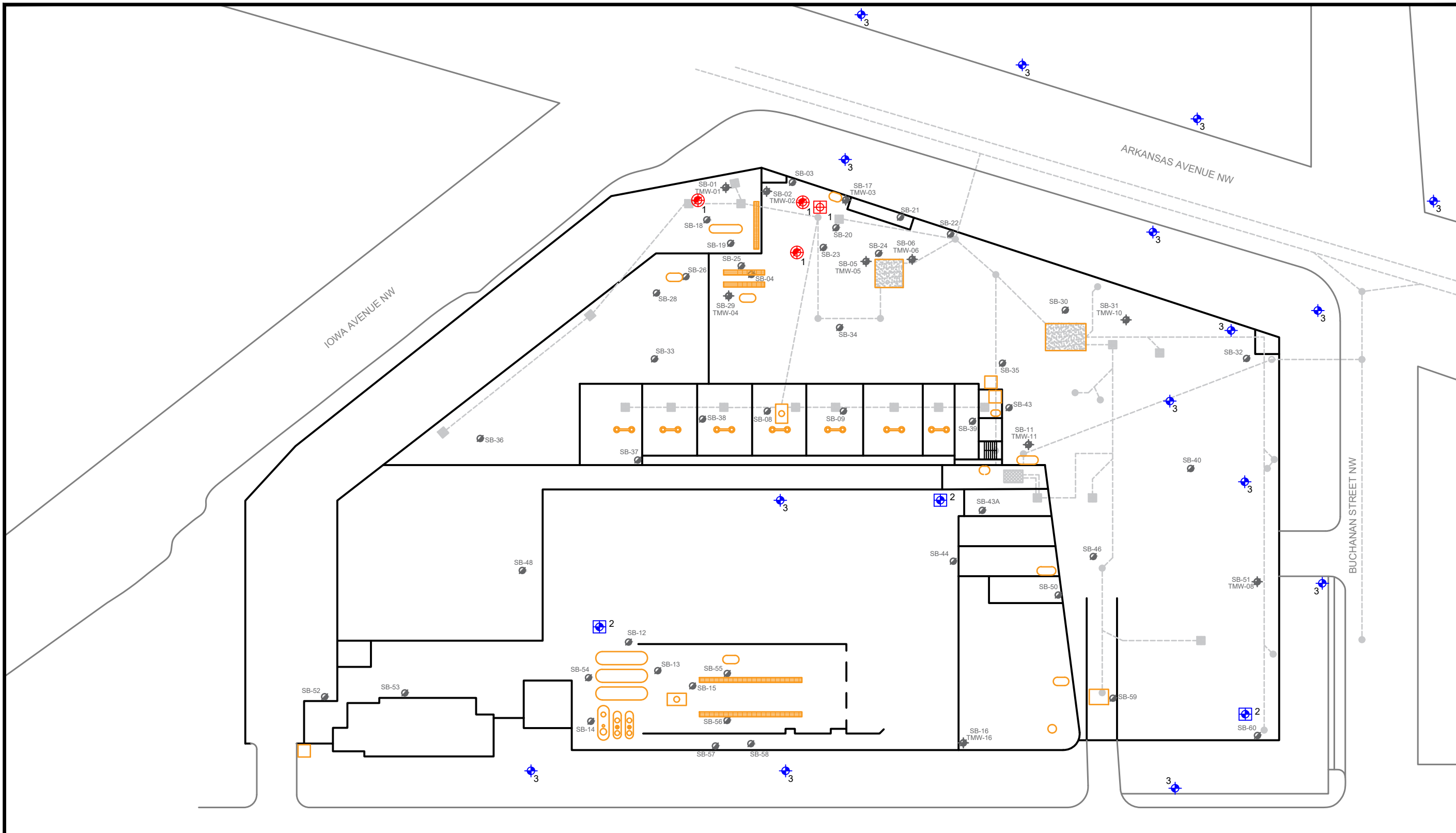
0444100

Figure Date:

04-15-2021

Figure Number:

6



LEGEND:

- PROPOSED MONITORING WELL DIRECT WATER SAMPLING LOCATION; WITH VADOSE SOIL SAMPLING
- PROPOSED MONITORING WELL DIRECT WATER SAMPLING LOCATION; GROUNDWATER INTERFACE AND BEDROCK INTERFACE
- PROPOSED PERMANENT SHALLOW MONITORING WELL LOCATION; 2"; MAX 15' BLS
- PROPOSED PERMANENT DEEP MONITORING WELL LOCATION; 2"; MAX 30' BLS

SUPERSCRIPIT:

- 1 - GROUNDWATER SAMPLE FOR LABORATORY ANALYSIS BY EPA METHOD 8260 FOR VOCs, METHOD 8270 FOR SVOCs, TPH-GRO/DRO, AND 13 PRIORITY POLLUTANT METALS
- 2 - SOIL AND GROUNDWATER SAMPLE FOR LABORATORY ANALYSIS BY EPA METHOD 8260 FOR VOC's, METHOD 8270 FOR SVOCs, TPH-GRO/DRO, AND 13 PRIORITY POLLUTANT METALS
- 3 - GROUNDWATER SAMPLE FOR LABORATORY ANALYSIS BY EPA METHOD 8260 FOR VOCs AND METHOD 8270 FOR SVOCs



APPENDIX A

DOEE Comprehensive Site Assessment Directive Letter, dated December 10, 2020

GOVERNMENT OF THE DISTRICT OF COLUMBIA
Department of Energy and Environment
Environmental Services Administration



Toxic Substances Division

Underground Storage Tank Branch

Directive for Comprehensive Site Assessment

December 10, 2020

Ms. Claire Fox
Washington Metropolitan Area Transit Authority
Office of Environmental Management & Industrial Hygiene
3500 Pennsy Drive
Landover, MD 20785

Re: FACILITY NAME: WMATA Northern Bus Division
FACILITY ADDRESS: 4615 14th Street, NW, Washington, DC 20011
FACILITY ID #: 4000709
LUSTCASE #: 2021011

Dear Ms. Fox:

The Department of Energy and Environment (DOEE), Underground Storage Tank Branch (UST Branch), is issuing this Directive Letter in reference to the property located at **4615 14th Street, NW, Washington, DC 20011 (the “Site”)**, pursuant to the Underground Storage Tank Management Act of 1990 (D.C. Code § 8-113.01 *et seq.*) (the “Act”) and the District of Columbia Underground Storage Tank Regulations, as set forth at Title 20 of the District of Columbia Municipal Regulations (DCMR), Chapters 55-70 (20 DCMR §§ 5500-7099), updated February 21, 2020.

The UST Branch has received and reviewed the Environmental Subsurface Investigation Report dated February 7, 2020 prepared by Intertek PSI for the above mentioned Site. The results indicate concentrations for several chemicals of concern (COCs) above DC Risk Based Corrective Action (DRBCA) Tier 1 Risk Based Screening Level for the applicable exposure pathways and receptors. We are also aware of USTs onsite pending removal, source removal is a critical first step in LUST corrective action. Therefore, the UST Branch has reopened the LUST Case with a new LUST Case #2021011 associated with this property.

In accordance with the above laws and regulations, based on the determination of the UST Branch, the Responsible Party is hereby directed to perform the followings:

- 1. Work Plan - Within 45 days** of this CSA Directive Letter (i.e. by **January 25, 2020**) submit a work plan that defines the scope, schedule, and approaches for the task required for the comprehensive site assessment. The work plan should include a site diagram depicting the placement of all borings, wells, and soil vapor monitoring points.

The sampling work plan should show the position of existing and new ground water monitoring wells, if any, ground water flow direction, as well as proposed monitoring well and soil sampling locations. Monitoring wells and sampling locations must be positioned so that samples taken from them accurately represent the nature and extent of contamination associated with the release of petroleum product(s) on the Site. Please note that the work plan may need to include investigation for potential offsite impact.

2. **Comprehensive Site Assessment Report** - Within sixty (60) days following DOEE approval of the Work Plan, submit a complete Comprehensive Site Assessment (CSA) Report to delineate the extent of both groundwater and soil contamination and include a site conceptual model. This CSA must be prepared in accordance with the District's Comprehensive Site Assessment Protocol (<https://doee.dc.gov/node/8332>). Please note that the results of the CSA report may require additional data collection and further assessment.
3. **Corrective Action Plan** - Upon review and approval of the CSA Report and any subsequent assessment or monitoring reports, a Corrective Action Plan (CAP) may be required. Within forty-five (45) days of submission of the CSA Report, if the contamination levels are found to be higher than DOEE's regulatory standards,¹ prepare and submit a CAP for DOEE approval that proposes a remedial strategy to address contamination in soil and/or ground water. The CAP must be prepared in accordance with the provisions of 20 DCMR § 6207.

Chemicals of Concern - Analyze soil and groundwater samples in accordance with DCRBCA Table 4-1 including: i) full list volatile organic compounds using EPA Method 8260B and polycyclic aromatic hydrocarbons (PAHs) using EPA Method 8270; ii) total petroleum hydrocarbon-diesel range organics (TPH-DRO) using EPA Method 8015; and iii) the Resource Conservation and Recovery Act (RCRA) metals using EPA Method SW846.

4. **CAP Implementation** - Within thirty (30) days of DOEE's approval of the CAP, begin implementation of the CAP on the Site, pursuant to 20 DCMR § 6207.
5. **Monitoring Reports** – Throughout the assessment and CAP implementation and after CAP implementation, continuous groundwater monitoring the Site may be required – a directive to initiate regular periodic groundwater monitoring will be issued by the LUST case manager based on findings of the initial CSA Report. If so, monitoring reports must be submitted on a quarterly basis until DOEE determines that no further action (NFA) is necessary on the Site. Case closure and issuance of a NFA letter by DOEE is contingent upon all closure requirements being met, such as proper abandonment of monitoring wells and removal of equipment from the Site (*see* 20 DCMR § 6211 for a detailed listing of closure requirements).
6. Note a **LUST Activity Notification** shall be sent to the UST Branch at least seven (7) days before the actual field activities.

¹ DOEE's regulatory standards for ground water and soil may be found at 20 DCMR §§ 6208 and 6209.

7. **Greener Cleanups/Green Remediation** – DOEE strongly encourages responsible parties to consider and report green remediation strategies for LUST sites. The UST Branch has begun an initiative to track green remediation strategies being implemented in the District. In alignment with EPA’s “policy to evaluate and minimize the environmental ‘footprint’ of activities undertaken when cleaning up a contaminated site” (U.S. EPA Principles for Greener Cleanups, August 27, 2009), DOEE is making efforts to better track green cleanups and **requests that a statement of the extent of green remediation being used at LUST case sites is included in every CSA and CAP**. RPs may consult ASTM E2893 for standard guidance on greener cleanups. Helpful links to green remediation practices may also be found here:

<https://www.epa.gov/remedytech/green-remediation-best-management-practices-site-investigation>; and

<https://www.epa.gov/remedytech/green-remediation-incorporating-sustainable-environmental-practices-remediation>.

8. A property owner or developer who is not deemed the responsible party may be eligible to enter **Voluntary Remediation Action Program (VRAP)** or Voluntary Cleanup Program (VCP) to clean-up the property during redevelopment. Please see details in link <https://doee.dc.gov/service/voluntary-remediation-action-program-vrap>.

Please note that a permit is required for well installation from the DOEE Regulatory Review Division and a Department of Consumer and Regulatory Affairs (DCRA) construction permit is required for any site operations.

Any requests for extensions of time in which to complete each of the tasks listed above must be received by the UST Branch in writing, no later than ten (10) days before the prescribed deadline. DOEE reserves the right to amend this schedule at any time. If changes are made to the schedule, you will be notified in writing.

Please note that pursuant to D.C. Code § 8-113.08(a) and 20 DCMR § 6300, DOEE is authorized to enter the Site at any reasonable time, including while remediation is in progress, to inspect, obtain copies of relevant documents, obtain samples or conduct monitoring or testing of any tanks, associated equipment, contents, surrounding soils, air, surface water, or groundwater. The UST Branch will review the results of this assessment in accordance with the above-referenced laws and regulations to determine the necessity for additional assessment or corrective action.

Should you have any questions concerning this directive, please do not hesitate to contact me or Nazmul Haque via telephone at 202-499-0438 or via e-mail at nazmul.haque@dc.gov.

Sincerely,



Fianna Phill, Chief
Underground Storage Tank Branch

Links: UST CSA & CAP Protocols - <https://doee.dc.gov/page/lust-forms-guidance-and-public-documents>



APPENDIX B

PSI Preliminary Environmental Investigation Report, dated February 7, 2020

Preliminary Environmental Investigation Report

For

WMATA Northern Bus Station
4615 14th Street NW
Washington D.C. 20011

Prepared for

STV Incorporated
7125 Ambassador Road, Suite 200
Baltimore, Maryland 21244

Prepared by

Professional Service Industries, Inc.
2930 Eskridge Road
Fairfax, Virginia 22030

February 7, 2020

PSI Project Number: 0444100





Project Number: 0444100
February 7, 2020

Professional Service Industries, Inc.
2930 Eskridge Road
Fairfax, Virginia 22031
Phone: (703) 698-9300
Fax: (703) 698-4414

Mr. Chuck Belser, PMP
Vice President, Transportation Facilities
STV Incorporated
120 East Baltimore Street, Suite 1710
Baltimore, MD 21202

Subject: Preliminary Environmental Investigation Report
WMATA Northern Bus Station
4615 14th Street NW
Washington, D.C 20011

Dear Mr. Belser:

Pursuant to your request, Professional Service Industries, Inc. (PSI), an Intertek company, has prepared this Preliminary Environmental Investigation (PEI) report for the above-referenced property. One electronic copy of the PEI report has been prepared for your use.

Thank you for choosing PSI as your consultant for this project. If you have any questions regarding the information contained herein, or if we can be of additional service, please contact the undersigned at (703) 698 9300.

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.

Rinzo Rentheli, EIT
Project Engineer

Andres Acosta, P.G.
Project Geologist/Principal Consultant

Angela C. Garzia, P.E.
Chief Engineer

Cc: James Boland, PSI
Jeffrey Martineau, PSI



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APPENDICES

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Appendix C	Laboratory Analytical Reports and Chain-of-Custody Documentation



1 EXECUTIVE SUMMARY

Professional Service Industries, Inc. (PSI), an Intertek company, has performed Preliminary Environmental Investigation (PEI) activities at the subject property, located at 4615 14th Street NW in Washington D.C. Authorization to perform the PEI activities was given via approval of PSI's Proposal No. 0448-279750, between STV, Inc. (STV) and PSI.

Site Description

The subject property is located in a mixed-use neighborhood surrounded by residential housing and commercial properties. The site is improved with an approximately 270,000 square foot multi-story building with the oldest portion of the building being constructed in 1907. The subject property is owned by Washington Metropolitan Area Transit Authority (WMATA) and is located on Square 2811/2815 and Property ID 2811 0802 of the Washington DC Real Estate Map. The on-site building historically has been used for bus storage/maintenance and consists of an administrative building, parking deck, maintenance/repair bays, living quarters, bus wash areas, storage rooms, and a garage with capacity for 175 buses.

Preliminary Environmental Investigation Activities

In November and December 2019, PSI personnel performed PEI activities to evaluate if the subject property has been negatively affected by the identified items of environmental concern (i.e. hydraulic lifts, underground storage tanks [USTs], aboveground storage tanks [ASTs], fuel dispensers, oil-water separators [OWS], sand filters, floor/trench drains, etc.) and for coverage purposes. The general scope of services performed included advancing 54 soil borings to a maximum depth of approximately 25 feet below land surface (BLS) for soil screening purposes utilizing an organic vapor analyzer equipped with a photoionization detector (OVA-PID), collection of 27 soil samples for laboratory analysis, installation of 10 temporary monitoring wells, and collection of nine (9) groundwater samples in the areas identified as environmental concerns.

Conclusions

Based on the field screening and laboratory analytical data, the following conclusions have been made with regards to the quality of the soil/groundwater in the areas investigated.

- Generally, the majority of the 54 soil borings advanced at the site were extended to a depth approximately two (2) feet into the groundwater table. In soil borings where groundwater or saturated soils were not obviously encountered, the soil borings were advanced to a maximum depth of approximately 25 feet BLS. Refusal was generally encountered at various depths in the soil borings advanced in the bus maintenance/repair area, along the exterior walls, and the entirety of the upper floor.
- OVA-PID responses in the soil samples collected for screening purposes ranged from below the minimum equipment detection limit of 0.1 parts per million (ppm) to a maximum of 1,483 ppm. The highest OVA-PID response was recorded in the soil sample collected from Soil Boring SB-51



at approximately 10 feet BLS. Soil Boring SB-51 is located adjacent to the south entrance to the lower level parking garage.

- Petroleum related odors and/or staining were observed in the soil samples collected for screening purposes from soil borings generally located along the southern wall of the lower level parking garage, in the bus maintenance/repair area, in the lower level bus wash area, in the former/current areas of ASTs, in the former/current locations of USTs, and in the area of the sand filters. Please note, petroleum related odors were generally observed within the smear/saturated zones in the majority of the soil borings performed in the lower level, indicating the potential for widespread groundwater impact at the site. However, vadose zone (dry) petroleum related odors were generally isolated to specific areas (south wall of the lower level parking garage, bus maintenance/repair area, lower level bus wash area, AST south of bus maintenance/repair area, lower level UST, and southernmost sand filter).
- Based on the soil laboratory analytical results, of the 27 soil samples collected, 20 contained concentrations of metals- and/or petroleum-related test parameters above their respective Washington D.C. Department of Energy & Environment (DOEE) Tier 0 Soil Screening Levels (SSLs), Washington D.C. Risk Based Closure Assessment (DCRBCA) contact levels, and/or U.S. Environmental Protection Agency (EPA) Regional Screening Levels (RSLs).
- Additional non-petroleum or metals related test parameters were detected in several of the soil samples analyzed; however, at concentrations below their respective regulatory criteria. This may indicate additional source areas of contamination have not yet been identified. Those test parameters and the soil samples they were detected in are provided below.
 - Tetrachloroethene (PCE; chlorinated solvent) – SB-40@19', SB-46@22', SB-59@1'
 - Polychlorinated biphenyls (PCBs) – SB-51@10'
 - 2-butanone (methyl ethyl ketone [MEK]; solvent) – SB-08@9', SB-11@1', SB-28@9', SB-29@1', SB-30@7', SB-32@1', SB-33@3'
- Of the 10 temporary monitoring wells installed at the site, only nine (9) were sampled and submitted for laboratory analysis. At the time of the groundwater sampling activities, Temporary Monitoring Well TMW-06 was observed to contain approximately 0.2 inches of free product; therefore, following EPA groundwater sampling guidelines, no groundwater sample was collected from this temporary monitoring well.
- Based on the groundwater laboratory analytical results, of the nine (9) groundwater samples collected, six (6) were reported to be impacted by polychlorinated biphenyls (PCBs), petroleum-, and/or chlorinated solvent-related test parameters at concentrations above their respective DOEE Tier 1 Screening Levels for Groundwater, DOEE Groundwater Quality Standards, and/or EPA National Primary Drinking Water Regulation (NPDWR) Maximum Contaminant Levels (MCLs)
- PSI personnel collected depth-to-groundwater measurements from the 10 on-site temporary monitoring wells. Utilizing TOC elevation measurements and the depth-to-groundwater measurements, groundwater elevations were calculated by subtracting the depth-to-water



measurements from the TOC elevations for each temporary monitoring well. Based on these calculations, the groundwater flow direction in the shallow aquifer appears to be towards the southeast.

- Following collection of depth-to-groundwater measurements, on December 30, 2019, the temporary monitoring wells were properly abandoned by removing the well casing and filling the boreholes with bentonite, followed by grout at the surface.

Recommendations

Based on field observations, OVA-PID responses, laboratory analytical results, and the client's stated objectives, PSI recommends performing additional soil and groundwater sampling activities to:

1. Better define the horizontal and vertical extents of the soil and groundwater impacts identified at the site;
2. Obtain soil and groundwater quality data in the vicinity of those areas of refusal and where analytical data was not able to be obtained;
3. Collect field screening and laboratory analytical data where data gaps in the soil and groundwater investigation have been identified; and
4. Collect additional groundwater data to determine if the identified on-site groundwater impacts extend to the property boundaries.

Once completed, the data obtained from the above stated recommendations will be utilized to prepare a comprehensive soil and groundwater management plan for later use during the planned demolition and construction phases of the project.

This summary does not contain all of the information presented in the full report. The report should be read in its entirety to obtain a more complete understanding of the information provided and to aid in any decisions made or actions taken based on this information.



2 INTRODUCTION

PSI, an Intertek company, has conducted PEI activities at the subject property located at 4615 14th Street NW in Washington D.C. A USGS vicinity map is provided as Figure 1. A site aerial map is provided as Figure 2. A site vicinity map is provided as Figure 3.

2.1 AUTHORIZATION

Authorization to perform the PEI activities was given via approval of PSI's Proposal No. 0448-279750, between STV, Inc. and PSI.

2.2 SITE DESCRIPTION

The subject property is located in a mixed-use neighborhood surrounded by residential housing and commercial properties. The site is improved with an approximately 270,000 square foot multi-story building with the oldest portion of the building being constructed in 1907. The subject property is owned by WMATA and is located on Square 2811/2815 and Property ID 2811 0802 of the Washington DC Real Estate Map. The on-site building historically has been used for bus storage/maintenance and consists of an administrative building, parking deck, maintenance/repair bays, living quarters, bus wash areas, storage rooms, and a garage with capacity for 175 buses.

Currently, the site is inactive and not occupied; however, infrastructure associated with the former bus storage/maintenance facility remains on-site. WMATA has plans to demolish the existing on-site building to redevelop the site for mixed use (new bus garage and retail space). The site is bounded by residential and commercial properties to the north and east along Iowa Ave NW and Arkansas Ave NW, to the west by 14th St NW, and to the south by Buchanan St NW. The site location is illustrated on Figure 3. The soil boring and well locations are illustrated on Figures 4 through 7.

The site is fully serviced by public utilities including water and sewer. Groundwater is not used as a source of potable water on or in the vicinity of the site.

2.3 PHYSICAL SETTING

2.3.1 TOPOGRAPHY

The site is situated at an approximate average elevation of 199 feet above mean sea level (AMSL) to the north, with a gradual topographic slope to 177 feet AMSL to the south.

The United States Department of Agriculture (USDA) 1976 Soil Survey for the District of Columbia and the current USDA Web Soil Survey listing identify site soils primarily as Urban Land. Urban Land is used to designate areas where natural soils have been disturbed by development or are covered by impervious surface or structures.

As provided in the Preliminary Geotechnical report prepared by PSI, at a regional scale Southworth et al. 2006 mapped the Project Site location as being an unconformable contact between the Laurel Formation (Lower Cambrian) and sand-dominated lithofacies of the Potomac Formation (Lower



Cretaceous). The mapped contact between the two formations approximately bisects the Project Site from north to south. As mapped, the Potomac Formation underlies the western portion of the Project Site and the Laurel Formation underlies the eastern portion of the Project Site.

The Laurel Formation is a sedimentary mélange that underwent metamorphism in areas, resulting in partial melting and migmatization. The Laurel Formation was subsequently intruded at depth in the crust by mafic and felsic magmas while the Rock Creek Park shear zone was active (Thornberry-Ehrlich, 2009).

Approximately a mile east of the Rock Creek Park shear zone, where the Project Site is located, the Potomac Formation consists of sand-dominated coastal plain sediments likely associated with the ancestral Potomac River. The ancestral Potomac River eroded and cut into regional bedrock, unconformably depositing fluvial terraces and flood plain sediments over the underlying rocks, including the Laurel Formation and intrusive igneous units (Southworth et al. 2006).

Subsurface characterization of bedrock at the Project Site conducted as part of a geotechnical engineering study performed by Intertek-PSI revealed that the underlying geology of the Project Site consists of intermediate to mafic igneous rocks, rather than the Laurel Formation or Potomac Formation as mapped. Rock cores collected at the Project Site were classified as massive to foliated metadiorite. The metadiorite is predominantly intermediate in composition, although variation was observed across the Project Site and in some areas the bedrock is more mafic, bordering on a gabbroic composition. In select areas of the Project Site the metadiorite is foliated enough to be considered a gneiss. The Laurel Formation was intruded throughout by igneous rocks, as mentioned above, many of which are known collectively as the Georgetown Intrusive Suite (Early Ordovician) (Southworth et al. 2006). Based on mineralogical assemblages, country rock xenoliths, and cross-cutting relationships of the rock samples recovered from the geotechnical investigation, bedrock at the Project Site location is likely associated with the Georgetown Intrusive Suite which intruded into the Laurel Formation.

2.3.2 HYDROLOGY

According to the Flood Insurance Rate Map, the Site is located within a floodplain. Potable water is supplied to the Site by the District of Columbia Water and Sewer Authority.

A top of casing (TOC) survey was performed by Precision Measurements, Inc. (PMI) on December 19, 2019. The TOC survey measured the TOC for each temporary monitoring well and provided latitude and longitude elevations based on the 1988 North American Datum (NAD88). The TOC survey elevations were used in calculating groundwater elevations in each well at the site to determine the direction of local groundwater flow. The groundwater flow determination is discussed in detail in section 4.4.

2.4 SITE HISTORY

Primary historic usage of the subject property included use as a carriage house, bus storage, vehicle fueling, auto-maintenance and vehicle washing.



2.5 PURPOSE AND SCOPE OF SERVICES

The PEI activities were performed to evaluate if the subject property has been negatively affected by the identified items of environmental concern (i.e., hydraulic lifts, USTs, ASTs, fuel dispensers, OWSs, sand filters, floor/trench drains, etc.) and for coverage purposes. The general scope of services performed included advancing 54 soil borings to a maximum depth of approximately 25 feet BLS for soil screening purposes utilizing an OVA-PID, collection of 27 soil samples for laboratory analysis, installation of 10 temporary monitoring wells, and collection of nine (9) groundwater samples in the areas identified as environmental concerns. The sample locations are provided on Figure 4. A UST and AST Location Map is provided as Figure 8.

2.6 QUALITY ASSURANCE/QUALITY CONTROL MEASURES

All field decontamination and sampling procedures were performed in general accordance with the EPA Operating Procedures for Soil and Groundwater Sampling. Quality Assurance and Quality Control (QA/QC) samples included trip blanks for laboratory analysis of VOCs per EPA Method 8260. All downhole equipment utilized during the field activities was decontaminated prior to and between each soil boring. Decontamination of said equipment was accomplished by washing the equipment with a non-phosphate detergent and distilled water solution followed by a final distilled water rinse. Single-use disposable gloves and disposable tubing was used for each sampling point in an attempt to eliminate cross-contamination between sampling locations.

Laboratory analytical procedures were performed by National Environmental Laboratory Accreditation Conference (NELAC)-certified Hampton-Clarke, Inc. (NELAC/NJ #07071) located in Fairfield, New Jersey.



3 SITE INVESTIGATION ACTIVITIES

Field investigation and sampling activities were performed by PSI personnel in November and December 2019. PSI was assisted by a representative of Clark Construction when accessing the property with locked gates. Soil cuttings generated during the performance of the soil borings, groundwater generated during development and sampling of the temporary monitoring wells, and decontamination water was placed into 55-gallon steel drums, and stored on-site for later disposal.

In accordance with DOEE requirements, PSI obtained a permit prior to performing the PEI activities. A copy of the Department of Consumer and Regulatory Affairs (Permit #SB1900434) is provided in Appendix A.

3.1 SOIL INVESTIGATION ACTIVITIES

Utilizing hand auger and Geoprobe® drill-rig methodologies, PSI personnel observed the advancement of 54 soil borings. Five (5) additional soil borings were attempted; however, refusal was encountered in these borings at depths of less than 3.5 feet BLS. The groundwater table was encountered at depths ranging from 4.5 feet BLS to 16 feet BLS in the soil borings performed based on subsequent groundwater measurements in the temporary wells.

Soil samples were collected from each soil boring on approximate 1- to 2-foot intervals for field screening utilizing an OVA-PID. The termination depth of the soil borings ranged from 5 feet BLS to 25 feet BLS, depending on the lithology encountered and/or depth to the groundwater table. Airtight 1-quart capacity plastic bags were partially filled with the soil samples, sealed, and set aside to allow volatile gases, if any, to accumulate throughout the headspace. The organic vapor response for each soil sample was determined by inserting the probe of the OVA-PID into the headspace of the sample container and recording the highest sustained reading.

Based on field observations, OVA-PID responses, and for coverage purposes, PSI collected 27 soil samples for laboratory analysis by EPA Method 8260 for volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene, and total xylenes (BTEX), EPA Method 8270 for semi-volatile organic compounds (SVOCs), EPA Method 8015D for Total Petroleum Hydrocarbons (TPH) and Diesel and Gasoline Range Organics (DRO/GRO), EPA Method 8082 for polychlorinated biphenyls (PCBs) and EPA Method 6010C and 7471B for 13 Priority Pollutant Metals (antimony, arsenic, barium, beryllium, cadmium, chromium, copper, lead, nickel, selenium, silver, thallium, zinc)

Upon completion of the soil sampling activities, all boreholes were backfilled to the surrounding grade. The locations of the soil borings are provided on Figure 4. Copies of the field equipment calibration forms and soil OVA sample data sheets are provided in Appendix B.

3.2 GROUNDWATER INVESTIGATION ACTIVITIES

Based on field observations, OVA-PID responses, and for coverage purposes, utilizing hand auger and Geoprobe® drill-rig methodologies, PSI observed the installation of 10 temporary monitoring wells (TMW-01 through TMW-06, TMW-08, TMW-10, TMW-11 and TMW-16) to total depths ranging from



approximately 10 to 25 feet BLS. The temporary monitoring wells were constructed utilizing 10 feet of 1-inch diameter factory slotted 0.010-inch polyvinyl chloride (PVC) screen coupled with solid PVC riser. The annulus between the well casing and borehole was filled with 20/40 grade silica sand followed by approximately 6-inches of grout for use as a surface seal. Each temporary monitoring well was then developed via the pump and surge method until the produced water was relatively clear. The development water was placed into 55-gallon steel drums and stored on-site for later disposal.

Subsequent to installation and following a period of stabilization (greater than 5 days), PSI personnel collected nine (9) groundwater samples from Temporary Monitoring Wells TMW-01 through TMW-05, TMW-08, TMW-10, TMW-11 and TMW-16. The groundwater samples were submitted for laboratory analysis by EPA Method 8260 for VOCs, including BTEX, EPA Method 8270 for SVOCs, EPA Method 8015D for TPH DRO/GRO, EPA Method 8082 for PCBs, and EPA Method 6010C and 7471B for 13 Priority Pollutant Metals (antimony, arsenic, barium, beryllium, cadmium, chromium, copper, lead, nickel, selenium, silver, thallium, zinc) total and dissolved. Please note, at the time of sample collection, approximately 0.2-inches of free product was measured in Temporary Monitoring Well TMW-6; therefore, following EPA groundwater sampling guidelines, a groundwater sample was not collected from the temporary monitoring well.

On December 30, 2019, PSI personnel collected depth-to-groundwater measurements from all on-site temporary monitoring wells for later use in calculating groundwater flow direction at the site. The groundwater levels were collected within a 24-hour period and were measured from TOC and recorded to the nearest 0.01 of a foot. Following collection of the depth-to-groundwater measurements, the temporary monitoring wells were removed from the site and the boreholes were backfilled to the surrounding surface with bentonite and grout.

The temporary monitoring well locations are provided on Figures 4. Copies of the monitoring well construction data forms, field equipment calibration forms, and groundwater sampling forms are provided in Appendix B.



4 DATA ANALYSIS AND INTERPRETATION

Analysis and interpretation of the data generated during the field investigation and laboratory analyses is presented in the following sections. Where appropriate, the results are compared with regulatory limits for the test parameters identified in the applicable media. All laboratory analytical procedures were performed by Hampton-Clarke Inc. Copies of the laboratory analytical reports and chain-of-custody documentation are provided in Appendix C.

4.1 PHYSICAL CHARACTERISTICS OF THE SUBJECT AREA

The subject property lies in the United States Geological Survey “Washington West Quadrangle, District of Columbia-Maryland-Virginia” topographic map. General topography in the immediate vicinity of the subject property is gently rolling hills with higher elevations in the northwest sections and lower elevations in the southeast and south sections. Surface drainage appears to be via ground infiltration.

Information about the physical setting of the subject property is tabulated below:

General Soil Type, Slopes	<p>The soils in the area where the subject property is located consist of Urban Land, 0 to 8 percent slope and Sassasfras-Urban Land Complex, 8 to 15 percent slope.</p> <p>Urban Land soils are covered by pavement, concrete, buildings, and other structures underlain by wet soils material. The soil profile is typically disturbed and does not resemble any mapped soil unit due to anthropogenic modification of the profile.</p> <p>Sassasfras-Urban Land Complex soils consist of very deep and well drained soils. The capacity of the most limiting layer to transmit water is moderately high to high.</p>
On-Site Water Bodies	<p>No on-site water bodies are located within the subject property.</p>
Off-Site Water Bodies	<p>No on-site water bodies are located on the surrounding properties.</p>

4.2 SOIL INVESTIGATION RESULTS

OVA-PID responses in the soil samples collected for screening purposes ranged from below the minimum equipment detection limit of 0.1 ppm to a maximum of 1,483 ppm. The highest OVA-PID response was recorded in the soil sample collected from Soil Boring SB-51 at approximately 10 feet BLS. Soil Boring SB-51 is located adjacent to the south entrance to the lower level parking garage. Additionally, OVA-PID responses at least 10 ppm were observed in the vadose zone (approximately 0-7 feet BLS) soil samples collected from Soil Borings SB-3, SB-11, SB-15, SB-17, SB-21, SB-25, SB-28, SB-29, SB-30, SB-34, SB-37, SB-43, and SB-60.

Petroleum related odors and/or staining were observed in the soil samples collected for screening purposes generally located along the southern wall of the lower level parking garage, in the bus



maintenance/repair area, in the lower level bus wash area, in the former/current areas of ASTs, in the former/current locations of USTs, and in the area of the sand filters. Please note, petroleum related odors were generally observed within the smear/saturated zones in the majority of the soil borings performed in the lower level garage, indicating the potential for widespread groundwater impact at the site. However, vadose zone (dry) petroleum related odors were generally isolated to specific areas (south wall of the lower level parking garage, bus maintenance/repair area, lower level bus wash area, AST south of bus maintenance/repair area, lower level UST, and southernmost sand filter.

Based on the laboratory analytical results, 20 of the 26 soil samples collected and submitted for laboratory analysis were reported to contain metals and/or petroleum-related test parameters at concentrations above their respective DOEE Tier 0 SSLs, DCRBCA contact levels, and/or EPA RSLs. A summary of the soil samples exceeding their respective regulatory criteria, area/purpose of investigation, and contaminants of concern (COCs) is provided below.

Soil Sample ID	Area/Purpose of Collection	Contaminant(s) Exceeding Regulatory Criteria
SB-01 @ 11'	Lower level east UST	Polynuclear Aromatic Hydrocarbons (PAHs), DRO
SB-02 @ 11'	Former AST storage area	PAHs, DRO
SB-04 @ 7'	Bus Wash Area, fuel dispenser	Lead, Arsenic, PAHs, DRO
SB-05 @ 9'	Bus wash area, sand filter	PAHs
SB-06 @ 11'	North sand filter	PAHs
SB-08 @ 9'	OWS, hydraulic lift	DRO
SB-11 @ 1'	Bus wash bay, OWS	PAHs, DRO
SB-12 @ 17'	Upper floor USTs	GRO, DRO
SB-17 @ 3'	Former AST storage area, Non-Haz Waste AST	Arsenic, PAHs, DRO
SB-17 @ 11'	Former AST storage area, Non-Haz waste AST	PAHs, DRO
SB-28 @ 9'	Bus wash area	Arsenic, PAHs, GRO, DRO
SB-29 @ 1'	Bus wash area, fuel dispenser	PAHs, GRO, DRO, Ethylbenzene
SB-30 @ 7'	South sand filter	PAHs, DRO
SB-32 @ 1'	Lower level southeast wall, storage area, coverage purposes	PAHs, DRO
SB-33 @ 3'	Coverage purposes	Arsenic, PAHs, DRO
SB-34 @ 10'	Bus wash area, coverage purposes	DRO
SB-43 @ 11'	Lower level south AST, pump room AST	Arsenic, GRO, DRO
SB-43A @ 1'	Storage area, coverage purposes	DRO
SB-51 @ 10'	Lower level south wall, coverage purposes	GRO, DRO
SB-60 @ 5'	Lower level south wall, coverage purposes	GRO, Ethylbenzene



Please note, additional non-petroleum or metals related test parameters were detected in several of the soil samples analyzed; however, at concentrations below their respective regulatory criteria. This may indicate additional source areas of contamination have not yet been identified. Those test parameters and the soil samples they were detected in are provided below.

- Tetrachloroethene (PCE; chlorinated solvent) – SB-40@19’, SB-46@22’, SB-59@1’
- PCBs – SB-51@10’
- 2-butanone (methyl ethyl ketone [MEK]; solvent) – SB-08@9’, SB-11@1’, SB-28@9’, SB-29@1’, SB-30@7’, SB-32@1’, SB-33@3’

A soil analytical data summary is provided as Table 1. A soil analytical summary map (contaminants of concern only) is provided as Figure 5. Copies of the laboratory analytical reports and chain-of-custody documentation is provided in Appendix C.

4.3 GROUNDWATER INVESTIGATION RESULTS

Based on the laboratory analytical results, six (6) of the nine (9) groundwater samples collected for laboratory analysis were reported to contain PCBs, petroleum-, and/or chlorinated solvent-related test parameters at concentrations above their respective DOEE Tier 1 Screening Levels for Groundwater, DOEE Groundwater Quality Standards, and/or EPA NPDWR MCLs. A summary of the groundwater samples exceeding their respective regulatory criteria, area/purpose of investigation, and COCs is provided below.

Well ID	Area/Purpose of Collection	Contaminant Classification Exceeding Regulatory Criteria
TMW-1	Lower level east UST	PCBs
TMW-5	North sand filter	DRO
TMW-8	Lower level southern extent, coverage purposes	SVOCs, VOCs (chlorinated solvents)
TMW-10	South sand filter, coverage purposes	VOCs (chlorinated solvents)
TMW-11	Bus wash bay, OWS	VOCs (chlorinated solvents)
TMW-16	Lower level storage room	SVOCs

Additional test parameters were detected in the groundwater samples analyzed; however, at concentrations below their respective regulatory criteria. A groundwater analytical data summary is provided as Table 2. A groundwater analytical data summary map (contaminants of concern only) is provided as Figure 6.

4.4 GROUNDWATER FLOW DETERMINATION

Utilizing TOC elevation measurements and depth-to-groundwater measurements, groundwater elevations were calculated by subtracting the depth-to-groundwater measurements from the TOC elevations for each temporary monitoring well. Based on these calculations, the groundwater flow direction in the shallow aquifer appears to be towards the southeast. A groundwater elevation map is provided as Figure 7.



5 CONCLUSIONS AND RECOMMENDATIONS

PSI has performed PEI activities at the subject property in accordance with PSI Proposal No. 0448-279750. Based on the results of the PEI activities, the following conclusions have been developed:

5.1 CONCLUSIONS

- Generally, the majority of the 54 soil borings advanced at the site were extended to a depth approximately two (2) feet into the groundwater table. In soil borings where groundwater or saturated soils were not obviously encountered, the soil borings were advanced to a maximum depth of approximately 25 feet BLS. Refusal was generally encountered at various depths in the soil borings advanced in the bus maintenance/repair area, along the exterior walls, and the entirety of the upper floor.
- OVA-PID responses in the soil samples collected for screening purposes ranged from below the minimum equipment detection limit of 0.1 ppm to a maximum of 1,483 ppm. The highest OVA-PID response was recorded in the soil sample collected from Soil Boring SB-51 at approximately 10 feet BLS. Soil Boring SB-51 is located adjacent to the south entrance to the lower level parking garage.
- Petroleum related odors and/or staining were observed in the soil samples collected for screening purposes from soil borings generally located along the southern wall of the lower level parking garage, in the bus maintenance/repair area, in the lower level bus wash area, in the former/current areas of ASTs, in the former/current locations of USTs, and in the area of the sand filters. Please note, petroleum related odors were generally observed within the smear/saturated zones in the majority of the soil borings performed in the lower level, indicating the potential for widespread groundwater impact at the site. However, vadose zone (dry) petroleum related odors were generally isolated to specific areas (south wall of the lower level parking garage, bus maintenance/repair area, lower level bus wash area, AST south of bus maintenance/repair area, lower level UST, and southernmost sand filter).
- Based on the soil laboratory analytical results, of the 27 soil samples collected, 20 contained concentrations of metals and/or petroleum-related test parameters above their respective DOEE Tier 0 SSLs, DCRBCA contact levels, and/or EPA RSLs.
- Additional non-petroleum or metals related test parameters were detected in several of the soil samples analyzed; however, at concentrations below their respective regulatory criteria. This may indicate additional source areas of contamination have not yet been identified. Those test parameters and the soil samples they were detected in are provided below.
 - PCE (chlorinated solvent) – SB-40@19', SB-46@22', SB-59@1'
 - PCBs – SB-51@10'
 - 2-butanone (MEK; solvent) – SB-08@9', SB-11@1', SB-28@9', SB-29@1', SB-30@7', SB-32@1', SB-33@3'



- Of the 10 temporary monitoring wells installed at the site, only nine (9) were sampled and submitted for laboratory analysis. At the time of the groundwater sampling activities, Temporary Monitoring Well TMW-06 was observed to contain approximately 0.2-inches of free product; therefore, following EPA groundwater sampling guidelines, no groundwater sample was collected from this temporary monitoring well.
- Based on the groundwater laboratory analytical results, of the nine (9) groundwater samples collected, six (6) were reported to be impacted by PCBs, petroleum-, and/or chlorinated solvent-related test parameters at concentrations above their respective DOEE Tier 1 Screening Levels for Groundwater, DOEE Groundwater Quality Standards, and/or EPA NPDWR MCLs
- Utilizing TOC elevation measurements and depth-to-groundwater measurements, groundwater elevations were calculated. Based on these calculations, the groundwater flow direction in the shallow aquifer appears to be towards the southeast.
- Following collection of depth-to-groundwater measurements, the temporary monitoring wells were properly abandoned by removing the well casing and filling the boreholes with bentonite, followed by grout at the surface.

5.2 RECOMMENDATIONS

Based on field observations, OVA-PID responses, laboratory analytical results, and the client's stated objectives, PSI recommends performing additional soil and groundwater sampling activities to:

1. Better define the horizontal and vertical extents of the soil and groundwater impacts identified at the site;
2. Obtain soil and groundwater quality data in the vicinity of those areas of refusal and where analytical data was not able to be obtained;
3. Collect field screening and laboratory analytical data where data gaps in the soil and groundwater investigation have been identified; and
4. Collect additional groundwater data to determine if the identified on-site groundwater impacts extend to the property boundaries.

Once completed, the data obtained from the above stated recommendations will be utilized to prepare a comprehensive soil and groundwater management plan for later use during the planned demolition and construction phases of the project.



6 REPRESENTATIONS

6.1 WARRANTY

The field observations, measurements, and research reported herein are considered sufficient in detail and scope to form a reasonable basis for a Preliminary Environmental Investigation of this property. The investigation and conclusions presented herein are based upon the subjective evaluation of limited data. They may not represent all conditions at the subject site as they reflect the information gathered from specific locations. PSI warrants that the findings and conclusions contained herein have been promulgated in accordance with generally accepted environmental investigation methodologies and only for the site described in this report. It is necessarily limited to the conditions observed and to the information available at the time of the work.

Due to the limited nature of the work, there is a possibility that there may exist conditions which could not be identified within the scope of the investigation or which were not apparent at the time of report preparation. It is also possible that the testing methods employed at the time of the report may later be superseded by other methods. The description, type, and composition of what are commonly referred to as "hazardous materials or conditions" can also change over time. PSI does not accept responsibility for changes in the state of the art, nor for changes in the scope of various lists of hazardous materials or conditions. PSI believes that the findings and conclusions provided in this report are reasonable. However, no other warranties are implied or expressed.

6.2 USE BY THIRD PARTIES

This report was prepared pursuant to the contract PSI has with STV, Inc. Because of the importance of the communication between PSI and its client, reliance or any use of this report by anyone other than STV, Inc., Clark Construction, and WMATA for whom it was prepared, is prohibited and therefore not foreseeable to PSI.

Reliance or use by any such third party without explicit authorization in the report does not make said third party a third-party beneficiary to PSI's contract with STV, Inc. Any such unauthorized reliance on or use of this report, including any of its information or conclusions, will be at third party's risk. For the same reasons, no warranties or representations, expressed or implied in this report, are made to any such third party.



TABLES

Table 1
Soil Analytical Data Summary
WMATA Northern Bus Facility
February 7, 2020

Boring/Sample ID		SB-01	SB-02	SB-04	SB-05	SB-06	SB-08	SB-11	SB-12	SB-14	SB-15	SB-16	SB-17	SB-17	SB-28	SB-29	SB-30	SB-32	SB-33	SB-34	SB-36	SB-40	SB-43	SB-43A	SB-46	SB-51	SB-59	SB-60		
Sample Date		11/25/2019	11/25/2019	12/4/2019	12/2/2019	11/26/2019	11/22/2019	11/21/2019	12/26/2019	12/27/2019	#####	12/3/2019	11/26/2019	11/26/2019	12/2/2019	12/2/2019	12/4/2019	11/21/2019	12/3/2019	11/22/2019	12/3/2019	11/21/2019	11/22/2019	12/3/2019	11/21/2019	11/20/2019	11/20/2019	11/20/2019		
Sample depth collected (feet BLS)		11'	11'	7'	9'	11'	9'	1'	17'	5'	5'	1'	3'	11'	9'	1'	7'	1'	3'	10'	17'	19'	11'	1'	22'	10'	1'	5'		
OVA-PID reading at sample depth (ppm)		1.6	0.9	0.0	6.9	2.8	11.7	102.2	300.3	2.3	10.4	0.0	20.5	0.5	13.9	318	107.8	3.5	3.7	66.1	1.7	12.7	552.4	0.7	8.3	1483	6.7	1123		
Constituent	DC DOEE Tier 0 Soil Screening Levels (mg/Kg)	DCRBCA Construction Worker Surficial Soil - Ingestion, Inhalation (Vapor emissions and particulates) and Dermal Contact (mg/kg)	DCRBCA Commercial Worker Subsurface Soil Outdoor Inhalation (mg/kg)	DCRBCA Commercial Worker Surficial Soil - Ingestion, Inhalation (Vapor emissions and particulates) and Dermal Contact (mg/kg)	EPA-RSL Industrial Soils (mg/kg)	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	Results	
						(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Volatile Organic Compounds																														
Trichlorofluoromethane	-	-	-	-	350,000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	-	-	-	-	1.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes (Total)	3.86	23,900	17,000	98,200	2,500	0.0029	ND	ND	ND	ND	ND	ND	ND	ND	0.0012	ND	0.0069	0.16	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0
Total Solids (%)	NA	NA	NA	NA	NA	94	79	78	94	91	94	87	85	85	88	82	88	92	84	89	87	93	88	83	89	84	81	87	84	91

Notes:
ID = identification
BLS = below land surface
DC DOEE = Department of Energy and Environment

EPA-RSL = United States Environmental Protection Agency, Regional Screening Level (November 2019)
mg/kg = milligrams per kilogram or parts per million (ppm)
DCRBCA = District of Columbia Risk Based Corrective Action Screening Levels, June 2011

ND = Analyte not detected above the laboratory minimum detection level (LMDL) for specified analyte
All constituents that were detected are presented in this table.
- Highlighted values indicate constituent concentration greater than at least one of the local or federal standards listed.

Table 2
Groundwater Analytical Summary Table
WMATA Northern Bus Facility
February 7, 2020

Well ID						TMW-01	TMW-02	TMW-03	TMW-04	TMW-05	TMW-08	TMW-10	TMW-11	TMW-16									
Sample Date						12/11/19	12/13/19	12/11/19	12/11/19	12/09/19	12/12/19	12/06/19	12/06/19	12/12/19									
Total Well Depth						25.0'	24.3'	19.1'	17.5'	20.05'	15.18'	25.37'	20.8'	10'									
Ground Water Level BLS						18.1'	14.2'	16.3'	7.7'	13.01'	11.03'	16.38'	8.96'	4.2'									
Constituent	DOEE Tier 1 Screening Levels for Ground Water (µg/L)	DCRBCA Construction Worker Goundwater Outdoor Inhalation (µg/L)	DCRBCA Construction Worker Groundwater Incidental Dermal Contact (µg/L)	EPA NPDWR Maximum Contaminant Levels (MCLs) (µg/L)	DOEE Ground Water Quality Standards (µg/L)	Results (µg/L)		Results (µg/L)		Results (µg/L)		Results (µg/L)		Results (µg/L)		Results (µg/L)		Results (µg/L)		Results (µg/L)			
						Filtered	Total	Filtered	Total	Filtered	Total	Filtered	Total	Filtered	Total	Filtered	Total	Filtered	Total	Filtered	Total		
Metals																							
Mercury	-	-	-	2	2	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND	
Barium	-	-	-	2,000	1,000	360	370	280	300	130	130	110	100	-	260	340	340	91	98	130	160	310	300
Chromium	-	-	-	100	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND	
Copper	-	-	-	2,000	1,000	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND	
Nickel	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND	
Silver	-	-	-	-	50	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND	
Zinc	-	-	-	-	5,000	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND	
Antimony	-	-	-	6	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND	
Arsenic	-	-	-	10	50	2.6	3.4	2.0	2.1	ND	ND	ND	ND	-	4.1	ND	ND	ND	ND	3.4	6.4	ND	ND
Beryllium	-	-	-	4	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND	
Cadmium	-	-	-	5	5	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND	
Lead	-	-	-	15	50	ND	15	ND	10	ND	ND	ND	ND	-	9.9	ND	ND	ND	3.7	ND	8.9	ND	ND
Selenium	-	-	-	50	50	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Thallium	-	-	-	2	-	ND	ND	ND	ND	ND	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Polychlorinated biphenyls																							
Aroclor (Total)	-	-	-	0.5	-	0.64		ND		ND		ND		ND		ND		ND		ND		0.44	
Aroclor-1016	-	-	-	-	-	ND		ND		ND		ND		ND		ND		ND		ND		ND	
Aroclor-1221	-	-	-	-	-	ND		ND		ND		ND		ND		ND		ND		ND		ND	
Aroclor-1232	-	-	-	-	-	ND		ND		ND		ND		ND		ND		ND		ND		ND	
Aroclor-1242	-	-	-	-	-	ND		ND		ND		ND		ND		ND		ND		ND		ND	
Aroclor-1248	-	-	-	-	-	ND		ND		ND		ND		ND		ND		ND		ND		ND	
Aroclor-1254	-	-	-	-	-	0.64		ND		ND		ND		ND		ND		ND		ND		0.44	
Aroclor-1260	-	-	-	-	-	ND		ND		ND		ND		ND		ND		ND		ND		ND	
Aroclor-1262	-	-	-	-	-	ND		ND		ND		ND		ND		ND		ND		ND		ND	
Aroclor-1268	-	-	-	-	-	ND		ND		ND		ND		ND		ND		ND		ND		ND	
Semi-Volatile Organic Compounds																							
1,1'-Biphenyl	-	-	-	-	-	ND		ND		ND		ND		ND		ND		ND		ND		ND	
1,2,4,5-Tetrachlorobenzene	-	-	-	-	-	ND		ND		ND		ND		ND		ND		ND		ND		ND	
2,3,4,6-Tetrachlorophenol	-	-	-	-	-	ND		ND		ND		ND		ND		ND		ND		ND		ND	
2,4,5-Trichlorophenol	-	-	-	-	-	ND		ND		ND		ND		ND		ND		ND		ND		ND	
2,4,6-Trichlorophenol	-	-	-	-	-	ND		ND		ND		ND		ND		ND		ND		ND		ND	
2,4-Dichlorophenol	-	-	-	-	-	ND		ND		ND		ND		ND		ND		ND		ND		ND	
2,4-Dimethylphenol	-	-	-	-	-	ND		ND		ND		ND		ND		ND		ND		ND		ND	
2,4-Dinitrophenol	-	-	-	-	-	ND		ND		ND		ND		ND		ND		ND		ND		ND	
2,4-Dinitrotoluene	-	-	-	-	-	ND		ND		ND		ND		ND		ND		ND		ND		ND	
2,6-Dinitrotoluene	-	-	-	-	-	ND		ND		ND		ND		ND		ND		ND		ND		ND	
2-Chloronaphthalene	-	-	-	-	-	ND		ND		ND		ND		ND		ND		ND		ND		ND	
2-Chlorophenol	-	-	-	-	-	ND		ND		ND		ND		ND		ND		ND		ND		ND	

Table 2
Groundwater Analytical Summary Table
WMATA Northern Bus Facility
February 7, 2020

Well ID						TMW-01	TMW-02	TMW-03	TMW-04	TMW-05	TMW-08	TMW-10	TMW-11	TMW-16
Sample Date						12/11/19	12/13/19	12/11/19	12/11/19	12/09/19	12/12/19	12/06/19	12/06/19	12/12/19
Total Well Depth						25.0'	24.3'	19.1'	17.5'	20.05'	15.18'	25.37'	20.8'	10'
Ground Water Level BLS						18.1'	14.2'	16.3'	7.7'	13.01'	11.03'	16.38'	8.96'	4.2'
Constituent	DOEE Tier 1 Screening Levels for Ground Water (µg/L)	DCRBCA Construction Worker Groundwater Outdoor Inhalation (µg/L)	DCRBCA Construction Worker Groundwater Incidental Dermal Contact (µg/L)	EPA NPDWR Maximum Contaminant Levels (MCLs) (µg/L)	DOEE Ground Water Quality Standards (µg/L)	Results (µg/L)	Results (µg/L)	Results (µg/L)	Results (µg/L)	Results (µg/L)	Results (µg/L)	Results (µg/L)	Results (µg/L)	Results (µg/L)
Semi-Volatile Organic Compounds														
2-Methylnaphthalene	-	-	-	-	-	ND	ND	ND	41	13	3.9	ND	ND	ND
2-Methylphenol	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitroaniline	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
3&4-Methylphenol	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylphenol (4,6 dinitro-o-cresol)	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Bromophenyl-phenylether	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol (p-chloro-m-cresol)	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline (P-chloroaniline)	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl-phenylether	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitroaniline	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	-	-	18,200	-	-	ND	ND	ND	0.39	ND	ND	ND	ND	ND
Acenaphthylene	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetophenone	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	-	-	810,000	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Atrazine	-	-	-	3	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzaldehyde	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[a]anthracene	-	115,000,000	4.42	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[a]pyrene	-	14,500,000	0.260	0.2	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[b]fluoranthene	-	235,000,000	2.55	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[g,h,i]perylene	-	-	628	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo[k]fluoranthene	-	235,000,000	36.6	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroethoxy)methane	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroethyl)ether	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Chloroisopropyl)ether	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	-	-	-	6	-	ND	ND	ND	ND	ND	11	ND	ND	170
Butylbenzylphthalate	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Caprolactam	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	-	1,960,000,000	442	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo[a,h]anthracene	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzofuran	-	-	-	-	-	ND	ND	ND	3.3	ND	ND	ND	ND	ND
Diethylphthalate	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethylphthalate	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butylphthalate (Dibutyl Phthalate)	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 2
Groundwater Analytical Summary Table
WMATA Northern Bus Facility
February 7, 2020

Well ID						TMW-01	TMW-02	TMW-03	TMW-04	TMW-05	TMW-08	TMW-10	TMW-11	TMW-16
Sample Date						12/11/19	12/13/19	12/11/19	12/11/19	12/09/19	12/12/19	12/06/19	12/06/19	12/12/19
Total Well Depth						25.0'	24.3'	19.1'	17.5'	20.05'	15.18'	25.37'	20.8'	10'
Ground Water Level BLS						18.1'	14.2'	16.3'	7.7'	13.01'	11.03'	16.38'	8.96'	4.2'
Constituent	DOEE Tier 1 Screening Levels for Ground Water (µg/L)	DCRBCA Construction Worker Groundwater Outdoor Inhalation (µg/L)	DCRBCA Construction Worker Groundwater Incidental Dermal Contact (µg/L)	EPA NPDWR Maximum Contaminant Levels (MCLs) (µg/L)	DOEE Ground Water Quality Standards (µg/L)	Results (µg/L)	Results (µg/L)	Results (µg/L)	Results (µg/L)	Results (µg/L)	Results (µg/L)	Results (µg/L)	Results (µg/L)	Results (µg/L)
Semi-Volatile Organic Compounds														
Di-n-octylphthalate (Di-n-octyl phthalate)	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	-	-	4,620	-	-	ND	ND	ND	2.3	ND	ND	ND	ND	ND
Fluorene	-	-	16,200	-	-	ND	ND	ND	4.9	ND	ND	ND	ND	ND
Hexachlorobenzene	-	-	-	1	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	-	-	-	50	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno[1,2,3-cd]pyrene	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isophorone	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	730	39,500,000	17,900	730	-	ND	ND	ND	2.6	ND	ND	ND	ND	ND
Nitrobenzene	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	-	-	-	1	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	-	-	6,300	-	-	ND	ND	ND	9.8	ND	ND	ND	ND	ND
Phenol	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	-	-	3,930	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Total Petroleum Hydrocarbons														
Gasoline Range Organics (C6-C10) GRO	7,300	-	332,000,000	7,300	-	ND	ND	ND	ND	ND	1,200	280	310	ND
Diesel Range Organics (C10-C28) DRO	3,570	-	2,110,000,000	3,570	-	2,300	3,400	3,200	3,100	28,000	890	590	ND	ND
Total Petroleum Hydrocarbons (C8-C40) TPH	-	-	-	-	-	2,700	4,000	3,800	3,400	35,000	1,100	660	ND	ND
Volatile Organic Compounds														
1,1,1-Trichloroethane	-	-	-	200	200	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	-	-	-	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	-	-	-	7	-	ND	ND	ND	ND	ND	ND	ND	5.5	ND
1,2,3-Trichlorobenzene	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	-	-	-	70	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	-	-	-	0.2	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	-	-	-	0.05	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	-	-	-	600	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	-	-	-	5	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	-	-	-	5	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene (p-Dichlorobenzene)	-	-	-	75	75	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND

Table 2
Groundwater Analytical Summary Table
WMATA Northern Bus Facility
February 7, 2020

Well ID						TMW-01	TMW-02	TMW-03	TMW-04	TMW-05	TMW-08	TMW-10	TMW-11	TMW-16
Sample Date						12/11/19	12/13/19	12/11/19	12/11/19	12/09/19	12/12/19	12/06/19	12/06/19	12/12/19
Total Well Depth						25.0'	24.3'	19.1'	17.5'	20.05'	15.18'	25.37'	20.8'	10'
Ground Water Level BLS						18.1'	14.2'	16.3'	7.7'	13.01'	11.03'	16.38'	8.96'	4.2'
Constituent	DOEE Tier 1 Screening Levels for Ground Water (µg/L)	DCRBCA Construction Worker Groundwater Outdoor Inhalation (µg/L)	DCRBCA Construction Worker Groundwater Incidental Dermal Contact (µg/L)	EPA NPDWR Maximum Contaminant Levels (MCLs) (µg/L)	DOEE Ground Water Quality Standards (µg/L)	Results (µg/L)	Results (µg/L)	Results (µg/L)	Results (µg/L)	Results (µg/L)	Results (µg/L)	Results (µg/L)	Results (µg/L)	Results (µg/L)
Volatile Organic Compounds														
2-Butanone (methyl ethyl ketone)	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (Methyl isobutyl ketone)	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	5	13,800,000	4,710	5	5.0	ND	ND	ND	0.92	ND	2.1	ND	ND	ND
Bromochloromethane	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	-	-	-	5	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	-	-	-	100	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane (ethyl chloride)	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	-	-	-	70	-	ND	ND	ND	ND	ND	1.5	4.7	190	ND
cis-1,3-Dichloropropene	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Cyclohexane	-	-	-	-	-	ND	1.6	ND	ND	2.6	23	9.3	ND	ND
Dibromochloromethane	-	-	-	80	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	700	42,200,000	6,200	700	700	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene (cumene)	-	-	-	-	-	ND	8.5	ND	13	5.8	41	8.6	ND	ND
m&p-Xylenes	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methyl Acetate	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylcyclohexane	-	-	-	-	-	ND	3.6	ND	1.3	5.3	64	19	ND	ND
Methylene chloride (Dichloromethane)	-	-	-	5	-	ND	ND	ND	3.0	ND	ND	ND	ND	ND
Methyl-t-butyl ether (MTBE)	50	3,310,000,000	116,000	-	-	1.3	2.2	ND	ND	ND	ND	ND	ND	0.54
o-Xylene	-	-	-	-	-	ND	ND	ND	ND	1.4	ND	ND	ND	ND
Styrene	-	-	-	100	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene (PCE)	-	-	-	5	5	ND	ND	ND	ND	ND	ND	2.5	47	ND
Toluene	1,000	7,670,000,000	132,000	1000	11000	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	-	-	-	100	-	ND	ND	ND	ND	ND	ND	1.4	10	ND
trans-1,3-Dichloropropene	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene (TCE)	-	-	-	5	-	ND	ND	ND	ND	ND	ND	11	76	ND
Trichlorofluoromethane	-	-	-	-	-	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	-	-	-	2	2	ND	ND	ND	ND	ND	4.5	4.1	150	ND
Xylenes (Total)	10,000	175,000,000	181,000	10000	10000	ND	ND	ND	ND	1.4	ND	ND	ND	ND

Notes:

Table 2
Groundwater Analytical Summary Table
WMATA Northern Bus Facility
February 7, 2020

ID = identification

BLS = below land surface

DC DOEE = Department of Energy and Environment

DCRBCA = District of Columbia Risk Based Corrective Action Screening Levels, Ju- 2011

EPA-RSL = United States Environmental Protection Agency, Regional Screening Level (November 2019)

µg/L = micrograms per liter or parts per billion (ppb)

mg/L = milligrams per liter or parts per million (ppm)

ND = Analyte not detected above the laboratory minimum detection level (LMDL) for specified analyte

NPDWR = National Primary Drinking Water Regulations


 - Highlighted yellow indicates constituent concentration greater than atleast one of the local or federal standards listed

Table 3
Groundwater Elevation Data Summary
WMATA Northern Bus Facility
February 7, 2020

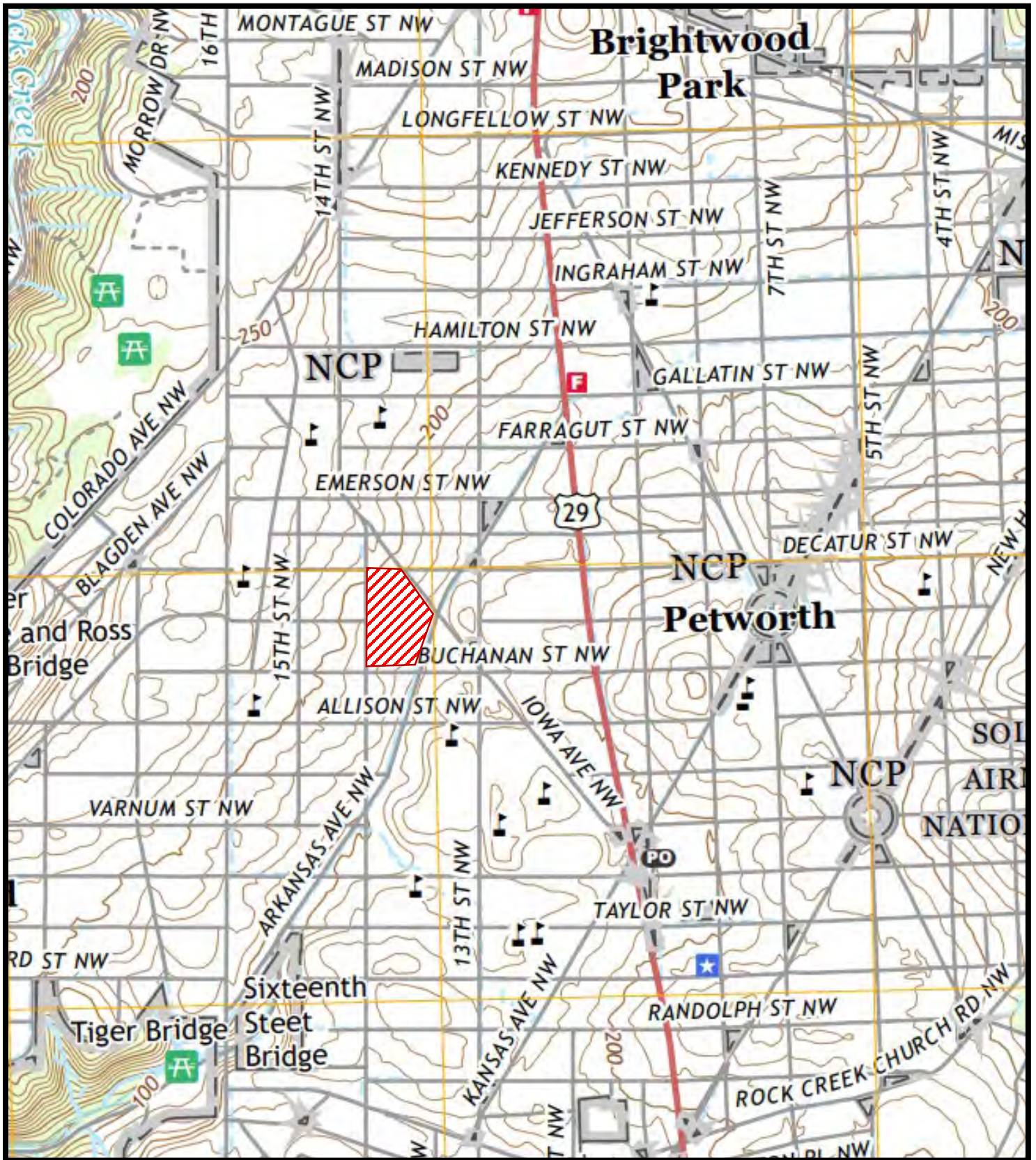
WELL NO.	TMW-01			TMW-02			TMW-03			TMW-04		
DIAMETER (in)	1			1			1			1		
WELL DEPTH (ft)	25.00			24.34			19.06			17.50		
SCREEN INTERVAL	15-25			14.34-24.34			9.06-19.06			7.50-17.50		
TOC ELEVATION	169.84			170.04			NM			170.77		
DATE	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP
12/30/19	151.74	18.10	---	155.84	14.20	---	---	16.30	---	163.07	7.70	---



WELL NO.	TMW-05			TMW-06			TMW-08			TMW-10		
DIAMETER (in)	1			1			1			1		
WELL DEPTH (ft)	20.05			25.00			15.18			25.37		
SCREEN INTERVAL	10.05-20.05			15.00-25.00			5.18-15.18			15.37-25.37		
TOC ELEVATION	169.96			169.96			172.68			169.79		
DATE	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP	ELEV	DTW	FP
12/30/19	156.95	13.01	---	149.76	20.20	0.20	161.65	11.03	---	153.41	16.38	---

WELL NO.	TMW-11			TMW-16		
DIAMETER (in)	1			1		
WELL DEPTH (ft)	20.80			10.00		
SCREEN INTERVAL	10.80-20.80			0.00-10.00		
TOC ELEVATION	171.68			170.82		
DATE	ELEV	DTW	FP	ELEV	DTW	FP
12/30/19	162.72	8.96	---	169.62	1.20	---





FIGURES





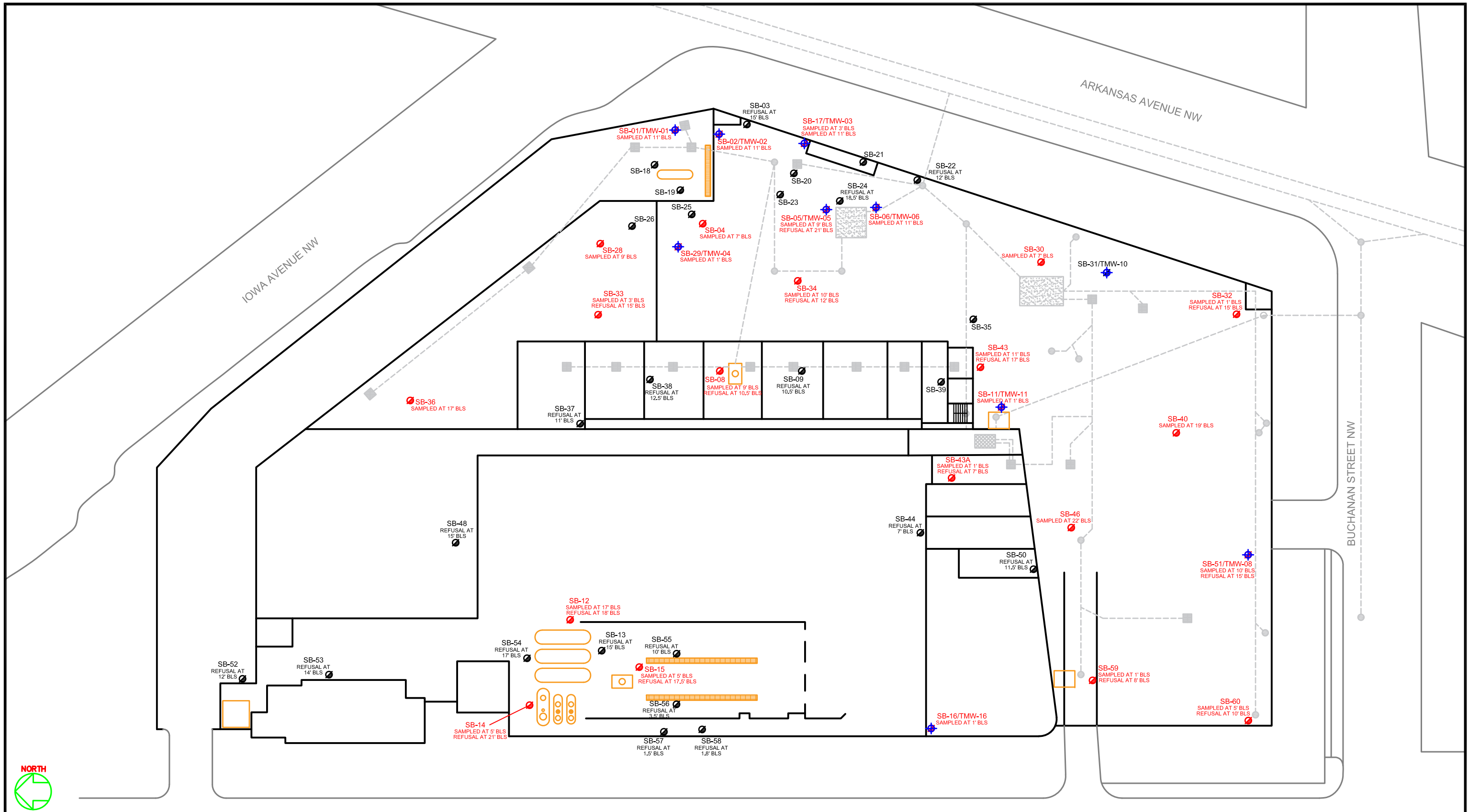
<p>Legend:</p>  Subject Property 	<p>SITE USGS MAP 4615 14th Street NW, Washington, DC. 20011 Prepared For SVT, Inc.</p>	<p>Figure No.: 1</p>	
<p>intertek psi 2930 Eskridge Road - Fairfax, VA 22031 (703) 698-9300 - FAX (703) 698-4414</p>	<p>Project Manager: Andres Acosta</p>	<p>Drawn By: Rinzo Renthlei</p>	<p>Project No.: 0444100</p>



<p>Legend:</p>  Subject Property 	<p>SITE AERIAL MAP 4615 14th Street NW, Washington, DC. 20011 Prepared For SVT, Inc.</p>		<p>Figure No.:</p> <p style="text-align: center;">2</p>
<p>intertek psi 2930 Eskridge Road - Fairfax, VA 22031 (703) 698-9300 - FAX (703) 698-4414</p>	<p>Project Manager:</p> <p style="text-align: center;">Andres Acosta</p>	<p>Drawn By:</p> <p style="text-align: center;">Rinzo Renthlei</p>	<p>Project No.:</p> <p style="text-align: center;">0444100</p>

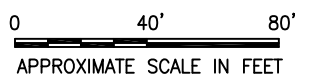


<p>Legend:</p>  Subject Property 	<p>SITE VICINITY MAP 4615 14th Street NW, Washington, DC. 20011 Prepared For SVT, Inc.</p>		<p>Figure No.:</p> <p>3</p>
<p>intertek psi 2930 Eskridge Road - Fairfax, VA 22031 (703) 698-9300 - FAX (703) 698-4414</p>	<p>Project Manager:</p> <p>Andres Acosta</p>	<p>Drawn By:</p> <p>Rinzo Renthlei</p>	<p>Project No.:</p> <p>0444100</p>



LEGEND:

- SB-00 SOIL BORING LOCATION
- SB-00 SOIL BORING LOCATION WITH SOIL SAMPLES
- SB-00/TMW-00 TEMPORARY MONITORING WELL



NOTE: All locations are approximate and must be field verified.

 Intertek psi Environmental Services 2930 Eskridge Road · Fairfax · Virginia · 22031 · Tel 703.698.9300	PROJECT NAME: WMATA Bus Facility - Northern Site 4615 14th Street NW, Washington, DC 20011	DRAWN BY: A. Smak	DATE: 2-7-2020	FIGURE: 4
	TITLE: Sample Location Map	PROJECT MGR.: J. Boland	PROJECT NO.: 0444100	

Results reported in micrograms per kilogram (mg/kg)

Highlighted yellow indicates constituent concentration greater than one of the local or federal standards listed
 ND - Not detected above laboratory RLs

SB-33		12/2/2019	
Priority Pollutant Metals		Lead	5.3
SVOCs		Benzo(a)anthracene	2.2
		Benzo(b)fluoranthene	2.8
		Dibenz(a,h)anthracene	0.35
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	29
		Diesel Range Organics	2,000

SB-28		11/2/2019	
Priority Pollutant Metals		Lead	430
SVOCs		Benzo(a)anthracene	49
		Benzo(b)fluoranthene	50
		Dibenz(a,h)anthracene	5.8
		VOCs	
		Ethylbenzene	0.0059
		TPHs	
		Gasoline Range Organics	170
		Diesel Range Organics	2,600

SB-29		11/2/2019	
Priority Pollutant Metals		Lead	190
SVOCs		Benzo(a)anthracene	0.50
		Benzo(b)fluoranthene	0.78
		Dibenz(a,h)anthracene	ND
		VOCs	
		Ethylbenzene	0.0059
		TPHs	
		Gasoline Range Organics	350
		Diesel Range Organics	7,200

SB-04		12/4/2019	
Priority Pollutant Metals		Lead	1,000
SVOCs		Benzo(a)anthracene	8.5
		Benzo(b)fluoranthene	12
		Dibenz(a,h)anthracene	1.4
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	ND
		Diesel Range Organics	520

SB-01		11/25/2019	
Priority Pollutant Metals		Lead	71
SVOCs		Benzo(a)anthracene	11
		Benzo(b)fluoranthene	12
		Dibenz(a,h)anthracene	1.3
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	ND
		Diesel Range Organics	580

SB-02		11/25/2019	
Priority Pollutant Metals		Lead	26
SVOCs		Benzo(a)anthracene	2.1
		Benzo(b)fluoranthene	2.1
		Dibenz(a,h)anthracene	0.24
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	ND
		Diesel Range Organics	180

SB-17		11/26/2019	
Priority Pollutant Metals		Lead	250
SVOCs		Benzo(a)anthracene	25
		Benzo(b)fluoranthene	27
		Dibenz(a,h)anthracene	3.1
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	1,300
		Diesel Range Organics	300

SB-05		12/2/2019	
Priority Pollutant Metals		Lead	75
SVOCs		Benzo(a)anthracene	0.29
		Benzo(b)fluoranthene	0.41
		Dibenz(a,h)anthracene	0.061
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	ND
		Diesel Range Organics	ND

SB-06		11/26/2019	
Priority Pollutant Metals		Lead	29
SVOCs		Benzo(a)anthracene	0.77
		Benzo(b)fluoranthene	0.86
		Dibenz(a,h)anthracene	0.11
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	ND
		Diesel Range Organics	58

SB-34		11/22/2019	
Priority Pollutant Metals		Lead	39
SVOCs		Benzo(a)anthracene	ND
		Benzo(b)fluoranthene	ND
		Dibenz(a,h)anthracene	ND
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	75
		Diesel Range Organics	4,000

SB-30		11/2/2019	
Priority Pollutant Metals		Lead	41
SVOCs		Benzo(a)anthracene	0.34
		Benzo(b)fluoranthene	0.36
		Dibenz(a,h)anthracene	0.054
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	75
		Diesel Range Organics	620

SB-32		11/21/2019	
Priority Pollutant Metals		Lead	51
SVOCs		Benzo(a)anthracene	1.7
		Benzo(b)fluoranthene	1.3
		Benzo(b)fluoranthene	1.6
		Dibenz(a,h)anthracene	0.20
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	ND
		Diesel Range Organics	150

SB-43		11/22/2019	
Priority Pollutant Metals		Lead	34
SVOCs		Benzo(a)anthracene	15
		Benzo(b)fluoranthene	ND
		Benzo(b)fluoranthene	ND
		Dibenz(a,h)anthracene	ND
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	110
		Diesel Range Organics	2,700

SB-11		11/21/2019	
Priority Pollutant Metals		Lead	47
SVOCs		Benzo(a)anthracene	2.5
		Benzo(b)fluoranthene	0.29
		Benzo(b)fluoranthene	0.40
		Dibenz(a,h)anthracene	0.050
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	ND
		Diesel Range Organics	500

SB-40		11/21/2019	
Priority Pollutant Metals		Lead	12
SVOCs		Benzo(a)anthracene	1.5
		Benzo(b)fluoranthene	ND
		Benzo(b)fluoranthene	ND
		Dibenz(a,h)anthracene	ND
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	ND
		Diesel Range Organics	200

SB-08		11/22/2019	
Priority Pollutant Metals		Lead	6.1
SVOCs		Benzo(a)anthracene	ND
		Benzo(b)fluoranthene	ND
		Dibenz(a,h)anthracene	ND
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	ND
		Diesel Range Organics	1,300

SB-36		12/2/2019	
Priority Pollutant Metals		Lead	6.9
SVOCs		Benzo(a)anthracene	1.6
		Benzo(b)fluoranthene	ND
		Benzo(b)fluoranthene	ND
		Dibenz(a,h)anthracene	ND
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	ND
		Diesel Range Organics	ND

SB-12		12/26/2019	
Priority Pollutant Metals		Lead	7.5
SVOCs		Benzo(a)anthracene	1.9
		Benzo(b)fluoranthene	ND
		Benzo(b)fluoranthene	ND
		Dibenz(a,h)anthracene	ND
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	230
		Diesel Range Organics	2,000

SB-38		12/2/2019	
Priority Pollutant Metals		Lead	1.3
SVOCs		Benzo(a)anthracene	1.3
		Benzo(b)fluoranthene	1.3
		Dibenz(a,h)anthracene	1.3
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	ND
		Diesel Range Organics	ND

SB-25		11/25/2019	
Priority Pollutant Metals		Lead	2.1
SVOCs		Benzo(a)anthracene	2.1
		Benzo(b)fluoranthene	2.1
		Dibenz(a,h)anthracene	0.24
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	ND
		Diesel Range Organics	180

SB-20		11/26/2019	
Priority Pollutant Metals		Lead	250
SVOCs		Benzo(a)anthracene	25
		Benzo(b)fluoranthene	27
		Dibenz(a,h)anthracene	3.1
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	1,300
		Diesel Range Organics	300

SB-05		12/2/2019	
Priority Pollutant Metals		Lead	75
SVOCs		Benzo(a)anthracene	0.29
		Benzo(b)fluoranthene	0.41
		Dibenz(a,h)anthracene	0.061
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	ND
		Diesel Range Organics	ND

SB-06		11/26/2019	
Priority Pollutant Metals		Lead	29
SVOCs		Benzo(a)anthracene	0.77
		Benzo(b)fluoranthene	0.86
		Dibenz(a,h)anthracene	0.11
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	ND
		Diesel Range Organics	58

SB-34		11/22/2019	
Priority Pollutant Metals		Lead	39
SVOCs		Benzo(a)anthracene	ND
		Benzo(b)fluoranthene	ND
		Dibenz(a,h)anthracene	ND
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	75
		Diesel Range Organics	4,000

SB-30		11/2/2019	
Priority Pollutant Metals		Lead	41
SVOCs		Benzo(a)anthracene	0.34
		Benzo(b)fluoranthene	0.36
		Dibenz(a,h)anthracene	0.054
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	75
		Diesel Range Organics	620

SB-32		11/21/2019	
Priority Pollutant Metals		Lead	51
SVOCs		Benzo(a)anthracene	1.7
		Benzo(b)fluoranthene	1.3
		Benzo(b)fluoranthene	1.6
		Dibenz(a,h)anthracene	0.20
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	ND
		Diesel Range Organics	150

SB-43		11/22/2019	
Priority Pollutant Metals		Lead	34
SVOCs		Benzo(a)anthracene	15
		Benzo(b)fluoranthene	ND
		Benzo(b)fluoranthene	ND
		Dibenz(a,h)anthracene	ND
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	110
		Diesel Range Organics	2,700

SB-11		11/21/2019	
Priority Pollutant Metals		Lead	47
SVOCs		Benzo(a)anthracene	2.5
		Benzo(b)fluoranthene	0.29
		Benzo(b)fluoranthene	0.40
		Dibenz(a,h)anthracene	0.050
		VOCs	
		Ethylbenzene	ND
		TPHs	
		Gasoline Range Organics	ND
		Diesel Range Organics	500

SB-40		11/21/2019	
Priority Pollutant Metals		Lead	12
SVOCs		Benzo(a)anthracene	1.5

Results reported in micrograms per liter (µg/L)

Highlighted yellow indicates constituent concentration greater than one of the local or federal standards listed

ND - Not detected above laboratory RLs

TMW-04 12/11/2019	
PCBs	
Aroclor (Total)	ND
SVOCs	
bis(2-Ethylhexyl)phthalat	ND
TPHs	
Diesel Range Organics	3,100
VOCs	
cis-1,2-Dichloroethene	ND
Tetrachloroethene (PCE)	ND
Trichloroethene (TCE)	ND
Vinyl chloride	ND

TMW-01 12/11/2019	
PCBs	
Aroclor (Total)	0.64
SVOCs	
bis(2-Ethylhexyl)phthalat	ND
TPHs	
Diesel Range Organics	2,300
VOCs	
cis-1,2-Dichloroethene	ND
Tetrachloroethene (PCE)	ND
Trichloroethene (TCE)	ND
Vinyl chloride	ND

TMW-02 12/13/2019	
PCBs	
Aroclor (Total)	ND
SVOCs	
bis(2-Ethylhexyl)phthalat	ND
TPHs	
Diesel Range Organics	3,400
VOCs	
cis-1,2-Dichloroethene	ND
Tetrachloroethene (PCE)	ND
Trichloroethene (TCE)	ND
Vinyl chloride	ND

TMW-03 12/11/2019	
PCBs	
Aroclor (Total)	ND
SVOCs	
bis(2-Ethylhexyl)phthalat	ND
TPHs	
Diesel Range Organics	3,200
VOCs	
cis-1,2-Dichloroethene	ND
Tetrachloroethene (PCE)	ND
Trichloroethene (TCE)	ND
Vinyl chloride	ND

TMW-05 12/9/2019	
PCBs	
Aroclor (Total)	ND
SVOCs	
bis(2-Ethylhexyl)phthalat	ND
TPHs	
Diesel Range Organics	28,000
VOCs	
cis-1,2-Dichloroethene	ND
Tetrachloroethene (PCE)	ND
Trichloroethene (TCE)	ND
Vinyl chloride	ND

TMW-10 12/6/2019	
PCBs	
Aroclor (Total)	ND
SVOCs	
bis(2-Ethylhexyl)phthalat	ND
TPHs	
Diesel Range Organics	590
VOCs	
cis-1,2-Dichloroethene	4.7
Tetrachloroethene (PCE)	2.5
Trichloroethene (TCE)	11
Vinyl chloride	4.1

TMW-11 12/6/2019	
PCBs	
Aroclor (Total)	ND
SVOCs	
bis(2-Ethylhexyl)phthalat	ND
TPHs	
Diesel Range Organics	ND
VOCs	
cis-1,2-Dichloroethene	190
Tetrachloroethene (PCE)	47
Trichloroethene (TCE)	76
Vinyl chloride	150

TMW-08 12/12/2019	
PCBs	
Aroclor (Total)	ND
SVOCs	
bis(2-Ethylhexyl)phthalat	11
TPHs	
Diesel Range Organics	890
VOCs	
cis-1,2-Dichloroethene	1.5
Tetrachloroethene (PCE)	ND
Trichloroethene (TCE)	ND
Vinyl chloride	4.5

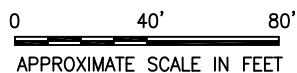
TMW-16 12/12/2019	
PCBs	
Aroclor (Total)	0.44
SVOCs	
bis(2-Ethylhexyl)phthalat	170
TPHs	
Diesel Range Organics	ND
VOCs	
cis-1,2-Dichloroethene	ND
Tetrachloroethene (PCE)	ND
Trichloroethene (TCE)	ND
Vinyl chloride	ND

SB-06/TMW-06
GROUNDWATER SAMPLE
NOT COLLECTED FOR
ANALYSIS DUE TO THE
PRESENCE OF FREE PRODUCT.



