



October 14, 2020

Commonwealth of Virginia Department of Environmental Quality
Northern Regional Office: Petroleum Remediation
13901 Crown Court
Woodbridge, Virginia 22193

Commonwealth of Virginia Department of Environmental Quality
Office of Remediation Programs
629 East Main Street
Richmond, Virginia 23219

Attention: Mr. Alexander Wardle, Project Manager
Mr. Vincent Maiden, Brownfields Program Coordinator

Subject: **August 2020 Corrective Action Plan Implementation Monitoring Report,**
Former Robinson Terminal North Property, 500 and 501 North Union Street,
Alexandria, Virginia

Reference: VDEQ PC No. 2016-3090
VRP Site No. 00673
A-Zone Project No. 6078.004

Dear Mr. Wardle and Mr. Maiden:

Attached for your review is the *August 2020 Corrective Action Plan Implementation Monitoring Report* (IMR) prepared by A-Zone Environmental Services, LLC (A-Zone) for the Former Robinson Terminal North property (herein referred to as the SITE) located at 500 and 501 North Union Street in Alexandria, Virginia. The IMR summarizes the August 2020 semi-annual groundwater sampling activities conducted by A-Zone at the SITE. The sampling activities were conducted to monitor groundwater quality at the SITE and satisfy a Commonwealth of Virginia Department of Environmental Quality (VDEQ) directive dated May 13, 2019.

As discussed with the VDEQ, the semi-annual groundwater sampling data collected in 2019 and 2020 will be used to update the *Risk Assessment Report* (RAR) prepared for the SITE. The Risk Assessment Addendum (RA Addendum) will address risks posed to current and future site users under current site use and a change to planned future site use. Risks to construction workers will also be addressed. In addition, the RA Addendum will address VDEQ Voluntary Remediation Program (VRP) comments concerning the original RA received in February 2019. If the findings of the RA Addendum warrant amending of the existing Corrective Action Plan (CAP), a proposed CAP amendment will be submitted to the VDEQ. A-Zone will also recommend a reduction to the current monitoring frequency of the well network if supported by the findings of the RA Addendum.



Mr. Wardle and Mr. Maiden
October 14, 2020
Page 2

If you have any questions concerning the IMR, please feel free to contact me at (703) 608-5969.

Sincerely,

A handwritten signature in black ink, appearing to read "m. Bruzzesi", with a long horizontal flourish extending to the right.

Michael A. Bruzzesi, CPG
Program Manager/Senior Geologist
VA CPG No. 2801 001428

Attachment

August 2020 Corrective Action Plan Implementation Monitoring Report

cc: Mr. Greg Hoffman, Alexandria North Terminal, LLC
Mr. Jim Thornhill, Wire Gill LLP
Mr. William Skrabak, City of Alexandria

AUGUST 2020 CORRECTIVE ACTION PLAN IMPLEMENTATION MONITORING REPORT

**FORMER ROBINSON TERMINAL NORTH PROPERTY
500 AND 501 NORTH UNION STREET
ALEXANDRIA, VIRGINIA**

**VDEQ VRP# 00673
VDEQ PC# 2016-3090**

Prepared for:

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Northern Regional Office: Petroleum Remediation
13901 Crown Court
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On Behalf of:

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Arlington, Virginia 22201
(571) 297-4833

Prepared by:

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2181 Berryville Pike
Charles Town, West Virginia 25414
(304) 724-6458

A-Zone Project No. 6078.04

OCTOBER 14, 2020

SIGNATURE SHEET

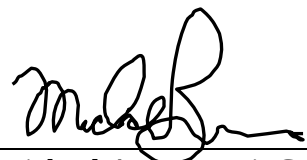
This August 2020 Corrective Action Plan Implementation Monitoring Report (IMR) for the Former Robinson Terminal North property located at 500 and 501 North Union Street in Alexandria, Virginia, was prepared by:



October 14, 2020

Craig Hebert, CPG Date
Project Manager/Senior Geologist

The IMR was reviewed and approved for release by:



October 14, 2020

Michael A. Bruzzesi, CPG Date
Program Manager/Senior Geologist
VA CPG No. 2801 001428

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ATTACHMENT

Attachment 1.	Laboratory Report of Analysis
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LIST OF ACRONYMS AND ABBREVIATIONS