LEGEND:

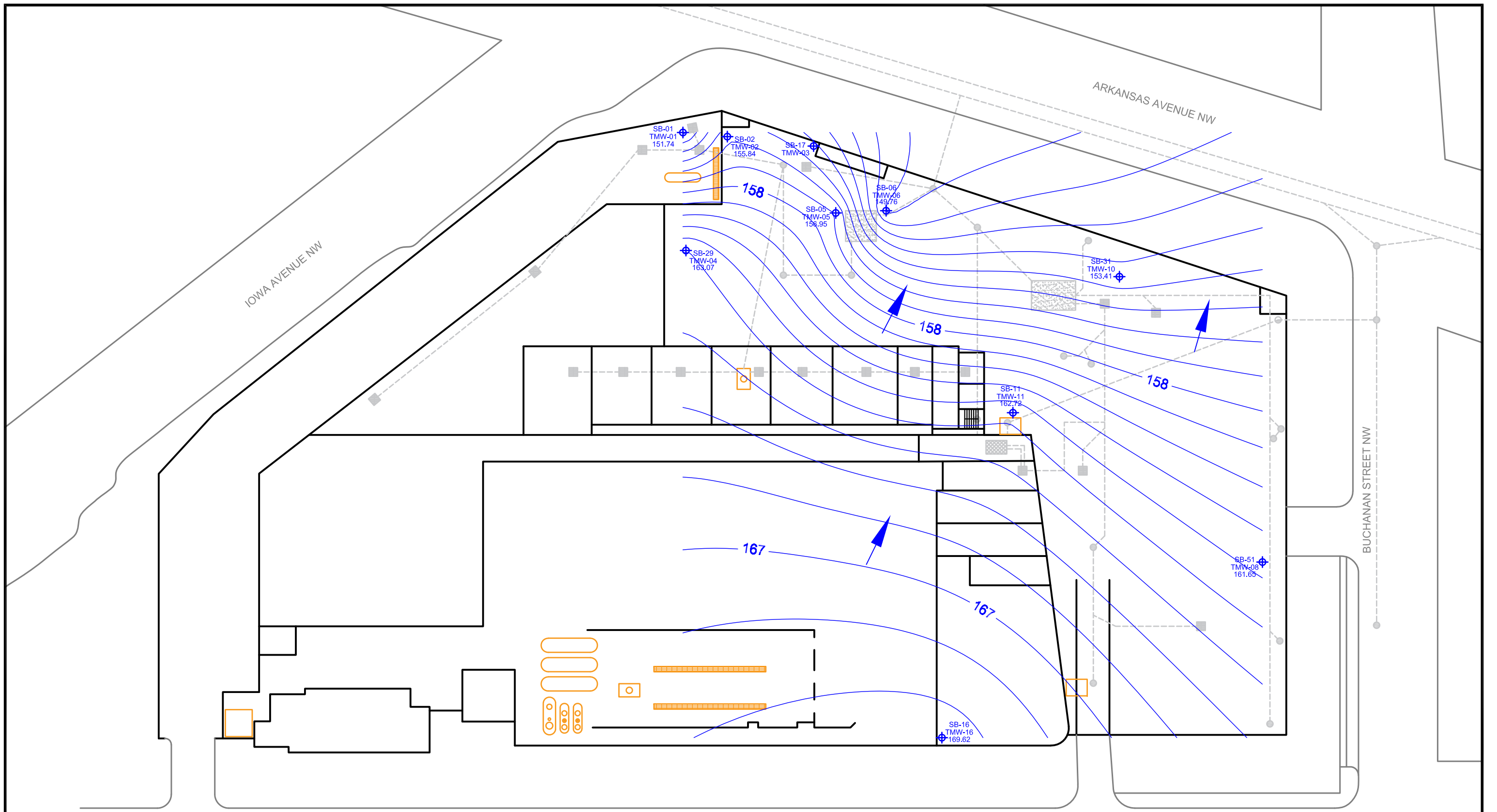
SB-00
TMW-00
TEMPORARY MONITORING WELL



NOTE: All locations are approximate and must be field verified.

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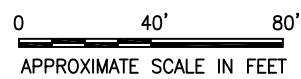
PROJECT NAME: WMATA Bus Facility - Northern Site 4615 14th Street NW, Washington, DC 20011	DRAWN BY: A. Smak	DATE: 2-7-2020	FIGURE: 6
TITLE: Groundwater Analytical Summary Map (Contaminants of Concern Only)	PROJECT MGR.: J. Boland	PROJECT NO.:	0444100



LEGEND:

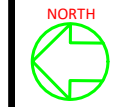
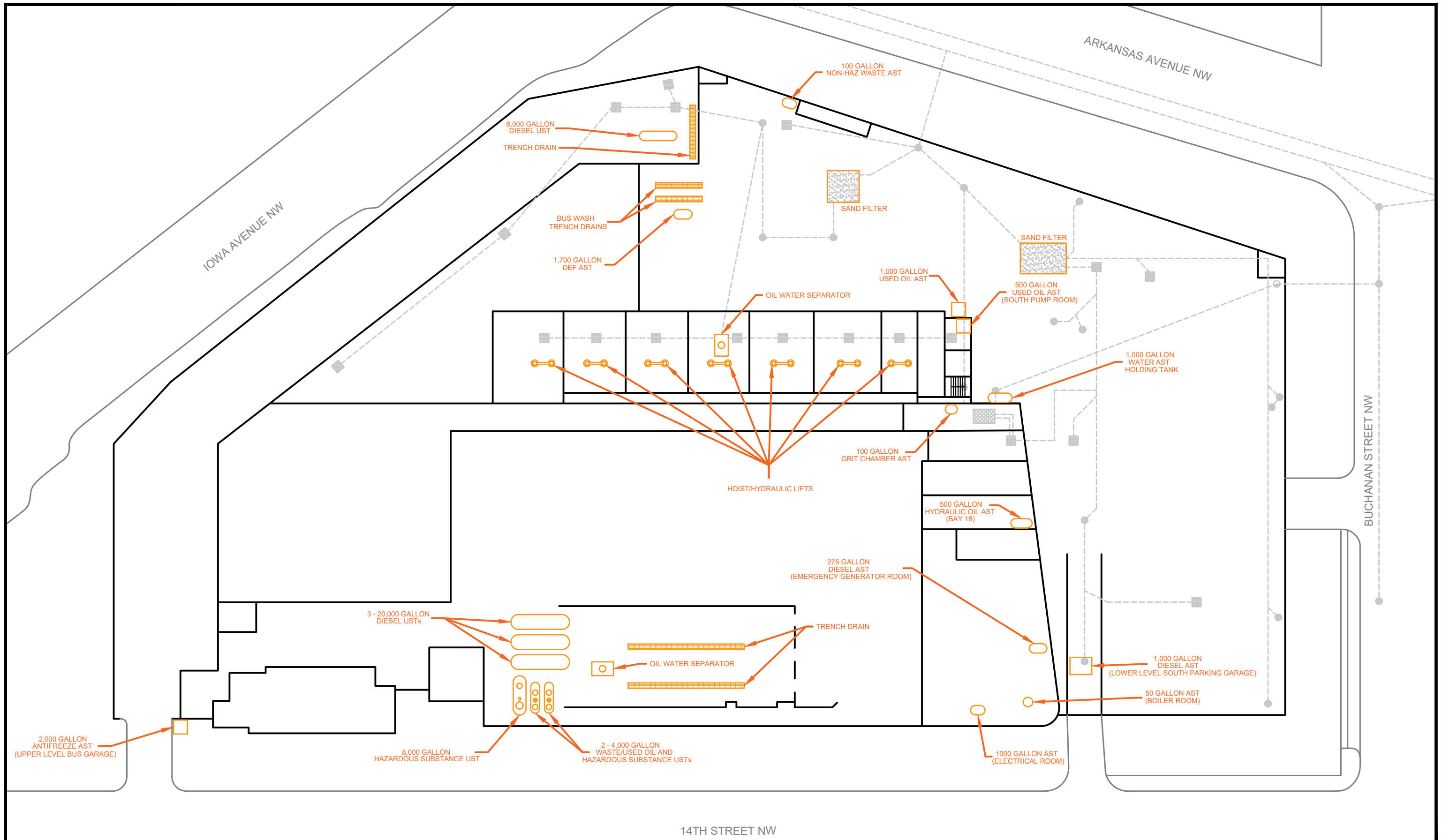
- GROUNDWATER FLOW DIRECTION
- CONTOUR LINES

NOTE: All locations are approximate and must be field verified.



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PROJECT NAME: WMATA Bus Facility - Northern Site 4615 14th Street NW, Washington, DC 20011	DRAWN BY: A. Smak	DATE: 2-7-2020	FIGURE: 7
TITLE: Groundwater Elevation Map December 30, 2019	PROJECT MGR.: J. Boland	PROJECT NO.: 0444100	



NOTE: All locations are approximate and must be field verified.

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PROJECT NAME:	WMATA Bus Facility - Northern Site 4615 14th Street NW, Washington, DC 20011	
TITLE:	Underground Storage Tank (UST) and Above Ground Storage Tank (AST) Location Map	

DRAWN BY:	A. Smak	DATE:	2-18-2020	DRAWING NO.:	8
PROJECT MGR.:	J. Boland	PROJECT NO.:	0444100		



APPENDIX A
SOIL BORING PERMIT #SB1900434
(DATED 11/08/2019)

Department of Consumer and Regulatory Affairs

Permit Operations Division

1100 4th Street SW

Washington DC 20024

Tel. (202) 442 - 4589

Fax (202) 442 - 4862



MIS

MISCELLANEOUS SOIL BORING PERMIT

THIS PERMIT MUST ALWAYS BE CONSPICUOUSLY DISPLAYED AT THE ADDRESS OF WORK
UNTIL WORK IS COMPLETED AND APPROVED

PERMIT NO. SB1900434

Date: 11/08/2019

Address of Project: 4615 14TH ST NW		Zone: PDR-1	Ward: 4	Square: 2811	Suffix:	Lot: 0802
Description of Work: The scope of work proposed in this work plan includes soil boring and well installation for environmental testing. This Work Plan has been prepared in accordance with the District of Columbia Department of the Energy and the Environment (DOEE) Well Regulations 21 DCMR chapter 18.						
Permissson Is Hereby Granted To Washington Metropolitan Area Transit		Owner Address: REAL ESTATE OFFICE 600 5TH ST NW			PERMIT FEE: 462.00	
No. of Bores : 60	Location of Bores: Private Property	Site Plan Submitted Yes	Exist Use:			
Contractor: Wamata Wamata	Address: WAMATA WAMATA		Tel No: 2025686065		Lic No: 00000	
Engineer Co:	Address:		Tel No:		Lic No:	
Conditions/ Restrictions: This approval is subject to compliance with 21 DCMR Chapter 18, and Well and Soil Boring Permit Conditions.						
ALL CONSTRUCTION DONE ACCORDING TO THE CURRENT BUILDING CODES AND ZONING REGULATIONS;						
As a condition precedent to the issuance of this permit, the owner agrees to conform with all conditions set forth herein, and to perform the work authorized hereby in accordance with the approved application and plans on file with the District Government and in accordance with all applicable laws and regulations of the District of Columbia. The District of Columbia has the right to enter upon the property and to inspect all work authorized by this permit and to require any change in construction which may be necessary to ensure compliance with the permit and with all the applicable regulations of the District of Columbia. Work authorized under this Permit must start within one(1) year of the date appearing on this permit or the permit is automatically void. If work is started, any application for partial refund must be made						
Director: Ernest Chrappah <i>Ernest Chrappah</i>		Permit clerk BQUINN			Expiration Date:	
TO REPORT WASTE, FRAUD OR ABUSE BY ANY DC GOVERNMENT OFFICIAL, CALL THE DC INSPECTOR GENERAL AT 1-800-521-1639						
To schedule a CONSTRUCTION INSPECTION or for INQUIRIES CALL (202) 442-9557						
Call Miss Utility at 811 or 1-800-257-7777 at least 48 Hours prior to excavation to obtain a ticket. /www.missutility.net/wshingtondc/dcstatelaw.asp						



APPENDIX B
FIELD FORMS

General Field Testing and Measurement

Field Instrument Calibration Records

PSI PROJECT NAME: WMATA Northern Bus Station

PSI PROJECT NO: 04481517

INSTRUMENT (MAKE/MODEL#) QRAE 3 INSTRUMENT # 045224

PARAMETER(S) (check only one):

- TEMPERATURE CONDUCTIVITY SALINITY pH ORP
 TURBIDITY RESIDUAL Cl DO OTHER GAS METER

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased] Lot # HBJ-413-13-10

Standard A CO - 50 ppm

D - O₂ 18% vol

Standard B H₂S - 10 ppm

Standard C CH₄ - 50% LEL

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
19/11/20	07:20	A	50 ppm	59 ppm	8%	Y	cont	RR
19/11/20	07:20	B	10 ppm	13.5 ppm	35%	↓	↓	RR
19/11/20	07:20	C	50% LEL	59% LEL	4%	↓	↓	RR
19/11/20	07:20	D	18% V	18% V	0%	↓	↓	RR
19/11/21	07:03	A	50 ppm	59 ppm	8%	Y	cont	RR
19/11/21	07:03	B	10 ppm	13.2 ppm	32%	↓	↓	RR
19/11/21	07:03	C	50% LEL	59% LEL	8%	↓	↓	RR
19/11/21	07:03	D	18% V	18% V	0%	↓	↓	RR
19/11/21	15:53	A	50 ppm	53 ppm	6%	Y	cont	RR
↓	↓	B	10 ppm	13.7 ppm	37%	↓	↓	RR
↓	↓	C	50% LEL	60% LEL	20%	↓	↓	RR
↓	↓	D	18% V	17.8	10%	↓	↓	RR
19/11/22	6:54	A	50 ppm	54	8%	Y	cont	RR
↓	↓	B	10 ppm	13.6	36%	↓	↓	RR
↓	↓	C	50% LEL	60	20%	↓	↓	RR
↓	↓	D	18% V	18%	0%	↓	↓	RR
↓	14:18	A	50	55	10%	↓	↓	RR
↓	↓	B	10	14.5	45%	↓	↓	RR
↓	↓	C	50%	60	20%	↓	↓	RR
↓	↓	D	18%	17.8	10%	↓	↓	RR

General Field Testing and Measurement

Field Instrument Calibration Records

PSI PROJECT NAME: WMATA Northern Bus Station

PSI PROJECT NO: 04481517

INSTRUMENT (MAKE/MODEL#) QRAE 3 INSTRUMENT # 045227

PARAMETER(S) (check only one):

- TEMPERATURE CONDUCTIVITY SALINITY pH
 TURBIDITY RESIDUAL Cl DO OTHER GAS METER ORP

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]

Standard A See previous
 Standard B
 Standard C

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
19/11/25	7:16	A	50 ppm	51	2%	yes	Cont	RR
		B	10 ppm	13.2	32%	↓		RR
		C	50%	59	18%	↓		RR
		D	18/	17.8	1.1%	↓		RR
19/11/25	13:23	A	50	42	16%	yes	Cont	RR
		B	10	8.9	11%	↓		RR
		C	50	44	12%	↓		RR
		D	18	16.5	2.8%	↓		RR
19/12/02	06:45	A	50	53	6%	↓		RR
		B	10	13.4	34%	↓		RR
		C	50	58	16%	↓		RR
		D	18	17.7	1.7%	↓		RR
	13:13	A	50 ppm	52 ppm	4%	↓		RR
		B	10 ppm	12.3	28%	↓		RR
		C	50%	93 ppm	4%	↓		RR
		D	18/	20.3	12.8%	↓		RR
19/12/03	06:39	A	50	48	4%	↓		RR
		B	10	9.8	2%	↓		RR
		C	50	48	4%	↓		RR
		D	18	18	0	↓		RR

General Field Testing and Measurement

Field Instrument Calibration Records

PSI PROJECT NAME: WMATA Northern Bus Station

PSI PROJECT NO: 04481517

INSTRUMENT (MAKE/MODEL#) DRAE 3

INSTRUMENT # 045224

PARAMETER(S) (check only one):

- TEMPERATURE CONDUCTIVITY SALINITY pH ORP
 TURBIDITY RESIDUAL Cl DO OTHER GAS METER

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]

Standard A CO - 50ppm | Standard D O₂ 18% (Std # HBS-413-18-10)
 Standard B H₂S - 10ppm
 Standard C CH₄ - 50% LEL

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
9/12/26	1020	A	50 ppm	53	6%	Yes	Port	RR
		B	10 ppm	12.1	21%	↓	↓	RR
		C	50%	52	4%	↓	↓	RR
		D	18%	19.3	7.2%	↓	↓	RR
↓	1535	A	50	51.3	2.6%	↓	↓	RR
		B	10	11.9	19%	↓	↓	RR
		C	50	50.7	1.9%	↓	↓	RR
		D	18	17.9	0.5%	↓	↓	RR
9/12/27	0625	A	50	52.1	4.2%	Yes	Port	RR
		B	10	10.7	3%	↓	↓	RR
		C	50	51.8	3.6%	↓	↓	RR
		D	18	18.2	1.1%	↓	↓	RR
↓	1220	A	50	50.5	1%	↓	Port	RR
		B	10	10.9	9%	↓	↓	RR
		C	50	52.3	4.6%	↓	↓	RR
		D	18	17.8	1.1%	↓	↓	RR

General Field Testing and Measurement

Field Instrument Calibration Records

PSI PROJECT NAME: WMATA Northern Bus Station

PSI PROJECT NO: 04481517

INSTRUMENT (MAKE/MODEL#) DRAE 3 INSTRUMENT # 045439

PARAMETER(S) (check only one):

- TEMPERATURE CONDUCTIVITY SALINITY pH ORP
 TURBIDITY RESIDUAL CI DO OTHER gas meters

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased] Lot # HBS-413-18-10

Standard A CO - 50 ppm

Standard B H2S - 10 ppm

Standard C CH4 - 50% LEL

D - O2 18% vol

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
19/11/22	6:47	A	50 ppm	46%	4%	yes	cont	RR
↓	↓	B	10 ppm	9.8%	8%	↓	↓	RR
↓	↓	C	50%	48%	4%	↓	↓	RR
↓	↓	D	18%	18.3%	1.6%	↓	↓	RR
↓	13:46	A	50 ppm	47%	6%	↓	↓	RR
↓	↓	B	10 ppm	10	—	↓	↓	RR
↓	↓	C	50%	45	10%	↓	↓	RR
↓	↓	D	18%	18.5	4.2%	↓	↓	RR
19/11/25	7:14	A	50 ppm	46	8%	yes	cont	RR
↓	↓	B	10 ppm	10.1	1%	↓	↓	RR
↓	↓	C	50%	47	6%	↓	↓	RR
↓	↓	D	18%	18.5	2.8%	↓	↓	RR
↓	13:11	A	50 ppm	52	4%	↓	↓	RR
↓	↓	B	10 ppm	9.8	2%	↓	↓	RR
↓	↓	C	50%	50%	—	↓	↓	RR
↓	↓	D	18%	18.5	2.8%	↓	↓	RR
19/11/26	06:47	A	50 ppm	47 ppm	6%	yes	cont	RR
↓	↓	B	10 ppm	11	10%	↓	↓	↓
↓	↓	C	50% LEL	45%	10%	↓	↓	↓
↓	↓	D	18% V	20.1	11.1%	↓	↓	↓

General Field Testing and Measurement

Field Instrument Calibration Records

PSI PROJECT NAME: WMATA Northern Bus Station

PSI PROJECT NO: 04481517

INSTRUMENT (MAKE/MODEL#) Mettler ANE INSTRUMENT # 045439

PARAMETER(S) (check only one):

- TEMPERATURE CONDUCTIVITY SALINITY pH ORP
 TURBIDITY RESIDUAL CI DO OTHER gas meter

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]

Standard A _____

Standard B See previous

Standard C _____

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
12/11/26	13:59	A	50 ppm	46	8%	yes	Cont	RR
↓	↓	B	10 ppm	11.7	17.0%	↓	↓	RR
↓	↓	C	50% LEL	50	0	↓	↓	RR
↓	↓	D	18% V	20.9	10.6%	↓	↓	RR
19/12/02	06:15	A	50	48	4%	yes	↓	RR
↓	↓	B	10	9.6	6%	↓	↓	RR
↓	↓	C	50	52	4%	↓	↓	RR
↓	↓	D	18	18.6	3.3%	↓	↓	RR
↓	1406	A	50	46	8%	yes	Cont	ld
↓	↓	B	10	9.3	7%	↓	↓	ld
↓	↓	C	50	51	2%	↓	↓	ld
↓	↓	D	18	18.6	3.3%	↓	↓	ld
19/12/3	0630	A	50	46	8%	yes	Cont	ld
↓	↓	B	10	9.8	2%	↓	↓	ld
↓	↓	C	50	44	12%	↓	↓	ld
↓	↓	D	18	18.9	5%	↓	↓	ld
19/12/3	1415	A	50	45	10%	yes	Cont	ld
↓	↓	B	10	10.6	3.3%	↓	↓	ld
↓	↓	C	50	45	10%	↓	↓	ld
↓	↓	D	10	9.6	6%	↓	↓	ld
19/12/4	0630	A	50	49	2%	yes	Cont	ld
↓	↓	B	10	10.1	0.5%	↓	↓	ld
↓	↓	C	50	49	2%	↓	↓	ld
↓	↓	D	10	9.7	3%	↓	↓	ld

General Field Testing and Measurement

Field Instrument Calibration Records

PSI PROJECT NAME: WMATA North Bus Station

PSI PROJECT NO: 04481517

INSTRUMENT (MAKE/MODEL#) CRAE'S

INSTRUMENT # 045435

PARAMETER(S) (check only one):

- TEMPERATURE CONDUCTIVITY SALINITY pH ORP
 TURBIDITY RESIDUAL CI DO OTHER 4-GAS meter

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]

Standard A

Standard B see previous

Standard C

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
19/12/13	0619	A	50 ppm			No	Cont	ld
↓		B	10 ppm	Failed		↓	↓	ld
↓		C	50%	Calibrating		↓	↓	ld
↓		D	10%					ld

General Field Testing and Measurement

Field Instrument Calibration Records

PSI PROJECT NAME: WMATA North Bus Station

PSI PROJECT NO: 04481517

INSTRUMENT (MAKE/MODEL#) Multi RAE INSTRUMENT # 045439

PARAMETER(S) (check only one):

- TEMPERATURE CONDUCTIVITY SALINITY pH ORP
 TURBIDITY RESIDUAL Cl DO OTHER Gas Meter

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]

Standard A See Previous
 Standard B See Previous
 Standard C See Previous

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
19/12/05	1415	A	50 ppm	49	2%	Yes	Cont	ll
		B	10 ppm	9.6	4%			ll
		C	50% LECL	49	2%			ll
		D	18% O	18				ll
19/12/05	0618	A	50 ppm	46	3%	No	Cont	ll
		B	10 ppm	9.9	1%			ll
		C	50% LECL	46	8%			ll
		D	18% O	18.6	2%			ll
19/12/05	1417	A	50 ppm	47	6%	Yes	Cont	ll
		B	10 ppm	10.1	1%			ll
		C	50% LECL	46	9%			ll
		D	18% O	18.4	2%			ll
19/12/05	0605	A	50 ppm	50		Yes	Cont	ll
		B	10 ppm	9.5	5%			ll
		C	50% LECL	50				ll
		D	18% O	18% O				ll

General Field Testing and Measurement

Field Instrument Calibration Records

PSI PROJECT NAME: WMATA Northern Bus Station

PSI PROJECT NO: 04481517

INSTRUMENT (MAKE/MODEL#) ORION METRAE INSTRUMENT # 042975

PARAMETER(S) (check only one):

- TEMPERATURE CONDUCTIVITY SALINITY pH ORP
 TURBIDITY RESIDUAL CI DO OTHER Gas meter

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]

Standard A CO - 50 ppm | D - O₂ 18% vol dot # HBS-413-18-10
 Standard B H₂S - 10 ppm Exp R# 4/21/2021
 Standard C CH₄ - 50% LEL

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
11/11/26	0645	A	50 ppm	53 ppm	6%	yes	Cont	RR
		B	10 ppm	11 ppm	10%			RR
		C	50% LEL	43%	14%			RR
		D	18% V	17.9%	1%			RR
11/11/26	14:10	A	50 ppm	42 ppm	16%	yes		RR
		B	10 ppm	8 ppm	20%			RR
		C	50% LEL	36%	28%			RR
		D	18% V	18.7	4%			RR
11/12/3	0615	A	50 ppm	46%	8%	yes	Cont	RR
		B	10 ppm	9 ppm	10%			RR
		C	50% LEL	42%	8%			RR
		D	18% V	18.9	5%			RR
11/12/3	1410	A	50 ppm	48	4%	yes	Cont	RR
		B	10	9.3	7%			RR
		C	50	46	8%			RR
		D	18	18.3	1.6%			RR
11/12/4	0620	A	50	49	2%	yes	Cont	RR
		B	10	9.7	3%			RR
		C	50	52	4%			RR
		D	18.0	18.1	0.5%			RR

General Field Testing and Measurement

Field Instrument Calibration Records

PSI PROJECT NAME: WMATA North Bus Station

PSI PROJECT NO: 04481517

INSTRUMENT (MAKE/MODEL#) MULTI RAE INSTRUMENT # 042975

PARAMETER(S) (check only one):

- TEMPERATURE CONDUCTIVITY SALINITY pH
 TURBIDITY RESIDUAL Cl DO OTHER Gas meter ORP

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]

Standard A _____
 Standard B See Previous
 Standard C _____

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
19/12/04	0359	A	50 ppm	53	6%	Yes	Cont	RL
↓	↓	B	10 ppm	9.3	7%	↓	↓	RL
↓	↓	C	50%LEL	53	6%	↓	↓	RL
↓	↓	D	18%	18.1	0.5%	↓	↓	RL
19/12/05	0626	A	50 ppm	49	2%	Yes	Cont	RL
↓	↓	B	10 ppm	9.7	3%	↓	↓	RL
↓	↓	C	50%LEL	50	—	↓	↓	RL
↓	↓	D	18%	18.6	3%	↓	↓	RL
19/12/05	1420	A	50 ppm	50	—	Yes	Cont	RL
↓	↓	B	10 ppm	9.8	2%	↓	↓	RL
↓	↓	C	50%LEL	50	—	↓	↓	RL
↓	↓	D	18%	18.6	3%	↓	↓	RL
19/12/06	0610	A	50 ppm	50	—	Yes	Cont	RL
↓	↓	B	10 ppm	9.7	3%	↓	↓	RL
↓	↓	C	50%LEL	50	—	↓	↓	RL
↓	↓	D	18%	18.5	3%	↓	↓	RL

General Field Testing and Measurement

Field Instrument Calibration Records

PSI PROJECT NAME: WMATA Northern Bus Station

PSI PROJECT NO: 04481517

INSTRUMENT (MAKE/MODEL#) Mira RAE 3000 INSTRUMENT # 59291982

PARAMETER(S) (check only one):

- TEMPERATURE CONDUCTIVITY SALINITY pH
 TURBIDITY RESIDUAL CI DO OTHER PID ORP

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]

Standard A 0 PPM - ambient air

Standard B iso butylene - 100 PPM Lot # KDJ-X02A199C9342066-1

Standard C Exp date = 10/16/23

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
19/11/20	07:23	000 A	0.0	0.0	-	yes	cont.	RR
19/11/20	07:24	B	100	105	5% 0.05	yes	cont.	RR
19/11/20	15:19	A	0.0	0.0	-	yes	cont.	RR
19/11/20	15:19	B	100	106	6%	yes	cont.	RR
19/11/21	0702	A	0.0	0.0	-	yes	cont.	RR
19/11/21	0703	B	100	103	3%	yes	cont.	RR
19/11/21	1351	A	0.0	0.0	-	yes	cont.	RR
19/11/21	1551	B	100	97.6	2.4%	yes	cont.	RR
19/11/22	0705	A	0	0.0	-	yes	cont.	RR
19/11/22	0705	B	100	105.1	5%	yes	cont.	RR
↓	1346	A	0	0.0	-	yes	cont.	RR
↓	1346	B	100	103.3	3%	yes	cont.	RR
19/11/25	0729	A	0	0	0	yes	cont.	RR
19/11/25	0729	B	100	112.4	12.4%	yes	cont.	RR
19/11/25	1309	A	0	0	-	yes	cont.	RR
19/11/25	1309	B	100	96.2	3.8%	yes	cont.	RR
19/11/26	0643	A	0	0	-	yes	cont.	RR
19/11/26	0643	B	100	103.01	3.1%	yes	cont.	RR
19/11/26	14:13	A	0	0	-	↓	cont.	RR
19/11/26	1413	B	100	104.7	4.7%	↓	cont.	RR
19/12/02	0640	A	0	-	-	yes	cont.	RR
19/12/02	0640	B	100	102.4	2.4%	↓	↓	RR
↓	1311	A	0	-	-	↓	↓	RR
↓	1311	B	0	114.0	14%	↓	↓	RR

General Field Testing and Measurement

Field Instrument Calibration Records

PSI PROJECT NAME: WMATA Northern Bus Station

PSI PROJECT NO: 04481517

INSTRUMENT (MAKE/MODEL#) MIMRAE 300

INSTRUMENT # 592-919882

PARAMETER(S) (check only one):

- TEMPERATURE CONDUCTIVITY SALINITY pH ORP
 TURBIDITY RESIDUAL CI DO OTHER PID

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]

Standard A 0 ppm

Standard B 100 ppm (IsolutPure Lot # KBJ-X02A199CP342066-1

Standard C exp. 10/16/2023)

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT. CONT)	SAMPLER INITIALS
19/12/26	1015	A	0	0	0	yes	last	RR
19/12/26	1015	B	100	107.1	7.1%	"	"	RR
19/12/26	1530	A	0	0	0	"	"	RR
19/12/26	1530	B	100	116.4	16.4%	"	"	RR
19/12/27	0630	A	0	0	0	yes	"	RR
	0630	B	100	103.3	3.3%	"	"	RR
	1217	A	0	0	0	"	"	RR
	1217	B	100	104	4%	"	"	RR

General Field Testing and Measurement

Field Instrument Calibration Records

PSI PROJECT NAME: WMATA North Bus Station

PSI PROJECT NO: 04481517

INSTRUMENT (MAKE/MODEL#) Mini RAE 300 INSTRUMENT # 21925

PARAMETER(S) (check only one):

- TEMPERATURE CONDUCTIVITY SALINITY pH
 TURBIDITY RESIDUAL Cl DO OTHER PID ORP

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]

Standard A 0 ppm - ambient air

Standard B isobutylene - 100 ppm lot # KBT-X02A199CP 342066-1

Standard C Exp date - 10/16/2023

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
19/12/03	06 35	A	0	0	0	yes	Cont	RR
19/12/03	06 33	B	100	99.3	0.7%	yes	Cont	RR
19/12/03	14 04	A	0	0	0	yes	Cont	RR
19/12/03	14 04	B	100	104.8	4.8%	yes	Cont	RR
19/12/04	06 30	A	0	0	0%	yes	Cont	RR
19/12/04	06 30	B	100	106.1	6.1%	yes	Cont	RR
19/12/04	13 49	A	0	0	0	yes	Cont	RR
19/12/04	13 44	B	100	110.6	10.6%	yes	Cont	RR
19/12/05	06 26	A	0	0	0	yes	Cont	RR
19/12/05	06 26	B	100	122.0	22%	yes	Cont	RR
19/12/05	14 16	A	0	0	0	yes	Cont	RR
19/12/05	14 16	B	100	109.05	9.5%	yes	Cont	RR

SOIL OVA SAMPLE DATA

DATE: 11/20/19		PROJECT NAME: WMATA Northern Bus Station		SHEET / OF 20/20		
PROJECT NO: 04481517		CALIBRATION DATE/STANDARD: <i>None</i>		OTHER: <i>11/20/19</i>		
HEADSPACE CONTAINER: <input type="checkbox"/> 16 OZ GLASS <input type="checkbox"/> 8 OZ GLASS		ZIP-LOC <input type="checkbox"/> 2 JAR <input type="checkbox"/> 1 JAR <input type="checkbox"/> SPLIT SPOON		CORER <input type="checkbox"/> GEOPROBE <input type="checkbox"/>		
SAMPLE METHOD: <input checked="" type="checkbox"/> HAND AUGER <input type="checkbox"/> SOLID STEM		ANALYTE FREE FINAL RINSE <input type="checkbox"/> ISOPROPANOL <input type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/> OTHER SOLVENT <input type="checkbox"/>		TAP WATER FINAL RINSE <input type="checkbox"/> AIR DRY <input type="checkbox"/>		
EQUIP DECON: <input checked="" type="checkbox"/> TAP WATER WASH <input type="checkbox"/> LUMINOX WASH <input type="checkbox"/>		EVIDENT ODOR OR STAIN		LITHOLOGIC DESCRIPTION		
SAMPLE LOCATION		PID TOTAL (ppm)		GROUNDWATER DEPTH		
SAMPLE NO./DEPTH		FLAME IONIZATION DETECTOR (FID)		REMARKS		
FID TOTAL (UNFILTERED)		FID METHANE (FILTERED)		LAB SAMPLE		
FID TOTAL (UNFILTERED)		HYDROCARBON (TOTAL-METHANE)		G = Grab C = Composite		
SB-59	1-3'	---	---	6.7	NO	SB-59@1' (6) grey FG5 w/ mica
	3-5'	---	---	2.7	"	"
	5-7'	---	---	4.0	"	"
	8'	---	---	1.1	"	"
SB-60	SB-60	---	---	SB-60	---	" / PWR (distilled)
	1-3'	---	---	0.4	NO	brown silty sand
	3-5'	---	---	11.7	NO	"
	5-7'	---	---	52.2	YES - strong	brown silty sand
	7-9'	---	---	112.3	YES - strong	brown FG5
	10'	---	---	100.3	YES - strong	grey clay
SB-51	SB-51	---	---	< 8.51	---	---
	1-3'	---	---	0.3	NO	brown FG5 w/ mica
	3-5'	---	---	1.5	NO	"
	5-7'	---	---	767.9	slight odor	brown silty sand
	7-9'	---	---	767.9	YES - strong	soil
	10-12'	---	---	148.3	YES	FG5 - dark brown/black
	13-14'	---	---	143.2	slight odor	silty sand
	15'	---	---	122.8	---	silty

PREPARED BY: A. N. ...

SOIL OVA SAMPLE DATA

DATE: 11/20/19		PROJECT NAME: WMATA Northern Bus Station		SHEET 2 OF 20		
PROJECT NO: 04481517		CALIBRATION DATE/STANDARD: See Metrics		PROJECT NO: 04481517		
HEADSPACE CONTAINER: <input type="checkbox"/> 16 OZ GLASS <input type="checkbox"/> 8 OZ GLASS		1 JAR <input type="checkbox"/> 2 JAR		ZIP-LOC <input type="checkbox"/> OTHER		
SAMPLE METHOD: <input checked="" type="checkbox"/> HAND AUGER <input type="checkbox"/> SOLID STEM <input type="checkbox"/> SPLIT SPOON		CORER <input type="checkbox"/>		GEOPROBE <input type="checkbox"/>		
EQUIP DECON: <input checked="" type="checkbox"/> TAP WATER WASH <input type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> ISOPROPANOL <input type="checkbox"/> ANALYTE FREE FINAL RINSE		<input type="checkbox"/> TAP WATER FINAL RINSE		<input type="checkbox"/> AIR DRY		
<input type="checkbox"/> ALCONOX WASH <input checked="" type="checkbox"/> LUMINOX WASH <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/> OTHER SOLVENT		<input type="checkbox"/> DIST/DEION FINAL RINSE		<input type="checkbox"/> AIR DRY		
SAMPLE LOCATION	SAMPLE DEPTH	FLAME IONIZATION DETECTOR (FID)		EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION
		FID TOTAL (UNFILTERED)	FID METHANE (FILTERED)			
SB-46	1-3'	---	---	No	---	brown silty sand
	3'-5'	---	---	↓	---	silty sand w/ coarse gravel
	5'-7'	---	---	No	---	silty sand
	7'-9'	---	---	No	---	"
	10'-12'	---	---	No	---	sandy silt - moist
	12'-14'	---	---	No	---	"
	15'-17'	---	---	No	---	"
	17'-19'	---	---	No	---	"
	20'-22'	---	---	No	---	slightly moist - silty sand
	22'-24'	---	---	No	70-40(2) (G)	sandy silt with gravel
	25'	---	---	No	---	"
SB-40	SB 40	---	---	---	---	---
	1'-3'	---	---	No	---	FGS w/ gravel
	3'-5'	---	---	No	---	FGS
	5'-7'	---	---	No	---	Block sandy silt
	7'-9'	---	---	No	---	FGS w/ gravel
	9'-11'	---	---	No	---	↓
	11'-13'	---	---	No	---	---
	13'-15'	---	---	No	---	silty sand w/ gravel
	15'-17'	---	0.1	No	---	FGS w/ coarse gravel
	17'-19'	---	---	No	---	FGS w/ gravel
	19'-21'	---	---	No	58-10(2) (G)	silty sand - moist

PREPARED BY: A. H. COOPER

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SOIL OVA SAMPLE DATA

DATE: 11/20/19
 SHEET 3 OF 20
 PROJECT NO: 04481517
 PROJECT NAME: WMATA Northern Bus Station
 11/21/19

SAMPLE LOCATION	SAMPLE NO./DEPTH	FLAME IONIZATION DETECTOR (FID)		PID TOTAL	EVIDENT ODOR OR STAIN	LAB SAMPLE	LITHOLOGIC DESCRIPTION
		FID TOTAL (UNFILTERED)	FID METHANE (FILTERED)				
SB-40	21'-23'	---	---	7.1	NO	---	silty sand - moist
SB-32	23'-24'	---	---	2.0	NO	---	silty sand - wet
	1'-3'	---	---	3.5	NO	5A-320.1(G)	silty sand with coarse gravel
	3'-5'	---	---	1.1	NO	---	
	5'-7'	---	---	1.5	NO	---	
	7'-9'	---	---	1.1	NO	---	
	9'-11'	---	---	0.9	NO	---	
	11'-13'	---	---	1.2	NO	---	
	13'-15'	---	---	2.1	NO	---	
	15'-20'	---	---	refusal	NO	---	
SB-11	1'-3'	---	---	102.2	Y	5A-110.1(D)	Dry - silty sand
	3'-5'	---	---	2.5	NO	---	
	5'-7'	---	---	2.9	NO	---	
	7'-9'	---	---	1.9	NO	---	
	9'-11'	---	---	1.5	NO	---	
	11'	---	---	4.7	NO	---	Water silty sand

PREPARED BY *Ramp R*

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UT (W)

SOIL OVA SAMPLE DATA

DATE: 1/21/19		PROJECT NAME: WMATA Northern Bus Station				SHEET 4 OF 20	
<input type="checkbox"/> FID		PID MODEL & SERIAL NO: see previous		CALIBRATION DATE/STANDARD: see previous		PROJECT NO: 04481517	
HEADSPACE CONTAINER:		<input type="checkbox"/> 16 OZ GLASS		<input type="checkbox"/> 8 OZ GLASS		<input type="checkbox"/> ZIP-LOC	
SAMPLE METHOD:		<input checked="" type="checkbox"/> HAND AUGER		<input type="checkbox"/> SOLID STEM		<input type="checkbox"/> CORER	
EQUIP DECON:		<input type="checkbox"/> TAP WATER WASH		<input type="checkbox"/> DIST/DEION 1 RINSE		<input type="checkbox"/> ISOPROPANOL	
<input type="checkbox"/> ALCONOX WASH		<input type="checkbox"/> LUMINOX WASH		<input type="checkbox"/> DIST/DEION 2 RINSE		<input type="checkbox"/> OTHER SOLVENT	
SAMPLE LOCATION		FLAME IONIZATION DETECTOR (FID)		PID TOTAL		EVIDENT ODOR OR STAIN	
SAMPLE DEPTH		FID TOTAL (UNFILTERED)		FID METHANE (FILTERED)		LAB SAMPLE	
		FID TOTAL (UNFILTERED)		HYDROCARBON (TOTAL-METHANE)		G = Grab C = Composite	
						LITHOLOGIC DESCRIPTION	
						GROUNDWATER DEPTH	
						REMARKS	

SB-31	1'-3'	---	---	---	1.4	No	FGS	Silty sand - w/ coarse gravel
	3'-5'	---	---	---	1.1	No	FGS	Silty sand w/ gravel
	5'-7'	---	---	---	1.4	No	FGS	coarse sand - w/ gravel
	7'-9'	---	---	---	1.2	No	FGS	silty sand w/ gravel
	9'-11'	---	---	---	1.9	No	FGS	FGS
	11'-13'	---	---	---	2.2	No	FGS	FGS
	13'-15'	---	---	---	1.4	No	FGS	FGS
	15'-17'	---	---	---	2.2	black odor (phosolam)	FGS	FGS w/ gravel
	17'-19'	---	---	---	4.7	black odor slight odor	FGS	sandy silt
	19'-21'	---	---	---	579.5	strong odor	FGS	silty sand - moist
	21'-23'	---	---	---	381.6	"	FGS	"
	23'-25'	---	---	---	95.6	"	FGS	FGS - wet

PREPARED BY *Ray R*

MPP
1/21/19

SOIL OVA SAMPLE DATA

DATE: 11/22/14		PROJECT NAME: WMATA Northern Bus Station		SHEET 3 OF 20			
PROJECT NO: 04481517		CALIBRATION DATE/STANDARD: See spec		OTHER			
HEADSPACE CONTAINER: <input type="checkbox"/> 16 OZ GLASS <input checked="" type="checkbox"/> 8 OZ GLASS		<input type="checkbox"/> 1 JAR <input type="checkbox"/> 2 JAR		<input type="checkbox"/> ZIP-LOC			
SAMPLE METHOD: <input checked="" type="checkbox"/> HAND AUGER <input type="checkbox"/> SOLID STEM		<input type="checkbox"/> SPLIT SPOON		<input type="checkbox"/> CORER			
EQUIP DECON: <input checked="" type="checkbox"/> TAP WATER WASH <input type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> ISOPROPANOL <input type="checkbox"/> ANALYTE FREE FINAL RINSE		<input type="checkbox"/> TAP WATER FINAL RINSE		<input type="checkbox"/> AIR DRY			
<input type="checkbox"/> ALCONOX WASH <input checked="" type="checkbox"/> LUMINOX WASH <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/> OTHER SOLVENT		<input type="checkbox"/> DIST/DEION FINAL RINSE		<input type="checkbox"/> AIR DRY			
SAMPLE LOCATION	SAMPLE NO./DEPTH	FLAME IONIZATION DETECTOR (FID)		PID TOTAL	EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION GROUNDWATER DEPTH REMARKS
		FID TOTAL (UNFILTERED)	FID METHANE (FILTERED)				
SB-43	1-3	---	---	0.1	None	---	Brown fgs below "
	3-5	---	---	0.4	"	---	"
	5-7	---	---	20.1	sl. ppt	---	Brown silty sand "
	7-9	---	---	33.4	"	---	"
	9-11	---	---	304.1	sl. ppt	---	"
	11-13	---	---	552.4	"	SB-43E116	"
	13-15	---	---	452.3	"	---	" moist
SB-29	1-3	---	---	1.0	None	---	Crushed concrete fill
	3-5	---	---	1.0	"	---	"
	5-7	---	---	1.0	"	---	"
	7-9	---	---	1.0	"	---	"
	9-11	---	---	1.7	---	---	"
	11-13	---	---	915.1	Red recovery	---	"
	13-15	---	---	---	Red sand	---	"
SB-9	1-5'	---	---	0.2	NO	---	FGS
	5'-7'	---	---	1.0	NO	---	FGS w/ some rocks
	7'-9'	---	---	0.5	NO	---	↓
	9'-10.5'	---	---	---	---	---	---
	10.5'	---	---	---	---	---	---
	Disposal	---	---	---	---	---	---
	at 10.5'	---	---	---	---	---	---
PREPARED BY: A. Acosta							

SOIL OVA SAMPLE DATA

DATE: 11/22/19		PROJECT NAME: WMATA Northern Bus Station		SHEET 6 OF 20		
PROJECT NO: 04481517		CALIBRATION DATE/STANDARD: see previous		PROJECT NO: 04481517		
HEADSPACE CONTAINER: <input type="checkbox"/> 16 OZ GLASS <input type="checkbox"/> 8 OZ GLASS		ZIP-LOC: <input type="checkbox"/> 1 JAR <input type="checkbox"/> 2 JAR		OTHER: <input type="checkbox"/>		
SAMPLE METHOD: <input checked="" type="checkbox"/> HAND AUGER <input type="checkbox"/> SPLIT SPOON		CORER: <input type="checkbox"/>		GEOPROBE: <input type="checkbox"/>		
EQUIP DECON: <input type="checkbox"/> TAP WATER WASH <input type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> ISOPROPANOL <input type="checkbox"/> ANALYTE FREE FINAL RINSE		DIST/DEION FINAL RINSE: <input type="checkbox"/>		TAP WATER FINAL RINSE: <input type="checkbox"/>		
ALCONOX WASH: <input type="checkbox"/> LUMINOX WASH <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/> OTHER SOLVENT <input type="checkbox"/>		AIR DRY: <input type="checkbox"/>		AIR DRY: <input type="checkbox"/>		
SAMPLE LOCATION	SAMPLE NO./DEPTH	FLAME IONIZATION DETECTOR (FID)		EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION
		FID TOTAL (UNFILTERED)	FID METHANE (FILTERED)			
SB-8	0-5'	--	--	no recovery		
	5'-7'	--	--	No		Grey FGs w/ gravel
	7'-9'	--	--	Degraded faecal-matter		Grey FGs w/ gravel
	9'-10.5'	--	--	slightly other - degraded plastic		FGs
	Refusal at 10.5'	--	--			
SB-38	1-3'	--	--	No	84	sample - SB-8 @ 9'
	3'-5'	--	--	No		FGs w/ mica
	5'-7'	--	--	No		
	7'-9'	--	--	No		
	9'-11'	--	--	No		FGs w/ mica
	11'-12.5'	--	--	No		FGs w/ mica
		--	--	Odor + slight other		FGs w/ mica (moist)
SB-37	1-3'	--	--	slight other		sandy soil w/ mica
	3'-5'	--	--	↓		
	5'-7'	--	--	No		
	7'-9'	--	--	No		
	9'-11'	--	--	slight other		
SB-13A	Refusal @ 1'	--	--			
	Refusal @ 1'	--	--			
	Refusal @ 1'	--	--			
	Refusal @ 1'	--	--			

PREPARED BY: kemp - l

SB 52

SOIL OVA SAMPLE DATA

SHEET 8 OF 20		PROJECT NAME: WMATA Northern Bus Station		PROJECT NO: 04481517		
DATE: 11/25/19		CALIBRATION DATE/STANDARD: see previous		OTHER: _____		
HEADSPACE CONTAINER: <input type="checkbox"/> FID <input type="checkbox"/> PID MODEL & SERIAL NO: _____		16 OZ GLASS <input type="checkbox"/> 8 OZ GLASS <input type="checkbox"/> 1 JAR <input type="checkbox"/> 2 JAR <input type="checkbox"/> ZIP-LOC <input type="checkbox"/>		CORER <input type="checkbox"/> GEOPROBE <input type="checkbox"/>		
SAMPLE METHOD: <input checked="" type="checkbox"/> HAND AUGER <input type="checkbox"/> SOLID STEM <input type="checkbox"/> SPLIT SPOON <input type="checkbox"/>		ANALYTE FREE FINAL RINSE <input type="checkbox"/> ISOPROPANOL <input type="checkbox"/> TAP WATER FINAL RINSE <input type="checkbox"/>		DIST/DEION FINAL RINSE <input type="checkbox"/> AIR DRY <input type="checkbox"/>		
EQUIP DECON: <input checked="" type="checkbox"/> TAP WATER WASH <input type="checkbox"/> LUMINOX WASH <input type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/> OTHER SOLVENT <input type="checkbox"/>		EVIDENT ODOR OR STAIN		LAB SAMPLE		
SAMPLE LOCATION		FLAME IONIZATION DETECTOR (FID)		G = Grab C = Composite		
DEPTH		HYDROCARBON (TOTAL-METHANE)		LITHOLOGIC DESCRIPTION		
SAMPLE NO./		(UNFILTERED)		GROUNDWATER DEPTH		
DEPTH		(FILTERED)		REMARKS		
SB-01	1-3	---	---	0.1	NO	randy silt w/ gravel
	3-5	---	---	0.2	NO	"
	5-7	---	---	0.8	NO	randy silt w/ gravel + quartz
	7-9	---	---	0.7	NO	randy silt w/ gravel + quartz
	9-11	---	---	0.6	methanol odor NO	mostly silt w/ FGS
	11-13	---	---	1.6	methanol odor 50-91.11	mostly silt w/ FGS
	13-15	---	---	1.0	NO - moist	fine silt
	15-17	---	---	10.2	yes - wet	rand w/ gravel
	17-19	---	---	331.3	↑	
	19-20	---	---	379.0	strong ketone	
		---	---	18.618	of water when column	
SB-19	1-3	---	---	3.5	NO	Medium grain sand w/ gravel
	3-5	---	---	1.4		
	5-7	---	---	1.1		fine gravel of same FGS
	7-9	---	---	0.7		
	9-11	---	---	0.5		
	11-13	---	---	0.9		Silty Sand w/ coarse sand mount
	13-15	---	---	1.1		"
	15-17	---	---	0.3		"
	17-19	---	---	0.6	slight odor	"
	19-21	---	---	86.2	strong odor	"
	21-23	---	---	54.3	strong odor	"

water bubble @ ~ 191

PREPARED BY: J. J. P. B. 2

FGS - mount

SOIL OVA SAMPLE DATA

DATE: 11/26/19		PROJECT NAME: WMATA Northern Bus Station		SHEET 10 OF 20		
PROJECT NO: 04481517		CALIBRATION DATE/STANDARD:		PROJECT NO: 04481517		
HEADSPACE CONTAINER: <input type="checkbox"/> FID <input type="checkbox"/> PID MODEL & SERIAL NO:		16 OZ GLASS <input type="checkbox"/> 8 OZ GLASS <input type="checkbox"/> 1 JAR <input type="checkbox"/> 2 JAR <input type="checkbox"/> ZIP-LOC <input type="checkbox"/>		OTHER <input type="checkbox"/>		
SAMPLE METHOD: <input type="checkbox"/> HAND AUGER <input type="checkbox"/> SOLID STEM <input type="checkbox"/> SPLIT SPOON <input type="checkbox"/> CORER <input type="checkbox"/>		EQUIP DECON: <input type="checkbox"/> TAP WATER WASH <input type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> ISOPROPANOL <input type="checkbox"/> ANALYTE FREE FINAL RINSE <input type="checkbox"/> TAP WATER FINAL RINSE <input type="checkbox"/>		AIR DRY <input type="checkbox"/>		
<input type="checkbox"/> ALCONOX WASH <input type="checkbox"/> LUMINOX WASH <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/> OTHER SOLVENT <input type="checkbox"/>		LAB SAMPLE G = Grab C = Composite		LITHOLOGIC DESCRIPTION		
SAMPLE LOCATION	SAMPLE NO./DEPTH	FLAME IONIZATION DETECTOR (FID)		EVIDENT ODOR OR STAIN	REMARKS	
		FID TOTAL (UNFILTERED)	FID METHANE (FILTERED)			
		HYDROCARBON (TOTAL-METHANE)				
SB-20	1-3	---	---	0.7	NO	silty sand w/ gravel
	3-5	---	---	0.2	NO	↓
	5-7	---	---	0.4	NO	FGS
	7-9	---	---	0.1	NO	↓
	9-11	---	---	0.2	NO	silt - moist
	11-13	---	---	0.5	NO	↓
	13-15	---	---	3.0	Slight odor	↓
	15-17	---	---	16.2	strong odor	silt - wet
	17-19	---	---	147.8	↓	↓
	19-21	---	Water - turbid	19.5	↓	↓
		---	---	119.8	↓	↓
SB-03	cont	---	here - concrete sub layer @ 1' below			
SB-14	1-3	---	---	0.1	NO	silty sand w/ quartz
	3-5	---	---	20.5		↓
	5-7	---	---	0.2		FGS
	7-9	---	---	0.4		↓
	9-11	---	---	0.5		silty sand
	11-13	---	---	0.5		↓
	13-15	---	---	0.6		feasible incinerator material
	15-17	---	---	0.0		↓

PREPARED BY: *[Signature]*

11/26/19

SOIL OVA SAMPLE DATA

DATE: 11/26/19		PROJECT NAME: WMATA Northern Bus Station		SHEET 11	OF 20	
PROJECT NO: 04481517		CALIBRATION DATE/STANDARD:				
HEADSPACE CONTAINER:		16 OZ GLASS		ZIP-LOC		
SAMPLE METHOD:		HAND AUGER		CORER		
EQUIP DECON:		TAP WATER WASH		ANALYTE FREE FINAL RINSE		
ALCONOX WASH		LUMINOX WASH		DIST/DEION FINAL RINSE		
SAMPLE NO./DEPTH		FLAME IONIZATION DETECTOR (FID)		LITHOLOGIC DESCRIPTION		
LOCATION		HYDROCARBON (TOTAL-METHANE)		GROUNDWATER DEPTH		
FID TOTAL (UNFILTERED)		FID METHANE (FILTERED)		REMARKS		
PID TOTAL		EVIDENT ODOR OR STAIN		LAB SAMPLE		
TOTAL		OTHER SOLVENT		G = Grab C = Composite		
SB-17	30	---	---	95.5	51.181	Silty sand / low energy
SB-21	1-5	---	---	19.9	Slight odor	silty to end of gravel
	3-5	---	---	18.7	"	"
	5-7	---	---	2.3	"	"
	7-9	---	---	0.5	No	"
	9-11	---	---	0.5	No	"
	11-13	---	---	0.4	No	"
	13-15	---	---	116.9	Strong Naphthalene	"
	15-17	---	---	19.5	No	"
		---	---			F.G.S. w/ gravel
SB-02	1-0	---	---	101.3	Slight odor	Hand-dug of gravel
	3-3	---	---	5.0	No	"
	5-4	---	---	0.9	"	"
	7-9	---	---	0.5	"	"
	9-11	---	---	0.2	"	"
	11-13	---	---	0.0	"	"
	13-15	---	---	0.0	"	"
10/11/19		---	---	15	refused	silty sand

PREPARED BY: *[Signature]*

FID PID MODEL & SERIAL NO.
 ALCONOX WASH TAP WATER WASH LUMINOX WASH DIST/DEION 1 RINSE ISOPROPANOL ANALYTE FREE FINAL RINSE TAP WATER FINAL RINSE AIR DRY
 ALCONOX WASH LUMINOX WASH DIST/DEION 2 RINSE OTHER SOLVENT DIST/DEION FINAL RINSE AIR DRY
 FLAME IONIZATION DETECTOR (FID) HYDROCARBON (TOTAL-METHANE)
 FID TOTAL (UNFILTERED) FID METHANE (FILTERED)
 PID TOTAL EVIDENT ODOR OR STAIN LAB SAMPLE
 TOTAL OTHER SOLVENT G = Grab
 C = Composite

SOIL OVA SAMPLE DATA

1000

12

12

DATE: 11/26/19		PROJECT NAME: WMATA Northern Bus Station		SHEET 12 OF 20		
PROJECT NO: 04481517		CALIBRATION DATE/STANDARD:		PROJECT NO: 04481517		
HEADSPACE CONTAINER: <input type="checkbox"/> FID <input type="checkbox"/> PID MODEL & SERIAL NO:		16 OZ GLASS <input type="checkbox"/> 8 OZ GLASS <input type="checkbox"/> 1 JAR <input type="checkbox"/> 2 JAR <input type="checkbox"/> ZIP-LOC <input type="checkbox"/> OTHER <input type="checkbox"/>		CORER <input type="checkbox"/> GEOPROBE <input type="checkbox"/>		
SAMPLE METHOD: <input type="checkbox"/> HAND AUGER <input type="checkbox"/> SOLID STEM <input type="checkbox"/> SPLIT SPOON <input type="checkbox"/>		ANALYTE FREE FINAL RINSE <input type="checkbox"/> TAP WATER FINAL RINSE <input type="checkbox"/> AIR DRY <input type="checkbox"/>		DIST/DEION FINAL RINSE <input type="checkbox"/>		
EQUIP DECON: <input type="checkbox"/> TAP WATER WASH <input type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> ISOPROPANOL <input type="checkbox"/>		OTHER SOLVENT <input type="checkbox"/>		LITHOLOGIC DESCRIPTION		
<input type="checkbox"/> ALCONOX WASH <input type="checkbox"/> LUMINOX WASH <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/>		OTHER SOLVENT <input type="checkbox"/>		GROUNDWATER DEPTH		
SAMPLE LOCATION	SAMPLE NO./DEPTH	FLAME IONIZATION DETECTOR (FID)		EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	REMARKS
		FID TOTAL (UNFILTERED)	FID METHANE (FILTERED)			
SB-06	1-3	--	--	0.0	---	Fgs w/ gravel
	3-5	--	--	0.0	---	"
	5-7	--	--	0.0	---	silt
	7-9	--	--	0.1	---	"
	9-11	--	--	0.6	---	FGS w/ gravel
	11-13	--	--	2.8	---	"
	13-15	--	--	7-4.2	---	sandy silt - wet moist
		--	--		---	sandy silt - wet
SB-05	1-3	--	--	0.8	---	loose gravel
	3-5	--	--	0.1	---	"
	5-7	--	--	0.0	---	gray FGS w/ gravel
	7-9	--	--	0.2	---	black FGS w/ gravel
	9-11	--	--	5.9	SB-05(9)	"
	11-13	--	--	14.8	---	black FGS w/ gravel
	13-15	--	--	17.8	---	sandy silt
	15-17	--	--	16.6	---	"
	17-19	--	--	11.6	---	"
	19-21	--	--		---	"

PREPARED BY: *[Signature]*

11/2/19

11/2/19

11/2/19

SOIL OVA SAMPLE DATA

DATE: 12/02/19		PROJECT NAME: WMATA Northern Bus Station		SHEET 13 OF 20		
PROJECT NO: 04481517		CALIBRATION DATE/STANDARD:		PROJECT NO: 04481517		
HEADSPACE CONTAINER: <input type="checkbox"/> FID <input type="checkbox"/> PID MODEL & SERIAL NO:		16 OZ GLASS <input type="checkbox"/> 8 OZ GLASS <input type="checkbox"/> 1 JAR <input type="checkbox"/> 2 JAR <input type="checkbox"/> ZIP-LOC <input type="checkbox"/> OTHER <input type="checkbox"/>		CORER <input type="checkbox"/> GEOPROBE <input type="checkbox"/>		
SAMPLE METHOD: <input type="checkbox"/> HAND AUGER <input type="checkbox"/> SOLID STEM <input type="checkbox"/> SPLIT SPOON <input type="checkbox"/>		ANALYTE FREE FINAL RINSE <input type="checkbox"/> TAP WATER FINAL RINSE <input type="checkbox"/>		AIR DRY <input type="checkbox"/>		
EQUIP DECON: <input type="checkbox"/> TAP WATER WASH <input type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> ISOPROPANOL <input type="checkbox"/>		ANALYTE FREE FINAL RINSE <input type="checkbox"/> TAP WATER FINAL RINSE <input type="checkbox"/>		AIR DRY <input type="checkbox"/>		
<input type="checkbox"/> ALCONOX WASH <input type="checkbox"/> LUMINOX WASH <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/>		OTHER SOLVENT <input type="checkbox"/> DIST/DEION FINAL RINSE <input type="checkbox"/>		AIR DRY <input type="checkbox"/>		
SAMPLE LOCATION	SAMPLE NO./DEPTH	FLAME IONIZATION DETECTOR (FID)		EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION
		FID TOTAL (UNFILTERED)	FID METHANE (FILTERED)			
SB-24	1-3	---	---	0.0	---	FGS w/ coarse gravel
	3-5	---	---	0.0	---	"
	5-7	---	---	0.0	---	"
	7-9	---	---	0.0	---	"
	9-11	---	---	0.1	---	"
	11-13	---	---	54.6	---	"
	13-15	---	---	389.8	400-Kerosene odor	FGS and silt layer - w/ silt
	15-17	---	---	288.4	"	silt - wet
	17-18.5	---	---	409.6	"	"
SB-04	Refused	---	---	Refusal - at 18.5'	---	"
		---	---	concrete sub 2' below	---	"
SB-24	1-3	---	58 - 2.9 (C. 1)	388.0	400-gasoline	Silty sand w/ gravel
	3-5	---	---	147.4	"	"
	5-7	---	---	242.9	"	"
	7-9	---	---	1430.9	"	"
10'	9-11	---	---	265.6	400-gasoline / Sheen appearance	"
	11-13	---	---	362.6	"	silt - wet
	13-15	---	---	60.3	"	"
		---	---	Woods table @ 110'	---	"

PREPARED BY: *[Signature]*

WT

SOIL OVA SAMPLE DATA

SHEET <u>14</u> OF <u>80</u>		PROJECT NO: 04481517					
DATE: <u>12/02/19</u>		PROJECT NAME: <u>WMATA Northern Bus Station</u>					
HEADSPACE CONTAINER: <input type="checkbox"/> FID <input type="checkbox"/> PID MODEL & SERIAL NO:		CALIBRATION DATE/STANDARD:					
SAMPLE METHOD: <input type="checkbox"/> HAND AUGER <input type="checkbox"/> 16 OZ GLASS <input type="checkbox"/> 8 OZ GLASS <input type="checkbox"/> 1 JAR <input type="checkbox"/> 2 JAR <input type="checkbox"/> ZIP-LOC <input type="checkbox"/> OTHER		<input type="checkbox"/> CORER <input type="checkbox"/> GEOPROBE					
EQUIP DECON: <input type="checkbox"/> TAP WATER WASH <input type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> ISOPROPANOL <input type="checkbox"/> ANALYTE FREE FINAL RINSE <input type="checkbox"/> TAP WATER FINAL RINSE		<input type="checkbox"/> AIR DRY					
<input type="checkbox"/> ALCONOX WASH <input type="checkbox"/> LUMINOX WASH <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/> OTHER SOLVENT		<input type="checkbox"/> DIST/DEION FINAL RINSE					
SAMPLE LOCATION	SAMPLE NO./DEPTH	FLAME IONIZATION DETECTOR (FID)		PID TOTAL	EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION GROUNDWATER DEPTH REMARKS
		FID TOTAL (UNFILTERED)	FID METHANE (FILTERED)				
<u>SB-28</u>	<u>1-3</u>	--	--	<u>1.1</u>	<u>slight</u>	--	<u>F.G.S of gravel</u>
	<u>2-5</u>	--	--	<u>3.9</u>	"	--	"
	<u>5-4</u>	--	--	<u>1.7</u>	"	--	"
	<u>4-9</u>	--	--	<u>13.9</u>	"	--	"
	<u>9-11</u>	--	--	<u>13.9</u>	<u>Strong odor</u>	<u>SB-28 @ 9'</u>	<u>Silty sand of gravel</u>
	<u>11-13</u>	--	--	<u>11.2</u>	"	--	"
	<u>13-15</u>	--	--	<u>31.4</u>	"	--	<u>silt</u>
		--	<u>totalizer</u>				
<u>28-25</u>	<u>1-3</u>	--	--	<u>0.5</u>	<u>No</u>	--	<u>sandy silt of gravel</u>
	<u>2-5</u>	--	--	<u>1.6</u>	"	--	"
	<u>5-7</u>	--	--	<u>0.8</u>	"	--	"
	<u>7-9</u>	--	--	<u>1.9</u>	"	--	<u>silt</u>
	<u>9-11</u>	--	--	<u>11.5</u>	<u>↓</u>	--	<u>silt of gravel - moist</u>
	<u>11-13</u>	--	--	<u>4.7</u>	"	--	"
	<u>13-15</u>	--	--	<u>0.9</u>	<u>slight</u>	--	"
	<u>15-17</u>	--	--	<u>44.3</u>	<u>↓</u>	--	<u>silt - wet</u>
	<u>17-19</u>	--	--	<u>7.0</u>	<u>↓</u>	--	<u>silt - wet</u>
	<u>19-20</u>	--	--	<u>3.4</u>	"	--	"
	<u>21-23</u>	--	<u>totalizer @ 16.75 - 17.1</u>				
	<u>23-25</u>	--	--				

PREPARED BY: L. K. Reed

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SOIL OVA SAMPLE DATA

DATE: 12/3/19		PROJECT NAME: WMATA Northern Bus Station		SHEET 15 OF 20			
PROJECT NO: 04481517		CALIBRATION DATE/STANDARD:		PROJECT NO: 04481517			
HEADSPACE CONTAINER: <input type="checkbox"/> FID <input type="checkbox"/> PID MODEL & SERIAL NO:		16 OZ GLASS <input type="checkbox"/> 8 OZ GLASS		ZIP-LOC <input type="checkbox"/> OTHER <input type="checkbox"/>			
SAMPLE METHOD: <input checked="" type="checkbox"/> HAND AUGER <input type="checkbox"/> SPLIT SPOON		CORER <input type="checkbox"/> GEOPROBE		TAP WATER FINAL RINSE <input type="checkbox"/> AIR DRY			
EQUIP DECON: <input checked="" type="checkbox"/> TAP WATER WASH <input type="checkbox"/> DIST/DIION 1 RINSE <input type="checkbox"/> ISOPROPANOL <input type="checkbox"/> ANALYTE FREE FINAL RINSE		LUMINOX WASH <input type="checkbox"/> DIST/DIION 2 RINSE <input type="checkbox"/> OTHER SOLVENT		DIST/DIION FINAL RINSE <input type="checkbox"/>			
SAMPLE LOCATION	SAMPLE NO./DEPTH	FLAME IONIZATION DETECTOR (FID)		PID TOTAL	EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION GROUNDWATER DEPTH REMARKS
		FID TOTAL (UNFILTERED)	FID METHANE (FILTERED)				
SB-13-A	1-3	---	---	0.7	No	SB-13A01	FGS w/ mica
	3-5	---	---	0.0	↓		"
	5-7	---	---	0.0			"
		---	Refusal @ 7'				"
SB-16	1-3	---	---	0.0	No	SB-1601	pill - moist
	3-5	---	---	0.0			Silty sand w/ mica - wet
	5-7	---	---	0.1	↓		"
		---	WT @ 4 1/2'				"
SB-22	1-3	---	---	0.0	None		Med sand w/ gravel
	3-5	---	---	0.0			"
	5-7	---	---	0.0			Silty sand w/ gravel
	7-11	---	---	0.0			Silty sand
	11-12	---	---	0.0	↓		"
		---	Refusal @ 12'				"
SB-35	1-3	---	---	1.0	None		Silty sand w/ gravel
	3-5	---	---	1.8			"
	5-7	---	---	4.1			"
	7-9	---	---	5.6	↓		Silty sand w/ gravel
	9-11	---	---	5.9			"
	11-13	---	---	6.9	St Pet		"
	13-15	---	---	100.7	"		Silty sand wet
		---	---	221.1	"		Silty sand wet

PREPARED BY: *SPC/KCC*

SOIL OVA SAMPLE DATA

DATE: 12/3/2019		PROJECT NAME: WMATA Northern Bus Station		SHEET 6 OF 20		
PROJECT NO: 04481517		CALIBRATION DATE/STANDARD: See previous		PROJECT NO: 04481517		
HEADSPACE CONTAINER: <input type="checkbox"/> 16 OZ GLASS <input type="checkbox"/> 8 OZ GLASS		ZIP-LOC <input type="checkbox"/> 2 JAR <input type="checkbox"/> 1 JAR <input type="checkbox"/> 1 JAR		OTHER <input type="checkbox"/>		
SAMPLE METHOD: <input checked="" type="checkbox"/> HAND AUGER <input type="checkbox"/> SOLID STEM <input type="checkbox"/> SPLIT SPOON <input type="checkbox"/> CORER		ANALYTE FREE FINAL RINSE <input type="checkbox"/> TAP WATER FINAL RINSE <input type="checkbox"/>		GEOPROBE <input type="checkbox"/>		
EQUIP DECON: <input checked="" type="checkbox"/> TAP WATER WASH <input type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> ISOPROPANOL <input type="checkbox"/> ANALYTE FREE FINAL RINSE <input type="checkbox"/>		DIST/DEION FINAL RINSE <input type="checkbox"/>		AIR DRY <input type="checkbox"/>		
ALCONOX WASH <input checked="" type="checkbox"/> LUMINOX WASH <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/> OTHER SOLVENT <input type="checkbox"/>		EVIDENT ODOR OR STAIN		LITHOLOGIC DESCRIPTION		
SAMPLE LOCATION	SAMPLE NO./DEPTH	FLAME IONIZATION DETECTOR (FID)		PID TOTAL	LAB SAMPLE G = Grab C = Composite	REMARKS
		FID TOTAL (UNFILTERED)	FID METHANE (FILTERED)			
SB-36	1-3	---	---	0.2	---	silty sand
	3-5	---	---	0.1	---	sandy silt - moist
	5-7	---	---	0.1	---	"
	7-9	---	---	0.1	---	silty sand
	9-11	---	---	0.0	---	"
	11-13	---	---	0.1	---	"
	13-15	---	---	1.3	---	"
	15-17	---	---	0.1	---	sandy silt
	17-19	---	---	1.7	---	fine gravel sand
	19-21	---	---	0.7	---	"
	21-23	---	---	0.9	---	"
	23-25	---	---	0.2	---	"
		---	Water table ~ 2.4'			"
SB-33	1-3	---	---	0.0	---	FGS w/ gravel
	3-5	---	---	0.7	---	silty sand w/ gravel
	5-7	---	---	0.1	---	"
	7-9	---	---	0.0	---	"
	9-11	---	---	0.5	---	"
	11-13	---	---	9.1	---	"
	13-15	---	---	12.2	---	"
		---	Repeal @ 15'			"

with
- moist
- moist
- moist
- moist

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PREPARED BY: *[Signature]*

SOIL OVA SAMPLE DATA

SHEET 17 OF 20		PROJECT NO: 04481517				
DATE: 12/13/19 - 12/4/19		PROJECT NAME: WMATA Northern Bus Station				
HEADSPACE CONTAINER: <input type="checkbox"/> FID <input type="checkbox"/> PID MODEL & SERIAL NO:		CALIBRATION DATE/STANDARD:				
SAMPLE METHOD: <input type="checkbox"/> HAND AUGER <input type="checkbox"/> 16 OZ GLASS <input type="checkbox"/> 8 OZ GLASS <input type="checkbox"/> 1 JAR <input type="checkbox"/> 2 JAR <input type="checkbox"/> ZIP-LOC <input type="checkbox"/> OTHER		<input type="checkbox"/> CORER <input type="checkbox"/> GEOPROBE				
EQUIP DECON: <input type="checkbox"/> TAP WATER WASH <input type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> ISOPROPANOL <input type="checkbox"/> ANALYTE FREE FINAL RINSE <input type="checkbox"/> TAP WATER FINAL RINSE		<input type="checkbox"/> AIR DRY				
<input type="checkbox"/> ALCONOX WASH <input type="checkbox"/> LUMINOX WASH <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/> OTHER SOLVENT		<input type="checkbox"/> DIST/DEION FINAL RINSE				
SAMPLE LOCATION	SAMPLE NO./DEPTH	FLAME IONIZATION DETECTOR (FID)		EVIDENT ODOR OR STAIN	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION
		FID TOTAL (UNFILTERED)	FID METHANE (FILTERED)			
SB-06	1-3	---	---	0.0	---	silty sand of gravel
	3-5	---	---	0.0	---	"
	5-7	---	---	2.9	None	silt w/ gravel - moist
	7-9	---	---	0.1	None	"
	9-11	---	---	66.4	Strong	" - wet
	11-13	---	---	62.3	"	silt - wet
	13-15	---	---	7.8	"	"
	15-17	---	---	12.9	"	silt w/ gravel
	17-19	---	---	0.9	"	"
	19-21	---	---	0.2	"	"
SB-04	1-3	---	---	0.3	None	Gravel
	3-5	---	---	0.1	↓	silt / sand w/ gravel
	5-7	---	---	0.0	None	silty sand
	7-9	---	---	0.0	None	" - moist
	9-11	---	---	0.0	None	" - moist
	11-13	---	---	12.5	Strong petrol odor	silt - wet
	13-15	---	---	19.9	"	"
	15-17	---	---	33.0	"	"
	17-19	---	---	153.6	"	"
	19-20	---	---	79.8	"	"
		Water level ~ 14'				

PREPARED BY: *[Signature]*

SOIL OVA SAMPLE DATA

DATE: 12-4-19		PROJECT NAME: WMATA Northern Bus Station		SHEET 18 OF 20		
PROJECT NO: 04481517		CALIBRATION DATE/STANDARD:		PROJECT NO: 04481517		
HEADSPACE CONTAINER: <input type="checkbox"/> 16 OZ GLASS <input type="checkbox"/> 8 OZ GLASS <input type="checkbox"/> 1 JAR <input type="checkbox"/> 2 JAR <input type="checkbox"/> ZIP-LOC <input type="checkbox"/> OTHER		SAMPLE METHOD: <input checked="" type="checkbox"/> HAND AUGER <input type="checkbox"/> SOLID STEM <input type="checkbox"/> SPLIT SPOON <input type="checkbox"/> CORER <input type="checkbox"/> GEOPROBE		EQUIP DECON: <input type="checkbox"/> TAP WATER WASH <input type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> ISOPROPANOL <input type="checkbox"/> ANALYTE FREE FINAL RINSE <input type="checkbox"/> TAP WATER FINAL RINSE		
ALCONOX WASH <input checked="" type="checkbox"/> LUMINOX WASH <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/> OTHER SOLVENT <input type="checkbox"/> DIST/DEION FINAL RINSE <input type="checkbox"/> AIR DRY		FLAME IONIZATION DETECTOR (FID)		LITHOLOGIC DESCRIPTION		
SAMPLE LOCATION	SAMPLE NO./DEPTH	FID TOTAL (UNFILTERED)	FID METHANE (FILTERED)	TOTAL PID	LAB SAMPLE G = Grab C = Composite	REMARKS
SB-50	1-3	---	---	0.1	---	Steady silt
	3-5	---	---	0.2	---	"
	5-7	---	---	0.0	---	silt - moist
	7-9	---	---	6.1	---	sandy silt - moist
	9-11	---	---	0.1	---	silt - moist
	11-11 1/2	---	---	16.7	---	silt / Fiss - moist
SB-30	1-3	---	---	62.8	---	Fiss of granite
	3-5	---	---	82.2	---	"
	5-7	---	---	102.7	---	Degraded pit.
	7-9	---	---	107.8	SB-30 @ 7'	"
	9-11	---	---	53.0	---	sandy silt
	11-13	---	---	599.7	---	silt - moist
	13-15	---	---	589.7	---	"
	15-16	---	---	597.5	---	silt - wet
	16-17	---	---	711.8	---	"
SB-48	1-3	---	Water table ✓	11.5	---	"
	3-5	---	---	0.0	---	Below sand w/ some silt.
	5-7	---	---	0.0	---	"
	7-9	---	---	0.0	---	"
	9-11	---	---	0.5	---	"

PREPARED BY: A. Pleasick

SOIL OVA SAMPLE DATA

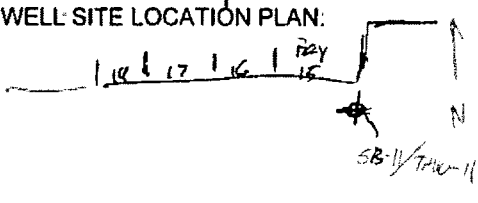
SHEET 20 OF 21		PROJECT NO: 04481517					
DATE: 12/5/19		PROJECT NAME: WMATA Northern Bus Station					
HEADSPACE CONTAINER: <input type="checkbox"/> FID <input type="checkbox"/> PID MODEL & SERIAL NO:		CALIBRATION DATE/STANDARD:					
SAMPLE METHOD: <input type="checkbox"/> HAND AUGER <input type="checkbox"/> 16 OZ GLASS <input type="checkbox"/> 8 OZ GLASS <input type="checkbox"/> 1 JAR <input type="checkbox"/> 2 JAR <input type="checkbox"/> ZIP-LOC <input type="checkbox"/> OTHER		CORER <input type="checkbox"/> GEOPROBE					
EQUIP DECON: <input type="checkbox"/> TAP WATER WASH <input type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> ISOPROPANOL <input type="checkbox"/> ANALYTE FREE FINAL RINSE <input type="checkbox"/> TAP WATER FINAL RINSE		DIST/DEION FINAL RINSE <input type="checkbox"/> AIR DRY					
<input type="checkbox"/> ALCONOX WASH <input type="checkbox"/> LUMINOX WASH <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/> OTHER SOLVENT							
SAMPLE LOCATION	SAMPLE NO/ DEPTH	FLAME IONIZATION DETECTOR (FID)		EVIDENT ODOR OR STAIN	PID TOTAL	LAB SAMPLE G = Grab C = Composite	LITHOLOGIC DESCRIPTION GROUNDWATER DEPTH REMARKS
		FID TOTAL (UNFILTERED)	FID METHANE (FILTERED)				
SB-53	1-2	---	---	---	0.1	---	silty sand of mica
	3-5	---	---	---	0.6	---	"
	5-7	---	---	---	0.2	---	"
	7-9	---	---	---	0.6	---	"
	9-11	---	---	---	0.6	---	"
	11-13	---	---	---	0.6	---	"
	13-14	---	---	---	0.6	---	"
		---	repeal @ 14'	---		---	
SB-52	1-3	---	---	---	0.6	---	repeal silty soil of mica
	3-5	---	---	---	0.1	---	"
	5-7	---	---	---	0.0	---	"
	7-9	---	---	---	0.0	---	"
	9-11	---	---	---	0.1	---	"
	11-12	---	---	---	0.0	---	"
		---	repeal @ 12'	---		---	"
SB-44	1-3	---	---	---	0.2	---	silty sand
	3-5	---	---	---	1.01	---	"
	5-7	---	---	---	5.7	---	"
		---	repeal @ 7'	---		---	"
		---	---	---		---	

PREPARED BY: *[Signature]*

MONITORING WELL CONSTRUCTION DATA

WELL/BORING NO: SB-11/TW-11
 PERMIT NO: SB 1900434

DATE: 11/21/2015 PROJECT NAME: WMATA Northern Bus Station PROJECT NO: 04481517

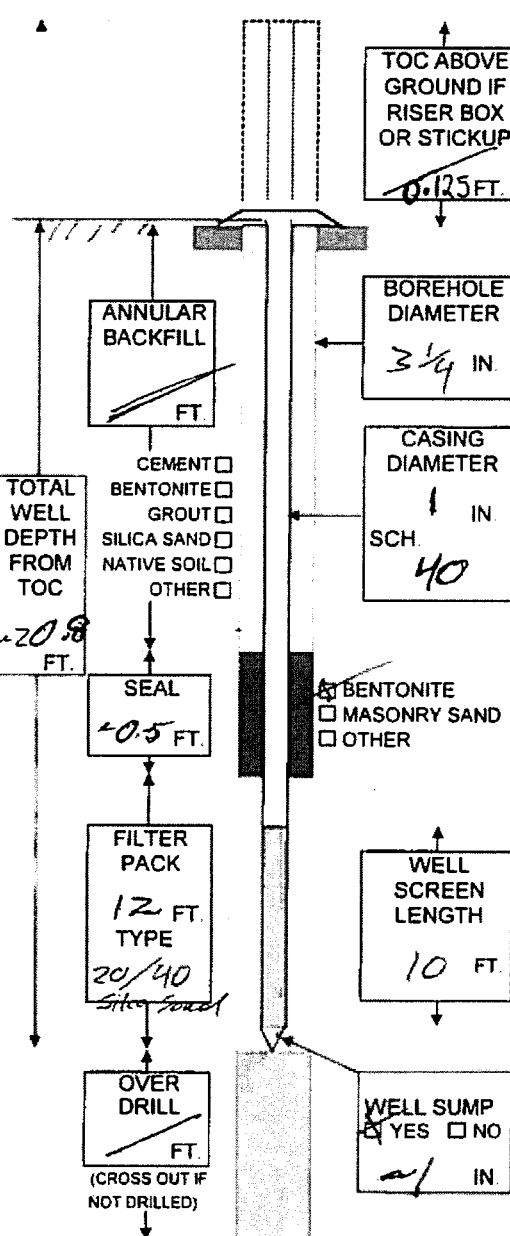
WELL SITE LOCATION PLAN: 

SEC: _____ TWN: _____ RGE: _____ LAT: _____ LONG: _____

DRILLING CO: FZCR

DRILL CREW: Jeremy, AP, Bruce

WELL TYPE: SHALLOW SINGLE CASED MONITORING
 PERMANENT INTERMEDIATE DOUBLE CASED RECOVERY
 TEMPORARY DEEP OTHER OTHER

WELL SCHEMATIC	INSTALLATION DATA
 <p>ANNULAR BACKFILL: _____ FT.</p> <p>CEMENT <input type="checkbox"/> BENTONITE <input type="checkbox"/> GROUT <input type="checkbox"/> SILICA SAND <input type="checkbox"/> NATIVE SOIL <input type="checkbox"/> OTHER <input type="checkbox"/></p> <p>SEAL: <u>±0.5</u> FT.</p> <p>FILTER PACK: <u>12</u> FT. TYPE: <u>20/40 Silica Sand</u></p> <p>OVER DRILL: _____ FT. (CROSS OUT IF NOT DRILLED)</p> <p>TOC ABOVE GROUND IF RISER BOX OR STICKUP: <u>0.125</u> FT.</p> <p>BOREHOLE DIAMETER: <u>3 1/4</u> IN.</p> <p>CASING DIAMETER: <u>1</u> IN. SCH. <u>40</u></p> <p>WELL SCREEN LENGTH: <u>10</u> FT.</p> <p>WELL SUMP: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <u>2 1/2</u> IN.</p>	<p>DECON. <input type="checkbox"/> STEAM CLEAN <input type="checkbox"/> HIGH PRESSURE WASH <input checked="" type="checkbox"/> SOAP WASH <input type="checkbox"/> OTHER</p> <p>CASING TYPE: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> STAINLESS <input type="checkbox"/> TEFLON <input type="checkbox"/> OTHER JOINTS: <input checked="" type="checkbox"/> THREADED <input type="checkbox"/> WELDED <input type="checkbox"/> COUPLED <input type="checkbox"/> SCREWED <input type="checkbox"/> OTHER</p> <p>PIT CASING: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> DESCRIBE</p> <p>WELL SCREEN: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> STAINLESS <input type="checkbox"/> TEFLON <input type="checkbox"/> OTHER DIAMETER: <input type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input checked="" type="checkbox"/> OTHER <u>1</u> IN SLOT: <input checked="" type="checkbox"/> 0.010 <input type="checkbox"/> 0.020 <input type="checkbox"/> OTHER</p> <p>DRILLING METHOD: <input type="checkbox"/> SOLID STEM <input type="checkbox"/> HOLLOW STEM <input type="checkbox"/> MUD ROTARY <input type="checkbox"/> AIR ROTARY <input checked="" type="checkbox"/> DIRECT PUSH <input type="checkbox"/> HAND AUGER <input type="checkbox"/> OTHER</p> <p>BIT SIZE: <input type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> 8" <input type="checkbox"/> 12" <input checked="" type="checkbox"/> OTHER <u>3 1/2</u> IN</p> <p>DRILLING MUD: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> WATER <input type="checkbox"/> BENTONITE <input type="checkbox"/> OTHER</p> <p>CENTRALIZER: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p> <p>COMPLETION: <input type="checkbox"/> FLUSH MOUNT <input checked="" type="checkbox"/> STICKUP <input type="checkbox"/> RISER BOX LOCK TYPE: <input type="checkbox"/> DOLPHIN <input type="checkbox"/> MASTER KEY NO. <input checked="" type="checkbox"/> OTHER <u>None</u></p> <p>PAD: <input type="checkbox"/> 2'X2' <input type="checkbox"/> 4'X4' <input checked="" type="checkbox"/> OTHER <u>None</u></p> <p>CUTTINGS: <input checked="" type="checkbox"/> DRUMMED <input type="checkbox"/> SPREAD NUMBER OF DRUMS _____</p> <p>DEVELOPMENT METHOD: <input type="checkbox"/> NONE <input type="checkbox"/> BAILING <input checked="" type="checkbox"/> PUMPING <input type="checkbox"/> AIR LIFT <input type="checkbox"/> SURGE & BLOCK <input type="checkbox"/> OTHER</p> <p>TIME: <input type="checkbox"/> 10 MIN <input type="checkbox"/> 20 MIN <input checked="" type="checkbox"/> OTHER <u>8</u> MIN AMOUNT: <input type="checkbox"/> 5 GAL <input type="checkbox"/> 10 GAL <input checked="" type="checkbox"/> OTHER <u>3</u> GAL</p> <p>WATER BEFORE: <input checked="" type="checkbox"/> SILTY <input checked="" type="checkbox"/> TURBID <input type="checkbox"/> OPAQUE <input type="checkbox"/> CLEAR WATER AFTER: <input type="checkbox"/> SILTY <input type="checkbox"/> TURBID <input type="checkbox"/> OPAQUE <input checked="" type="checkbox"/> CLEAR</p> <p>EVIDENT ODOR: <input type="checkbox"/> YES <input type="checkbox"/> NO TYPE _____</p> <p>DEVELOPMENT WATER: <input checked="" type="checkbox"/> DRUMMED <input type="checkbox"/> SPREAD NUMBER OF DRUMS _____ <input type="checkbox"/> TREATED <input type="checkbox"/> POTW <input type="checkbox"/> OTHER</p> <p>WATER LEVEL: INITIAL <u>8.96</u> FT. <input checked="" type="checkbox"/> BTOC <input type="checkbox"/> BLS</p> <p>DATE: <u>9.03</u> FT BELOW TOC</p> <p>DATE: _____ FT BELOW TOC</p> <p>NOTES: (DESCRIBE ALL NON-STANDARD METHODS & MATERIALS) <input checked="" type="checkbox"/> Well removed from site upon completion of sampling (temp wells only).</p>

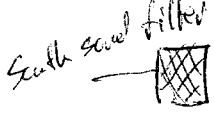
PREPARED BY: A. Acosta

MONITORING WELL CONSTRUCTION DATA

WELL/BORING NO: SB-31/EMW-10

PERMIT NO: SB1900437

DATE: 11/20/2019 PROJECT NAME: WMATA Northern Bus Station PROJECT NO: 04481517

WELL SITE LOCATION PLAN: *South sand filter*  *TKW-10*

SEC: _____ TWN: _____ RGE: _____ LAT: _____ LONG: _____

DRILLING CO: ETEK

DRILL CREW: Jeremy, AP, Bruce

WELL TYPE: SHALLOW SINGLE CASED MONITORING
 PERMANENT INTERMEDIATE DOUBLE CASED RECOVERY
 TEMPORARY DEEP OTHER OTHER

WELL SCHEMATIC	INSTALLATION DATA	
	<p>DECON <input type="checkbox"/> STEAM CLEAN <input type="checkbox"/> HIGH PRESSURE WASH <input checked="" type="checkbox"/> SOAP WASH <input type="checkbox"/> OTHER</p> <p>CASING TYPE: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> STAINLESS <input type="checkbox"/> TEFLON <input type="checkbox"/> OTHER JOINTS: <input checked="" type="checkbox"/> THREADED <input type="checkbox"/> WELDED <input type="checkbox"/> COUPLED <input type="checkbox"/> SCREWED <input type="checkbox"/> OTHER</p> <p>PIT CASING: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> DESCRIBE</p> <p>WELL SCREEN: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> STAINLESS <input type="checkbox"/> TEFLON <input type="checkbox"/> OTHER DIAMETER: <input type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input checked="" type="checkbox"/> OTHER 1 IN SLOT: <input checked="" type="checkbox"/> 0.010 <input type="checkbox"/> 0.020 <input type="checkbox"/> OTHER IN</p> <p>DRILLING METHOD: <input type="checkbox"/> SOLID STEM <input type="checkbox"/> HOLLOW STEM <input type="checkbox"/> MUD ROTARY <input type="checkbox"/> AIR ROTARY <input checked="" type="checkbox"/> DIRECT PUSH <input type="checkbox"/> HAND AUGER <input type="checkbox"/> OTHER</p> <p>BIT SIZE: <input type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> 8" <input type="checkbox"/> 12" <input checked="" type="checkbox"/> OTHER 3 1/4 IN</p> <p>DRILLING MUD: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> WATER <input type="checkbox"/> BENTONITE <input type="checkbox"/> OTHER</p> <p>CENTRALIZER: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p> <p>COMPLETION: <input type="checkbox"/> FLUSH MOUNT <input checked="" type="checkbox"/> STICKUP <input type="checkbox"/> RISER BOX LOCK TYPE: <input type="checkbox"/> DOLPHIN <input type="checkbox"/> MASTER KEY NO. <input checked="" type="checkbox"/> OTHER none</p> <p>PAD: <input type="checkbox"/> 2'X2' <input type="checkbox"/> 4'X4' <input checked="" type="checkbox"/> OTHER none</p> <p>CUTTINGS: <input checked="" type="checkbox"/> DRUMMED NUMBER OF DRUMS <input type="checkbox"/> SPREAD <input type="checkbox"/> OTHER</p> <p>DEVELOPMENT METHOD: <input type="checkbox"/> NONE <input type="checkbox"/> BAILING <input checked="" type="checkbox"/> PUMPING <input type="checkbox"/> AIR LIFT <input type="checkbox"/> SURGE & BLOCK <input type="checkbox"/> OTHER 10</p> <p>TIME: <input type="checkbox"/> 10 MIN <input type="checkbox"/> 20 MIN <input type="checkbox"/> OTHER MIN AMOUNT: <input type="checkbox"/> 5 GAL <input type="checkbox"/> 10 GAL <input checked="" type="checkbox"/> OTHER GAL</p> <p>WATER BEFORE: <input type="checkbox"/> SILTY <input checked="" type="checkbox"/> TURBID <input type="checkbox"/> OPAQUE <input type="checkbox"/> CLEAR WATER AFTER: <input type="checkbox"/> SILTY <input type="checkbox"/> TURBID <input type="checkbox"/> OPAQUE <input checked="" type="checkbox"/> CLEAR</p> <p>EVIDENT ODOR: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO TYPE</p> <p>DEVELOPMENT WATER: <input checked="" type="checkbox"/> DRUMMED NUMBER OF DRUMS <input type="checkbox"/> SPREAD <input type="checkbox"/> TREATED <input type="checkbox"/> POTW <input type="checkbox"/> OTHER</p> <p>WATER LEVEL: INITIAL 16.33 FT <input checked="" type="checkbox"/> BTOC <input type="checkbox"/> BLS</p> <p>DATE: _____ FT BELOW TOC DATE: _____ FT BELOW TOC</p> <p>NOTES: (DESCRIBE ALL NON-STANDARD METHODS & MATERIALS) <input checked="" type="checkbox"/> Well removed from site upon completion of sampling (temp wells only)</p>	
	<p>ANNULAR BACKFILL: <u>5.13 FT</u></p> <p>CEMENT <input type="checkbox"/> BENTONITE <input type="checkbox"/> GROUT <input type="checkbox"/> SILICA SAND <input checked="" type="checkbox"/> NATIVE SOIL <input type="checkbox"/> OTHER <input type="checkbox"/></p> <p>SEAL: <u>1/2 FT</u></p> <p>FILTER PACK: <u>4.12 FT</u> TYPE: <u>20/40 silica sand</u></p> <p>OVER DRILL: _____ FT (CROSS OUT IF NOT DRILLED)</p> <p>BOREHOLE DIAMETER: <u>3 1/4 IN.</u></p> <p>CASING DIAMETER: <u>SCH. 40</u> <u>1 IN.</u></p> <p>WELL SCREEN LENGTH: <u>10 FT.</u></p> <p>WELL SUMP: <u>5 1 IN.</u></p> <p>TOC ABOVE GROUND IF RISER BOX OR STICKUP: <u>0.3 FT.</u></p> <p>TOTAL WELL DEPTH FROM TOC: <u>25.37 FT.</u></p>	<p>ANNULAR BACKFILL: <input type="checkbox"/> CEMENT <input type="checkbox"/> BENTONITE <input type="checkbox"/> GROUT <input type="checkbox"/> SILICA SAND <input checked="" type="checkbox"/> NATIVE SOIL <input type="checkbox"/> OTHER <input type="checkbox"/></p> <p>SEAL: <input type="checkbox"/> BENTONITE <input type="checkbox"/> MASONRY SAND <input type="checkbox"/> OTHER</p> <p>FILTER PACK: <input type="checkbox"/> BENTONITE <input type="checkbox"/> MASONRY SAND <input type="checkbox"/> OTHER</p>

PREPARED BY: King, R

MONITORING WELL CONSTRUCTION DATA

WELL/BORING NO: *SB-01/MW01*

PERMIT NO: *SB 1900439*

DATE: *11/25/2019* PROJECT NAME: WMATA Northern Bus Station PROJECT NO: 04481517

WELL SITE LOCATION PLAN: *lower level west (east side)* *TMW-01* *N*

SEC: TWN: RGE: LAT: LONG:

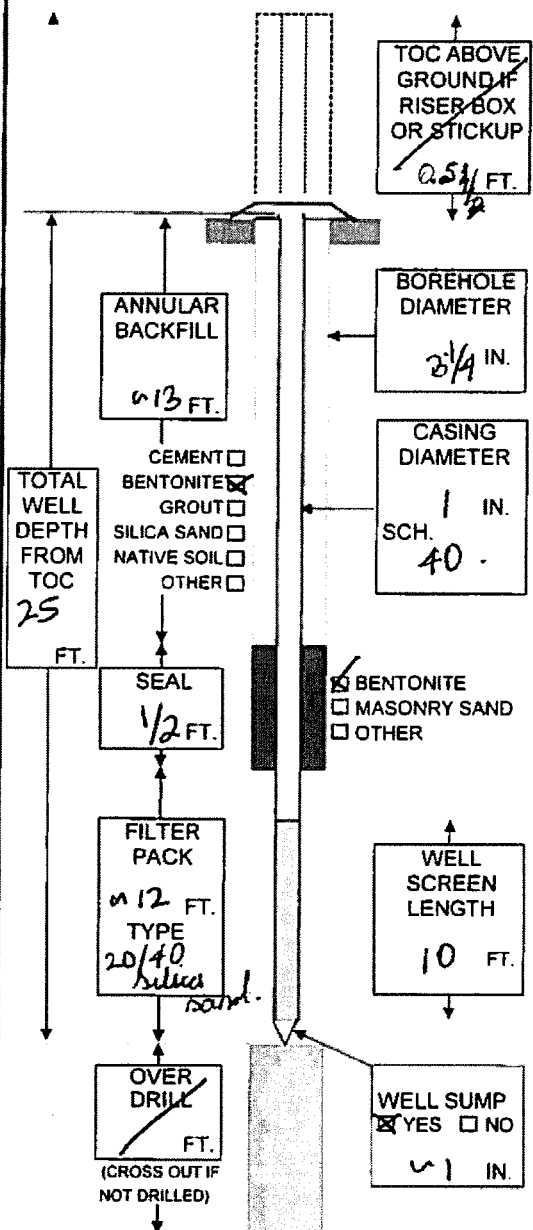
DRILLING CO: *E2CR*

DRILL CREW: *AP, Jeremy, Bruce*

WELL TYPE: SHALLOW SINGLE CASED MONITORING
 PERMANENT INTERMEDIATE DOUBLE CASED RECOVERY
 TEMPORARY DEEP OTHER OTHER

WELL SCHEMATIC

INSTALLATION DATA



DECON. STEAM CLEAN HIGH PRESSURE WASH
 SOAP WASH OTHER

CASING TYPE: PVC STAINLESS TEFLON OTHER
 JOINTS: THREADED WELDED COUPLED
 SCREWED OTHER

PIT CASING: YES NO DESCRIBE

WELL SCREEN: PVC STAINLESS TEFLON OTHER
 DIAMETER: 2" 4" 6" OTHER *1* IN
 SLOT: 0.010 0.020 OTHER IN

DRILLING METHOD: SOLID STEM HOLLOW STEM MUD ROTARY
 AIR ROTARY DIRECT PUSH HAND AUGER
 OTHER

BIT SIZE: 2" 4" 6" 8" 12" OTHER *3 1/4* IN

DRILLING MUD: NONE WATER BENTONITE
 OTHER

CENTRALIZER: YES NO

COMPLETION: FLUSH MOUNT STICKUP RISER BOX
 LOCK TYPE: DOLPHIN MASTER KEY NO.
 OTHER

PAD: 2'X2' 4'X4' OTHER *none*

CUTTINGS: DRUMMED NUMBER OF DRUMS
 SPREAD OTHER

DEVELOPMENT METHOD: NONE BAILING PUMPING AIR LIFT
 SURGE & BLOCK OTHER

TIME: 10 MIN 20 MIN OTHER MIN
 AMOUNT: 5 GAL 10 GAL OTHER *3* GAL

WATER BEFORE: SILTY TURBID OPAQUE CLEAR
 WATER AFTER: SILTY TURBID OPAQUE CLEAR

EVIDENT ODOR: YES NO TYPE

DEVELOPMENT WATER: DRUMMED NUMBER OF DRUMS
 SPREAD TREATED POTW OTHER

WATER LEVEL: INITIAL *18.1* FT BTOC BLS

DATE: FT BELOW TOC

DATE: FT BELOW TOC

NOTES: (DESCRIBE ALL NON-STANDARD METHODS & MATERIALS)
 Well removed from site upon completion of sampling (temp wells only)

PREPARED BY: *Rumpo R*

MONITORING WELL CONSTRUCTION DATA

WELL/BORING NO: SB-02/MW-02
 PERMIT NO: SB1900431

DATE: 11/26/19 PROJECT NAME: WMATA Northern Bus Station PROJECT NO: 04481517

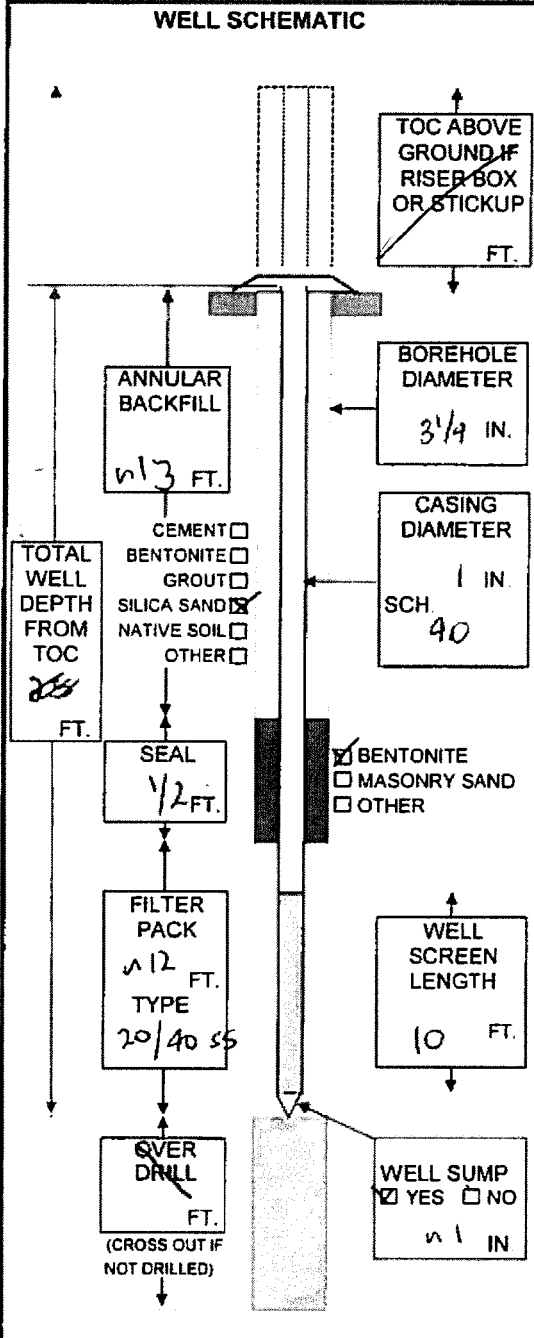
WELL SITE LOCATION PLAN: *Lower Level UST* *TWN-02* *N*

SEC: _____ TWN: _____ RGE: _____ LAT: _____ LONG: _____

DRILLING CO: E2CR

DRILL CREW: Jimmy, AP, Bruce

WELL TYPE: SHALLOW SINGLE CASED MONITORING
 PERMANENT INTERMEDIATE DOUBLE CASED RECOVERY
 TEMPORARY DEEP OTHER OTHER



INSTALLATION DATA

DECON: STEAM CLEAN HIGH PRESSURE WASH
 SOAP WASH OTHER

CASING TYPE: PVC STAINLESS TEFLON OTHER
 JOINTS: THREADED WELDED COUPLED
 SCREWED OTHER

PIT CASING: YES NO DESCRIBE

WELL SCREEN: PVC STAINLESS TEFLON OTHER
 DIAMETER: 2" 4" 6" OTHER 1 IN
 SLOT: 0.010 0.020 OTHER IN

DRILLING METHOD: SOLID STEM HOLLOW STEM MUD ROTARY
 AIR ROTARY DIRECT PUSH HAND AUGER
 OTHER

BIT SIZE: 2" 4" 6" 8" 12" OTHER 3 1/4 IN

DRILLING MUD: NONE WATER BENTONITE
 OTHER

CENTRALIZER: YES NO

COMPLETION: FLUSH MOUNT STICKUP RISER BOX
 LOCK TYPE: DOLPHIN MASTER KEY NO
 OTHER

PAD: 2'X2' 4'X4' OTHER none

CUTTINGS: DRUMMED NUMBER OF DRUMS
 SPREAD OTHER

DEVELOPMENT METHOD: NONE BAILING PUMPING AIR LIFT
 SURGE & BLOCK OTHER

TIME: 10 MIN 20 MIN OTHER MIN
 AMOUNT: 5 GAL 10 GAL OTHER 3 GAL

WATER BEFORE: SILTY TURBID OPAQUE CLEAR
 WATER AFTER: SILTY TURBID OPAQUE CLEAR

EVIDENT ODOR: YES NO TYPE

DEVELOPMENT WATER: DRUMMED NUMBER OF DRUMS
 SPREAD TREATED POTW OTHER

WATER LEVEL: INITIAL 14.22 FT TOC BLS

DATE: _____ FT BELOW TOC
 DATE: _____ FT BELOW TOC

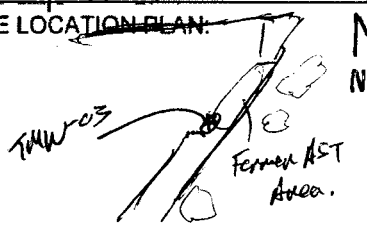
NOTES: (DESCRIBE ALL NON-STANDARD METHODS & MATERIALS)
 Well removed from site upon completion of sampling (temp wells only).

PREPARED BY: Ringo K.

MONITORING WELL CONSTRUCTION DATA

WELL/BORING NO: SB-17 / MW203
 PERMIT NO: SB1900137

DATE: 11/26/19 PROJECT NAME: WMATA Northern Bus Station PROJECT NO: 04481517

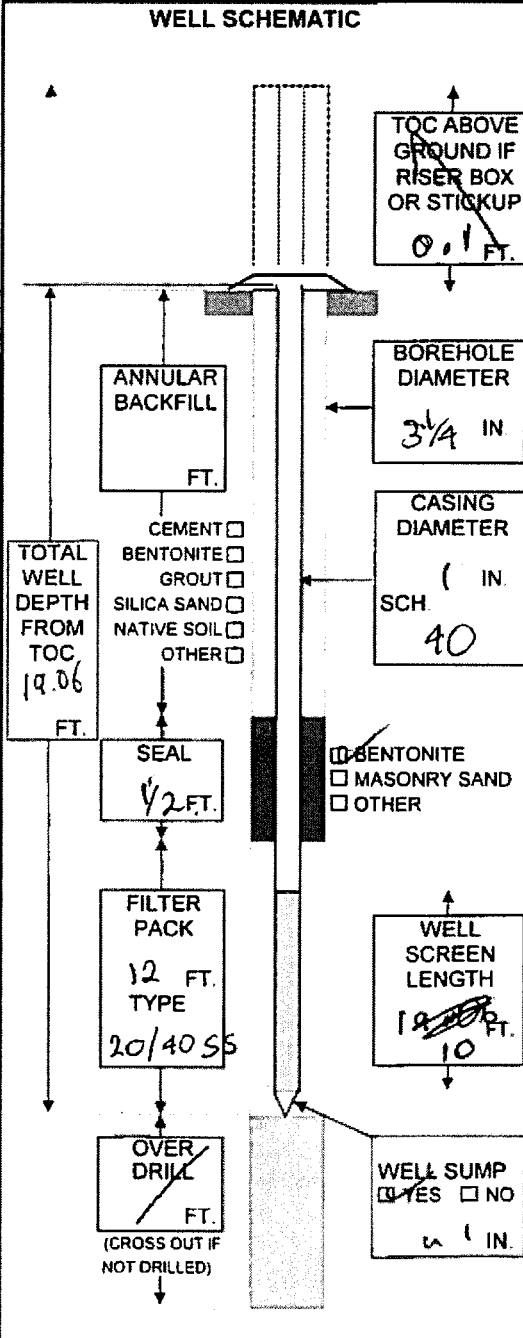
WELL SITE LOCATION PLAN: 

SEC: _____ TWN: _____ RGE: _____ LAT: _____ LONG: _____

DRILLING CO: E2CR

DRILL CREW: AP, Jeremy, Bruce

WELL TYPE: SHALLOW SINGLE CASED MONITORING
 PERMANENT INTERMEDIATE DOUBLE CASED RECOVERY
 TEMPORARY DEEP OTHER OTHER

WELL SCHEMATIC	INSTALLATION DATA
 <p>WELL SCHEMATIC</p> <p>TOC ABOVE GROUND IF RISER BOX OR STICKUP: <u>0.1 FT.</u></p> <p>BOREHOLE DIAMETER: <u>3 1/4 IN</u></p> <p>CASING DIAMETER: <u>1 IN SCH. 40</u></p> <p>ANNULAR BACKFILL: _____ FT.</p> <p>CEMENT <input type="checkbox"/> BENTONITE <input type="checkbox"/> GROUT <input type="checkbox"/> SILICA SAND <input type="checkbox"/> NATIVE SOIL <input type="checkbox"/> OTHER <input type="checkbox"/></p> <p>TOTAL WELL DEPTH FROM TOC: <u>19.06</u> FT.</p> <p>SEAL: <u>1/2 FT.</u></p> <p>FILTER PACK: <u>12 FT. TYPE 20/40 SS</u></p> <p>OVER DRILL: _____ FT. (CROSS OUT IF NOT DRILLED)</p> <p>WELL SCREEN LENGTH: <u>19.06 FT. 10 FT.</u></p> <p>WELL SUMP: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <u>1 IN.</u></p>	<p>DECON: <input type="checkbox"/> STEAM CLEAN <input type="checkbox"/> HIGH PRESSURE WASH <input checked="" type="checkbox"/> SOAP WASH <input type="checkbox"/> OTHER</p> <p>CASING TYPE: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> STAINLESS <input type="checkbox"/> TEFLON <input type="checkbox"/> OTHER</p> <p>JOINTS: <input checked="" type="checkbox"/> THREADED <input type="checkbox"/> WELDED <input type="checkbox"/> COUPLED <input type="checkbox"/> SCREWED <input type="checkbox"/> OTHER</p> <p>PIT CASING: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> DESCRIBE</p> <p>WELL SCREEN: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> STAINLESS <input type="checkbox"/> TEFLON <input type="checkbox"/> OTHER</p> <p>DIAMETER: <input type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input checked="" type="checkbox"/> OTHER 1 IN</p> <p>SLOT: <input checked="" type="checkbox"/> 0.010 <input type="checkbox"/> 0.020 <input type="checkbox"/> OTHER IN</p> <p>DRILLING METHOD: <input type="checkbox"/> SOLID STEM <input type="checkbox"/> HOLLOW STEM <input type="checkbox"/> MUD ROTARY <input type="checkbox"/> AIR ROTARY <input checked="" type="checkbox"/> DIRECT PUSH <input type="checkbox"/> HAND AUGER <input type="checkbox"/> OTHER</p> <p>BIT SIZE: <input type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> 8" <input type="checkbox"/> 12" <input checked="" type="checkbox"/> OTHER 3/4 IN</p> <p>DRILLING MUD: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> WATER <input type="checkbox"/> BENTONITE <input type="checkbox"/> OTHER</p> <p>CENTRALIZER: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p> <p>COMPLETION: <input type="checkbox"/> FLUSH MOUNT <input checked="" type="checkbox"/> STICKUP <input type="checkbox"/> RISER BOX</p> <p>LOCK TYPE: <input type="checkbox"/> DOLPHIN <input type="checkbox"/> MASTER KEY NO. <input checked="" type="checkbox"/> OTHER</p> <p>PAD: <input type="checkbox"/> 2'X2' <input type="checkbox"/> 4'X4' <input checked="" type="checkbox"/> OTHER none</p> <p>CUTTINGS: <input checked="" type="checkbox"/> DRUMMED <input type="checkbox"/> SPREAD NUMBER OF DRUMS _____</p> <p>DEVELOPMENT METHOD: <input type="checkbox"/> NONE <input type="checkbox"/> BAILING <input checked="" type="checkbox"/> PUMPING <input type="checkbox"/> AIR LIFT</p> <p>TIME: <input type="checkbox"/> 10 MIN <input type="checkbox"/> 20 MIN <input checked="" type="checkbox"/> OTHER 5 MIN</p> <p>AMOUNT: <input type="checkbox"/> 5 GAL <input type="checkbox"/> 10 GAL <input checked="" type="checkbox"/> OTHER 3 GAL</p> <p>WATER BEFORE: <input type="checkbox"/> SILTY <input checked="" type="checkbox"/> TURBID <input type="checkbox"/> OPAQUE <input type="checkbox"/> CLEAR</p> <p>WATER AFTER: <input type="checkbox"/> SILTY <input type="checkbox"/> TURBID <input type="checkbox"/> OPAQUE <input checked="" type="checkbox"/> CLEAR</p> <p>EVIDENT ODOR: <input type="checkbox"/> YES <input type="checkbox"/> NO TYPE _____</p> <p>DEVELOPMENT WATER: <input checked="" type="checkbox"/> DRUMMED <input type="checkbox"/> SPREAD NUMBER OF DRUMS _____</p> <p>WATER LEVEL: INITIAL <u>16.25</u> FT. <input checked="" type="checkbox"/> TOC <input type="checkbox"/> BLS</p>
	<p>DATE: _____ FT BELOW TOC</p> <p>DATE: _____ FT BELOW TOC</p> <p>NOTES: (DESCRIBE ALL NON-STANDARD METHODS & MATERIALS)</p> <p><input checked="" type="checkbox"/> Well removed from site upon completion of sampling (temp wells only).</p>

PREPARED BY: [Signature]

MONITORING WELL CONSTRUCTION DATA

WELL/BORING NO: SB-06/TMW-06

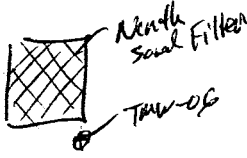
PERMIT NO: SB 1900439

DATE: 11/26/19

PROJECT NAME: WMATA Northern Bus Station

PROJECT NO: 04481517

WELL SITE LOCATION PLAN:



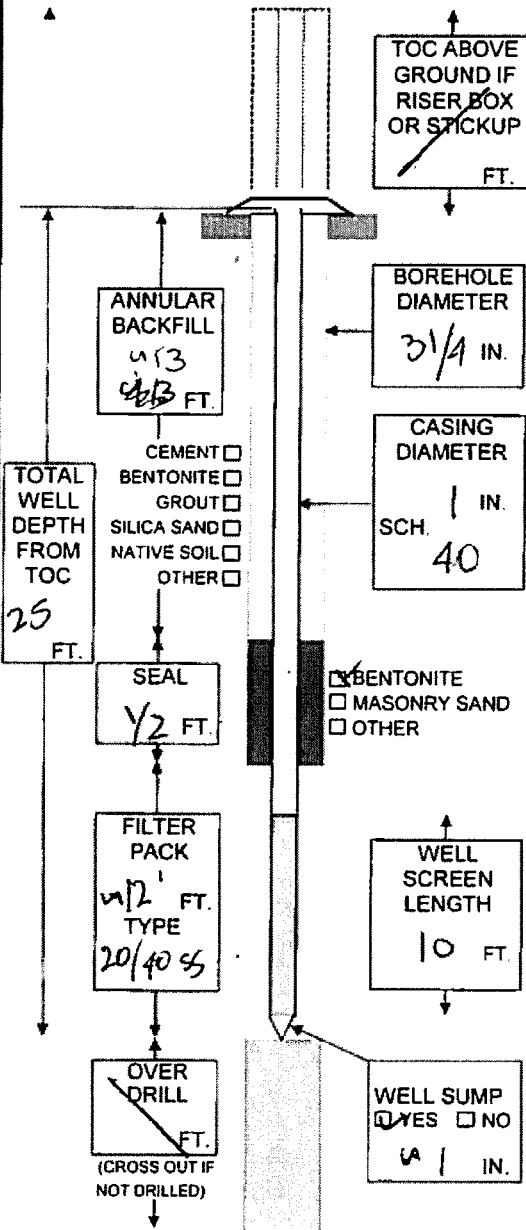
SEC: _____ TWN: _____ RGE: _____ LAT: _____ LONG: _____

DRILLING CO: E2CR

DRILL CREW: AP, Jeremy, Bruce

WELL TYPE: SHALLOW SINGLE CASED MONITORING
 PERMANENT INTERMEDIATE DOUBLE CASED RECOVERY
 TEMPORARY DEEP OTHER OTHER

WELL SCHEMATIC



INSTALLATION DATA

DECON: STEAM CLEAN HIGH PRESSURE WASH
 SOAP WASH OTHER

CASING TYPE: PVC STAINLESS TEFLON OTHER
 JOINTS: THREADED WELDED COUPLED
 SCREWED OTHER

PIT CASING: YES NO DESCRIBE

WELL SCREEN: PVC STAINLESS TEFLON OTHER
 DIAMETER: 2" 4" 6" OTHER 1 IN
 SLOT: 0.010 0.020 OTHER 0.034 IN

DRILLING METHOD: SOLID STEM HOLLOW STEM MUD ROTARY
 AIR ROTARY DIRECT PUSH HAND AUGER
 OTHER

BIT SIZE: 2" 4" 6" 8" 12" OTHER 3/4 IN

DRILLING MUD: NONE WATER BENTONITE
 OTHER

CENTRALIZER: YES NO

COMPLETION: FLUSH MOUNT STICKUP RISER BOX
 LOCK TYPE: DOLPHIN MASTER KEY NO.
 OTHER

PAD: 2'X2' 4'X4' OTHER none

CUTTINGS: DRUMMED SPREAD NUMBER OF DRUMS OTHER

DEVELOPMENT METHOD: NONE BAILING PUMPING AIR LIFT
 SURGE & BLOCK OTHER
 TIME: 10 MIN 20 MIN OTHER 5 MIN
 AMOUNT: 5 GAL 10 GAL OTHER 3 GAL

WATER BEFORE: SILTY TURBID OPAQUE CLEAR
 WATER AFTER: SILTY TURBID OPAQUE CLEAR
 EVIDENT ODOR: YES NO TYPE

DEVELOPMENT WATER: DRUMMED SPREAD NUMBER OF DRUMS TREATED POTW OTHER

WATER LEVEL: INITIAL 20.2 FT. BTOC BLS

DATE: _____ FT BELOW TOC
 DATE: _____ FT BELOW TOC

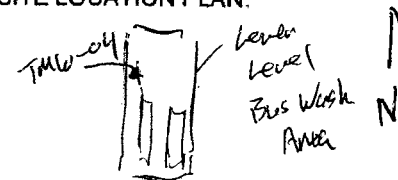
NOTES: (DESCRIBE ALL NON-STANDARD METHODS & MATERIALS)
 Well removed from site upon completion of sampling (temp wells only).

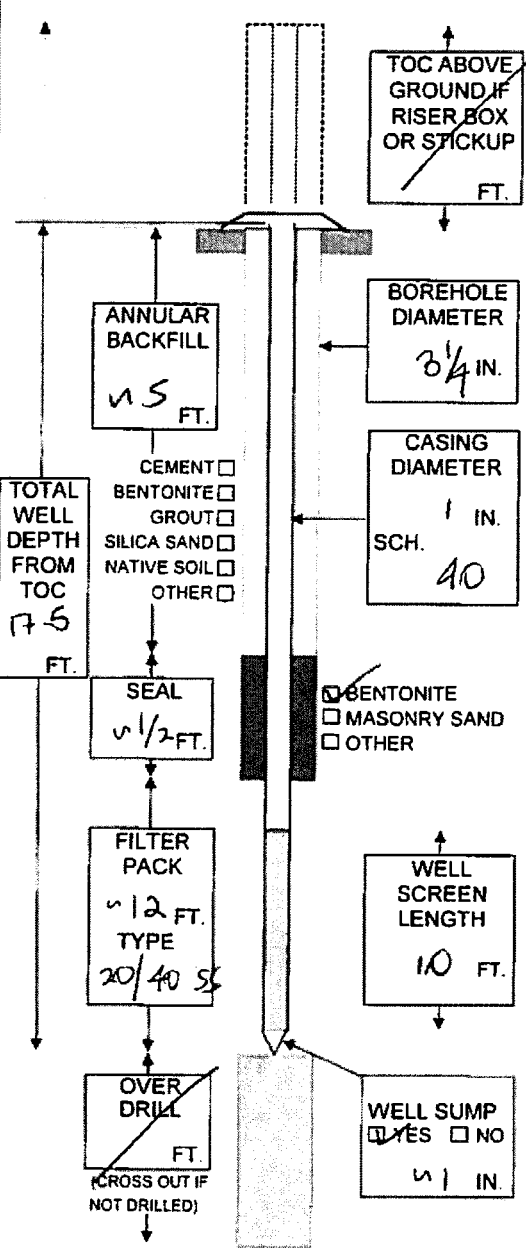
PREPARED BY: Rings R

MONITORING WELL CONSTRUCTION DATA

WELL/BORING NO: TMW-04 / SA-20
 PERMIT NO: _____

DATE: 12/2/19 PROJECT NAME: WMATA Northern Bus Station PROJECT NO: 94481547 / 044400

WELL SITE LOCATION PLAN:  SEC: _____ TWN: _____ RGE: _____ LAT: _____ LONG: _____
 DRILLING CO: E2CR
 DRILL CREW: Jeremy, AP, Bruce
 WELL TYPE: SHALLOW SINGLE CASED MONITORING
 PERMANENT INTERMEDIATE DOUBLE CASED RECOVERY
 TEMPORARY DEEP OTHER OTHER

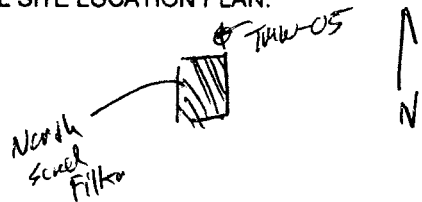
WELL SCHEMATIC		INSTALLATION DATA	
 <p>TOC ABOVE GROUND IF RISER BOX OR STICKUP _____ FT.</p> <p>ANNULAR BACKFILL <u>15</u> FT.</p> <p>CEMENT <input type="checkbox"/> BENTONITE <input type="checkbox"/> GROUT <input type="checkbox"/> SILICA SAND <input type="checkbox"/> NATIVE SOIL <input type="checkbox"/> OTHER <input type="checkbox"/></p> <p>TOTAL WELL DEPTH FROM TOC <u>175</u> FT.</p> <p>SEAL <u>1/2</u> FT.</p> <p>FILTER PACK <u>12</u> FT. TYPE <u>20/40 SS</u></p> <p>OVER DRILL _____ FT. (CROSS OUT IF NOT DRILLED)</p> <p>BOREHOLE DIAMETER <u>3 1/4</u> IN.</p> <p>CASING DIAMETER <u>1</u> IN. SCH. <u>40</u></p> <p>WELL SCREEN LENGTH <u>10</u> FT.</p> <p>WELL SUMP <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <u>1</u> IN.</p> <p><input checked="" type="checkbox"/> BENTONITE <input type="checkbox"/> MASONRY SAND <input type="checkbox"/> OTHER</p>		<p>DECON. <input type="checkbox"/> STEAM CLEAN <input type="checkbox"/> HIGH PRESSURE WASH <input checked="" type="checkbox"/> SOAP WASH <input type="checkbox"/> OTHER</p> <p>CASING TYPE: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> STAINLESS <input type="checkbox"/> TEFLON <input type="checkbox"/> OTHER</p> <p>JOINTS: <input checked="" type="checkbox"/> THREADED <input type="checkbox"/> WELDED <input type="checkbox"/> COUPLED <input type="checkbox"/> SCREWED <input type="checkbox"/> OTHER</p> <p>PIT CASING: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> DESCRIBE</p> <p>WELL SCREEN: <input checked="" type="checkbox"/> PVC <input type="checkbox"/> STAINLESS <input type="checkbox"/> TEFLON <input type="checkbox"/> OTHER</p> <p>DIAMETER: <input type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> OTHER <u>1</u> IN</p> <p>SLOT: <input type="checkbox"/> 0.010 <input type="checkbox"/> 0.020 <input type="checkbox"/> OTHER</p> <p>DRILLING METHOD: <input type="checkbox"/> SOLID STEM <input type="checkbox"/> HOLLOW STEM <input type="checkbox"/> MUD ROTARY <input type="checkbox"/> AIR ROTARY <input checked="" type="checkbox"/> DIRECT PUSH <input type="checkbox"/> HAND AUGER <input type="checkbox"/> OTHER</p> <p>BIT SIZE: <input type="checkbox"/> 2" <input type="checkbox"/> 4" <input type="checkbox"/> 6" <input type="checkbox"/> 8" <input type="checkbox"/> 12" <input checked="" type="checkbox"/> OTHER <u>3 1/4</u> IN</p> <p>DRILLING MUD: <input checked="" type="checkbox"/> NONE <input type="checkbox"/> WATER <input type="checkbox"/> BENTONITE <input checked="" type="checkbox"/> OTHER</p> <p>CENTRALIZER: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO</p> <p>COMPLETION: <input type="checkbox"/> FLUSH MOUNT <input checked="" type="checkbox"/> STICKUP <input type="checkbox"/> RISER BOX</p> <p>LOCK TYPE: <input type="checkbox"/> DOLPHIN <input type="checkbox"/> MASTER KEY NO. <input type="checkbox"/> OTHER</p> <p>PAD: <input checked="" type="checkbox"/> 2'x2' <input type="checkbox"/> 4'x4' <input type="checkbox"/> OTHER <u>none</u></p> <p>CUTTINGS: <input checked="" type="checkbox"/> DRUMMED <input type="checkbox"/> SPREAD NUMBER OF DRUMS _____</p> <p>DEVELOPMENT METHOD: <input type="checkbox"/> NONE <input type="checkbox"/> BAILING <input checked="" type="checkbox"/> PUMPING <input type="checkbox"/> AIR LIFT <input type="checkbox"/> SURGE & BLOCK <input type="checkbox"/> OTHER</p> <p>TIME: <input type="checkbox"/> 10 MIN <input type="checkbox"/> 20 MIN <input checked="" type="checkbox"/> OTHER <u>5</u> MIN</p> <p>AMOUNT: <input type="checkbox"/> 5 GAL <input type="checkbox"/> 10 GAL <input checked="" type="checkbox"/> OTHER <u>5</u> GAL</p> <p>WATER BEFORE: <input type="checkbox"/> SILTY <input checked="" type="checkbox"/> TURBID <input type="checkbox"/> OPAQUE <input type="checkbox"/> CLEAR</p> <p>WATER AFTER: <input type="checkbox"/> SILTY <input type="checkbox"/> TURBID <input type="checkbox"/> OPAQUE <input checked="" type="checkbox"/> CLEAR</p> <p>EVIDENT ODOR: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO TYPE _____</p> <p>DEVELOPMENT WATER: <input checked="" type="checkbox"/> DRUMMED <input type="checkbox"/> SPREAD NUMBER OF DRUMS _____</p> <p>WATER: <input type="checkbox"/> TREATED <input type="checkbox"/> POTW <input type="checkbox"/> OTHER</p> <p>WATER LEVEL: INITIAL <u>7.67</u> FT <input type="checkbox"/> BTOC <input type="checkbox"/> BLS</p> <p>DATE: _____ FT BELOW TOC</p> <p>DATE: _____ FT BELOW TOC</p> <p>NOTES: (DESCRIBE ALL NON-STANDARD METHODS & MATERIALS)</p> <p><input checked="" type="checkbox"/> Well removed from site upon completion of sampling (temp wells only).</p>	

PREPARED BY: Rings R

MONITORING WELL CONSTRUCTION DATA

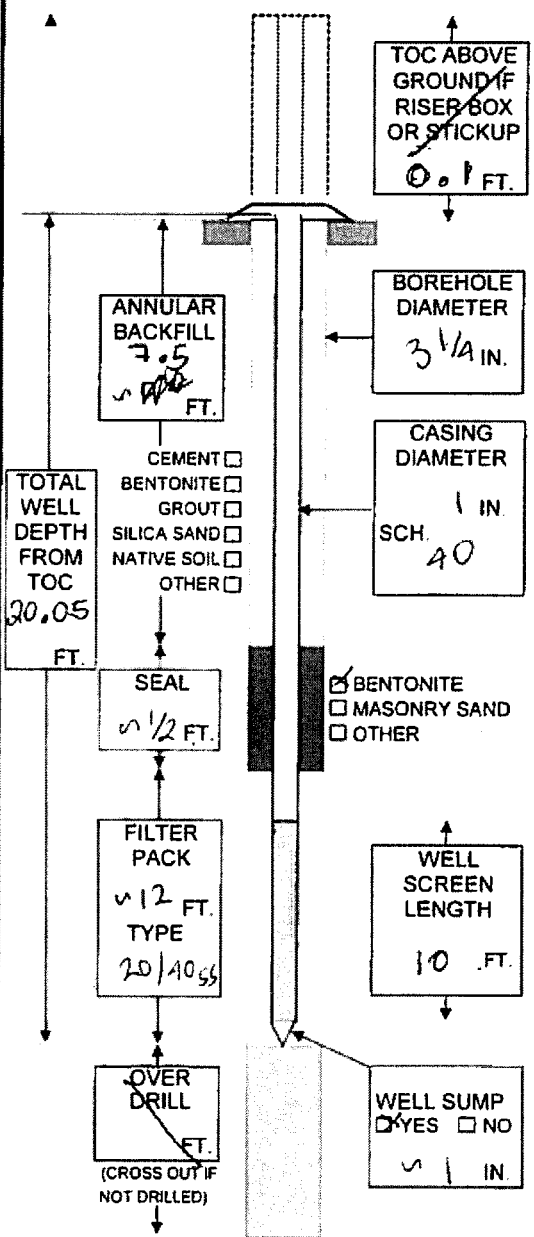
WELL/BORING NO: SB-05 / TMW-01
 PERMIT NO:

DATE: 12/2/19 PROJECT NAME: WMATA Northern Bus Station PROJECT NO: 04481517

WELL SITE LOCATION PLAN:  TMW-05
 SEC: TWN: RGE: LAT: LONG:
 DRILLING CO: E2CR
 DRILL CREW: Jeremy, Bruce, AP
 WELL TYPE: SHALLOW SINGLE CASED MONITORING
 PERMANENT INTERMEDIATE DOUBLE CASED RECOVERY
 TEMPORARY DEEP OTHER OTHER

WELL SCHEMATIC

INSTALLATION DATA



DECON. STEAM CLEAN HIGH PRESSURE WASH
 SOAP WASH OTHER

CASING TYPE: PVC STAINLESS TEFLON OTHER
 JOINTS: THREADED WELDED COUPLED
 SCREWED OTHER
 PIT CASING: YES NO DESCRIBE

WELL SCREEN: PVC STAINLESS TEFLON OTHER
 DIAMETER: 2" 4" 6" OTHER 1.875 IN
 SLOT: 0.010 0.020 OTHER

DRILLING METHOD: SOLID STEM HOLLOW STEM MUD ROTARY
 AIR ROTARY DIRECT PUSH HAND AUGER
 OTHER
 BIT SIZE: 2" 4" 6" 8" 12" OTHER 3 1/4 IN
 DRILLING MUD: NONE WATER BENTONITE
 OTHER
 CENTRALIZER: YES NO

COMPLETION: FLUSH MOUNT STICKUP RISER BOX
 LOCK TYPE: DOLPHIN MASTER KEY NO.
 OTHER
 PAD: 2'X2' 4'X4' OTHER none

CUTTINGS: DRUMMED SPREAD NUMBER OF DRUMS
 OTHER

DEVELOPMENT METHOD: NONE BAILING PUMPING AIR LIFT
 SURGE & BLOCK OTHER
 TIME: 10 MIN 20 MIN OTHER 5 MIN
 AMOUNT: 5 GAL 10 GAL OTHER 3 GAL
 WATER BEFORE: SILTY TURBID OPAQUE CLEAR
 WATER AFTER: SILTY TURBID OPAQUE CLEAR
 EVIDENT ODOR: YES NO TYPE

DEVELOPMENT WATER: DRUMMED SPREAD NUMBER OF DRUMS
 TREATED POTW OTHER

WATER LEVEL: INITIAL 13.01 FT BTOC BLS

DATE: FT BELOW TOC
 DATE: FT BELOW TOC

NOTES: (DESCRIBE ALL NON-STANDARD METHODS & MATERIALS)
 Well removed from site upon completion of sampling (temp wells only).

12/2
09:33
20'

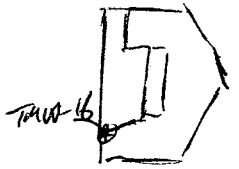
PREPARED BY: Ringo R.

MONITORING WELL CONSTRUCTION DATA

WELL/BORING NO: *TMW-16/SB-16*

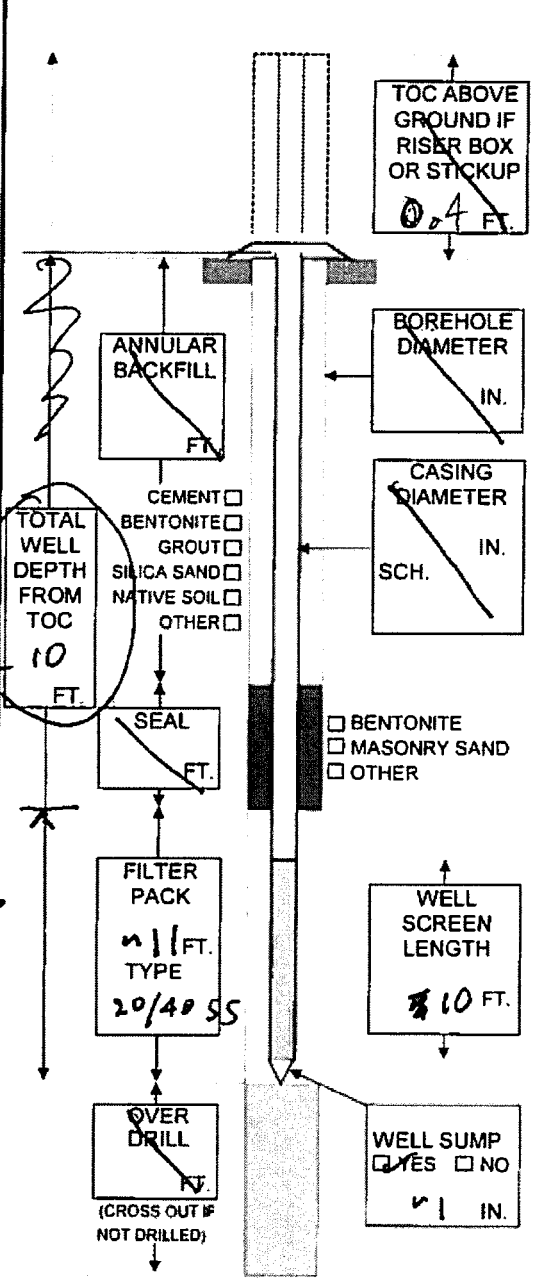
PERMIT NO:

DATE: *12/3/19* PROJECT NAME: *WMATA Northern Bus Station* PROJECT NO: *04481517*

WELL SITE LOCATION PLAN:  SEC: TWN: RGE: LAT: LONG:
 DRILLING CO: *E2CR*
 DRILL CREW: *Jeremy, AP, Bruce*
 WELL TYPE: SHALLOW SINGLE CASED MONITORING
 PERMANENT INTERMEDIATE DOUBLE CASED RECOVERY
 TEMPORARY DEEP OTHER OTHER

WELL SCHEMATIC

INSTALLATION DATA



DECON. STEAM CLEAN HIGH PRESSURE WASH
 SOAP WASH OTHER

CASING TYPE: PVC STAINLESS TEFLON OTHER
 JOINTS: THREADED WELDED COUPLED
 SCREWED OTHER
 PIT CASING: YES NO DESCRIBE

WELL SCREEN: PVC STAINLESS TEFLON OTHER
 DIAMETER: 2" 4" 6" OTHER 1 IN
 SLOT: 0.010 0.020 OTHER IN

DRILLING METHOD: SOLID STEM HOLLOW STEM MUD ROTARY
 AIR ROTARY DIRECT PUSH HAND AUGER
 OTHER
 BIT SIZE: 2" 4" 6" 8" 12" OTHER IN
 DRILLING MUD: NONE WATER BENTONITE
 OTHER
 CENTRALIZER: YES NO

COMPLETION: FLUSH MOUNT STICKUP RISER BOX
 LOCK TYPE: DOLPHIN MASTER KEY NO.
 OTHER
 PAD: 2'X2' 4'X4' OTHER *none*

CUTTINGS: DRUMMED NUMBER OF DRUMS
 SPREAD OTHER

DEVELOPMENT METHOD: NONE BAILING PUMPING AIR LIFT
 SURGE & BLOCK OTHER
 TIME: 10 MIN 20 MIN OTHER 5 MIN
 AMOUNT: 5 GAL 10 GAL OTHER 5 GAL
 WATER BEFORE: SILTY TURBID OPAQUE CLEAR
 WATER AFTER: SILTY TURBID OPAQUE CLEAR
 EVIDENT ODOR: YES NO TYPE

DEVELOPMENT WATER: DRUMMED NUMBER OF DRUMS
 SPREAD TREATED POTW OTHER

WATER LEVEL: INITIAL *4.5* FT BTOC BLS

DATE: FT BELOW TOC
 DATE: FT BELOW TOC

NOTES: (DESCRIBE ALL NON-STANDARD METHODS & MATERIALS)
 Well removed from site upon completion of sampling (temp wells only).

PREPARED BY: *A. Neerka*

MONITORING WELL CONSTRUCTION DATA

WELL/BORING NO: *SB-51/TMW-08*

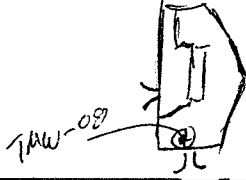
PERMIT NO:

DATE: *12/8/2019*

PROJECT NAME: WMATA Northern Bus Station

PROJECT NO: 04481517

WELL SITE LOCATION PLAN:



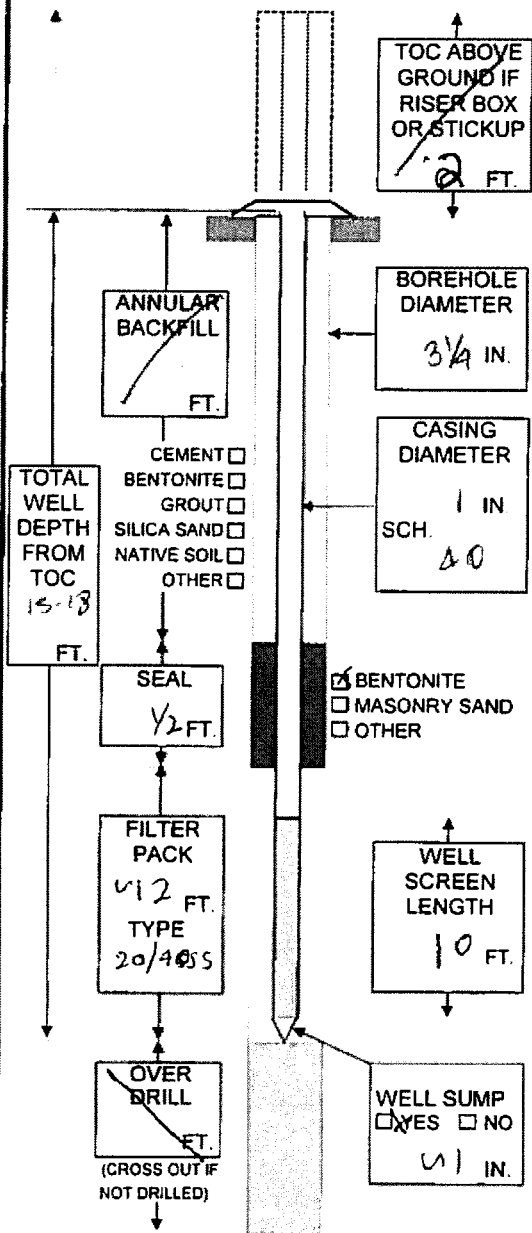
SEC: TWN: RGE: LAT: LONG:

DRILLING CO: *E2CR*

DRILL CREW: *Phony, Bruce & AP*

WELL TYPE: SHALLOW SINGLE CASED MONITORING
 PERMANENT INTERMEDIATE DOUBLE CASED RECOVERY
 TEMPORARY DEEP OTHER OTHER

WELL SCHEMATIC



INSTALLATION DATA

DECON: STEAM CLEAN HIGH PRESSURE WASH
 SOAP WASH OTHER

CASING TYPE: PVC STAINLESS TEFLON OTHER
 JOINTS: THREADED WELDED COUPLED
 SCREWED OTHER

PIT CASING: YES NO DESCRIBE

WELL SCREEN: PVC STAINLESS TEFLON OTHER
 DIAMETER: 2" 4" 6" OTHER IN
 SLOT: 0.010 0.020 OTHER IN

DRILLING METHOD: SOLID STEM HOLLOW STEM MUD ROTARY
 AIR ROTARY DIRECT PUSH HAND AUGER
 OTHER

BIT SIZE: 2" 4" 6" 8" 12" OTHER 3 1/4 IN

DRILLING MUD: NONE WATER BENTONITE
 OTHER

CENTRALIZER: YES NO

COMPLETION: FLUSH MOUNT STICKUP RISER BOX
 LOCK TYPE: DOLPHIN MASTER KEY NO.
 OTHER *none*

PAD: 2'X2' 4'X4' OTHER *none*

CUTTINGS: DRUMMED NUMBER OF DRUMS
 SPREAD OTHER

DEVELOPMENT METHOD: NONE BAILING PUMPING AIR LIFT
 SURGE & BLOCK OTHER
 TIME: 10 MIN 20 MIN OTHER 5 MIN
 AMOUNT: 5 GAL 10 GAL OTHER 5 GAL
 WATER BEFORE: SILTY TURBID OPAQUE CLEAR
 WATER AFTER: SILTY TURBID OPAQUE CLEAR
 EVIDENT ODOR: YES NO TYPE

DEVELOPMENT WATER: DRUMMED NUMBER OF DRUMS
 SPREAD TREATED POTW OTHER

WATER LEVEL: INITIAL *11.03* FT BTOC BLS

DATE: FT BELOW TOC

DATE: FT BELOW TOC

NOTES: (DESCRIBE ALL NON-STANDARD METHODS & MATERIALS)

Well removed from site upon completion of sampling (temp wells only).

PREPARED BY: *Rump: R*

CALIBRATION LOG

Project Name and No.: WMATA Northern Bus Station / 04481517

Date: 12/6/19

Meter #: 11 J101190

Temperature (Quarterly) For Date of Last Temperature Verification see _____

Dissolved Oxygen	DEP SOP FT 1500	Initials	Date	Time	Probe Charge	Probe Gain	mg/L	Temp °C	% DO	Saturation mg/L (from chart)	Pass or Fail
CAL	CCV	RL	12/6/19	09:24	-	0.97	11.68	8°C	96.36	11.84	P
CAL	CCV	RA	12/6/19	09:10	-	0.97	10.35	17.45	100.4	12.58	P
CAL	CCV	RR	12/9/19	07:00	-	0.97	10.86	13.0	108.2	10.64	P
CAL	CCV	RR	12/9/19	10:21	-	0.97	11.03	18.03	165.5	11.03	P
CAL	CCV	- machine/probe not in calibra will replace YSI									
CAL	CCV										P

Specific Conductance	DEP SOP FT 1200	Initials	Date	Time	Standard SU	Exp. Date	Lot #	Botlle #	Cell Constant	Reading umhos/cm	Pass or Fail
CAL	CCV	AR	12/6/19	10:55	1413	05/2020	96E1013	-	0.75	1405	P
CAL	CCV	AR	12/6/19	14:20	1304	05/2020	96E1013	-	0.75	1388	P
CAL	CCV	RR	12/9/19	07:31	1413	05/2020	96E1013	-	0.75	1410	P
CAL	CCV	RR	12/9/19	13:54	1413	05/2020	96E1013	-	0.75	1420	P
CAL	CCV										P
CAL	CCV										P
CAL	CCV										P
CAL	CCV										P

pH	DEP SOP FT 1100	Initials	Date	Time	Standard SU	Exp. Date	Lot #	Botlle #	Slope	Reading SU	Pass or Fail
CAL	CCV	RR	12/6/19	10:00	7.00	05/2021	96E1325	-3.7	-	6.63	P
CAL	CCV	RR	12/6/19	10:00	4.00	05/2021	96E1020	13.902	13.55	4.14	P
CAL	CCV	RR	12/6/19	10:00	10.00	05/2021	96E1020	-17.20	13.59	10.02	P
CAL	CCV	RR	12/6/19	14:12	7.00	05/2021	96E1325	-7.6	-	9.91	P
CAL	CCV	RR	12/6/19	14:16	4.00	05/2021	96E1020	142.4	158.5	4.10	P
CAL	CCV	RR	12/6/19	14:16	10.00	05/2021	96E1020	-168.3	15.3	9.72	P
CAL	CCV	RR	12/9/19	07:10	7.00	05/2021	96E1025	-3.9	15.3	6.97	P
CAL	CCV	RR	12/9/19	13:54	4.00	05/2021	96E1020	152.1	148.2	4.17	P
CAL	CCV	RR	12/9/19	13:54	10.00	05/2021	96E1020	-142.3	146.2	9.90	P

Maintenance: Weekly pH Slope: _____

Notes: Dissolved Oxygen Membrane Changed: Yes (N) 3.06 P
 -10.2
 149.1 P
 -139.4 P

Perform only in Calibrate Mode.
 Perform only in Run Mode.
 Perform only in Run Mode.

1.7 1.07

CALIBRATION LOG

Project Name and No.: WMATA Northern Bus Station / 04481517

Date: 12/11/19

Meter #: 08K19210

Temperature (Quarterly) For Date of Last Temperature Verification see

Dissolved Oxygen	DEP SOP FT 1500	Initials	Date	Time	Probe Charge	Probe Gain	mg/L	Temp °C	% DO	Saturation mg/L (from chart)	Pass or Fail
CAL	CCV	RR	12/11/19	0720	0.967	0.967	11.29	11.76	104.1	11.03 - 10.78	P
CAL	CCV	RR	12/11/19	1409	0.967	0.967	12.07	6.0	105	12.43	P
CAL	CCV	RR	12/11/19	0715	0.967	0.967	12.48	6.1	105	12.45	P
CAL	CCV	RR	12/12/19	1215	0.967	0.967	11.05	11.11	101.2	11.03	P
CAL	CCV										P

Specific Conductance	DEP SOP FT 1200	Initials	Date	Time	Standard umhos/cm or (USGS) (µmho)	Exp. Date	Lot #	Bother#	Cell Constant	Reading umhos/cm	Pass or Fail
CAL	CCV	RR	12/11/19	0741	1412	05/1020	96E1013	-	0.91	1414	P
CAL	CCV	RR	12/11/19	15:00	1413	05/2020	96E1013	-	0.91	1400	P
CAL	CCV	RR	12/12/19	0748	1413	05/20	96E1013	-	0.91	1414	P
CAL	CCV	RR	12/12/19	1425	1413	11	11	-	0.91	1416	P
CAL	CCV										P
CAL	CCV										P
CAL	CCV										P
CAL	CCV										P

pH	DEP SOP FT 1100	Initials	Date	Time	Standard SU	Exp. Date	Lot #	Bother#	Slope	Reading SU	Pass or Fail
CAL	CCV	RR	12/11/19	0727	7	05/2021	96E1325	-346		6.99	P
CAL	CCV	RR			4	01/2021	9724	150.1		4.10	P
CAL	CCV	RR			10	02/2021	96E956	-143.4		10.03	P
CAL	CCV	RR			7	05/2021	96E1325	-20		7.1	P
CAL	CCV	RR			4	01/2021	9724	151		4.23	P
CAL	CCV	RR	12/11/19	0730	10	02/2021	96E956	-128.4		9.8	P
CAL	CCV	RR			7	01/2021	9724	-342		6.74	P
CAL	CCV	RR			4	01/21	9724	141.3		4.13	P
CAL	CCV	RR			10	02/21	9724	-123.1		9.76	P

Maintenance: Weekly pH Slope: Dissolved Oxygen Membrane Changed: Yes

Specific Conductance Probe Cleaned? Yes

Notes: Dissolved Oxygen Membrane Changed: Yes

Perform only in Calibrate Mode
Perform only in Run Mode
Perform only in Run Mode

CAL - Calibrate -
ICV - Initial Calibration Verification
CCV - Continuing Calibration Verification

CALIBRATION LOG

Project Name and No.: WMATA Northern Bus Station / 04481517

Date: 12/12/19

Meter #: 08K101210

Temperature (Quarterly) For Date of Last Temperature Verification see

Disolved Oxygen	DEP SOP FT 1500	Initials	Date	Time	Probe Charge	Probe Gain	mg/L	Temp °C	% DO	Saturation mg/L (from chart)	Pass or Fail
CAL	ICV	RR	12/13/19	09:35	—	0.967	10.88	8.70	93.8	10.71	P
CAL	ICV	RR	✓	11:51	—	0.867	10.42	10.2	101.3	10.66	P
CAL	ICV										P
CAL	ICV										P
CAL	ICV										P
CAL	ICV										P

Specific Conductance	DEP SOP FT 1200	Initials	Date	Time	Standard umhos/cm or μS/cm (at 25°C)	Exp. Date	Lot #	Bottle #	Cell Constant	Reading umhos/cm	Pass or Fail
CAL	ICV	RR	12/16/19	09:21	1413	exp	→		0.75	1411	P
CAL	ICV	RR	✓	12:00	1413				0.75	1438	P
CAL	ICV										P
CAL	ICV										P
CAL	ICV										P
CAL	ICV										P
CAL	ICV										P

pH	DEP SOP FT 1100	Initials	Date	Time	Standard SU	Exp. Date	Lot #	Bottle #	Slope	Reading SU	Pass or Fail
CAL	ICV	RR	12/12/19	14:00	7.0	exp	exp	-21.06		7.07	P
CAL	ICV	RR	✓	↓	1.0			118.25		4.05	P
CAL	ICV	RR	✓	↓	10.0			-16.001		9.86	P
CAL	ICV	RR	12/12/19	08:45	7	exp	↓	-21.2		6.87	P
CAL	ICV	RR	✓	↓	4			+107.9		3.95	P
CAL	ICV	RR	✓	↓	10			-170.7		10.11	P
CAL	ICV	RR	✓	↓	7			-23		6.93	P
CAL	ICV	RR	✓	↓	4			120.4		3.89	P
CAL	ICV	RR	✓	↓	10			-157.3		10.05	P

Maintenance: Weekly pH Slope: _____
 Specific Conductance Probe Cleaned? Yes No
 Dissolved Oxygen Membrane Changed: Yes No

Perform only in Calibrate Mode
 Perform only in Run Mode:
 Perform only in Run Mode:

CAL - Calibrate -
 ICV - Initial Calibration Verification
 CCV - Continuing Calibration Verification

General Field Testing and Measurement

Field Instrument Calibration Records

PSI PROJECT NAME: WMATA North Bus Station

PSI PROJECT NO: 04481517

INSTRUMENT (MAKE/MODEL#) 2020 WE/LaMotte INSTRUMENT # 5165-5014

PARAMETER(S) (check only one):

- TEMPERATURE CONDUCTIVITY SALINITY pH ORP
 TURBIDITY RESIDUAL Cl DO OTHER _____

STANDARDS: [Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]

Standard A 0 NTU test # N/A Exp # N/A

Standard B 1 NTU " " "

Standard C 10 NTU " " "

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
19/12/06	09:59	A	0	0	0	yes	Cont	RR
19/12/06	09:59	B	1	1.05	5%	↓	↓	RR
19/12/06	09:59	C	10	9.94	6%	↓	↓	RR
19/12/06	1400	A	0	0.00	0	yes	Cont	RR
↓	1401	B	1	0.88	12%	↓	↓	RR
↓	1402	C	10	9.88	1.2	↓	↓	RR
19/12/09	0652	A	0	0.00	0	↓	↓	RR
19/12/09	0652	B	1	0.91	9%	↓	↓	RR
19/12/09	0652	C	10	10.00	0	↓	↓	RR
↓	1306	A	0	0.02	2%	↓	↓	RR
↓	↓	B	1	1.01	1%	↓	↓	RR
↓	↓	C	10	10.26	2.6%	↓	↓	RR
19/12/11	0700	A	0	0	0	↓	↓	RR
↓	↓	B	1	0.88	22%	↓	↓	RR
↓	↓	C	10	10.52	5.2%	↓	↓	RR
↓	1400	A	0	0	0	↓	↓	RR
↓	↓	B	1	0.99	1%	↓	↓	RR
↓	↓	C	10	9.82	1.8%	↓	↓	RR
12/12/19	0705	A	0	0.03	0.3%	yes	Cont	TJP
↓	↓	B	1	0.98	2%	↓	↓	TJP
↓	↓	C	10	9.91	9%	↓	↓	TJP
12/2/19	13:46	A	0	0.01	1%	↓	↓	RR
↓	↓	B	1	1.00	0%	↓	↓	RR
↓	↓	C	10	10.31	3.1%	↓	↓	RR

GROUNDWATER SAMPLING LOG

SITE NAME: WMATA Northern Bus Station	SITE LOCATION: 4615 14th Street NW Washington D.C. 20011	PROJECT NO.: 64481547
WELL NO: <u>TMW #11</u>	SAMPLE ID: <u>TMW-11</u>	DATE: <u>12/6/19</u>

PURGING DATA

WELL DIAMETER (inches): 1	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH: 10.3 feet to 20.3	STATIC DEPTH TO WATER (feet): 9.03	PURGE PUMP TYPE OR BAILER: PP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (20.3 feet - 9.03 feet) X 0.04 gallons/foot = 10.47 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) NOTE: YSI 556MPS flow cel. volume = 500 mL = 0.13 gallons (1 gallon = 3,785 mL)											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 11	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 11	PURGING INITIATED AT: 10:48	PURGING ENDED AT: 11:09	TOTAL VOLUME PURGED (gallons): 10.5							
TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND (micro units) $\mu\text{mhos/cm}$ or $\mu\text{S/cm}$	DISSOLVED OXYGEN mg/L / % saturation	TURBIDITY (NTUs)	ORP (mV)	COLOR/ODOR (describe)
10:55	0.5	0.5	0.07	10.0	6.52	19.02	1.08	0.37/4.0	129.3	---	3.14 turbid
10:58	0.2	0.7	0.07	10.05	6.51	19.13	1.09	0.39/4.2	126.0	---	4
11:09	0.8	1.5	0.07	10.05	6.5	19.28	1.09	0.47/4.9	124.	---	11
WELL CAPACITY (Gallons Per Foot) 1/2" = 0.010, 0.75" = 0.02, 1" = 0.04, 1.25" = 0.06, 2" = 0.16, 3" = 0.37, 4" = 0.65, 5" = 1.02, 6" = 1.47, 12" = 5.88											
TUBING INSIDE DIA. CAPACITY (Gal./Ft.) 1/8" = 0.0006, 3/16" = 0.0014, 1/4" = 0.0026, 5/16" = 0.004, 3/8" = 0.006, 1/2" = 0.010, 5/8" = 0.016											
PURGING EQUIPMENT CODES B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: <u>RINZO, R + ANDY A</u>		SAMPLER(S) SIGNATURES: <u>[Signature]</u>		SAMPLING INITIATED AT: <u>11:17</u>		SAMPLING ENDED AT: <u>11:59</u>			
PUMP OR TUBING: <u>11</u>		TUBING: <u>11</u>		FIELD-FILTERED: <u>0</u> N		FILTER SIZE: <u>1</u> μm			
DEPTH IN WELL (feet): <u>11</u>		MATERIAL CODE: <u>HOPE</u>		Filtration Equipment Type: <u>11-100</u>					
FIELD DECONTAMINATION: PUMP Y (N)		TUBING Y (N) (replaced)		OTHER (specify): <u>11</u> (Y) N		DUPLICATE: Y (N)			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION					
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED*	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
TMW-11	5	CG	40mL	HCl	LP	LP	VOC	APP	250 mL/min
	2	AG	1L	---	---	---	SVOC		
	2	AG	1L	HCl	LP	LP	TRPH		
	2	AG	1L	---	---	---	PCB		
	2	PE	1L	HNO3	LP	LP	13 PP		
	3	CG	40mL	HCl	LP	LP	GRU		
5 WELL VOLUMES: <u>2.35</u>		REMARKS: <u>filtered sample 2.27 NTU</u>							
* Samples placed on ice subsequent to collection									
MATERIAL CODES: AG = Amber Glass, CG = Clear Glass, PE = Polyethylene, PP = Polypropylene, S = Silicone, T = Teflon, O = Other (Specify)									
SAMPLING/PURGING APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; WM = Water Level Meter									
EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify); LP = Lab Preserved									

NOTES: 1 Stabilization Criteria for range of variation of last three consecutive readings per EPA EQASOP-GW4
 pH: ± 0.1 units Temperature: $\pm 3\%$ Specific Conductance: $\pm 3\%$ Dissolved Oxygen: 10% for values greater than 0.5 mg/L, if three DO values less than 0.5 mg/L, consider values as stabilized Turbidity: 10% for values greater than 5 NTUs, if three turbidity values are less than 5 NTUs, consider stabilized; ORP: $+ 10$ mV

2 Standard decontamination procedures includes DI water rinse, Luminox solution wash, DI water final rinse, & air dry

3 1 gpm = 3,785.4 mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: WMATA Northern Bus Station	SITE LOCATION: 4615 14th Street NW Washington D.C. 20011	PROJECT NO.: 04481517
WELL NO.: TMW-10	SAMPLE ID: TMW-10	DATE: 12/6/19

PURGING DATA

WELL DIAMETER (inches): 1	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH: 10 feet to 25.37	STATIC DEPTH TO WATER (feet): 16.77	PURGE PUMP TYPE: OR BAILER PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = 1 25.37 feet - 16.77 feet X 0.04 gallons/foot = 100.37 gallons				

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) NOTE: YSI 556MPS flow cell volume = 500 mL = 0.13 gallons (1 gallon = 3.785 mL) = _____ gallons + (_____ gallons/foot X _____ feet) + _____ gallons = _____ gallons				
---	--	--	--	--

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 19		FINAL PUMP OR TUBING DEPTH IN WELL (feet): 19		PURGING INITIATED AT: 13:22		PURGING ENDED AT: 13:44		TOTAL VOLUME PURGED (gallons): 1.26			
TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN mg/L / % saturation	TURBIDITY (NTUs)	ORP (mV)	COLOR/ODOR (describe)
13:29	0.5	0.5	0.07	17.65	6.96	18.02	1.16	0.42/4.4%	17.0	-	RT/CLC
13:36	0.2	0.7	0.07	18.11	6.91	18.07	1.13	0.39/4.1%	16.1	-	"
13:44	0.56	1.26	0.07	17.65	6.91	18.17	1.16	0.90/3.2%	11.4	-	LI

WELL CAPACITY (Gallons Per Foot) 1/2" = 0.010 0.75" = 0.02 1" = 0.04 1.25" = 0.06 2" = 0.16 3" = 0.37 4" = 0.65 5" = 1.02 6" = 1.47 12" = 5.88
 TUBING INSIDE DIA. CAPACITY (Gal/Ft) 1/8" = 0.0006 3/16" = 0.0014 1/4" = 0.0026 5/16" = 0.004 3/8" = 0.006 1/2" = 0.010 5/8" = 0.016
 PURGING EQUIPMENT CODES B = Bailor BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: RINZO + ANDY		SAMPLER(S) SIGNATURES: <i>[Signature]</i>		SAMPLING INITIATED AT: 13:50		SAMPLING ENDED AT: 14:25	
PUMP OR TUBING DEPTH IN WELL (feet): 19		TUBING MATERIAL CODE: HDPE		FIELD-FILTERED: <input checked="" type="checkbox"/> N FILTER SIZE: 1 µm		Filtration Equipment Type: In-line	
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/> TUBING Y <input checked="" type="checkbox"/> (replaced) OTHER (specify) WM O N		DUPLICATE: Y <input checked="" type="checkbox"/>		DUP. ID:			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED*	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
TMW-10	5	CG	40ML	HCl	LP	LP	VOL	APP	250 mL/min
↓	2	AG	1L	-	-	-	SVOG	↓	↓
↓	2	AG	1L	HCl	LP	LP	TRPM	↓	↓
↓	2	AG	1L	-	-	-	PCB	↓	↓
↓	2	PE	1L	HNO3	LP	LP	13PP	↓	↓
↓	3	CG	40ML	HCL	LP	LP	620	↓	↓

5 WELL VOLUMES: 1.72 100.5
 REMARKS: * Samples placed on ice subsequent to collection
 MATERIAL CODES: AG = Amber Glass CG = Clear Glass; PE = Polyethylene, PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)
 SAMPLING/PURGING APP = After Peristaltic Pump; B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; WM = Water Level Meter
 EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump SM = Straw Method (Tubing Gravity Drain), VT = Vacuum Trap; O = Other (Specify); LP = Lab Preserved

- NOTES: 1 Stabilization Criteria for range of variation of last three consecutive readings per EPA EQASOP-GW4
 pH: ± 0.1 units Temperature: ± 3% Specific Conductance: ± 3% Dissolved Oxygen: 10% for values greater than 0.5 mg/L, if three DO values less than 0.5 mg/L, consider values as stabilized Turbidity: 10% for values greater than 5 NTUs, if three turbidity values are less than 5 NTUs, consider stabilized. ORP: + 10 mV
 2 Standard decontamination procedures includes DI water rinse, Lum-nox solution wash, DI water final rinse, & air dry
 3 1 gpm = 3.785 4 mL/min

GROUNDWATER SAMPLING LOG

SITE NAME WMATA Northern Bus Station	SITE LOCATION 4615 14th Street NW Washington D.C. 20011	PROJECT NO 04481517
WELL NO TMW-05	SAMPLE ID TMW-05	DATE 12/9/19

PURGING DATA

WELL DIAMETER (inches) 1	TUBING DIAMETER (inches) 3/16	WELL SCREEN INTERVAL DEPTH 10.05 feet to 20.05 TO WATER (feet)	STATIC DEPTH TO WATER (feet)	PURGE PUMP TYPE OR BAILER PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (20.05 feet - 13.05 feet) X 0.04 gallons/foot = 0.28 gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) NOTE YSI 556MPS flow cell volume = 500 mL = 0.13 gallons (1 gallon = 3.785 mL)				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet) 115	FINAL PUMP OR TUBING DEPTH IN WELL (feet) 115	PURGING INITIATED AT 9:51	PURGING ENDED AT 10:06	TOTAL VOLUME PURGED (gallons) 1.05

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN mg/L / % saturation	TURBIDITY (NTUs)	ORP (mV)	COLOR/ODOR (describe)
9:55	0.28	0.28	0.07	13	6.92	17.69	1.39	1.14/11.9%	295.3	—	clear / Pet
9:59	0.28	0.56	0.07	13	6.96	17.77	1.38	1.08/11.4%	30.4	—	"
10:06	0.49	1.05	0.07	13	6.99	17.91	1.38	0.91/9.6%	828.1	—	"

WELL CAPACITY (Gallons Per Foot) 1/2" = 0.010 0.75" = 0.02 1" = 0.04, 1.25" = 0.06 2" = 0.16 3" = 0.37, 4" = 0.65, 5" = 1.02, 6" = 1.47 12" = 5.88
 TUBING INSIDE DIA. CAPACITY (Gal./ft) 1/8" = 0.0006, 3/16" = 0.0014 1/4" = 0.0026 5/16" = 0.004; 3/8" = 0.006, 1/2" = 0.010 5/8" = 0.016
 PURGING EQUIPMENT CODES B = Bailor, BP = Bladder Pump, ESP = Electric Submersible Pump, PP = Peristaltic Pump, O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION RINZOR + THOMAS PALANK		SAMPLER(S) SIGNATURES <i>[Signatures]</i>		SAMPLING INITIATED AT: 10:10	SAMPLING ENDED AT: 10:42
PUMP OR TUBING DEPTH IN WELL (feet) 115		TUBING MATERIAL CODE HDPE		FIELD FILTERED: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	FILTER SIZE 1 µm
FIELD DECONTAMINATION PUMP Y <input checked="" type="checkbox"/> TUBING Y <input checked="" type="checkbox"/> (replaced) OTHER (specify) WM O N		DUPLICATE Y <input checked="" type="checkbox"/> N <input type="checkbox"/>		DUP ID	

SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED*	SAMPLE PRESERVATION		INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
					TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
TMW-05	5	CG	40mL	HCl	LP	LP	VOC	APP	250mL/min
	2	AG	1L	—	—	—	SVOC		
	2	AG	1L	HCl	LP	LP	TRPH		
	2	AG	1L	—	—	—	PCB		
	3	CG	40mL	HCl	LP	LP	GRO		
	2	PE	1L	HNO3	LP	LP	13PP		

5 WELL VOLUMES **1.4** REMARKS
* Samples placed on ice subsequent to collection

MATERIAL CODES AG = Amber Glass, CG = Clear Glass, PE = Polyethylene, PP = Polypropylene, S = Silicone, T = Teflon, O = Other (Specify)
 SAMPLING/PURGING APP = After Peristaltic Pump, B = Bailor, BP = Bladder Pump, ESP = Electric Submersible Pump, PP = Peristaltic Pump, WM = Water Level Meter
 EQUIPMENT CODES: RFP = Reverse Flow Peristaltic Pump, SM = Straw Method (Tubing Gravity Drain), VT = Vacuum Trap, O = Other (Specify) LP = Lab Preserved

- NOTES:
- 1 Stabilization Criteria for range of variation of last three consecutive readings per EPA EQASOP-GW4
 pH: ± 0.1 units Temperature: ± 3% Specific Conductance: ± 3% Dissolved Oxygen: 10% for values greater than 0.5 mg/L, if three DO values less than 0.5 mg/L, consider values as stabilized Turbidity: 10% for values greater than 5 NTUs, if three turbidity values are less than 5 NTUs consider stabilized ORP: + 10 mV
 - 2 Standard decontamination procedures includes DI water rinse Luminox solution wash, DI water final rinse, & air dry
 - 3 1 gpm = 3.785 4 mL/min

GROUNDWATER SAMPLING LOG

SITE NAME WMATA Northern Bus Station	SITE LOCATION 4615 14th Street NW Washington D.C. 20011	PROJECT NO 04481517
WELL NO TMW-04	SAMPLE ID TMW-04	DATE 12/11/19

PURGING DATA

WELL DIAMETER (inches) 1	TUBING DIAMETER (inches) 3/16	WELL SCREEN INTERVAL DEPTH 7.5 feet to 17.5 feet	STATIC DEPTH TO WATER (feet) 6.0	PURGE PUMP TYPE OR BAILER PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable): $17.5 \text{ feet} - 6.0 \text{ feet} \times 0.04 \text{ gallons/foot} = 0.56 \text{ gallons}$				

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable): $0.45 \text{ gallons} + (0.0014 \text{ gal/ft} \times 10 \text{ feet}) + 0.13 \text{ gallons} = 0.58 \text{ gallons}$	
NOTE: YSI 556MPS flow cell volume = 500 mL = 0.13 gallons (1 gallon = 3.785 mL)	

INITIAL PUMP OR TUBING DEPTH IN WELL (feet) 10	FINAL PUMP OR TUBING DEPTH IN WELL (feet) 10	PURGING INITIATED AT 8:09	PURGING ENDED AT 8:28	TOTAL VOLUME PURGED (gallons) 2.34
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TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (C)	COND (microhm/cm or µS/cm)	DISSOLVED OXYGEN (mg/L / % saturation)	TURBIDITY (NTUs)	ORP (mV)	COLOR/ODOR (describe)
8:12	0.39	0.39	0.15	17.7	7.77	18.20	12.71	0.27/29%	3.62	-	clear/pe
8:20	1.02	1.59	0.15	17.7	7.98	18.36	1.251	0.22/23%	2.26	-	"
8:22	0.03	1.62	0.15	17.7	7.98	18.46	1.247	0.23/24%	2.07	-	"
8:25	0.45	2.07	0.15	17.7	8.01	18.50	1.243	0.21/22%	2.06	-	"

WELL CAPACITY (Gallons Per Foot)	1/2" = 0.010	0.75" = 0.02	1" = 0.04	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	5" = 1.02	6" = 1.47	12" = 5.88	
TUBING INSIDE DIA. CAPACITY (Gal/Ft)	1/8" = 0.0006	3/16" = 0.0014	1/4" = 0.0025	5/16" = 0.004	3/8" = 0.006	1/2" = 0.010	5/8" = 0.016				
PURGING EQUIPMENT CODES	B = Bailor; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify)										

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION RINZO R + THOMAS P	SAMPLER(S) SIGNATURES <i>[Signature]</i>	SAMPLING INITIATED AT 8:25	SAMPLING ENDED AT 9:00
PUMP OR TUBING 10	TUBING 10	FIELD-FILTERED <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	FILTER SIZE 1 µm
DEPTH IN WELL (feet) 10	MATERIAL CODE HDPE	Filtration Equipment Type In-line	
FIELD DECONTAMINATION <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	TUBING <input checked="" type="checkbox"/> Y (replaced) <input type="checkbox"/> N	OTHER (specify) WM <input checked="" type="checkbox"/> N	DUP ID <input checked="" type="checkbox"/> Y <input type="checkbox"/> N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED*	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
TMW-04	5	CG	40ML	HCl	LP	LP	VOC	APP	550mL/min
✓	↓	AG	1L	-	-	-	SVOC	↓	↓
✓	↓	AG	1L	HCl	LP	LP	TRPH	↓	↓
✓	↓	AG	1L	-	-	-	PCB	↓	↓
✓	↓	CG	40ML	HCl	LP	LP	GRO	↓	↓
✓	↓	PE	1L	HNO3	LP	LP	13PP	↓	↓

5 WELL VOLUMES 1.096	REMARKS * Samples placed on ice subsequent to collection
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MATERIAL CODES	AG = Amber Glass, CG = Clear Glass, PE = Polyethylene, PP = Polypropylene, S = Silicone, T = Teflon, O = Other (Specify)
SAMPLING/PURGING APP	= After Peristaltic Pump, B = Bailor, BP = Bladder Pump, ESP = Electric Submersible Pump, PP = Peristaltic Pump, WM = Water Level Meter
EQUIPMENT CODES	RFPF = Reverse Flow Peristaltic Pump, SM = Straw Method (Tubing Gravity Drain), VT = Vacuum Trap, O = Other (Specify), LP = Lab Preserved

- NOTES:**
- 1 Stabilization Criteria for range of variation of last three consecutive readings per EPA EQASOP-GW4
 pH: ± 0.1 units Temperature: ± 3% Specific Conductance: ± 3% Dissolved Oxygen: 10% for values greater than 0.5 mg/L. If three DO values less than 0.5 mg/L consider values as stabilized Turbidity: 10% for values greater than 5 NTUs. If three turbidity values are less than 5 NTUs consider stabilized ORP: + 10 mV
 - 2 Standard decontamination procedures includes DI water rinse Luminox solution wash DI water final rinse & air dry
 - 3 1 gpm = 3.785 4 mL/min

GROUNDWATER SAMPLING LOG

SITE NAME WMATA Northern Bus Station	SITE LOCATION 4615 14th Street NW Washington D.C. 20011	PROJECT NO 04481517
WELL NO TMW-03	SAMPLE ID TMW-03	DATE 12/11/19

PURGING DATA

WELL DIAMETER (inches) 1	TUBING DIAMETER (inches) 3/16	WELL SCREEN INTERVAL DEPTH 9.06 feet to 19.06	STATIC DEPTH TO WATER (feet) 16.4	PURGE PUMP TYPE OR BAILER PP
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WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
 (only fill out if applicable)
 = (**19.06** feet - **16.4** feet) x **0.04** gallons/foot = **0.123** gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
 (only fill out if applicable)
 NOTE: YSI 556MPS flow cell volume = 500 mL = 0.13 gallons (1 gallon = 3.785 mL)
 = _____ gallons + (_____ gallons/foot X _____ feet) + _____ gallons = _____ gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet) 213	FINAL PUMP OR TUBING DEPTH IN WELL (feet) 216	PURGING INITIATED AT 1103	PURGING ENDED AT 1116	TOTAL VOLUME PURGED (gallons)
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TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (microhm/cm or µS/cm)	DISSOLVED OXYGEN (mg/L / % saturation)	TURBIDITY (NTUs)	ORP (mV)	COLOR / ODOR (describe)
11:04	0.16	0.16	0.16	16.4	7.67	12.29	854	1.26 / 13.3%	3.47	-	Clear / odorless
11:12	1.28	1.44	0.16	16.5	7.73	18.45	859	0.73 / 7.9%	2.73	-	"
11:14	0.32	1.76	0.16	"	7.71	18.47	858	0.67 / 7.2%	2.73	-	"
11:16	0.32	2.08	0.16	"	7.72	18.47	859	0.64 / 6.9%	2.75	-	"