AlexRenew	Alexandria Renew Enterprises
ANT	Alexandria North Terminal, LLC
A-Zone	A-Zone Environmental Services, LLC
CAP	Corrective Action Plan
DO	dissolved oxygen
EPA	United States Environmental Protection Agency
IM	Implementation Monitoring
IMR	Implementation Monitoring Report
mg/l	milligram per liter
ORP	oxygen reduction potential
PC#	Pollution Compliant number
PCE	tetrachloroethene
PPL	Priority Pollutant List
PSCM	Post-Site Characterization Monitoring
PSTP	Petroleum Storage Tank Program
RL	analytical method reporting limit
SCR	Site Characterization Report
SCS	Site Characterization Study
SVOC	semi-VOC
TCE	trichloroethene
TCL	Target Compound List
TPH	total petroleum hydrocarbons
TPH-DRO	diesel range TPH
TPH-GRO	gasoline range TPH
ug/l	microgram per liter
UST	underground storage tank
VDEQ	Commonwealth of Virginia Department of Environmental Quality
VDEQ-PDS	VDEQ general permit discharge standard for petroleum contaminated
VDEQ-T2PWSSL	VDEQ Tier II public water supply screening level
VDEQ-T2SWFSL	VDEQ Tier II surface water fresh screening level
VDEQ-T3CDSL	VDEQ Tier III construction direct (<15 feet) screening level
VDEQ-T3IGSL	VDEQ Tier III industrial groundwater vapor intrusion screening level
VDEQ-T3RGSL	VDEQ Tier III residential groundwater vapor intrusion screening level
VOC	volatile organic compound
VRP	Voluntary Remediation Program
WP	Work Plan

1.0 INTRODUCTION

This report summarizes the Corrective Action Plan Implementation Monitoring (IM) conducted by A-Zone Environmental Services, LLC (A-Zone) in August 2020 at the Former Robinson Terminal North property (herein referred to as the SITE) located at 500 and 501 North Union Street in Alexandria, Virginia. The IM activities were conducted on behalf of Alexandria North Terminal, LLC (ANT). IM activities included collection of groundwater samples from existing groundwater monitoring wells at the SITE for laboratory analysis. The sampling activities were conducted to monitor groundwater quality at the SITE and satisfy a Commonwealth of Virginia Department of Environmental Quality (VDEQ) directive dated May 13, 2019. The directive was associated with VDEQ Pollution Compliant number (PC#) 2016-3090, assigned to the SITE to address a suspect release of petroleum from past storage tanks.

When the SITE was assigned the PC#, the VDEQ mandated that a Site Characterization Study (SCS) be conducted to address the suspect release. The SITE was also entered into the VDEQ's Voluntary Remediation Program (VRP) in 2016 and was assigned VRP number 00673. The SITE was entered into the VRP to address non-petroleum impacts, which are not typically addressed through the VDEQ's Petroleum Storage Tank Program (PSTP). The SCS was completed in February 2017 and a *Site Characterization Report* (SCR) was submitted to the VDEQ in August 2017. The VDEQ accepted the findings of the SCS in September 2017. Based on their review of the SCS, the VDEQ mandated further groundwater monitoring as part of a Post-Site Characterization Monitoring (PSCM) program. Several new groundwater monitoring wells were installed, and groundwater samples were collected for laboratory analysis on two occasions as part of the program. The findings of each sampling event were reported to the VDEQ. Based on the findings of PSCM events, the VDEQ mandated that a *Corrective Action Plan* (CAP) be prepared for the SITE to address identified petroleum impacts to soil and groundwater. A CAP was submitted to the VDEQ in January 2019 and was approved in May 2019. The CAP detailed corrective actions and engineering and institutional controls proposed to address the petroleum impacts. The SCS was conducted and the SCR and CAP were prepared to satisfy PSTP and VRP SCS and SCR and PSTP CAP requirements.

As part of the CAP approval, the VDEQ requested that semi-annual groundwater sampling of the groundwater monitoring well network be initiated in July 2019 and be continued every 6 months until the start of SITE development. At the time of the development of the CAP, SITE redevelopment was anticipated to include mixed residential, retail, and commercial use multi-story structures; however, the entitlements for change in use have lapsed such that the only known future use is construction of a large stormwater infrastructure/utility project associated with Alexandria Renew Enterprises (AlexRenew) on the 501 North Union Street parcel (501 Parcel) and continued use of the warehouse on the 500 North Union Street parcel (500 Parcel). At the time of development of the CAP, the AlexRenew project was only a possibility for the SITE among other locations.

The IM activities were conducted in conformance with a VDEQ-approved SCS Work Plan (WP) prepared by ICOR, Ltd. (dated April 1, 2016) and two PSCM events conducted in January and June 2018. The PSCM activities were conducted to further evaluate the type, degree, and extent of soil and groundwater impacts and to further evaluate general risks posed by the impacts to

current and future site users. The findings of the SCS and follow-up PSCM were used to develop a remedial approach (in the form of a CAP) that allows for successful development of the SITE and minimization of risks to human health and the environment.

The history of the SITE and detailed discussion of the SCS activities and findings were provided in the SCR. The corrective actions and engineering and institutional controls proposed to address the identified impacts were presented in the CAP. This report details the findings of the August 2020 groundwater sampling event associated with IM. The report also includes an update concerning the development schedule.

In general, the historical groundwater sampling results indicate concentrations of target constituents have decreased or remained relatively stable over the last several years (with little variations between time of year); thus, A-Zone believes that the monitoring frequency set forth in the CAP approval letter dated May 13, 2019 should be reduced from a semi-annual to annual basis and formally requests this change to the monitoring frequency.

2.0 BACKGROUND

The SITE is located in a mixed commercial and residential land use area and is currently improved with two vacant warehouses, small shed, railroad spur, paved parking lots, dock (pier), and landscaping. The entitlements for a change in use of the SITE from warehousing have lapsed. A large stormwater infrastructure/utility project associated with AlexRenewis being constructed on the 501 Parcel. The 501 Parcel will remain with its current use as a warehouse unless and until a new entitlement is sought and obtained.

Based on the findings of past and recent environmental assessments, soil and groundwater beneath the SITE have been impacted by the past uses of the SITE, which included bulk oil storage, fertilizer storage, coal storage, chemical mixing and manufacturing, and warehouse operations. Contributions from adjacent and nearby properties that were used in the past for fertilizer storage, city gas works, chemical manufacturing and mixing, and bulk oil storage are also suspected. Constituents of concern identified at elevated concentrations in soil, groundwater, and soil gas at the SITE include gasoline and diesel range total petroleum hydrocarbons (TPH-GRO and TPH-DRO, respectively), volatile organic compounds (VOCs), semi-VOCs (SVOCs), and metals.

3.0 SITE DESCRIPTION

The SITE is located at 500 and 501 North Union Street in Alexandria, Virginia, at the intersection of Oronoco Street and North Union Street. The SITE is comprised of two parcels, the 500 and 501 North Union Street parcels, separated by North Union Street. The two parcels comprise approximately 3.2 acres of land. In past reports, the parcel addresses have also been listed as 1 and 101 Oronoco Street (corresponding to the 500 and 501 Parcels, respectively). A site location map is included as Figure 1. The SITE is situated in a mixed commercial and residential land use area. Adjacent property use is depicted on the aerial photograph included as Figure 2.

The SITE is currently improved with two 1-story, slab-on-grade brick, concrete, and steel warehouses, a large concrete dock (pier), railroad spur, a small wood-frame shed (near the dock), gravel and asphalt and concrete-paved parking areas, and landscaping. The warehouses were constructed in 1966. The warehouse situated on the 500 Parcel is referred to as Warehouse #16. The warehouse situated on the 501 Parcel is referred to as Warehouse #10, #11, and #12. Three diesel underground storage tanks (USTs) were formerly buried on the northeastern portion of the 501 Parcel. The USTs were formerly used to store and dispense diesel fuel via two dispensers located on the east-central portion of the 501 Parcel (next to the small wood shed). The tanks were removed in 2016. A site plan depicting existing conditions is included as Figure 3.

Topography at the SITE is relatively flat. The SITE is bound to the north by Pendleton Street and railroad tracks across which is Oronoco Bay Park and Oronoco Bay, to the east and northeast by the Potomac River, to the south by Oronoco Street across which is Founders Park and a residential building, and to the west by Dalton Wharf Office Center. North Union Street separates the 500 and 501 North Union Street parcels.