WELL CAPACITY (Gallons Per Foot) 1/2" = 0.010 3/8" = 0.02 1/4" = 0.04 1.25" = 0.06 2" = 0.16 3" = 0.37 4" = 0.65 5" = 1.02 6" = 1.47 12" = 5.88
 TUBING INSIDE DIA. CAPACITY (Gal./ft.) 1/8" = 0.0006 3/16" = 0.0014 1/4" = 0.0026 5/16" = 0.004 3/8" = 0.006 1/2" = 0.010 5/8" = 0.016
 PURGING EQUIPMENT CODES B = Bailer, BP = Bladder Pump, ESP = Electric Submersible Pump, PP = Peristaltic Pump, O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT): AFFILIATION RINZO RENTHELI	SAMPLER(S) SIGNATURES <i>[Signature]</i>	SAMPLING INITIATED AT 1120	SAMPLING ENDED AT 1130
PUMP OR TUBING DEPTH IN WELL (feet) 216	TUBING MATERIAL CODE HDPE	FIELD FILTERED <input checked="" type="checkbox"/> N	FILTER SIZE 1 µm
FIELD DECONTAMINATION: PUMP Y <input checked="" type="checkbox"/>	TUBING Y <input checked="" type="checkbox"/> (replaced)	OTHER (specify) WM O N	DUPLICATE Y <input checked="" type="checkbox"/>

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED*	TOTAL VOL ADDED IN FIELD (mL)	FINAL PH			
TMW-03	5	CG	40ml	HCl	LP	LP	VOC	APP	600ml/m
↓	2	AG	1L	-	-	-	SVOC	↓	↓
↓	2	AG	↓	HCl	LP	LP	TPH-DRO	↓	↓
↓	2	AG	↓	-	-	-	PCB	↓	↓
↓	3	CG	40ML	HCl	LP	LP	GRO	↓	↓
↓	3	PE	1L	HNO3	↓	↓	13 PP	↓	↓

5 WELL VOLUMES: **0.64**
 REMARKS: *Small packets of oil noted when initially purging*
 * Samples placed on ice subsequent to collection

MATERIAL CODES: AG = Amber Glass, CG = Clear Glass, PE = Polyethylene, PP = Polypropylene, S = Silicone, T = Teflon, O = Other (Specify)
 SAMPLING/PURGING APP = After Peristaltic Pump, B = Bailer, BP = Bladder Pump, ESP = Electric Submersible Pump, PP = Peristaltic Pump, WM = Water Level Meter
 EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump, SM = Straw Method (Tubing Gravity Drain), VT = Vacuum Trap, O = Other (Specify), LP = Lab Preserved

- NOTES:
- 1 Stabilization Criteria for range of variation of last three consecutive readings per EPA 80ASOP-GW4
 pH: ± 0.1 units Temperature: ± 3% Specific Conductance: ± 3% Dissolved Oxygen: 10% for values greater than 0.5 mg/L, if three DO values less than 0.5 mg/L, consider values as stabilized Turbidity: 10% for values greater than 5 NTUs, if three turbidity values are less than 5 NTUs consider stabilized; ORP: + 10 mV
 - 2 Standard decontamination procedures includes DI water rinse, Luminox solution wash, DI water final rinse, & air dry
 - 3 1 gpm = 3.7854 mL/min

GROUNDWATER SAMPLING LOG

SITE NAME WMATA Northern Bus Station	SITE LOCATION 4615 14th Street NW Washington D.C. 20011	PROJECT NO 04481517
WELL NO TMW-08	SAMPLE ID TMW-08	DATE 12/11/19

PURGING DATA

WELL DIAMETER (inches) 1	TUBING DIAMETER (inches) 3/16	WELL SCREEN INTERVAL DEPTH 3.13 feet to 15.10	STATIC DEPTH TO WATER (feet) 10.49	PURGE PUMP TYPE OR BAILER PP
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WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
 (only fill out if applicable)

$$= (15.13 \text{ feet} - 10.49 \text{ feet}) \times 0.04 \text{ gallons/foot} = 0.19 \text{ gallons}$$

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
 (only fill out if applicable)
 NOTE: YSI 556MPS flow cell volume = 500 mL = 0.13 gallons (1 gallon = 3.785 mL)

$$= \text{gallons} + (\text{gallons/foot} \times \text{feet}) + \text{gallons} = \text{gallons}$$

INITIAL PUMP OR TUBING DEPTH IN WELL (feet) 12.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet) 12.5	PURGING INITIATED AT 13 01	PURGING ENDED AT 13 37	TOTAL VOLUME PURGED (gallons) ~0.70
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TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (C)	COND (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN mg/L / % saturation	TURBIDITY (NTUs)	ORP (mV)	COLOR / ODOR (describe)
13 18	0.19	0.19	0.02	10.41	7.51	16.09	1501	3.88/39.7	116		Change / Ad
13 19	0.19	0.38	0.02	10.39	7.49	16.02	1419	6.38/64.9	119		
13 20	0.08	0.46	0.02	10.39	7.33	16.10	1257	8.89/91.3	110		
13 22	0.08	0.54	0.02	10.39	7.33	16.10	1257	8.89/91.3	110		
13 26	0.08	0.52	"	10.37	7.39	16.01	1355	8.91/87.8	115		
13 39	0.26	0.78	"	10.47	7.38	15.9	1350	8.39/84.0	113		↓

WELL CAPACITY (Gallons Per Foot) 1/2" = 0.010 0.75" = 0.02 1" = 0.04 1.25" = 0.06 2" = 0.16 3" = 0.37 4" = 0.65 5" = 1.02 6" = 1.47 12" = 5.68
 TUBING INSIDE DIA. CAPACITY (Gal/Ft) 1/8" = 0.0006 3/16" = 0.0014 1/4" = 0.0026 5/16" = 0.004 3/8" = 0.006 1/2" = 0.010 5/8" = 0.016

PURGING EQUIPMENT CODES B = Bailor BP = Bladder Pump ESP = Electric Submersible Pump PP = Peristaltic Pump O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION RINZO, R	SAMPLER(S) SIGNATURES <i>[Signature]</i>	SAMPLING INITIATED AT 7:50 AM ENDED AT 8:00
PUMP OR TUBING DEPTH IN WELL (feet) ~12.5	TUBING MATERIAL CODE HDPE	FIELD-FILTERED <input checked="" type="checkbox"/> N FILTER SIZE 1 µm Filtration Equipment Type Falke
FIELD DECONTAMINATION PUMP Y	TUBING Y (replaced) OTHER (specify) WM O N	DUPLICATE Y DUP ID

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED*	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
TMW-08	5	CG	90ML	HCl	LP	LP	VOC	APP	20 mL/min
	2	AG	1L	-	-	-	SVOC		
	2	AG	↓	HCl	LP	LP	TPH-Q10		
	2	AG	↓	-	-	-	PCB		
	3	CG	40ML	HCl	LP	LP	CrO		
	2	PE	1L	HNO ₃	↓	↓	13PP		

5 WELL VOLUMES **0.95** REMARKS
 * Samples placed on ice subsequent to collection

MATERIAL CODES AG = Amber Glass, CG = Clear Glass PE = Polyethylene PP = Polypropylene, S = Silicone T = Teflon O = Other (Specify)

SAMPLING/PURGING APP = After Peristaltic Pump B = Bailor BP = Bladder Pump ESP = Electric Submersible Pump PP = Peristaltic Pump WM = Water Level Meter

EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump SM = Straw Method (Tubing Gravity Drain) VT = Vacuum Trap, O = Other (Specify) LP = Lab Preserved

- NOTES: 1 Stabilization Criteria for range of variation of last three consecutive readings per EPA EQASOP-GW4
 pH: ± 0.1 units Temperature: ± 3% Specific Conductance: ± 3% Dissolved Oxygen: 10% for values greater than 0.5 mg/L, if three DO values less than 0.5 mg/L, consider values as stabilized Turbidity: 10% for values greater than 5 NTUs if three turbidity values are less than 5 NTUs consider stabilized; ORP: + 10 mV
 2 Standard decontamination procedures includes DI water rinse Luminox solution wash DI water final rinse & air dry
 3 1 gpm = 3.785.4 mL/min

GROUNDWATER SAMPLING LOG

SITE NAME: WMATA Northern Bus Station	SITE LOCATION 4615 14th Street NW Washington D.C. 20011	PROJECT NO 04481517
WELL NO: TMW-16	SAMPLE ID: TMW-16	DATE: 12/12/19

PURGING DATA

WELL DIAMETER (inches) 1	TUBING DIAMETER (inches) 3/16	WELL SCREEN INTERVAL DEPTH 1 feet to 10	STATIC DEPTH TO WATER (feet)	PURGE PUMP TYPE OR BAILER PP
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (10 feet - 1.94 feet) X 0.074 gallons/foot = 0.32 gallons				
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) NOTE YSI 55SMPS flow cell volume = 500 mL = 0.13 gallons (1 gallon = 3.785 mL)				
INITIAL PUMP OR TUBING DEPTH IN WELL (feet) 4 FT	FINAL PUMP OR TUBING DEPTH IN WELL (feet) ~4	PURGING INITIATED AT 10 47	PURGING ENDED AT 12 36	TOTAL VOLUME PURGED (gallons) 1.71

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (C)	COND (circle units) μmhos/cm or μS/cm	DISSOLVED OXYGEN mg/L / % saturation	TURBIDITY (NTUs)	ORP (mV)	COLOR/ODOR (describe)
1051	0.32	0.32	0.07	4"	5.02	16.3	795	5.55/57.8%	2015	-	Nsg./Turbid
1059	0.56	0.88	0.07	4.5	5.01	16.45	793	7/71.9%	1158	-	N/A/Turbid
1102	0.21	1.19	0.07	5.15	5.02	16.5	772	7.15/73.8%	1188	-	N/A/Turbid
1111	0.036	1.55	0.04	4.5	4.59	16.8	774	4.41/45.5%	1749	-	N/A
1113	0.08	1.63	0.04	"	4.63	16.8	772	1.28/14.4%	1027	-	N/A
1115	0.08	1.71	0.04	"	4.64	16.8	770	1.08/11.5%	1118	-	N/A

WELL CAPACITY (Gallons Per Foot) 1/2" = 0.010, 0.75" = 0.02, 1" = 0.04, 1.25" = 0.06, 2" = 0.16, 3" = 0.37, 4" = 0.65, 5" = 1.02, 6" = 1.47, 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.) 1/8" = 0.0006, 3/16" = 0.0014, 1/4" = 0.0026, 5/16" = 0.004, 3/8" = 0.006, 1/2" = 0.010, 5/8" = 0.016
PURGING EQUIPMENT CODES B = Bailor BP = Bladder Pump ESP = Electric Submersible Pump PP = Peristaltic Pump O = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION Tom Palank		SAMPLER(S) SIGNATURES <i>[Signature]</i>		SAMPLING INITIATED AT 11:15	SAMPLING ENDED AT 12:36
PUMP OR TUBING DEPTH IN WELL (feet) 4'		TUBING MATERIAL CODE HDPE	FIELD-FILTERED <input checked="" type="checkbox"/> N	FILTER SIZE 1 μm	
FIELD DECONTAMINATION PUMP Y <input checked="" type="checkbox"/> N		TUBING Y <input checked="" type="checkbox"/> N (replaced)	OTHER (specify) WTM <input checked="" type="checkbox"/> N	DUPLICATE Y <input checked="" type="checkbox"/> N	DUP ID

SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED*	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH	INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
TMW-16	2	AG	1L	-	6	-	SVOC	APP	250 mL/min
	2	AG	↓	-	-	-	PCB	↓	↓
	2	AG	↓	HCl	LP	LP	TPH-DRO	↓	↓
	4	CG	40mL	HCl	↓	↓	VOC	↓	↓
	3	CG	↓	HCl	↓	↓	GRD	↓	↓
	3	PP	1L	HNO3	↓	↓	13PP	↓	↓

5 WELL VOLUMES 1.6	REMARKS * Samples placed on ice subsequent to collection
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MATERIAL CODES AG = Amber Glass CG = Clear Glass PE = Polyethylene PP = Polypropylene S = Silicone T = Teflon O = Other (Specify)

SAMPLING/PURGING APP = After Peristaltic Pump B = Bailor BP = Bladder Pump ESP = Electric Submersible Pump PP = Peristaltic Pump WM = Water Level Meter

EQUIPMENT CODES RPPP = Reverse Flow Peristaltic Pump SM = Straw Method (Tubing Gravity Drain) VT = Vacuum Trap O = Other (Specify) LP = Lab Preserved

NOTES 1 Stabilization Criteria for range of variation of last three consecutive readings per EPA EQASOP-GW4
pH: ± 0.1 units Temperature: ± 3% Specific Conductance: ± 3% Dissolved Oxygen: 10% for values greater than 0.5 mg/L if three DO values less than 0.5 mg/L consider values as stabilized Turbidity: 10% for values greater than 5 NTUs if three turbidity values are less than 5 NTUs consider stabilized ORP: + 10 mV
2 Standard decontamination procedures includes DI water rinse, Luminox solution wash, DI water final rinse & air dry
3 1 gpm = 3.785 L/min

GROUNDWATER SAMPLING LOG

SITE NAME WMATA Northern Bus Station	SITE LOCATION 4615 14th Street NW Washington D.C 20011	PROJECT NO 04481517
WELL NO TMW-02	SAMPLE ID TMW-02	DATE 12/13/19

PURGING DATA

WELL DIAMETER (inches)	TUBING DIAMETER (inches) 3/16	WELL SCREEN INTERVAL DEPTH 14.3 feet to 24.21	STATIC DEPTH TO WATER (feet) 14.4	PURGE PUMP TYPE OR BAILER PP							
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) = (24.3 feet - 14.4 feet) X 0.04 gallons/foot = 0.396 gallons											
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (only fill out if applicable) NOTE YSI 556MPS flow cell volume = 500 mL = 0.13 gallons (1 gallon = 3.785 mL) = _____ gallons + (_____ gallons/foot X _____ feet) + _____ gallons = _____ gallons											
INITIAL PUMP OR TUBING DEPTH IN WELL (feet) 216	FINAL PUMP OR TUBING DEPTH IN WELL (feet) 16	PURGING INITIATED AT 10:14	PURGING ENDED AT 11:02	TOTAL VOLUME PURGED (gallons) 0.84							
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP (°C)	COND (circle units) $\mu\text{mhos/cm}$ or $(\mu\text{S/cm})$	DISSOLVED OXYGEN mg/L ; % saturation	TURBIDITY (NTUs)	ORP (mV)	COLOR/ODOR (describe)
10:17	0.40	0.40	0.11	14.6	7.05	17.33	2203	0.37/3.9%	33.5	—	clear/ret. 0
10:19	0.22	0.62	0.11	"	7.10	17.75	2189	0.39/3.0%	25.3	—	"
10:21	0.22	0.84	0.11	"	7.11	17.95	2185	0.29/3.0%	25.9	—	"
WELL CAPACITY (Gallons Per Foot) 1/2" = 0.010, 0.75" = 0.02, 1" = 0.04, 1.25" = 0.06, 2" = 0.16, 3" = 0.37, 4" = 0.65, 5" = 1.02, 6" = 1.47, 12" = 5.88											
TUBING INSIDE DIA. CAPACITY (Gal./ft.) 1/8" = 0.0006; 3/16" = 0.0014, 1/4" = 0.0026, 5/16" = 0.004; 3/8" = 0.006, 1/2" = 0.010, 5/8" = 0.016											
PURGING EQUIPMENT CODES B = Bailer, BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump, O = Other (Specify)											

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION RINZO, R				SAMPLER(S) SIGNATURES <i>[Signature]</i>				SAMPLING INITIATED AT: 10:22		SAMPLING ENDED AT: 11:02			
PUMP OR TUBING DEPTH IN WELL (feet) 16				TUBING MATERIAL CODE HDPE				FIELD-FILTERED: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N		FILTER SIZE 1 μm			
FIELD DECONTAMINATION PUMP Y <input checked="" type="checkbox"/> N				TUBING Y <input checked="" type="checkbox"/> N (replaced)				OTHER (specify) WM Y <input checked="" type="checkbox"/> N		DUPLICATE Y <input checked="" type="checkbox"/> N DUP ID			
SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION				INTENDED ANALYSIS AND/OR METHOD		SAMPLING EQUIPMENT CODE		SAMPLE PUMP FLOW RATE (mL per minute)	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED*	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH							
70W-02	2	AG	1L	—	—	—	SVOC		APP		100 mL/min		
	2	AG	↓	—	—	—	PCB		↓		↓		
	2	AG	↓	HCl	LP	LP	TPH-DRB		↓		↓		
	2	PE	↓	HNO3	↓	↓	13 PP		↓		↓		
	45	CG	40 mL	HCl	↓	↓	GRD		↓		↓		
	3	CG	↓	HCl	↓	↓	VOL		↓		↓		
5 WELL VOLUMES 1.98				REMARKS * Samples placed on ice subsequent to collection									
MATERIAL CODES: AG = Amber Glass, CG = Clear Glass, PE = Polyethylene, PP = Polypropylene, S = Silicone, T = Teflon, O = Other (Specify)													
SAMPLING/PURGING APP = After Peristaltic Pump; B = Bailer, BP = Bladder Pump, ESP = Electric Submersible Pump, PP = Peristaltic Pump, WM = Water Level Meter													
EQUIPMENT CODES: RFPP = Reverse Flow Peristaltic Pump, SM = Straw Method (Tubing Gravity Drain) VT = Vacuum Trap, O = Other (Specify), LP = Lab Preserved													

- NOTES: 1 Stabilization Criteria for range of variation of last three consecutive readings per EPA EQASOP-GW4
 pH: ± 0.1 units Temperature: ± 3% Specific Conductance: ± 3% Dissolved Oxygen: 10% for values greater than 0.5 mg/L, if three DO values less than 0.5 mg/L, consider values as stabilized Turbidity: 10% for values greater than 5 NTUs, if three turbidity values are less than 5 NTUs consider stabilized; ORP: + 10 mV
- 2 Standard decontamination procedures includes DI water rinse, Luminol solution wash, DI water final rinse, & air dry
- 3 1 gpm = 3,785.4 mL/min



APPENDIX C

LABORATORY ANALYTICAL REPORTS
AND
CHAIN-OF-CUSTODY DOCUMENTATION

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9112101

Project: WMATA-Northern Station

Sample ID: SB-59@ 1'
 Lab#: AD14284-001
 Matrix: Soil/Terracore

Collection Date: 11/20/2019
 Receipt Date: 11/21/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		88

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	102	mg/kg	29	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	31.41	30	50	150	105	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.095	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.028	ND		
Aroclor-1016	1	mg/kg	0.028	ND		
Aroclor-1221	1	mg/kg	0.028	ND		
Aroclor-1232	1	mg/kg	0.028	ND		
Aroclor-1242	1	mg/kg	0.028	ND		
Aroclor-1248	1	mg/kg	0.028	ND		
Aroclor-1254	1	mg/kg	0.028	ND		
Aroclor-1260	1	mg/kg	0.028	ND		
Aroclor-1262	1	mg/kg	0.028	ND		
Aroclor-1268	1	mg/kg	0.028	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	94.80	100	37	141	95	
TCMX-Surrogate	98.40	100	37	141	98	
DCB-Surrogate	83.57	100	34	146	84	
DCB-Surrogate	83.53	100	34	146	84	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	11	100
Chromium	1	mg/kg	5.7	38
Copper	1	mg/kg	5.7	80
Lead	1	mg/kg	5.7	14
Nickel	1	mg/kg	5.7	54
Zinc	1	mg/kg	11	160

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.91	ND
Arsenic	1	mg/kg	0.23	1.4
Beryllium	2	mg/kg	0.45	1.3
Cadmium	1	mg/kg	0.45	ND
Selenium	1	mg/kg	2.3	4.6
Silver	1	mg/kg	0.23	ND
Thallium	2	mg/kg	0.91	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	1	mg/kg	0.038	ND
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.038	ND
2,3,4,6-Tetrachlorophenol	1	mg/kg	0.038	ND
2,4,5-Trichlorophenol	1	mg/kg	0.038	ND

Sample ID: SB-59@ 1'
 Lab#: AD14284-001
 Matrix: Soil/Terracore

Collection Date: 11/20/2019
 Receipt Date: 11/21/2019

2,4,6-Trichlorophenol	1	mg/kg	0.038	ND
2,4-Dichlorophenol	1	mg/kg	0.0095	ND
2,4-Dimethylphenol	1	mg/kg	0.0095	ND
2,4-Dinitrophenol	1	mg/kg	0.19	ND
2,4-Dinitrotoluene	1	mg/kg	0.038	ND
2,6-Dinitrotoluene	1	mg/kg	0.038	ND
2-Chloronaphthalene	1	mg/kg	0.038	ND
2-Chlorophenol	1	mg/kg	0.038	ND
2-Methylnaphthalene	1	mg/kg	0.038	ND
2-Methylphenol	1	mg/kg	0.0095	ND
2-Nitroaniline	1	mg/kg	0.038	ND
2-Nitrophenol	1	mg/kg	0.038	ND
3&4-Methylphenol	1	mg/kg	0.0095	ND
3,3'-Dichlorobenzidine	1	mg/kg	0.038	ND
3-Nitroaniline	1	mg/kg	0.038	ND
4,6-Dinitro-2-methylphenol	1	mg/kg	0.19	ND
4-Bromophenyl-phenylether	1	mg/kg	0.038	ND
4-Chloro-3-methylphenol	1	mg/kg	0.038	ND
4-Chloroaniline	1	mg/kg	0.0095	ND
4-Chlorophenyl-phenylether	1	mg/kg	0.038	ND
4-Nitroaniline	1	mg/kg	0.038	ND
4-Nitrophenol	1	mg/kg	0.038	ND
Acenaphthene	1	mg/kg	0.038	ND
Acenaphthylene	1	mg/kg	0.038	ND
Acetophenone	1	mg/kg	0.038	ND
Anthracene	1	mg/kg	0.038	ND
Atrazine	1	mg/kg	0.038	ND
Benzaldehyde	1	mg/kg	0.038	ND
Benzo[a]anthracene	1	mg/kg	0.038	ND
Benzo[a]pyrene	1	mg/kg	0.038	ND
Benzo[b]fluoranthene	1	mg/kg	0.038	ND
Benzo[g,h,i]perylene	1	mg/kg	0.038	ND
Benzo[k]fluoranthene	1	mg/kg	0.038	ND
bis(2-Chloroethoxy)methane	1	mg/kg	0.038	ND
bis(2-Chloroethyl)ether	1	mg/kg	0.0095	ND
bis(2-Chloroisopropyl)ether	1	mg/kg	0.038	ND
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.038	ND
Butylbenzylphthalate	1	mg/kg	0.038	ND
Caprolactam	1	mg/kg	0.038	ND
Carbazole	1	mg/kg	0.038	ND
Chrysene	1	mg/kg	0.038	ND
Dibenzo[a,h]anthracene	1	mg/kg	0.038	ND
Dibenzofuran	1	mg/kg	0.0095	ND
Diethylphthalate	1	mg/kg	0.038	ND
Dimethylphthalate	1	mg/kg	0.038	ND
Di-n-butylphthalate	1	mg/kg	0.0095	ND
Di-n-octylphthalate	1	mg/kg	0.038	ND
Fluoranthene	1	mg/kg	0.038	ND
Fluorene	1	mg/kg	0.038	ND
Hexachlorobenzene	1	mg/kg	0.038	ND
Hexachlorobutadiene	1	mg/kg	0.038	ND
Hexachlorocyclopentadiene	1	mg/kg	0.038	ND
Hexachloroethane	1	mg/kg	0.038	ND
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.038	ND
Isophorone	1	mg/kg	0.038	ND
Naphthalene	1	mg/kg	0.0095	ND
Nitrobenzene	1	mg/kg	0.038	ND
N-Nitroso-di-n-propylamine	1	mg/kg	0.0095	ND
N-Nitrosodiphenylamine	1	mg/kg	0.038	ND
Pentachlorophenol	1	mg/kg	0.19	ND
Phenanthrene	1	mg/kg	0.038	ND
Phenol	1	mg/kg	0.038	ND
Pyrene	1	mg/kg	0.038	ND

Sample ID: SB-59@ 1'
 Lab#: AD14284-001
 Matrix: Soil/Terracore

Collection Date: 11/20/2019
 Receipt Date: 11/21/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	52.98	50	58	148	106	
Phenol-d5	77.71	100	49	129	78	
Nitrobenzene-d5	38.05	50	52	129	76	
2-Fluorophenol	67.14	100	43	128	67	
2-Fluorobiphenyl	40.50	50	58	125	81	
2,4,6-Tribromophenol	89.49	100	54	145	89	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result
Total Petroleum Hydrocarbons	1	mg/kg	68	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	14.22	20	30	146	71	
Chlorobenzene	9.89	20	20	117	49	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	mg/kg	0.0023	ND
1,1,2,2-Tetrachloroethane	1	mg/kg	0.0023	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	mg/kg	0.0023	ND
1,1,2-Trichloroethane	1	mg/kg	0.0023	ND
1,1-Dichloroethane	1	mg/kg	0.0023	ND
1,1-Dichloroethene	1	mg/kg	0.0023	ND
1,2,3-Trichlorobenzene	1	mg/kg	0.0023	ND
1,2,4-Trichlorobenzene	1	mg/kg	0.0023	ND
1,2-Dibromo-3-chloropropane	1	mg/kg	0.0023	ND
1,2-Dibromoethane	1	mg/kg	0.00089	ND
1,2-Dichlorobenzene	1	mg/kg	0.0023	ND
1,2-Dichloroethane	1	mg/kg	0.0023	ND
1,2-Dichloropropane	1	mg/kg	0.0023	ND
1,3-Dichlorobenzene	1	mg/kg	0.0023	ND
1,4-Dichlorobenzene	1	mg/kg	0.0023	ND
1,4-Dioxane	1	mg/kg	0.11	ND
2-Butanone	1	mg/kg	0.0023	ND
2-Hexanone	1	mg/kg	0.0023	ND
4-Methyl-2-pentanone	1	mg/kg	0.0023	ND
Acetone	1	mg/kg	0.011	ND
Benzene	1	mg/kg	0.0011	ND
Bromochloromethane	1	mg/kg	0.0023	ND
Bromodichloromethane	1	mg/kg	0.0023	ND
Bromoform	1	mg/kg	0.0023	ND
Bromomethane	1	mg/kg	0.0023	ND
Carbon disulfide	1	mg/kg	0.0023	ND
Carbon tetrachloride	1	mg/kg	0.0023	ND
Chlorobenzene	1	mg/kg	0.0023	ND
Chloroethane	1	mg/kg	0.0023	ND
Chloroform	1	mg/kg	0.0023	ND
Chloromethane	1	mg/kg	0.0023	ND
cis-1,2-Dichloroethene	1	mg/kg	0.0023	ND
cis-1,3-Dichloropropene	1	mg/kg	0.0023	ND
Cyclohexane	1	mg/kg	0.0023	ND
Dibromochloromethane	1	mg/kg	0.0023	ND
Dichlorodifluoromethane	1	mg/kg	0.0023	ND
Ethylbenzene	1	mg/kg	0.0011	ND
Isopropylbenzene	1	mg/kg	0.0011	ND
m&p-Xylenes	1	mg/kg	0.0011	ND
Methyl Acetate	1	mg/kg	0.0023	ND
Methylcyclohexane	1	mg/kg	0.0023	ND
Methylene chloride	1	mg/kg	0.0023	0.010
Methyl-t-butyl ether	1	mg/kg	0.0011	ND
o-Xylene	1	mg/kg	0.0011	ND
Styrene	1	mg/kg	0.0023	ND
Tetrachloroethene	1	mg/kg	0.0023	0.10
Toluene	1	mg/kg	0.0011	ND
trans-1,2-Dichloroethene	1	mg/kg	0.0023	ND
trans-1,3-Dichloropropene	1	mg/kg	0.0023	ND
Trichloroethene	1	mg/kg	0.0023	ND
Trichlorofluoromethane	1	mg/kg	0.0023	ND

Sample ID: SB-59@ 1'
Lab#: AD14284-001
Matrix: Soil/Terracore

Collection Date: 11/20/2019
Receipt Date: 11/21/2019

Vinyl chloride	1	mg/kg	0.0023		ND	
Xylenes (Total)	1	mg/kg	0.0011		ND	
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	28.61	30	68	122	95	
Dibromofluoromethane	29.41	30	63	140	98	
Bromofluorobenzene	30.88	30	64	129	103	
1,2-Dichloroethane-d4	29.93	30	63	143	100	

Sample ID: SB-60@ 5'
 Lab#: AD14284-002
 Matrix: Soil/Terracore

Collection Date: 11/20/2019
 Receipt Date: 11/21/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		91

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	211	mg/kg	58	830		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	53.39	30	50	150	178	S8

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.092	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.027	ND		
Aroclor-1016	1	mg/kg	0.027	ND		
Aroclor-1221	1	mg/kg	0.027	ND		
Aroclor-1232	1	mg/kg	0.027	ND		
Aroclor-1242	1	mg/kg	0.027	ND		
Aroclor-1248	1	mg/kg	0.027	ND		
Aroclor-1254	1	mg/kg	0.027	ND		
Aroclor-1260	1	mg/kg	0.027	ND		
Aroclor-1262	1	mg/kg	0.027	ND		
Aroclor-1268	1	mg/kg	0.027	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	81.32	100	37	141	81	
TCMX-Surrogate	96.74	100	37	141	97	
DCB-Surrogate	70.76	100	34	146	71	
DCB-Surrogate	70.01	100	34	146	70	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	11	140
Chromium	1	mg/kg	5.5	46
Copper	1	mg/kg	5.5	49
Lead	1	mg/kg	5.5	12
Nickel	1	mg/kg	5.5	49
Zinc	1	mg/kg	11	120

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.88	ND
Arsenic	1	mg/kg	0.22	1.7
Beryllium	1	mg/kg	0.22	1.1
Cadmium	1	mg/kg	0.44	ND
Selenium	1	mg/kg	2.2	4.6
Silver	1	mg/kg	0.22	ND
Thallium	1	mg/kg	0.44	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	1	mg/kg	0.037	ND
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.037	ND
2,3,4,6-Tetrachlorophenol	1	mg/kg	0.037	ND
2,4,5-Trichlorophenol	1	mg/kg	0.037	ND
2,4,6-Trichlorophenol	1	mg/kg	0.037	ND
2,4-Dichlorophenol	1	mg/kg	0.0092	ND
2,4-Dimethylphenol	1	mg/kg	0.0092	ND
2,4-Dinitrophenol	1	mg/kg	0.18	ND
2,4-Dinitrotoluene	1	mg/kg	0.037	ND
2,6-Dinitrotoluene	1	mg/kg	0.037	ND
2-Chloronaphthalene	1	mg/kg	0.037	ND
2-Chlorophenol	1	mg/kg	0.037	ND

Sample ID: SB-60@ 5'
 Lab#: AD14284-002
 Matrix: Soil/Terracore

Collection Date: 11/20/2019
 Receipt Date: 11/21/2019

2-Methylnaphthalene	1	mg/kg	0.037	0.15
2-Methylphenol	1	mg/kg	0.0092	ND
2-Nitroaniline	1	mg/kg	0.037	ND
2-Nitrophenol	1	mg/kg	0.037	ND
3&4-Methylphenol	1	mg/kg	0.0092	ND
3,3'-Dichlorobenzidine	1	mg/kg	0.037	ND
3-Nitroaniline	1	mg/kg	0.037	ND
4,6-Dinitro-2-methylphenol	1	mg/kg	0.18	ND
4-Bromophenyl-phenylether	1	mg/kg	0.037	ND
4-Chloro-3-methylphenol	1	mg/kg	0.037	ND
4-Chloroaniline	1	mg/kg	0.0092	ND
4-Chlorophenyl-phenylether	1	mg/kg	0.037	ND
4-Nitroaniline	1	mg/kg	0.037	ND
4-Nitrophenol	1	mg/kg	0.037	ND
Acenaphthene	1	mg/kg	0.037	ND
Acenaphthylene	1	mg/kg	0.037	ND
Acetophenone	1	mg/kg	0.037	ND
Anthracene	1	mg/kg	0.037	ND
Atrazine	1	mg/kg	0.037	ND
Benzaldehyde	1	mg/kg	0.037	ND
Benzo[a]anthracene	1	mg/kg	0.037	ND
Benzo[a]pyrene	1	mg/kg	0.037	ND
Benzo[b]fluoranthene	1	mg/kg	0.037	ND
Benzo[g,h,i]perylene	1	mg/kg	0.037	ND
Benzo[k]fluoranthene	1	mg/kg	0.037	ND
bis(2-Chloroethoxy)methane	1	mg/kg	0.037	ND
bis(2-Chloroethyl)ether	1	mg/kg	0.0092	ND
bis(2-Chloroisopropyl)ether	1	mg/kg	0.037	ND
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.037	0.22
Butylbenzylphthalate	1	mg/kg	0.037	ND
Caprolactam	1	mg/kg	0.037	ND
Carbazole	1	mg/kg	0.037	ND
Chrysene	1	mg/kg	0.037	ND
Dibenzo[a,h]anthracene	1	mg/kg	0.037	ND
Dibenzofuran	1	mg/kg	0.0092	ND
Diethylphthalate	1	mg/kg	0.037	ND
Dimethylphthalate	1	mg/kg	0.037	ND
Di-n-butylphthalate	1	mg/kg	0.0092	0.014
Di-n-octylphthalate	1	mg/kg	0.037	ND
Fluoranthene	1	mg/kg	0.037	ND
Fluorene	1	mg/kg	0.037	ND
Hexachlorobenzene	1	mg/kg	0.037	ND
Hexachlorobutadiene	1	mg/kg	0.037	ND
Hexachlorocyclopentadiene	1	mg/kg	0.037	ND
Hexachloroethane	1	mg/kg	0.037	ND
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.037	ND
Isophorone	1	mg/kg	0.037	ND
Naphthalene	1	mg/kg	0.0092	0.041
Nitrobenzene	1	mg/kg	0.037	ND
N-Nitroso-di-n-propylamine	1	mg/kg	0.0092	ND
N-Nitrosodiphenylamine	1	mg/kg	0.037	ND
Pentachlorophenol	1	mg/kg	0.18	ND
Phenanthrene	1	mg/kg	0.037	ND
Phenol	1	mg/kg	0.037	ND
Pyrene	1	mg/kg	0.037	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	53.77	50	58	148	108	
Phenol-d5	79.43	100	49	129	79	
Nitrobenzene-d5	40.44	50	52	129	81	
2-Fluorophenol	66.19	100	43	128	66	
2-Fluorobiphenyl	40.30	50	58	125	81	
2,4,6-Tribromophenol	72.55	100	54	145	73	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	1	mg/kg	66	110		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	14.34	20	30	146	72	
Chlorobenzene	10.42	20	20	117	52	

Sample ID: SB-60@ 5'
 Lab#: AD14284-002
 Matrix: Soil/Terracore

Collection Date: 11/20/2019
 Receipt Date: 11/21/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	106	mg/kg	0.12	ND		
1,1,2,2-Tetrachloroethane	106	mg/kg	0.12	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	106	mg/kg	0.12	ND		
1,1,2-Trichloroethane	106	mg/kg	0.12	ND		
1,1-Dichloroethane	106	mg/kg	0.12	ND		
1,1-Dichloroethene	106	mg/kg	0.12	ND		
1,2,3-Trichlorobenzene	106	mg/kg	0.12	ND		
1,2,4-Trichlorobenzene	106	mg/kg	0.12	ND		
1,2-Dibromo-3-chloropropane	106	mg/kg	0.12	ND		
1,2-Dibromoethane	106	mg/kg	0.12	ND		
1,2-Dichlorobenzene	106	mg/kg	0.12	ND		
1,2-Dichloroethane	106	mg/kg	0.058	ND		
1,2-Dichloropropane	106	mg/kg	0.12	ND		
1,3-Dichlorobenzene	106	mg/kg	0.12	ND		
1,4-Dichlorobenzene	106	mg/kg	0.12	ND		
1,4-Dioxane	106	mg/kg	5.8	ND		
2-Butanone	106	mg/kg	0.12	ND		
2-Hexanone	106	mg/kg	0.12	ND		
4-Methyl-2-pentanone	106	mg/kg	0.12	ND		
Acetone	106	mg/kg	0.58	ND		
Benzene	106	mg/kg	0.058	ND		
Bromochloromethane	106	mg/kg	0.12	ND		
Bromodichloromethane	106	mg/kg	0.12	ND		
Bromoform	106	mg/kg	0.12	ND		
Bromomethane	106	mg/kg	0.12	ND		
Carbon disulfide	106	mg/kg	0.12	ND		
Carbon tetrachloride	106	mg/kg	0.12	ND		
Chlorobenzene	106	mg/kg	0.12	ND		
Chloroethane	106	mg/kg	0.12	ND		
Chloroform	106	mg/kg	0.12	ND		
Chloromethane	106	mg/kg	0.12	ND		
cis-1,2-Dichloroethene	106	mg/kg	0.12	ND		
cis-1,3-Dichloropropene	106	mg/kg	0.12	ND		
Cyclohexane	106	mg/kg	0.12	6.1		
Dibromochloromethane	106	mg/kg	0.12	ND		
Dichlorodifluoromethane	106	mg/kg	0.12	ND		
Ethylbenzene	106	mg/kg	0.12	8.0		
Isopropylbenzene	106	mg/kg	0.12	1.7		
m&p-Xylenes	106	mg/kg	0.12	1.0		
Methyl Acetate	106	mg/kg	0.12	ND		
Methylcyclohexane	106	mg/kg	0.12	22		
Methylene chloride	106	mg/kg	0.12	ND		
Methyl-t-butyl ether	106	mg/kg	0.058	ND		
o-Xylene	106	mg/kg	0.12	ND		
Styrene	106	mg/kg	0.12	ND		
Tetrachloroethene	106	mg/kg	0.12	ND		
Toluene	106	mg/kg	0.12	ND		
trans-1,2-Dichloroethene	106	mg/kg	0.12	ND		
trans-1,3-Dichloropropene	106	mg/kg	0.12	ND		
Trichloroethene	106	mg/kg	0.12	ND		
Trichlorofluoromethane	106	mg/kg	0.12	ND		
Vinyl chloride	106	mg/kg	0.12	ND		
Xylenes (Total)	106	mg/kg	0.12	1.0		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	32.39	30	68	122	108	
Dibromofluoromethane	28.65	30	63	140	95	
Bromofluorobenzene	27.80	30	64	129	93	
1,2-Dichloroethane-d4	31.71	30	63	143	106	

Sample ID: SB-51 @ 10'
 Lab#: AD14284-003
 Matrix: Soil/Terracore

Collection Date: 11/20/2019
 Receipt Date: 11/21/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		84

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	1920	mg/kg	570	5400		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	28.81	30	50	150	96	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.099	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.030	0.068		
Aroclor-1016	1	mg/kg	0.030	ND		
Aroclor-1221	1	mg/kg	0.030	ND		
Aroclor-1232	1	mg/kg	0.030	ND		
Aroclor-1242	1	mg/kg	0.030	ND		
Aroclor-1248	1	mg/kg	0.030	ND		
Aroclor-1254	1	mg/kg	0.030	0.068		
Aroclor-1260	1	mg/kg	0.030	ND		
Aroclor-1262	1	mg/kg	0.030	ND		
Aroclor-1268	1	mg/kg	0.030	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	72.82	100	37	141	73	
TCMX-Surrogate	76.02	100	37	141	76	
DCB-Surrogate	75.16	100	34	146	75	
DCB-Surrogate	72.76	100	34	146	73	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	12	95
Chromium	1	mg/kg	6.0	43
Copper	1	mg/kg	6.0	37
Lead	1	mg/kg	6.0	9.2
Nickel	1	mg/kg	6.0	41
Zinc	1	mg/kg	12	94

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.95	ND
Arsenic	1	mg/kg	0.24	2.2
Beryllium	1	mg/kg	0.24	1.4
Cadmium	1	mg/kg	0.48	ND
Selenium	1	mg/kg	2.4	3.2
Silver	1	mg/kg	0.24	ND
Thallium	1	mg/kg	0.48	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	1	mg/kg	0.040	ND
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.040	ND
2,3,4,6-Tetrachlorophenol	1	mg/kg	0.040	ND
2,4,5-Trichlorophenol	1	mg/kg	0.040	ND
2,4,6-Trichlorophenol	1	mg/kg	0.040	ND
2,4-Dichlorophenol	1	mg/kg	0.0099	ND
2,4-Dimethylphenol	1	mg/kg	0.0099	ND
2,4-Dinitrophenol	1	mg/kg	0.20	ND
2,4-Dinitrotoluene	1	mg/kg	0.040	ND
2,6-Dinitrotoluene	1	mg/kg	0.040	ND
2-Chloronaphthalene	1	mg/kg	0.040	ND
2-Chlorophenol	1	mg/kg	0.040	ND

Sample ID: SB-51 @ 10'
 Lab#: AD14284-003
 Matrix: Soil/Terracore

Collection Date: 11/20/2019
 Receipt Date: 11/21/2019

2-Methylnaphthalene	1	mg/kg	0.040	1.1
2-Methylphenol	1	mg/kg	0.0099	ND
2-Nitroaniline	1	mg/kg	0.040	ND
2-Nitrophenol	1	mg/kg	0.040	ND
3&4-Methylphenol	1	mg/kg	0.0099	ND
3,3'-Dichlorobenzidine	1	mg/kg	0.040	ND
3-Nitroaniline	1	mg/kg	0.040	ND
4,6-Dinitro-2-methylphenol	1	mg/kg	0.20	ND
4-Bromophenyl-phenylether	1	mg/kg	0.040	ND
4-Chloro-3-methylphenol	1	mg/kg	0.040	ND
4-Chloroaniline	1	mg/kg	0.0099	ND
4-Chlorophenyl-phenylether	1	mg/kg	0.040	ND
4-Nitroaniline	1	mg/kg	0.040	ND
4-Nitrophenol	1	mg/kg	0.040	ND
Acenaphthene	1	mg/kg	0.040	ND
Acenaphthylene	1	mg/kg	0.040	ND
Acetophenone	1	mg/kg	0.040	ND
Anthracene	1	mg/kg	0.040	ND
Atrazine	1	mg/kg	0.040	ND
Benzaldehyde	1	mg/kg	0.040	ND
Benzo[a]anthracene	1	mg/kg	0.040	ND
Benzo[a]pyrene	1	mg/kg	0.040	ND
Benzo[b]fluoranthene	1	mg/kg	0.040	ND
Benzo[g,h,i]perylene	1	mg/kg	0.040	ND
Benzo[k]fluoranthene	1	mg/kg	0.040	ND
bis(2-Chloroethoxy)methane	1	mg/kg	0.040	ND
bis(2-Chloroethyl)ether	1	mg/kg	0.0099	ND
bis(2-Chloroisopropyl)ether	1	mg/kg	0.040	ND
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.040	3.7
Butylbenzylphthalate	1	mg/kg	0.040	ND
Caprolactam	1	mg/kg	0.040	ND
Carbazole	1	mg/kg	0.040	ND
Chrysene	1	mg/kg	0.040	ND
Dibenzo[a,h]anthracene	1	mg/kg	0.040	ND
Dibenzofuran	1	mg/kg	0.0099	ND
Diethylphthalate	1	mg/kg	0.040	ND
Dimethylphthalate	1	mg/kg	0.040	ND
Di-n-butylphthalate	1	mg/kg	0.0099	0.016
Di-n-octylphthalate	1	mg/kg	0.040	0.22
Fluoranthene	1	mg/kg	0.040	ND
Fluorene	1	mg/kg	0.040	ND
Hexachlorobenzene	1	mg/kg	0.040	ND
Hexachlorobutadiene	1	mg/kg	0.040	ND
Hexachlorocyclopentadiene	1	mg/kg	0.040	ND
Hexachloroethane	1	mg/kg	0.040	ND
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.040	ND
Isophorone	1	mg/kg	0.040	ND
Naphthalene	1	mg/kg	0.0099	ND
Nitrobenzene	1	mg/kg	0.040	ND
N-Nitroso-di-n-propylamine	1	mg/kg	0.0099	ND
N-Nitrosodiphenylamine	1	mg/kg	0.040	ND
Pentachlorophenol	1	mg/kg	0.20	ND
Phenanthrene	1	mg/kg	0.040	ND
Phenol	1	mg/kg	0.040	ND
Pyrene	1	mg/kg	0.040	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	57.36	50	58	148	115	
Phenol-d5	100.19	100	49	129	100	
Nitrobenzene-d5	48.11	50	52	129	96	
2-Fluorophenol	77.65	100	43	128	78	
2-Fluorobiphenyl	46.19	50	58	125	92	
2,4,6-Tribromophenol	92.53	100	54	145	93	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	10	mg/kg	710	3300		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	0.00	20	30	146	0	S8
Chlorobenzene	0.00	20	20	117	0	S8

Sample ID: SB-51 @ 10'
 Lab#: AD14284-003
 Matrix: Soil/Terracore

Collection Date: 11/20/2019
 Receipt Date: 11/21/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	99.6	mg/kg	0.12	ND		
1,1,2,2-Tetrachloroethane	99.6	mg/kg	0.12	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	99.6	mg/kg	0.12	ND		
1,1,2-Trichloroethane	99.6	mg/kg	0.12	ND		
1,1-Dichloroethane	99.6	mg/kg	0.12	ND		
1,1-Dichloroethene	99.6	mg/kg	0.12	ND		
1,2,3-Trichlorobenzene	99.6	mg/kg	0.12	ND		
1,2,4-Trichlorobenzene	99.6	mg/kg	0.12	ND		
1,2-Dibromo-3-chloropropane	99.6	mg/kg	0.12	ND		
1,2-Dibromoethane	99.6	mg/kg	0.12	ND		
1,2-Dichlorobenzene	99.6	mg/kg	0.12	ND		
1,2-Dichloroethane	99.6	mg/kg	0.059	ND		
1,2-Dichloropropane	99.6	mg/kg	0.12	ND		
1,3-Dichlorobenzene	99.6	mg/kg	0.12	ND		
1,4-Dichlorobenzene	99.6	mg/kg	0.12	ND		
1,4-Dioxane	99.6	mg/kg	5.9	ND		
2-Butanone	99.6	mg/kg	0.12	ND		
2-Hexanone	99.6	mg/kg	0.12	ND		
4-Methyl-2-pentanone	99.6	mg/kg	0.12	ND		
Acetone	99.6	mg/kg	0.59	ND		
Benzene	99.6	mg/kg	0.059	ND		
Bromochloromethane	99.6	mg/kg	0.12	ND		
Bromodichloromethane	99.6	mg/kg	0.12	ND		
Bromoform	99.6	mg/kg	0.12	ND		
Bromomethane	99.6	mg/kg	0.12	ND		
Carbon disulfide	99.6	mg/kg	0.12	ND		
Carbon tetrachloride	99.6	mg/kg	0.12	ND		
Chlorobenzene	99.6	mg/kg	0.12	ND		
Chloroethane	99.6	mg/kg	0.12	ND		
Chloroform	99.6	mg/kg	0.12	ND		
Chloromethane	99.6	mg/kg	0.12	ND		
cis-1,2-Dichloroethene	99.6	mg/kg	0.12	ND		
cis-1,3-Dichloropropene	99.6	mg/kg	0.12	ND		
Cyclohexane	99.6	mg/kg	0.12	3.2		
Dibromochloromethane	99.6	mg/kg	0.12	ND		
Dichlorodifluoromethane	99.6	mg/kg	0.12	ND		
Ethylbenzene	99.6	mg/kg	0.12	ND		
Isopropylbenzene	99.6	mg/kg	0.12	7.9		
m&p-Xylenes	99.6	mg/kg	0.12	ND		
Methyl Acetate	99.6	mg/kg	0.12	ND		
Methylcyclohexane	99.6	mg/kg	0.12	18		
Methylene chloride	99.6	mg/kg	0.12	ND		
Methyl-t-butyl ether	99.6	mg/kg	0.059	ND		
o-Xylene	99.6	mg/kg	0.12	ND		
Styrene	99.6	mg/kg	0.12	ND		
Tetrachloroethene	99.6	mg/kg	0.12	ND		
Toluene	99.6	mg/kg	0.12	ND		
trans-1,2-Dichloroethene	99.6	mg/kg	0.12	ND		
trans-1,3-Dichloropropene	99.6	mg/kg	0.12	ND		
Trichloroethene	99.6	mg/kg	0.12	ND		
Trichlorofluoromethane	99.6	mg/kg	0.12	ND		
Vinyl chloride	99.6	mg/kg	0.12	ND		
Xylenes (Total)	99.6	mg/kg	0.12	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	36.55	30	68	122	122	
Dibromofluoromethane	29.28	30	63	140	98	
Bromofluorobenzene	18.59	30	64	129	62	S8
1,2-Dichloroethane-d4	29.63	30	63	143	99	

Hampton-Clarke, Inc. (WBE/DBE/SBE)
 175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004
 Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458
 Service Center: 137-D Galliter Drive, Mount Laurel, New Jersey 08054
 Ph (Service Center): 856-780-6057 Fax: 856-780-6056



CHAIN OF CUSTODY RECORD

Hampton-Clarke
 A Women-Owned, Disadvantaged, Small Business Enterprise
 NELAC/INJ #07071 | PA #68-00463 | NY #11408 | CT #PH-0671 | KY #90124 | DE HSCA Approved

Project # (Lab Use Only)
 9112101

Page 1 of 1

Customer Information

1a) Customer: INTERTEK - PS1
 Address: 2930 ESKRIDGE RD
FAIRFAX, VA 22031
 1b) Email/Cell/Fax/Ph: 703-698-9300
BOBBY LIN
 1c) Send Invoice to: nan.lin@intertek.com
rumova.ruth@intertek.com
 1d) Send Report to: rumova.ruth@intertek.com

Project Information

2a) Project: WMATA - Northern Station
01481517 - 1
 2b) Project Mgr: BOBBY LIN
 2c) Project Location (City/State): WASHINGTON, DC
 2d) Quote/PO # (If Applicable):

FOR LAB USE ONLY

Matrix Codes
 DW - Drinking Water S - Soil A - Air
 GW - Ground Water SL - Sludge
 WW - Waste Water OL - Oil
 OT - Other (please specify under item 9, Comments)

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample		Composite (C)	Grab (G)	7) Analysis (specify methods & parameter lists)							8) # of Bottles						9) Comments
			Date	Time			VOCs	SVOCs	TPH - GRO/DRO/ORO	PCBs	RCRA 13 PP	None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other: <u>DISTO</u>	
D61	SB-59 @ 1'	S	11/20/19	10:25	X	X	X	X	X	X	X	2	1							5 bottles
D02	SB-60 @ 5'	S	11/20/19	13:15	X	X	X	X	X	X	X	2	1							"
D03	SB-51 @ 10'	S	11/20/19	14:10	X	X	X	X	X	X	X	2	1							"

10) Relinquished by: [Signature] Accepted by: FEDIX Date: 11/20/19 Time: 7:45

Comments, Notes, Special Requirements, HAZARDS

Indicate if low-level methods required to meet current groundwater standards (SPLP for soil):

VOC (8260C SIM or 8011) BN or BNA (8270D SIM) SPLP (BN, BNA, Metals) 1,4 Dioxane

Check if applicable:

Project-Specific Reporting Limits High Contaminant Concentrations NJ LSRP Project (also check boxes above/right)

For NJ LSRP projects, indicate which standards need to be met:

NUDEP GWQS NUDEP SRS NUDEP SPLP Other (specify):

Cooler Temperature 2.6

11) Sampler (print name): _____ Date: _____

Additional Notes

Internal use: sampling plan (check box) HC or client FSP# _____

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9112101

Project: WMATA-Northern Station

Sample ID: SB-59@ 1'
 Lab#: AD14284-001
 Matrix: Soil/Terracore

Collection Date: 11/20/2019
 Receipt Date: 11/21/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		88

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	mg/kg	68	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	14.22	20	30	146	71	
Chlorobenzene	9.89	20	20	117	49	

Sample ID: SB-60 @ 5'
Lab#: AD14284-002
Matrix: Soil/Terracore

Collection Date: 11/20/2019
Receipt Date: 11/21/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		91

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	mg/kg	66	78		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	14.34	20	30	146	72	
Chlorobenzene	10.42	20	20	117	52	

Sample ID: SB-51 @ 10'
Lab#: AD14284-003
Matrix: Soil/Terracore

Collection Date: 11/20/2019
Receipt Date: 11/21/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		84

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	10	mg/kg	710	2500		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	0.00	20	30	146	0	S8
Chlorobenzene	0.00	20	20	117	0	S8

Hampton-Clarke, Inc. (WBE/DBE/SBE)
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 Service Center: 137-D Galliter Drive, Mount Laurel, New Jersey 08054
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CHAIN OF CUSTODY RECORD

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Project # (Lab Use Only)
 9112101

Page 1 of

Customer Information

1a) Customer: INTERTEK - PS1
 Address: 2930 ESKRIDGE RD
FAIRFAX, VA 22031
 1b) Email/Cell/Fax/Ph: 703-698-9300
BOBBY LIN
 1c) Send Invoice to: nan.lin@intertek.com
rumova.ruth@intertek.com
 1d) Send Report to: rumova.ruth@intertek.com

Project Information

2a) Project: WMATA - Northern Station
01481517 - 1
 2b) Project Mgr: BOBBY LIN
 2c) Project Location (City/State): WASHINGTON, DC
 2d) Quote/PO # (If Applicable):

FOR LAB USE ONLY

Matrix Codes
 DW - Drinking Water S - Soil A - Air
 GW - Ground Water SL - Sludge
 WW - Waste Water OL - Oil
 OT - Other (please specify under item 9, Comments)

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample		Composite (C)	Grab (G)	7) Analysis (specify methods & parameter lists)							8) # of Bottles						9) Comments
			Date	Time			VOCs	SVOCs	TPH - GRO/DRO/ORO	PCBs	RCRA 13 PP	None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other: <u>DISTO</u>	
D61	SB-59 @ 1'	S	11/20/19	10:25	X	X	X	X	X	X	X	X	X	X	X	X	X	5 bottles		
D02	SB-60 @ 5'	S	11/20/19	13:15	X	X	X	X	X	X	X	X	X	X	X	X	X	"		
D03	SB-51 @ 10'	S	11/20/19	14:10	X	X	X	X	X	X	X	X	X	X	X	X	X	"		

10) Relinquished by: [Signature] Accepted by: FEDIX Date: 11/21/19 Time: 7:45

Comments, Notes, Special Requirements, HAZARDS

Indicate if low-level methods required to meet current groundwater standards (SPLP for soil):

VOC (8260C SIM or 8011) BN or BNA (8270D SIM) SPLP (BN, BNA, Metals) 1,4 Dioxane

Check if applicable: Project-Specific Reporting Limits High Contaminant Concentrations NJ LSRP Project (also check boxes above/right)

For NJ LSRP projects, indicate which standards need to be met: NUDEP GWQS NUDEP SRS NUDEP SPLP Other (specify):

Cooler Temperature: 2.6

11) Sampler (print name): _____ Date: _____

Additional Notes

Internal use: sampling plan (check box) HC or client FSP# _____

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9112202

Project: WMATA-Northern Station

Sample ID: SB-46 @ 22'
 Lab#: AD14310-001
 Matrix: Soil/Terracore

Collection Date: 11/21/2019
 Receipt Date: 11/22/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		84

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	94	mg/kg	28	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	30.61	30	50	150	102	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.099	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.030	ND		
Aroclor-1016	1	mg/kg	0.030	ND		
Aroclor-1221	1	mg/kg	0.030	ND		
Aroclor-1232	1	mg/kg	0.030	ND		
Aroclor-1242	1	mg/kg	0.030	ND		
Aroclor-1248	1	mg/kg	0.030	ND		
Aroclor-1254	1	mg/kg	0.030	ND		
Aroclor-1260	1	mg/kg	0.030	ND		
Aroclor-1262	1	mg/kg	0.030	ND		
Aroclor-1268	1	mg/kg	0.030	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	90.12	100	37	141	90	
TCMX-Surrogate	80.08	100	37	141	80	
DCB-Surrogate	85.39	100	34	146	85	
DCB-Surrogate	72.51	100	34	146	73	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	12	60
Chromium	1	mg/kg	6.0	25
Copper	1	mg/kg	6.0	23
Lead	1	mg/kg	6.0	10
Nickel	1	mg/kg	6.0	15
Zinc	1	mg/kg	12	40

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.95	ND
Arsenic	1	mg/kg	0.24	1.5
Beryllium	1	mg/kg	0.24	1.0
Cadmium	1	mg/kg	0.48	ND
Selenium	1	mg/kg	2.4	ND
Silver	1	mg/kg	0.24	ND
Thallium	1	mg/kg	0.48	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	1	mg/kg	0.040	ND
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.040	ND
2,3,4,6-Tetrachlorophenol	1	mg/kg	0.040	ND
2,4,5-Trichlorophenol	1	mg/kg	0.040	ND

Sample ID: SB-46 @ 22'
 Lab#: AD14310-001
 Matrix: Soil/Terracore

Collection Date: 11/21/2019
 Receipt Date: 11/22/2019

2,4,6-Trichlorophenol	1	mg/kg	0.040	ND
2,4-Dichlorophenol	1	mg/kg	0.0099	ND
2,4-Dimethylphenol	1	mg/kg	0.0099	ND
2,4-Dinitrophenol	1	mg/kg	0.20	ND
2,4-Dinitrotoluene	1	mg/kg	0.040	ND
2,6-Dinitrotoluene	1	mg/kg	0.040	ND
2-Chloronaphthalene	1	mg/kg	0.040	ND
2-Chlorophenol	1	mg/kg	0.040	ND
2-Methylnaphthalene	1	mg/kg	0.040	ND
2-Methylphenol	1	mg/kg	0.0099	ND
2-Nitroaniline	1	mg/kg	0.040	ND
2-Nitrophenol	1	mg/kg	0.040	ND
3&4-Methylphenol	1	mg/kg	0.0099	ND
3,3'-Dichlorobenzidine	1	mg/kg	0.040	ND
3-Nitroaniline	1	mg/kg	0.040	ND
4,6-Dinitro-2-methylphenol	1	mg/kg	0.20	ND
4-Bromophenyl-phenylether	1	mg/kg	0.040	ND
4-Chloro-3-methylphenol	1	mg/kg	0.040	ND
4-Chloroaniline	1	mg/kg	0.0099	ND
4-Chlorophenyl-phenylether	1	mg/kg	0.040	ND
4-Nitroaniline	1	mg/kg	0.040	ND
4-Nitrophenol	1	mg/kg	0.040	ND
Acenaphthene	1	mg/kg	0.040	ND
Acenaphthylene	1	mg/kg	0.040	ND
Acetophenone	1	mg/kg	0.040	ND
Anthracene	1	mg/kg	0.040	ND
Atrazine	1	mg/kg	0.040	ND
Benzaldehyde	1	mg/kg	0.040	ND
Benzo[a]anthracene	1	mg/kg	0.040	ND
Benzo[a]pyrene	1	mg/kg	0.040	ND
Benzo[b]fluoranthene	1	mg/kg	0.040	ND
Benzo[g,h,i]perylene	1	mg/kg	0.040	ND
Benzo[k]fluoranthene	1	mg/kg	0.040	ND
bis(2-Chloroethoxy)methane	1	mg/kg	0.040	ND
bis(2-Chloroethyl)ether	1	mg/kg	0.0099	ND
bis(2-Chloroisopropyl)ether	1	mg/kg	0.040	ND
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.040	ND
Butylbenzylphthalate	1	mg/kg	0.040	ND
Caprolactam	1	mg/kg	0.040	ND
Carbazole	1	mg/kg	0.040	ND
Chrysene	1	mg/kg	0.040	ND
Dibenzo[a,h]anthracene	1	mg/kg	0.040	ND
Dibenzofuran	1	mg/kg	0.0099	ND
Diethylphthalate	1	mg/kg	0.040	ND
Dimethylphthalate	1	mg/kg	0.040	ND
Di-n-butylphthalate	1	mg/kg	0.0099	ND
Di-n-octylphthalate	1	mg/kg	0.040	ND
Fluoranthene	1	mg/kg	0.040	ND
Fluorene	1	mg/kg	0.040	ND
Hexachlorobenzene	1	mg/kg	0.040	ND
Hexachlorobutadiene	1	mg/kg	0.040	ND
Hexachlorocyclopentadiene	1	mg/kg	0.040	ND
Hexachloroethane	1	mg/kg	0.040	ND
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.040	ND
Isophorone	1	mg/kg	0.040	ND
Naphthalene	1	mg/kg	0.0099	ND
Nitrobenzene	1	mg/kg	0.040	ND
N-Nitroso-di-n-propylamine	1	mg/kg	0.0099	ND
N-Nitrosodiphenylamine	1	mg/kg	0.040	ND
Pentachlorophenol	1	mg/kg	0.20	ND
Phenanthrene	1	mg/kg	0.040	ND
Phenol	1	mg/kg	0.040	ND
Pyrene	1	mg/kg	0.040	ND

Sample ID: SB-46 @ 22'
 Lab#: AD14310-001
 Matrix: Soil/Terracore

Collection Date: 11/21/2019
 Receipt Date: 11/22/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	64.90	50	58	148	130	
Phenol-d5	103.15	100	49	129	103	
Nitrobenzene-d5	48.94	50	52	129	98	
2-Fluorophenol	97.84	100	43	128	98	
2-Fluorobiphenyl	52.83	50	58	125	106	
2,4,6-Tribromophenol	126.50	100	54	145	126	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result
Total Petroleum Hydrocarbons	1	mg/kg	71	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	13.34	20	30	146	67	
Chlorobenzene	10.35	20	20	117	52	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	0.921	mg/kg	0.0022	ND
1,1,2,2-Tetrachloroethane	0.921	mg/kg	0.0022	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	0.921	mg/kg	0.0022	ND
1,1,2-Trichloroethane	0.921	mg/kg	0.0022	ND
1,1-Dichloroethane	0.921	mg/kg	0.0022	ND
1,1-Dichloroethene	0.921	mg/kg	0.0022	ND
1,2,3-Trichlorobenzene	0.921	mg/kg	0.0022	ND
1,2,4-Trichlorobenzene	0.921	mg/kg	0.0022	ND
1,2-Dibromo-3-chloropropane	0.921	mg/kg	0.0022	ND
1,2-Dibromoethane	0.921	mg/kg	0.00086	ND
1,2-Dichlorobenzene	0.921	mg/kg	0.0022	ND
1,2-Dichloroethane	0.921	mg/kg	0.0022	ND
1,2-Dichloropropane	0.921	mg/kg	0.0022	ND
1,3-Dichlorobenzene	0.921	mg/kg	0.0022	ND
1,4-Dichlorobenzene	0.921	mg/kg	0.0022	ND
1,4-Dioxane	0.921	mg/kg	0.11	ND
2-Butanone	0.921	mg/kg	0.0022	ND
2-Hexanone	0.921	mg/kg	0.0022	ND
4-Methyl-2-pentanone	0.921	mg/kg	0.0022	ND
Acetone	0.921	mg/kg	0.011	ND
Benzene	0.921	mg/kg	0.0011	ND
Bromochloromethane	0.921	mg/kg	0.0022	ND
Bromodichloromethane	0.921	mg/kg	0.0022	ND
Bromofom	0.921	mg/kg	0.0022	ND
Bromomethane	0.921	mg/kg	0.0022	ND
Carbon disulfide	0.921	mg/kg	0.0022	ND
Carbon tetrachloride	0.921	mg/kg	0.0022	ND
Chlorobenzene	0.921	mg/kg	0.0022	ND
Chloroethane	0.921	mg/kg	0.0022	ND
Chloroform	0.921	mg/kg	0.0022	ND
Chloromethane	0.921	mg/kg	0.0022	ND
cis-1,2-Dichloroethene	0.921	mg/kg	0.0022	ND
cis-1,3-Dichloropropene	0.921	mg/kg	0.0022	ND
Cyclohexane	0.921	mg/kg	0.0022	ND
Dibromochloromethane	0.921	mg/kg	0.0022	ND
Dichlorodifluoromethane	0.921	mg/kg	0.0022	ND
Ethylbenzene	0.921	mg/kg	0.0011	ND
Isopropylbenzene	0.921	mg/kg	0.0011	ND
m&p-Xylenes	0.921	mg/kg	0.0011	ND
Methyl Acetate	0.921	mg/kg	0.0022	ND
Methylcyclohexane	0.921	mg/kg	0.0022	ND
Methylene chloride	0.921	mg/kg	0.0022	0.0099
Methyl-t-butyl ether	0.921	mg/kg	0.0011	ND
o-Xylene	0.921	mg/kg	0.0011	ND
Styrene	0.921	mg/kg	0.0022	ND
Tetrachloroethene	0.921	mg/kg	0.0022	0.016
Toluene	0.921	mg/kg	0.0011	ND
trans-1,2-Dichloroethene	0.921	mg/kg	0.0022	ND
trans-1,3-Dichloropropene	0.921	mg/kg	0.0022	ND
Trichloroethene	0.921	mg/kg	0.0022	ND
Trichlorofluoromethane	0.921	mg/kg	0.0022	ND

Sample ID: SB-46 @ 22'
Lab#: AD14310-001
Matrix: Soil/Terracore

Collection Date: 11/21/2019
Receipt Date: 11/22/2019

Vinyl chloride	0.921	mg/kg	0.0022		ND	
Xylenes (Total)	0.921	mg/kg	0.0011		ND	
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	28.18	30	68	122	94	
Dibromofluoromethane	30.00	30	63	140	100	
Bromofluorobenzene	30.91	30	64	129	103	
1,2-Dichloroethane-d4	29.43	30	63	143	98	

Sample ID: SB-40@ 19'
 Lab#: AD14310-002
 Matrix: Soil/Terracore

Collection Date: 11/21/2019
 Receipt Date: 11/22/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		84

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	95.4	mg/kg	28	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	30.46	30	50	150	102	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.099	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.030	ND		
Aroclor-1016	1	mg/kg	0.030	ND		
Aroclor-1221	1	mg/kg	0.030	ND		
Aroclor-1232	1	mg/kg	0.030	ND		
Aroclor-1242	1	mg/kg	0.030	ND		
Aroclor-1248	1	mg/kg	0.030	ND		
Aroclor-1254	1	mg/kg	0.030	ND		
Aroclor-1260	1	mg/kg	0.030	ND		
Aroclor-1262	1	mg/kg	0.030	ND		
Aroclor-1268	1	mg/kg	0.030	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	109.12	100	37	141	109	
TCMX-Surrogate	94.45	100	37	141	94	
DCB-Surrogate	91.56	100	34	146	92	
DCB-Surrogate	76.51	100	34	146	77	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	12	110
Chromium	1	mg/kg	6.0	36
Copper	1	mg/kg	6.0	24
Lead	1	mg/kg	6.0	12
Nickel	1	mg/kg	6.0	23
Zinc	1	mg/kg	12	62

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.95	ND
Arsenic	1	mg/kg	0.24	1.5
Beryllium	1	mg/kg	0.24	0.46
Cadmium	1	mg/kg	0.48	ND
Selenium	1	mg/kg	2.4	ND
Silver	1	mg/kg	0.24	ND
Thallium	1	mg/kg	0.48	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	1	mg/kg	0.040	ND
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.040	ND
2,3,4,6-Tetrachlorophenol	1	mg/kg	0.040	ND
2,4,5-Trichlorophenol	1	mg/kg	0.040	ND
2,4,6-Trichlorophenol	1	mg/kg	0.040	ND
2,4-Dichlorophenol	1	mg/kg	0.0099	ND
2,4-Dimethylphenol	1	mg/kg	0.0099	ND
2,4-Dinitrophenol	1	mg/kg	0.20	ND
2,4-Dinitrotoluene	1	mg/kg	0.040	ND
2,6-Dinitrotoluene	1	mg/kg	0.040	ND
2-Chloronaphthalene	1	mg/kg	0.040	ND
2-Chlorophenol	1	mg/kg	0.040	ND

Sample ID: SB-40@ 19'
 Lab#: AD14310-002
 Matrix: Soil/Terracore

Collection Date: 11/21/2019
 Receipt Date: 11/22/2019

2-Methylnaphthalene	1	mg/kg	0.040	ND
2-Methylphenol	1	mg/kg	0.0099	ND
2-Nitroaniline	1	mg/kg	0.040	ND
2-Nitrophenol	1	mg/kg	0.040	ND
3&4-Methylphenol	1	mg/kg	0.0099	ND
3,3'-Dichlorobenzidine	1	mg/kg	0.040	ND
3-Nitroaniline	1	mg/kg	0.040	ND
4,6-Dinitro-2-methylphenol	1	mg/kg	0.20	ND
4-Bromophenyl-phenylether	1	mg/kg	0.040	ND
4-Chloro-3-methylphenol	1	mg/kg	0.040	ND
4-Chloroaniline	1	mg/kg	0.0099	ND
4-Chlorophenyl-phenylether	1	mg/kg	0.040	ND
4-Nitroaniline	1	mg/kg	0.040	ND
4-Nitrophenol	1	mg/kg	0.040	ND
Acenaphthene	1	mg/kg	0.040	ND
Acenaphthylene	1	mg/kg	0.040	ND
Acetophenone	1	mg/kg	0.040	ND
Anthracene	1	mg/kg	0.040	ND
Atrazine	1	mg/kg	0.040	ND
Benzaldehyde	1	mg/kg	0.040	ND
Benzo[a]anthracene	1	mg/kg	0.040	ND
Benzo[a]pyrene	1	mg/kg	0.040	ND
Benzo[b]fluoranthene	1	mg/kg	0.040	ND
Benzo[g,h,i]perylene	1	mg/kg	0.040	ND
Benzo[k]fluoranthene	1	mg/kg	0.040	ND
bis(2-Chloroethoxy)methane	1	mg/kg	0.040	ND
bis(2-Chloroethyl)ether	1	mg/kg	0.0099	ND
bis(2-Chloroisopropyl)ether	1	mg/kg	0.040	ND
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.040	ND
Butylbenzylphthalate	1	mg/kg	0.040	ND
Caprolactam	1	mg/kg	0.040	ND
Carbazole	1	mg/kg	0.040	ND
Chrysene	1	mg/kg	0.040	ND
Dibenzo[a,h]anthracene	1	mg/kg	0.040	ND
Dibenzofuran	1	mg/kg	0.0099	ND
Diethylphthalate	1	mg/kg	0.040	ND
Dimethylphthalate	1	mg/kg	0.040	ND
Di-n-butylphthalate	1	mg/kg	0.0099	0.015
Di-n-octylphthalate	1	mg/kg	0.040	ND
Fluoranthene	1	mg/kg	0.040	ND
Fluorene	1	mg/kg	0.040	ND
Hexachlorobenzene	1	mg/kg	0.040	ND
Hexachlorobutadiene	1	mg/kg	0.040	ND
Hexachlorocyclopentadiene	1	mg/kg	0.040	ND
Hexachloroethane	1	mg/kg	0.040	ND
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.040	ND
Isophorone	1	mg/kg	0.040	ND
Naphthalene	1	mg/kg	0.0099	ND
Nitrobenzene	1	mg/kg	0.040	ND
N-Nitroso-di-n-propylamine	1	mg/kg	0.0099	ND
N-Nitrosodiphenylamine	1	mg/kg	0.040	ND
Pentachlorophenol	1	mg/kg	0.20	ND
Phenanthrene	1	mg/kg	0.040	ND
Phenol	1	mg/kg	0.040	ND
Pyrene	1	mg/kg	0.040	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	69.29	50	58	148	139	
Phenol-d5	106.32	100	49	129	106	
Nitrobenzene-d5	48.42	50	52	129	97	
2-Fluorophenol	99.95	100	43	128	100	
2-Fluorobiphenyl	52.30	50	58	125	105	
2,4,6-Tribromophenol	129.98	100	54	145	130	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	1	mg/kg	71	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	14.78	20	30	146	74	
Chlorobenzene	7.41	20	20	117	37	

Sample ID: SB-40@ 19'
 Lab#: AD14310-002
 Matrix: Soil/Terracore

Collection Date: 11/21/2019
 Receipt Date: 11/22/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	0.879	mg/kg	0.0021	ND		
1,1,2,2-Tetrachloroethane	0.879	mg/kg	0.0021	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	0.879	mg/kg	0.0021	ND		
1,1,2-Trichloroethane	0.879	mg/kg	0.0021	ND		
1,1-Dichloroethane	0.879	mg/kg	0.0021	ND		
1,1-Dichloroethene	0.879	mg/kg	0.0021	ND		
1,2,3-Trichlorobenzene	0.879	mg/kg	0.0021	ND		
1,2,4-Trichlorobenzene	0.879	mg/kg	0.0021	ND		
1,2-Dibromo-3-chloropropane	0.879	mg/kg	0.0021	ND		
1,2-Dibromoethane	0.879	mg/kg	0.00082	ND		
1,2-Dichlorobenzene	0.879	mg/kg	0.0021	ND		
1,2-Dichloroethane	0.879	mg/kg	0.0021	ND		
1,2-Dichloropropane	0.879	mg/kg	0.0021	ND		
1,3-Dichlorobenzene	0.879	mg/kg	0.0021	ND		
1,4-Dichlorobenzene	0.879	mg/kg	0.0021	ND		
1,4-Dioxane	0.879	mg/kg	0.10	ND		
2-Butanone	0.879	mg/kg	0.0021	ND		
2-Hexanone	0.879	mg/kg	0.0021	ND		
4-Methyl-2-pentanone	0.879	mg/kg	0.0021	ND		
Acetone	0.879	mg/kg	0.010	ND		
Benzene	0.879	mg/kg	0.0010	ND		
Bromochloromethane	0.879	mg/kg	0.0021	ND		
Bromodichloromethane	0.879	mg/kg	0.0021	ND		
Bromoform	0.879	mg/kg	0.0021	ND		
Bromomethane	0.879	mg/kg	0.0021	ND		
Carbon disulfide	0.879	mg/kg	0.0021	ND		
Carbon tetrachloride	0.879	mg/kg	0.0021	ND		
Chlorobenzene	0.879	mg/kg	0.0021	ND		
Chloroethane	0.879	mg/kg	0.0021	ND		
Chloroform	0.879	mg/kg	0.0021	ND		
Chloromethane	0.879	mg/kg	0.0021	ND		
cis-1,2-Dichloroethene	0.879	mg/kg	0.0021	0.0050		
cis-1,3-Dichloropropene	0.879	mg/kg	0.0021	ND		
Cyclohexane	0.879	mg/kg	0.0021	ND		
Dibromochloromethane	0.879	mg/kg	0.0021	ND		
Dichlorodifluoromethane	0.879	mg/kg	0.0021	ND		
Ethylbenzene	0.879	mg/kg	0.0010	ND		
Isopropylbenzene	0.879	mg/kg	0.0010	ND		
m&p-Xylenes	0.879	mg/kg	0.0010	ND		
Methyl Acetate	0.879	mg/kg	0.0021	ND		
Methylcyclohexane	0.879	mg/kg	0.0021	ND		
Methylene chloride	0.879	mg/kg	0.0021	0.013		
Methyl-t-butyl ether	0.879	mg/kg	0.0010	ND		
o-Xylene	0.879	mg/kg	0.0010	ND		
Styrene	0.879	mg/kg	0.0021	ND		
Tetrachloroethene	0.879	mg/kg	0.0021	0.27		
Toluene	0.879	mg/kg	0.0010	ND		
trans-1,2-Dichloroethene	0.879	mg/kg	0.0021	ND		
trans-1,3-Dichloropropene	0.879	mg/kg	0.0021	ND		
Trichloroethene	0.879	mg/kg	0.0021	0.010		
Trichlorofluoromethane	0.879	mg/kg	0.0021	ND		
Vinyl chloride	0.879	mg/kg	0.0021	ND		
Xylenes (Total)	0.879	mg/kg	0.0010	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	27.95	30	68	122	93	
Dibromofluoromethane	29.52	30	63	140	98	
Bromofluorobenzene	31.49	30	64	129	105	
1,2-Dichloroethane-d4	29.17	30	63	143	97	

Sample ID: SB-32@ 1'
 Lab#: AD14310-003
 Matrix: Soil/Terracore

Collection Date: 11/21/2019
 Receipt Date: 11/22/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		93

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	115	mg/kg	31	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	32.02	30	50	150	107	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.090	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.027	ND		
Aroclor-1016	1	mg/kg	0.027	ND		
Aroclor-1221	1	mg/kg	0.027	ND		
Aroclor-1232	1	mg/kg	0.027	ND		
Aroclor-1242	1	mg/kg	0.027	ND		
Aroclor-1248	1	mg/kg	0.027	ND		
Aroclor-1254	1	mg/kg	0.027	ND		
Aroclor-1260	1	mg/kg	0.027	ND		
Aroclor-1262	1	mg/kg	0.027	ND		
Aroclor-1268	1	mg/kg	0.027	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	93.24	100	37	141	93	
TCMX-Surrogate	75.20	100	37	141	75	
DCB-Surrogate	78.23	100	34	146	78	
DCB-Surrogate	65.63	100	34	146	66	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	11	110
Chromium	1	mg/kg	5.4	22
Copper	1	mg/kg	5.4	46
Lead	1	mg/kg	5.4	51
Nickel	1	mg/kg	5.4	17
Zinc	1	mg/kg	11	120

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.86	ND
Arsenic	1	mg/kg	0.22	1.7
Beryllium	1	mg/kg	0.22	0.34
Cadmium	1	mg/kg	0.43	ND
Selenium	1	mg/kg	2.2	ND
Silver	1	mg/kg	0.22	ND
Thallium	1	mg/kg	0.43	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	5	mg/kg	0.18	ND
1,2,4,5-Tetrachlorobenzene	5	mg/kg	0.18	ND
2,3,4,6-Tetrachlorophenol	5	mg/kg	0.18	ND
2,4,5-Trichlorophenol	5	mg/kg	0.18	ND
2,4,6-Trichlorophenol	5	mg/kg	0.18	ND
2,4-Dichlorophenol	5	mg/kg	0.045	ND
2,4-Dimethylphenol	5	mg/kg	0.045	ND
2,4-Dinitrophenol	5	mg/kg	0.90	ND
2,4-Dinitrotoluene	5	mg/kg	0.18	ND
2,6-Dinitrotoluene	5	mg/kg	0.18	ND
2-Chloronaphthalene	5	mg/kg	0.18	ND
2-Chlorophenol	5	mg/kg	0.18	ND

Sample ID: SB-32@ 1'
 Lab#: AD14310-003
 Matrix: Soil/Terracore

Collection Date: 11/21/2019
 Receipt Date: 11/22/2019

2-Methylnaphthalene	5	mg/kg	0.18	ND
2-Methylphenol	5	mg/kg	0.045	ND
2-Nitroaniline	5	mg/kg	0.18	ND
2-Nitrophenol	5	mg/kg	0.18	ND
3&4-Methylphenol	5	mg/kg	0.045	ND
3,3'-Dichlorobenzidine	5	mg/kg	0.18	ND
3-Nitroaniline	5	mg/kg	0.18	ND
4,6-Dinitro-2-methylphenol	5	mg/kg	0.90	ND
4-Bromophenyl-phenylether	5	mg/kg	0.18	ND
4-Chloro-3-methylphenol	5	mg/kg	0.18	ND
4-Chloroaniline	5	mg/kg	0.045	ND
4-Chlorophenyl-phenylether	5	mg/kg	0.18	ND
4-Nitroaniline	5	mg/kg	0.18	ND
4-Nitrophenol	5	mg/kg	0.18	ND
Acenaphthene	5	mg/kg	0.18	ND
Acenaphthylene	5	mg/kg	0.18	ND
Acetophenone	5	mg/kg	0.18	ND
Anthracene	5	mg/kg	0.18	0.56
Atrazine	5	mg/kg	0.18	ND
Benzaldehyde	5	mg/kg	0.18	ND
Benzo[a]anthracene	5	mg/kg	0.18	1.3
Benzo[a]pyrene	5	mg/kg	0.18	1.2
Benzo[b]fluoranthene	5	mg/kg	0.18	1.6
Benzo[g,h,i]perylene	5	mg/kg	0.18	0.83
Benzo[k]fluoranthene	5	mg/kg	0.18	0.55
bis(2-Chloroethoxy)methane	5	mg/kg	0.18	ND
bis(2-Chloroethyl)ether	5	mg/kg	0.045	ND
bis(2-Chloroisopropyl)ether	5	mg/kg	0.18	ND
bis(2-Ethylhexyl)phthalate	5	mg/kg	0.18	ND
Butylbenzylphthalate	5	mg/kg	0.18	ND
Caprolactam	5	mg/kg	0.18	ND
Carbazole	5	mg/kg	0.18	ND
Chrysene	5	mg/kg	0.18	1.2
Dibenzo[a,h]anthracene	5	mg/kg	0.18	0.20
Dibenzofuran	5	mg/kg	0.045	0.10
Diethylphthalate	5	mg/kg	0.18	ND
Dimethylphthalate	5	mg/kg	0.18	ND
Di-n-butylphthalate	5	mg/kg	0.045	ND
Di-n-octylphthalate	5	mg/kg	0.18	ND
Fluoranthene	5	mg/kg	0.18	2.3
Fluorene	5	mg/kg	0.18	ND
Hexachlorobenzene	5	mg/kg	0.18	ND
Hexachlorobutadiene	5	mg/kg	0.18	ND
Hexachlorocyclopentadiene	5	mg/kg	0.18	ND
Hexachloroethane	5	mg/kg	0.18	ND
Indeno[1,2,3-cd]pyrene	5	mg/kg	0.18	0.68
Isophorone	5	mg/kg	0.18	ND
Naphthalene	5	mg/kg	0.045	ND
Nitrobenzene	5	mg/kg	0.18	ND
N-Nitroso-di-n-propylamine	5	mg/kg	0.045	ND
N-Nitrosodiphenylamine	5	mg/kg	0.18	ND
Pentachlorophenol	5	mg/kg	0.90	ND
Phenanthrene	5	mg/kg	0.18	1.5
Phenol	5	mg/kg	0.18	ND
Pyrene	5	mg/kg	0.18	2.1

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	14.11	50	58	148	141	
Phenol-d5	22.24	100	49	129	111	
Nitrobenzene-d5	9.76	50	52	129	98	
2-Fluorophenol	20.39	100	43	128	102	
2-Fluorobiphenyl	13.08	50	58	125	131	Sb8
2,4,6-Tribromophenol	25.94	100	54	145	130	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	1	mg/kg	65	340		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	14.35	20	30	146	72	
Chlorobenzene	10.24	20	20	117	51	

Sample ID: SB-32@ 1'
 Lab#: AD14310-003
 Matrix: Soil/Terracore

Collection Date: 11/21/2019
 Receipt Date: 11/22/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1.12	mg/kg	0.0024	ND		
1,1,2,2-Tetrachloroethane	1.12	mg/kg	0.0024	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1.12	mg/kg	0.0024	ND		
1,1,2-Trichloroethane	1.12	mg/kg	0.0024	ND		
1,1-Dichloroethane	1.12	mg/kg	0.0024	ND		
1,1-Dichloroethene	1.12	mg/kg	0.0024	ND		
1,2,3-Trichlorobenzene	1.12	mg/kg	0.0024	ND		
1,2,4-Trichlorobenzene	1.12	mg/kg	0.0024	ND		
1,2-Dibromo-3-chloropropane	1.12	mg/kg	0.0024	ND		
1,2-Dibromoethane	1.12	mg/kg	0.00094	ND		
1,2-Dichlorobenzene	1.12	mg/kg	0.0024	ND		
1,2-Dichloroethane	1.12	mg/kg	0.0024	ND		
1,2-Dichloropropane	1.12	mg/kg	0.0024	ND		
1,3-Dichlorobenzene	1.12	mg/kg	0.0024	ND		
1,4-Dichlorobenzene	1.12	mg/kg	0.0024	ND		
1,4-Dioxane	1.12	mg/kg	0.12	ND		
2-Butanone	1.12	mg/kg	0.0024	0.0035		
2-Hexanone	1.12	mg/kg	0.0024	ND		
4-Methyl-2-pentanone	1.12	mg/kg	0.0024	ND		
Acetone	1.12	mg/kg	0.012	0.025		
Benzene	1.12	mg/kg	0.0012	ND		
Bromochloromethane	1.12	mg/kg	0.0024	ND		
Bromodichloromethane	1.12	mg/kg	0.0024	ND		
Bromoform	1.12	mg/kg	0.0024	ND		
Bromomethane	1.12	mg/kg	0.0024	ND		
Carbon disulfide	1.12	mg/kg	0.0024	ND		
Carbon tetrachloride	1.12	mg/kg	0.0024	ND		
Chlorobenzene	1.12	mg/kg	0.0024	ND		
Chloroethane	1.12	mg/kg	0.0024	ND		
Chloroform	1.12	mg/kg	0.0024	ND		
Chloromethane	1.12	mg/kg	0.0024	ND		
cis-1,2-Dichloroethene	1.12	mg/kg	0.0024	ND		
cis-1,3-Dichloropropene	1.12	mg/kg	0.0024	ND		
Cyclohexane	1.12	mg/kg	0.0024	ND		
Dibromochloromethane	1.12	mg/kg	0.0024	ND		
Dichlorodifluoromethane	1.12	mg/kg	0.0024	ND		
Ethylbenzene	1.12	mg/kg	0.0012	ND		
Isopropylbenzene	1.12	mg/kg	0.0012	ND		
m&p-Xylenes	1.12	mg/kg	0.0012	ND		
Methyl Acetate	1.12	mg/kg	0.0024	ND		
Methylcyclohexane	1.12	mg/kg	0.0024	ND		
Methylene chloride	1.12	mg/kg	0.0024	0.0061		
Methyl-t-butyl ether	1.12	mg/kg	0.0012	ND		
o-Xylene	1.12	mg/kg	0.0012	ND		
Styrene	1.12	mg/kg	0.0024	ND		
Tetrachloroethene	1.12	mg/kg	0.0024	ND		
Toluene	1.12	mg/kg	0.0012	ND		
trans-1,2-Dichloroethene	1.12	mg/kg	0.0024	ND		
trans-1,3-Dichloropropene	1.12	mg/kg	0.0024	ND		
Trichloroethene	1.12	mg/kg	0.0024	ND		
Trichlorofluoromethane	1.12	mg/kg	0.0024	ND		
Vinyl chloride	1.12	mg/kg	0.0024	ND		
Xylenes (Total)	1.12	mg/kg	0.0012	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	28.04	30	68	122	93	
Dibromofluoromethane	29.96	30	63	140	100	
Bromofluorobenzene	30.99	30	64	129	103	
1,2-Dichloroethane-d4	29.60	30	63	143	99	

Sample ID: SB-11 @ 1'
 Lab#: AD14310-004
 Matrix: Soil/Terracore

Collection Date: 11/21/2019
 Receipt Date: 11/22/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		87

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	89	mg/kg	26	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	31.19	30	50	150	104	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.096	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.029	ND		
Aroclor-1016	1	mg/kg	0.029	ND		
Aroclor-1221	1	mg/kg	0.029	ND		
Aroclor-1232	1	mg/kg	0.029	ND		
Aroclor-1242	1	mg/kg	0.029	ND		
Aroclor-1248	1	mg/kg	0.029	ND		
Aroclor-1254	1	mg/kg	0.029	ND		
Aroclor-1260	1	mg/kg	0.029	ND		
Aroclor-1262	1	mg/kg	0.029	ND		
Aroclor-1268	1	mg/kg	0.029	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	76.42	100	37	141	76	
TCMX-Surrogate	62.54	100	37	141	63	
DCB-Surrogate	69.17	100	34	146	69	
DCB-Surrogate	57.87	100	34	146	58	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	11	51
Chromium	1	mg/kg	5.7	27
Copper	1	mg/kg	5.7	26
Lead	1	mg/kg	5.7	47
Nickel	1	mg/kg	5.7	26
Zinc	1	mg/kg	11	60

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.92	ND
Arsenic	1	mg/kg	0.23	2.5
Beryllium	1	mg/kg	0.23	0.86
Cadmium	1	mg/kg	0.46	ND
Selenium	1	mg/kg	2.3	2.9
Silver	1	mg/kg	0.23	0.28
Thallium	1	mg/kg	0.46	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	1	mg/kg	0.038	ND
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.038	ND
2,3,4,6-Tetrachlorophenol	1	mg/kg	0.038	ND
2,4,5-Trichlorophenol	1	mg/kg	0.038	ND
2,4,6-Trichlorophenol	1	mg/kg	0.038	ND
2,4-Dichlorophenol	1	mg/kg	0.0096	ND
2,4-Dimethylphenol	1	mg/kg	0.0096	ND
2,4-Dinitrophenol	1	mg/kg	0.19	ND
2,4-Dinitrotoluene	1	mg/kg	0.038	ND
2,6-Dinitrotoluene	1	mg/kg	0.038	ND
2-Chloronaphthalene	1	mg/kg	0.038	ND
2-Chlorophenol	1	mg/kg	0.038	ND

Sample ID: SB-11 @ 1'
 Lab#: AD14310-004
 Matrix: Soil/Terracore

Collection Date: 11/21/2019
 Receipt Date: 11/22/2019

2-Methylnaphthalene	1	mg/kg	0.038	ND		
2-Methylphenol	1	mg/kg	0.0096	ND		
2-Nitroaniline	1	mg/kg	0.038	ND		
2-Nitrophenol	1	mg/kg	0.038	ND		
3&4-Methylphenol	1	mg/kg	0.0096	ND		
3,3'-Dichlorobenzidine	1	mg/kg	0.038	ND		
3-Nitroaniline	1	mg/kg	0.038	ND		
4,6-Dinitro-2-methylphenol	1	mg/kg	0.19	ND		
4-Bromophenyl-phenylether	1	mg/kg	0.038	ND		
4-Chloro-3-methylphenol	1	mg/kg	0.038	ND		
4-Chloroaniline	1	mg/kg	0.0096	ND		
4-Chlorophenyl-phenylether	1	mg/kg	0.038	ND		
4-Nitroaniline	1	mg/kg	0.038	ND		
4-Nitrophenol	1	mg/kg	0.038	ND		
Acenaphthene	1	mg/kg	0.038	ND		
Acenaphthylene	1	mg/kg	0.038	ND		
Acetophenone	1	mg/kg	0.038	ND		
Anthracene	1	mg/kg	0.038	0.11		
Atrazine	1	mg/kg	0.038	ND		
Benzaldehyde	1	mg/kg	0.038	ND		
Benzo[a]anthracene	1	mg/kg	0.038	0.29		
Benzo[a]pyrene	1	mg/kg	0.038	0.29		
Benzo[b]fluoranthene	1	mg/kg	0.038	0.40		
Benzo[g,h,i]perylene	1	mg/kg	0.038	0.21		
Benzo[k]fluoranthene	1	mg/kg	0.038	0.11		
bis(2-Chloroethoxy)methane	1	mg/kg	0.038	ND		
bis(2-Chloroethyl)ether	1	mg/kg	0.0096	ND		
bis(2-Chloroisopropyl)ether	1	mg/kg	0.038	ND		
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.038	0.078		
Butylbenzylphthalate	1	mg/kg	0.038	ND		
Caprolactam	1	mg/kg	0.038	ND		
Carbazole	1	mg/kg	0.038	ND		
Chrysene	1	mg/kg	0.038	0.29		
Dibenzo[a,h]anthracene	1	mg/kg	0.038	0.050		
Dibenzofuran	1	mg/kg	0.0096	0.032		
Diethylphthalate	1	mg/kg	0.038	ND		
Dimethylphthalate	1	mg/kg	0.038	ND		
Di-n-butylphthalate	1	mg/kg	0.0096	ND		
Di-n-octylphthalate	1	mg/kg	0.038	ND		
Fluoranthene	1	mg/kg	0.038	0.62		
Fluorene	1	mg/kg	0.038	0.057		
Hexachlorobenzene	1	mg/kg	0.038	ND		
Hexachlorobutadiene	1	mg/kg	0.038	ND		
Hexachlorocyclopentadiene	1	mg/kg	0.038	ND		
Hexachloroethane	1	mg/kg	0.038	ND		
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.038	0.17		
Isophorone	1	mg/kg	0.038	ND		
Naphthalene	1	mg/kg	0.0096	0.031		
Nitrobenzene	1	mg/kg	0.038	ND		
N-Nitroso-di-n-propylamine	1	mg/kg	0.0096	ND		
N-Nitrosodiphenylamine	1	mg/kg	0.038	ND		
Pentachlorophenol	1	mg/kg	0.19	ND		
Phenanthrene	1	mg/kg	0.038	0.22		
Phenol	1	mg/kg	0.038	ND		
Pyrene	1	mg/kg	0.038	0.64		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	63.11	50	58	148	126	
Phenol-d5	94.30	100	49	129	94	
Nitrobenzene-d5	45.92	50	52	129	92	
2-Fluorophenol	85.43	100	43	128	85	
2-Fluorobiphenyl	48.76	50	58	125	98	
2,4,6-Tribromophenol	110.91	100	54	145	111	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	1	mg/kg	69	790		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	13.91	20	30	146	70	
Chlorobenzene	10.64	20	20	117	53	

Sample ID: SB-11 @ 1'
 Lab#: AD14310-004
 Matrix: Soil/Terracore

Collection Date: 11/21/2019
 Receipt Date: 11/22/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	0.821	mg/kg	0.0019	ND		
1,1,2,2-Tetrachloroethane	0.821	mg/kg	0.0019	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	0.821	mg/kg	0.0019	ND		
1,1,2-Trichloroethane	0.821	mg/kg	0.0019	ND		
1,1-Dichloroethane	0.821	mg/kg	0.0019	ND		
1,1-Dichloroethene	0.821	mg/kg	0.0019	ND		
1,2,3-Trichlorobenzene	0.821	mg/kg	0.0019	ND		
1,2,4-Trichlorobenzene	0.821	mg/kg	0.0019	ND		
1,2-Dibromo-3-chloropropane	0.821	mg/kg	0.0019	ND		
1,2-Dibromoethane	0.821	mg/kg	0.00074	ND		
1,2-Dichlorobenzene	0.821	mg/kg	0.0019	ND		
1,2-Dichloroethane	0.821	mg/kg	0.0019	ND		
1,2-Dichloropropane	0.821	mg/kg	0.0019	ND		
1,3-Dichlorobenzene	0.821	mg/kg	0.0019	ND		
1,4-Dichlorobenzene	0.821	mg/kg	0.0019	ND		
1,4-Dioxane	0.821	mg/kg	0.094	ND		
2-Butanone	0.821	mg/kg	0.0019	0.0060		
2-Hexanone	0.821	mg/kg	0.0019	ND		
4-Methyl-2-pentanone	0.821	mg/kg	0.0019	ND		
Acetone	0.821	mg/kg	0.0094	0.043		
Benzene	0.821	mg/kg	0.00094	ND		
Bromochloromethane	0.821	mg/kg	0.0019	ND		
Bromodichloromethane	0.821	mg/kg	0.0019	ND		
Bromoform	0.821	mg/kg	0.0019	ND		
Bromomethane	0.821	mg/kg	0.0019	ND		
Carbon disulfide	0.821	mg/kg	0.0019	0.0029		
Carbon tetrachloride	0.821	mg/kg	0.0019	ND		
Chlorobenzene	0.821	mg/kg	0.0019	ND		
Chloroethane	0.821	mg/kg	0.0019	ND		
Chloroform	0.821	mg/kg	0.0019	ND		
Chloromethane	0.821	mg/kg	0.0019	ND		
cis-1,2-Dichloroethene	0.821	mg/kg	0.0019	ND		
cis-1,3-Dichloropropene	0.821	mg/kg	0.0019	ND		
Cyclohexane	0.821	mg/kg	0.0019	ND		
Dibromochloromethane	0.821	mg/kg	0.0019	ND		
Dichlorodifluoromethane	0.821	mg/kg	0.0019	ND		
Ethylbenzene	0.821	mg/kg	0.00094	ND		
Isopropylbenzene	0.821	mg/kg	0.00094	ND		
m&p-Xylenes	0.821	mg/kg	0.00094	ND		
Methyl Acetate	0.821	mg/kg	0.0019	ND		
Methylcyclohexane	0.821	mg/kg	0.0019	ND		
Methylene chloride	0.821	mg/kg	0.0019	0.0045		
Methyl-t-butyl ether	0.821	mg/kg	0.00094	ND		
o-Xylene	0.821	mg/kg	0.00094	ND		
Styrene	0.821	mg/kg	0.0019	ND		
Tetrachloroethene	0.821	mg/kg	0.0019	ND		
Toluene	0.821	mg/kg	0.00094	ND		
trans-1,2-Dichloroethene	0.821	mg/kg	0.0019	ND		
trans-1,3-Dichloropropene	0.821	mg/kg	0.0019	ND		
Trichloroethene	0.821	mg/kg	0.0019	ND		
Trichlorofluoromethane	0.821	mg/kg	0.0019	ND		
Vinyl chloride	0.821	mg/kg	0.0019	ND		
Xylenes (Total)	0.821	mg/kg	0.00094	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.20	30	68	122	97	
Dibromofluoromethane	29.75	30	63	140	99	
Bromofluorobenzene	27.27	30	64	129	91	
1,2-Dichloroethane-d4	29.40	30	63	143	98	



CHAIN OF CUSTODY RECORD

Hampton-Clarke
 A Women-Owned, Disadvantaged, Small Business Enterprise

Customer Information

1a) Customer: INTERTEK - PSI
 Address: 2930 ESKRIDGE RD
FAIRFAX, VA 22031
 1b) Email/Call/Fax/Ph: 703-698-9300
 1c) Send Invoice to: mon.lin@intertek.com
mon.lin@intertek.com
 1d) Send Report to: mon.lin@intertek.com
mon.lin@intertek.com

Project Information

2a) Project: WAMATA - Northern
Water # 0448 1517 - 1
 2b) Project Mgr: BOBBY LIN
 2c) Project Location (City/State): WASHINGTON TOWN, DC
 2d) Quote/PO # (if applicable):

Turnaround When Available:
 1 Business Day (100%)*
 2 Business Days (75%)*
 3 Business Days (50%)*
 4 Business Days (35%)*
 5 Business Days (25%)*
 * Business Days (Stand)
 Other:

Report Type Summary
 Results + QC (Waste)
 Reduced: [] NJ [] NY
 [] PA [] Other
 NJ Full / NY ASP CatB
 NY ASP CatA
 Other:

Electronic Data Deliv.
 NJ Hazsite
 Excel Reg. NJ / NY / PA
 EnviroData
 EQUIS: [] 4File [] EZ
 [] NYDEC
 [] Region 2 or 5
 Other:

FOR LAB USE ONLY

Matrix Codes
 DW - Drinking Water S - Soil A - Air
 GW - Ground Water SL - Sludge
 WW - Waste Water OL - Oil
 OT - Other (please specify under item 9, Comments)

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample		Composite (C)	Grab (G)	7) Analysis (specify methods & parameter lists)						8) # of Bottles						9) Comments	
			Date	Time			Sample Type	VOCs	SVOCs	TPH - Gro	PCB	PP	None	MeOH	En Core	NaOH	HCl	H2SO4		HNO3
001	SB-46 @ 22'	S	11/21/19	9:03	G	X	X	X	X	X	X	2	1						2	5 bottles
002	SB-40 @ 19'	S	10:20		G	X	X	X	X	X	X	2	1						2	
003	SB-32 @ 1'	S	12:04		G	X	X	X	X	X	X	2	1						2	
004	SB-11 @ 1'	S	13:33		G	X	X	X	X	X	X	2	1						2	

10) Relinquished by: [Signature] Date: 11/21/19

Accepted by: [Signature] Date: 11/22/19 8:20

11) Sampler (print name): FED EX Date: 11/22/19 8:20

Additional Notes
 Comments, Notes, Special Requirements, HAZARDS
 Indicate if low-level methods required to meet current groundwater standards (SPLP for soil):
 BN or BNA (8270D SIM) **NUDEP GWQS**
 VOC (8260C SIM or 8011) **NUDEP SRS**
 SPLP (BN, BNA, Metals) **NUDEP SPLP**
 1,4 Dioxane Other (specify):
 Check if applicable:
 Project-Specific Reporting Limits
 High Contaminant Concentrations
 NJ LSRP Project (also check boxes above/right)
 Please note NUMBERED items. If not completed your analytical work may be delayed.
 A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.
 Internal user: sampling plan (check box) HC [] or client [] FSP# 309
 Cooler Temperature 309

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9112202

Project: WMATA-Northern Station

Sample ID: SB-46 @ 22'
Lab#: AD14310-001
Matrix: Soil/Terracore

Collection Date: 11/21/2019
Receipt Date: 11/22/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		84

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	mg/kg	71	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	13.34	20	30	146	67	
Chlorobenzene	10.35	20	20	117	52	

Sample ID: SB-40@ 19'
Lab#: AD14310-002
Matrix: Soil/Terracore

Collection Date: 11/21/2019
Receipt Date: 11/22/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		84

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	mg/kg	71	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	14.78	20	30	146	74	
Chlorobenzene	7.41	20	20	117	37	

Sample ID: SB-32@ 1'
Lab#: AD14310-003
Matrix: Soil/Terracore

Collection Date: 11/21/2019
Receipt Date: 11/22/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		93

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	mg/kg	65	150		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	14.35	20	30	146	72	
Chlorobenzene	10.24	20	20	117	51	

Sample ID: SB-11 @ 1'
Lab#: AD14310-004
Matrix: Soil/Terracore

Collection Date: 11/21/2019
Receipt Date: 11/22/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		87

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	mg/kg	69	510		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	13.91	20	30	146	70	
Chlorobenzene	10.64	20	20	117	53	



CHAIN OF CUSTODY RECORD

Hampton-Clarke
 A Women-Owned, Disadvantaged, Small Business Enterprise

Customer Information

1a) Customer: INTERTEK - PSI
 Address: 2930 ESKRIDGE RD
FAIRFAX, VA 22031
 1b) Email/Cell/Fax/Ph: 703-698-9300
 1c) Send Invoice to: mon.lin@intertek.com
mon.lin@intertek.com
 1d) Send Report to: mon.lin@intertek.com
ringo.nutter@intertek.com

Project Information

2a) Project: WAMATA - Northern
Water # 0448 1517 - 1
 2b) Project Mgr: BOBBY LIN
 2c) Project Location (City/State): WASHINGTON TOWN, DC
 2d) Quote/PO # (if applicable):

Turnaround When Available:
 1 Business Day (100%)*
 2 Business Days (75%)*
 3 Business Days (50%)*
 4 Business Days (35%)*
 5 Business Days (25%)*
 * Business Days (Stand)
 Other:

Report Type Summary
 Results + QC (Waste)
 Reduced: [] NJ [] NY
 [] PA [] Other
 NJ Full / NY ASP CatB
 NY ASP CatA
 Other:

Electronic Data Deliv.
 NJ Hazsite
 Excel Reg. NJ / NY / PA
 EnviroData
 EQUIS: [] 4File [] EZ
 [] NYDEC
 [] Region 2 or 5
 Other:

FOR LAB USE ONLY

Matrix Codes
 DW - Drinking Water S - Soil A - Air
 GW - Ground Water SL - Sludge
 WW - Waste Water OL - Oil
 OT - Other (please specify under item 9, Comments)

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample		Composite (C)	Grab (G)	7) Analysis (specify methods & parameter lists)						8) # of Bottles						9) Comments	
			Date	Time			VOCs	SVOCs	TPH - Gro	PCB	PP	None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3		
001	SB-46 @ 22'	S	11/21/19	9:03	G	X	X	X	X	X	X	2	1						2	5 bottles
002	SB-40 @ 19'	S	10:20		G	X	X	X	X	X	X	2	1						2	
003	SB-32 @ 1'	S	12:04		G	X	X	X	X	X	X	2	1						2	
004	SB-11 @ 1'	S	13:33		G	X	X	X	X	X	X	2	1						2	

10) Relinquished by: [Signature] Date: 11/21/19

Accepted by: [Signature] Date: 11/21/19

Date: 11/21/19 Time: 8:20

Comments, Notes, Special Requirements, HAZARDS
 Indicate if low-level methods required to meet current groundwater standards (SPLP for soil):
 BN or BNA (8270D SIM)
 VOC (8260C SIM or 8011)
 SPLP (BN, BNA, Metals)
 1,4 Dioxane
 Check if applicable:

Project-Specific Reporting Limits
 High Contaminant Concentrations
 NJ LSRP Project (also check boxes above/right)
 Please note NUMBERED items. If not completed your analytical work may be delayed.
 A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.
 Internal user: sampling plan (check box) HC [] or client [] FSP#

Additional Notes
 Cooler Temperature 3.04

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9112301

Project: WMATA-Northern Station

Sample ID: SB-43 @ 11'
 Lab#: AD14340-001
 Matrix: Soil/Terracore

Collection Date: 11/22/2019
 Receipt Date: 11/23/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		81

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	193	mg/kg	59	470		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	29.82	30	50	150	99	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.10	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.031	ND		
Aroclor-1016	1	mg/kg	0.031	ND		
Aroclor-1221	1	mg/kg	0.031	ND		
Aroclor-1232	1	mg/kg	0.031	ND		
Aroclor-1242	1	mg/kg	0.031	ND		
Aroclor-1248	1	mg/kg	0.031	ND		
Aroclor-1254	1	mg/kg	0.031	ND		
Aroclor-1260	1	mg/kg	0.031	ND		
Aroclor-1262	1	mg/kg	0.031	ND		
Aroclor-1268	1	mg/kg	0.031	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	77.11	100	37	141	77	
TCMX-Surrogate	60.18	100	37	141	60	
DCB-Surrogate	78.32	100	34	146	78	
DCB-Surrogate	73.61	100	34	146	74	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	12	49
Chromium	1	mg/kg	6.2	27
Copper	1	mg/kg	6.2	29
Lead	1	mg/kg	6.2	14
Nickel	1	mg/kg	6.2	20
Zinc	1	mg/kg	12	52

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.99	ND
Arsenic	1	mg/kg	0.25	1.5
Beryllium	1	mg/kg	0.25	1.2
Cadmium	1	mg/kg	0.49	ND
Selenium	1	mg/kg	2.5	3.4
Silver	1	mg/kg	0.25	ND
Thallium	1	mg/kg	0.49	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	5	mg/kg	0.21	ND
1,2,4,5-Tetrachlorobenzene	5	mg/kg	0.21	ND
2,3,4,6-Tetrachlorophenol	5	mg/kg	0.21	ND
2,4,5-Trichlorophenol	5	mg/kg	0.21	ND

Sample ID: SB-43 @ 11'
 Lab#: AD14340-001
 Matrix: Soil/Terracore

Collection Date: 11/22/2019
 Receipt Date: 11/23/2019

2,4,6-Trichlorophenol	5	mg/kg	0.21	ND
2,4-Dichlorophenol	5	mg/kg	0.051	ND
2,4-Dimethylphenol	5	mg/kg	0.051	ND
2,4-Dinitrophenol	5	mg/kg	1.0	ND
2,4-Dinitrotoluene	5	mg/kg	0.21	ND
2,6-Dinitrotoluene	5	mg/kg	0.21	ND
2-Chloronaphthalene	5	mg/kg	0.21	ND
2-Chlorophenol	5	mg/kg	0.21	ND
2-Methylnaphthalene	5	mg/kg	0.21	0.30
2-Methylphenol	5	mg/kg	0.051	ND
2-Nitroaniline	5	mg/kg	0.21	ND
2-Nitrophenol	5	mg/kg	0.21	ND
3&4-Methylphenol	5	mg/kg	0.051	ND
3,3'-Dichlorobenzidine	5	mg/kg	0.21	ND
3-Nitroaniline	5	mg/kg	0.21	ND
4,6-Dinitro-2-methylphenol	5	mg/kg	1.0	ND
4-Bromophenyl-phenylether	5	mg/kg	0.21	ND
4-Chloro-3-methylphenol	5	mg/kg	0.21	ND
4-Chloroaniline	5	mg/kg	0.051	ND
4-Chlorophenyl-phenylether	5	mg/kg	0.21	ND
4-Nitroaniline	5	mg/kg	0.21	ND
4-Nitrophenol	5	mg/kg	0.21	ND
Acenaphthene	5	mg/kg	0.21	ND
Acenaphthylene	5	mg/kg	0.21	ND
Acetophenone	5	mg/kg	0.21	ND
Anthracene	5	mg/kg	0.21	ND
Atrazine	5	mg/kg	0.21	ND
Benzaldehyde	5	mg/kg	0.21	ND
Benzo[a]anthracene	5	mg/kg	0.21	ND
Benzo[a]pyrene	5	mg/kg	0.21	ND
Benzo[b]fluoranthene	5	mg/kg	0.21	ND
Benzo[g,h,i]perylene	5	mg/kg	0.21	ND
Benzo[k]fluoranthene	5	mg/kg	0.21	ND
bis(2-Chloroethoxy)methane	5	mg/kg	0.21	ND
bis(2-Chloroethyl)ether	5	mg/kg	0.051	ND
bis(2-Chloroisopropyl)ether	5	mg/kg	0.21	ND
bis(2-Ethylhexyl)phthalate	5	mg/kg	0.21	ND
Butylbenzylphthalate	5	mg/kg	0.21	ND
Caprolactam	5	mg/kg	0.21	ND
Carbazole	5	mg/kg	0.21	ND
Chrysene	5	mg/kg	0.21	ND
Dibenzo[a,h]anthracene	5	mg/kg	0.21	ND
Dibenzofuran	5	mg/kg	0.051	0.34
Diethylphthalate	5	mg/kg	0.21	ND
Dimethylphthalate	5	mg/kg	0.21	ND
Di-n-butylphthalate	5	mg/kg	0.051	ND
Di-n-octylphthalate	5	mg/kg	0.21	ND
Fluoranthene	5	mg/kg	0.21	ND
Fluorene	5	mg/kg	0.21	0.43
Hexachlorobenzene	5	mg/kg	0.21	ND
Hexachlorobutadiene	5	mg/kg	0.21	ND
Hexachlorocyclopentadiene	5	mg/kg	0.21	ND
Hexachloroethane	5	mg/kg	0.21	ND
Indeno[1,2,3-cd]pyrene	5	mg/kg	0.21	ND
Isophorone	5	mg/kg	0.21	ND
Naphthalene	5	mg/kg	0.051	ND
Nitrobenzene	5	mg/kg	0.21	ND
N-Nitroso-di-n-propylamine	5	mg/kg	0.051	ND
N-Nitrosodiphenylamine	5	mg/kg	0.21	ND
Pentachlorophenol	5	mg/kg	1.0	ND
Phenanthrene	5	mg/kg	0.21	ND
Phenol	5	mg/kg	0.21	ND
Pyrene	5	mg/kg	0.21	ND

Sample ID: SB-43 @ 11'
 Lab#: AD14340-001
 Matrix: Soil/Terracore

Collection Date: 11/22/2019
 Receipt Date: 11/23/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	10.62	50	58	148	106	
Phenol-d5	17.52	100	49	129	88	
Nitrobenzene-d5	12.52	50	52	129	125	
2-Fluorophenol	15.51	100	43	128	78	
2-Fluorobiphenyl	8.52	50	58	125	85	
2,4,6-Tribromophenol	17.85	100	54	145	89	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result
Total Petroleum Hydrocarbons	5	mg/kg	370	2900

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	3.22	20	30	146	80	
Chlorobenzene	2.67	20	20	117	67	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	96.3	mg/kg	0.12	ND
1,1,2,2-Tetrachloroethane	96.3	mg/kg	0.12	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	96.3	mg/kg	0.12	ND
1,1,2-Trichloroethane	96.3	mg/kg	0.12	ND
1,1-Dichloroethane	96.3	mg/kg	0.12	ND
1,1-Dichloroethene	96.3	mg/kg	0.12	ND
1,2,3-Trichlorobenzene	96.3	mg/kg	0.12	ND
1,2,4-Trichlorobenzene	96.3	mg/kg	0.12	ND
1,2-Dibromo-3-chloropropane	96.3	mg/kg	0.12	ND
1,2-Dibromoethane	96.3	mg/kg	0.12	ND
1,2-Dichlorobenzene	96.3	mg/kg	0.12	ND
1,2-Dichloroethane	96.3	mg/kg	0.059	ND
1,2-Dichloropropane	96.3	mg/kg	0.12	ND
1,3-Dichlorobenzene	96.3	mg/kg	0.12	ND
1,4-Dichlorobenzene	96.3	mg/kg	0.12	ND
1,4-Dioxane	96.3	mg/kg	5.9	ND
2-Butanone	96.3	mg/kg	0.12	ND
2-Hexanone	96.3	mg/kg	0.12	ND
4-Methyl-2-pentanone	96.3	mg/kg	0.12	ND
Acetone	96.3	mg/kg	0.59	ND
Benzene	96.3	mg/kg	0.059	ND
Bromochloromethane	96.3	mg/kg	0.12	ND
Bromodichloromethane	96.3	mg/kg	0.12	ND
Bromoform	96.3	mg/kg	0.12	ND
Bromomethane	96.3	mg/kg	0.12	ND
Carbon disulfide	96.3	mg/kg	0.12	ND
Carbon tetrachloride	96.3	mg/kg	0.12	ND
Chlorobenzene	96.3	mg/kg	0.12	ND
Chloroethane	96.3	mg/kg	0.12	ND
Chloroform	96.3	mg/kg	0.12	ND
Chloromethane	96.3	mg/kg	0.12	ND
cis-1,2-Dichloroethene	96.3	mg/kg	0.12	ND
cis-1,3-Dichloropropene	96.3	mg/kg	0.12	ND
Cyclohexane	96.3	mg/kg	0.12	ND
Dibromochloromethane	96.3	mg/kg	0.12	ND
Dichlorodifluoromethane	96.3	mg/kg	0.12	ND
Ethylbenzene	96.3	mg/kg	0.12	ND
Isopropylbenzene	96.3	mg/kg	0.12	0.98
m&p-Xylenes	96.3	mg/kg	0.12	ND
Methyl Acetate	96.3	mg/kg	0.12	ND
Methylcyclohexane	96.3	mg/kg	0.12	0.78
Methylene chloride	96.3	mg/kg	0.12	ND
Methyl-t-butyl ether	96.3	mg/kg	0.059	ND
o-Xylene	96.3	mg/kg	0.12	ND
Styrene	96.3	mg/kg	0.12	ND
Tetrachloroethene	96.3	mg/kg	0.12	ND
Toluene	96.3	mg/kg	0.12	ND
trans-1,2-Dichloroethene	96.3	mg/kg	0.12	ND
trans-1,3-Dichloropropene	96.3	mg/kg	0.12	ND
Trichloroethene	96.3	mg/kg	0.12	ND
Trichlorofluoromethane	96.3	mg/kg	0.12	ND

Sample ID: SB-43 @ 11'
Lab#: AD14340-001
Matrix: Soil/Terracore

Collection Date: 11/22/2019
Receipt Date: 11/23/2019

Vinyl chloride	96.3	mg/kg	0.12		ND	
Xylenes (Total)	96.3	mg/kg	0.12		ND	
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	31.28	30	68	122	104	
Dibromofluoromethane	29.12	30	63	140	97	
Bromofluorobenzene	34.64	30	64	129	115	
1,2-Dichloroethane-d4	28.87	30	63	143	96	

Sample ID: SB-8 @ 9'
 Lab#: AD14340-002
 Matrix: Soil/Terracore

Collection Date: 11/22/2019
 Receipt Date: 11/23/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		94

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	106	mg/kg	28	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	31.88	30	50	150	106	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.089	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.027	ND		
Aroclor-1016	1	mg/kg	0.027	ND		
Aroclor-1221	1	mg/kg	0.027	ND		
Aroclor-1232	1	mg/kg	0.027	ND		
Aroclor-1242	1	mg/kg	0.027	ND		
Aroclor-1248	1	mg/kg	0.027	ND		
Aroclor-1254	1	mg/kg	0.027	ND		
Aroclor-1260	1	mg/kg	0.027	ND		
Aroclor-1262	1	mg/kg	0.027	ND		
Aroclor-1268	1	mg/kg	0.027	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	91.95	100	37	141	92	
TCMX-Surrogate	79.03	100	37	141	79	
DCB-Surrogate	73.20	100	34	146	73	
DCB-Surrogate	57.80	100	34	146	58	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	11	72
Chromium	1	mg/kg	5.3	27
Copper	1	mg/kg	5.3	17
Lead	1	mg/kg	5.3	6.1
Nickel	1	mg/kg	5.3	30
Zinc	1	mg/kg	11	77

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.85	ND
Arsenic	1	mg/kg	0.21	0.70
Beryllium	1	mg/kg	0.21	1.1
Cadmium	1	mg/kg	0.43	ND
Selenium	1	mg/kg	2.1	ND
Silver	1	mg/kg	0.21	ND
Thallium	1	mg/kg	0.43	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	5	mg/kg	0.18	ND
1,2,4,5-Tetrachlorobenzene	5	mg/kg	0.18	ND
2,3,4,6-Tetrachlorophenol	5	mg/kg	0.18	ND
2,4,5-Trichlorophenol	5	mg/kg	0.18	ND
2,4,6-Trichlorophenol	5	mg/kg	0.18	ND
2,4-Dichlorophenol	5	mg/kg	0.044	ND
2,4-Dimethylphenol	5	mg/kg	0.044	ND
2,4-Dinitrophenol	5	mg/kg	0.89	ND
2,4-Dinitrotoluene	5	mg/kg	0.18	ND
2,6-Dinitrotoluene	5	mg/kg	0.18	ND
2-Chloronaphthalene	5	mg/kg	0.18	ND
2-Chlorophenol	5	mg/kg	0.18	ND

Sample ID: SB-8 @ 9'
 Lab#: AD14340-002
 Matrix: Soil/Terracore

Collection Date: 11/22/2019
 Receipt Date: 11/23/2019

2-Methylnaphthalene	5	mg/kg	0.18	ND
2-Methylphenol	5	mg/kg	0.044	ND
2-Nitroaniline	5	mg/kg	0.18	ND
2-Nitrophenol	5	mg/kg	0.18	ND
3&4-Methylphenol	5	mg/kg	0.044	ND
3,3'-Dichlorobenzidine	5	mg/kg	0.18	ND
3-Nitroaniline	5	mg/kg	0.18	ND
4,6-Dinitro-2-methylphenol	5	mg/kg	0.89	ND
4-Bromophenyl-phenylether	5	mg/kg	0.18	ND
4-Chloro-3-methylphenol	5	mg/kg	0.18	ND
4-Chloroaniline	5	mg/kg	0.044	ND
4-Chlorophenyl-phenylether	5	mg/kg	0.18	ND
4-Nitroaniline	5	mg/kg	0.18	ND
4-Nitrophenol	5	mg/kg	0.18	ND
Acenaphthene	5	mg/kg	0.18	ND
Acenaphthylene	5	mg/kg	0.18	ND
Acetophenone	5	mg/kg	0.18	ND
Anthracene	5	mg/kg	0.18	ND
Atrazine	5	mg/kg	0.18	ND
Benzaldehyde	5	mg/kg	0.18	ND
Benzo[a]anthracene	5	mg/kg	0.18	ND
Benzo[a]pyrene	5	mg/kg	0.18	ND
Benzo[b]fluoranthene	5	mg/kg	0.18	ND
Benzo[g,h,i]perylene	5	mg/kg	0.18	ND
Benzo[k]fluoranthene	5	mg/kg	0.18	ND
bis(2-Chloroethoxy)methane	5	mg/kg	0.18	ND
bis(2-Chloroethyl)ether	5	mg/kg	0.044	ND
bis(2-Chloroisopropyl)ether	5	mg/kg	0.18	ND
bis(2-Ethylhexyl)phthalate	5	mg/kg	0.18	0.25
Butylbenzylphthalate	5	mg/kg	0.18	ND
Caprolactam	5	mg/kg	0.18	ND
Carbazole	5	mg/kg	0.18	ND
Chrysene	5	mg/kg	0.18	ND
Dibenzo[a,h]anthracene	5	mg/kg	0.18	ND
Dibenzofuran	5	mg/kg	0.044	ND
Diethylphthalate	5	mg/kg	0.18	ND
Dimethylphthalate	5	mg/kg	0.18	ND
Di-n-butylphthalate	5	mg/kg	0.044	ND
Di-n-octylphthalate	5	mg/kg	0.18	ND
Fluoranthene	5	mg/kg	0.18	ND
Fluorene	5	mg/kg	0.18	ND
Hexachlorobenzene	5	mg/kg	0.18	ND
Hexachlorobutadiene	5	mg/kg	0.18	ND
Hexachlorocyclopentadiene	5	mg/kg	0.18	ND
Hexachloroethane	5	mg/kg	0.18	ND
Indeno[1,2,3-cd]pyrene	5	mg/kg	0.18	ND
Isophorone	5	mg/kg	0.18	ND
Naphthalene	5	mg/kg	0.044	ND
Nitrobenzene	5	mg/kg	0.18	ND
N-Nitroso-di-n-propylamine	5	mg/kg	0.044	ND
N-Nitrosodiphenylamine	5	mg/kg	0.18	ND
Pentachlorophenol	5	mg/kg	0.89	ND
Phenanthrene	5	mg/kg	0.18	ND
Phenol	5	mg/kg	0.18	ND
Pyrene	5	mg/kg	0.18	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	11.57	50	58	148	116	
Phenol-d5	17.35	100	49	129	87	
Nitrobenzene-d5	8.13	50	52	129	81	
2-Fluorophenol	15.89	100	43	128	79	
2-Fluorobiphenyl	9.24	50	58	125	92	
2,4,6-Tribromophenol	19.69	100	54	145	98	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	5	mg/kg	320	2400		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	2.93	20	30	146	73	
Chlorobenzene	2.55	20	20	117	64	

Sample ID: SB-8 @ 9'
 Lab#: AD14340-002
 Matrix: Soil/Terracore

Collection Date: 11/22/2019
 Receipt Date: 11/23/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	mg/kg	0.0021	ND		
1,1,2,2-Tetrachloroethane	1	mg/kg	0.0021	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	mg/kg	0.0021	ND		
1,1,2-Trichloroethane	1	mg/kg	0.0021	ND		
1,1-Dichloroethane	1	mg/kg	0.0021	ND		
1,1-Dichloroethene	1	mg/kg	0.0021	ND		
1,2,3-Trichlorobenzene	1	mg/kg	0.0021	ND		
1,2,4-Trichlorobenzene	1	mg/kg	0.0021	ND		
1,2-Dibromo-3-chloropropane	1	mg/kg	0.0021	ND		
1,2-Dibromoethane	1	mg/kg	0.00083	ND		
1,2-Dichlorobenzene	1	mg/kg	0.0021	ND		
1,2-Dichloroethane	1	mg/kg	0.0021	ND		
1,2-Dichloropropane	1	mg/kg	0.0021	ND		
1,3-Dichlorobenzene	1	mg/kg	0.0021	ND		
1,4-Dichlorobenzene	1	mg/kg	0.0021	ND		
1,4-Dioxane	1	mg/kg	0.11	ND		
2-Butanone	1	mg/kg	0.0021	0.021		
2-Hexanone	1	mg/kg	0.0021	ND		
4-Methyl-2-pentanone	1	mg/kg	0.0021	0.0023		
Acetone	1	mg/kg	0.011	0.11		
Benzene	1	mg/kg	0.0011	ND		
Bromochloromethane	1	mg/kg	0.0021	ND		
Bromodichloromethane	1	mg/kg	0.0021	ND		
Bromoform	1	mg/kg	0.0021	ND		
Bromomethane	1	mg/kg	0.0021	ND		
Carbon disulfide	1	mg/kg	0.0021	ND		
Carbon tetrachloride	1	mg/kg	0.0021	ND		
Chlorobenzene	1	mg/kg	0.0021	ND		
Chloroethane	1	mg/kg	0.0021	ND		
Chloroform	1	mg/kg	0.0021	ND		
Chloromethane	1	mg/kg	0.0021	ND		
cis-1,2-Dichloroethene	1	mg/kg	0.0021	ND		
cis-1,3-Dichloropropene	1	mg/kg	0.0021	ND		
Cyclohexane	1	mg/kg	0.0021	ND		
Dibromochloromethane	1	mg/kg	0.0021	ND		
Dichlorodifluoromethane	1	mg/kg	0.0021	ND		
Ethylbenzene	1	mg/kg	0.0011	ND		
Isopropylbenzene	1	mg/kg	0.0011	ND		
m&p-Xylenes	1	mg/kg	0.0011	ND		
Methyl Acetate	1	mg/kg	0.0021	ND		
Methylcyclohexane	1	mg/kg	0.0021	ND		
Methylene chloride	1	mg/kg	0.0021	0.014		
Methyl-t-butyl ether	1	mg/kg	0.0011	ND		
o-Xylene	1	mg/kg	0.0011	ND		
Styrene	1	mg/kg	0.0021	ND		
Tetrachloroethene	1	mg/kg	0.0021	ND		
Toluene	1	mg/kg	0.0011	ND		
trans-1,2-Dichloroethene	1	mg/kg	0.0021	ND		
trans-1,3-Dichloropropene	1	mg/kg	0.0021	ND		
Trichloroethene	1	mg/kg	0.0021	ND		
Trichlorofluoromethane	1	mg/kg	0.0021	ND		
Vinyl chloride	1	mg/kg	0.0021	ND		
Xylenes (Total)	1	mg/kg	0.0011	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	28.71	30	68	122	96	
Dibromofluoromethane	30.97	30	63	140	103	
Bromofluorobenzene	33.30	30	64	129	111	
1,2-Dichloroethane-d4	30.97	30	63	143	103	

Sample ID: SB-34 @ 10'
 Lab#: AD14340-003
 Matrix: Soil/Terracore

Collection Date: 11/22/2019
 Receipt Date: 11/23/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		83

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	92.8	mg/kg	28	75		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	31.99	30	50	150	107	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.10	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.030	ND		
Aroclor-1016	1	mg/kg	0.030	ND		
Aroclor-1221	1	mg/kg	0.030	ND		
Aroclor-1232	1	mg/kg	0.030	ND		
Aroclor-1242	1	mg/kg	0.030	ND		
Aroclor-1248	1	mg/kg	0.030	ND		
Aroclor-1254	1	mg/kg	0.030	ND		
Aroclor-1260	1	mg/kg	0.030	ND		
Aroclor-1262	1	mg/kg	0.030	ND		
Aroclor-1268	1	mg/kg	0.030	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	70.51	100	37	141	71	
TCMX-Surrogate	55.93	100	37	141	56	
DCB-Surrogate	65.78	100	34	146	66	
DCB-Surrogate	55.51	100	34	146	56	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	12	80
Chromium	1	mg/kg	6.0	31
Copper	1	mg/kg	6.0	32
Lead	1	mg/kg	6.0	10
Nickel	1	mg/kg	6.0	33
Zinc	1	mg/kg	12	87

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.96	ND
Arsenic	1	mg/kg	0.24	1.3
Beryllium	1	mg/kg	0.24	1.6
Cadmium	1	mg/kg	0.48	ND
Selenium	1	mg/kg	2.4	3.3
Silver	1	mg/kg	0.24	ND
Thallium	1	mg/kg	0.48	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	5	mg/kg	0.20	ND
1,2,4,5-Tetrachlorobenzene	5	mg/kg	0.20	ND
2,3,4,6-Tetrachlorophenol	5	mg/kg	0.20	ND
2,4,5-Trichlorophenol	5	mg/kg	0.20	ND
2,4,6-Trichlorophenol	5	mg/kg	0.20	ND
2,4-Dichlorophenol	5	mg/kg	0.050	ND
2,4-Dimethylphenol	5	mg/kg	0.050	ND
2,4-Dinitrophenol	5	mg/kg	1.0	ND
2,4-Dinitrotoluene	5	mg/kg	0.20	ND
2,6-Dinitrotoluene	5	mg/kg	0.20	ND
2-Chloronaphthalene	5	mg/kg	0.20	ND
2-Chlorophenol	5	mg/kg	0.20	ND

Sample ID: SB-34 @ 10'
 Lab#: AD14340-003
 Matrix: Soil/Terracore

Collection Date: 11/22/2019
 Receipt Date: 11/23/2019

2-Methylnaphthalene	5	mg/kg	0.20	ND
2-Methylphenol	5	mg/kg	0.050	ND
2-Nitroaniline	5	mg/kg	0.20	ND
2-Nitrophenol	5	mg/kg	0.20	ND
3&4-Methylphenol	5	mg/kg	0.050	ND
3,3'-Dichlorobenzidine	5	mg/kg	0.20	ND
3-Nitroaniline	5	mg/kg	0.20	ND
4,6-Dinitro-2-methylphenol	5	mg/kg	1.0	ND
4-Bromophenyl-phenylether	5	mg/kg	0.20	ND
4-Chloro-3-methylphenol	5	mg/kg	0.20	ND
4-Chloroaniline	5	mg/kg	0.050	ND
4-Chlorophenyl-phenylether	5	mg/kg	0.20	ND
4-Nitroaniline	5	mg/kg	0.20	ND
4-Nitrophenol	5	mg/kg	0.20	ND
Acenaphthene	5	mg/kg	0.20	ND
Acenaphthylene	5	mg/kg	0.20	ND
Acetophenone	5	mg/kg	0.20	ND
Anthracene	5	mg/kg	0.20	ND
Atrazine	5	mg/kg	0.20	ND
Benzaldehyde	5	mg/kg	0.20	ND
Benzo[a]anthracene	5	mg/kg	0.20	ND
Benzo[a]pyrene	5	mg/kg	0.20	ND
Benzo[b]fluoranthene	5	mg/kg	0.20	ND
Benzo[g,h,i]perylene	5	mg/kg	0.20	ND
Benzo[k]fluoranthene	5	mg/kg	0.20	ND
bis(2-Chloroethoxy)methane	5	mg/kg	0.20	ND
bis(2-Chloroethyl)ether	5	mg/kg	0.050	ND
bis(2-Chloroisopropyl)ether	5	mg/kg	0.20	ND
bis(2-Ethylhexyl)phthalate	5	mg/kg	0.20	ND
Butylbenzylphthalate	5	mg/kg	0.20	ND
Caprolactam	5	mg/kg	0.20	ND
Carbazole	5	mg/kg	0.20	ND
Chrysene	5	mg/kg	0.20	ND
Dibenzo[a,h]anthracene	5	mg/kg	0.20	ND
Dibenzofuran	5	mg/kg	0.050	0.11
Diethylphthalate	5	mg/kg	0.20	ND
Dimethylphthalate	5	mg/kg	0.20	ND
Di-n-butylphthalate	5	mg/kg	0.050	ND
Di-n-octylphthalate	5	mg/kg	0.20	ND
Fluoranthene	5	mg/kg	0.20	ND
Fluorene	5	mg/kg	0.20	0.25
Hexachlorobenzene	5	mg/kg	0.20	ND
Hexachlorobutadiene	5	mg/kg	0.20	ND
Hexachlorocyclopentadiene	5	mg/kg	0.20	ND
Hexachloroethane	5	mg/kg	0.20	ND
Indeno[1,2,3-cd]pyrene	5	mg/kg	0.20	ND
Isophorone	5	mg/kg	0.20	ND
Naphthalene	5	mg/kg	0.050	ND
Nitrobenzene	5	mg/kg	0.20	ND
N-Nitroso-di-n-propylamine	5	mg/kg	0.050	ND
N-Nitrosodiphenylamine	5	mg/kg	0.20	ND
Pentachlorophenol	5	mg/kg	1.0	ND
Phenanthrene	5	mg/kg	0.20	ND
Phenol	5	mg/kg	0.20	ND
Pyrene	5	mg/kg	0.20	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	10.26	50	58	148	103	
Phenol-d5	18.22	100	49	129	91	
Nitrobenzene-d5	8.77	50	52	129	88	
2-Fluorophenol	16.50	100	43	128	82	
2-Fluorobiphenyl	9.22	50	58	125	92	
2,4,6-Tribromophenol	17.60	100	54	145	88	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	10	mg/kg	720	5600		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	0.00	20	30	146	0	S8
Chlorobenzene	0.00	20	20	117	0	S8

Sample ID: SB-34 @ 10'
 Lab#: AD14340-003
 Matrix: Soil/Terracore

Collection Date: 11/22/2019
 Receipt Date: 11/23/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	92.8	mg/kg	0.11	ND		
1,1,2,2-Tetrachloroethane	92.8	mg/kg	0.11	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	92.8	mg/kg	0.11	ND		
1,1,2-Trichloroethane	92.8	mg/kg	0.11	ND		
1,1-Dichloroethane	92.8	mg/kg	0.11	ND		
1,1-Dichloroethene	92.8	mg/kg	0.11	ND		
1,2,3-Trichlorobenzene	92.8	mg/kg	0.11	ND		
1,2,4-Trichlorobenzene	92.8	mg/kg	0.11	ND		
1,2-Dibromo-3-chloropropane	92.8	mg/kg	0.11	ND		
1,2-Dibromoethane	92.8	mg/kg	0.11	ND		
1,2-Dichlorobenzene	92.8	mg/kg	0.11	ND		
1,2-Dichloroethane	92.8	mg/kg	0.056	ND		
1,2-Dichloropropane	92.8	mg/kg	0.11	ND		
1,3-Dichlorobenzene	92.8	mg/kg	0.11	ND		
1,4-Dichlorobenzene	92.8	mg/kg	0.11	ND		
1,4-Dioxane	92.8	mg/kg	5.6	ND		
2-Butanone	92.8	mg/kg	0.11	ND		
2-Hexanone	92.8	mg/kg	0.11	ND		
4-Methyl-2-pentanone	92.8	mg/kg	0.11	ND		
Acetone	92.8	mg/kg	0.56	ND		
Benzene	92.8	mg/kg	0.056	ND		
Bromochloromethane	92.8	mg/kg	0.11	ND		
Bromodichloromethane	92.8	mg/kg	0.11	ND		
Bromoform	92.8	mg/kg	0.11	ND		
Bromomethane	92.8	mg/kg	0.11	ND		
Carbon disulfide	92.8	mg/kg	0.11	ND		
Carbon tetrachloride	92.8	mg/kg	0.11	ND		
Chlorobenzene	92.8	mg/kg	0.11	ND		
Chloroethane	92.8	mg/kg	0.11	ND		
Chloroform	92.8	mg/kg	0.11	ND		
Chloromethane	92.8	mg/kg	0.11	ND		
cis-1,2-Dichloroethene	92.8	mg/kg	0.11	ND		
cis-1,3-Dichloropropene	92.8	mg/kg	0.11	ND		
Cyclohexane	92.8	mg/kg	0.11	ND		
Dibromochloromethane	92.8	mg/kg	0.11	ND		
Dichlorodifluoromethane	92.8	mg/kg	0.11	ND		
Ethylbenzene	92.8	mg/kg	0.11	ND		
Isopropylbenzene	92.8	mg/kg	0.11	ND		
m&p-Xylenes	92.8	mg/kg	0.11	ND		
Methyl Acetate	92.8	mg/kg	0.11	ND		
Methylcyclohexane	92.8	mg/kg	0.11	ND		
Methylene chloride	92.8	mg/kg	0.11	ND		
Methyl-t-butyl ether	92.8	mg/kg	0.056	ND		
o-Xylene	92.8	mg/kg	0.11	ND		
Styrene	92.8	mg/kg	0.11	ND		
Tetrachloroethene	92.8	mg/kg	0.11	ND		
Toluene	92.8	mg/kg	0.11	ND		
trans-1,2-Dichloroethene	92.8	mg/kg	0.11	ND		
trans-1,3-Dichloropropene	92.8	mg/kg	0.11	ND		
Trichloroethene	92.8	mg/kg	0.11	ND		
Trichlorofluoromethane	92.8	mg/kg	0.11	ND		
Vinyl chloride	92.8	mg/kg	0.11	ND		
Xylenes (Total)	92.8	mg/kg	0.11	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.56	30	68	122	99	
Dibromofluoromethane	29.47	30	63	140	98	
Bromofluorobenzene	27.11	30	64	129	90	
1,2-Dichloroethane-d4	31.25	30	63	143	104	

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9112301

Project: WMATA-Northern Station

Sample ID: SB-43 @ 11'
 Lab#: AD14340-001
 Matrix: Soil/Terracore

Collection Date: 11/22/2019
 Receipt Date: 11/23/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		81

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	5	mg/kg	370	2700		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	3.22	20	30	146	80	
Chlorobenzene	2.67	20	20	117	67	

Sample ID: SB-8 @ 9'
Lab#: AD14340-002
Matrix: Soil/Terracore

Collection Date: 11/22/2019
Receipt Date: 11/23/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		94

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	5	mg/kg	320	1300		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	2.93	20	30	146	73	
Chlorobenzene	2.55	20	20	117	64	

Sample ID: SB-34 @ 10'
Lab#: AD14340-003
Matrix: Soil/Terracore

Collection Date: 11/22/2019
Receipt Date: 11/23/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		83

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	10	mg/kg	720	4400		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	0.00	20	30	146	0	S8
Chlorobenzene	0.00	20	20	117	0	S8

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9112601

Project: WMATA-Northern Station

Sample ID: SB-01 @ 11'
 Lab#: AD14358-001
 Matrix: Soil/Terracore

Collection Date: 11/25/2019
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% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		94

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	95.4	mg/kg	25	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	34.14	30	50	150	114	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.089	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.027	ND		
Aroclor-1016	1	mg/kg	0.027	ND		
Aroclor-1221	1	mg/kg	0.027	ND		
Aroclor-1232	1	mg/kg	0.027	ND		
Aroclor-1242	1	mg/kg	0.027	ND		
Aroclor-1248	1	mg/kg	0.027	ND		
Aroclor-1254	1	mg/kg	0.027	ND		
Aroclor-1260	1	mg/kg	0.027	ND		
Aroclor-1262	1	mg/kg	0.027	ND		
Aroclor-1268	1	mg/kg	0.027	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	89.35	100	37	141	89	
TCMX-Surrogate	73.65	100	37	141	74	
DCB-Surrogate	75.39	100	34	146	75	
DCB-Surrogate	63.52	100	34	146	64	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	11	38
Chromium	1	mg/kg	5.3	16
Copper	1	mg/kg	5.3	22
Lead	1	mg/kg	5.3	71
Nickel	1	mg/kg	5.3	5.6
Zinc	1	mg/kg	11	56

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.85	ND
Arsenic	1	mg/kg	0.21	1.3
Beryllium	1	mg/kg	0.21	0.28
Cadmium	1	mg/kg	0.43	ND
Selenium	1	mg/kg	2.1	ND
Silver	1	mg/kg	0.21	ND
Thallium	1	mg/kg	0.43	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	10	mg/kg	0.35	ND
1,2,4,5-Tetrachlorobenzene	10	mg/kg	0.35	ND
2,3,4,6-Tetrachlorophenol	10	mg/kg	0.35	ND
2,4,5-Trichlorophenol	10	mg/kg	0.35	ND

Sample ID: SB-01 @ 11'
 Lab#: AD14358-001
 Matrix: Soil/Terracore

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2,4,6-Trichlorophenol	10	mg/kg	0.35	ND
2,4-Dichlorophenol	10	mg/kg	0.089	ND
2,4-Dimethylphenol	10	mg/kg	0.089	ND
2,4-Dinitrophenol	10	mg/kg	1.8	ND
2,4-Dinitrotoluene	10	mg/kg	0.35	ND
2,6-Dinitrotoluene	10	mg/kg	0.35	ND
2-Chloronaphthalene	10	mg/kg	0.35	ND
2-Chlorophenol	10	mg/kg	0.35	ND
2-Methylnaphthalene	10	mg/kg	0.35	2.0
2-Methylphenol	10	mg/kg	0.089	ND
2-Nitroaniline	10	mg/kg	0.35	ND
2-Nitrophenol	10	mg/kg	0.35	ND
3&4-Methylphenol	10	mg/kg	0.089	ND
3,3'-Dichlorobenzidine	10	mg/kg	0.35	ND
3-Nitroaniline	10	mg/kg	0.35	ND
4,6-Dinitro-2-methylphenol	10	mg/kg	1.8	ND
4-Bromophenyl-phenylether	10	mg/kg	0.35	ND
4-Chloro-3-methylphenol	10	mg/kg	0.35	ND
4-Chloroaniline	10	mg/kg	0.089	ND
4-Chlorophenyl-phenylether	10	mg/kg	0.35	ND
4-Nitroaniline	10	mg/kg	0.35	ND
4-Nitrophenol	10	mg/kg	0.35	ND
Acenaphthene	10	mg/kg	0.35	3.9
Acenaphthylene	10	mg/kg	0.35	ND
Acetophenone	10	mg/kg	0.35	ND
Anthracene	10	mg/kg	0.35	5.2
Atrazine	10	mg/kg	0.35	ND
Benzaldehyde	10	mg/kg	0.35	ND
Benzo[a]anthracene	10	mg/kg	0.35	11
Benzo[a]pyrene	10	mg/kg	0.35	9.9
Benzo[b]fluoranthene	10	mg/kg	0.35	12
Benzo[g,h,i]perylene	10	mg/kg	0.35	4.4
Benzo[k]fluoranthene	10	mg/kg	0.35	4.3
bis(2-Chloroethoxy)methane	10	mg/kg	0.35	ND
bis(2-Chloroethyl)ether	10	mg/kg	0.089	ND
bis(2-Chloroisopropyl)ether	10	mg/kg	0.35	ND
bis(2-Ethylhexyl)phthalate	10	mg/kg	0.35	ND
Butylbenzylphthalate	10	mg/kg	0.35	ND
Caprolactam	10	mg/kg	0.35	ND
Carbazole	10	mg/kg	0.35	1.4
Chrysene	10	mg/kg	0.35	11
Dibenzo[a,h]anthracene	10	mg/kg	0.35	1.3
Dibenzofuran	10	mg/kg	0.089	3.3
Diethylphthalate	10	mg/kg	0.35	ND
Dimethylphthalate	10	mg/kg	0.35	ND
Di-n-butylphthalate	10	mg/kg	0.089	ND
Di-n-octylphthalate	10	mg/kg	0.35	ND
Fluoranthene	10	mg/kg	0.35	22
Fluorene	10	mg/kg	0.35	3.0
Hexachlorobenzene	10	mg/kg	0.35	ND
Hexachlorobutadiene	10	mg/kg	0.35	ND
Hexachlorocyclopentadiene	10	mg/kg	0.35	ND
Hexachloroethane	10	mg/kg	0.35	ND
Indeno[1,2,3-cd]pyrene	10	mg/kg	0.35	4.2
Isophorone	10	mg/kg	0.35	ND
Naphthalene	10	mg/kg	0.089	5.4
Nitrobenzene	10	mg/kg	0.35	ND
N-Nitroso-di-n-propylamine	10	mg/kg	0.089	ND
N-Nitrosodiphenylamine	10	mg/kg	0.35	ND
Pentachlorophenol	10	mg/kg	1.8	ND
Phenanthrene	10	mg/kg	0.35	21
Phenol	10	mg/kg	0.35	ND
Pyrene	10	mg/kg	0.35	21

Sample ID: SB-01 @ 11'
 Lab#: AD14358-001
 Matrix: Soil/Terracore

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Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	3.71	50	58	148	74	
Phenol-d5	10.67	100	49	129	107	
Nitrobenzene-d5	3.38	50	52	129	68	
2-Fluorophenol	10.24	100	43	128	102	
2-Fluorobiphenyl	3.13	50	58	125	63	
2,4,6-Tribromophenol	6.20	100	54	145	62	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	1	mg/kg	64	910		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	20.05	20	30	146	100	
Chlorobenzene	7.90	20	20	117	40	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1.06	mg/kg	0.0023	ND
1,1,2,2-Tetrachloroethane	1.06	mg/kg	0.0023	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1.06	mg/kg	0.0023	ND
1,1,2-Trichloroethane	1.06	mg/kg	0.0023	ND
1,1-Dichloroethane	1.06	mg/kg	0.0023	ND
1,1-Dichloroethene	1.06	mg/kg	0.0023	ND
1,2,3-Trichlorobenzene	1.06	mg/kg	0.0023	ND
1,2,4-Trichlorobenzene	1.06	mg/kg	0.0023	ND
1,2-Dibromo-3-chloropropane	1.06	mg/kg	0.0023	ND
1,2-Dibromoethane	1.06	mg/kg	0.00088	ND
1,2-Dichlorobenzene	1.06	mg/kg	0.0023	ND
1,2-Dichloroethane	1.06	mg/kg	0.0023	ND
1,2-Dichloropropane	1.06	mg/kg	0.0023	ND
1,3-Dichlorobenzene	1.06	mg/kg	0.0023	ND
1,4-Dichlorobenzene	1.06	mg/kg	0.0023	ND
1,4-Dioxane	1.06	mg/kg	0.11	ND
2-Butanone	1.06	mg/kg	0.0023	ND
2-Hexanone	1.06	mg/kg	0.0023	ND
4-Methyl-2-pentanone	1.06	mg/kg	0.0023	ND
Acetone	1.06	mg/kg	0.011	0.013
Benzene	1.06	mg/kg	0.0011	ND
Bromochloromethane	1.06	mg/kg	0.0023	ND
Bromodichloromethane	1.06	mg/kg	0.0023	ND
Bromoform	1.06	mg/kg	0.0023	ND
Bromomethane	1.06	mg/kg	0.0023	ND
Carbon disulfide	1.06	mg/kg	0.0023	ND
Carbon tetrachloride	1.06	mg/kg	0.0023	ND
Chlorobenzene	1.06	mg/kg	0.0023	ND
Chloroethane	1.06	mg/kg	0.0023	ND
Chloroform	1.06	mg/kg	0.0023	ND
Chloromethane	1.06	mg/kg	0.0023	ND
cis-1,2-Dichloroethene	1.06	mg/kg	0.0023	ND
cis-1,3-Dichloropropene	1.06	mg/kg	0.0023	ND
Cyclohexane	1.06	mg/kg	0.0023	ND
Dibromochloromethane	1.06	mg/kg	0.0023	ND
Dichlorodifluoromethane	1.06	mg/kg	0.0023	ND
Ethylbenzene	1.06	mg/kg	0.0011	ND
Isopropylbenzene	1.06	mg/kg	0.0011	ND
m&p-Xylenes	1.06	mg/kg	0.0011	0.0015
Methyl Acetate	1.06	mg/kg	0.0023	ND
Methylcyclohexane	1.06	mg/kg	0.0023	ND
Methylene chloride	1.06	mg/kg	0.0023	0.021
Methyl-t-butyl ether	1.06	mg/kg	0.0011	ND
o-Xylene	1.06	mg/kg	0.0011	0.0014
Styrene	1.06	mg/kg	0.0023	ND
Tetrachloroethene	1.06	mg/kg	0.0023	ND
Toluene	1.06	mg/kg	0.0011	ND
trans-1,2-Dichloroethene	1.06	mg/kg	0.0023	ND
trans-1,3-Dichloropropene	1.06	mg/kg	0.0023	ND
Trichloroethene	1.06	mg/kg	0.0023	ND
Trichlorofluoromethane	1.06	mg/kg	0.0023	ND

Sample ID: SB-01 @ 11'
Lab#: AD14358-001
Matrix: Soil/Terracore

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Vinyl chloride	1.06	mg/kg	0.0023		ND	
Xylenes (Total)	1.06	mg/kg	0.0011		0.0029	
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	28.09	30	68	122	94	
Dibromofluoromethane	30.30	30	63	140	101	
Bromofluorobenzene	30.84	30	64	129	103	
1,2-Dichloroethane-d4	29.71	30	63	143	99	

Sample ID: SB-02 @ 11'
 Lab#: AD14358-002
 Matrix: Soil/Terracore

Collection Date: 11/25/2019
 Receipt Date: 11/26/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		79

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	75.9	mg/kg	24	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	32.06	30	50	150	107	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.032	ND		
Aroclor-1016	1	mg/kg	0.032	ND		
Aroclor-1221	1	mg/kg	0.032	ND		
Aroclor-1232	1	mg/kg	0.032	ND		
Aroclor-1242	1	mg/kg	0.032	ND		
Aroclor-1248	1	mg/kg	0.032	ND		
Aroclor-1254	1	mg/kg	0.032	ND		
Aroclor-1260	1	mg/kg	0.032	ND		
Aroclor-1262	1	mg/kg	0.032	ND		
Aroclor-1268	1	mg/kg	0.032	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	92.92	100	37	141	93	
TCMX-Surrogate	133.06	100	37	141	133	
DCB-Surrogate	89.15	100	34	146	89	
DCB-Surrogate	106.42	100	34	146	106	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	13	72
Chromium	1	mg/kg	6.3	41
Copper	1	mg/kg	6.3	30
Lead	1	mg/kg	6.3	26
Nickel	1	mg/kg	6.3	24
Zinc	1	mg/kg	13	62

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	1.0	ND
Arsenic	1	mg/kg	0.25	1.2
Beryllium	1	mg/kg	0.25	0.72
Cadmium	1	mg/kg	0.51	ND
Selenium	1	mg/kg	2.5	ND
Silver	1	mg/kg	0.25	ND
Thallium	1	mg/kg	0.51	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	5	mg/kg	0.21	ND
1,2,4,5-Tetrachlorobenzene	5	mg/kg	0.21	ND
2,3,4,6-Tetrachlorophenol	5	mg/kg	0.21	ND
2,4,5-Trichlorophenol	5	mg/kg	0.21	ND
2,4,6-Trichlorophenol	5	mg/kg	0.21	ND
2,4-Dichlorophenol	5	mg/kg	0.053	ND
2,4-Dimethylphenol	5	mg/kg	0.053	ND
2,4-Dinitrophenol	5	mg/kg	1.1	ND
2,4-Dinitrotoluene	5	mg/kg	0.21	ND
2,6-Dinitrotoluene	5	mg/kg	0.21	ND
2-Chloronaphthalene	5	mg/kg	0.21	ND
2-Chlorophenol	5	mg/kg	0.21	ND

Sample ID: SB-02 @ 11'
 Lab#: AD14358-002
 Matrix: Soil/Terracore

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2-Methylnaphthalene	5	mg/kg	0.21	ND		
2-Methylphenol	5	mg/kg	0.053	ND		
2-Nitroaniline	5	mg/kg	0.21	ND		
2-Nitrophenol	5	mg/kg	0.21	ND		
3&4-Methylphenol	5	mg/kg	0.053	ND		
3,3'-Dichlorobenzidine	5	mg/kg	0.21	ND		
3-Nitroaniline	5	mg/kg	0.21	ND		
4,6-Dinitro-2-methylphenol	5	mg/kg	1.1	ND		
4-Bromophenyl-phenylether	5	mg/kg	0.21	ND		
4-Chloro-3-methylphenol	5	mg/kg	0.21	ND		
4-Chloroaniline	5	mg/kg	0.053	ND		
4-Chlorophenyl-phenylether	5	mg/kg	0.21	ND		
4-Nitroaniline	5	mg/kg	0.21	ND		
4-Nitrophenol	5	mg/kg	0.21	ND		
Acenaphthene	5	mg/kg	0.21	0.31		
Acenaphthylene	5	mg/kg	0.21	ND		
Acetophenone	5	mg/kg	0.21	ND		
Anthracene	5	mg/kg	0.21	1.0		
Atrazine	5	mg/kg	0.21	ND		
Benzaldehyde	5	mg/kg	0.21	ND		
Benzo[a]anthracene	5	mg/kg	0.21	2.1		
Benzo[a]pyrene	5	mg/kg	0.21	2.1		
Benzo[b]fluoranthene	5	mg/kg	0.21	2.6		
Benzo[g,h,i]perylene	5	mg/kg	0.21	0.91		
Benzo[k]fluoranthene	5	mg/kg	0.21	0.98		
bis(2-Chloroethoxy)methane	5	mg/kg	0.21	ND		
bis(2-Chloroethyl)ether	5	mg/kg	0.053	ND		
bis(2-Chloroisopropyl)ether	5	mg/kg	0.21	ND		
bis(2-Ethylhexyl)phthalate	5	mg/kg	0.21	ND		
Butylbenzylphthalate	5	mg/kg	0.21	ND		
Caprolactam	5	mg/kg	0.21	ND		
Carbazole	5	mg/kg	0.21	ND		
Chrysene	5	mg/kg	0.21	1.9		
Dibenzo[a,h]anthracene	5	mg/kg	0.21	0.24		
Dibenzofuran	5	mg/kg	0.053	0.20		
Diethylphthalate	5	mg/kg	0.21	ND		
Dimethylphthalate	5	mg/kg	0.21	ND		
Di-n-butylphthalate	5	mg/kg	0.053	ND		
Di-n-octylphthalate	5	mg/kg	0.21	ND		
Fluoranthene	5	mg/kg	0.21	3.8		
Fluorene	5	mg/kg	0.21	0.36		
Hexachlorobenzene	5	mg/kg	0.21	ND		
Hexachlorobutadiene	5	mg/kg	0.21	ND		
Hexachlorocyclopentadiene	5	mg/kg	0.21	ND		
Hexachloroethane	5	mg/kg	0.21	ND		
Indeno[1,2,3-cd]pyrene	5	mg/kg	0.21	0.85		
Isophorone	5	mg/kg	0.21	ND		
Naphthalene	5	mg/kg	0.053	0.053		
Nitrobenzene	5	mg/kg	0.21	ND		
N-Nitroso-di-n-propylamine	5	mg/kg	0.053	ND		
N-Nitrosodiphenylamine	5	mg/kg	0.21	ND		
Pentachlorophenol	5	mg/kg	1.1	ND		
Phenanthrene	5	mg/kg	0.21	2.2		
Phenol	5	mg/kg	0.21	ND		
Pyrene	5	mg/kg	0.21	3.7		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	6.98	50	58	148	70	
Phenol-d5	13.29	100	49	129	66	
Nitrobenzene-d5	6.32	50	52	129	63	
2-Fluorophenol	13.46	100	43	128	67	
2-Fluorobiphenyl	9.46	50	58	125	95	
2,4,6-Tribromophenol	11.67	100	54	145	58	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	1	mg/kg	76	360		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	14.31	20	30	146	72	
Chlorobenzene	8.59	20	20	117	43	

Sample ID: SB-02 @ 11'
 Lab#: AD14358-002
 Matrix: Soil/Terracore

Collection Date: 11/25/2019
 Receipt Date: 11/26/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	0.797	mg/kg	0.0020	ND		
1,1,2,2-Tetrachloroethane	0.797	mg/kg	0.0020	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	0.797	mg/kg	0.0020	ND		
1,1,2-Trichloroethane	0.797	mg/kg	0.0020	ND		
1,1-Dichloroethane	0.797	mg/kg	0.0020	ND		
1,1-Dichloroethene	0.797	mg/kg	0.0020	ND		
1,2,3-Trichlorobenzene	0.797	mg/kg	0.0020	ND		
1,2,4-Trichlorobenzene	0.797	mg/kg	0.0020	ND		
1,2-Dibromo-3-chloropropane	0.797	mg/kg	0.0020	ND		
1,2-Dibromoethane	0.797	mg/kg	0.00079	ND		
1,2-Dichlorobenzene	0.797	mg/kg	0.0020	ND		
1,2-Dichloroethane	0.797	mg/kg	0.0020	ND		
1,2-Dichloropropane	0.797	mg/kg	0.0020	ND		
1,3-Dichlorobenzene	0.797	mg/kg	0.0020	ND		
1,4-Dichlorobenzene	0.797	mg/kg	0.0020	ND		
1,4-Dioxane	0.797	mg/kg	0.10	ND		
2-Butanone	0.797	mg/kg	0.0020	ND		
2-Hexanone	0.797	mg/kg	0.0020	ND		
4-Methyl-2-pentanone	0.797	mg/kg	0.0020	ND		
Acetone	0.797	mg/kg	0.010	0.011		
Benzene	0.797	mg/kg	0.0010	ND		
Bromochloromethane	0.797	mg/kg	0.0020	ND		
Bromodichloromethane	0.797	mg/kg	0.0020	ND		
Bromoform	0.797	mg/kg	0.0020	ND		
Bromomethane	0.797	mg/kg	0.0020	ND		
Carbon disulfide	0.797	mg/kg	0.0020	ND		
Carbon tetrachloride	0.797	mg/kg	0.0020	ND		
Chlorobenzene	0.797	mg/kg	0.0020	ND		
Chloroethane	0.797	mg/kg	0.0020	ND		
Chloroform	0.797	mg/kg	0.0020	ND		
Chloromethane	0.797	mg/kg	0.0020	ND		
cis-1,2-Dichloroethene	0.797	mg/kg	0.0020	ND		
cis-1,3-Dichloropropene	0.797	mg/kg	0.0020	ND		
Cyclohexane	0.797	mg/kg	0.0020	ND		
Dibromochloromethane	0.797	mg/kg	0.0020	ND		
Dichlorodifluoromethane	0.797	mg/kg	0.0020	ND		
Ethylbenzene	0.797	mg/kg	0.0010	ND		
Isopropylbenzene	0.797	mg/kg	0.0010	ND		
m&p-Xylenes	0.797	mg/kg	0.0010	ND		
Methyl Acetate	0.797	mg/kg	0.0020	ND		
Methylcyclohexane	0.797	mg/kg	0.0020	ND		
Methylene chloride	0.797	mg/kg	0.0020	0.012		
Methyl-t-butyl ether	0.797	mg/kg	0.0010	ND		
o-Xylene	0.797	mg/kg	0.0010	ND		
Styrene	0.797	mg/kg	0.0020	ND		
Tetrachloroethene	0.797	mg/kg	0.0020	ND		
Toluene	0.797	mg/kg	0.0010	ND		
trans-1,2-Dichloroethene	0.797	mg/kg	0.0020	ND		
trans-1,3-Dichloropropene	0.797	mg/kg	0.0020	ND		
Trichloroethene	0.797	mg/kg	0.0020	ND		
Trichlorofluoromethane	0.797	mg/kg	0.0020	ND		
Vinyl chloride	0.797	mg/kg	0.0020	ND		
Xylenes (Total)	0.797	mg/kg	0.0010	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	27.90	30	68	122	93	
Dibromofluoromethane	30.11	30	63	140	100	
Bromofluorobenzene	31.34	30	64	129	104	
1,2-Dichloroethane-d4	30.05	30	63	143	100	

Hampton-Clarke, Inc. (WBE/DBE/SBE)
 175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004
 Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458
 Service Center: 137-D Gauthier Drive, Mount Laurel, New Jersey 08054
 Ph (Service Center): 856-780-6057 Fax: 856-780-6056
 NE/LAC/NJ #97071 | PA #88-00463 | NY #1408 | CT #PH-0671 | KY #90124 | DE HSCA Approved

HC
 Hampton-Clarke
 A Women-Owned, Disadvantaged, Small Business Enterprise
CHAIN OF CUSTODY RECORD

Project # Lab Use Only: **9112601** Page **1** of **1**
3) Reporting Requirements (Please Circle)
 Turnaround: When Available: 1 Business Day (100%)*
 2 Business Days (75%)*
 3 Business Days (50%)*
 4 Business Days (35%)*
 5 Business Days (25%)*
 Business Days (Standards)
 Other: _____

Customer Information
 1a) Customer: **Antibio - PSI**
 Address: **2930 Esbridge Rd, Fairfax, VA 22031**
 Email/Call/Fax/Ph: **703-698-9300**
 1b) **mon.lin@antibio.com**
 1c) **mon.lin@antibio.com**
 1d) **mon.lin@antibio.com**

Project Information
 2a) Project: **WMTA Northern Station**
 # **04481517**
 2b) Project Mgr: **Bobby Ren**
 2c) Project Location (City/State): **Washington, DC**
 2d) Quote/PO # (if Applicable): _____

Report Type
 Summary: Results + QC (Waste)
 Reduced: NJ NY
 PA Other _____
 NJ Full / NY ASP CalB
 NY ASP CalA
 Other: _____

FOR LAB USE ONLY
 Batch # **AD1438**
 Matrix Codes: DW - Drinking Water, GW - Ground Water, WW - Waste Water, OT - Other (please specify under item 9, Comments)
 S - Soil, SL - Sludge, OL - Oil, A - Air

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample		Composite (C)	Grab (G)	7) Analysis (specify methods & parameter lists)					8) # of Bottles						9) Comments		
			Date	Time			VOCs	SVOCs	TPH-GRO/DRO	PCB	PP	None	MeOH	En Core	NaOH	HCl	H2SO4		HNO3	Other: DI H2O
001	5B-01 @ 11'	S	11/25/19	08:40	G	G	X	X	X	X	X								2	5 bottles
002	5B-02 @ 11'	S	11/25/19	11:10	G	G	X	X	X	X	X								2	11

10) Relinquished by: **[Signature]** Accepted by: **[Signature]** Date: **11/25/2019** Time: _____
 Comments, Notes, Special Requirements, HAZARDS
 Indicate if low-level methods required to meet current groundwater standards (SPLP for soil):
 BN or BNA (8270D SIM) **NUDEP GWMS**
 VOC (8260C SIM or 8011) **NUDEP SRS**
 SPLP (BN, BNA, Metals) **NUDEP SPLP**
 1,4 Dioxane **Other (specify):** _____
 Check if applicable:
 Project-Specific Reporting Limits
 High Contaminant Concentrations
 NJ LSRP Project (also check boxes above/right)
 Please note NUMBERED items. If not completed your analytical work may be delayed.
 A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.
 Internal use: sampling plan (check box) HC or client FSP# _____
 Cooler Temperature **27.4**

11) Sampler (print name): **RINZO RENTHKEI** Date: **11/25/2019**
 Additional Notes

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9112601

Project: WMATA-Northern Station

Sample ID: SB-01 @ 11'
 Lab#: AD14358-001
 Matrix: Soil/Terracore

Collection Date: 11/25/2019
 Receipt Date: 11/26/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		94

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	mg/kg	64	580		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	20.05	20	30	146	100	
Chlorobenzene	7.90	20	20	117	40	

Sample ID: SB-02 @ 11'
Lab#: AD14358-002
Matrix: Soil/Terracore

Collection Date: 11/25/2019
Receipt Date: 11/26/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		79

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	mg/kg	76	160		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	14.31	20	30	146	72	
Chlorobenzene	8.59	20	20	117	43	

Hampton-Clarke, Inc. (WBE/DBE/SBE)
 175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004
 Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458
 Service Center: 137-D Gaither Drive, Mount Laurel, New Jersey 08054
 Ph (Service Center): 856-780-6057 Fax: 856-780-6056
 NE/LAC/NJ #97071 | PA #88-00463 | NY #11408 | CT #PH-0671 | KY #90124 | DE HSCA Approved

HC
 HAMPTON-CLARKE
 A Women-Owned, Disadvantaged, Small Business Enterprise
CHAIN OF CUSTODY RECORD

Project # Lab Use Only: 9112601 Page 1 of 1
3) Reporting Requirements (Please Circle)
 Turnaround: When Available: 1 Business Day (100%)*
 2 Business Days (75%)*
 3 Business Days (50%)*
 4 Business Days (35%)*
 5 Business Days (25%)*
 6 Business Days (Standard)
 Other: _____
 * Expedited TAT Not Always Available. Please Check with Lab.