4.0 IMPLEMENTATION MONITORING ACTIVITIES

The IM activities conducted at the SITE by A-Zone in August 2020 included collection of groundwater samples for laboratory analysis. The IM activities were conducted using the same methods and protocols established in the SCS WP and used during the two PSCM events and past IM events. Sampling was conducted under the supervision of a Commonwealth of Virginia Certified Professional Geologist.

On August 20, 2020, groundwater samples were collected for laboratory analysis from existing wells TEC-MW2, TEC-MW4, ECS-MW4, MiHpt-5, MiHpt-7, MiHpt-8, MiHpt-14, MiHpt-15, MiHpt-20, MiHpt-21, MiHpt-22, MW23, MW24, and MW25. Well construction information for all existing wells is provided on Table 1.

Sampling was performed using a peristaltic pump fitted with new, dedicated, and disposable high-density polyethylene tubing. Before sampling each well, the depth to petroleum free product, if any, and groundwater was measured to the nearest 0.01 foot from the well's top of casing using an oil/water interface probe. The well measurements recorded before sampling the wells are summarized on Table 2. The sample tubing inlet was placed at a depth corresponding to the center of each monitoring well's submerged screen interval. The samples were collected at a low flow rate (less than 250 milliliters per minute) to minimize agitation and aeration. Sampling was conducted in accordance with low-flow purging and sampling protocols recommended by the United States Environmental Protection Agency (EPA).

The groundwater samples were collected after field parameters stabilized during purging. The following field parameters were monitored during purging: temperature, pH, specific conductivity, dissolved oxygen (DO), oxygen reduction potential (ORP), and turbidity. All of these parameters were measured using a multi-meter and low volume flow cell. Purging was considered complete when temperature, pH, specific conductivity, DO, ORP, and turbidity readings (an acceptable EPA, subset of parameters) stabilized for a minimum of three consecutive readings. It should be

noted that wells TEC-MW2, MiHpt-5, MiHpt-15, MiHpt-21, and MiHpt-22 went dry during sampling. Samples were collected from the wells that went dry after they recharged. Field parameter readings recorded at stabilization are summarized on Table 3.

The samples were transferred to appropriate sample containers directly from the discharge tubing and were grab samples. The groundwater samples were analyzed for TPH-GRO and TPH-DRO using EPA Method 8015C, Target Compound List (TCL) VOCs using EPA Method 8260B, and TCL SVOCs using EPA Method 8270C.

All purge water generated during sampling was stored in a 55-gallon drum pending proper disposal.

5.0 GROUNDWATER QUALITY

Based on the recent and historical groundwater measurements obtained from monitoring wells, the depth to groundwater at the SITE ranges from approximately 6.3 to 14.6 feet below grade and groundwater flow is to the north-northeast and south-southeast towards Oronoco Bay and the Potomac River. Oronoco Bay and the Potomac River are tidally influenced; however, historical data collected to date does not suggest that tidal change has a significant effect of groundwater flow beneath the SITE. It should be noted that AlexRenew is currently conducting a long-term tidal influence study at the 501 Parcel and the effect of tidal change of groundwater levels will be reevaluated at the conclusion of their study. Recent and historical groundwater measurements obtained from the site wells are summarized on Table 2. A groundwater contour map generated from the recent groundwater sampling event is included as Figure 5.

Petroleum odors were noted during collection of groundwater samples from wells MiHpt-5, MiHpt-7, MiHpt-14, MiHpt-15, MiHpt-20, MiHpt-21, and MiHpt-22. A petroleum sheen (but no free product) was also observed during collection of the groundwater sample from well MiHpt-21. The groundwater samples were analyzed for TPH-GRO, TPH-DRO, TCL VOCs, and TCL SVOCs. The recent and historical groundwater analytical results for target constituents required for monitoring by the PSTP are summarized on Table 4. A copy of the laboratory report of analysis is included in Attachment 1.