Customer Information
 1a) Customer: Antibio - PSI
 Address: 2930 Esbridge Rd, Fairfax, VA 22031
 Email/Call/Fax/Ph: 703-698-9300
 1b) mon.lin@antibio.com
 1c) Send Invoice to: mon.lin@antibio.com
 1d) Send Report to: mon.lin@antibio.com

Project Information
 2a) Project: WMTA Northern Station
04481517
 2b) Project Mgr: Bobby Ren
 2c) Project Location (City/State): Washington, DC
 2d) Quote/PO # (if Applicable): _____

Report Type
 Summary: Results + QC (Waste)
 Reduced: NJ NY
 PA Other _____
 NJ Full / NY ASP CalB
 NY ASP CalA
 Other: _____

FOR LAB USE ONLY
 Batch # AD1438
 Matrix Codes: DW - Drinking Water, GW - Ground Water, WW - Waste Water, OT - Other (please specify under item 9, Comments)
 S - Soil, SL - Sludge, OL - Oil, A - Air

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample		Composite (C)	Grab (G)	7) Analysis (specify methods & parameter lists)					8) # of Bottles						9) Comments		
			Date	Time			VOCs	SVOCs	TPH-GRO/DRO	PCB	PP	None	MeOH	En Core	NaOH	HCl	H2SO4		HNO3	Other: <u>DI H2O</u>
001	5B-01 @ 11'	S	11/25/19	08:40	G	G	X	X	X	X	X	2	1						2	5 bottles
002	5B-02 @ 11'	S	11/25/19	11:10	G	G	X	X	X	X	X	2	1						2	1

10) Relinquished by: [Signature] Accepted by: [Signature] Date: 11/25/2019
 FEDIX
 FEDIX
 11/26/19 8:02

Comments, Notes, Special Requirements, HAZARDS
 Indicate if low-level methods required to meet current groundwater standards (SPLP for soil):
 BN or BNA (8270D SIM)
 VOC (8260C SIM or 8011)
 SPLP (BN, BNA, Metals)
 1,4 Dioxane
 Check if applicable:
 Project-Specific Reporting Limits
 High Contaminant Concentrations
 NJ LSRP Project (also check boxes above/right)
 Project-Specific Reporting Limits
 High Contaminant Concentrations
 NJ LSRP Project (also check boxes above/right)
 Please note NUMBERED items. If not completed your analytical work may be delayed.
 A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.
 Internal use: sampling plan (check box) HC or client FSP# _____
 Cooler Temperature 2.4

11) Sampler (print name): RINZO RENTHKEI Date: 11/25/2019
Additional Notes

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9112701

Project: WMATA-Northern Station

Sample ID: SB-17@ 3'
 Lab#: AD14380-001
 Matrix: Soil/Terracore

Collection Date: 11/26/2019

Receipt Date: 11/27/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		88

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	94.7	mg/kg	27	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	31.99	30	50	150	107	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.095	0.16

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.028	ND		
Aroclor-1016	1	mg/kg	0.028	ND		
Aroclor-1221	1	mg/kg	0.028	ND		
Aroclor-1232	1	mg/kg	0.028	ND		
Aroclor-1242	1	mg/kg	0.028	ND		
Aroclor-1248	1	mg/kg	0.028	ND		
Aroclor-1254	1	mg/kg	0.028	ND		
Aroclor-1260	1	mg/kg	0.028	ND		
Aroclor-1262	1	mg/kg	0.028	ND		
Aroclor-1268	1	mg/kg	0.028	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	83.17	100	37	141	83	
TCMX-Surrogate	67.20	100	37	141	67	
DCB-Surrogate	71.72	100	34	146	72	
DCB-Surrogate	60.01	100	34	146	60	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	11	93
Chromium	1	mg/kg	5.7	18
Copper	1	mg/kg	5.7	50
Lead	1	mg/kg	5.7	250
Nickel	1	mg/kg	5.7	14
Zinc	1	mg/kg	11	110

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.91	ND
Arsenic	1	mg/kg	0.23	3.7
Beryllium	1	mg/kg	0.23	0.64
Cadmium	1	mg/kg	0.45	0.60
Selenium	1	mg/kg	2.3	ND
Silver	1	mg/kg	0.23	ND
Thallium	1	mg/kg	0.45	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	20	mg/kg	0.76	ND
1,2,4,5-Tetrachlorobenzene	20	mg/kg	0.76	ND
2,3,4,6-Tetrachlorophenol	20	mg/kg	0.76	ND
2,4,5-Trichlorophenol	20	mg/kg	0.76	ND

Sample ID: SB-17@ 3'
 Lab#: AD14380-001
 Matrix: Soil/Terracore

Collection Date: 11/26/2019
 Receipt Date: 11/27/2019

2,4,6-Trichlorophenol	20	mg/kg	0.76	ND
2,4-Dichlorophenol	20	mg/kg	0.19	ND
2,4-Dimethylphenol	20	mg/kg	0.19	ND
2,4-Dinitrophenol	20	mg/kg	3.8	ND
2,4-Dinitrotoluene	20	mg/kg	0.76	ND
2,6-Dinitrotoluene	20	mg/kg	0.76	ND
2-Chloronaphthalene	20	mg/kg	0.76	ND
2-Chlorophenol	20	mg/kg	0.76	ND
2-Methylnaphthalene	20	mg/kg	0.76	0.98
2-Methylphenol	20	mg/kg	0.19	ND
2-Nitroaniline	20	mg/kg	0.76	ND
2-Nitrophenol	20	mg/kg	0.76	ND
3&4-Methylphenol	20	mg/kg	0.19	ND
3,3'-Dichlorobenzidine	20	mg/kg	0.76	ND
3-Nitroaniline	20	mg/kg	0.76	ND
4,6-Dinitro-2-methylphenol	20	mg/kg	3.8	ND
4-Bromophenyl-phenylether	20	mg/kg	0.76	ND
4-Chloro-3-methylphenol	20	mg/kg	0.76	ND
4-Chloroaniline	20	mg/kg	0.19	ND
4-Chlorophenyl-phenylether	20	mg/kg	0.76	ND
4-Nitroaniline	20	mg/kg	0.76	ND
4-Nitrophenol	20	mg/kg	0.76	ND
Acenaphthene	20	mg/kg	0.76	3.9
Acenaphthylene	20	mg/kg	0.76	ND
Acetophenone	20	mg/kg	0.76	ND
Anthracene	20	mg/kg	0.76	11
Atrazine	20	mg/kg	0.76	ND
Benzaldehyde	20	mg/kg	0.76	ND
Benzo[a]anthracene	20	mg/kg	0.76	26
Benzo[a]pyrene	20	mg/kg	0.76	20
Benzo[b]fluoranthene	20	mg/kg	0.76	27
Benzo[g,h,i]perylene	20	mg/kg	0.76	9.1
Benzo[k]fluoranthene	20	mg/kg	0.76	9.6
bis(2-Chloroethoxy)methane	20	mg/kg	0.76	ND
bis(2-Chloroethyl)ether	20	mg/kg	0.19	ND
bis(2-Chloroisopropyl)ether	20	mg/kg	0.76	ND
bis(2-Ethylhexyl)phthalate	20	mg/kg	0.76	ND
Butylbenzylphthalate	20	mg/kg	0.76	ND
Caprolactam	20	mg/kg	0.76	ND
Carbazole	20	mg/kg	0.76	5.3
Chrysene	20	mg/kg	0.76	24
Dibenzo[a,h]anthracene	20	mg/kg	0.76	3.1
Dibenzofuran	20	mg/kg	0.19	3.0
Diethylphthalate	20	mg/kg	0.76	ND
Dimethylphthalate	20	mg/kg	0.76	ND
Di-n-butylphthalate	20	mg/kg	0.19	ND
Di-n-octylphthalate	20	mg/kg	0.76	ND
Fluoranthene	20	mg/kg	0.76	45
Fluorene	20	mg/kg	0.76	5.5
Hexachlorobenzene	20	mg/kg	0.76	ND
Hexachlorobutadiene	20	mg/kg	0.76	ND
Hexachlorocyclopentadiene	20	mg/kg	0.76	ND
Hexachloroethane	20	mg/kg	0.76	ND
Indeno[1,2,3-cd]pyrene	20	mg/kg	0.76	9.0
Isophorone	20	mg/kg	0.76	ND
Naphthalene	20	mg/kg	0.19	1.0
Nitrobenzene	20	mg/kg	0.76	ND
N-Nitroso-di-n-propylamine	20	mg/kg	0.19	ND
N-Nitrosodiphenylamine	20	mg/kg	0.76	ND
Pentachlorophenol	20	mg/kg	3.8	ND
Phenanthrene	20	mg/kg	0.76	45
Phenol	20	mg/kg	0.76	ND
Pyrene	20	mg/kg	0.76	45

Sample ID: SB-17@ 3'
 Lab#: AD14380-001
 Matrix: Soil/Terracore

Collection Date: 11/26/2019
 Receipt Date: 11/27/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	2.98	50	58	148	119	
Phenol-d5	4.63	100	49	129	93	
Nitrobenzene-d5	2.24	50	52	129	89	
2-Fluorophenol	4.72	100	43	128	94	
2-Fluorobiphenyl	2.36	50	58	125	94	
2,4,6-Tribromophenol	4.08	100	54	145	82	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	3	mg/kg	200	2400		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	7.00	20	30	146	105	
Chlorobenzene	2.33	20	20	117	35	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1.02	mg/kg	0.0023	ND
1,1,2,2-Tetrachloroethane	1.02	mg/kg	0.0023	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1.02	mg/kg	0.0023	ND
1,1,2-Trichloroethane	1.02	mg/kg	0.0023	ND
1,1-Dichloroethane	1.02	mg/kg	0.0023	ND
1,1-Dichloroethene	1.02	mg/kg	0.0023	ND
1,2,3-Trichlorobenzene	1.02	mg/kg	0.0023	ND
1,2,4-Trichlorobenzene	1.02	mg/kg	0.0023	ND
1,2-Dibromo-3-chloropropane	1.02	mg/kg	0.0023	ND
1,2-Dibromoethane	1.02	mg/kg	0.00090	ND
1,2-Dichlorobenzene	1.02	mg/kg	0.0023	ND
1,2-Dichloroethane	1.02	mg/kg	0.0023	ND
1,2-Dichloropropane	1.02	mg/kg	0.0023	ND
1,3-Dichlorobenzene	1.02	mg/kg	0.0023	ND
1,4-Dichlorobenzene	1.02	mg/kg	0.0023	ND
1,4-Dioxane	1.02	mg/kg	0.12	ND
2-Butanone	1.02	mg/kg	0.0023	ND
2-Hexanone	1.02	mg/kg	0.0023	ND
4-Methyl-2-pentanone	1.02	mg/kg	0.0023	ND
Acetone	1.02	mg/kg	0.012	0.013
Benzene	1.02	mg/kg	0.0012	ND
Bromochloromethane	1.02	mg/kg	0.0023	ND
Bromodichloromethane	1.02	mg/kg	0.0023	ND
Bromoform	1.02	mg/kg	0.0023	ND
Bromomethane	1.02	mg/kg	0.0023	ND
Carbon disulfide	1.02	mg/kg	0.0023	ND
Carbon tetrachloride	1.02	mg/kg	0.0023	ND
Chlorobenzene	1.02	mg/kg	0.0023	ND
Chloroethane	1.02	mg/kg	0.0023	ND
Chloroform	1.02	mg/kg	0.0023	ND
Chloromethane	1.02	mg/kg	0.0023	ND
cis-1,2-Dichloroethene	1.02	mg/kg	0.0023	ND
cis-1,3-Dichloropropene	1.02	mg/kg	0.0023	ND
Cyclohexane	1.02	mg/kg	0.0023	ND
Dibromochloromethane	1.02	mg/kg	0.0023	ND
Dichlorodifluoromethane	1.02	mg/kg	0.0023	ND
Ethylbenzene	1.02	mg/kg	0.0012	ND
Isopropylbenzene	1.02	mg/kg	0.0012	ND
m&p-Xylenes	1.02	mg/kg	0.0012	0.0012
Methyl Acetate	1.02	mg/kg	0.0023	ND
Methylcyclohexane	1.02	mg/kg	0.0023	ND
Methylene chloride	1.02	mg/kg	0.0023	0.019
Methyl-t-butyl ether	1.02	mg/kg	0.0012	ND
o-Xylene	1.02	mg/kg	0.0012	ND
Styrene	1.02	mg/kg	0.0023	ND
Tetrachloroethene	1.02	mg/kg	0.0023	ND
Toluene	1.02	mg/kg	0.0012	ND
trans-1,2-Dichloroethene	1.02	mg/kg	0.0023	ND
trans-1,3-Dichloropropene	1.02	mg/kg	0.0023	ND
Trichloroethene	1.02	mg/kg	0.0023	ND
Trichlorofluoromethane	1.02	mg/kg	0.0023	ND

Sample ID: SB-17@ 3'
Lab#: AD14380-001
Matrix: Soil/Terracore

Collection Date: 11/26/2019
Receipt Date: 11/27/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Vinyl chloride	1.02	mg/kg	0.0023		ND	
Xylenes (Total)	1.02	mg/kg	0.0012		0.0012	
Toluene-d8	28.22	30	68	122	94	
Dibromofluoromethane	30.61	30	63	140	102	
Bromofluorobenzene	31.66	30	64	129	106	
1,2-Dichloroethane-d4	30.12	30	63	143	100	

Sample ID: SB-17@ 11'
 Lab#: AD14380-002
 Matrix: Soil/Terracore

Collection Date: 11/26/2019
 Receipt Date: 11/27/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		92

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	117	mg/kg	32	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	27.77	30	50	150	93	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.091	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.027	ND		
Aroclor-1016	1	mg/kg	0.027	ND		
Aroclor-1221	1	mg/kg	0.027	ND		
Aroclor-1232	1	mg/kg	0.027	ND		
Aroclor-1242	1	mg/kg	0.027	ND		
Aroclor-1248	1	mg/kg	0.027	ND		
Aroclor-1254	1	mg/kg	0.027	ND		
Aroclor-1260	1	mg/kg	0.027	ND		
Aroclor-1262	1	mg/kg	0.027	ND		
Aroclor-1268	1	mg/kg	0.027	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	69.81	100	37	141	70	
TCMX-Surrogate	101.05	100	37	141	101	
DCB-Surrogate	59.16	100	34	146	59	
DCB-Surrogate	75.29	100	34	146	75	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	11	61
Chromium	1	mg/kg	5.4	11
Copper	1	mg/kg	5.4	57
Lead	1	mg/kg	5.4	27
Nickel	1	mg/kg	5.4	6.1
Zinc	1	mg/kg	11	31

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.87	ND
Arsenic	1	mg/kg	0.22	2.6
Beryllium	1	mg/kg	0.22	0.23
Cadmium	1	mg/kg	0.43	ND
Selenium	1	mg/kg	2.2	ND
Silver	1	mg/kg	0.22	ND
Thallium	1	mg/kg	0.43	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	10	mg/kg	0.36	ND
1,2,4,5-Tetrachlorobenzene	10	mg/kg	0.36	ND
2,3,4,6-Tetrachlorophenol	10	mg/kg	0.36	ND
2,4,5-Trichlorophenol	10	mg/kg	0.36	ND
2,4,6-Trichlorophenol	10	mg/kg	0.36	ND
2,4-Dichlorophenol	10	mg/kg	0.091	ND
2,4-Dimethylphenol	10	mg/kg	0.091	ND
2,4-Dinitrophenol	10	mg/kg	1.8	ND
2,4-Dinitrotoluene	10	mg/kg	0.36	ND
2,6-Dinitrotoluene	10	mg/kg	0.36	ND
2-Chloronaphthalene	10	mg/kg	0.36	ND
2-Chlorophenol	10	mg/kg	0.36	ND

Sample ID: SB-17@ 11'
 Lab#: AD14380-002
 Matrix: Soil/Terracore

Collection Date: 11/26/2019
 Receipt Date: 11/27/2019

2-Methylnaphthalene	10	mg/kg	0.36	ND		
2-Methylphenol	10	mg/kg	0.091	ND		
2-Nitroaniline	10	mg/kg	0.36	ND		
2-Nitrophenol	10	mg/kg	0.36	ND		
3&4-Methylphenol	10	mg/kg	0.091	ND		
3,3'-Dichlorobenzidine	10	mg/kg	0.36	ND		
3-Nitroaniline	10	mg/kg	0.36	ND		
4,6-Dinitro-2-methylphenol	10	mg/kg	1.8	ND		
4-Bromophenyl-phenylether	10	mg/kg	0.36	ND		
4-Chloro-3-methylphenol	10	mg/kg	0.36	ND		
4-Chloroaniline	10	mg/kg	0.091	ND		
4-Chlorophenyl-phenylether	10	mg/kg	0.36	ND		
4-Nitroaniline	10	mg/kg	0.36	ND		
4-Nitrophenol	10	mg/kg	0.36	ND		
Acenaphthene	10	mg/kg	0.36	ND		
Acenaphthylene	10	mg/kg	0.36	ND		
Acetophenone	10	mg/kg	0.36	ND		
Anthracene	10	mg/kg	0.36	ND		
Atrazine	10	mg/kg	0.36	ND		
Benzaldehyde	10	mg/kg	0.36	ND		
Benzo[a]anthracene	10	mg/kg	0.36	1.3		
Benzo[a]pyrene	10	mg/kg	0.36	1.3		
Benzo[b]fluoranthene	10	mg/kg	0.36	1.7		
Benzo[g,h,i]perylene	10	mg/kg	0.36	0.71		
Benzo[k]fluoranthene	10	mg/kg	0.36	0.65		
bis(2-Chloroethoxy)methane	10	mg/kg	0.36	ND		
bis(2-Chloroethyl)ether	10	mg/kg	0.091	ND		
bis(2-Chloroisopropyl)ether	10	mg/kg	0.36	ND		
bis(2-Ethylhexyl)phthalate	10	mg/kg	0.36	ND		
Butylbenzylphthalate	10	mg/kg	0.36	ND		
Caprolactam	10	mg/kg	0.36	ND		
Carbazole	10	mg/kg	0.36	ND		
Chrysene	10	mg/kg	0.36	1.2		
Dibenzo[a,h]anthracene	10	mg/kg	0.36	ND		
Dibenzofuran	10	mg/kg	0.091	ND		
Diethylphthalate	10	mg/kg	0.36	ND		
Dimethylphthalate	10	mg/kg	0.36	ND		
Di-n-butylphthalate	10	mg/kg	0.091	ND		
Di-n-octylphthalate	10	mg/kg	0.36	ND		
Fluoranthene	10	mg/kg	0.36	2.1		
Fluorene	10	mg/kg	0.36	ND		
Hexachlorobenzene	10	mg/kg	0.36	ND		
Hexachlorobutadiene	10	mg/kg	0.36	ND		
Hexachlorocyclopentadiene	10	mg/kg	0.36	ND		
Hexachloroethane	10	mg/kg	0.36	ND		
Indeno[1,2,3-cd]pyrene	10	mg/kg	0.36	0.65		
Isophorone	10	mg/kg	0.36	ND		
Naphthalene	10	mg/kg	0.091	ND		
Nitrobenzene	10	mg/kg	0.36	ND		
N-Nitroso-di-n-propylamine	10	mg/kg	0.091	ND		
N-Nitrosodiphenylamine	10	mg/kg	0.36	ND		
Pentachlorophenol	10	mg/kg	1.8	ND		
Phenanthrene	10	mg/kg	0.36	1.2		
Phenol	10	mg/kg	0.36	ND		
Pyrene	10	mg/kg	0.36	2.1		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	4.92	50	58	148	98	
Phenol-d5	8.79	100	49	129	88	
Nitrobenzene-d5	3.77	50	52	129	75	
2-Fluorophenol	8.80	100	43	128	88	
2-Fluorobiphenyl	3.93	50	58	125	79	
2,4,6-Tribromophenol	6.21	100	54	145	62	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	3	mg/kg	200	1500		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	5.41	20	30	146	81	
Chlorobenzene	2.25	20	20	117	34	

Sample ID: SB-17@ 11'
 Lab#: AD14380-002
 Matrix: Soil/Terracore

Collection Date: 11/26/2019
 Receipt Date: 11/27/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	0.901	mg/kg	0.0020	ND		
1,1,2,2-Tetrachloroethane	0.901	mg/kg	0.0020	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	0.901	mg/kg	0.0020	ND		
1,1,2-Trichloroethane	0.901	mg/kg	0.0020	ND		
1,1-Dichloroethane	0.901	mg/kg	0.0020	ND		
1,1-Dichloroethene	0.901	mg/kg	0.0020	ND		
1,2,3-Trichlorobenzene	0.901	mg/kg	0.0020	ND		
1,2,4-Trichlorobenzene	0.901	mg/kg	0.0020	ND		
1,2-Dibromo-3-chloropropane	0.901	mg/kg	0.0020	ND		
1,2-Dibromoethane	0.901	mg/kg	0.00076	ND		
1,2-Dichlorobenzene	0.901	mg/kg	0.0020	ND		
1,2-Dichloroethane	0.901	mg/kg	0.0020	ND		
1,2-Dichloropropane	0.901	mg/kg	0.0020	ND		
1,3-Dichlorobenzene	0.901	mg/kg	0.0020	ND		
1,4-Dichlorobenzene	0.901	mg/kg	0.0020	ND		
1,4-Dioxane	0.901	mg/kg	0.098	ND		
2-Butanone	0.901	mg/kg	0.0020	ND		
2-Hexanone	0.901	mg/kg	0.0020	ND		
4-Methyl-2-pentanone	0.901	mg/kg	0.0020	ND		
Acetone	0.901	mg/kg	0.0098	ND		
Benzene	0.901	mg/kg	0.00098	ND		
Bromochloromethane	0.901	mg/kg	0.0020	ND		
Bromodichloromethane	0.901	mg/kg	0.0020	ND		
Bromoform	0.901	mg/kg	0.0020	ND		
Bromomethane	0.901	mg/kg	0.0020	ND		
Carbon disulfide	0.901	mg/kg	0.0020	ND		
Carbon tetrachloride	0.901	mg/kg	0.0020	ND		
Chlorobenzene	0.901	mg/kg	0.0020	ND		
Chloroethane	0.901	mg/kg	0.0020	ND		
Chloroform	0.901	mg/kg	0.0020	ND		
Chloromethane	0.901	mg/kg	0.0020	ND		
cis-1,2-Dichloroethene	0.901	mg/kg	0.0020	ND		
cis-1,3-Dichloropropene	0.901	mg/kg	0.0020	ND		
Cyclohexane	0.901	mg/kg	0.0020	ND		
Dibromochloromethane	0.901	mg/kg	0.0020	ND		
Dichlorodifluoromethane	0.901	mg/kg	0.0020	ND		
Ethylbenzene	0.901	mg/kg	0.00098	ND		
Isopropylbenzene	0.901	mg/kg	0.00098	ND		
m&p-Xylenes	0.901	mg/kg	0.00098	ND		
Methyl Acetate	0.901	mg/kg	0.0020	ND		
Methylcyclohexane	0.901	mg/kg	0.0020	ND		
Methylene chloride	0.901	mg/kg	0.0020	0.0052		
Methyl-t-butyl ether	0.901	mg/kg	0.00098	ND		
o-Xylene	0.901	mg/kg	0.00098	ND		
Styrene	0.901	mg/kg	0.0020	ND		
Tetrachloroethene	0.901	mg/kg	0.0020	ND		
Toluene	0.901	mg/kg	0.00098	ND		
trans-1,2-Dichloroethene	0.901	mg/kg	0.0020	ND		
trans-1,3-Dichloropropene	0.901	mg/kg	0.0020	ND		
Trichloroethene	0.901	mg/kg	0.0020	ND		
Trichlorofluoromethane	0.901	mg/kg	0.0020	ND		
Vinyl chloride	0.901	mg/kg	0.0020	ND		
Xylenes (Total)	0.901	mg/kg	0.00098	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	30.36	30	68	122	101	
Dibromofluoromethane	31.30	30	63	140	104	
Bromofluorobenzene	36.11	30	64	129	120	
1,2-Dichloroethane-d4	29.66	30	63	143	99	

Sample ID: SB-06@11'
 Lab#: AD14380-003
 Matrix: Soil/Terracore

Collection Date: 11/26/2019
 Receipt Date: 11/27/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		91

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	97.3	mg/kg	27	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	31.33	30	50	150	104	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.092	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.027	ND		
Aroclor-1016	1	mg/kg	0.027	ND		
Aroclor-1221	1	mg/kg	0.027	ND		
Aroclor-1232	1	mg/kg	0.027	ND		
Aroclor-1242	1	mg/kg	0.027	ND		
Aroclor-1248	1	mg/kg	0.027	ND		
Aroclor-1254	1	mg/kg	0.027	ND		
Aroclor-1260	1	mg/kg	0.027	ND		
Aroclor-1262	1	mg/kg	0.027	ND		
Aroclor-1268	1	mg/kg	0.027	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	90.17	100	37	141	90	
TCMX-Surrogate	77.90	100	37	141	78	
DCB-Surrogate	79.36	100	34	146	79	
DCB-Surrogate	66.43	100	34	146	66	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	11	150
Chromium	1	mg/kg	5.5	17
Copper	1	mg/kg	5.5	54
Lead	1	mg/kg	5.5	29
Nickel	1	mg/kg	5.5	8.8
Zinc	1	mg/kg	11	160

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.88	ND
Arsenic	1	mg/kg	0.22	1.2
Beryllium	1	mg/kg	0.22	ND
Cadmium	1	mg/kg	0.44	ND
Selenium	1	mg/kg	2.2	ND
Silver	1	mg/kg	0.22	ND
Thallium	1	mg/kg	0.44	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	1	mg/kg	0.037	ND
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.037	ND
2,3,4,6-Tetrachlorophenol	1	mg/kg	0.037	ND
2,4,5-Trichlorophenol	1	mg/kg	0.037	ND
2,4,6-Trichlorophenol	1	mg/kg	0.037	ND
2,4-Dichlorophenol	1	mg/kg	0.0092	ND
2,4-Dimethylphenol	1	mg/kg	0.0092	ND
2,4-Dinitrophenol	1	mg/kg	0.18	ND
2,4-Dinitrotoluene	1	mg/kg	0.037	ND
2,6-Dinitrotoluene	1	mg/kg	0.037	ND
2-Chloronaphthalene	1	mg/kg	0.037	ND
2-Chlorophenol	1	mg/kg	0.037	ND

Sample ID: SB-06@11'
 Lab#: AD14380-003
 Matrix: Soil/Terracore

Collection Date: 11/26/2019
 Receipt Date: 11/27/2019

2-Methylnaphthalene	1	mg/kg	0.037	ND		
2-Methylphenol	1	mg/kg	0.0092	ND		
2-Nitroaniline	1	mg/kg	0.037	ND		
2-Nitrophenol	1	mg/kg	0.037	ND		
3&4-Methylphenol	1	mg/kg	0.0092	ND		
3,3'-Dichlorobenzidine	1	mg/kg	0.037	ND		
3-Nitroaniline	1	mg/kg	0.037	ND		
4,6-Dinitro-2-methylphenol	1	mg/kg	0.18	ND		
4-Bromophenyl-phenylether	1	mg/kg	0.037	ND		
4-Chloro-3-methylphenol	1	mg/kg	0.037	ND		
4-Chloroaniline	1	mg/kg	0.0092	ND		
4-Chlorophenyl-phenylether	1	mg/kg	0.037	ND		
4-Nitroaniline	1	mg/kg	0.037	ND		
4-Nitrophenol	1	mg/kg	0.037	ND		
Acenaphthene	1	mg/kg	0.037	0.10		
Acenaphthylene	1	mg/kg	0.037	0.060		
Acetophenone	1	mg/kg	0.037	ND		
Anthracene	1	mg/kg	0.037	0.35		
Atrazine	1	mg/kg	0.037	ND		
Benzaldehyde	1	mg/kg	0.037	ND		
Benzo[a]anthracene	1	mg/kg	0.037	0.77		
Benzo[a]pyrene	1	mg/kg	0.037	0.67		
Benzo[b]fluoranthene	1	mg/kg	0.037	0.86		
Benzo[g,h,i]perylene	1	mg/kg	0.037	0.36		
Benzo[k]fluoranthene	1	mg/kg	0.037	0.30		
bis(2-Chloroethoxy)methane	1	mg/kg	0.037	ND		
bis(2-Chloroethyl)ether	1	mg/kg	0.0092	ND		
bis(2-Chloroisopropyl)ether	1	mg/kg	0.037	ND		
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.037	ND		
Butylbenzylphthalate	1	mg/kg	0.037	ND		
Caprolactam	1	mg/kg	0.037	ND		
Carbazole	1	mg/kg	0.037	0.090		
Chrysene	1	mg/kg	0.037	0.70		
Dibenzo[a,h]anthracene	1	mg/kg	0.037	0.11		
Dibenzofuran	1	mg/kg	0.0092	0.054		
Diethylphthalate	1	mg/kg	0.037	ND		
Dimethylphthalate	1	mg/kg	0.037	ND		
Di-n-butylphthalate	1	mg/kg	0.0092	0.019		
Di-n-octylphthalate	1	mg/kg	0.037	ND		
Fluoranthene	1	mg/kg	0.037	1.4		
Fluorene	1	mg/kg	0.037	0.12		
Hexachlorobenzene	1	mg/kg	0.037	ND		
Hexachlorobutadiene	1	mg/kg	0.037	ND		
Hexachlorocyclopentadiene	1	mg/kg	0.037	ND		
Hexachloroethane	1	mg/kg	0.037	ND		
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.037	0.33		
Isophorone	1	mg/kg	0.037	ND		
Naphthalene	1	mg/kg	0.0092	0.036		
Nitrobenzene	1	mg/kg	0.037	ND		
N-Nitroso-di-n-propylamine	1	mg/kg	0.0092	ND		
N-Nitrosodiphenylamine	1	mg/kg	0.037	ND		
Pentachlorophenol	1	mg/kg	0.18	ND		
Phenanthrene	1	mg/kg	0.037	1.2		
Phenol	1	mg/kg	0.037	ND		
Pyrene	1	mg/kg	0.037	1.2		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	49.26	50	58	148	99	
Phenol-d5	96.72	100	49	129	97	
Nitrobenzene-d5	44.68	50	52	129	89	
2-Fluorophenol	89.26	100	43	128	89	
2-Fluorobiphenyl	53.24	50	58	125	106	
2,4,6-Tribromophenol	92.28	100	54	145	92	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	1	mg/kg	66	140		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	16.52	20	30	146	83	
Chlorobenzene	10.84	20	20	117	54	

Sample ID: SB-06@11'
 Lab#: AD14380-003
 Matrix: Soil/Terracore

Collection Date: 11/26/2019
 Receipt Date: 11/27/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	0.87	mg/kg	0.0019	ND		
1,1,2,2-Tetrachloroethane	0.87	mg/kg	0.0019	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	0.87	mg/kg	0.0019	ND		
1,1,2-Trichloroethane	0.87	mg/kg	0.0019	ND		
1,1-Dichloroethane	0.87	mg/kg	0.0019	ND		
1,1-Dichloroethene	0.87	mg/kg	0.0019	ND		
1,2,3-Trichlorobenzene	0.87	mg/kg	0.0019	ND		
1,2,4-Trichlorobenzene	0.87	mg/kg	0.0019	ND		
1,2-Dibromo-3-chloropropane	0.87	mg/kg	0.0019	ND		
1,2-Dibromoethane	0.87	mg/kg	0.00075	ND		
1,2-Dichlorobenzene	0.87	mg/kg	0.0019	ND		
1,2-Dichloroethane	0.87	mg/kg	0.0019	ND		
1,2-Dichloropropane	0.87	mg/kg	0.0019	ND		
1,3-Dichlorobenzene	0.87	mg/kg	0.0019	ND		
1,4-Dichlorobenzene	0.87	mg/kg	0.0019	ND		
1,4-Dioxane	0.87	mg/kg	0.096	ND		
2-Butanone	0.87	mg/kg	0.0019	ND		
2-Hexanone	0.87	mg/kg	0.0019	ND		
4-Methyl-2-pentanone	0.87	mg/kg	0.0019	ND		
Acetone	0.87	mg/kg	0.0096	ND		
Benzene	0.87	mg/kg	0.00096	ND		
Bromochloromethane	0.87	mg/kg	0.0019	ND		
Bromodichloromethane	0.87	mg/kg	0.0019	ND		
Bromoform	0.87	mg/kg	0.0019	ND		
Bromomethane	0.87	mg/kg	0.0019	ND		
Carbon disulfide	0.87	mg/kg	0.0019	ND		
Carbon tetrachloride	0.87	mg/kg	0.0019	ND		
Chlorobenzene	0.87	mg/kg	0.0019	ND		
Chloroethane	0.87	mg/kg	0.0019	ND		
Chloroform	0.87	mg/kg	0.0019	ND		
Chloromethane	0.87	mg/kg	0.0019	ND		
cis-1,2-Dichloroethene	0.87	mg/kg	0.0019	ND		
cis-1,3-Dichloropropene	0.87	mg/kg	0.0019	ND		
Cyclohexane	0.87	mg/kg	0.0019	ND		
Dibromochloromethane	0.87	mg/kg	0.0019	ND		
Dichlorodifluoromethane	0.87	mg/kg	0.0019	ND		
Ethylbenzene	0.87	mg/kg	0.00096	ND		
Isopropylbenzene	0.87	mg/kg	0.00096	ND		
m&p-Xylenes	0.87	mg/kg	0.00096	ND		
Methyl Acetate	0.87	mg/kg	0.0019	ND		
Methylcyclohexane	0.87	mg/kg	0.0019	ND		
Methylene chloride	0.87	mg/kg	0.0019	0.012		
Methyl-t-butyl ether	0.87	mg/kg	0.00096	ND		
o-Xylene	0.87	mg/kg	0.00096	ND		
Styrene	0.87	mg/kg	0.0019	ND		
Tetrachloroethene	0.87	mg/kg	0.0019	ND		
Toluene	0.87	mg/kg	0.00096	ND		
trans-1,2-Dichloroethene	0.87	mg/kg	0.0019	ND		
trans-1,3-Dichloropropene	0.87	mg/kg	0.0019	ND		
Trichloroethene	0.87	mg/kg	0.0019	ND		
Trichlorofluoromethane	0.87	mg/kg	0.0019	ND		
Vinyl chloride	0.87	mg/kg	0.0019	ND		
Xylenes (Total)	0.87	mg/kg	0.00096	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	27.61	30	68	122	92	
Dibromofluoromethane	30.68	30	63	140	102	
Bromofluorobenzene	30.17	30	64	129	101	
1,2-Dichloroethane-d4	29.30	30	63	143	98	

Hampton-Clarke, Inc. (WBE/DBE/SBE)
 175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004
 Ph: 800-426-9992 | 973-244-9170 Fax: 973-244-9187 | 973-439-1458
 Service Center: 137-D Gaither Drive, Mount Laurel, New Jersey 08054
 Ph (Service Center): 856-780-6057 Fax: 856-780-6056



Project # (Lab Use Only) 912701 Page 1 of 1
3) Reporting Requirements (Please Circle)

Turnaround	Report Type	Electronic Data Deliv.
When Available:	Summary	NJ HazSite
1 Business Day (100%)*	Results + QC (Waste)	Excel Reg. NJ / NY / PA
2 Business Days (75%)*	Reduced:	EnviroData
3 Business Days (50%)*	[] NJ [] NY	EQUS:
4 Business Days (35%)*	[] PA [] Other	[] 4-File [] EZ
5 Business Days (25%)	NJ Full / NY ASP CatB	[] NYDEC
8 Business Days (Stand)	NY ASP CatA	[] Region 2 or 5
Other:		Other:

Customer Information
 1a) Customer: Antler - PS1
 Address: 2930 E. Sprudge Rd,
York PA 17203
 1b) Email/Call/Fax/Pr: 703-603-9300
 1c) Send Invoice to: nan.lin@antler.com
 1d) Send Report to: nan.lin@antler.com

Project Information
 2a) Project: WMA-T4 Northern Station
#C4981517
 2b) Project Mgr: Bobby Sun
 2c) Project Location (City/State): Washington, DC
 2d) Quote/PO # (if Applicable):

Reporting Requirements (Please Circle)

Turnaround	Report Type	Electronic Data Deliv.
When Available:	Summary	NJ HazSite
1 Business Day (100%)*	Results + QC (Waste)	Excel Reg. NJ / NY / PA
2 Business Days (75%)*	Reduced:	EnviroData
3 Business Days (50%)*	[] NJ [] NY	EQUS:
4 Business Days (35%)*	[] PA [] Other	[] 4-File [] EZ
5 Business Days (25%)	NJ Full / NY ASP CatB	[] NYDEC
8 Business Days (Stand)	NY ASP CatA	[] Region 2 or 5
Other:		Other:

FOR LAB USE ONLY	Matrix Codes	S - Soil SL - Sludge OL - Oil	A - Air	Sample Type	7) Analysis (specify methods & parameter lists)	8) # of Bottles						9) Comments	
						None	MeOH	En Core	NaOH	HCl	H2SO4		HNO3
AD143X0	4) Customer Sample ID												
1	301	SB-17 @ 3'	SB	11/26/19	8260 VOCs	2	1						5 bottles
2	002	SB-17 @ 11'	SB	11/26/19	8270 SVOCs	2	1						
	003	SB-06 @ 11'	S	11/26/19	TPH, GRO	2	1						
					13 PP								
					PCB								

10) Relinquished by: [Signature] Accepted by: [Signature] Date: 11/26/19 Time: 8:15

11) Sampler (print name): QINZO RENTHLEI Date: 11/26/19

Additional Notes

Internal use: sampling plan (check box) HC [] or client [] FSP# 2.4

Project-Specific Reporting Limits
 High Contaminant Concentrations
 NJ LSRP Project (also check boxes above/right)

Indicate if low-level methods required to meet current groundwater standards (SPLP for soil):
 BN or BNA (8270D SIM) **NJDEP GWQS**
 VOC (8260C SIM or 8011) **NJDEP SRS**
 SPLP (BN, BNA, Metals) **NJDEP SPLP**
 1,4 Dioxane **Other (specify):**

For NJ LSRP projects, indicate which standards need to be met:
 NJDEP GWQS
 NJDEP SRS
 NJDEP SPLP
 Other (specify):

Project-Specific Reporting Limits
 High Contaminant Concentrations
 NJ LSRP Project (also check boxes above/right)

Cooler Temperature 2.4

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9112701

Project: WMATA-Northern Station

Sample ID: SB-17 @ 3'
 Lab#: AD14380-001
 Matrix: Soil/Terracore

Collection Date: 11/26/2019
 Receipt Date: 11/27/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		88

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	3	mg/kg	200	1300		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	7.00	20	30	146	105	
Chlorobenzene	2.33	20	20	117	35	

Sample ID: SB-17@ 11'
Lab#: AD14380-002
Matrix: Soil/Terracore

Collection Date: 11/26/2019
Receipt Date: 11/27/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		92

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	3	mg/kg	200	360		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	5.41	20	30	146	81	
Chlorobenzene	2.25	20	20	117	34	

Sample ID: SB-06@11'
Lab#: AD14380-003
Matrix: Soil/Terracore

Collection Date: 11/26/2019
Receipt Date: 11/27/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		91

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	mg/kg	66	68		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	16.52	20	30	146	83	
Chlorobenzene	10.84	20	20	117	54	

Hampton-Clarke, Inc. (WBE/DBE/SBE)
 175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004
 Ph: 800-426-9992 | 973-244-9170 Fax: 973-244-9787 | 973-439-1458

Service Center: 137-D Gaither Drive, Mount Laurel, New Jersey 08054
 Ph (Service Center): 856-780-6057 Fax: 856-780-6056



CHAIN OF CUSTODY RECORD

Hampton-Clarke
 A Women-Owned, Disadvantaged, Small Business Enterprise

Project # (Lab Use Only)
912701

Page **1** of **1**

Customer Information

1a) Customer: Antler - PSI
 Address: 2930 E. Sprudge Rd,
York PA 22031
 1b) Email/Call/Fax/Pr: 703-603-9300
 1c) Send Invoice to: van. lin @ antler.com
 1d) Send Report to: van. lin @ antler.com

Project Information

2a) Project: WM-74 Northern Station
#C4981517
 2b) Project Mgr: Bobby Sun
 2c) Project Location (City/State): Washington, DC
 2d) Quote/PO # (if Applicable):

3) Reporting Requirements (Please Circle)

Turnaround: When Available:
 1 Business Day (100%)*
 2 Business Days (75%)*
 3 Business Days (50%)*
 4 Business Days (35%)*
 5 Business Days (25%)
 6 Business Days (Stand)
 Other: 8 Business Days (Stand)

Report Type: Summary
 Results + QC (Waste)
 Reduced:
 [] NJ [] NY
 [] PA [] Other
 NJ Full / NY ASP CatB
 NY ASP CatA

Electronic Data Deliv.: NJ HazSite
 Excel Reg. NJ / NY / PA
 EnviroData
 EQUIS:
 [] 4-File [] EZ
 [] NYDEC
 [] Region 2 or 5
 Other: _____

FOR LAB USE ONLY

Matrix Codes: S - Soil, A - Air
 DW - Drinking Water, GW - Ground Water, WW - Waste Water, OL - Oil
 OT - Other (please specify under item 9, Comments)

Lab Sample #	Customer Sample ID	Matrix	6) Sample		Composite (C)	Grab (G)	7) Analysis (specify methods & parameter lists)	8) # of Bottles						9) Comments					
			Date	Time				None	MeOH	En Core	NaOH	HCl	H2SO4		HNO3	Other: <u>5 bottles</u>			
1	SR-17 @ 3'	SR	11/26/19	0903		X													
2	SR-17 @ 11'	SR		0903		X													
	SR-06 @ 11'	S		1351		X													

10) Relinquished by: [Signature] Accepted by: FEDIX Date: 11/26/19 Time: _____

11) Sampler (print name): QINZO RENTHLEI Date: 11/26/19

Additional Notes

Comments, Notes, Special Requirements, HAZARDS

Indicate if low-level methods required to meet current groundwater standards (SPLP for soil):
 BN or BNA (8270D SIM) **NJDEP GWQS**
 VOC (8260C SIM or 8011) **NJDEP SRS**
 SPLP (BN, BNA, Metals) **NJDEP SPLP**
 1,4 Dioxane Other (specify): _____

Check if applicable:
 Project-Specific Reporting Limits
 High Contaminant Concentrations
 NJ LSRP Project (also check boxes above/right)

For NJ LSRP projects, indicate which standards need to be met:
 NJDEP GWQS
 NJDEP SRS
 NJDEP SPLP
 Other (specify): _____

Project-Specific Reporting Limits
 High Contaminant Concentrations
 NJ LSRP Project (also check boxes above/right)

Cooler Temperature: 2.4

Please note NUMBERED items. If not completed your analytical work may be delayed.
 A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.

Internal use: sampling plan (check box) HC [] or client [] FSP# _____

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9120301

Project: WMATA-Northern Station

Sample ID: SB-05@ 9'
 Lab#: AD14406-001
 Matrix: Soil/Terracore

Collection Date: 12/2/2019

Receipt Date: 12/3/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		94

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	97.1	mg/kg	26	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	30.46	30	50	150	102	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.089	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.027	ND		
Aroclor-1016	1	mg/kg	0.027	ND		
Aroclor-1221	1	mg/kg	0.027	ND		
Aroclor-1232	1	mg/kg	0.027	ND		
Aroclor-1242	1	mg/kg	0.027	ND		
Aroclor-1248	1	mg/kg	0.027	ND		
Aroclor-1254	1	mg/kg	0.027	ND		
Aroclor-1260	1	mg/kg	0.027	ND		
Aroclor-1262	1	mg/kg	0.027	ND		
Aroclor-1268	1	mg/kg	0.027	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	97.50	100	37	141	98	
TCMX-Surrogate	83.60	100	37	141	84	
DCB-Surrogate	83.44	100	34	146	83	
DCB-Surrogate	70.88	100	34	146	71	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	11	28
Chromium	1	mg/kg	5.3	7.7
Copper	1	mg/kg	5.3	6.6
Lead	1	mg/kg	5.3	75
Nickel	1	mg/kg	5.3	6.0
Zinc	1	mg/kg	11	44

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.85	ND
Arsenic	1	mg/kg	0.21	2.6
Beryllium	1	mg/kg	0.21	0.23
Cadmium	1	mg/kg	0.43	ND
Selenium	1	mg/kg	2.1	ND
Silver	1	mg/kg	0.21	ND
Thallium	1	mg/kg	0.43	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	1	mg/kg	0.035	ND
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.035	ND
2,3,4,6-Tetrachlorophenol	1	mg/kg	0.035	ND
2,4,5-Trichlorophenol	1	mg/kg	0.035	ND

Sample ID: SB-05@ 9'
 Lab#: AD14406-001
 Matrix: Soil/Terracore

Collection Date: 12/2/2019
 Receipt Date: 12/3/2019

2,4,6-Trichlorophenol	1	mg/kg	0.035	ND
2,4-Dichlorophenol	1	mg/kg	0.0089	ND
2,4-Dimethylphenol	1	mg/kg	0.0089	ND
2,4-Dinitrophenol	1	mg/kg	0.18	ND
2,4-Dinitrotoluene	1	mg/kg	0.035	ND
2,6-Dinitrotoluene	1	mg/kg	0.035	ND
2-Chloronaphthalene	1	mg/kg	0.035	ND
2-Chlorophenol	1	mg/kg	0.035	ND
2-Methylnaphthalene	1	mg/kg	0.035	ND
2-Methylphenol	1	mg/kg	0.0089	ND
2-Nitroaniline	1	mg/kg	0.035	ND
2-Nitrophenol	1	mg/kg	0.035	ND
3&4-Methylphenol	1	mg/kg	0.0089	ND
3,3'-Dichlorobenzidine	1	mg/kg	0.035	ND
3-Nitroaniline	1	mg/kg	0.035	ND
4,6-Dinitro-2-methylphenol	1	mg/kg	0.18	ND
4-Bromophenyl-phenylether	1	mg/kg	0.035	ND
4-Chloro-3-methylphenol	1	mg/kg	0.035	ND
4-Chloroaniline	1	mg/kg	0.0089	ND
4-Chlorophenyl-phenylether	1	mg/kg	0.035	ND
4-Nitroaniline	1	mg/kg	0.035	ND
4-Nitrophenol	1	mg/kg	0.035	ND
Acenaphthene	1	mg/kg	0.035	ND
Acenaphthylene	1	mg/kg	0.035	ND
Acetophenone	1	mg/kg	0.035	ND
Anthracene	1	mg/kg	0.035	0.056
Atrazine	1	mg/kg	0.035	ND
Benzaldehyde	1	mg/kg	0.035	ND
Benzo[a]anthracene	1	mg/kg	0.035	0.28
Benzo[a]pyrene	1	mg/kg	0.035	0.31
Benzo[b]fluoranthene	1	mg/kg	0.035	0.41
Benzo[g,h,i]perylene	1	mg/kg	0.035	0.26
Benzo[k]fluoranthene	1	mg/kg	0.035	0.13
bis(2-Chloroethoxy)methane	1	mg/kg	0.035	ND
bis(2-Chloroethyl)ether	1	mg/kg	0.0089	ND
bis(2-Chloroisopropyl)ether	1	mg/kg	0.035	ND
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.035	ND
Butylbenzylphthalate	1	mg/kg	0.035	ND
Caprolactam	1	mg/kg	0.035	ND
Carbazole	1	mg/kg	0.035	ND
Chrysene	1	mg/kg	0.035	0.29
Dibenzo[a,h]anthracene	1	mg/kg	0.035	0.063
Dibenzofuran	1	mg/kg	0.0089	0.011
Diethylphthalate	1	mg/kg	0.035	ND
Dimethylphthalate	1	mg/kg	0.035	ND
Di-n-butylphthalate	1	mg/kg	0.0089	ND
Di-n-octylphthalate	1	mg/kg	0.035	ND
Fluoranthene	1	mg/kg	0.035	0.37
Fluorene	1	mg/kg	0.035	ND
Hexachlorobenzene	1	mg/kg	0.035	ND
Hexachlorobutadiene	1	mg/kg	0.035	ND
Hexachlorocyclopentadiene	1	mg/kg	0.035	ND
Hexachloroethane	1	mg/kg	0.035	ND
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.035	0.21
Isophorone	1	mg/kg	0.035	ND
Naphthalene	1	mg/kg	0.0089	0.016
Nitrobenzene	1	mg/kg	0.035	ND
N-Nitroso-di-n-propylamine	1	mg/kg	0.0089	ND
N-Nitrosodiphenylamine	1	mg/kg	0.035	ND
Pentachlorophenol	1	mg/kg	0.18	ND
Phenanthrene	1	mg/kg	0.035	0.18
Phenol	1	mg/kg	0.035	ND
Pyrene	1	mg/kg	0.035	0.38

Sample ID: SB-05@ 9'
 Lab#: AD14406-001
 Matrix: Soil/Terracore

Collection Date: 12/2/2019
 Receipt Date: 12/3/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	57.72	50	58	148	115	
Phenol-d5	90.46	100	49	129	90	
Nitrobenzene-d5	49.16	50	52	129	98	
2-Fluorophenol	85.09	100	43	128	85	
2-Fluorobiphenyl	48.02	50	58	125	96	
2,4,6-Tribromophenol	91.77	100	54	145	92	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	1	mg/kg	64	110		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	15.99	20	30	146	80	
Chlorobenzene	13.37	20	20	117	67	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	0.962	mg/kg	0.0020	ND
1,1,2,2-Tetrachloroethane	0.962	mg/kg	0.0020	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	0.962	mg/kg	0.0020	ND
1,1,2-Trichloroethane	0.962	mg/kg	0.0020	ND
1,1-Dichloroethane	0.962	mg/kg	0.0020	ND
1,1-Dichloroethene	0.962	mg/kg	0.0020	ND
1,2,3-Trichlorobenzene	0.962	mg/kg	0.0020	ND
1,2,4-Trichlorobenzene	0.962	mg/kg	0.0020	ND
1,2-Dibromo-3-chloropropane	0.962	mg/kg	0.0020	ND
1,2-Dibromoethane	0.962	mg/kg	0.00080	ND
1,2-Dichlorobenzene	0.962	mg/kg	0.0020	ND
1,2-Dichloroethane	0.962	mg/kg	0.0020	ND
1,2-Dichloropropane	0.962	mg/kg	0.0020	ND
1,3-Dichlorobenzene	0.962	mg/kg	0.0020	ND
1,4-Dichlorobenzene	0.962	mg/kg	0.0020	ND
1,4-Dioxane	0.962	mg/kg	0.10	ND
2-Butanone	0.962	mg/kg	0.0020	ND
2-Hexanone	0.962	mg/kg	0.0020	ND
4-Methyl-2-pentanone	0.962	mg/kg	0.0020	ND
Acetone	0.962	mg/kg	0.010	ND
Benzene	0.962	mg/kg	0.0010	ND
Bromochloromethane	0.962	mg/kg	0.0020	ND
Bromodichloromethane	0.962	mg/kg	0.0020	ND
Bromoform	0.962	mg/kg	0.0020	ND
Bromomethane	0.962	mg/kg	0.0020	ND
Carbon disulfide	0.962	mg/kg	0.0020	ND
Carbon tetrachloride	0.962	mg/kg	0.0020	ND
Chlorobenzene	0.962	mg/kg	0.0020	ND
Chloroethane	0.962	mg/kg	0.0020	ND
Chloroform	0.962	mg/kg	0.0020	ND
Chloromethane	0.962	mg/kg	0.0020	ND
cis-1,2-Dichloroethene	0.962	mg/kg	0.0020	ND
cis-1,3-Dichloropropene	0.962	mg/kg	0.0020	ND
Cyclohexane	0.962	mg/kg	0.0020	ND
Dibromochloromethane	0.962	mg/kg	0.0020	ND
Dichlorodifluoromethane	0.962	mg/kg	0.0020	ND
Ethylbenzene	0.962	mg/kg	0.0010	ND
Isopropylbenzene	0.962	mg/kg	0.0010	ND
m&p-Xylenes	0.962	mg/kg	0.0010	ND
Methyl Acetate	0.962	mg/kg	0.0020	ND
Methylcyclohexane	0.962	mg/kg	0.0020	ND
Methylene chloride	0.962	mg/kg	0.0020	0.0050
Methyl-t-butyl ether	0.962	mg/kg	0.0010	ND
o-Xylene	0.962	mg/kg	0.0010	ND
Styrene	0.962	mg/kg	0.0020	ND
Tetrachloroethene	0.962	mg/kg	0.0020	ND
Toluene	0.962	mg/kg	0.0010	ND
trans-1,2-Dichloroethene	0.962	mg/kg	0.0020	ND
trans-1,3-Dichloropropene	0.962	mg/kg	0.0020	ND
Trichloroethene	0.962	mg/kg	0.0020	ND
Trichlorofluoromethane	0.962	mg/kg	0.0020	ND

Sample ID: SB-05@ 9'
Lab#: AD14406-001
Matrix: Soil/Terracore

Collection Date: 12/2/2019
Receipt Date: 12/3/2019

Vinyl chloride	0.962	mg/kg	0.0020		ND	
Xylenes (Total)	0.962	mg/kg	0.0010		ND	
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	27.56	30	68	122	92	
Dibromofluoromethane	31.02	30	63	140	103	
Bromofluorobenzene	31.16	30	64	129	104	
1,2-Dichloroethane-d4	29.88	30	63	143	100	

Sample ID: SB-29@ 1'
 Lab#: AD14406-002
 Matrix: Soil/Terracore

Collection Date: 12/2/2019
 Receipt Date: 12/3/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		89

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	192	mg/kg	54	550		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	28.66	30	50	150	96	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.094	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.028	ND		
Aroclor-1016	1	mg/kg	0.028	ND		
Aroclor-1221	1	mg/kg	0.028	ND		
Aroclor-1232	1	mg/kg	0.028	ND		
Aroclor-1242	1	mg/kg	0.028	ND		
Aroclor-1248	1	mg/kg	0.028	ND		
Aroclor-1254	1	mg/kg	0.028	ND		
Aroclor-1260	1	mg/kg	0.028	ND		
Aroclor-1262	1	mg/kg	0.028	ND		
Aroclor-1268	1	mg/kg	0.028	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	71.19	100	37	141	71	
TCMX-Surrogate	53.33	100	37	141	53	
DCB-Surrogate	70.49	100	34	146	70	
DCB-Surrogate	58.81	100	34	146	59	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	11	83
Chromium	1	mg/kg	5.6	19
Copper	1	mg/kg	5.6	75
Lead	1	mg/kg	5.6	190
Nickel	1	mg/kg	5.6	19
Zinc	1	mg/kg	11	180

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.90	ND
Arsenic	1	mg/kg	0.22	2.9
Beryllium	1	mg/kg	0.22	ND
Cadmium	1	mg/kg	0.45	0.53
Selenium	1	mg/kg	2.2	ND
Silver	1	mg/kg	0.22	0.28
Thallium	1	mg/kg	0.45	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	5	mg/kg	0.19	0.40
1,2,4,5-Tetrachlorobenzene	5	mg/kg	0.19	ND
2,3,4,6-Tetrachlorophenol	5	mg/kg	0.19	ND
2,4,5-Trichlorophenol	5	mg/kg	0.19	ND
2,4,6-Trichlorophenol	5	mg/kg	0.19	ND
2,4-Dichlorophenol	5	mg/kg	0.047	ND
2,4-Dimethylphenol	5	mg/kg	0.047	ND
2,4-Dinitrophenol	5	mg/kg	0.94	ND
2,4-Dinitrotoluene	5	mg/kg	0.19	ND
2,6-Dinitrotoluene	5	mg/kg	0.19	ND
2-Chloronaphthalene	5	mg/kg	0.19	ND
2-Chlorophenol	5	mg/kg	0.19	ND

Sample ID: SB-29@ 1'
 Lab#: AD14406-002
 Matrix: Soil/Terracore

Collection Date: 12/2/2019
 Receipt Date: 12/3/2019

2-Methylnaphthalene	5	mg/kg	0.19	3.9		
2-Methylphenol	5	mg/kg	0.047	ND		
2-Nitroaniline	5	mg/kg	0.19	ND		
2-Nitrophenol	5	mg/kg	0.19	ND		
3&4-Methylphenol	5	mg/kg	0.047	ND		
3,3'-Dichlorobenzidine	5	mg/kg	0.19	ND		
3-Nitroaniline	5	mg/kg	0.19	ND		
4,6-Dinitro-2-methylphenol	5	mg/kg	0.94	ND		
4-Bromophenyl-phenylether	5	mg/kg	0.19	ND		
4-Chloro-3-methylphenol	5	mg/kg	0.19	ND		
4-Chloroaniline	5	mg/kg	0.047	ND		
4-Chlorophenyl-phenylether	5	mg/kg	0.19	ND		
4-Nitroaniline	5	mg/kg	0.19	ND		
4-Nitrophenol	5	mg/kg	0.19	ND		
Acenaphthene	5	mg/kg	0.19	ND		
Acenaphthylene	5	mg/kg	0.19	ND		
Acetophenone	5	mg/kg	0.19	ND		
Anthracene	5	mg/kg	0.19	ND		
Atrazine	5	mg/kg	0.19	ND		
Benzaldehyde	5	mg/kg	0.19	ND		
Benzo[a]anthracene	5	mg/kg	0.19	0.50		
Benzo[a]pyrene	5	mg/kg	0.19	0.59		
Benzo[b]fluoranthene	5	mg/kg	0.19	0.78		
Benzo[g,h,i]perylene	5	mg/kg	0.19	0.54		
Benzo[k]fluoranthene	5	mg/kg	0.19	0.21		
bis(2-Chloroethoxy)methane	5	mg/kg	0.19	ND		
bis(2-Chloroethyl)ether	5	mg/kg	0.047	ND		
bis(2-Chloroisopropyl)ether	5	mg/kg	0.19	ND		
bis(2-Ethylhexyl)phthalate	5	mg/kg	0.19	ND		
Butylbenzylphthalate	5	mg/kg	0.19	ND		
Caprolactam	5	mg/kg	0.19	ND		
Carbazole	5	mg/kg	0.19	ND		
Chrysene	5	mg/kg	0.19	0.42		
Dibenzo[a,h]anthracene	5	mg/kg	0.19	ND		
Dibenzofuran	5	mg/kg	0.047	ND		
Diethylphthalate	5	mg/kg	0.19	ND		
Dimethylphthalate	5	mg/kg	0.19	ND		
Di-n-butylphthalate	5	mg/kg	0.047	ND		
Di-n-octylphthalate	5	mg/kg	0.19	ND		
Fluoranthene	5	mg/kg	0.19	0.77		
Fluorene	5	mg/kg	0.19	ND		
Hexachlorobenzene	5	mg/kg	0.19	ND		
Hexachlorobutadiene	5	mg/kg	0.19	ND		
Hexachlorocyclopentadiene	5	mg/kg	0.19	ND		
Hexachloroethane	5	mg/kg	0.19	ND		
Indeno[1,2,3-cd]pyrene	5	mg/kg	0.19	0.42		
Isophorone	5	mg/kg	0.19	ND		
Naphthalene	5	mg/kg	0.047	1.1		
Nitrobenzene	5	mg/kg	0.19	ND		
N-Nitroso-di-n-propylamine	5	mg/kg	0.047	ND		
N-Nitrosodiphenylamine	5	mg/kg	0.19	ND		
Pentachlorophenol	5	mg/kg	0.94	ND		
Phenanthrene	5	mg/kg	0.19	1.1		
Phenol	5	mg/kg	0.19	ND		
Pyrene	5	mg/kg	0.19	1.2		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	10.34	50	58	148	103	
Phenol-d5	16.52	100	49	129	83	
Nitrobenzene-d5	11.78	50	52	129	118	
2-Fluorophenol	16.45	100	43	128	82	
2-Fluorobiphenyl	8.27	50	58	125	83	
2,4,6-Tribromophenol	16.84	100	54	145	84	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	10	mg/kg	670	8000		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	0.00	20	30	146	0	S8
Chlorobenzene	0.00	20	20	117	0	S8

Sample ID: SB-29@ 1'
 Lab#: AD14406-002
 Matrix: Soil/Terracore

Collection Date: 12/2/2019
 Receipt Date: 12/3/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1.04	mg/kg	0.0023	ND		
1,1,2,2-Tetrachloroethane	1.04	mg/kg	0.0023	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1.04	mg/kg	0.0023	ND		
1,1,2-Trichloroethane	1.04	mg/kg	0.0023	ND		
1,1-Dichloroethane	1.04	mg/kg	0.0023	ND		
1,1-Dichloroethene	1.04	mg/kg	0.0023	ND		
1,2,3-Trichlorobenzene	1.04	mg/kg	0.0023	ND		
1,2,4-Trichlorobenzene	1.04	mg/kg	0.0023	ND		
1,2-Dibromo-3-chloropropane	1.04	mg/kg	0.0023	ND		
1,2-Dibromoethane	1.04	mg/kg	0.00091	ND		
1,2-Dichlorobenzene	1.04	mg/kg	0.0023	ND		
1,2-Dichloroethane	1.04	mg/kg	0.0023	ND		
1,2-Dichloropropane	1.04	mg/kg	0.0023	ND		
1,3-Dichlorobenzene	1.04	mg/kg	0.0023	ND		
1,4-Dichlorobenzene	1.04	mg/kg	0.0023	ND		
1,4-Dioxane	1.04	mg/kg	0.12	ND		
2-Butanone	1.04	mg/kg	0.0023	0.0057		
2-Hexanone	1.04	mg/kg	0.0023	ND		
4-Methyl-2-pentanone	1.04	mg/kg	0.0023	ND		
Acetone	1.04	mg/kg	0.012	0.035		
Benzene	1.04	mg/kg	0.0012	0.0054		
Bromochloromethane	1.04	mg/kg	0.0023	ND		
Bromodichloromethane	1.04	mg/kg	0.0023	ND		
Bromoform	1.04	mg/kg	0.0023	ND		
Bromomethane	1.04	mg/kg	0.0023	ND		
Carbon disulfide	1.04	mg/kg	0.0023	ND		
Carbon tetrachloride	1.04	mg/kg	0.0023	ND		
Chlorobenzene	1.04	mg/kg	0.0023	ND		
Chloroethane	1.04	mg/kg	0.0023	ND		
Chloroform	1.04	mg/kg	0.0023	ND		
Chloromethane	1.04	mg/kg	0.0023	ND		
cis-1,2-Dichloroethene	1.04	mg/kg	0.0023	ND		
cis-1,3-Dichloropropene	1.04	mg/kg	0.0023	ND		
Cyclohexane	1.04	mg/kg	0.0023	0.062		
Dibromochloromethane	1.04	mg/kg	0.0023	ND		
Dichlorodifluoromethane	1.04	mg/kg	0.0023	ND		
Ethylbenzene	1.04	mg/kg	0.0012	0.061		
Isopropylbenzene	1.04	mg/kg	0.0012	0.14		
m&p-Xylenes	1.04	mg/kg	0.0012	0.11		
Methyl Acetate	1.04	mg/kg	0.0023	ND		
Methylcyclohexane	1.04	mg/kg	0.0023	0.38		
Methylene chloride	1.04	mg/kg	0.0023	0.0065		
Methyl-t-butyl ether	1.04	mg/kg	0.0012	ND		
o-Xylene	1.04	mg/kg	0.0012	0.055		
Styrene	1.04	mg/kg	0.0023	ND		
Tetrachloroethene	1.04	mg/kg	0.0023	ND		
Toluene	1.04	mg/kg	0.0012	0.016		
trans-1,2-Dichloroethene	1.04	mg/kg	0.0023	ND		
trans-1,3-Dichloropropene	1.04	mg/kg	0.0023	ND		
Trichloroethene	1.04	mg/kg	0.0023	ND		
Trichlorofluoromethane	1.04	mg/kg	0.0023	ND		
Vinyl chloride	1.04	mg/kg	0.0023	ND		
Xylenes (Total)	1.04	mg/kg	0.0012	0.16		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	45.02	30	68	122	150	S8
Dibromofluoromethane	30.02	30	63	140	100	
Bromofluorobenzene	25.97	30	64	129	87	
1,2-Dichloroethane-d4	28.04	30	63	143	93	

Sample ID: SB-28@ 9'
 Lab#: AD14406-003
 Matrix: Soil/Terracore

Collection Date: 12/2/2019
 Receipt Date: 12/3/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		84

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	95.8	mg/kg	29	170		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	32.77	30	50	150	109	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.099	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.030	ND		
Aroclor-1016	1	mg/kg	0.030	ND		
Aroclor-1221	1	mg/kg	0.030	ND		
Aroclor-1232	1	mg/kg	0.030	ND		
Aroclor-1242	1	mg/kg	0.030	ND		
Aroclor-1248	1	mg/kg	0.030	ND		
Aroclor-1254	1	mg/kg	0.030	ND		
Aroclor-1260	1	mg/kg	0.030	ND		
Aroclor-1262	1	mg/kg	0.030	ND		
Aroclor-1268	1	mg/kg	0.030	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	63.72	100	37	141	64	
TCMX-Surrogate	94.42	100	37	141	94	
DCB-Surrogate	71.48	100	34	146	71	
DCB-Surrogate	75.99	100	34	146	76	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	12	100
Chromium	1	mg/kg	6.0	24
Copper	1	mg/kg	6.0	70
Lead	1	mg/kg	6.0	410
Nickel	1	mg/kg	6.0	13
Zinc	1	mg/kg	12	300

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.95	ND
Arsenic	1	mg/kg	0.24	5.9
Beryllium	1	mg/kg	0.24	0.44
Cadmium	1	mg/kg	0.48	0.93
Selenium	1	mg/kg	2.4	ND
Silver	1	mg/kg	0.24	ND
Thallium	1	mg/kg	0.48	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	20	mg/kg	1.6	ND
1,2,4,5-Tetrachlorobenzene	20	mg/kg	1.6	ND
2,3,4,6-Tetrachlorophenol	20	mg/kg	1.6	ND
2,4,5-Trichlorophenol	20	mg/kg	1.6	ND
2,4,6-Trichlorophenol	20	mg/kg	1.6	ND
2,4-Dichlorophenol	20	mg/kg	0.40	ND
2,4-Dimethylphenol	20	mg/kg	0.40	ND
2,4-Dinitrophenol	20	mg/kg	7.9	ND
2,4-Dinitrotoluene	20	mg/kg	1.6	ND
2,6-Dinitrotoluene	20	mg/kg	1.6	ND
2-Chloronaphthalene	20	mg/kg	1.6	ND
2-Chlorophenol	20	mg/kg	1.6	ND

Sample ID: SB-28@ 9'
 Lab#: AD14406-003
 Matrix: Soil/Terracore

Collection Date: 12/2/2019
 Receipt Date: 12/3/2019

2-Methylnaphthalene	20	mg/kg	1.6	5.6		
2-Methylphenol	20	mg/kg	0.40	ND		
2-Nitroaniline	20	mg/kg	1.6	ND		
2-Nitrophenol	20	mg/kg	1.6	ND		
3&4-Methylphenol	20	mg/kg	0.40	ND		
3,3'-Dichlorobenzidine	20	mg/kg	1.6	ND		
3-Nitroaniline	20	mg/kg	1.6	ND		
4,6-Dinitro-2-methylphenol	20	mg/kg	7.9	ND		
4-Bromophenyl-phenylether	20	mg/kg	1.6	ND		
4-Chloro-3-methylphenol	20	mg/kg	1.6	ND		
4-Chloroaniline	20	mg/kg	0.40	ND		
4-Chlorophenyl-phenylether	20	mg/kg	1.6	ND		
4-Nitroaniline	20	mg/kg	1.6	ND		
4-Nitrophenol	20	mg/kg	1.6	ND		
Acenaphthene	20	mg/kg	1.6	18		
Acenaphthylene	20	mg/kg	1.6	ND		
Acetophenone	20	mg/kg	1.6	ND		
Anthracene	20	mg/kg	1.6	33		
Atrazine	20	mg/kg	1.6	ND		
Benzaldehyde	20	mg/kg	1.6	ND		
Benzo[a]anthracene	20	mg/kg	1.6	49		
Benzo[a]pyrene	20	mg/kg	1.6	39		
Benzo[b]fluoranthene	20	mg/kg	1.6	50		
Benzo[g,h,i]perylene	20	mg/kg	1.6	19		
Benzo[k]fluoranthene	20	mg/kg	1.6	15		
bis(2-Chloroethoxy)methane	20	mg/kg	1.6	ND		
bis(2-Chloroethyl)ether	20	mg/kg	0.40	ND		
bis(2-Chloroisopropyl)ether	20	mg/kg	1.6	ND		
bis(2-Ethylhexyl)phthalate	20	mg/kg	1.6	ND		
Butylbenzylphthalate	20	mg/kg	1.6	ND		
Caprolactam	20	mg/kg	1.6	ND		
Carbazole	20	mg/kg	1.6	13		
Chrysene	20	mg/kg	1.6	45		
Dibenzo[a,h]anthracene	20	mg/kg	1.6	5.8		
Dibenzofuran	20	mg/kg	0.40	14		
Diethylphthalate	20	mg/kg	1.6	ND		
Dimethylphthalate	20	mg/kg	1.6	ND		
Di-n-butylphthalate	20	mg/kg	0.40	ND		
Di-n-octylphthalate	20	mg/kg	1.6	ND		
Fluoranthene	20	mg/kg	1.6	96		
Fluorene	20	mg/kg	1.6	21		
Hexachlorobenzene	20	mg/kg	1.6	ND		
Hexachlorobutadiene	20	mg/kg	1.6	ND		
Hexachlorocyclopentadiene	20	mg/kg	1.6	ND		
Hexachloroethane	20	mg/kg	1.6	ND		
Indeno[1,2,3-cd]pyrene	20	mg/kg	1.6	19		
Isophorone	20	mg/kg	1.6	ND		
Naphthalene	20	mg/kg	0.40	10		
Nitrobenzene	20	mg/kg	1.6	ND		
N-Nitroso-di-n-propylamine	20	mg/kg	0.40	ND		
N-Nitrosodiphenylamine	20	mg/kg	1.6	ND		
Pentachlorophenol	20	mg/kg	7.9	ND		
Phenanthrene	20	mg/kg	1.6	120		
Phenol	20	mg/kg	1.6	ND		
Pyrene	20	mg/kg	1.6	85		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	1.35	50	58	148	108	
Phenol-d5	2.23	100	49	129	89	
Nitrobenzene-d5	1.31	50	52	129	105	
2-Fluorophenol	2.11	100	43	128	85	
2-Fluorobiphenyl	1.01	50	58	125	80	
2,4,6-Tribromophenol	1.72	100	54	145	69	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	10	mg/kg	710	5200		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	0.00	20	30	146	0	S8
Chlorobenzene	0.00	20	20	117	0	S8

Sample ID: SB-28@ 9'
 Lab#: AD14406-003
 Matrix: Soil/Terracore

Collection Date: 12/2/2019
 Receipt Date: 12/3/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	0.931	mg/kg	0.0022	ND		
1,1,2,2-Tetrachloroethane	0.931	mg/kg	0.0022	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	0.931	mg/kg	0.0022	ND		
1,1,2-Trichloroethane	0.931	mg/kg	0.0022	ND		
1,1-Dichloroethane	0.931	mg/kg	0.0022	ND		
1,1-Dichloroethene	0.931	mg/kg	0.0022	ND		
1,2,3-Trichlorobenzene	0.931	mg/kg	0.0022	ND		
1,2,4-Trichlorobenzene	0.931	mg/kg	0.0022	ND		
1,2-Dibromo-3-chloropropane	0.931	mg/kg	0.0022	ND		
1,2-Dibromoethane	0.931	mg/kg	0.00086	ND		
1,2-Dichlorobenzene	0.931	mg/kg	0.0022	ND		
1,2-Dichloroethane	0.931	mg/kg	0.0022	ND		
1,2-Dichloropropane	0.931	mg/kg	0.0022	ND		
1,3-Dichlorobenzene	0.931	mg/kg	0.0022	ND		
1,4-Dichlorobenzene	0.931	mg/kg	0.0022	ND		
1,4-Dioxane	0.931	mg/kg	0.11	ND		
2-Butanone	0.931	mg/kg	0.0022	0.015		
2-Hexanone	0.931	mg/kg	0.0022	ND		
4-Methyl-2-pentanone	0.931	mg/kg	0.0022	ND		
Acetone	0.931	mg/kg	0.011	0.063		
Benzene	0.931	mg/kg	0.0011	ND		
Bromochloromethane	0.931	mg/kg	0.0022	ND		
Bromodichloromethane	0.931	mg/kg	0.0022	ND		
Bromoform	0.931	mg/kg	0.0022	ND		
Bromomethane	0.931	mg/kg	0.0022	ND		
Carbon disulfide	0.931	mg/kg	0.0022	ND		
Carbon tetrachloride	0.931	mg/kg	0.0022	ND		
Chlorobenzene	0.931	mg/kg	0.0022	ND		
Chloroethane	0.931	mg/kg	0.0022	ND		
Chloroform	0.931	mg/kg	0.0022	ND		
Chloromethane	0.931	mg/kg	0.0022	ND		
cis-1,2-Dichloroethene	0.931	mg/kg	0.0022	ND		
cis-1,3-Dichloropropene	0.931	mg/kg	0.0022	ND		
Cyclohexane	0.931	mg/kg	0.0022	ND		
Dibromochloromethane	0.931	mg/kg	0.0022	ND		
Dichlorodifluoromethane	0.931	mg/kg	0.0022	ND		
Ethylbenzene	0.931	mg/kg	0.0011	0.0059		
Isopropylbenzene	0.931	mg/kg	0.0011	0.0039		
m&p-Xylenes	0.931	mg/kg	0.0011	0.0046		
Methyl Acetate	0.931	mg/kg	0.0022	ND		
Methylcyclohexane	0.931	mg/kg	0.0022	0.017		
Methylene chloride	0.931	mg/kg	0.0022	0.015		
Methyl-t-butyl ether	0.931	mg/kg	0.0011	ND		
o-Xylene	0.931	mg/kg	0.0011	0.0023		
Styrene	0.931	mg/kg	0.0022	ND		
Tetrachloroethene	0.931	mg/kg	0.0022	ND		
Toluene	0.931	mg/kg	0.0011	0.0015		
trans-1,2-Dichloroethene	0.931	mg/kg	0.0022	ND		
trans-1,3-Dichloropropene	0.931	mg/kg	0.0022	ND		
Trichloroethene	0.931	mg/kg	0.0022	ND		
Trichlorofluoromethane	0.931	mg/kg	0.0022	ND		
Vinyl chloride	0.931	mg/kg	0.0022	ND		
Xylenes (Total)	0.931	mg/kg	0.0011	0.0069		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	31.76	30	68	122	106	
Dibromofluoromethane	30.86	30	63	140	103	
Bromofluorobenzene	27.99	30	64	129	93	
1,2-Dichloroethane-d4	30.52	30	63	143	102	

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9120301

Project: WMATA-Northern Station

Sample ID: SB-05 @ 9'
Lab#: AD14406-001
Matrix: Soil/Terracore

Collection Date: 12/2/2019

Receipt Date: 12/3/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		94

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	mg/kg	64	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	15.99	20	30	146	80	
Chlorobenzene	13.37	20	20	117	67	

Sample ID: SB-29@ 1'
Lab#: AD14406-002
Matrix: Soil/Terracore

Collection Date: 12/2/2019
Receipt Date: 12/3/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		89

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	10	mg/kg	670	7200		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	0.00	20	30	146	0	S8
Chlorobenzene	0.00	20	20	117	0	S8

Sample ID: SB-28 @ 9'
Lab#: AD14406-003
Matrix: Soil/Terracore

Collection Date: 12/2/2019
Receipt Date: 12/3/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		84

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	10	mg/kg	710	2600		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	0.00	20	30	146	0	S8
Chlorobenzene	0.00	20	20	117	0	S8

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9120401

Project: WMATA-Northern Station

Sample ID: SB-43A@ 1'
 Lab#: AD14424-001
 Matrix: Soil/Terracore

Collection Date: 12/3/2019

Receipt Date: 12/4/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		87

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	154	mg/kg	44	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	25.98	30	50	150	87	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.096	0.98

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.029	ND		
Aroclor-1016	1	mg/kg	0.029	ND		
Aroclor-1221	1	mg/kg	0.029	ND		
Aroclor-1232	1	mg/kg	0.029	ND		
Aroclor-1242	1	mg/kg	0.029	ND		
Aroclor-1248	1	mg/kg	0.029	ND		
Aroclor-1254	1	mg/kg	0.029	ND		
Aroclor-1260	1	mg/kg	0.029	ND		
Aroclor-1262	1	mg/kg	0.029	ND		
Aroclor-1268	1	mg/kg	0.029	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	88.92	100	37	141	89	
TCMX-Surrogate	75.15	100	37	141	75	
DCB-Surrogate	78.61	100	34	146	79	
DCB-Surrogate	68.10	100	34	146	68	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	11	57
Chromium	1	mg/kg	5.7	22
Copper	1	mg/kg	5.7	25
Lead	1	mg/kg	5.7	34
Nickel	1	mg/kg	5.7	17
Zinc	1	mg/kg	11	64

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.92	ND
Arsenic	1	mg/kg	0.23	2.7
Beryllium	1	mg/kg	0.23	1.4
Cadmium	1	mg/kg	0.46	ND
Selenium	1	mg/kg	2.3	4.6
Silver	1	mg/kg	0.23	ND
Thallium	1	mg/kg	0.46	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	1	mg/kg	0.038	ND
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.038	ND
2,3,4,6-Tetrachlorophenol	1	mg/kg	0.038	ND
2,4,5-Trichlorophenol	1	mg/kg	0.038	ND

Sample ID: SB-43A@ 1'
 Lab#: AD14424-001
 Matrix: Soil/Terracore

Collection Date: 12/3/2019
 Receipt Date: 12/4/2019

2,4,6-Trichlorophenol	1	mg/kg	0.038	ND
2,4-Dichlorophenol	1	mg/kg	0.0096	ND
2,4-Dimethylphenol	1	mg/kg	0.0096	ND
2,4-Dinitrophenol	1	mg/kg	0.19	ND
2,4-Dinitrotoluene	1	mg/kg	0.038	ND
2,6-Dinitrotoluene	1	mg/kg	0.038	ND
2-Chloronaphthalene	1	mg/kg	0.038	ND
2-Chlorophenol	1	mg/kg	0.038	ND
2-Methylnaphthalene	1	mg/kg	0.038	ND
2-Methylphenol	1	mg/kg	0.0096	ND
2-Nitroaniline	1	mg/kg	0.038	ND
2-Nitrophenol	1	mg/kg	0.038	ND
3&4-Methylphenol	1	mg/kg	0.0096	ND
3,3'-Dichlorobenzidine	1	mg/kg	0.038	ND
3-Nitroaniline	1	mg/kg	0.038	ND
4,6-Dinitro-2-methylphenol	1	mg/kg	0.19	ND
4-Bromophenyl-phenylether	1	mg/kg	0.038	ND
4-Chloro-3-methylphenol	1	mg/kg	0.038	ND
4-Chloroaniline	1	mg/kg	0.0096	ND
4-Chlorophenyl-phenylether	1	mg/kg	0.038	ND
4-Nitroaniline	1	mg/kg	0.038	ND
4-Nitrophenol	1	mg/kg	0.038	ND
Acenaphthene	1	mg/kg	0.038	ND
Acenaphthylene	1	mg/kg	0.038	ND
Acetophenone	1	mg/kg	0.038	ND
Anthracene	1	mg/kg	0.038	ND
Atrazine	1	mg/kg	0.038	ND
Benzaldehyde	1	mg/kg	0.038	ND
Benzo[a]anthracene	1	mg/kg	0.038	0.042
Benzo[a]pyrene	1	mg/kg	0.038	0.040
Benzo[b]fluoranthene	1	mg/kg	0.038	0.057
Benzo[g,h,i]perylene	1	mg/kg	0.038	ND
Benzo[k]fluoranthene	1	mg/kg	0.038	ND
bis(2-Chloroethoxy)methane	1	mg/kg	0.038	ND
bis(2-Chloroethyl)ether	1	mg/kg	0.0096	ND
bis(2-Chloroisopropyl)ether	1	mg/kg	0.038	ND
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.038	ND
Butylbenzylphthalate	1	mg/kg	0.038	ND
Caprolactam	1	mg/kg	0.038	ND
Carbazole	1	mg/kg	0.038	ND
Chrysene	1	mg/kg	0.038	0.044
Dibenzo[a,h]anthracene	1	mg/kg	0.038	ND
Dibenzofuran	1	mg/kg	0.0096	ND
Diethylphthalate	1	mg/kg	0.038	ND
Dimethylphthalate	1	mg/kg	0.038	ND
Di-n-butylphthalate	1	mg/kg	0.0096	ND
Di-n-octylphthalate	1	mg/kg	0.038	ND
Fluoranthene	1	mg/kg	0.038	0.064
Fluorene	1	mg/kg	0.038	ND
Hexachlorobenzene	1	mg/kg	0.038	ND
Hexachlorobutadiene	1	mg/kg	0.038	ND
Hexachlorocyclopentadiene	1	mg/kg	0.038	ND
Hexachloroethane	1	mg/kg	0.038	ND
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.038	ND
Isophorone	1	mg/kg	0.038	ND
Naphthalene	1	mg/kg	0.0096	ND
Nitrobenzene	1	mg/kg	0.038	ND
N-Nitroso-di-n-propylamine	1	mg/kg	0.0096	ND
N-Nitrosodiphenylamine	1	mg/kg	0.038	ND
Pentachlorophenol	1	mg/kg	0.19	ND
Phenanthrene	1	mg/kg	0.038	ND
Phenol	1	mg/kg	0.038	ND
Pyrene	1	mg/kg	0.038	0.060

Sample ID: SB-43A@ 1'
 Lab#: AD14424-001
 Matrix: Soil/Terracore

Collection Date: 12/3/2019
 Receipt Date: 12/4/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	47.30	50	58	148	95	
Phenol-d5	75.35	100	49	129	75	
Nitrobenzene-d5	38.05	50	52	129	76	
2-Fluorophenol	73.90	100	43	128	74	
2-Fluorobiphenyl	39.65	50	58	125	79	
2,4,6-Tribromophenol	81.06	100	54	145	81	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	1	mg/kg	69	270		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	15.17	20	30	146	76	
Chlorobenzene	13.04	20	20	117	65	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1.02	mg/kg	0.0023	ND
1,1,2,2-Tetrachloroethane	1.02	mg/kg	0.0023	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1.02	mg/kg	0.0023	ND
1,1,2-Trichloroethane	1.02	mg/kg	0.0023	ND
1,1-Dichloroethane	1.02	mg/kg	0.0023	ND
1,1-Dichloroethene	1.02	mg/kg	0.0023	ND
1,2,3-Trichlorobenzene	1.02	mg/kg	0.0023	ND
1,2,4-Trichlorobenzene	1.02	mg/kg	0.0023	ND
1,2-Dibromo-3-chloropropane	1.02	mg/kg	0.0023	ND
1,2-Dibromoethane	1.02	mg/kg	0.00091	ND
1,2-Dichlorobenzene	1.02	mg/kg	0.0023	ND
1,2-Dichloroethane	1.02	mg/kg	0.0023	ND
1,2-Dichloropropane	1.02	mg/kg	0.0023	ND
1,3-Dichlorobenzene	1.02	mg/kg	0.0023	ND
1,4-Dichlorobenzene	1.02	mg/kg	0.0023	ND
1,4-Dioxane	1.02	mg/kg	0.12	ND
2-Butanone	1.02	mg/kg	0.0023	ND
2-Hexanone	1.02	mg/kg	0.0023	ND
4-Methyl-2-pentanone	1.02	mg/kg	0.0023	ND
Acetone	1.02	mg/kg	0.012	0.017
Benzene	1.02	mg/kg	0.0012	ND
Bromochloromethane	1.02	mg/kg	0.0023	ND
Bromodichloromethane	1.02	mg/kg	0.0023	ND
Bromoform	1.02	mg/kg	0.0023	ND
Bromomethane	1.02	mg/kg	0.0023	ND
Carbon disulfide	1.02	mg/kg	0.0023	ND
Carbon tetrachloride	1.02	mg/kg	0.0023	ND
Chlorobenzene	1.02	mg/kg	0.0023	ND
Chloroethane	1.02	mg/kg	0.0023	ND
Chloroform	1.02	mg/kg	0.0023	ND
Chloromethane	1.02	mg/kg	0.0023	ND
cis-1,2-Dichloroethene	1.02	mg/kg	0.0023	ND
cis-1,3-Dichloropropene	1.02	mg/kg	0.0023	ND
Cyclohexane	1.02	mg/kg	0.0023	ND
Dibromochloromethane	1.02	mg/kg	0.0023	ND
Dichlorodifluoromethane	1.02	mg/kg	0.0023	ND
Ethylbenzene	1.02	mg/kg	0.0012	ND
Isopropylbenzene	1.02	mg/kg	0.0012	ND
m&p-Xylenes	1.02	mg/kg	0.0012	ND
Methyl Acetate	1.02	mg/kg	0.0023	ND
Methylcyclohexane	1.02	mg/kg	0.0023	ND
Methylene chloride	1.02	mg/kg	0.0023	0.040
Methyl-t-butyl ether	1.02	mg/kg	0.0012	ND
o-Xylene	1.02	mg/kg	0.0012	ND
Styrene	1.02	mg/kg	0.0023	ND
Tetrachloroethene	1.02	mg/kg	0.0023	ND
Toluene	1.02	mg/kg	0.0012	ND
trans-1,2-Dichloroethene	1.02	mg/kg	0.0023	ND
trans-1,3-Dichloropropene	1.02	mg/kg	0.0023	ND
Trichloroethene	1.02	mg/kg	0.0023	ND
Trichlorofluoromethane	1.02	mg/kg	0.0023	ND

Sample ID: SB-43A@ 1'
Lab#: AD14424-001
Matrix: Soil/Terracore

Collection Date: 12/3/2019
Receipt Date: 12/4/2019

Vinyl chloride	1.02	mg/kg	0.0023		ND	
Xylenes (Total)	1.02	mg/kg	0.0012		ND	
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	26.98	30	68	122	90	
Dibromofluoromethane	30.46	30	63	140	102	
Bromofluorobenzene	30.00	30	64	129	100	
1,2-Dichloroethane-d4	29.08	30	63	143	97	

Sample ID: SB-16@ 1'
 Lab#: AD14424-002
 Matrix: Soil/Terracore

Collection Date: 12/3/2019
 Receipt Date: 12/4/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		82

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	72.8	mg/kg	22	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	24.72	30	50	150	82	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.10	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.030	ND		
Aroclor-1016	1	mg/kg	0.030	ND		
Aroclor-1221	1	mg/kg	0.030	ND		
Aroclor-1232	1	mg/kg	0.030	ND		
Aroclor-1242	1	mg/kg	0.030	ND		
Aroclor-1248	1	mg/kg	0.030	ND		
Aroclor-1254	1	mg/kg	0.030	ND		
Aroclor-1260	1	mg/kg	0.030	ND		
Aroclor-1262	1	mg/kg	0.030	ND		
Aroclor-1268	1	mg/kg	0.030	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	106.51	100	37	141	107	
TCMX-Surrogate	94.10	100	37	141	94	
DCB-Surrogate	84.80	100	34	146	85	
DCB-Surrogate	72.90	100	34	146	73	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	12	74
Chromium	1	mg/kg	6.1	37
Copper	1	mg/kg	6.1	18
Lead	1	mg/kg	6.1	11
Nickel	1	mg/kg	6.1	15
Zinc	1	mg/kg	12	46

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.98	ND
Arsenic	1	mg/kg	0.24	1.5
Beryllium	1	mg/kg	0.24	0.38
Cadmium	1	mg/kg	0.49	ND
Selenium	1	mg/kg	2.4	2.7
Silver	1	mg/kg	0.24	ND
Thallium	1	mg/kg	0.49	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	1	mg/kg	0.041	ND
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.041	ND
2,3,4,6-Tetrachlorophenol	1	mg/kg	0.041	ND
2,4,5-Trichlorophenol	1	mg/kg	0.041	ND
2,4,6-Trichlorophenol	1	mg/kg	0.041	ND
2,4-Dichlorophenol	1	mg/kg	0.010	ND
2,4-Dimethylphenol	1	mg/kg	0.010	ND
2,4-Dinitrophenol	1	mg/kg	0.20	ND
2,4-Dinitrotoluene	1	mg/kg	0.041	ND
2,6-Dinitrotoluene	1	mg/kg	0.041	ND
2-Chloronaphthalene	1	mg/kg	0.041	ND
2-Chlorophenol	1	mg/kg	0.041	ND

Sample ID: SB-16@ 1'
 Lab#: AD14424-002
 Matrix: Soil/Terracore

Collection Date: 12/3/2019
 Receipt Date: 12/4/2019

2-Methylnaphthalene	1	mg/kg	0.041	ND
2-Methylphenol	1	mg/kg	0.010	ND
2-Nitroaniline	1	mg/kg	0.041	ND
2-Nitrophenol	1	mg/kg	0.041	ND
3&4-Methylphenol	1	mg/kg	0.010	ND
3,3'-Dichlorobenzidine	1	mg/kg	0.041	ND
3-Nitroaniline	1	mg/kg	0.041	ND
4,6-Dinitro-2-methylphenol	1	mg/kg	0.20	ND
4-Bromophenyl-phenylether	1	mg/kg	0.041	ND
4-Chloro-3-methylphenol	1	mg/kg	0.041	ND
4-Chloroaniline	1	mg/kg	0.010	ND
4-Chlorophenyl-phenylether	1	mg/kg	0.041	ND
4-Nitroaniline	1	mg/kg	0.041	ND
4-Nitrophenol	1	mg/kg	0.041	ND
Acenaphthene	1	mg/kg	0.041	ND
Acenaphthylene	1	mg/kg	0.041	ND
Acetophenone	1	mg/kg	0.041	ND
Anthracene	1	mg/kg	0.041	ND
Atrazine	1	mg/kg	0.041	ND
Benzaldehyde	1	mg/kg	0.041	ND
Benzo[a]anthracene	1	mg/kg	0.041	ND
Benzo[a]pyrene	1	mg/kg	0.041	ND
Benzo[b]fluoranthene	1	mg/kg	0.041	ND
Benzo[g,h,i]perylene	1	mg/kg	0.041	ND
Benzo[k]fluoranthene	1	mg/kg	0.041	ND
bis(2-Chloroethoxy)methane	1	mg/kg	0.041	ND
bis(2-Chloroethyl)ether	1	mg/kg	0.010	ND
bis(2-Chloroisopropyl)ether	1	mg/kg	0.041	ND
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.041	ND
Butylbenzylphthalate	1	mg/kg	0.041	ND
Caprolactam	1	mg/kg	0.041	ND
Carbazole	1	mg/kg	0.041	ND
Chrysene	1	mg/kg	0.041	ND
Dibenzo[a,h]anthracene	1	mg/kg	0.041	ND
Dibenzofuran	1	mg/kg	0.010	ND
Diethylphthalate	1	mg/kg	0.041	ND
Dimethylphthalate	1	mg/kg	0.041	ND
Di-n-butylphthalate	1	mg/kg	0.010	ND
Di-n-octylphthalate	1	mg/kg	0.041	ND
Fluoranthene	1	mg/kg	0.041	ND
Fluorene	1	mg/kg	0.041	ND
Hexachlorobenzene	1	mg/kg	0.041	ND
Hexachlorobutadiene	1	mg/kg	0.041	ND
Hexachlorocyclopentadiene	1	mg/kg	0.041	ND
Hexachloroethane	1	mg/kg	0.041	ND
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.041	ND
Isophorone	1	mg/kg	0.041	ND
Naphthalene	1	mg/kg	0.010	ND
Nitrobenzene	1	mg/kg	0.041	ND
N-Nitroso-di-n-propylamine	1	mg/kg	0.010	ND
N-Nitrosodiphenylamine	1	mg/kg	0.041	ND
Pentachlorophenol	1	mg/kg	0.20	ND
Phenanthrene	1	mg/kg	0.041	ND
Phenol	1	mg/kg	0.041	ND
Pyrene	1	mg/kg	0.041	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	36.66	50	58	148	73	
Phenol-d5	71.35	100	49	129	71	
Nitrobenzene-d5	26.87	50	52	129	54	
2-Fluorophenol	65.29	100	43	128	65	
2-Fluorobiphenyl	29.27	50	58	125	59	
2,4,6-Tribromophenol	65.58	100	54	145	66	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	1	mg/kg	73	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	15.29	20	30	146	76	
Chlorobenzene	12.33	20	20	117	62	

Sample ID: SB-16@ 1'
 Lab#: AD14424-002
 Matrix: Soil/Terracore

Collection Date: 12/3/2019
 Receipt Date: 12/4/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1.32	mg/kg	0.0032	ND		
1,1,2,2-Tetrachloroethane	1.32	mg/kg	0.0032	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1.32	mg/kg	0.0032	ND		
1,1,2-Trichloroethane	1.32	mg/kg	0.0032	ND		
1,1-Dichloroethane	1.32	mg/kg	0.0032	ND		
1,1-Dichloroethene	1.32	mg/kg	0.0032	ND		
1,2,3-Trichlorobenzene	1.32	mg/kg	0.0032	ND		
1,2,4-Trichlorobenzene	1.32	mg/kg	0.0032	ND		
1,2-Dibromo-3-chloropropane	1.32	mg/kg	0.0032	ND		
1,2-Dibromoethane	1.32	mg/kg	0.0013	ND		
1,2-Dichlorobenzene	1.32	mg/kg	0.0032	ND		
1,2-Dichloroethane	1.32	mg/kg	0.0032	ND		
1,2-Dichloropropane	1.32	mg/kg	0.0032	ND		
1,3-Dichlorobenzene	1.32	mg/kg	0.0032	ND		
1,4-Dichlorobenzene	1.32	mg/kg	0.0032	ND		
1,4-Dioxane	1.32	mg/kg	0.16	ND		
2-Butanone	1.32	mg/kg	0.0032	ND		
2-Hexanone	1.32	mg/kg	0.0032	ND		
4-Methyl-2-pentanone	1.32	mg/kg	0.0032	ND		
Acetone	1.32	mg/kg	0.016	ND		
Benzene	1.32	mg/kg	0.0016	ND		
Bromochloromethane	1.32	mg/kg	0.0032	ND		
Bromodichloromethane	1.32	mg/kg	0.0032	ND		
Bromoform	1.32	mg/kg	0.0032	ND		
Bromomethane	1.32	mg/kg	0.0032	ND		
Carbon disulfide	1.32	mg/kg	0.0032	ND		
Carbon tetrachloride	1.32	mg/kg	0.0032	ND		
Chlorobenzene	1.32	mg/kg	0.0032	ND		
Chloroethane	1.32	mg/kg	0.0032	ND		
Chloroform	1.32	mg/kg	0.0032	ND		
Chloromethane	1.32	mg/kg	0.0032	ND		
cis-1,2-Dichloroethene	1.32	mg/kg	0.0032	ND		
cis-1,3-Dichloropropene	1.32	mg/kg	0.0032	ND		
Cyclohexane	1.32	mg/kg	0.0032	ND		
Dibromochloromethane	1.32	mg/kg	0.0032	ND		
Dichlorodifluoromethane	1.32	mg/kg	0.0032	ND		
Ethylbenzene	1.32	mg/kg	0.0016	ND		
Isopropylbenzene	1.32	mg/kg	0.0016	ND		
m&p-Xylenes	1.32	mg/kg	0.0016	ND		
Methyl Acetate	1.32	mg/kg	0.0032	ND		
Methylcyclohexane	1.32	mg/kg	0.0032	ND		
Methylene chloride	1.32	mg/kg	0.0032	0.016		
Methyl-t-butyl ether	1.32	mg/kg	0.0016	ND		
o-Xylene	1.32	mg/kg	0.0016	ND		
Styrene	1.32	mg/kg	0.0032	ND		
Tetrachloroethene	1.32	mg/kg	0.0032	ND		
Toluene	1.32	mg/kg	0.0016	ND		
trans-1,2-Dichloroethene	1.32	mg/kg	0.0032	ND		
trans-1,3-Dichloropropene	1.32	mg/kg	0.0032	ND		
Trichloroethene	1.32	mg/kg	0.0032	ND		
Trichlorofluoromethane	1.32	mg/kg	0.0032	ND		
Vinyl chloride	1.32	mg/kg	0.0032	ND		
Xylenes (Total)	1.32	mg/kg	0.0016	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	27.29	30	68	122	91	
Dibromofluoromethane	30.24	30	63	140	101	
Bromofluorobenzene	30.07	30	64	129	100	
1,2-Dichloroethane-d4	29.31	30	63	143	98	

Sample ID: SB-36 @ 17'
 Lab#: AD14424-003
 Matrix: Soil/Terracore

Collection Date: 12/3/2019
 Receipt Date: 12/4/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		89

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	321	mg/kg	90	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	24.89	30	50	150	83	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.094	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.028	ND		
Aroclor-1016	1	mg/kg	0.028	ND		
Aroclor-1221	1	mg/kg	0.028	ND		
Aroclor-1232	1	mg/kg	0.028	ND		
Aroclor-1242	1	mg/kg	0.028	ND		
Aroclor-1248	1	mg/kg	0.028	ND		
Aroclor-1254	1	mg/kg	0.028	ND		
Aroclor-1260	1	mg/kg	0.028	ND		
Aroclor-1262	1	mg/kg	0.028	ND		
Aroclor-1268	1	mg/kg	0.028	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	102.15	100	37	141	102	
TCMX-Surrogate	93.59	100	37	141	94	
DCB-Surrogate	83.90	100	34	146	84	
DCB-Surrogate	71.78	100	34	146	72	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	11	81
Chromium	1	mg/kg	5.6	26
Copper	1	mg/kg	5.6	35
Lead	1	mg/kg	5.6	6.9
Nickel	1	mg/kg	5.6	28
Zinc	1	mg/kg	11	71

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.90	ND
Arsenic	1	mg/kg	0.22	1.6
Beryllium	1	mg/kg	0.22	1.2
Cadmium	1	mg/kg	0.45	ND
Selenium	1	mg/kg	2.2	4.2
Silver	1	mg/kg	0.22	ND
Thallium	1	mg/kg	0.45	0.70

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	1	mg/kg	0.037	ND
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.037	ND
2,3,4,6-Tetrachlorophenol	1	mg/kg	0.037	ND
2,4,5-Trichlorophenol	1	mg/kg	0.037	ND
2,4,6-Trichlorophenol	1	mg/kg	0.037	ND
2,4-Dichlorophenol	1	mg/kg	0.0094	ND
2,4-Dimethylphenol	1	mg/kg	0.0094	ND
2,4-Dinitrophenol	1	mg/kg	0.19	ND
2,4-Dinitrotoluene	1	mg/kg	0.037	ND
2,6-Dinitrotoluene	1	mg/kg	0.037	ND
2-Chloronaphthalene	1	mg/kg	0.037	ND
2-Chlorophenol	1	mg/kg	0.037	ND

Sample ID: SB-36 @ 17'
 Lab#: AD14424-003
 Matrix: Soil/Terracore

Collection Date: 12/3/2019
 Receipt Date: 12/4/2019

2-Methylnaphthalene	1	mg/kg	0.037	ND
2-Methylphenol	1	mg/kg	0.0094	ND
2-Nitroaniline	1	mg/kg	0.037	ND
2-Nitrophenol	1	mg/kg	0.037	ND
3&4-Methylphenol	1	mg/kg	0.0094	ND
3,3'-Dichlorobenzidine	1	mg/kg	0.037	ND
3-Nitroaniline	1	mg/kg	0.037	ND
4,6-Dinitro-2-methylphenol	1	mg/kg	0.19	ND
4-Bromophenyl-phenylether	1	mg/kg	0.037	ND
4-Chloro-3-methylphenol	1	mg/kg	0.037	ND
4-Chloroaniline	1	mg/kg	0.0094	ND
4-Chlorophenyl-phenylether	1	mg/kg	0.037	ND
4-Nitroaniline	1	mg/kg	0.037	ND
4-Nitrophenol	1	mg/kg	0.037	ND
Acenaphthene	1	mg/kg	0.037	ND
Acenaphthylene	1	mg/kg	0.037	ND
Acetophenone	1	mg/kg	0.037	ND
Anthracene	1	mg/kg	0.037	ND
Atrazine	1	mg/kg	0.037	ND
Benzaldehyde	1	mg/kg	0.037	ND
Benzo[a]anthracene	1	mg/kg	0.037	ND
Benzo[a]pyrene	1	mg/kg	0.037	ND
Benzo[b]fluoranthene	1	mg/kg	0.037	ND
Benzo[g,h,i]perylene	1	mg/kg	0.037	ND
Benzo[k]fluoranthene	1	mg/kg	0.037	ND
bis(2-Chloroethoxy)methane	1	mg/kg	0.037	ND
bis(2-Chloroethyl)ether	1	mg/kg	0.0094	ND
bis(2-Chloroisopropyl)ether	1	mg/kg	0.037	ND
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.037	ND
Butylbenzylphthalate	1	mg/kg	0.037	ND
Caprolactam	1	mg/kg	0.037	ND
Carbazole	1	mg/kg	0.037	ND
Chrysene	1	mg/kg	0.037	ND
Dibenzo[a,h]anthracene	1	mg/kg	0.037	ND
Dibenzofuran	1	mg/kg	0.0094	ND
Diethylphthalate	1	mg/kg	0.037	ND
Dimethylphthalate	1	mg/kg	0.037	ND
Di-n-butylphthalate	1	mg/kg	0.0094	ND
Di-n-octylphthalate	1	mg/kg	0.037	ND
Fluoranthene	1	mg/kg	0.037	ND
Fluorene	1	mg/kg	0.037	ND
Hexachlorobenzene	1	mg/kg	0.037	ND
Hexachlorobutadiene	1	mg/kg	0.037	ND
Hexachlorocyclopentadiene	1	mg/kg	0.037	ND
Hexachloroethane	1	mg/kg	0.037	ND
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.037	ND
Isophorone	1	mg/kg	0.037	ND
Naphthalene	1	mg/kg	0.0094	ND
Nitrobenzene	1	mg/kg	0.037	ND
N-Nitroso-di-n-propylamine	1	mg/kg	0.0094	ND
N-Nitrosodiphenylamine	1	mg/kg	0.037	ND
Pentachlorophenol	1	mg/kg	0.19	ND
Phenanthrene	1	mg/kg	0.037	ND
Phenol	1	mg/kg	0.037	ND
Pyrene	1	mg/kg	0.037	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	45.06	50	58	148	90	
Phenol-d5	101.57	100	49	129	102	
Nitrobenzene-d5	39.45	50	52	129	79	
2-Fluorophenol	91.55	100	43	128	92	
2-Fluorobiphenyl	42.43	50	58	125	85	
2,4,6-Tribromophenol	81.38	100	54	145	81	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	1	mg/kg	67	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	15.19	20	30	146	76	
Chlorobenzene	12.42	20	20	117	62	

Sample ID: SB-36 @ 17'
 Lab#: AD14424-003
 Matrix: Soil/Terracore

Collection Date: 12/3/2019
 Receipt Date: 12/4/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1.04	mg/kg	0.0023	ND		
1,1,2,2-Tetrachloroethane	1.04	mg/kg	0.0023	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1.04	mg/kg	0.0023	ND		
1,1,2-Trichloroethane	1.04	mg/kg	0.0023	ND		
1,1-Dichloroethane	1.04	mg/kg	0.0023	ND		
1,1-Dichloroethene	1.04	mg/kg	0.0023	ND		
1,2,3-Trichlorobenzene	1.04	mg/kg	0.0023	ND		
1,2,4-Trichlorobenzene	1.04	mg/kg	0.0023	ND		
1,2-Dibromo-3-chloropropane	1.04	mg/kg	0.0023	ND		
1,2-Dibromoethane	1.04	mg/kg	0.00091	ND		
1,2-Dichlorobenzene	1.04	mg/kg	0.0023	ND		
1,2-Dichloroethane	1.04	mg/kg	0.0023	ND		
1,2-Dichloropropane	1.04	mg/kg	0.0023	ND		
1,3-Dichlorobenzene	1.04	mg/kg	0.0023	ND		
1,4-Dichlorobenzene	1.04	mg/kg	0.0023	ND		
1,4-Dioxane	1.04	mg/kg	0.12	ND		
2-Butanone	1.04	mg/kg	0.0023	ND		
2-Hexanone	1.04	mg/kg	0.0023	ND		
4-Methyl-2-pentanone	1.04	mg/kg	0.0023	ND		
Acetone	1.04	mg/kg	0.012	ND		
Benzene	1.04	mg/kg	0.0012	ND		
Bromochloromethane	1.04	mg/kg	0.0023	ND		
Bromodichloromethane	1.04	mg/kg	0.0023	ND		
Bromoform	1.04	mg/kg	0.0023	ND		
Bromomethane	1.04	mg/kg	0.0023	ND		
Carbon disulfide	1.04	mg/kg	0.0023	ND		
Carbon tetrachloride	1.04	mg/kg	0.0023	ND		
Chlorobenzene	1.04	mg/kg	0.0023	ND		
Chloroethane	1.04	mg/kg	0.0023	ND		
Chloroform	1.04	mg/kg	0.0023	ND		
Chloromethane	1.04	mg/kg	0.0023	ND		
cis-1,2-Dichloroethene	1.04	mg/kg	0.0023	ND		
cis-1,3-Dichloropropene	1.04	mg/kg	0.0023	ND		
Cyclohexane	1.04	mg/kg	0.0023	ND		
Dibromochloromethane	1.04	mg/kg	0.0023	ND		
Dichlorodifluoromethane	1.04	mg/kg	0.0023	ND		
Ethylbenzene	1.04	mg/kg	0.0012	ND		
Isopropylbenzene	1.04	mg/kg	0.0012	ND		
m&p-Xylenes	1.04	mg/kg	0.0012	ND		
Methyl Acetate	1.04	mg/kg	0.0023	ND		
Methylcyclohexane	1.04	mg/kg	0.0023	ND		
Methylene chloride	1.04	mg/kg	0.0023	0.021		
Methyl-t-butyl ether	1.04	mg/kg	0.0012	ND		
o-Xylene	1.04	mg/kg	0.0012	ND		
Styrene	1.04	mg/kg	0.0023	ND		
Tetrachloroethene	1.04	mg/kg	0.0023	ND		
Toluene	1.04	mg/kg	0.0012	ND		
trans-1,2-Dichloroethene	1.04	mg/kg	0.0023	ND		
trans-1,3-Dichloropropene	1.04	mg/kg	0.0023	ND		
Trichloroethene	1.04	mg/kg	0.0023	ND		
Trichlorofluoromethane	1.04	mg/kg	0.0023	ND		
Vinyl chloride	1.04	mg/kg	0.0023	ND		
Xylenes (Total)	1.04	mg/kg	0.0012	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	27.28	30	68	122	91	
Dibromofluoromethane	30.87	30	63	140	103	
Bromofluorobenzene	29.60	30	64	129	99	
1,2-Dichloroethane-d4	30.11	30	63	143	100	

Sample ID: SB-33 @ 3'
 Lab#: AD14424-004
 Matrix: Soil/Terracore

Collection Date: 12/3/2019
 Receipt Date: 12/4/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		88

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	101	mg/kg	29	29		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	28.46	30	50	150	95	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.095	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.028	ND		
Aroclor-1016	1	mg/kg	0.028	ND		
Aroclor-1221	1	mg/kg	0.028	ND		
Aroclor-1232	1	mg/kg	0.028	ND		
Aroclor-1242	1	mg/kg	0.028	ND		
Aroclor-1248	1	mg/kg	0.028	ND		
Aroclor-1254	1	mg/kg	0.028	ND		
Aroclor-1260	1	mg/kg	0.028	ND		
Aroclor-1262	1	mg/kg	0.028	ND		
Aroclor-1268	1	mg/kg	0.028	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	94.53	100	37	141	95	
TCMX-Surrogate	73.77	100	37	141	74	
DCB-Surrogate	79.39	100	34	146	79	
DCB-Surrogate	63.58	100	34	146	64	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	11	130
Chromium	1	mg/kg	5.7	25
Copper	1	mg/kg	5.7	57
Lead	1	mg/kg	5.7	530
Nickel	1	mg/kg	5.7	16
Zinc	1	mg/kg	11	250

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.91	ND
Arsenic	1	mg/kg	0.23	5.3
Beryllium	1	mg/kg	0.23	1.4
Cadmium	1	mg/kg	0.45	1.2
Selenium	1	mg/kg	2.3	3.8
Silver	1	mg/kg	0.23	ND
Thallium	1	mg/kg	0.45	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	5	mg/kg	0.19	ND
1,2,4,5-Tetrachlorobenzene	5	mg/kg	0.19	ND
2,3,4,6-Tetrachlorophenol	5	mg/kg	0.19	ND
2,4,5-Trichlorophenol	5	mg/kg	0.19	ND
2,4,6-Trichlorophenol	5	mg/kg	0.19	ND
2,4-Dichlorophenol	5	mg/kg	0.047	ND
2,4-Dimethylphenol	5	mg/kg	0.047	ND
2,4-Dinitrophenol	5	mg/kg	0.95	ND
2,4-Dinitrotoluene	5	mg/kg	0.19	ND
2,6-Dinitrotoluene	5	mg/kg	0.19	ND
2-Chloronaphthalene	5	mg/kg	0.19	ND
2-Chlorophenol	5	mg/kg	0.19	ND

Sample ID: SB-33 @ 3'
 Lab#: AD14424-004
 Matrix: Soil/Terracore

Collection Date: 12/3/2019
 Receipt Date: 12/4/2019

2-Methylnaphthalene	5	mg/kg	0.19	ND		
2-Methylphenol	5	mg/kg	0.047	ND		
2-Nitroaniline	5	mg/kg	0.19	ND		
2-Nitrophenol	5	mg/kg	0.19	ND		
3&4-Methylphenol	5	mg/kg	0.047	0.12		
3,3'-Dichlorobenzidine	5	mg/kg	0.19	ND		
3-Nitroaniline	5	mg/kg	0.19	ND		
4,6-Dinitro-2-methylphenol	5	mg/kg	0.95	ND		
4-Bromophenyl-phenylether	5	mg/kg	0.19	ND		
4-Chloro-3-methylphenol	5	mg/kg	0.19	ND		
4-Chloroaniline	5	mg/kg	0.047	ND		
4-Chlorophenyl-phenylether	5	mg/kg	0.19	ND		
4-Nitroaniline	5	mg/kg	0.19	ND		
4-Nitrophenol	5	mg/kg	0.19	ND		
Acenaphthene	5	mg/kg	0.19	0.26		
Acenaphthylene	5	mg/kg	0.19	ND		
Acetophenone	5	mg/kg	0.19	ND		
Anthracene	5	mg/kg	0.19	0.82		
Atrazine	5	mg/kg	0.19	ND		
Benzaldehyde	5	mg/kg	0.19	ND		
Benzo[a]anthracene	5	mg/kg	0.19	2.2		
Benzo[a]pyrene	5	mg/kg	0.19	2.1		
Benzo[b]fluoranthene	5	mg/kg	0.19	2.8		
Benzo[g,h,i]perylene	5	mg/kg	0.19	1.4		
Benzo[k]fluoranthene	5	mg/kg	0.19	0.80		
bis(2-Chloroethoxy)methane	5	mg/kg	0.19	ND		
bis(2-Chloroethyl)ether	5	mg/kg	0.047	ND		
bis(2-Chloroisopropyl)ether	5	mg/kg	0.19	ND		
bis(2-Ethylhexyl)phthalate	5	mg/kg	0.19	ND		
Butylbenzylphthalate	5	mg/kg	0.19	ND		
Caprolactam	5	mg/kg	0.19	ND		
Carbazole	5	mg/kg	0.19	ND		
Chrysene	5	mg/kg	0.19	2.1		
Dibenzo[a,h]anthracene	5	mg/kg	0.19	0.33		
Dibenzofuran	5	mg/kg	0.047	0.20		
Diethylphthalate	5	mg/kg	0.19	ND		
Dimethylphthalate	5	mg/kg	0.19	ND		
Di-n-butylphthalate	5	mg/kg	0.047	ND		
Di-n-octylphthalate	5	mg/kg	0.19	ND		
Fluoranthene	5	mg/kg	0.19	3.8		
Fluorene	5	mg/kg	0.19	0.25		
Hexachlorobenzene	5	mg/kg	0.19	ND		
Hexachlorobutadiene	5	mg/kg	0.19	ND		
Hexachlorocyclopentadiene	5	mg/kg	0.19	ND		
Hexachloroethane	5	mg/kg	0.19	ND		
Indeno[1,2,3-cd]pyrene	5	mg/kg	0.19	1.1		
Isophorone	5	mg/kg	0.19	ND		
Naphthalene	5	mg/kg	0.047	0.048		
Nitrobenzene	5	mg/kg	0.19	ND		
N-Nitroso-di-n-propylamine	5	mg/kg	0.047	ND		
N-Nitrosodiphenylamine	5	mg/kg	0.19	ND		
Pentachlorophenol	5	mg/kg	0.95	ND		
Phenanthrene	5	mg/kg	0.19	2.3		
Phenol	5	mg/kg	0.19	ND		
Pyrene	5	mg/kg	0.19	5.0		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	10.74	50	58	148	107	
Phenol-d5	16.81	100	49	129	84	
Nitrobenzene-d5	6.50	50	52	129	65	
2-Fluorophenol	16.30	100	43	128	81	
2-Fluorobiphenyl	7.05	50	58	125	71	
2,4,6-Tribromophenol	12.51	100	54	145	63	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	5	mg/kg	340	3600		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	3.38	20	30	146	84	
Chlorobenzene	2.18	20	20	117	54	

Sample ID: SB-33 @ 3'
 Lab#: AD14424-004
 Matrix: Soil/Terracore

Collection Date: 12/3/2019
 Receipt Date: 12/4/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	0.865	mg/kg	0.0020	ND		
1,1,2,2-Tetrachloroethane	0.865	mg/kg	0.0020	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	0.865	mg/kg	0.0020	ND		
1,1,2-Trichloroethane	0.865	mg/kg	0.0020	ND		
1,1-Dichloroethane	0.865	mg/kg	0.0020	ND		
1,1-Dichloroethene	0.865	mg/kg	0.0020	ND		
1,2,3-Trichlorobenzene	0.865	mg/kg	0.0020	ND		
1,2,4-Trichlorobenzene	0.865	mg/kg	0.0020	ND		
1,2-Dibromo-3-chloropropane	0.865	mg/kg	0.0020	ND		
1,2-Dibromoethane	0.865	mg/kg	0.00077	ND		
1,2-Dichlorobenzene	0.865	mg/kg	0.0020	ND		
1,2-Dichloroethane	0.865	mg/kg	0.0020	ND		
1,2-Dichloropropane	0.865	mg/kg	0.0020	ND		
1,3-Dichlorobenzene	0.865	mg/kg	0.0020	ND		
1,4-Dichlorobenzene	0.865	mg/kg	0.0020	ND		
1,4-Dioxane	0.865	mg/kg	0.098	ND		
2-Butanone	0.865	mg/kg	0.0020	0.0061		
2-Hexanone	0.865	mg/kg	0.0020	ND		
4-Methyl-2-pentanone	0.865	mg/kg	0.0020	ND		
Acetone	0.865	mg/kg	0.0098	0.027		
Benzene	0.865	mg/kg	0.00098	ND		
Bromochloromethane	0.865	mg/kg	0.0020	ND		
Bromodichloromethane	0.865	mg/kg	0.0020	ND		
Bromoform	0.865	mg/kg	0.0020	ND		
Bromomethane	0.865	mg/kg	0.0020	ND		
Carbon disulfide	0.865	mg/kg	0.0020	ND		
Carbon tetrachloride	0.865	mg/kg	0.0020	ND		
Chlorobenzene	0.865	mg/kg	0.0020	ND		
Chloroethane	0.865	mg/kg	0.0020	ND		
Chloroform	0.865	mg/kg	0.0020	ND		
Chloromethane	0.865	mg/kg	0.0020	ND		
cis-1,2-Dichloroethene	0.865	mg/kg	0.0020	ND		
cis-1,3-Dichloropropene	0.865	mg/kg	0.0020	ND		
Cyclohexane	0.865	mg/kg	0.0020	ND		
Dibromochloromethane	0.865	mg/kg	0.0020	ND		
Dichlorodifluoromethane	0.865	mg/kg	0.0020	ND		
Ethylbenzene	0.865	mg/kg	0.00098	ND		
Isopropylbenzene	0.865	mg/kg	0.00098	ND		
m&p-Xylenes	0.865	mg/kg	0.00098	ND		
Methyl Acetate	0.865	mg/kg	0.0020	ND		
Methylcyclohexane	0.865	mg/kg	0.0020	0.0022		
Methylene chloride	0.865	mg/kg	0.0020	0.0098		
Methyl-t-butyl ether	0.865	mg/kg	0.00098	ND		
o-Xylene	0.865	mg/kg	0.00098	ND		
Styrene	0.865	mg/kg	0.0020	ND		
Tetrachloroethene	0.865	mg/kg	0.0020	ND		
Toluene	0.865	mg/kg	0.00098	ND		
trans-1,2-Dichloroethene	0.865	mg/kg	0.0020	ND		
trans-1,3-Dichloropropene	0.865	mg/kg	0.0020	ND		
Trichloroethene	0.865	mg/kg	0.0020	ND		
Trichlorofluoromethane	0.865	mg/kg	0.0020	ND		
Vinyl chloride	0.865	mg/kg	0.0020	ND		
Xylenes (Total)	0.865	mg/kg	0.00098	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	27.58	30	68	122	92	
Dibromofluoromethane	30.58	30	63	140	102	
Bromofluorobenzene	32.47	30	64	129	108	
1,2-Dichloroethane-d4	28.73	30	63	143	96	

Hampton-Clarke, Inc. (WBE/DBE/SBE)
 175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004
 Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458
 Service Center: 137-D Galthier Drive, Mount Laurel, New Jersey 08054
 Ph (Service Center): 856-780-6057 Fax: 856-780-6056
 NE/LAC/NJ #07071 | PA #68-00463 | NY #11408 | CT #PH-0671 | KY #90124 | DE HSCA Approved

HC
 Hampton-Clarke
 A Woman-Owned Disadvantaged, Small Business Enterprise
 CHAIN OF CUSTODY
 RECORD

Project # (Lab Use Only) 9120461 Page 1 of 1
3) Reporting Requirements (Please Circle)
 Turnaround: When Available: Summary Report Type: Electronic Data Deliv.
 1 Business Day (100%)* Results + QC (Waste)
 2 Business Days (75%)* Reduced: NJ NY
 3 Business Days (50%)* PA Other:
 4 Business Days (35%)* NJ Full / NY ASP Calc
 5 Business Days (25%)* NY ASP Calc
 * Business Days (Stand)
 Other: Expedited TAT Not Always Available. Please Check with Lab.

Customer Information
 1a) Customer: Intellib - PSI
 Address: 2930 Sabudoga Rd, Towson Va
22031
 1b) Email/Call/Fax/Ph: 703 608 9260
mon.lin@intellib.com
 1c) Send Invoice to: "
 1d) Send Report to: "

Project Information
 2a) Project: WMTA - Northern Ave
04411008
 2b) Project Mgr: BOBBY LIN
 2c) Project Location (City/State): Washington, DC
 2d) Quote/PO # (If Applicable): "

Reporting Requirements (Please Circle)
 Turnaround: When Available: Summary Report Type: Electronic Data Deliv.
 1 Business Day (100%)* Results + QC (Waste)
 2 Business Days (75%)* Reduced: NJ NY
 3 Business Days (50%)* PA Other:
 4 Business Days (35%)* NJ Full / NY ASP Calc
 5 Business Days (25%)* NY ASP Calc
 * Business Days (Stand)
 Other: Expedited TAT Not Always Available. Please Check with Lab.

FOR LAB USE ONLY
 Batch # AV4424
 Matrix Codes: DW - Drinking Water S - Soil A - Air
 GW - Ground Water SL - Sludge
 WW - Waste Water OL - Oil
 OT - Other (please specify under item 9, Comments)

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample		Composite (C)	Grab (G)	7) Analysis (specify methods & parameter lists)					8) # of Bottles					9) Comments			
			Date	Time			VOC	SVOC	PCB	13 PP	TPH - GRO	None	MeOH	En Core	NaOH	HCl		H2SO4	HNO3	
001	SG-43A @ 1'	S	12/3/19	08:52	G	X	X	X	X	X										
002	SG-16 @ 1'	S	12/9/19	08:42	G	X	X	X	X	X										
003	SG-36 @ 17'	S	12/3/19	11:25	G	X	X	X	X	X										
004	SB-53 @ 3'	S	12/3/19	12:50	G	X	X	X	X	X										

10) Relinquished by: [Signature] Date: 12/3/19
 Accepted by: FEDIX Date: 12/4/19 Time: 8:05
 Comments, Notes, Special Requirements, HAZARDS
 Indicate if low-level methods required to meet current groundwater standards (SPLP for soil):
 BN or BNA (8270D SIM)
 VOC (8260C SIM or 8011)
 SPLP (BN, BNA, Metals)
 1,4 Dioxane
 Check if applicable:
 Project-Specific Reporting Limits
 High Contaminant Concentrations
 NJ LSRP Project (also check boxes above/right)
 Please note NUMBERED items. If not completed your analytical work may be delayed.
 A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.
 Internal use: sampling plan (check box) HC or client FSP# 2-7

Additional Notes
 11) Sampler (print name): RINZO RENTHEI Date: 12/3/19
 Cooler Temperature 2-7

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9120401

Project: WMATA-Northern Station

Sample ID: SB-43A@ 1'
 Lab#: AD14424-001
 Matrix: Soil/Terracore

Collection Date: 12/3/2019
 Receipt Date: 12/4/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		87

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	mg/kg	69	210		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	15.17	20	30	146	76	
Chlorobenzene	13.04	20	20	117	65	

Sample ID: SB-16@ 1'
Lab#: AD14424-002
Matrix: Soil/Terracore

Collection Date: 12/3/2019
Receipt Date: 12/4/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		82

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	mg/kg	73	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	15.29	20	30	146	76	
Chlorobenzene	12.33	20	20	117	62	

Sample ID: SB-36 @ 17'
Lab#: AD14424-003
Matrix: Soil/Terracore

Collection Date: 12/3/2019
Receipt Date: 12/4/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		89

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	mg/kg	67	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	15.19	20	30	146	76	
Chlorobenzene	12.42	20	20	117	62	

Sample ID: SB-33 @ 3'
Lab#: AD14424-004
Matrix: Soil/Terracore

Collection Date: 12/3/2019
Receipt Date: 12/4/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		88

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	5	mg/kg	340	2500		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	3.38	20	30	146	84	
Chlorobenzene	2.18	20	20	117	54	

Hampton-Clarke, Inc. (WBE/DBE/SBE)
 175 Route 46 West and 2 Madison Road, Fairfield, New Jersey 07004
 Ph: 800-426-9992 | 973-244-9770 Fax: 973-244-9787 | 973-439-1458
 Service Center: 137-D Galthier Drive, Mount Laurel, New Jersey 08054
 Ph (Service Center): 856-780-6057 Fax: 856-780-6056
 NE/LAC/NJ #07071 | PA #68-00463 | NY #11408 | CT #PH-0671 | KY #90124 | DE HSCA Approved

HC
 Hampton-Clarke
 A Woman-Owned Disadvantaged, Small Business Enterprise
 CHAIN OF CUSTODY
 RECORD

Project # (Lab Use Only) 9120461 Page 1 of 1
3) Reporting Requirements (Please Circle)
 Turnaround: When Available: Summary Report Type: Electronic Data Deliv.
 1 Business Day (100%)* Results + QC (Waste)
 2 Business Days (75%)* Reduced: NJ NY
 3 Business Days (50%)* PA Other:
 4 Business Days (35%)* NJ Full / NY ASP Calc
 5 Business Days (25%)* NY ASP Calc
 * Business Days (Stand)
 Other: Expedited TAT Not Always Available. Please Check with Lab.

Customer Information
 1a) Customer: Intellib - PSI
 Address: 2930 Sabudoga Rd, Towson Va
22031
 1b) Email/Call/Fax/Ph: 703 608 9260
mon.lin@intellib.com
 1c) Send Invoice to: "
 1d) Send Report to: "

Project Information
 2a) Project: WMTA - Northern Ave
04411008
 2b) Project Mgr: BOBBY LIN
 2c) Project Location (City/State): Washington, DC
 2d) Quote/PO # (If Applicable): "

Reporting Requirements (Please Circle)
 Turnaround: When Available: Summary Report Type: Electronic Data Deliv.
 1 Business Day (100%)* Results + QC (Waste)
 2 Business Days (75%)* Reduced: NJ NY
 3 Business Days (50%)* PA Other:
 4 Business Days (35%)* NJ Full / NY ASP Calc
 5 Business Days (25%)* NY ASP Calc
 * Business Days (Stand)
 Other: Expedited TAT Not Always Available. Please Check with Lab.

FOR LAB USE ONLY
 Batch # AV4424
 Matrix Codes: DW - Drinking Water S - Soil A - Air
 GW - Ground Water SL - Sludge
 WW - Waste Water OL - Oil
 OT - Other (please specify under item 9, Comments)

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample		Composite (C)	Grab (G)	7) Analysis (specify methods & parameter lists)					8) # of Bottles					9) Comments			
			Date	Time			VOC	SVOC	PCB	13 PP	TPH - GRO	None	MeOH	En Core	NaOH	HCl		H2SO4	HNO3	
001	SG-43A @ 1'	S	12/3/19	08:52	G	X	X	X	X	X										
002	SG-16 @ 1'	S	12/9/19	08:42	G	X	X	X	X	X										
003	SG-36 @ 17'	S	12/3/19	11:25	G	X	X	X	X	X										
004	SB-53 @ 3'	S	12/3/19	12:50	G	X	X	X	X	X										

10) Relinquished by: [Signature] Date: 12/3/19
 Accepted by: FEDIX Date: 12/4/19 Time: 8:05
 11) Sampler (print name): RINZO RENTHLEI Date: 12/3/19
 Additional Notes: FEDIX
 Comments, Notes, Special Requirements, HAZARDS
 Indicate if low-level methods required to meet current groundwater standards (SPLP for soil):
 BN or BNA (8270D SIM)
 VOC (8260C SIM or 8011)
 SPLP (BN, BNA, Metals)
 1,4 Dioxane
 Check if applicable:
 Project-Specific Reporting Limits
 High Contaminant Concentrations
 NJ LSRP Project (also check boxes above/right)
 Please note NUMBERED items. If not completed your analytical work may be delayed.
 A fee of \$5/sample will be assessed for storage should sample not be activated for any analysis.
 Internal use: sampling plan (check box) HC or client FSP# 27
 Cooler Temperature 27

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9120501

Project: WMATA-Northern Station

Sample ID: SB-04 @ 7'
 Lab#: AD14447-001
 Matrix: Soil/Terracore

Collection Date: 12/4/2019
 Receipt Date: 12/5/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		78

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	87.3	mg/kg	28	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	23.65	30	50	150	79	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.11	0.51

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.032	ND		
Aroclor-1016	1	mg/kg	0.032	ND		
Aroclor-1221	1	mg/kg	0.032	ND		
Aroclor-1232	1	mg/kg	0.032	ND		
Aroclor-1242	1	mg/kg	0.032	ND		
Aroclor-1248	1	mg/kg	0.032	ND		
Aroclor-1254	1	mg/kg	0.032	ND		
Aroclor-1260	1	mg/kg	0.032	ND		
Aroclor-1262	1	mg/kg	0.032	ND		
Aroclor-1268	1	mg/kg	0.032	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	64.69	100	37	141	65	
TCMX-Surrogate	86.23	100	37	141	86	
DCB-Surrogate	70.69	100	34	146	71	
DCB-Surrogate	89.12	100	34	146	89	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	13	160
Chromium	1	mg/kg	6.4	38
Copper	1	mg/kg	6.4	330
Lead	1	mg/kg	6.4	1000
Nickel	1	mg/kg	6.4	39
Zinc	1	mg/kg	13	1200

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	1.0	ND
Arsenic	1	mg/kg	0.26	8.5
Beryllium	1	mg/kg	0.26	0.29
Cadmium	1	mg/kg	0.51	1.7
Selenium	1	mg/kg	2.6	ND
Silver	1	mg/kg	0.26	ND
Thallium	1	mg/kg	0.51	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	5	mg/kg	0.21	ND
1,2,4,5-Tetrachlorobenzene	5	mg/kg	0.21	ND
2,3,4,6-Tetrachlorophenol	5	mg/kg	0.21	ND
2,4,5-Trichlorophenol	5	mg/kg	0.21	ND

Sample ID: SB-04 @ 7'
 Lab#: AD14447-001
 Matrix: Soil/Terracore

Collection Date: 12/4/2019
 Receipt Date: 12/5/2019

2,4,6-Trichlorophenol	5	mg/kg	0.21	ND
2,4-Dichlorophenol	5	mg/kg	0.053	ND
2,4-Dimethylphenol	5	mg/kg	0.053	ND
2,4-Dinitrophenol	5	mg/kg	1.1	ND
2,4-Dinitrotoluene	5	mg/kg	0.21	ND
2,6-Dinitrotoluene	5	mg/kg	0.21	ND
2-Chloronaphthalene	5	mg/kg	0.21	ND
2-Chlorophenol	5	mg/kg	0.21	ND
2-Methylnaphthalene	5	mg/kg	0.21	ND
2-Methylphenol	5	mg/kg	0.053	ND
2-Nitroaniline	5	mg/kg	0.21	ND
2-Nitrophenol	5	mg/kg	0.21	ND
3&4-Methylphenol	5	mg/kg	0.053	ND
3,3'-Dichlorobenzidine	5	mg/kg	0.21	ND
3-Nitroaniline	5	mg/kg	0.21	ND
4,6-Dinitro-2-methylphenol	5	mg/kg	1.1	ND
4-Bromophenyl-phenylether	5	mg/kg	0.21	ND
4-Chloro-3-methylphenol	5	mg/kg	0.21	ND
4-Chloroaniline	5	mg/kg	0.053	ND
4-Chlorophenyl-phenylether	5	mg/kg	0.21	ND
4-Nitroaniline	5	mg/kg	0.21	ND
4-Nitrophenol	5	mg/kg	0.21	ND
Acenaphthene	5	mg/kg	0.21	0.62
Acenaphthylene	5	mg/kg	0.21	ND
Acetophenone	5	mg/kg	0.21	ND
Anthracene	5	mg/kg	0.21	1.9
Atrazine	5	mg/kg	0.21	ND
Benzaldehyde	5	mg/kg	0.21	ND
Benzo[a]anthracene	5	mg/kg	0.21	8.5
Benzo[a]pyrene	5	mg/kg	0.21	8.8
Benzo[b]fluoranthene	5	mg/kg	0.21	12
Benzo[g,h,i]perylene	5	mg/kg	0.21	6.1
Benzo[k]fluoranthene	5	mg/kg	0.21	3.3
bis(2-Chloroethoxy)methane	5	mg/kg	0.21	ND
bis(2-Chloroethyl)ether	5	mg/kg	0.053	ND
bis(2-Chloroisopropyl)ether	5	mg/kg	0.21	ND
bis(2-Ethylhexyl)phthalate	5	mg/kg	0.21	ND
Butylbenzylphthalate	5	mg/kg	0.21	ND
Caprolactam	5	mg/kg	0.21	ND
Carbazole	5	mg/kg	0.21	0.72
Chrysene	5	mg/kg	0.21	7.9
Dibenzo[a,h]anthracene	5	mg/kg	0.21	1.4
Dibenzofuran	5	mg/kg	0.053	0.31
Diethylphthalate	5	mg/kg	0.21	ND
Dimethylphthalate	5	mg/kg	0.21	ND
Di-n-butylphthalate	5	mg/kg	0.053	0.14
Di-n-octylphthalate	5	mg/kg	0.21	ND
Fluoranthene	5	mg/kg	0.21	14
Fluorene	5	mg/kg	0.21	0.68
Hexachlorobenzene	5	mg/kg	0.21	ND
Hexachlorobutadiene	5	mg/kg	0.21	ND
Hexachlorocyclopentadiene	5	mg/kg	0.21	ND
Hexachloroethane	5	mg/kg	0.21	ND
Indeno[1,2,3-cd]pyrene	5	mg/kg	0.21	5.0
Isophorone	5	mg/kg	0.21	ND
Naphthalene	5	mg/kg	0.053	0.075
Nitrobenzene	5	mg/kg	0.21	ND
N-Nitroso-di-n-propylamine	5	mg/kg	0.053	ND
N-Nitrosodiphenylamine	5	mg/kg	0.21	ND
Pentachlorophenol	5	mg/kg	1.1	ND
Phenanthrene	5	mg/kg	0.21	7.0
Phenol	5	mg/kg	0.21	ND
Pyrene	5	mg/kg	0.21	14

Sample ID: SB-04 @ 7'
 Lab#: AD14447-001
 Matrix: Soil/Terracore

Collection Date: 12/4/2019
 Receipt Date: 12/5/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	12.11	50	58	148	121	
Phenol-d5	22.68	100	49	129	113	
Nitrobenzene-d5	8.72	50	52	129	87	
2-Fluorophenol	20.36	100	43	128	102	
2-Fluorobiphenyl	9.49	50	58	125	95	
2,4,6-Tribromophenol	19.62	100	54	145	98	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	1	mg/kg	77	1500		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	15.02	20	30	146	75	
Chlorobenzene	10.54	20	20	117	53	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	0.986	mg/kg	0.0025	ND
1,1,2,2-Tetrachloroethane	0.986	mg/kg	0.0025	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	0.986	mg/kg	0.0025	ND
1,1,2-Trichloroethane	0.986	mg/kg	0.0025	ND
1,1-Dichloroethane	0.986	mg/kg	0.0025	ND
1,1-Dichloroethene	0.986	mg/kg	0.0025	ND
1,2,3-Trichlorobenzene	0.986	mg/kg	0.0025	ND
1,2,4-Trichlorobenzene	0.986	mg/kg	0.0025	ND
1,2-Dibromo-3-chloropropane	0.986	mg/kg	0.0025	ND
1,2-Dibromoethane	0.986	mg/kg	0.00099	ND
1,2-Dichlorobenzene	0.986	mg/kg	0.0025	ND
1,2-Dichloroethane	0.986	mg/kg	0.0025	ND
1,2-Dichloropropane	0.986	mg/kg	0.0025	ND
1,3-Dichlorobenzene	0.986	mg/kg	0.0025	ND
1,4-Dichlorobenzene	0.986	mg/kg	0.0025	ND
1,4-Dioxane	0.986	mg/kg	0.13	ND
2-Butanone	0.986	mg/kg	0.0025	ND
2-Hexanone	0.986	mg/kg	0.0025	ND
4-Methyl-2-pentanone	0.986	mg/kg	0.0025	ND
Acetone	0.986	mg/kg	0.013	ND
Benzene	0.986	mg/kg	0.0013	ND
Bromochloromethane	0.986	mg/kg	0.0025	ND
Bromodichloromethane	0.986	mg/kg	0.0025	ND
Bromoform	0.986	mg/kg	0.0025	ND
Bromomethane	0.986	mg/kg	0.0025	ND
Carbon disulfide	0.986	mg/kg	0.0025	ND
Carbon tetrachloride	0.986	mg/kg	0.0025	ND
Chlorobenzene	0.986	mg/kg	0.0025	ND
Chloroethane	0.986	mg/kg	0.0025	ND
Chloroform	0.986	mg/kg	0.0025	ND
Chloromethane	0.986	mg/kg	0.0025	ND
cis-1,2-Dichloroethene	0.986	mg/kg	0.0025	ND
cis-1,3-Dichloropropene	0.986	mg/kg	0.0025	ND
Cyclohexane	0.986	mg/kg	0.0025	ND
Dibromochloromethane	0.986	mg/kg	0.0025	ND
Dichlorodifluoromethane	0.986	mg/kg	0.0025	ND
Ethylbenzene	0.986	mg/kg	0.0013	ND
Isopropylbenzene	0.986	mg/kg	0.0013	ND
m&p-Xylenes	0.986	mg/kg	0.0013	ND
Methyl Acetate	0.986	mg/kg	0.0025	ND
Methylcyclohexane	0.986	mg/kg	0.0025	ND
Methylene chloride	0.986	mg/kg	0.0025	0.0056
Methyl-t-butyl ether	0.986	mg/kg	0.0013	ND
o-Xylene	0.986	mg/kg	0.0013	ND
Styrene	0.986	mg/kg	0.0025	ND
Tetrachloroethene	0.986	mg/kg	0.0025	ND
Toluene	0.986	mg/kg	0.0013	ND
trans-1,2-Dichloroethene	0.986	mg/kg	0.0025	ND
trans-1,3-Dichloropropene	0.986	mg/kg	0.0025	ND
Trichloroethene	0.986	mg/kg	0.0025	ND
Trichlorofluoromethane	0.986	mg/kg	0.0025	ND

Sample ID: SB-04 @ 7'
Lab#: AD14447-001
Matrix: Soil/Terracore

Collection Date: 12/4/2019
Receipt Date: 12/5/2019

Vinyl chloride	0.986	mg/kg	0.0025		ND	
Xylenes (Total)	0.986	mg/kg	0.0013		ND	
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	28.51	30	68	122	95	
Dibromofluoromethane	31.55	30	63	140	105	
Bromofluorobenzene	32.39	30	64	129	108	
1,2-Dichloroethane-d4	30.33	30	63	143	101	

Sample ID: SB-30 @ 7'
 Lab#: AD14447-002
 Matrix: Soil/Terracore

Collection Date: 12/4/2019
 Receipt Date: 12/5/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		87

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	95.4	mg/kg	27	52		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	29.60	30	50	150	99	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.096	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.029	ND		
Aroclor-1016	1	mg/kg	0.029	ND		
Aroclor-1221	1	mg/kg	0.029	ND		
Aroclor-1232	1	mg/kg	0.029	ND		
Aroclor-1242	1	mg/kg	0.029	ND		
Aroclor-1248	1	mg/kg	0.029	ND		
Aroclor-1254	1	mg/kg	0.029	ND		
Aroclor-1260	1	mg/kg	0.029	ND		
Aroclor-1262	1	mg/kg	0.029	ND		
Aroclor-1268	1	mg/kg	0.029	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	75.98	100	37	141	76	
TCMX-Surrogate	103.45	100	37	141	103	
DCB-Surrogate	92.92	100	34	146	93	
DCB-Surrogate	105.58	100	34	146	106	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	11	91
Chromium	1	mg/kg	5.7	26
Copper	1	mg/kg	5.7	38
Lead	1	mg/kg	5.7	41
Nickel	1	mg/kg	5.7	24
Zinc	1	mg/kg	11	82

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.92	ND
Arsenic	1	mg/kg	0.23	1.5
Beryllium	1	mg/kg	0.23	0.86
Cadmium	1	mg/kg	0.46	ND
Selenium	1	mg/kg	2.3	2.4
Silver	1	mg/kg	0.23	ND
Thallium	1	mg/kg	0.46	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	1	mg/kg	0.038	ND
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.038	ND
2,3,4,6-Tetrachlorophenol	1	mg/kg	0.038	ND
2,4,5-Trichlorophenol	1	mg/kg	0.038	ND
2,4,6-Trichlorophenol	1	mg/kg	0.038	ND
2,4-Dichlorophenol	1	mg/kg	0.0096	ND
2,4-Dimethylphenol	1	mg/kg	0.0096	ND
2,4-Dinitrophenol	1	mg/kg	0.19	ND
2,4-Dinitrotoluene	1	mg/kg	0.038	ND
2,6-Dinitrotoluene	1	mg/kg	0.038	ND
2-Chloronaphthalene	1	mg/kg	0.038	ND
2-Chlorophenol	1	mg/kg	0.038	ND

Sample ID: SB-30 @ 7'
 Lab#: AD14447-002
 Matrix: Soil/Terracore

Collection Date: 12/4/2019
 Receipt Date: 12/5/2019

2-Methylnaphthalene	1	mg/kg	0.038	ND		
2-Methylphenol	1	mg/kg	0.0096	ND		
2-Nitroaniline	1	mg/kg	0.038	ND		
2-Nitrophenol	1	mg/kg	0.038	ND		
3&4-Methylphenol	1	mg/kg	0.0096	ND		
3,3'-Dichlorobenzidine	1	mg/kg	0.038	ND		
3-Nitroaniline	1	mg/kg	0.038	ND		
4,6-Dinitro-2-methylphenol	1	mg/kg	0.19	ND		
4-Bromophenyl-phenylether	1	mg/kg	0.038	ND		
4-Chloro-3-methylphenol	1	mg/kg	0.038	ND		
4-Chloroaniline	1	mg/kg	0.0096	ND		
4-Chlorophenyl-phenylether	1	mg/kg	0.038	ND		
4-Nitroaniline	1	mg/kg	0.038	ND		
4-Nitrophenol	1	mg/kg	0.038	ND		
Acenaphthene	1	mg/kg	0.038	ND		
Acenaphthylene	1	mg/kg	0.038	ND		
Acetophenone	1	mg/kg	0.038	ND		
Anthracene	1	mg/kg	0.038	0.083		
Atrazine	1	mg/kg	0.038	ND		
Benzaldehyde	1	mg/kg	0.038	ND		
Benzo[a]anthracene	1	mg/kg	0.038	0.34		
Benzo[a]pyrene	1	mg/kg	0.038	0.36		
Benzo[b]fluoranthene	1	mg/kg	0.038	0.49		
Benzo[g,h,i]perylene	1	mg/kg	0.038	0.26		
Benzo[k]fluoranthene	1	mg/kg	0.038	0.15		
bis(2-Chloroethoxy)methane	1	mg/kg	0.038	ND		
bis(2-Chloroethyl)ether	1	mg/kg	0.0096	ND		
bis(2-Chloroisopropyl)ether	1	mg/kg	0.038	ND		
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.038	0.074		
Butylbenzylphthalate	1	mg/kg	0.038	ND		
Caprolactam	1	mg/kg	0.038	ND		
Carbazole	1	mg/kg	0.038	ND		
Chrysene	1	mg/kg	0.038	0.30		
Dibenzo[a,h]anthracene	1	mg/kg	0.038	0.054		
Dibenzofuran	1	mg/kg	0.0096	0.042		
Diethylphthalate	1	mg/kg	0.038	ND		
Dimethylphthalate	1	mg/kg	0.038	ND		
Di-n-butylphthalate	1	mg/kg	0.0096	0.017		
Di-n-octylphthalate	1	mg/kg	0.038	ND		
Fluoranthene	1	mg/kg	0.038	0.54		
Fluorene	1	mg/kg	0.038	ND		
Hexachlorobenzene	1	mg/kg	0.038	ND		
Hexachlorobutadiene	1	mg/kg	0.038	ND		
Hexachlorocyclopentadiene	1	mg/kg	0.038	ND		
Hexachloroethane	1	mg/kg	0.038	ND		
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.038	0.21		
Isophorone	1	mg/kg	0.038	ND		
Naphthalene	1	mg/kg	0.0096	ND		
Nitrobenzene	1	mg/kg	0.038	ND		
N-Nitroso-di-n-propylamine	1	mg/kg	0.0096	ND		
N-Nitrosodiphenylamine	1	mg/kg	0.038	ND		
Pentachlorophenol	1	mg/kg	0.19	ND		
Phenanthrene	1	mg/kg	0.038	0.14		
Phenol	1	mg/kg	0.038	ND		
Pyrene	1	mg/kg	0.038	0.56		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	58.26	50	58	148	117	
Phenol-d5	115.99	100	49	129	116	
Nitrobenzene-d5	50.38	50	52	129	101	
2-Fluorophenol	102.10	100	43	128	102	
2-Fluorobiphenyl	45.71	50	58	125	91	
2,4,6-Tribromophenol	104.34	100	54	145	104	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	1	mg/kg	69	860		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	14.82	20	30	146	74	
Chlorobenzene	11.71	20	20	117	59	

Sample ID: SB-30 @ 7'
 Lab#: AD14447-002
 Matrix: Soil/Terracore

Collection Date: 12/4/2019
 Receipt Date: 12/5/2019

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	0.916	mg/kg	0.0021	ND		
1,1,2,2-Tetrachloroethane	0.916	mg/kg	0.0021	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	0.916	mg/kg	0.0021	ND		
1,1,2-Trichloroethane	0.916	mg/kg	0.0021	ND		
1,1-Dichloroethane	0.916	mg/kg	0.0021	ND		
1,1-Dichloroethene	0.916	mg/kg	0.0021	ND		
1,2,3-Trichlorobenzene	0.916	mg/kg	0.0021	ND		
1,2,4-Trichlorobenzene	0.916	mg/kg	0.0021	ND		
1,2-Dibromo-3-chloropropane	0.916	mg/kg	0.0021	ND		
1,2-Dibromoethane	0.916	mg/kg	0.00082	ND		
1,2-Dichlorobenzene	0.916	mg/kg	0.0021	ND		
1,2-Dichloroethane	0.916	mg/kg	0.0021	ND		
1,2-Dichloropropane	0.916	mg/kg	0.0021	ND		
1,3-Dichlorobenzene	0.916	mg/kg	0.0021	ND		
1,4-Dichlorobenzene	0.916	mg/kg	0.0021	ND		
1,4-Dioxane	0.916	mg/kg	0.11	ND		
2-Butanone	0.916	mg/kg	0.0021	0.0052		
2-Hexanone	0.916	mg/kg	0.0021	ND		
4-Methyl-2-pentanone	0.916	mg/kg	0.0021	ND		
Acetone	0.916	mg/kg	0.011	0.040		
Benzene	0.916	mg/kg	0.0011	ND		
Bromochloromethane	0.916	mg/kg	0.0021	ND		
Bromodichloromethane	0.916	mg/kg	0.0021	ND		
Bromoform	0.916	mg/kg	0.0021	ND		
Bromomethane	0.916	mg/kg	0.0021	ND		
Carbon disulfide	0.916	mg/kg	0.0021	ND		
Carbon tetrachloride	0.916	mg/kg	0.0021	ND		
Chlorobenzene	0.916	mg/kg	0.0021	ND		
Chloroethane	0.916	mg/kg	0.0021	ND		
Chloroform	0.916	mg/kg	0.0021	ND		
Chloromethane	0.916	mg/kg	0.0021	ND		
cis-1,2-Dichloroethene	0.916	mg/kg	0.0021	ND		
cis-1,3-Dichloropropene	0.916	mg/kg	0.0021	ND		
Cyclohexane	0.916	mg/kg	0.0021	ND		
Dibromochloromethane	0.916	mg/kg	0.0021	ND		
Dichlorodifluoromethane	0.916	mg/kg	0.0021	ND		
Ethylbenzene	0.916	mg/kg	0.0011	ND		
Isopropylbenzene	0.916	mg/kg	0.0011	ND		
m&p-Xylenes	0.916	mg/kg	0.0011	ND		
Methyl Acetate	0.916	mg/kg	0.0021	ND		
Methylcyclohexane	0.916	mg/kg	0.0021	ND		
Methylene chloride	0.916	mg/kg	0.0021	0.031		
Methyl-t-butyl ether	0.916	mg/kg	0.0011	ND		
o-Xylene	0.916	mg/kg	0.0011	ND		
Styrene	0.916	mg/kg	0.0021	ND		
Tetrachloroethene	0.916	mg/kg	0.0021	ND		
Toluene	0.916	mg/kg	0.0011	ND		
trans-1,2-Dichloroethene	0.916	mg/kg	0.0021	ND		
trans-1,3-Dichloropropene	0.916	mg/kg	0.0021	ND		
Trichloroethene	0.916	mg/kg	0.0021	ND		
Trichlorofluoromethane	0.916	mg/kg	0.0021	ND		
Vinyl chloride	0.916	mg/kg	0.0021	ND		
Xylenes (Total)	0.916	mg/kg	0.0011	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	27.70	30	68	122	92	
Dibromofluoromethane	30.34	30	63	140	101	
Bromofluorobenzene	27.78	30	64	129	93	
1,2-Dichloroethane-d4	29.19	30	63	143	97	

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9120501

Project: WMATA-Northern Station

Sample ID: SB-04 @ 7'
Lab#: AD14447-001
Matrix: Soil/Terracore

Collection Date: 12/4/2019
Receipt Date: 12/5/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		78

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	mg/kg	77	570		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	15.02	20	30	146	75	
Chlorobenzene	10.54	20	20	117	53	

Sample ID: SB-30 @ 7'
Lab#: AD14447-002
Matrix: Soil/Terracore

Collection Date: 12/4/2019
Receipt Date: 12/5/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		87

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	mg/kg	69	670		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	14.82	20	30	146	74	
Chlorobenzene	11.71	20	20	117	59	

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9122701

Project: WMATA-Northern Station

Sample ID: SB-12 @ 17'
 Lab#: AD14888-001
 Matrix: Soil/Terracore

Collection Date: 12/26/2019
 Receipt Date: 12/27/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		85

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	2	mg/kg	140	2000		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	6.56	20	30	146	66	
Chlorobenzene	3.81	20	20	117	38	

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	173	mg/kg	51	210		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	43.43	30	50	150	145	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.098	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.029	ND		
Aroclor-1016	1	mg/kg	0.029	ND		
Aroclor-1221	1	mg/kg	0.029	ND		
Aroclor-1232	1	mg/kg	0.029	ND		
Aroclor-1242	1	mg/kg	0.029	ND		
Aroclor-1248	1	mg/kg	0.029	ND		
Aroclor-1254	1	mg/kg	0.029	ND		
Aroclor-1260	1	mg/kg	0.029	ND		
Aroclor-1262	1	mg/kg	0.029	ND		
Aroclor-1268	1	mg/kg	0.029	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	62.38	100	37	141	62	
TCMX-Surrogate	85.92	100	37	141	86	
DCB-Surrogate	65.37	100	34	146	65	
DCB-Surrogate	72.81	100	34	146	73	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	12	110
Chromium	1	mg/kg	5.9	24
Copper	1	mg/kg	5.9	38
Lead	1	mg/kg	5.9	7.5
Nickel	1	mg/kg	5.9	30
Zinc	1	mg/kg	12	81

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.94	ND
Arsenic	1	mg/kg	0.24	1.9
Beryllium	1	mg/kg	0.24	2.0
Cadmium	1	mg/kg	0.47	ND
Selenium	1	mg/kg	2.4	3.5
Silver	1	mg/kg	0.24	ND
Thallium	1	mg/kg	0.47	ND

Sample ID: SB-12 @ 17'
 Lab#: AD14888-001
 Matrix: Soil/Terracore

Collection Date: 12/26/2019
 Receipt Date: 12/27/2019

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	1	mg/kg	0.039	ND
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.039	ND
2,3,4,6-Tetrachlorophenol	1	mg/kg	0.039	ND
2,4,5-Trichlorophenol	1	mg/kg	0.039	ND
2,4,6-Trichlorophenol	1	mg/kg	0.039	ND
2,4-Dichlorophenol	1	mg/kg	0.0098	ND
2,4-Dimethylphenol	1	mg/kg	0.0098	ND
2,4-Dinitrophenol	1	mg/kg	0.20	ND
2,4-Dinitrotoluene	1	mg/kg	0.039	ND
2,6-Dinitrotoluene	1	mg/kg	0.039	ND
2-Chloronaphthalene	1	mg/kg	0.039	ND
2-Chlorophenol	1	mg/kg	0.039	ND
2-Methylnaphthalene	1	mg/kg	0.039	ND
2-Methylphenol	1	mg/kg	0.0098	ND
2-Nitroaniline	1	mg/kg	0.039	ND
2-Nitrophenol	1	mg/kg	0.039	ND
3&4-Methylphenol	1	mg/kg	0.0098	ND
3,3'-Dichlorobenzidine	1	mg/kg	0.039	ND
3-Nitroaniline	1	mg/kg	0.039	ND
4,6-Dinitro-2-methylphenol	1	mg/kg	0.20	ND
4-Bromophenyl-phenylether	1	mg/kg	0.039	ND
4-Chloro-3-methylphenol	1	mg/kg	0.039	ND
4-Chloroaniline	1	mg/kg	0.0098	ND
4-Chlorophenyl-phenylether	1	mg/kg	0.039	ND
4-Nitroaniline	1	mg/kg	0.039	ND
4-Nitrophenol	1	mg/kg	0.039	ND
Acenaphthene	1	mg/kg	0.039	ND
Acenaphthylene	1	mg/kg	0.039	ND
Acetophenone	1	mg/kg	0.039	ND
Anthracene	1	mg/kg	0.039	ND
Atrazine	1	mg/kg	0.039	ND
Benzaldehyde	1	mg/kg	0.039	ND
Benzo[a]anthracene	1	mg/kg	0.039	ND
Benzo[a]pyrene	1	mg/kg	0.039	ND
Benzo[b]fluoranthene	1	mg/kg	0.039	ND
Benzo[g,h,i]perylene	1	mg/kg	0.039	ND
Benzo[k]fluoranthene	1	mg/kg	0.039	ND
bis(2-Chloroethoxy)methane	1	mg/kg	0.039	ND
bis(2-Chloroethyl)ether	1	mg/kg	0.0098	ND
bis(2-Chloroisopropyl)ether	1	mg/kg	0.039	ND
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.039	0.041
Butylbenzylphthalate	1	mg/kg	0.039	ND
Caprolactam	1	mg/kg	0.039	ND
Carbazole	1	mg/kg	0.039	ND
Chrysene	1	mg/kg	0.039	ND
Dibenzo[a,h]anthracene	1	mg/kg	0.039	ND
Dibenzofuran	1	mg/kg	0.0098	ND
Diethylphthalate	1	mg/kg	0.039	ND
Dimethylphthalate	1	mg/kg	0.039	ND
Di-n-butylphthalate	1	mg/kg	0.0098	0.023
Di-n-octylphthalate	1	mg/kg	0.039	ND
Fluoranthene	1	mg/kg	0.039	ND
Fluorene	1	mg/kg	0.039	ND
Hexachlorobenzene	1	mg/kg	0.039	ND
Hexachlorobutadiene	1	mg/kg	0.039	ND
Hexachlorocyclopentadiene	1	mg/kg	0.039	ND
Hexachloroethane	1	mg/kg	0.039	ND
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.039	ND
Isophorone	1	mg/kg	0.039	ND
Naphthalene	1	mg/kg	0.0098	ND
Nitrobenzene	1	mg/kg	0.039	ND
N-Nitroso-di-n-propylamine	1	mg/kg	0.0098	ND
N-Nitrosodiphenylamine	1	mg/kg	0.039	ND
Pentachlorophenol	1	mg/kg	0.20	ND
Phenanthrene	1	mg/kg	0.039	ND
Phenol	1	mg/kg	0.039	ND

Sample ID: SB-12 @ 17'
 Lab#: AD14888-001
 Matrix: Soil/Terracore

Collection Date: 12/26/2019
 Receipt Date: 12/27/2019

Pyrene	1	mg/kg	0.039	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	36.88	50	58	148	74	
Phenol-d5	67.47	100	49	129	67	
Nitrobenzene-d5	24.42	50	52	129	49	Sb8
2-Fluorophenol	67.00	100	43	128	67	
2-Fluorobiphenyl	36.65	50	58	125	73	
2,4,6-Tribromophenol	83.02	100	54	145	83	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Total Petroleum Hydrocarbons	2	mg/kg	140	2000		
O-Terphenyl	6.56	20	30	146	66	
Chlorobenzene	3.81	20	20	117	38	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	86.7	mg/kg	0.10	ND
1,1,2,2-Tetrachloroethane	86.7	mg/kg	0.10	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	86.7	mg/kg	0.10	ND
1,1,2-Trichloroethane	86.7	mg/kg	0.10	ND
1,1-Dichloroethane	86.7	mg/kg	0.10	ND
1,1-Dichloroethene	86.7	mg/kg	0.10	ND
1,2,3-Trichlorobenzene	86.7	mg/kg	0.10	ND
1,2,4-Trichlorobenzene	86.7	mg/kg	0.10	ND
1,2-Dibromo-3-chloropropane	86.7	mg/kg	0.10	ND
1,2-Dibromoethane	86.7	mg/kg	0.10	ND
1,2-Dichlorobenzene	86.7	mg/kg	0.10	ND
1,2-Dichloroethane	86.7	mg/kg	0.051	ND
1,2-Dichloropropane	86.7	mg/kg	0.10	ND
1,3-Dichlorobenzene	86.7	mg/kg	0.10	ND
1,4-Dichlorobenzene	86.7	mg/kg	0.10	ND
1,4-Dioxane	86.7	mg/kg	5.1	ND
2-Butanone	86.7	mg/kg	0.10	ND
2-Hexanone	86.7	mg/kg	0.10	ND
4-Methyl-2-pentanone	86.7	mg/kg	0.10	ND
Acetone	86.7	mg/kg	0.51	ND
Benzene	86.7	mg/kg	0.051	ND
Bromochloromethane	86.7	mg/kg	0.10	ND
Bromodichloromethane	86.7	mg/kg	0.10	ND
Bromoform	86.7	mg/kg	0.10	ND
Bromomethane	86.7	mg/kg	0.10	ND
Carbon disulfide	86.7	mg/kg	0.10	ND
Carbon tetrachloride	86.7	mg/kg	0.10	ND
Chlorobenzene	86.7	mg/kg	0.10	ND
Chloroethane	86.7	mg/kg	0.10	ND
Chloroform	86.7	mg/kg	0.10	ND
Chloromethane	86.7	mg/kg	0.10	ND
cis-1,2-Dichloroethene	86.7	mg/kg	0.10	ND
cis-1,3-Dichloropropene	86.7	mg/kg	0.10	ND
Cyclohexane	86.7	mg/kg	0.10	ND
Dibromochloromethane	86.7	mg/kg	0.10	ND
Dichlorodifluoromethane	86.7	mg/kg	0.10	ND
Ethylbenzene	86.7	mg/kg	0.10	ND
Isopropylbenzene	86.7	mg/kg	0.10	ND
m&p-Xylenes	86.7	mg/kg	0.10	ND
Methyl Acetate	86.7	mg/kg	0.10	ND
Methylcyclohexane	86.7	mg/kg	0.10	ND
Methylene chloride	86.7	mg/kg	0.10	ND
Methyl-t-butyl ether	86.7	mg/kg	0.051	ND
o-Xylene	86.7	mg/kg	0.10	ND
Styrene	86.7	mg/kg	0.10	ND
Tetrachloroethene	86.7	mg/kg	0.10	ND
Toluene	86.7	mg/kg	0.10	ND
trans-1,2-Dichloroethene	86.7	mg/kg	0.10	ND
trans-1,3-Dichloropropene	86.7	mg/kg	0.10	ND
Trichloroethene	86.7	mg/kg	0.10	ND

Sample ID: SB-12 @ 17'
Lab#: AD14888-001
Matrix: Soil/Terracore

Collection Date: 12/26/2019
Receipt Date: 12/27/2019

Trichlorofluoromethane	86.7	mg/kg	0.10		ND	
Vinyl chloride	86.7	mg/kg	0.10		ND	
Xylenes (Total)	86.7	mg/kg	0.10		ND	
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	31.36	30	68	122	105	
Dibromofluoromethane	30.20	30	63	140	101	
Bromofluorobenzene	20.28	30	64	129	68	
1,2-Dichloroethane-d4	31.94	30	63	143	106	

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9122801

Project: WMATA-Northern Station

Sample ID: SB-14 @ 5'
 Lab#: AD14901-001
 Matrix: Soil/Terracore

Collection Date: 12/27/2019
 Receipt Date: 12/28/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
% Solids	1	percent		85

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	mg/kg	71	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	12.64	20	30	146	63	
Chlorobenzene	15.28	20	20	117	76	

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	87.9	mg/kg	26	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	26.05	30	50	150	87	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.098	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.029	ND		
Aroclor-1016	1	mg/kg	0.029	ND		
Aroclor-1221	1	mg/kg	0.029	ND		
Aroclor-1232	1	mg/kg	0.029	ND		
Aroclor-1242	1	mg/kg	0.029	ND		
Aroclor-1248	1	mg/kg	0.029	ND		
Aroclor-1254	1	mg/kg	0.029	ND		
Aroclor-1260	1	mg/kg	0.029	ND		
Aroclor-1262	1	mg/kg	0.029	ND		
Aroclor-1268	1	mg/kg	0.029	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	85.06	100	37	141	85	
TCMX-Surrogate	96.73	100	37	141	97	
DCB-Surrogate	74.90	100	34	146	75	
DCB-Surrogate	76.40	100	34	146	76	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	12	40
Chromium	1	mg/kg	5.9	35
Copper	1	mg/kg	5.9	9.0
Lead	1	mg/kg	5.9	17
Nickel	1	mg/kg	5.9	37
Zinc	1	mg/kg	12	27

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.94	ND
Arsenic	1	mg/kg	0.24	1.8
Beryllium	1	mg/kg	0.24	ND
Cadmium	1	mg/kg	0.47	ND
Selenium	1	mg/kg	2.4	ND
Silver	1	mg/kg	0.24	ND
Thallium	1	mg/kg	0.47	ND

Sample ID: SB-14@ 5'
 Lab#: AD14901-001
 Matrix: Soil/Terracore

Collection Date: 12/27/2019
 Receipt Date: 12/28/2019

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	1	mg/kg	0.039	ND
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.039	ND
2,3,4,6-Tetrachlorophenol	1	mg/kg	0.039	ND
2,4,5-Trichlorophenol	1	mg/kg	0.039	ND
2,4,6-Trichlorophenol	1	mg/kg	0.039	ND
2,4-Dichlorophenol	1	mg/kg	0.0098	ND
2,4-Dimethylphenol	1	mg/kg	0.0098	ND
2,4-Dinitrophenol	1	mg/kg	0.20	ND
2,4-Dinitrotoluene	1	mg/kg	0.039	ND
2,6-Dinitrotoluene	1	mg/kg	0.039	ND
2-Chloronaphthalene	1	mg/kg	0.039	ND
2-Chlorophenol	1	mg/kg	0.039	ND
2-Methylnaphthalene	1	mg/kg	0.039	ND
2-Methylphenol	1	mg/kg	0.0098	ND
2-Nitroaniline	1	mg/kg	0.039	ND
2-Nitrophenol	1	mg/kg	0.039	ND
3&4-Methylphenol	1	mg/kg	0.0098	ND
3,3'-Dichlorobenzidine	1	mg/kg	0.039	ND
3-Nitroaniline	1	mg/kg	0.039	ND
4,6-Dinitro-2-methylphenol	1	mg/kg	0.20	ND
4-Bromophenyl-phenylether	1	mg/kg	0.039	ND
4-Chloro-3-methylphenol	1	mg/kg	0.039	ND
4-Chloroaniline	1	mg/kg	0.0098	ND
4-Chlorophenyl-phenylether	1	mg/kg	0.039	ND
4-Nitroaniline	1	mg/kg	0.039	ND
4-Nitrophenol	1	mg/kg	0.039	ND
Acenaphthene	1	mg/kg	0.039	ND
Acenaphthylene	1	mg/kg	0.039	ND
Acetophenone	1	mg/kg	0.039	ND
Anthracene	1	mg/kg	0.039	0.043
Atrazine	1	mg/kg	0.039	ND
Benzaldehyde	1	mg/kg	0.039	ND
Benzo[a]anthracene	1	mg/kg	0.039	0.16
Benzo[a]pyrene	1	mg/kg	0.039	0.14
Benzo[b]fluoranthene	1	mg/kg	0.039	0.19
Benzo[g,h,i]perylene	1	mg/kg	0.039	0.10
Benzo[k]fluoranthene	1	mg/kg	0.039	0.054
bis(2-Chloroethoxy)methane	1	mg/kg	0.039	ND
bis(2-Chloroethyl)ether	1	mg/kg	0.0098	ND
bis(2-Chloroisopropyl)ether	1	mg/kg	0.039	ND
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.039	ND
Butylbenzylphthalate	1	mg/kg	0.039	ND
Caprolactam	1	mg/kg	0.039	ND
Carbazole	1	mg/kg	0.039	ND
Chrysene	1	mg/kg	0.039	0.16
Dibenzo[a,h]anthracene	1	mg/kg	0.039	ND
Dibenzofuran	1	mg/kg	0.0098	0.016
Diethylphthalate	1	mg/kg	0.039	ND
Dimethylphthalate	1	mg/kg	0.039	ND
Di-n-butylphthalate	1	mg/kg	0.0098	ND
Di-n-octylphthalate	1	mg/kg	0.039	ND
Fluoranthene	1	mg/kg	0.039	0.39
Fluorene	1	mg/kg	0.039	ND
Hexachlorobenzene	1	mg/kg	0.039	ND
Hexachlorobutadiene	1	mg/kg	0.039	ND
Hexachlorocyclopentadiene	1	mg/kg	0.039	ND
Hexachloroethane	1	mg/kg	0.039	ND
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.039	0.080
Isophorone	1	mg/kg	0.039	ND
Naphthalene	1	mg/kg	0.0098	ND
Nitrobenzene	1	mg/kg	0.039	ND
N-Nitroso-di-n-propylamine	1	mg/kg	0.0098	ND
N-Nitrosodiphenylamine	1	mg/kg	0.039	ND
Pentachlorophenol	1	mg/kg	0.20	ND
Phenanthrene	1	mg/kg	0.039	0.33
Phenol	1	mg/kg	0.039	ND

Sample ID: SB-14 @ 5'
 Lab#: AD14901-001
 Matrix: Soil/Terracore

Collection Date: 12/27/2019
 Receipt Date: 12/28/2019

Pyrene Surrogate	Conc.	1 Spike	mg/kg	0.039 Low Limit	0.33 High Limit	0.33 Recovery	Flags
Terphenyl-d14	43.73	50		58	148	87	
Phenol-d5	97.00	100		49	129	97	
Nitrobenzene-d5	33.54	50		52	129	67	
2-Fluorophenol	85.39	100		43	128	85	
2-Fluorobiphenyl	38.38	50		58	125	77	
2,4,6-Tribromophenol	66.43	100		54	145	66	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	1	mg/kg	71	150		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	12.64	20	30	146	63	
Chlorobenzene	15.28	20	20	117	76	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1.49	mg/kg	0.0035	ND
1,1,2,2-Tetrachloroethane	1.49	mg/kg	0.0035	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1.49	mg/kg	0.0035	ND
1,1,2-Trichloroethane	1.49	mg/kg	0.0035	ND
1,1-Dichloroethane	1.49	mg/kg	0.0035	ND
1,1-Dichloroethene	1.49	mg/kg	0.0035	ND
1,2,3-Trichlorobenzene	1.49	mg/kg	0.0035	ND
1,2,4-Trichlorobenzene	1.49	mg/kg	0.0035	ND
1,2-Dibromo-3-chloropropane	1.49	mg/kg	0.0035	ND
1,2-Dibromoethane	1.49	mg/kg	0.0014	ND
1,2-Dichlorobenzene	1.49	mg/kg	0.0035	ND
1,2-Dichloroethane	1.49	mg/kg	0.0035	ND
1,2-Dichloropropane	1.49	mg/kg	0.0035	ND
1,3-Dichlorobenzene	1.49	mg/kg	0.0035	ND
1,4-Dichlorobenzene	1.49	mg/kg	0.0035	ND
1,4-Dioxane	1.49	mg/kg	0.18	ND
2-Butanone	1.49	mg/kg	0.0035	ND
2-Hexanone	1.49	mg/kg	0.0035	ND
4-Methyl-2-pentanone	1.49	mg/kg	0.0035	ND
Acetone	1.49	mg/kg	0.018	ND
Benzene	1.49	mg/kg	0.0018	0.0021
Bromochloromethane	1.49	mg/kg	0.0035	ND
Bromodichloromethane	1.49	mg/kg	0.0035	ND
Bromoform	1.49	mg/kg	0.0035	ND
Bromomethane	1.49	mg/kg	0.0035	ND
Carbon disulfide	1.49	mg/kg	0.0035	ND
Carbon tetrachloride	1.49	mg/kg	0.0035	ND
Chlorobenzene	1.49	mg/kg	0.0035	ND
Chloroethane	1.49	mg/kg	0.0035	ND
Chloroform	1.49	mg/kg	0.0035	ND
Chloromethane	1.49	mg/kg	0.0035	ND
cis-1,2-Dichloroethene	1.49	mg/kg	0.0035	ND
cis-1,3-Dichloropropene	1.49	mg/kg	0.0035	ND
Cyclohexane	1.49	mg/kg	0.0018	ND
Dibromochloromethane	1.49	mg/kg	0.0035	ND
Dichlorodifluoromethane	1.49	mg/kg	0.0035	ND
Ethylbenzene	1.49	mg/kg	0.0018	ND
Isopropylbenzene	1.49	mg/kg	0.0018	ND
m&p-Xylenes	1.49	mg/kg	0.0018	ND
Methyl Acetate	1.49	mg/kg	0.0035	ND
Methylcyclohexane	1.49	mg/kg	0.0035	ND
Methylene chloride	1.49	mg/kg	0.0035	0.020
Methyl-t-butyl ether	1.49	mg/kg	0.0018	ND
o-Xylene	1.49	mg/kg	0.0018	ND
Styrene	1.49	mg/kg	0.0035	ND
Tetrachloroethane	1.49	mg/kg	0.0035	ND
Toluene	1.49	mg/kg	0.0018	ND
trans-1,2-Dichloroethene	1.49	mg/kg	0.0035	ND
trans-1,3-Dichloropropene	1.49	mg/kg	0.0035	ND
Trichloroethene	1.49	mg/kg	0.0035	ND

Sample ID: SB-14 @ 5'
Lab#: AD14901-001
Matrix: Soil/Terracore

Collection Date: 12/27/2019
Receipt Date: 12/28/2019

Trichlorofluoromethane	1.49	mg/kg	0.0035		ND	
Vinyl chloride	1.49	mg/kg	0.0035		ND	
Xylenes (Total)	1.49	mg/kg	0.0018		ND	
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	31.33	30	68	122	104	
Dibromofluoromethane	23.58	30	63	140	79	
Bromofluorobenzene	32.09	30	64	129	107	
1,2-Dichloroethane-d4	31.10	30	63	143	104	

Sample ID: SB-15@ 3'
 Lab#: AD14901-002
 Matrix: Soil/Terracore

Collection Date: 12/27/2019
 Receipt Date: 12/28/2019

% Solids SM2540G

Analyte	DF	Units	RL	Result
%Solids	1	percent		88

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	mg/kg	68	73		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	12.48	20	30	146	62	
Chlorobenzene	10.53	20	20	117	53	

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	103	mg/kg	29	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	26.02	30	50	150	87	

Mercury (Soil/Waste) 7471B

Analyte	DF	Units	RL	Result
Mercury	1	mg/kg	0.095	ND

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	mg/kg	0.028	ND		
Aroclor-1016	1	mg/kg	0.028	ND		
Aroclor-1221	1	mg/kg	0.028	ND		
Aroclor-1232	1	mg/kg	0.028	ND		
Aroclor-1242	1	mg/kg	0.028	ND		
Aroclor-1248	1	mg/kg	0.028	ND		
Aroclor-1254	1	mg/kg	0.028	ND		
Aroclor-1260	1	mg/kg	0.028	ND		
Aroclor-1262	1	mg/kg	0.028	ND		
Aroclor-1268	1	mg/kg	0.028	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	73.50	100	37	141	74	
TCMX-Surrogate	93.38	100	37	141	93	
DCB-Surrogate	66.68	100	34	146	67	
DCB-Surrogate	77.43	100	34	146	77	

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	mg/kg	11	18
Chromium	1	mg/kg	5.7	20
Copper	1	mg/kg	5.7	7.6
Lead	1	mg/kg	5.7	8.1
Nickel	1	mg/kg	5.7	ND
Zinc	1	mg/kg	11	ND

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	mg/kg	0.91	ND
Arsenic	1	mg/kg	0.23	0.84
Beryllium	1	mg/kg	0.23	ND
Cadmium	1	mg/kg	0.45	ND
Selenium	1	mg/kg	2.3	ND
Silver	1	mg/kg	0.23	ND
Thallium	1	mg/kg	0.45	ND

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result
1,1'-Biphenyl	1	mg/kg	0.038	ND
1,2,4,5-Tetrachlorobenzene	1	mg/kg	0.038	ND
2,3,4,6-Tetrachlorophenol	1	mg/kg	0.038	ND
2,4,5-Trichlorophenol	1	mg/kg	0.038	ND
2,4,6-Trichlorophenol	1	mg/kg	0.038	ND

Sample ID: SB-15@ 3'
 Lab#: AD14901-002
 Matrix: Soil/Terracore

Collection Date: 12/27/2019
 Receipt Date: 12/28/2019

2,4-Dichlorophenol	1	mg/kg	0.0095	ND		
2,4-Dimethylphenol	1	mg/kg	0.0095	ND		
2,4-Dinitrophenol	1	mg/kg	0.19	ND		
2,4-Dinitrotoluene	1	mg/kg	0.038	ND		
2,6-Dinitrotoluene	1	mg/kg	0.038	ND		
2-Chloronaphthalene	1	mg/kg	0.038	ND		
2-Chlorophenol	1	mg/kg	0.038	ND		
2-Methylnaphthalene	1	mg/kg	0.038	ND		
2-Methylphenol	1	mg/kg	0.0095	ND		
2-Nitroaniline	1	mg/kg	0.038	ND		
2-Nitrophenol	1	mg/kg	0.038	ND		
3&4-Methylphenol	1	mg/kg	0.0095	ND		
3,3'-Dichlorobenzidine	1	mg/kg	0.038	ND		
3-Nitroaniline	1	mg/kg	0.038	ND		
4,6-Dinitro-2-methylphenol	1	mg/kg	0.19	ND		
4-Bromophenyl-phenylether	1	mg/kg	0.038	ND		
4-Chloro-3-methylphenol	1	mg/kg	0.038	ND		
4-Chloroaniline	1	mg/kg	0.0095	ND		
4-Chlorophenyl-phenylether	1	mg/kg	0.038	ND		
4-Nitroaniline	1	mg/kg	0.038	ND		
4-Nitrophenol	1	mg/kg	0.038	ND		
Acenaphthene	1	mg/kg	0.038	ND		
Acenaphthylene	1	mg/kg	0.038	ND		
Acetophenone	1	mg/kg	0.038	ND		
Anthracene	1	mg/kg	0.038	ND		
Atrazine	1	mg/kg	0.038	ND		
Benzaldehyde	1	mg/kg	0.038	ND		
Benzo[a]anthracene	1	mg/kg	0.038	ND		
Benzo[a]pyrene	1	mg/kg	0.038	ND		
Benzo[b]fluoranthene	1	mg/kg	0.038	0.040		
Benzo[g,h,i]perylene	1	mg/kg	0.038	ND		
Benzo[k]fluoranthene	1	mg/kg	0.038	ND		
bis(2-Chloroethoxy)methane	1	mg/kg	0.038	ND		
bis(2-Chloroethyl)ether	1	mg/kg	0.0095	ND		
bis(2-Chloroisopropyl)ether	1	mg/kg	0.038	ND		
bis(2-Ethylhexyl)phthalate	1	mg/kg	0.038	ND		
Butylbenzylphthalate	1	mg/kg	0.038	ND		
Caprolactam	1	mg/kg	0.038	ND		
Carbazole	1	mg/kg	0.038	ND		
Chrysene	1	mg/kg	0.038	ND		
Dibenzo[a,h]anthracene	1	mg/kg	0.038	ND		
Dibenzofuran	1	mg/kg	0.0095	ND		
Diethylphthalate	1	mg/kg	0.038	ND		
Dimethylphthalate	1	mg/kg	0.038	ND		
Di-n-butylphthalate	1	mg/kg	0.0095	ND		
Di-n-octylphthalate	1	mg/kg	0.038	ND		
Fluoranthene	1	mg/kg	0.038	0.042		
Fluorene	1	mg/kg	0.038	ND		
Hexachlorobenzene	1	mg/kg	0.038	ND		
Hexachlorobutadiene	1	mg/kg	0.038	ND		
Hexachlorocyclopentadiene	1	mg/kg	0.038	ND		
Hexachloroethane	1	mg/kg	0.038	ND		
Indeno[1,2,3-cd]pyrene	1	mg/kg	0.038	ND		
Isophorone	1	mg/kg	0.038	ND		
Naphthalene	1	mg/kg	0.0095	ND		
Nitrobenzene	1	mg/kg	0.038	ND		
N-Nitroso-di-n-propylamine	1	mg/kg	0.0095	ND		
N-Nitrosodiphenylamine	1	mg/kg	0.038	ND		
Pentachlorophenol	1	mg/kg	0.19	ND		
Phenanthrene	1	mg/kg	0.038	ND		
Phenol	1	mg/kg	0.038	ND		
Pyrene	1	mg/kg	0.038	0.061		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	50.35	50	58	148	101	
Phenol-d5	100.72	100	49	129	101	
Nitrobenzene-d5	35.39	50	52	129	71	
2-Fluorophenol	93.71	100	43	128	94	
2-Fluorobiphenyl	41.77	50	58	125	84	
2,4,6-Tribromophenol	102.41	100	54	145	102	

Sample ID: SB-15@ 3'
 Lab#: AD14901-002
 Matrix: Soil/Terracore

Collection Date: 12/27/2019
 Receipt Date: 12/28/2019

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	1	mg/kg	68	130		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	12.48	20	30	146	62	
Chlorobenzene	10.53	20	20	117	53	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1.01	mg/kg	0.0023	ND		
1,1,2,2-Tetrachloroethane	1.01	mg/kg	0.0023	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1.01	mg/kg	0.0023	ND		
1,1,2-Trichloroethane	1.01	mg/kg	0.0023	ND		
1,1-Dichloroethane	1.01	mg/kg	0.0023	ND		
1,1-Dichloroethene	1.01	mg/kg	0.0023	ND		
1,2,3-Trichlorobenzene	1.01	mg/kg	0.0023	ND		
1,2,4-Trichlorobenzene	1.01	mg/kg	0.0023	ND		
1,2-Dibromo-3-chloropropane	1.01	mg/kg	0.0023	ND		
1,2-Dibromoethane	1.01	mg/kg	0.00089	ND		
1,2-Dichlorobenzene	1.01	mg/kg	0.0023	ND		
1,2-Dichloroethane	1.01	mg/kg	0.0023	ND		
1,2-Dichloropropane	1.01	mg/kg	0.0023	ND		
1,3-Dichlorobenzene	1.01	mg/kg	0.0023	ND		
1,4-Dichlorobenzene	1.01	mg/kg	0.0023	ND		
1,4-Dioxane	1.01	mg/kg	0.11	ND		
2-Butanone	1.01	mg/kg	0.0023	ND		
2-Hexanone	1.01	mg/kg	0.0023	ND		
4-Methyl-2-pentanone	1.01	mg/kg	0.0023	ND		
Acetone	1.01	mg/kg	0.011	ND		
Benzene	1.01	mg/kg	0.0011	ND		
Bromochloromethane	1.01	mg/kg	0.0023	ND		
Bromodichloromethane	1.01	mg/kg	0.0023	ND		
Bromoform	1.01	mg/kg	0.0023	ND		
Bromomethane	1.01	mg/kg	0.0023	ND		
Carbon disulfide	1.01	mg/kg	0.0023	ND		
Carbon tetrachloride	1.01	mg/kg	0.0023	ND		
Chlorobenzene	1.01	mg/kg	0.0023	ND		
Chloroethane	1.01	mg/kg	0.0023	ND		
Chloroform	1.01	mg/kg	0.0023	ND		
Chloromethane	1.01	mg/kg	0.0023	ND		
cis-1,2-Dichloroethene	1.01	mg/kg	0.0023	ND		
cis-1,3-Dichloropropene	1.01	mg/kg	0.0023	ND		
Cyclohexane	1.01	mg/kg	0.0011	ND		
Dibromochloromethane	1.01	mg/kg	0.0023	ND		
Dichlorodifluoromethane	1.01	mg/kg	0.0023	ND		
Ethylbenzene	1.01	mg/kg	0.0011	ND		
Isopropylbenzene	1.01	mg/kg	0.0011	ND		
m&p-Xylenes	1.01	mg/kg	0.0011	ND		
Methyl Acetate	1.01	mg/kg	0.0023	ND		
Methylcyclohexane	1.01	mg/kg	0.0023	ND		
Methylene chloride	1.01	mg/kg	0.0023	0.016		
Methyl-t-butyl ether	1.01	mg/kg	0.0011	ND		
o-Xylene	1.01	mg/kg	0.0011	ND		
Styrene	1.01	mg/kg	0.0023	ND		
Tetrachloroethene	1.01	mg/kg	0.0023	ND		
Toluene	1.01	mg/kg	0.0011	ND		
trans-1,2-Dichloroethene	1.01	mg/kg	0.0023	ND		
trans-1,3-Dichloropropene	1.01	mg/kg	0.0023	ND		
Trichloroethene	1.01	mg/kg	0.0023	ND		
Trichlorofluoromethane	1.01	mg/kg	0.0023	ND		
Vinyl chloride	1.01	mg/kg	0.0023	ND		
Xylenes (Total)	1.01	mg/kg	0.0011	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	31.13	30	68	122	104	
Dibromofluoromethane	32.73	30	63	140	109	
Bromofluorobenzene	34.85	30	64	129	116	
1,2-Dichloroethane-d4	32.02	30	63	143	107	