The groundwater analytical results were compared to the most-current VDEQ Tier III residential groundwater vapor intrusion screening level (VDEQ-T3RGSLs), VDEQ Tier III industrial groundwater vapor intrusion screening level (VDEQ-T3IGSLs), and VDEQ Tier III construction direct (<15 feet) screening level (VDEQ-T3CDSLs). The analytical results were also compared to surface water screening levels including VDEQ general permit discharge standards for petroleum contaminated water (VDEQ-PDSs), VDEQ Tier II public water supply screening level (VDEQ-T2PWSSLs), and VDEQ Tier II surface water fresh screening level (VDEQ-T2SWFSLs). It should be noted that VDEQ groundwater and surface water screening levels have not been developed for many of the target constituents detected.

TPH-GRO, TPH-DRO, 17 VOCs, and 21 SVOCs were detected in the groundwater samples at concentrations above the RL. Nine VOCs and five SVOCs were detected at concentrations above

VDEQ groundwater and/or surface water screening levels. A list of the constituents detected above screening levels is detailed below.

Constituents Detected Above VDEQ-T3RGSLS

- **Benzene** was detected above VDEQ-T3RGSLS in the groundwater samples collected from wells MiHpt-5, MiHpt-14, and MiHpt-21.
- **Biphenyl** was detected above VDEQ-T3RGSLS in the groundwater sample collected from well MiHpt-14.
- **Chloroform** was detected above VDEQ-T3RGSLS in the groundwater samples collected from wells MiHpt-14 and MiHpt-15.
- **Cyclohexane** was detected above VDEQ-T3RGSLS in the groundwater sample collected from well MiHpt-21.
- **Ethylbenzene** was detected above VDEQ-T3RGSLS in the groundwater sample collected from well MiHpt-21.
- **Naphthalene** (as a VOC and SVOC) was detected above VDEQ-T3RGSLS in the groundwater samples collected from wells MiHpt-5, MiHpt-14, and MW-25.
- **Tetrachloroethene (PCE)** was detected above VDEQ-T3RGSLS in the groundwater sample collected from well MiHpt-21.
- **Trichloroethene (TCE)** was detected above VDEQ-T3RGSLS in the groundwater sample collected from well MiHpt-21.
- **Xylenes (m, p, and/or o type)** were detected above VDEQ-T3RGSLS in the groundwater sample collected from well MiHpt-21.

Constituents Detected Above VDEQ-T3IGSLs

- **Benzene** was detected above VDEQ-TRIGSLs in the groundwater samples collected from wells MiHpt-5 and MiHpt-21.
- **Cyclohexane** was detected above VDEQ-TRIGSLs in the groundwater sample collected from well MiHpt-21.
- **Naphthalene** (as a VOC and SVOC) was detected above VDEQ-TRIGSLs in the groundwater sample collected from well MiHpt-5.
- **PCE** was detected above VDEQ-TRIGSLs in the groundwater sample collected from well MiHpt-21.
- **TCE** was detected above VDEQ-TRIGSLs in the groundwater sample collected from well MiHpt-21.

Constituents Detected Above VDEQ-T3CDSLs

- **Benzene** was detected above VDEQ-T3CDSLs in the groundwater samples collected from wells MiHpt-5, MiHpt-14, and MiHpt-21.
- **Biphenyl** was detected above VDEQ-T3CDSLs in the groundwater samples collected from wells MiHpt-7 and MiHpt-14.
- **Naphthalene** (as a VOC and SVOC) was detected above VDEQ-T3CDSLs in the groundwater samples collected from wells MiHpt-5, MiHpt-7, MiHpt-8, MiHpt-14, MiHpt-21, and MW-25.

- **Pentachlorophenol** was detected above VDEQ-T3CDSLs in the groundwater sample collected from well MiHpt-21.
- **PCE** was detected above VDEQ-T3CDSLs in the groundwater sample collected from well MiHpt-21.
- **TCE** was detected above VDEQ-T3CDSLs in the groundwater sample collected from well MiHpt-21.
- **Xylenes (m, p, and/or o type)** were detected above VDEQ-T3CDSLs in the groundwater sample collected from well MiHpt-21.

Constituents Detected Above VDEQ-PDSs

- **Benzene** was detected above VDEQ-PDSs in the groundwater samples collected from wells MiHpt-5, MiHpt-14, and MiHpt-21.
- **Ethylbenzene** was detected above VDEQ-PDSs in the groundwater sample collected from well MiHpt-21.
- **Naphthalene** (as a VOC and SVOC) was detected above VDEQ-PDSs in the groundwater samples collected from wells MiHpt-5, MiHpt-14, and MW-25.
- **PCE** was detected above VDEQ-PDSs in the groundwater sample collected from well MiHpt-21.
- **TCE** was detected above VDEQ-PDSs in the groundwater sample collected from well MiHpt-21.
- **Toluene** was detected above VDEQ-PDSs in the groundwater sample collected from well MiHpt-21.
- **Xylenes (m, p, and/or o type)** were detected above VDEQ-PDSs in the groundwater sample collected from well MiHpt-21.

Constituents Detected Above VDEQ-T2PWSSLs

- **Benzene** was detected above VDEQ-T2PWSSLs in the groundwater samples collected from wells MiHpt-5, MiHpt-14, and MiHpt-21.
- **Benzo(a)anthracene** was detected above VDEQ-T2PWSSLs in the groundwater sample collected from well MiHpt-14 and MW-24.
- **2,4-Dichlorophenol** was detected above VDEQ-T2PWSSLs in the groundwater sample collected from well MiHpt-21.
- **Pentachlorophenol** was detected above VDEQ-T2PWSSLs in the groundwater sample collected from well MiHpt-21.
- **PCE** was detected above VDEQ-T2PWSSLs in the groundwater sample collected from well MiHpt-21.
- **TCE** was detected above VDEQ-T2PWSSLs in the groundwater sample collected from well MiHpt-21.

Constituents Detected Above VDEQ-T2SWFSLs

- **Benzo(a)anthracene** was detected above VDEQ-T2SWFSLs in the groundwater sample collected from well MiHpt-14.

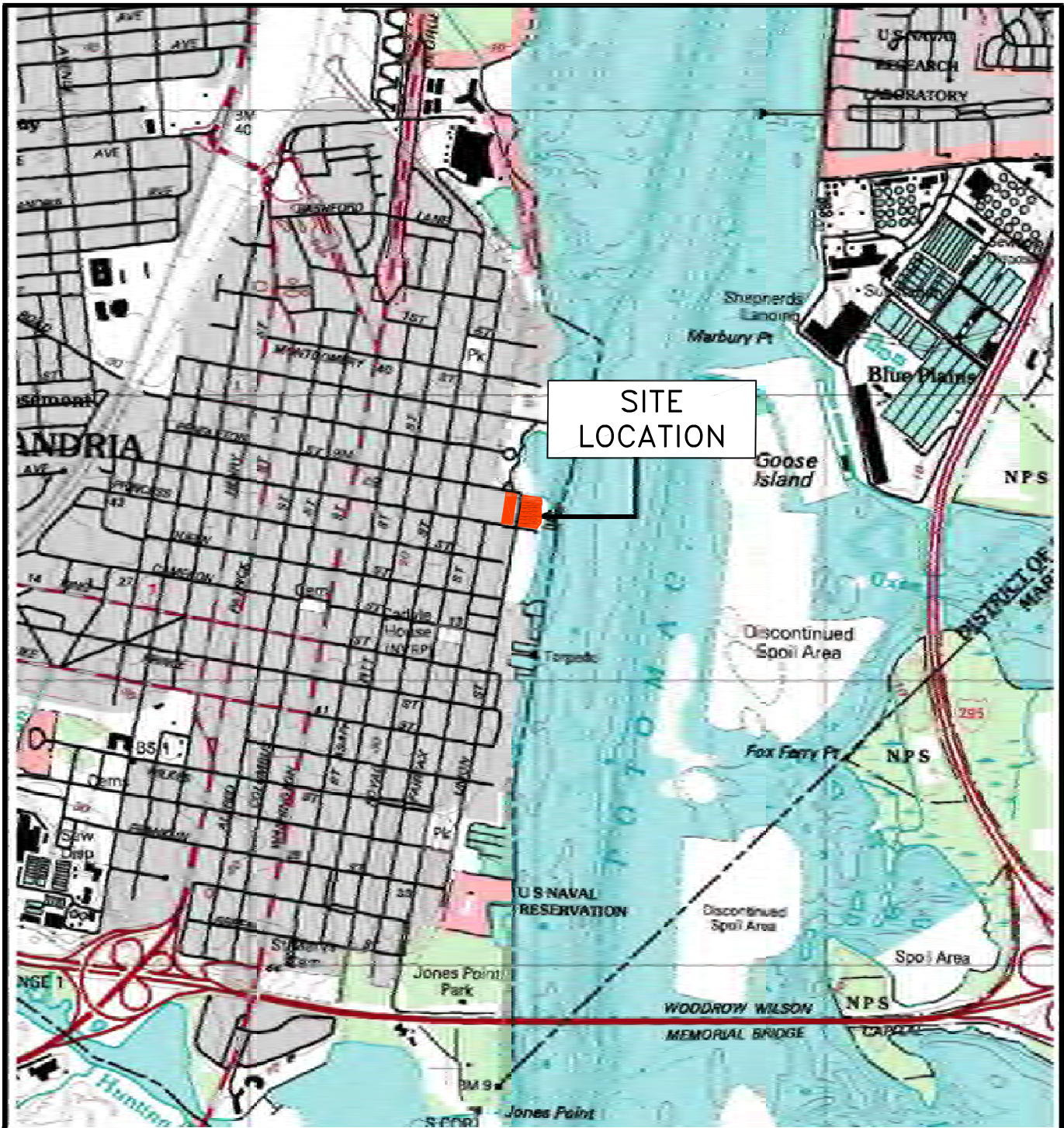
- **PCE** was detected above VDEQ-T2SWFSLs in the groundwater sample collected from well MiHpt-21.
- **2,4-Dichlorophenol** was detected above VDEQ-T2SWFSLs in the groundwater sample collected from well MiHpt-21.
- **Pentachlorophenol** was detected above VDEQ-T2SWFSLs in the groundwater sample collected from well MiHpt-21.