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9120901

Project: WMATA-Northern Station

Sample ID: TMW-11 U
 Lab#: AD14517-001
 Matrix: Aqueous

Collection Date: 12/6/2019
 Receipt Date: 12/9/2019

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	ug/l	300	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	20.04	20	40	154	100	
Chlorobenzene	13.91	20	24	136	70	

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	1	ug/l	250	310		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	23.58	30	50	150	79	

Mercury (Water) 7470A

Analyte	DF	Units	RL	Result		
Mercury	1	ug/l	0.50	ND		

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	ug/l	0.25	ND		
Aroclor-1016	1	ug/l	0.25	ND		
Aroclor-1221	1	ug/l	0.25	ND		
Aroclor-1232	1	ug/l	0.25	ND		
Aroclor-1242	1	ug/l	0.25	ND		
Aroclor-1248	1	ug/l	0.25	ND		
Aroclor-1254	1	ug/l	0.25	ND		
Aroclor-1260	1	ug/l	0.25	ND		
Aroclor-1262	1	ug/l	0.25	ND		
Aroclor-1268	1	ug/l	0.25	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	80.11	100	39	132	80	
TCMX-Surrogate	77.53	100	39	132	78	
DCB-Surrogate	49.84	100	39	142	50	
DCB-Surrogate	47.37	100	39	142	47	

PP Metals 6010D

Analyte	DF	Units	RL	Result		
Barium	1	ug/l	50	160		
Chromium	1	ug/l	50	ND		
Copper	1	ug/l	50	ND		
Nickel	1	ug/l	50	ND		
Silver	1	ug/l	20	ND		
Zinc	1	ug/l	50	ND		

PP Metals 6020B

Analyte	DF	Units	RL	Result		
Antimony	1	ug/l	3.0	ND		
Arsenic	1	ug/l	2.0	6.4		
Beryllium	1	ug/l	1.0	ND		
Cadmium	1	ug/l	2.0	ND		
Lead	1	ug/l	3.0	8.9		
Selenium	1	ug/l	10	ND		
Thallium	1	ug/l	2.0	ND		

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result		
1,1'-Biphenyl	1	ug/l	2.0	ND		

Sample ID: TMW-11 U
 Lab#: AD14517-001
 Matrix: Aqueous

Collection Date: 12/6/2019
 Receipt Date: 12/9/2019

1,2,4,5-Tetrachlorobenzene	1	ug/l	2.0	ND
2,3,4,6-Tetrachlorophenol	1	ug/l	2.0	ND
2,4,5-Trichlorophenol	1	ug/l	2.0	ND
2,4,6-Trichlorophenol	1	ug/l	2.0	ND
2,4-Dichlorophenol	1	ug/l	0.50	ND
2,4-Dimethylphenol	1	ug/l	0.50	ND
2,4-Dinitrophenol	1	ug/l	10	ND
2,4-Dinitrotoluene	1	ug/l	2.0	ND
2,6-Dinitrotoluene	1	ug/l	2.0	ND
2-Chloronaphthalene	1	ug/l	2.0	ND
2-Chlorophenol	1	ug/l	2.0	ND
2-Methylnaphthalene	1	ug/l	2.0	ND
2-Methylphenol	1	ug/l	0.50	ND
2-Nitroaniline	1	ug/l	2.0	ND
2-Nitrophenol	1	ug/l	2.0	ND
3&4-Methylphenol	1	ug/l	0.50	ND
3,3'-Dichlorobenzidine	1	ug/l	2.0	ND
3-Nitroaniline	1	ug/l	2.0	ND
4,6-Dinitro-2-methylphenol	1	ug/l	10	ND
4-Bromophenyl-phenylether	1	ug/l	2.0	ND
4-Chloro-3-methylphenol	1	ug/l	2.0	ND
4-Chloroaniline	1	ug/l	0.50	ND
4-Chlorophenyl-phenylether	1	ug/l	2.0	ND
4-Nitroaniline	1	ug/l	2.0	ND
4-Nitrophenol	1	ug/l	2.0	ND
Acenaphthene	1	ug/l	2.0	ND
Acenaphthylene	1	ug/l	2.0	ND
Acetophenone	1	ug/l	2.0	ND
Anthracene	1	ug/l	2.0	ND
Atrazine	1	ug/l	2.0	ND
Benzaldehyde	1	ug/l	2.0	ND
Benzo[a]anthracene	1	ug/l	2.0	ND
Benzo[a]pyrene	1	ug/l	2.0	ND
Benzo[b]fluoranthene	1	ug/l	2.0	ND
Benzo[g,h,i]perylene	1	ug/l	2.0	ND
Benzo[k]fluoranthene	1	ug/l	2.0	ND
bis(2-Chloroethoxy)methane	1	ug/l	2.0	ND
bis(2-Chloroethyl)ether	1	ug/l	0.50	ND
bis(2-Chloroisopropyl)ether	1	ug/l	2.0	ND
bis(2-Ethylhexyl)phthalate	1	ug/l	2.0	ND
Butylbenzylphthalate	1	ug/l	2.0	ND
Caprolactam	1	ug/l	2.0	ND
Carbazole	1	ug/l	2.0	ND
Chrysene	1	ug/l	2.0	ND
Dibenzo[a,h]anthracene	1	ug/l	2.0	ND
Dibenzofuran	1	ug/l	0.50	ND
Diethylphthalate	1	ug/l	2.0	ND
Dimethylphthalate	1	ug/l	2.0	ND
Di-n-butylphthalate	1	ug/l	0.50	ND
Di-n-octylphthalate	1	ug/l	2.0	ND
Fluoranthene	1	ug/l	2.0	ND
Fluorene	1	ug/l	2.0	ND
Hexachlorobenzene	1	ug/l	2.0	ND
Hexachlorobutadiene	1	ug/l	2.0	ND
Hexachlorocyclopentadiene	1	ug/l	2.0	ND
Hexachloroethane	1	ug/l	2.0	ND
Indeno[1,2,3-cd]pyrene	1	ug/l	2.0	ND
Isophorone	1	ug/l	2.0	ND
Naphthalene	1	ug/l	0.50	ND
Nitrobenzene	1	ug/l	2.0	ND
N-Nitroso-di-n-propylamine	1	ug/l	0.50	ND
N-Nitrosodiphenylamine	1	ug/l	2.0	ND
Pentachlorophenol	1	ug/l	10	ND
Phenanthrene	1	ug/l	2.0	ND
Phenol	1	ug/l	2.0	ND
Pyrene	1	ug/l	2.0	ND

Sample ID: TMW-11 U
 Lab#: AD14517-001
 Matrix: Aqueous

Collection Date: 12/6/2019
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Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	61.41	50	55	146	123	
Phenol-d5	35.18	100	27	115	35	
Nitrobenzene-d5	43.12	50	51	139	86	
2-Fluorophenol	50.51	100	29	113	51	
2-Fluorobiphenyl	41.25	50	53	129	83	
2,4,6-Tribromophenol	114.28	100	54	149	114	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result
Total Petroleum Hydrocarbons	1	ug/l	300	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	20.04	20	40	154	100	
Chlorobenzene	13.91	20	24	136	70	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	5.5
1,2,3-Trichlorobenzene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dioxane	1	ug/l	50	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromochloromethane	1	ug/l	1.0	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	190
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	ND
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	ND
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	47
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	10
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	76
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	150

Sample ID: TMW-11 U
Lab#: AD14517-001
Matrix: Aqueous

Collection Date: 12/6/2019
Receipt Date: 12/9/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Xylenes (Total)		1	1.0		ND	
		ug/l				
Toluene-d8	25.64	30	79	111	85	
Dibromofluoromethane	33.87	30	73	131	113	
Bromofluorobenzene	28.51	30	82	112	95	
1,2-Dichloroethane-d4	32.72	30	78	128	109	

Volatile Organics (SIM) 8260

Analyte	DF	Units	RL	Result
1,2-Dibromoethane	1	ug/l	0.020	ND

Sample ID: TMW-11 F
Lab#: AD14517-002
Matrix: Aqueous

Collection Date: 12/6/2019
Receipt Date: 12/9/2019

Mercury (Water) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	ug/l	0.50	ND

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	ug/l	50	130
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Nickel	1	ug/l	50	ND
Silver	1	ug/l	20	ND
Zinc	1	ug/l	50	ND

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	ug/l	3.0	ND
Arsenic	1	ug/l	2.0	3.4
Beryllium	1	ug/l	1.0	ND
Cadmium	1	ug/l	2.0	ND
Lead	1	ug/l	3.0	ND
Selenium	1	ug/l	10	ND
Thallium	1	ug/l	2.0	ND

Sample ID: TMW-10 U
 Lab#: AD14517-003
 Matrix: Aqueous

Collection Date: 12/6/2019
 Receipt Date: 12/9/2019

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	ug/l	320	590		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	18.73	20	40	154	94	
Chlorobenzene	13.20	20	24	136	66	

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	1	ug/l	250	280		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	24.19	30	50	150	81	

Mercury (Water) 7470A

Analyte	DF	Units	RL	Result		
Mercury	1	ug/l	0.50	ND		

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	ug/l	0.25	ND		
Aroclor-1016	1	ug/l	0.25	ND		
Aroclor-1221	1	ug/l	0.25	ND		
Aroclor-1232	1	ug/l	0.25	ND		
Aroclor-1242	1	ug/l	0.25	ND		
Aroclor-1248	1	ug/l	0.25	ND		
Aroclor-1254	1	ug/l	0.25	ND		
Aroclor-1260	1	ug/l	0.25	ND		
Aroclor-1262	1	ug/l	0.25	ND		
Aroclor-1268	1	ug/l	0.25	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	74.58	100	39	132	75	
TCMX-Surrogate	68.74	100	39	132	69	
DCB-Surrogate	39.28	100	39	142	39	
DCB-Surrogate	38.11	100	39	142	38	S8

PP Metals 6010D

Analyte	DF	Units	RL	Result		
Barium	1	ug/l	50	98		
Chromium	1	ug/l	50	ND		
Copper	1	ug/l	50	ND		
Nickel	1	ug/l	50	ND		
Silver	1	ug/l	20	ND		
Zinc	1	ug/l	50	ND		

PP Metals 6020B

Analyte	DF	Units	RL	Result		
Antimony	1	ug/l	3.0	ND		
Arsenic	1	ug/l	2.0	ND		
Beryllium	1	ug/l	1.0	ND		
Cadmium	1	ug/l	2.0	ND		
Lead	1	ug/l	3.0	3.7		
Selenium	1	ug/l	10	ND		
Thallium	1	ug/l	2.0	ND		

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result		
1,1'-Biphenyl	1	ug/l	2.0	ND		
1,2,4,5-Tetrachlorobenzene	1	ug/l	2.0	ND		
2,3,4,6-Tetrachlorophenol	1	ug/l	2.0	ND		
2,4,5-Trichlorophenol	1	ug/l	2.0	ND		
2,4,6-Trichlorophenol	1	ug/l	2.0	ND		
2,4-Dichlorophenol	1	ug/l	0.50	ND		
2,4-Dimethylphenol	1	ug/l	0.50	ND		
2,4-Dinitrophenol	1	ug/l	10	ND		
2,4-Dinitrotoluene	1	ug/l	2.0	ND		

Sample ID: TMW-10 U
 Lab#: AD14517-003
 Matrix: Aqueous

Collection Date: 12/6/2019
 Receipt Date: 12/9/2019

2,6-Dinitrotoluene	1	ug/l	2.0	ND
2-Chloronaphthalene	1	ug/l	2.0	ND
2-Chlorophenol	1	ug/l	2.0	ND
2-Methylnaphthalene	1	ug/l	2.0	ND
2-Methylphenol	1	ug/l	0.50	ND
2-Nitroaniline	1	ug/l	2.0	ND
2-Nitrophenol	1	ug/l	2.0	ND
3&4-Methylphenol	1	ug/l	0.50	ND
3,3'-Dichlorobenzidine	1	ug/l	2.0	ND
3-Nitroaniline	1	ug/l	2.0	ND
4,6-Dinitro-2-methylphenol	1	ug/l	10	ND
4-Bromophenyl-phenylether	1	ug/l	2.0	ND
4-Chloro-3-methylphenol	1	ug/l	2.0	ND
4-Chloroaniline	1	ug/l	0.50	ND
4-Chlorophenyl-phenylether	1	ug/l	2.0	ND
4-Nitroaniline	1	ug/l	2.0	ND
4-Nitrophenol	1	ug/l	2.0	ND
Acenaphthene	1	ug/l	2.0	ND
Acenaphthylene	1	ug/l	2.0	ND
Acetophenone	1	ug/l	2.0	ND
Anthracene	1	ug/l	2.0	ND
Atrazine	1	ug/l	2.0	ND
Benzaldehyde	1	ug/l	2.0	ND
Benzo[a]anthracene	1	ug/l	2.0	ND
Benzo[a]pyrene	1	ug/l	2.0	ND
Benzo[b]fluoranthene	1	ug/l	2.0	ND
Benzo[g,h,i]perylene	1	ug/l	2.0	ND
Benzo[k]fluoranthene	1	ug/l	2.0	ND
bis(2-Chloroethoxy)methane	1	ug/l	2.0	ND
bis(2-Chloroethyl)ether	1	ug/l	0.50	ND
bis(2-Chloroisopropyl)ether	1	ug/l	2.0	ND
bis(2-Ethylhexyl)phthalate	1	ug/l	2.0	ND
Butylbenzylphthalate	1	ug/l	2.0	ND
Caprolactam	1	ug/l	2.0	ND
Carbazole	1	ug/l	2.0	ND
Chrysene	1	ug/l	2.0	ND
Dibenzo[a,h]anthracene	1	ug/l	2.0	ND
Dibenzofuran	1	ug/l	0.50	ND
Diethylphthalate	1	ug/l	2.0	ND
Dimethylphthalate	1	ug/l	2.0	ND
Di-n-butylphthalate	1	ug/l	0.50	ND
Di-n-octylphthalate	1	ug/l	2.0	ND
Fluoranthene	1	ug/l	2.0	ND
Fluorene	1	ug/l	2.0	ND
Hexachlorobenzene	1	ug/l	2.0	ND
Hexachlorobutadiene	1	ug/l	2.0	ND
Hexachlorocyclopentadiene	1	ug/l	2.0	ND
Hexachloroethane	1	ug/l	2.0	ND
Indeno[1,2,3-cd]pyrene	1	ug/l	2.0	ND
Isophorone	1	ug/l	2.0	ND
Naphthalene	1	ug/l	0.50	ND
Nitrobenzene	1	ug/l	2.0	ND
N-Nitroso-di-n-propylamine	1	ug/l	0.50	ND
N-Nitrosodiphenylamine	1	ug/l	2.0	ND
Pentachlorophenol	1	ug/l	10	ND
Phenanthrene	1	ug/l	2.0	ND
Phenol	1	ug/l	2.0	ND
Pyrene	1	ug/l	2.0	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	61.73	50	55	146	123	
Phenol-d5	34.42	100	27	115	34	
Nitrobenzene-d5	44.68	50	51	139	89	
2-Fluorophenol	48.30	100	29	113	48	
2-Fluorobiphenyl	39.88	50	53	129	80	
2,4,6-Tribromophenol	120.12	100	54	149	120	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result
Total Petroleum Hydrocarbons	1	ug/l	320	660

Sample ID: TMW-10 U
 Lab#: AD14517-003
 Matrix: Aqueous

Collection Date: 12/6/2019
 Receipt Date: 12/9/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	18.73	20	40	154	94	
Chlorobenzene	13.20	20	24	136	66	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,3-Trichlorobenzene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dioxane	1	ug/l	50	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromochloromethane	1	ug/l	1.0	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	4.7		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	9.3		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	8.6		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	19		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	2.5		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	1.4		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	11		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	4.1		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	26.85	30	79	111	90	
Dibromofluoromethane	30.13	30	73	131	100	
Bromofluorobenzene	29.47	30	82	112	98	
1,2-Dichloroethane-d4	28.98	30	78	128	97	

Volatile Organics (SIM) 8260

Analyte	DF	Units	RL	Result
1,2-Dibromoethane	1	ug/l	0.020	ND

Sample ID: TMW-10 F
Lab#: AD14517-004
Matrix: Aqueous

Collection Date: 12/6/2019
Receipt Date: 12/9/2019

Mercury (Water) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	ug/l	0.50	ND

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	ug/l	50	91
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Nickel	1	ug/l	50	ND
Silver	1	ug/l	20	ND
Zinc	1	ug/l	50	ND

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	ug/l	3.0	ND
Arsenic	1	ug/l	2.0	ND
Beryllium	1	ug/l	1.0	ND
Cadmium	1	ug/l	2.0	ND
Lead	1	ug/l	3.0	ND
Selenium	1	ug/l	10	ND
Thallium	1	ug/l	2.0	ND



CHAIN OF CUSTODY RECORD

Hampton-Clarke
 A Women-Owned, Disadvantaged, Small Business Enterprise

Project # (Lab Use Only)
9126901

Page **1** of **1**

3) Reporting Requirements (Please Circle)

Customer Information

1a) Customer: INTERTEK - FS I
 Address: 2030 Eubank Rd
Manassas VA
 1b) Email/Cell/Fax/Ph: 703 608 9300
men.lin@intertek.com
 1c) Send Invoice to: men.lin@intertek.com
 1d) Send Report to: men.lin@intertek.com

Project Information

2a) Project: UPDATA
Washington Station
BOBBY LIN
 2b) Project Mgr: BOBBY LIN
 2c) Project Location (City/State): WASHINGTON, DC
 2d) Quote/PO # (if applicable):

Turnaround When Available:

1 Business Day (100%)*
 2 Business Days (75%)*
 3 Business Days (50%)*
 4 Business Days (35%)*
 5 Business Days (25%)*
 8 Business Days (Stand Other: 10Hr for bottles TMU-11 & TMU-10)

Report Type: Summary
 Results + QC (Waste)
 Reduced: [] NJ [] NY [] PA [] Other []
 NJ Full / NY ASP CatB
 NV ASP CatA

Electronic Data Deliv. NJ Hazsite
 Excel Reg. NJ / NY / PA
 EnviroData
 EQUS: [] 4File [] EZ [] NYDEC [] Region 2 or 5
 Other: _____

FOR LAB USE ONLY

Batch # AS14517

Matrix Codes: DW - Drinking Water, GW - Ground Water, WW - Waste Water, S - Soil, SL - Sludge, OL - Oil, A - Air, OT - Other (please specify under item 9, Comments)

7) Analysis (Specify methods & parameter lists)

Sample Type	Grab (G)	8260 VOCs	8270 SVOCs	13PP	PCB	TPH - GRD
		X	X	X	X	X

8) # of Bottles: 10Hr for bottles TMU-11 & TMU-10

9) Comments: 16 containers

Lab Sample #	4) Customer Sample ID	5) Matrix	6) Sample		Composite (C)	Grab (G)	7) Analysis (Specify methods & parameter lists)							8) # of Bottles						9) Comments
			Date	Time			None	MeOH	En Core	NaOH	HCl	H2SO4	HNO3	Other:						
001/002	TMU-11	GM	12/6/10	117			X	X	X	X	X	X	X	X	X	X	X	X	16 containers	
003/004	TMU-10	GM	12/6/10	1350			X	X	X	X	X	X	X	X	X	X	X	X	16 containers	

10) Requisitioned by: [Signature] Accepted by: [Signature]

Date: 12/16/10 Date: 12/16/10 Time: 8:30

Comments, Notes, Special Requirements, HAZARDS

Indicate if low-level methods required to meet current groundwater standards (SPLP for soil):

BN or BNA (8270D SIM) **NJDEP GWQS**
 VOC (8260C SIM or 8011) **NJDEP SRS**
 SPLP (BN, BNA, Metals) **NJDEP SPLP**
 1,4 Dioxane **Other (specify):**

Project-Specific Reporting Limits
 High Contaminant Concentrations
 NJ LSRP Project (also check boxes above/right)
 NJ LSRP Project (also check boxes above/right)
 A fee of \$3/sample will be assessed for storage should sample not be activated for any analysis.

Project-Specific Reporting Limits
 High Contaminant Concentrations
 NJ LSRP Project (also check boxes above/right)
 NJ LSRP Project (also check boxes above/right)
 A fee of \$3/sample will be assessed for storage should sample not be activated for any analysis.

Additional Notes: RINZO - R Date: 12/16/10

Cooler Temperature: 2.67.7

Internal use: sampling plan (check box) HC [] or client [] FSP#

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9121110

Project: WMATA-Northern Location

Sample ID: TMW-05
 Lab#: AD14583-001
 Matrix: Aqueous

Collection Date: 12/9/2019
 Receipt Date: 12/10/2019

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	10	ug/l	3000	28000		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	0.00	20	40	154	0	S8
Chlorobenzene	0.00	20	24	136	0	S8

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	1	ug/l	250	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	22.89	30	50	150	76	

Mercury (Water) 7470A

Analyte	DF	Units	RL	Result		
Mercury	1	ug/l	0.50	ND		

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	ug/l	0.25	ND		
Aroclor-1016	1	ug/l	0.25	ND		
Aroclor-1221	1	ug/l	0.25	ND		
Aroclor-1232	1	ug/l	0.25	ND		
Aroclor-1242	1	ug/l	0.25	ND		
Aroclor-1248	1	ug/l	0.25	ND		
Aroclor-1254	1	ug/l	0.25	ND		
Aroclor-1260	1	ug/l	0.25	ND		
Aroclor-1262	1	ug/l	0.25	ND		
Aroclor-1268	1	ug/l	0.25	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	69.98	100	39	132	70	
TCMX-Surrogate	67.62	100	39	132	68	
DCB-Surrogate	56.28	100	39	142	56	
DCB-Surrogate	58.50	100	39	142	58	

PP Metals 6010D

Analyte	DF	Units	RL	Result		
Barium	1	ug/l	50	260		
Chromium	1	ug/l	50	ND		
Copper	1	ug/l	50	ND		
Nickel	1	ug/l	50	ND		
Silver	1	ug/l	20	ND		
Zinc	1	ug/l	50	ND		

PP Metals 6020B

Analyte	DF	Units	RL	Result		
Antimony	1	ug/l	3.0	ND		
Arsenic	1	ug/l	2.0	4.1		
Beryllium	1	ug/l	1.0	ND		
Cadmium	1	ug/l	2.0	ND		
Lead	1	ug/l	3.0	9.9		
Selenium	1	ug/l	10	ND		
Thallium	1	ug/l	2.0	ND		

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result		
1,1'-Biphenyl	1	ug/l	2.2	ND		

Sample ID: TMW-05
 Lab#: AD14583-001
 Matrix: Aqueous

Collection Date: 12/9/2019
 Receipt Date: 12/10/2019

1,2,4,5-Tetrachlorobenzene	1	ug/l	2.2	ND
2,3,4,6-Tetrachlorophenol	1	ug/l	2.2	ND
2,4,5-Trichlorophenol	1	ug/l	2.2	ND
2,4,6-Trichlorophenol	1	ug/l	2.2	ND
2,4-Dichlorophenol	1	ug/l	0.56	ND
2,4-Dimethylphenol	1	ug/l	0.56	ND
2,4-Dinitrophenol	1	ug/l	11	ND
2,4-Dinitrotoluene	1	ug/l	2.2	ND
2,6-Dinitrotoluene	1	ug/l	2.2	ND
2-Chloronaphthalene	1	ug/l	2.2	ND
2-Chlorophenol	1	ug/l	2.2	ND
2-Methylnaphthalene	1	ug/l	2.2	13
2-Methylphenol	1	ug/l	0.56	ND
2-Nitroaniline	1	ug/l	2.2	ND
2-Nitrophenol	1	ug/l	2.2	ND
3&4-Methylphenol	1	ug/l	0.56	ND
3,3'-Dichlorobenzidine	1	ug/l	2.2	ND
3-Nitroaniline	1	ug/l	2.2	ND
4,6-Dinitro-2-methylphenol	1	ug/l	11	ND
4-Bromophenyl-phenylether	1	ug/l	2.2	ND
4-Chloro-3-methylphenol	1	ug/l	2.2	ND
4-Chloroaniline	1	ug/l	0.56	ND
4-Chlorophenyl-phenylether	1	ug/l	2.2	ND
4-Nitroaniline	1	ug/l	2.2	ND
4-Nitrophenol	1	ug/l	2.2	ND
Acenaphthene	1	ug/l	2.2	ND
Acenaphthylene	1	ug/l	2.2	ND
Acetophenone	1	ug/l	2.2	ND
Anthracene	1	ug/l	2.2	ND
Atrazine	1	ug/l	2.2	ND
Benzaldehyde	1	ug/l	2.2	ND
Benzo[a]anthracene	1	ug/l	2.2	ND
Benzo[a]pyrene	1	ug/l	2.2	ND
Benzo[b]fluoranthene	1	ug/l	2.2	ND
Benzo[g,h,i]perylene	1	ug/l	2.2	ND
Benzo[k]fluoranthene	1	ug/l	2.2	ND
bis(2-Chloroethoxy)methane	1	ug/l	2.2	ND
bis(2-Chloroethyl)ether	1	ug/l	0.56	ND
bis(2-Chloroisopropyl)ether	1	ug/l	2.2	ND
bis(2-Ethylhexyl)phthalate	1	ug/l	2.2	ND
Butylbenzylphthalate	1	ug/l	2.2	ND
Caprolactam	1	ug/l	2.2	ND
Carbazole	1	ug/l	2.2	ND
Chrysene	1	ug/l	2.2	ND
Dibenzo[a,h]anthracene	1	ug/l	2.2	ND
Dibenzofuran	1	ug/l	0.56	ND
Diethylphthalate	1	ug/l	2.2	ND
Dimethylphthalate	1	ug/l	2.2	ND
Di-n-butylphthalate	1	ug/l	0.56	ND
Di-n-octylphthalate	1	ug/l	2.2	ND
Fluoranthene	1	ug/l	2.2	ND
Fluorene	1	ug/l	2.2	ND
Hexachlorobenzene	1	ug/l	2.2	ND
Hexachlorobutadiene	1	ug/l	2.2	ND
Hexachlorocyclopentadiene	1	ug/l	2.2	ND
Hexachloroethane	1	ug/l	2.2	ND
Indeno[1,2,3-cd]pyrene	1	ug/l	2.2	ND
Isophorone	1	ug/l	2.2	ND
Naphthalene	1	ug/l	0.56	ND
Nitrobenzene	1	ug/l	2.2	ND
N-Nitroso-di-n-propylamine	1	ug/l	0.56	ND
N-Nitrosodiphenylamine	1	ug/l	2.2	ND
Pentachlorophenol	1	ug/l	11	ND
Phenanthrene	1	ug/l	2.2	ND
Phenol	1	ug/l	2.2	ND
Pyrene	1	ug/l	2.2	ND

Sample ID: TMW-05
 Lab#: AD14583-001
 Matrix: Aqueous

Collection Date: 12/9/2019
 Receipt Date: 12/10/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	49.57	50	55	146	99	
Phenol-d5	38.12	100	27	115	38	
Nitrobenzene-d5	52.70	50	51	139	105	
2-Fluorophenol	46.49	100	29	113	46	
2-Fluorobiphenyl	46.44	50	53	129	93	
2,4,6-Tribromophenol	103.71	100	54	149	104	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	10	ug/l	3000	35000		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	0.00	20	40	154	0	S8
Chlorobenzene	0.00	20	24	136	0	S8

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,3-Trichlorobenzene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dioxane	1	ug/l	50	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromochloromethane	1	ug/l	1.0	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	2.6
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	5.8
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	5.3
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	1.4
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND

Sample ID: TMW-05
Lab#: AD14583-001
Matrix: Aqueous

Collection Date: 12/9/2019
Receipt Date: 12/10/2019

Xylenes (Total)	1	ug/l	1.0	1.4		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	28.56	30	79	111	95	
Dibromofluoromethane	34.88	30	73	131	116	
Bromofluorobenzene	31.80	30	82	112	106	
1,2-Dichloroethane-d4	37.65	30	78	128	125	

Volatile Organics (SIM) 8260

Analyte	DF	Units	RL	Result
1,2-Dibromoethane	1	ug/l	0.020	ND

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9121210

Project: WMATA-Northern Station

Sample ID: TMW-04 U
 Lab#: AD14611-001
 Matrix: Aqueous

Collection Date: 12/11/2019
 Receipt Date: 12/12/2019

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	ug/l	320	3100		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	18.49	20	40	154	92	
Chlorobenzene	12.97	20	24	136	65	

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	1	ug/l	250	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	23.45	30	50	150	78	

Mercury (Water) 7470A

Analyte	DF	Units	RL	Result		
Mercury	1	ug/l	0.50	ND		

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	ug/l	0.25	ND		
Aroclor-1016	1	ug/l	0.25	ND		
Aroclor-1221	1	ug/l	0.25	ND		
Aroclor-1232	1	ug/l	0.25	ND		
Aroclor-1242	1	ug/l	0.25	ND		
Aroclor-1248	1	ug/l	0.25	ND		
Aroclor-1254	1	ug/l	0.25	ND		
Aroclor-1260	1	ug/l	0.25	ND		
Aroclor-1262	1	ug/l	0.25	ND		
Aroclor-1268	1	ug/l	0.25	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	52.89	100	39	132	53	
TCMX-Surrogate	50.25	100	39	132	50	
DCB-Surrogate	55.29	100	39	142	55	
DCB-Surrogate	56.42	100	39	142	56	

PP Metals 6010D

Analyte	DF	Units	RL	Result		
Barium	1	ug/l	50	100		
Chromium	1	ug/l	50	ND		
Copper	1	ug/l	50	ND		
Nickel	1	ug/l	50	ND		
Silver	1	ug/l	20	ND		
Zinc	1	ug/l	50	ND		

PP Metals 6020B

Analyte	DF	Units	RL	Result		
Antimony	1	ug/l	3.0	ND		
Arsenic	1	ug/l	2.0	ND		
Beryllium	1	ug/l	1.0	ND		
Cadmium	1	ug/l	2.0	ND		
Lead	1	ug/l	3.0	ND		
Selenium	1	ug/l	10	ND		
Thallium	1	ug/l	2.0	ND		

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result		
1,1'-Biphenyl	1	ug/l	2.0	ND		

Sample ID: TMW-04 U
 Lab#: AD14611-001
 Matrix: Aqueous

Collection Date: 12/11/2019
 Receipt Date: 12/12/2019

1,2,4,5-Tetrachlorobenzene	1	ug/l	2.0	ND
2,3,4,6-Tetrachlorophenol	1	ug/l	2.0	ND
2,4,5-Trichlorophenol	1	ug/l	2.0	ND
2,4,6-Trichlorophenol	1	ug/l	2.0	ND
2,4-Dichlorophenol	1	ug/l	0.50	ND
2,4-Dimethylphenol	1	ug/l	0.50	ND
2,4-Dinitrophenol	1	ug/l	10	ND
2,4-Dinitrotoluene	1	ug/l	2.0	ND
2,6-Dinitrotoluene	1	ug/l	2.0	ND
2-Chloronaphthalene	1	ug/l	2.0	ND
2-Chlorophenol	1	ug/l	2.0	ND
2-Methylnaphthalene	1	ug/l	2.0	41
2-Methylphenol	1	ug/l	0.50	ND
2-Nitroaniline	1	ug/l	2.0	ND
2-Nitrophenol	1	ug/l	2.0	ND
3&4-Methylphenol	1	ug/l	0.50	ND
3,3'-Dichlorobenzidine	1	ug/l	2.0	ND
3-Nitroaniline	1	ug/l	2.0	ND
4,6-Dinitro-2-methylphenol	1	ug/l	10	ND
4-Bromophenyl-phenylether	1	ug/l	2.0	ND
4-Chloro-3-methylphenol	1	ug/l	2.0	ND
4-Chloroaniline	1	ug/l	0.50	ND
4-Chlorophenyl-phenylether	1	ug/l	2.0	ND
4-Nitroaniline	1	ug/l	2.0	ND
4-Nitrophenol	1	ug/l	2.0	ND
Acenaphthene	1	ug/l	2.0	3.9
Acenaphthylene	1	ug/l	2.0	ND
Acetophenone	1	ug/l	2.0	ND
Anthracene	1	ug/l	2.0	ND
Atrazine	1	ug/l	2.0	ND
Benzaldehyde	1	ug/l	2.0	ND
Benzo[a]anthracene	1	ug/l	2.0	ND
Benzo[a]pyrene	1	ug/l	2.0	ND
Benzo[b]fluoranthene	1	ug/l	2.0	ND
Benzo[g,h,i]perylene	1	ug/l	2.0	ND
Benzo[k]fluoranthene	1	ug/l	2.0	ND
bis(2-Chloroethoxy)methane	1	ug/l	2.0	ND
bis(2-Chloroethyl)ether	1	ug/l	0.50	ND
bis(2-Chloroisopropyl)ether	1	ug/l	2.0	ND
bis(2-Ethylhexyl)phthalate	1	ug/l	2.0	ND
Butylbenzylphthalate	1	ug/l	2.0	ND
Caprolactam	1	ug/l	2.0	ND
Carbazole	1	ug/l	2.0	ND
Chrysene	1	ug/l	2.0	ND
Dibenzo[a,h]anthracene	1	ug/l	2.0	ND
Dibenzofuran	1	ug/l	0.50	3.3
Diethylphthalate	1	ug/l	2.0	ND
Dimethylphthalate	1	ug/l	2.0	ND
Di-n-butylphthalate	1	ug/l	0.50	ND
Di-n-octylphthalate	1	ug/l	2.0	ND
Fluoranthene	1	ug/l	2.0	2.3
Fluorene	1	ug/l	2.0	4.9
Hexachlorobenzene	1	ug/l	2.0	ND
Hexachlorobutadiene	1	ug/l	2.0	ND
Hexachlorocyclopentadiene	1	ug/l	2.0	ND
Hexachloroethane	1	ug/l	2.0	ND
Indeno[1,2,3-cd]pyrene	1	ug/l	2.0	ND
Isophorone	1	ug/l	2.0	ND
Naphthalene	1	ug/l	0.50	2.6
Nitrobenzene	1	ug/l	2.0	ND
N-Nitroso-di-n-propylamine	1	ug/l	0.50	ND
N-Nitrosodiphenylamine	1	ug/l	2.0	ND
Pentachlorophenol	1	ug/l	10	ND
Phenanthrene	1	ug/l	2.0	9.8
Phenol	1	ug/l	2.0	ND
Pyrene	1	ug/l	2.0	ND

Sample ID: TMW-04 U
 Lab#: AD14611-001
 Matrix: Aqueous

Collection Date: 12/11/2019
 Receipt Date: 12/12/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	47.72	50	55	146	95	
Phenol-d5	30.12	100	27	115	30	
Nitrobenzene-d5	51.23	50	51	139	102	
2-Fluorophenol	44.94	100	29	113	45	
2-Fluorobiphenyl	36.81	50	53	129	74	
2,4,6-Tribromophenol	98.56	100	54	149	99	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	1	ug/l	320	3400		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	18.49	20	40	154	92	
Chlorobenzene	12.97	20	24	136	65	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,3-Trichlorobenzene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dioxane	1	ug/l	50	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	0.92
Bromochloromethane	1	ug/l	1.0	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	0.50	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	ND
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	13
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	1.3
Methylene chloride	1	ug/l	1.0	3.0
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND

Sample ID: TMW-04 U
Lab#: AD14611-001
Matrix: Aqueous

Collection Date: 12/11/2019
Receipt Date: 12/12/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Xylenes (Total)		1	1.0		ND	
		ug/l				
Toluene-d8	28.71	30	79	111	96	
Dibromofluoromethane	30.54	30	73	131	102	
Bromofluorobenzene	31.77	30	82	112	106	
1,2-Dichloroethane-d4	31.28	30	78	128	104	

Volatile Organics (SIM) 8260

Analyte	DF	Units	RL	Result
1,2-Dibromoethane	1	ug/l	0.020	ND

Sample ID: TMW-04 F
Lab#: AD14611-002
Matrix: Aqueous

Collection Date: 12/11/2019
Receipt Date: 12/12/2019

Mercury (Water) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	ug/l	0.50	ND

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	ug/l	50	110
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Nickel	1	ug/l	50	ND
Silver	1	ug/l	20	ND
Zinc	1	ug/l	50	ND

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	ug/l	3.0	ND
Arsenic	1	ug/l	2.0	ND
Beryllium	1	ug/l	1.0	ND
Cadmium	1	ug/l	2.0	ND
Lead	1	ug/l	3.0	ND
Selenium	1	ug/l	10	ND
Thallium	1	ug/l	2.0	ND

Sample ID: TMW-01 U
 Lab#: AD14611-003
 Matrix: Aqueous

Collection Date: 12/11/2019
 Receipt Date: 12/12/2019

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	ug/l	300	2300		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	16.87	20	40	154	84	
Chlorobenzene	18.08	20	24	136	90	

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	1	ug/l	250	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	24.03	30	50	150	80	

Mercury (Water) 7470A

Analyte	DF	Units	RL	Result		
Mercury	1	ug/l	0.50	ND		

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	ug/l	0.25	0.64		
Aroclor-1016	1	ug/l	0.25	ND		
Aroclor-1221	1	ug/l	0.25	ND		
Aroclor-1232	1	ug/l	0.25	ND		
Aroclor-1242	1	ug/l	0.25	ND		
Aroclor-1248	1	ug/l	0.25	ND		
Aroclor-1254	1	ug/l	0.25	0.64		
Aroclor-1260	1	ug/l	0.25	ND		
Aroclor-1262	1	ug/l	0.25	ND		
Aroclor-1268	1	ug/l	0.25	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	71.84	100	39	132	72	
TCMX-Surrogate	70.42	100	39	132	70	
DCB-Surrogate	57.91	100	39	142	58	
DCB-Surrogate	61.19	100	39	142	61	

PP Metals 6010D

Analyte	DF	Units	RL	Result		
Barium	1	ug/l	50	370		
Chromium	1	ug/l	50	ND		
Copper	1	ug/l	50	ND		
Nickel	1	ug/l	50	ND		
Silver	1	ug/l	20	ND		
Zinc	1	ug/l	50	ND		

PP Metals 6020B

Analyte	DF	Units	RL	Result		
Antimony	1	ug/l	3.0	ND		
Arsenic	1	ug/l	2.0	3.4		
Beryllium	1	ug/l	1.0	ND		
Cadmium	1	ug/l	2.0	ND		
Lead	1	ug/l	3.0	15		
Selenium	1	ug/l	10	ND		
Thallium	1	ug/l	2.0	ND		

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result		
1,1'-Biphenyl	1	ug/l	2.0	ND		
1,2,4,5-Tetrachlorobenzene	1	ug/l	2.0	ND		
2,3,4,6-Tetrachlorophenol	1	ug/l	2.0	ND		
2,4,5-Trichlorophenol	1	ug/l	2.0	ND		
2,4,6-Trichlorophenol	1	ug/l	2.0	ND		
2,4-Dichlorophenol	1	ug/l	0.50	ND		
2,4-Dimethylphenol	1	ug/l	0.50	ND		
2,4-Dinitrophenol	1	ug/l	10	ND		
2,4-Dinitrotoluene	1	ug/l	2.0	ND		

Sample ID: TMW-01 U
 Lab#: AD14611-003
 Matrix: Aqueous

Collection Date: 12/11/2019
 Receipt Date: 12/12/2019

2,6-Dinitrotoluene	1	ug/l	2.0	ND
2-Chloronaphthalene	1	ug/l	2.0	ND
2-Chlorophenol	1	ug/l	2.0	ND
2-Methylnaphthalene	1	ug/l	2.0	ND
2-Methylphenol	1	ug/l	0.50	ND
2-Nitroaniline	1	ug/l	2.0	ND
2-Nitrophenol	1	ug/l	2.0	ND
3&4-Methylphenol	1	ug/l	0.50	ND
3,3'-Dichlorobenzidine	1	ug/l	2.0	ND
3-Nitroaniline	1	ug/l	2.0	ND
4,6-Dinitro-2-methylphenol	1	ug/l	10	ND
4-Bromophenyl-phenylether	1	ug/l	2.0	ND
4-Chloro-3-methylphenol	1	ug/l	2.0	ND
4-Chloroaniline	1	ug/l	0.50	ND
4-Chlorophenyl-phenylether	1	ug/l	2.0	ND
4-Nitroaniline	1	ug/l	2.0	ND
4-Nitrophenol	1	ug/l	2.0	ND
Acenaphthene	1	ug/l	2.0	ND
Acenaphthylene	1	ug/l	2.0	ND
Acetophenone	1	ug/l	2.0	ND
Anthracene	1	ug/l	2.0	ND
Atrazine	1	ug/l	2.0	ND
Benzaldehyde	1	ug/l	2.0	ND
Benzo[a]anthracene	1	ug/l	2.0	ND
Benzo[a]pyrene	1	ug/l	2.0	ND
Benzo[b]fluoranthene	1	ug/l	2.0	ND
Benzo[g,h,i]perylene	1	ug/l	2.0	ND
Benzo[k]fluoranthene	1	ug/l	2.0	ND
bis(2-Chloroethoxy)methane	1	ug/l	2.0	ND
bis(2-Chloroethyl)ether	1	ug/l	0.50	ND
bis(2-Chloroisopropyl)ether	1	ug/l	2.0	ND
bis(2-Ethylhexyl)phthalate	1	ug/l	2.0	ND
Butylbenzylphthalate	1	ug/l	2.0	ND
Caprolactam	1	ug/l	2.0	ND
Carbazole	1	ug/l	2.0	ND
Chrysene	1	ug/l	2.0	ND
Dibenzo[a,h]anthracene	1	ug/l	2.0	ND
Dibenzofuran	1	ug/l	0.50	ND
Diethylphthalate	1	ug/l	2.0	ND
Dimethylphthalate	1	ug/l	2.0	ND
Di-n-butylphthalate	1	ug/l	0.50	ND
Di-n-octylphthalate	1	ug/l	2.0	ND
Fluoranthene	1	ug/l	2.0	ND
Fluorene	1	ug/l	2.0	ND
Hexachlorobenzene	1	ug/l	2.0	ND
Hexachlorobutadiene	1	ug/l	2.0	ND
Hexachlorocyclopentadiene	1	ug/l	2.0	ND
Hexachloroethane	1	ug/l	2.0	ND
Indeno[1,2,3-cd]pyrene	1	ug/l	2.0	ND
Isophorone	1	ug/l	2.0	ND
Naphthalene	1	ug/l	0.50	ND
Nitrobenzene	1	ug/l	2.0	ND
N-Nitroso-di-n-propylamine	1	ug/l	0.50	ND
N-Nitrosodiphenylamine	1	ug/l	2.0	ND
Pentachlorophenol	1	ug/l	10	ND
Phenanthrene	1	ug/l	2.0	ND
Phenol	1	ug/l	2.0	ND
Pyrene	1	ug/l	2.0	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	42.73	50	55	146	85	
Phenol-d5	27.76	100	27	115	28	
Nitrobenzene-d5	39.18	50	51	139	78	
2-Fluorophenol	39.13	100	29	113	39	
2-Fluorobiphenyl	36.16	50	53	129	72	
2,4,6-Tribromophenol	88.09	100	54	149	88	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result
Total Petroleum Hydrocarbons	1	ug/l	300	2700

Sample ID: TMW-01 U
 Lab#: AD14611-003
 Matrix: Aqueous

Collection Date: 12/11/2019
 Receipt Date: 12/12/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	16.87	20	40	154	84	
Chlorobenzene	18.08	20	24	136	90	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,3-Trichlorobenzene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dioxane	1	ug/l	50	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromochloromethane	1	ug/l	1.0	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	0.50	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	1.3		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	ND		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	28.75	30	79	111	96	
Dibromofluoromethane	31.20	30	73	131	104	
Bromofluorobenzene	30.40	30	82	112	101	
1,2-Dichloroethane-d4	31.21	30	78	128	104	

Volatile Organics (SIM) 8260

Analyte	DF	Units	RL	Result
1,2-Dibromoethane	1	ug/l	0.020	ND

Sample ID: TMW-01 F
Lab#: AD14611-004
Matrix: Aqueous

Collection Date: 12/11/2019
Receipt Date: 12/12/2019

Mercury (Water) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	ug/l	0.50	ND

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	ug/l	50	360
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Nickel	1	ug/l	50	ND
Silver	1	ug/l	20	ND
Zinc	1	ug/l	50	ND

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	ug/l	3.0	ND
Arsenic	1	ug/l	2.0	2.6
Beryllium	1	ug/l	1.0	ND
Cadmium	1	ug/l	2.0	ND
Lead	1	ug/l	3.0	ND
Selenium	1	ug/l	10	ND
Thallium	1	ug/l	2.0	ND

Sample ID: TMW-03 U
 Lab#: AD14611-005
 Matrix: Aqueous

Collection Date: 12/11/2019
 Receipt Date: 12/12/2019

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	ug/l	300	3200		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	20.16	20	40	154	101	
Chlorobenzene	16.66	20	24	136	83	

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	1	ug/l	250	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	22.44	30	50	150	75	

Mercury (Water) 7470A

Analyte	DF	Units	RL	Result		
Mercury	1	ug/l	0.50	ND		

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	ug/l	0.25	ND		
Aroclor-1016	1	ug/l	0.25	ND		
Aroclor-1221	1	ug/l	0.25	ND		
Aroclor-1232	1	ug/l	0.25	ND		
Aroclor-1242	1	ug/l	0.25	ND		
Aroclor-1248	1	ug/l	0.25	ND		
Aroclor-1254	1	ug/l	0.25	ND		
Aroclor-1260	1	ug/l	0.25	ND		
Aroclor-1262	1	ug/l	0.25	ND		
Aroclor-1268	1	ug/l	0.25	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	74.22	100	39	132	74	
TCMX-Surrogate	74.85	100	39	132	75	
DCB-Surrogate	57.53	100	39	142	58	
DCB-Surrogate	59.67	100	39	142	60	

PP Metals 6010D

Analyte	DF	Units	RL	Result		
Barium	1	ug/l	50	130		
Chromium	1	ug/l	50	ND		
Copper	1	ug/l	50	ND		
Nickel	1	ug/l	50	ND		
Silver	1	ug/l	20	ND		
Zinc	1	ug/l	50	ND		

PP Metals 6020B

Analyte	DF	Units	RL	Result		
Antimony	1	ug/l	3.0	ND		
Arsenic	1	ug/l	2.0	ND		
Beryllium	1	ug/l	1.0	ND		
Cadmium	1	ug/l	2.0	ND		
Lead	1	ug/l	3.0	ND		
Selenium	1	ug/l	10	ND		
Thallium	1	ug/l	2.0	ND		

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result		
1,1'-Biphenyl	1	ug/l	2.0	ND		
1,2,4,5-Tetrachlorobenzene	1	ug/l	2.0	ND		
2,3,4,6-Tetrachlorophenol	1	ug/l	2.0	ND		
2,4,5-Trichlorophenol	1	ug/l	2.0	ND		
2,4,6-Trichlorophenol	1	ug/l	2.0	ND		
2,4-Dichlorophenol	1	ug/l	0.50	ND		
2,4-Dimethylphenol	1	ug/l	0.50	ND		
2,4-Dinitrophenol	1	ug/l	10	ND		
2,4-Dinitrotoluene	1	ug/l	2.0	ND		

Sample ID: TMW-03 U
 Lab#: AD14611-005
 Matrix: Aqueous

Collection Date: 12/11/2019
 Receipt Date: 12/12/2019

2,6-Dinitrotoluene	1	ug/l	2.0	ND
2-Chloronaphthalene	1	ug/l	2.0	ND
2-Chlorophenol	1	ug/l	2.0	ND
2-Methylnaphthalene	1	ug/l	2.0	ND
2-Methylphenol	1	ug/l	0.50	ND
2-Nitroaniline	1	ug/l	2.0	ND
2-Nitrophenol	1	ug/l	2.0	ND
3&4-Methylphenol	1	ug/l	0.50	ND
3,3'-Dichlorobenzidine	1	ug/l	2.0	ND
3-Nitroaniline	1	ug/l	2.0	ND
4,6-Dinitro-2-methylphenol	1	ug/l	10	ND
4-Bromophenyl-phenylether	1	ug/l	2.0	ND
4-Chloro-3-methylphenol	1	ug/l	2.0	ND
4-Chloroaniline	1	ug/l	0.50	ND
4-Chlorophenyl-phenylether	1	ug/l	2.0	ND
4-Nitroaniline	1	ug/l	2.0	ND
4-Nitrophenol	1	ug/l	2.0	ND
Acenaphthene	1	ug/l	2.0	ND
Acenaphthylene	1	ug/l	2.0	ND
Acetophenone	1	ug/l	2.0	ND
Anthracene	1	ug/l	2.0	ND
Atrazine	1	ug/l	2.0	ND
Benzaldehyde	1	ug/l	2.0	ND
Benzo[a]anthracene	1	ug/l	2.0	ND
Benzo[a]pyrene	1	ug/l	2.0	ND
Benzo[b]fluoranthene	1	ug/l	2.0	ND
Benzo[g,h,i]perylene	1	ug/l	2.0	ND
Benzo[k]fluoranthene	1	ug/l	2.0	ND
bis(2-Chloroethoxy)methane	1	ug/l	2.0	ND
bis(2-Chloroethyl)ether	1	ug/l	0.50	ND
bis(2-Chloroisopropyl)ether	1	ug/l	2.0	ND
bis(2-Ethylhexyl)phthalate	1	ug/l	2.0	ND
Butylbenzylphthalate	1	ug/l	2.0	ND
Caprolactam	1	ug/l	2.0	ND
Carbazole	1	ug/l	2.0	ND
Chrysene	1	ug/l	2.0	ND
Dibenzo[a,h]anthracene	1	ug/l	2.0	ND
Dibenzofuran	1	ug/l	0.50	ND
Diethylphthalate	1	ug/l	2.0	ND
Dimethylphthalate	1	ug/l	2.0	ND
Di-n-butylphthalate	1	ug/l	0.50	ND
Di-n-octylphthalate	1	ug/l	2.0	ND
Fluoranthene	1	ug/l	2.0	ND
Fluorene	1	ug/l	2.0	ND
Hexachlorobenzene	1	ug/l	2.0	ND
Hexachlorobutadiene	1	ug/l	2.0	ND
Hexachlorocyclopentadiene	1	ug/l	2.0	ND
Hexachloroethane	1	ug/l	2.0	ND
Indeno[1,2,3-cd]pyrene	1	ug/l	2.0	ND
Isophorone	1	ug/l	2.0	ND
Naphthalene	1	ug/l	0.50	ND
Nitrobenzene	1	ug/l	2.0	ND
N-Nitroso-di-n-propylamine	1	ug/l	0.50	ND
N-Nitrosodiphenylamine	1	ug/l	2.0	ND
Pentachlorophenol	1	ug/l	10	ND
Phenanthrene	1	ug/l	2.0	ND
Phenol	1	ug/l	2.0	ND
Pyrene	1	ug/l	2.0	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	46.27	50	55	146	93	
Phenol-d5	28.55	100	27	115	29	
Nitrobenzene-d5	40.54	50	51	139	81	
2-Fluorophenol	40.57	100	29	113	41	
2-Fluorobiphenyl	38.54	50	53	129	77	
2,4,6-Tribromophenol	95.72	100	54	149	96	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result
Total Petroleum Hydrocarbons	1	ug/l	300	3800

Sample ID: TMW-03 U
 Lab#: AD14611-005
 Matrix: Aqueous

Collection Date: 12/11/2019
 Receipt Date: 12/12/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	20.16	20	40	154	101	
Chlorobenzene	16.66	20	24	136	83	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,3-Trichlorobenzene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dioxane	1	ug/l	50	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromochloromethane	1	ug/l	1.0	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	2.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	ND		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	ND		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	28.34	30	79	111	94	
Dibromofluoromethane	28.79	30	73	131	96	
Bromofluorobenzene	29.66	30	82	112	99	
1,2-Dichloroethane-d4	29.18	30	78	128	97	

Volatile Organics (SIM) 8260

Analyte	DF	Units	RL	Result
1,2-Dibromoethane	1	ug/l	0.020	ND

Sample ID: TMW-03 F
Lab#: AD14611-006
Matrix: Aqueous

Collection Date: 12/11/2019
Receipt Date: 12/12/2019

Mercury (Water) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	ug/l	0.50	ND

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	ug/l	50	130
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Nickel	1	ug/l	50	ND
Silver	1	ug/l	20	ND
Zinc	1	ug/l	50	ND

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	ug/l	3.0	ND
Arsenic	1	ug/l	2.0	ND
Beryllium	1	ug/l	1.0	ND
Cadmium	1	ug/l	2.0	ND
Lead	1	ug/l	3.0	ND
Selenium	1	ug/l	10	ND
Thallium	1	ug/l	2.0	ND

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9121306

Project: WMATA-Northern Station

Sample ID: TMW-08 U
 Lab#: AD14655-001
 Matrix: Aqueous

Collection Date: 12/12/2019
 Receipt Date: 12/13/2019

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	ug/l	330	890		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	19.53	20	40	154	98	
Chlorobenzene	12.21	20	24	136	61	

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	1	ug/l	250	1200		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	32.11	30	50	150	107	

Mercury (Water) 7470A

Analyte	DF	Units	RL	Result		
Mercury	1	ug/l	0.50	ND		

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	ug/l	0.25	ND		
Aroclor-1016	1	ug/l	0.25	ND		
Aroclor-1221	1	ug/l	0.25	ND		
Aroclor-1232	1	ug/l	0.25	ND		
Aroclor-1242	1	ug/l	0.25	ND		
Aroclor-1248	1	ug/l	0.25	ND		
Aroclor-1254	1	ug/l	0.25	ND		
Aroclor-1260	1	ug/l	0.25	ND		
Aroclor-1262	1	ug/l	0.25	ND		
Aroclor-1268	1	ug/l	0.25	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	68.63	100	39	132	69	
TCMX-Surrogate	66.69	100	39	132	67	
DCB-Surrogate	86.03	100	39	142	86	
DCB-Surrogate	102.50	100	39	142	102	

PP Metals 6010D

Analyte	DF	Units	RL	Result		
Barium	1	ug/l	50	340		
Chromium	1	ug/l	50	ND		
Copper	1	ug/l	50	ND		
Nickel	1	ug/l	50	ND		
Silver	1	ug/l	20	ND		
Zinc	1	ug/l	50	ND		

PP Metals 6020B

Analyte	DF	Units	RL	Result		
Antimony	1	ug/l	3.0	ND		
Arsenic	1	ug/l	2.0	ND		
Beryllium	1	ug/l	1.0	ND		
Cadmium	1	ug/l	2.0	ND		
Lead	1	ug/l	3.0	ND		
Selenium	1	ug/l	10	ND		
Thallium	1	ug/l	2.0	ND		

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result		
1,1'-Biphenyl	1	ug/l	2.1	ND		

Sample ID: TMW-08 U
 Lab#: AD14655-001
 Matrix: Aqueous

Collection Date: 12/12/2019
 Receipt Date: 12/13/2019

1,2,4,5-Tetrachlorobenzene	1	ug/l	2.1	ND
2,3,4,6-Tetrachlorophenol	1	ug/l	2.1	ND
2,4,5-Trichlorophenol	1	ug/l	2.1	ND
2,4,6-Trichlorophenol	1	ug/l	2.1	ND
2,4-Dichlorophenol	1	ug/l	0.53	ND
2,4-Dimethylphenol	1	ug/l	0.53	ND
2,4-Dinitrophenol	1	ug/l	11	ND
2,4-Dinitrotoluene	1	ug/l	2.1	ND
2,6-Dinitrotoluene	1	ug/l	2.1	ND
2-Chloronaphthalene	1	ug/l	2.1	ND
2-Chlorophenol	1	ug/l	2.1	ND
2-Methylnaphthalene	1	ug/l	2.1	3.9
2-Methylphenol	1	ug/l	0.53	ND
2-Nitroaniline	1	ug/l	2.1	ND
2-Nitrophenol	1	ug/l	2.1	ND
3&4-Methylphenol	1	ug/l	0.53	ND
3,3'-Dichlorobenzidine	1	ug/l	2.1	ND
3-Nitroaniline	1	ug/l	2.1	ND
4,6-Dinitro-2-methylphenol	1	ug/l	11	ND
4-Bromophenyl-phenylether	1	ug/l	2.1	ND
4-Chloro-3-methylphenol	1	ug/l	2.1	ND
4-Chloroaniline	1	ug/l	0.53	ND
4-Chlorophenyl-phenylether	1	ug/l	2.1	ND
4-Nitroaniline	1	ug/l	2.1	ND
4-Nitrophenol	1	ug/l	2.1	ND
Acenaphthene	1	ug/l	2.1	ND
Acenaphthylene	1	ug/l	2.1	ND
Acetophenone	1	ug/l	2.1	ND
Anthracene	1	ug/l	2.1	ND
Atrazine	1	ug/l	2.1	ND
Benzaldehyde	1	ug/l	2.1	ND
Benzo[a]anthracene	1	ug/l	2.1	ND
Benzo[a]pyrene	1	ug/l	2.1	ND
Benzo[b]fluoranthene	1	ug/l	2.1	ND
Benzo[g,h,i]perylene	1	ug/l	2.1	ND
Benzo[k]fluoranthene	1	ug/l	2.1	ND
bis(2-Chloroethoxy)methane	1	ug/l	2.1	ND
bis(2-Chloroethyl)ether	1	ug/l	0.53	ND
bis(2-Chloroisopropyl)ether	1	ug/l	2.1	ND
bis(2-Ethylhexyl)phthalate	1	ug/l	2.1	11
Butylbenzylphthalate	1	ug/l	2.1	ND
Caprolactam	1	ug/l	2.1	ND
Carbazole	1	ug/l	2.1	ND
Chrysene	1	ug/l	2.1	ND
Dibenzo[a,h]anthracene	1	ug/l	2.1	ND
Dibenzofuran	1	ug/l	0.53	ND
Diethylphthalate	1	ug/l	2.1	ND
Dimethylphthalate	1	ug/l	2.1	ND
Di-n-butylphthalate	1	ug/l	0.53	ND
Di-n-octylphthalate	1	ug/l	2.1	ND
Fluoranthene	1	ug/l	2.1	ND
Fluorene	1	ug/l	2.1	ND
Hexachlorobenzene	1	ug/l	2.1	ND
Hexachlorobutadiene	1	ug/l	2.1	ND
Hexachlorocyclopentadiene	1	ug/l	2.1	ND
Hexachloroethane	1	ug/l	2.1	ND
Indeno[1,2,3-cd]pyrene	1	ug/l	2.1	ND
Isophorone	1	ug/l	2.1	ND
Naphthalene	1	ug/l	0.53	ND
Nitrobenzene	1	ug/l	2.1	ND
N-Nitroso-di-n-propylamine	1	ug/l	0.53	ND
N-Nitrosodiphenylamine	1	ug/l	2.1	ND
Pentachlorophenol	1	ug/l	11	ND
Phenanthrene	1	ug/l	2.1	ND
Phenol	1	ug/l	2.1	ND
Pyrene	1	ug/l	2.1	ND

Sample ID: TMW-08 U
 Lab#: AD14655-001
 Matrix: Aqueous

Collection Date: 12/12/2019
 Receipt Date: 12/13/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	43.42	50	55	146	87	
Phenol-d5	32.02	100	27	115	32	
Nitrobenzene-d5	52.10	50	51	139	104	
2-Fluorophenol	38.19	100	29	113	38	
2-Fluorobiphenyl	36.32	50	53	129	73	
2,4,6-Tribromophenol	89.15	100	54	149	89	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	1	ug/l	330	1100		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	19.53	20	40	154	98	
Chlorobenzene	12.21	20	24	136	61	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,3-Trichlorobenzene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dioxane	1	ug/l	50	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	2.1
Bromochloromethane	1	ug/l	1.0	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	1.5
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	23
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	41
m&p-Xylenes	1	ug/l	2.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	64
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	ND
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	4.5

Sample ID: TMW-08 U
Lab#: AD14655-001
Matrix: Aqueous

Collection Date: 12/12/2019
Receipt Date: 12/13/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Xylenes (Total)		1	1.0		ND	
		ug/l				
Toluene-d8	29.55	30	79	111	98	
Dibromofluoromethane	29.33	30	73	131	98	
Bromofluorobenzene	28.76	30	82	112	96	
1,2-Dichloroethane-d4	30.40	30	78	128	101	

Volatile Organics (SIM) 8260

Analyte	DF	Units	RL	Result
1,2-Dibromoethane	1	ug/l	0.020	ND

Sample ID: TMW-08 F
Lab#: AD14655-002
Matrix: Aqueous

Collection Date: 12/12/2019
Receipt Date: 12/13/2019

Mercury (Water) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	ug/l	0.50	ND

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	ug/l	50	340
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Nickel	1	ug/l	50	ND
Silver	1	ug/l	20	ND
Zinc	1	ug/l	50	ND

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	ug/l	3.0	ND
Arsenic	1	ug/l	2.0	ND
Beryllium	1	ug/l	1.0	ND
Cadmium	1	ug/l	2.0	ND
Lead	1	ug/l	3.0	ND
Selenium	1	ug/l	10	ND
Thallium	1	ug/l	2.0	ND

Sample ID: TMW-16 U
 Lab#: AD14655-003
 Matrix: Aqueous

Collection Date: 12/12/2019
 Receipt Date: 12/13/2019

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	ug/l	330	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	20.41	20	40	154	102	
Chlorobenzene	16.80	20	24	136	84	

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	1	ug/l	250	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	23.97	30	50	150	80	

Mercury (Water) 7470A

Analyte	DF	Units	RL	Result		
Mercury	1	ug/l	0.50	ND		

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	ug/l	0.25	0.44		
Aroclor-1016	1	ug/l	0.25	ND		
Aroclor-1221	1	ug/l	0.25	ND		
Aroclor-1232	1	ug/l	0.25	ND		
Aroclor-1242	1	ug/l	0.25	ND		
Aroclor-1248	1	ug/l	0.25	ND		
Aroclor-1254	1	ug/l	0.25	0.44		
Aroclor-1260	1	ug/l	0.25	ND		
Aroclor-1262	1	ug/l	0.25	ND		
Aroclor-1268	1	ug/l	0.25	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	72.66	100	39	132	73	
TCMX-Surrogate	65.93	100	39	132	66	
DCB-Surrogate	74.28	100	39	142	74	
DCB-Surrogate	85.80	100	39	142	86	

PP Metals 6010D

Analyte	DF	Units	RL	Result		
Barium	1	ug/l	50	300		
Chromium	1	ug/l	50	ND		
Copper	1	ug/l	50	ND		
Nickel	1	ug/l	50	ND		
Silver	1	ug/l	20	ND		
Zinc	1	ug/l	50	ND		

PP Metals 6020B

Analyte	DF	Units	RL	Result		
Antimony	1	ug/l	3.0	ND		
Arsenic	1	ug/l	2.0	ND		
Beryllium	1	ug/l	1.0	ND		
Cadmium	1	ug/l	2.0	ND		
Lead	1	ug/l	3.0	ND		
Selenium	1	ug/l	10	ND		
Thallium	1	ug/l	2.0	ND		

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result		
1,1'-Biphenyl	1	ug/l	2.1	ND		
1,2,4,5-Tetrachlorobenzene	1	ug/l	2.1	ND		
2,3,4,6-Tetrachlorophenol	1	ug/l	2.1	ND		
2,4,5-Trichlorophenol	1	ug/l	2.1	ND		
2,4,6-Trichlorophenol	1	ug/l	2.1	ND		
2,4-Dichlorophenol	1	ug/l	0.51	ND		
2,4-Dimethylphenol	1	ug/l	0.51	ND		
2,4-Dinitrophenol	1	ug/l	10	ND		
2,4-Dinitrotoluene	1	ug/l	2.1	ND		

Sample ID: TMW-16 U
 Lab#: AD14655-003
 Matrix: Aqueous

Collection Date: 12/12/2019
 Receipt Date: 12/13/2019

2,6-Dinitrotoluene	1	ug/l	2.1	ND
2-Chloronaphthalene	1	ug/l	2.1	ND
2-Chlorophenol	1	ug/l	2.1	ND
2-Methylnaphthalene	1	ug/l	2.1	ND
2-Methylphenol	1	ug/l	0.51	ND
2-Nitroaniline	1	ug/l	2.1	ND
2-Nitrophenol	1	ug/l	2.1	ND
3&4-Methylphenol	1	ug/l	0.51	ND
3,3'-Dichlorobenzidine	1	ug/l	2.1	ND
3-Nitroaniline	1	ug/l	2.1	ND
4,6-Dinitro-2-methylphenol	1	ug/l	10	ND
4-Bromophenyl-phenylether	1	ug/l	2.1	ND
4-Chloro-3-methylphenol	1	ug/l	2.1	ND
4-Chloroaniline	1	ug/l	0.51	ND
4-Chlorophenyl-phenylether	1	ug/l	2.1	ND
4-Nitroaniline	1	ug/l	2.1	ND
4-Nitrophenol	1	ug/l	2.1	ND
Acenaphthene	1	ug/l	2.1	ND
Acenaphthylene	1	ug/l	2.1	ND
Acetophenone	1	ug/l	2.1	ND
Anthracene	1	ug/l	2.1	ND
Atrazine	1	ug/l	2.1	ND
Benzaldehyde	1	ug/l	2.1	ND
Benzo[a]anthracene	1	ug/l	2.1	ND
Benzo[a]pyrene	1	ug/l	2.1	ND
Benzo[b]fluoranthene	1	ug/l	2.1	ND
Benzo[g,h,i]perylene	1	ug/l	2.1	ND
Benzo[k]fluoranthene	1	ug/l	2.1	ND
bis(2-Chloroethoxy)methane	1	ug/l	2.1	ND
bis(2-Chloroethyl)ether	1	ug/l	0.51	ND
bis(2-Chloroisopropyl)ether	1	ug/l	2.1	ND
bis(2-Ethylhexyl)phthalate	1	ug/l	2.1	170
Butylbenzylphthalate	1	ug/l	2.1	ND
Caprolactam	1	ug/l	2.1	ND
Carbazole	1	ug/l	2.1	ND
Chrysene	1	ug/l	2.1	ND
Dibenzo[a,h]anthracene	1	ug/l	2.1	ND
Dibenzofuran	1	ug/l	0.51	ND
Diethylphthalate	1	ug/l	2.1	ND
Dimethylphthalate	1	ug/l	2.1	ND
Di-n-butylphthalate	1	ug/l	0.51	ND
Di-n-octylphthalate	1	ug/l	2.1	ND
Fluoranthene	1	ug/l	2.1	ND
Fluorene	1	ug/l	2.1	ND
Hexachlorobenzene	1	ug/l	2.1	ND
Hexachlorobutadiene	1	ug/l	2.1	ND
Hexachlorocyclopentadiene	1	ug/l	2.1	ND
Hexachloroethane	1	ug/l	2.1	ND
Indeno[1,2,3-cd]pyrene	1	ug/l	2.1	ND
Isophorone	1	ug/l	2.1	ND
Naphthalene	1	ug/l	0.51	ND
Nitrobenzene	1	ug/l	2.1	ND
N-Nitroso-di-n-propylamine	1	ug/l	0.51	ND
N-Nitrosodiphenylamine	1	ug/l	2.1	ND
Pentachlorophenol	1	ug/l	10	ND
Phenanthrene	1	ug/l	2.1	ND
Phenol	1	ug/l	2.1	ND
Pyrene	1	ug/l	2.1	ND

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	46.43	50	55	146	93	
Phenol-d5	32.27	100	27	115	32	
Nitrobenzene-d5	42.75	50	51	139	86	
2-Fluorophenol	50.94	100	29	113	51	
2-Fluorobiphenyl	40.85	50	53	129	82	
2,4,6-Tribromophenol	87.95	100	54	149	88	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result
Total Petroleum Hydrocarbons	1	ug/l	330	ND

Sample ID: TMW-16 U
 Lab#: AD14655-003
 Matrix: Aqueous

Collection Date: 12/12/2019
 Receipt Date: 12/13/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	20.41	20	40	154	102	
Chlorobenzene	16.80	20	24	136	84	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result		
1,1,1-Trichloroethane	1	ug/l	1.0	ND		
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND		
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND		
1,1,2-Trichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethane	1	ug/l	1.0	ND		
1,1-Dichloroethene	1	ug/l	1.0	ND		
1,2,3-Trichlorobenzene	1	ug/l	1.0	ND		
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND		
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND		
1,2-Dichlorobenzene	1	ug/l	1.0	ND		
1,2-Dichloroethane	1	ug/l	0.50	ND		
1,2-Dichloropropane	1	ug/l	1.0	ND		
1,3-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dichlorobenzene	1	ug/l	1.0	ND		
1,4-Dioxane	1	ug/l	50	ND		
2-Butanone	1	ug/l	1.0	ND		
2-Hexanone	1	ug/l	1.0	ND		
4-Methyl-2-pentanone	1	ug/l	1.0	ND		
Acetone	1	ug/l	5.0	ND		
Benzene	1	ug/l	0.50	ND		
Bromochloromethane	1	ug/l	1.0	ND		
Bromodichloromethane	1	ug/l	1.0	ND		
Bromoform	1	ug/l	1.0	ND		
Bromomethane	1	ug/l	1.0	ND		
Carbon disulfide	1	ug/l	1.0	ND		
Carbon tetrachloride	1	ug/l	1.0	ND		
Chlorobenzene	1	ug/l	1.0	ND		
Chloroethane	1	ug/l	1.0	ND		
Chloroform	1	ug/l	1.0	ND		
Chloromethane	1	ug/l	1.0	ND		
cis-1,2-Dichloroethene	1	ug/l	1.0	ND		
cis-1,3-Dichloropropene	1	ug/l	1.0	ND		
Cyclohexane	1	ug/l	1.0	ND		
Dibromochloromethane	1	ug/l	1.0	ND		
Dichlorodifluoromethane	1	ug/l	1.0	ND		
Ethylbenzene	1	ug/l	1.0	ND		
Isopropylbenzene	1	ug/l	1.0	ND		
m&p-Xylenes	1	ug/l	1.0	ND		
Methyl Acetate	1	ug/l	1.0	ND		
Methylcyclohexane	1	ug/l	1.0	ND		
Methylene chloride	1	ug/l	1.0	ND		
Methyl-t-butyl ether	1	ug/l	0.50	0.54		
o-Xylene	1	ug/l	1.0	ND		
Styrene	1	ug/l	1.0	ND		
Tetrachloroethene	1	ug/l	1.0	ND		
Toluene	1	ug/l	1.0	ND		
trans-1,2-Dichloroethene	1	ug/l	1.0	ND		
trans-1,3-Dichloropropene	1	ug/l	1.0	ND		
Trichloroethene	1	ug/l	1.0	ND		
Trichlorofluoromethane	1	ug/l	1.0	ND		
Vinyl chloride	1	ug/l	1.0	ND		
Xylenes (Total)	1	ug/l	1.0	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	31.12	30	79	111	104	
Dibromofluoromethane	30.22	30	73	131	101	
Bromofluorobenzene	30.46	30	82	112	102	
1,2-Dichloroethane-d4	30.10	30	78	128	100	

Volatile Organics (SIM) 8260

Analyte	DF	Units	RL	Result
1,2-Dibromoethane	1	ug/l	0.020	ND

Sample ID: TMW-16 F
Lab#: AD14655-004
Matrix: Aqueous

Collection Date: 12/12/2019
Receipt Date: 12/13/2019

Mercury (Water) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	ug/l	0.50	ND

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	ug/l	50	310
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Nickel	1	ug/l	50	ND
Silver	1	ug/l	20	ND
Zinc	1	ug/l	50	ND

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	ug/l	3.0	ND
Arsenic	1	ug/l	2.0	ND
Beryllium	1	ug/l	1.0	ND
Cadmium	1	ug/l	2.0	ND
Lead	1	ug/l	3.0	ND
Selenium	1	ug/l	10	ND
Thallium	1	ug/l	2.0	ND

Hampton-Clarke Report Of Analysis

Client: Intertek-PSI

HC Project #: 9121603

Project: WMATA-Northern Station

Sample ID: TMW-02 U
 Lab#: AD14694-001
 Matrix: Aqueous

Collection Date: 12/13/2019
 Receipt Date: 12/16/2019

Diesel Range Organics 8015D(C10-C28)

Analyte	DF	Units	RL	Result		
Diesel Range Organics	1	ug/l	330	3400		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	21.30	20	40	154	106	
Chlorobenzene	11.57	20	24	136	58	

Gasoline range organics 8015D(C6-C10)

Analyte	DF	Units	RL	Result		
Gasoline Range Organics	1	ug/l	250	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
1,4-Dichlorobenzene-d4	23.64	30	50	150	79	

Mercury (Water) 7470A

Analyte	DF	Units	RL	Result		
Mercury	1	ug/l	0.50	ND		

PCB 8082

Analyte	DF	Units	RL	Result		
Aroclor (Total)	1	ug/l	0.25	ND		
Aroclor-1016	1	ug/l	0.25	ND		
Aroclor-1221	1	ug/l	0.25	ND		
Aroclor-1232	1	ug/l	0.25	ND		
Aroclor-1242	1	ug/l	0.25	ND		
Aroclor-1248	1	ug/l	0.25	ND		
Aroclor-1254	1	ug/l	0.25	ND		
Aroclor-1260	1	ug/l	0.25	ND		
Aroclor-1262	1	ug/l	0.25	ND		
Aroclor-1268	1	ug/l	0.25	ND		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
TCMX-Surrogate	71.59	100	39	132	72	
TCMX-Surrogate	67.78	100	39	132	68	
DCB-Surrogate	65.60	100	39	142	66	
DCB-Surrogate	69.46	100	39	142	69	

PP Metals 6010D

Analyte	DF	Units	RL	Result		
Barium	1	ug/l	50	300		
Chromium	1	ug/l	50	ND		
Copper	1	ug/l	50	ND		
Nickel	1	ug/l	50	ND		
Silver	1	ug/l	20	ND		
Zinc	1	ug/l	50	ND		

PP Metals 6020B

Analyte	DF	Units	RL	Result		
Antimony	1	ug/l	3.0	ND		
Arsenic	1	ug/l	2.0	2.1		
Beryllium	1	ug/l	1.0	ND		
Cadmium	1	ug/l	2.0	ND		
Lead	1	ug/l	3.0	10		
Selenium	1	ug/l	10	ND		
Thallium	1	ug/l	2.0	ND		

Semivolatile Organics (no search) 8270

Analyte	DF	Units	RL	Result		
1,1'-Biphenyl	1	ug/l	2.0	ND		

Sample ID: TMW-02 U
 Lab#: AD14694-001
 Matrix: Aqueous

Collection Date: 12/13/2019
 Receipt Date: 12/16/2019

1,2,4,5-Tetrachlorobenzene	1	ug/l	2.0	ND
2,3,4,6-Tetrachlorophenol	1	ug/l	2.0	ND
2,4,5-Trichlorophenol	1	ug/l	2.0	ND
2,4,6-Trichlorophenol	1	ug/l	2.0	ND
2,4-Dichlorophenol	1	ug/l	0.50	ND
2,4-Dimethylphenol	1	ug/l	0.50	ND
2,4-Dinitrophenol	1	ug/l	10	ND
2,4-Dinitrotoluene	1	ug/l	2.0	ND
2,6-Dinitrotoluene	1	ug/l	2.0	ND
2-Chloronaphthalene	1	ug/l	2.0	ND
2-Chlorophenol	1	ug/l	2.0	ND
2-Methylnaphthalene	1	ug/l	2.0	ND
2-Methylphenol	1	ug/l	0.50	ND
2-Nitroaniline	1	ug/l	2.0	ND
2-Nitrophenol	1	ug/l	2.0	ND
3&4-Methylphenol	1	ug/l	0.50	ND
3,3'-Dichlorobenzidine	1	ug/l	2.0	ND
3-Nitroaniline	1	ug/l	2.0	ND
4,6-Dinitro-2-methylphenol	1	ug/l	10	ND
4-Bromophenyl-phenylether	1	ug/l	2.0	ND
4-Chloro-3-methylphenol	1	ug/l	2.0	ND
4-Chloroaniline	1	ug/l	0.50	ND
4-Chlorophenyl-phenylether	1	ug/l	2.0	ND
4-Nitroaniline	1	ug/l	2.0	ND
4-Nitrophenol	1	ug/l	2.0	ND
Acenaphthene	1	ug/l	2.0	ND
Acenaphthylene	1	ug/l	2.0	ND
Acetophenone	1	ug/l	2.0	ND
Anthracene	1	ug/l	2.0	ND
Atrazine	1	ug/l	2.0	ND
Benzaldehyde	1	ug/l	2.0	ND
Benzo[a]anthracene	1	ug/l	2.0	ND
Benzo[a]pyrene	1	ug/l	2.0	ND
Benzo[b]fluoranthene	1	ug/l	2.0	ND
Benzo[g,h,i]perylene	1	ug/l	2.0	ND
Benzo[k]fluoranthene	1	ug/l	2.0	ND
bis(2-Chloroethoxy)methane	1	ug/l	2.0	ND
bis(2-Chloroethyl)ether	1	ug/l	0.50	ND
bis(2-Chloroisopropyl)ether	1	ug/l	2.0	ND
bis(2-Ethylhexyl)phthalate	1	ug/l	2.0	ND
Butylbenzylphthalate	1	ug/l	2.0	ND
Caprolactam	1	ug/l	2.0	ND
Carbazole	1	ug/l	2.0	ND
Chrysene	1	ug/l	2.0	ND
Dibenzo[a,h]anthracene	1	ug/l	2.0	ND
Dibenzofuran	1	ug/l	0.50	ND
Diethylphthalate	1	ug/l	2.0	ND
Dimethylphthalate	1	ug/l	2.0	ND
Di-n-butylphthalate	1	ug/l	0.50	ND
Di-n-octylphthalate	1	ug/l	2.0	ND
Fluoranthene	1	ug/l	2.0	ND
Fluorene	1	ug/l	2.0	ND
Hexachlorobenzene	1	ug/l	2.0	ND
Hexachlorobutadiene	1	ug/l	2.0	ND
Hexachlorocyclopentadiene	1	ug/l	2.0	ND
Hexachloroethane	1	ug/l	2.0	ND
Indeno[1,2,3-cd]pyrene	1	ug/l	2.0	ND
Isophorone	1	ug/l	2.0	ND
Naphthalene	1	ug/l	0.50	ND
Nitrobenzene	1	ug/l	2.0	ND
N-Nitroso-di-n-propylamine	1	ug/l	0.50	ND
N-Nitrosodiphenylamine	1	ug/l	2.0	ND
Pentachlorophenol	1	ug/l	10	ND
Phenanthrene	1	ug/l	2.0	ND
Phenol	1	ug/l	2.0	ND
Pyrene	1	ug/l	2.0	ND

Sample ID: TMW-02 U
 Lab#: AD14694-001
 Matrix: Aqueous

Collection Date: 12/13/2019
 Receipt Date: 12/16/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Terphenyl-d14	60.02	50	55	146	120	
Phenol-d5	25.89	100	27	115	26	Sa8
Nitrobenzene-d5	47.64	50	51	139	95	
2-Fluorophenol	37.07	100	29	113	37	
2-Fluorobiphenyl	44.21	50	53	129	88	
2,4,6-Tribromophenol	108.89	100	54	149	109	

Total PetroleumHydrocarbons8015D(C8-C40)

Analyte	DF	Units	RL	Result		
Total Petroleum Hydrocarbons	1	ug/l	330	4000		
Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
O-Terphenyl	21.30	20	40	154	106	
Chlorobenzene	11.57	20	24	136	58	

Volatile Organics (no search) 8260

Analyte	DF	Units	RL	Result
1,1,1-Trichloroethane	1	ug/l	1.0	ND
1,1,2,2-Tetrachloroethane	1	ug/l	1.0	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	1	ug/l	1.0	ND
1,1,2-Trichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethane	1	ug/l	1.0	ND
1,1-Dichloroethene	1	ug/l	1.0	ND
1,2,3-Trichlorobenzene	1	ug/l	1.0	ND
1,2,4-Trichlorobenzene	1	ug/l	1.0	ND
1,2-Dibromo-3-chloropropane	1	ug/l	1.0	ND
1,2-Dichlorobenzene	1	ug/l	1.0	ND
1,2-Dichloroethane	1	ug/l	0.50	ND
1,2-Dichloropropane	1	ug/l	1.0	ND
1,3-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dichlorobenzene	1	ug/l	1.0	ND
1,4-Dioxane	1	ug/l	50	ND
2-Butanone	1	ug/l	1.0	ND
2-Hexanone	1	ug/l	1.0	ND
4-Methyl-2-pentanone	1	ug/l	1.0	ND
Acetone	1	ug/l	5.0	ND
Benzene	1	ug/l	0.50	ND
Bromochloromethane	1	ug/l	1.0	ND
Bromodichloromethane	1	ug/l	1.0	ND
Bromoform	1	ug/l	1.0	ND
Bromomethane	1	ug/l	1.0	ND
Carbon disulfide	1	ug/l	1.0	ND
Carbon tetrachloride	1	ug/l	1.0	ND
Chlorobenzene	1	ug/l	1.0	ND
Chloroethane	1	ug/l	1.0	ND
Chloroform	1	ug/l	1.0	ND
Chloromethane	1	ug/l	1.0	ND
cis-1,2-Dichloroethene	1	ug/l	1.0	ND
cis-1,3-Dichloropropene	1	ug/l	1.0	ND
Cyclohexane	1	ug/l	1.0	1.6
Dibromochloromethane	1	ug/l	1.0	ND
Dichlorodifluoromethane	1	ug/l	1.0	ND
Ethylbenzene	1	ug/l	1.0	ND
Isopropylbenzene	1	ug/l	1.0	8.5
m&p-Xylenes	1	ug/l	1.0	ND
Methyl Acetate	1	ug/l	1.0	ND
Methylcyclohexane	1	ug/l	1.0	3.6
Methylene chloride	1	ug/l	1.0	ND
Methyl-t-butyl ether	1	ug/l	0.50	2.2
o-Xylene	1	ug/l	1.0	ND
Styrene	1	ug/l	1.0	ND
Tetrachloroethene	1	ug/l	1.0	ND
Toluene	1	ug/l	1.0	ND
trans-1,2-Dichloroethene	1	ug/l	1.0	ND
trans-1,3-Dichloropropene	1	ug/l	1.0	ND
Trichloroethene	1	ug/l	1.0	ND
Trichlorofluoromethane	1	ug/l	1.0	ND
Vinyl chloride	1	ug/l	1.0	ND

Sample ID: TMW-02 U
Lab#: AD14694-001
Matrix: Aqueous

Collection Date: 12/13/2019
Receipt Date: 12/16/2019

Surrogate	Conc.	Spike	Low Limit	High Limit	Recovery	Flags
Toluene-d8	29.02	30	79	111	97	
Dibromofluoromethane	34.90	30	73	131	116	
Bromofluorobenzene	30.15	30	82	112	101	
1,2-Dichloroethane-d4	34.79	30	78	128	116	

Volatile Organics (SIM) 8260

Analyte	DF	Units	RL	Result
1,2-Dibromoethane	1	ug/l	0.020	ND

Sample ID: TMW-02 F
Lab#: AD14694-002
Matrix: Aqueous

Collection Date: 12/13/2019
Receipt Date: 12/16/2019

Mercury (Water) 7470A

Analyte	DF	Units	RL	Result
Mercury	1	ug/l	0.50	ND

PP Metals 6010D

Analyte	DF	Units	RL	Result
Barium	1	ug/l	50	280
Chromium	1	ug/l	50	ND
Copper	1	ug/l	50	ND
Nickel	1	ug/l	50	ND
Silver	1	ug/l	20	ND
Zinc	1	ug/l	50	ND

PP Metals 6020B

Analyte	DF	Units	RL	Result
Antimony	1	ug/l	3.0	ND
Arsenic	1	ug/l	2.0	2.0
Beryllium	1	ug/l	1.0	ND
Cadmium	1	ug/l	2.0	ND
Lead	1	ug/l	3.0	ND
Selenium	1	ug/l	10	ND
Thallium	1	ug/l	2.0	ND