In general, the concentrations of TPH-GRO, TPH-DRO, VOCs, and SVOCs detected in groundwater appear to be decreasing or be relatively stable over time. The highest concentrations of target constituents detected were on the western and southern portions of the SITE. Isoconcentration maps prepared from the recent groundwater analytical data for TPH-GRO, TPH-DRO, benzene, and naphthalene are included as Figures 6 through 9.

6.0 DEVELOPMENT SCHEDULE UPDATE

The entitlement approvals for a change in use of the SITE have lapsed so there is no current redevelopment proposed or approved at this time. A large stormwater infrastructure/utility project associated with AlexRenew that is being constructed on the 501 Parcel. The portion of the 501 Parcel not being used for the actual construction is being used as a laydown yard in support of the construction. AlexRenew has control of the 501Parcel until 2025 pursuant to an agreement with the owner. The 500 Parcel will remain with its current use as a warehouse unless and until a new entitlement is sought and obtained. These changes in future use will be considered in the Risk Assessment Addendum currently being prepared by ANT, which will include the future use assessment in accordance with Section 5.4.3.2.2 of the VDEQ PSTP Technical Manual (VDEQ Guidance Document #01-2024D) (Fourth Edition, May 10, 2011) and the VRP regulations at 9 AC 20-160.

FIGURES



REFERENCE:
7.5 MINUTE SERIES TOPOGRAPHIC QUADRANGLE
ALEXANDRIA, VIRGINIA
PHOTOREVISED 1994 SCALE 1:24,000



SITE LOCATION

DESIGNED BRUZZESI	DATE 04/04/17
DRAWN CONNELLY	DATE 04/04/17

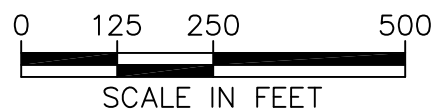
A-ZONE
ENVIRONMENTAL SERVICES
2181 BERRYVILLE PIKE
CHARLES TOWN, WV 25414

FORMER ROBINSON TERMINAL NORTH
500 AND 501 NORTH UNION STREET
ALEXANDRIA, VA

PROJECT NO. 6048.04	SCALE: AS SHOWN
DRAWING NO.	FIGURE 1



MICROSOFT CORPORATION 2016



AERIAL PHOTOGRAPH

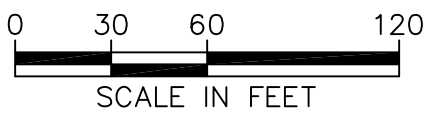
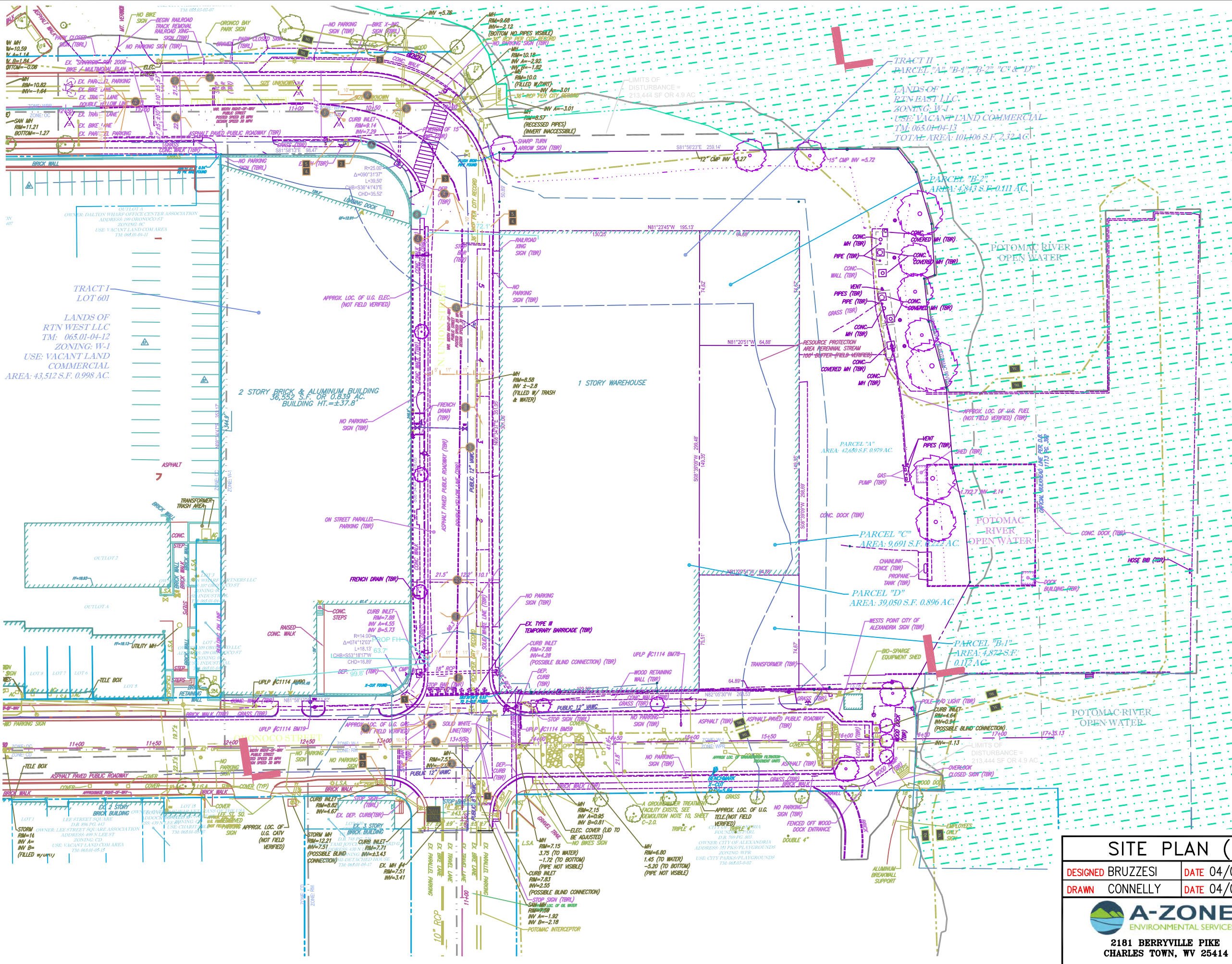
DESIGNED BRUZZESI	DATE 04/04/17
DRAWN CONNELLY	DATE 04/04/17



2181 BERRYVILLE PIKE
CHARLES TOWN, WV 25414

FORMER ROBINSON TERMINAL NORTH
500 AND 501 NORTH UNION STREET
ALEXANDRIA, VA

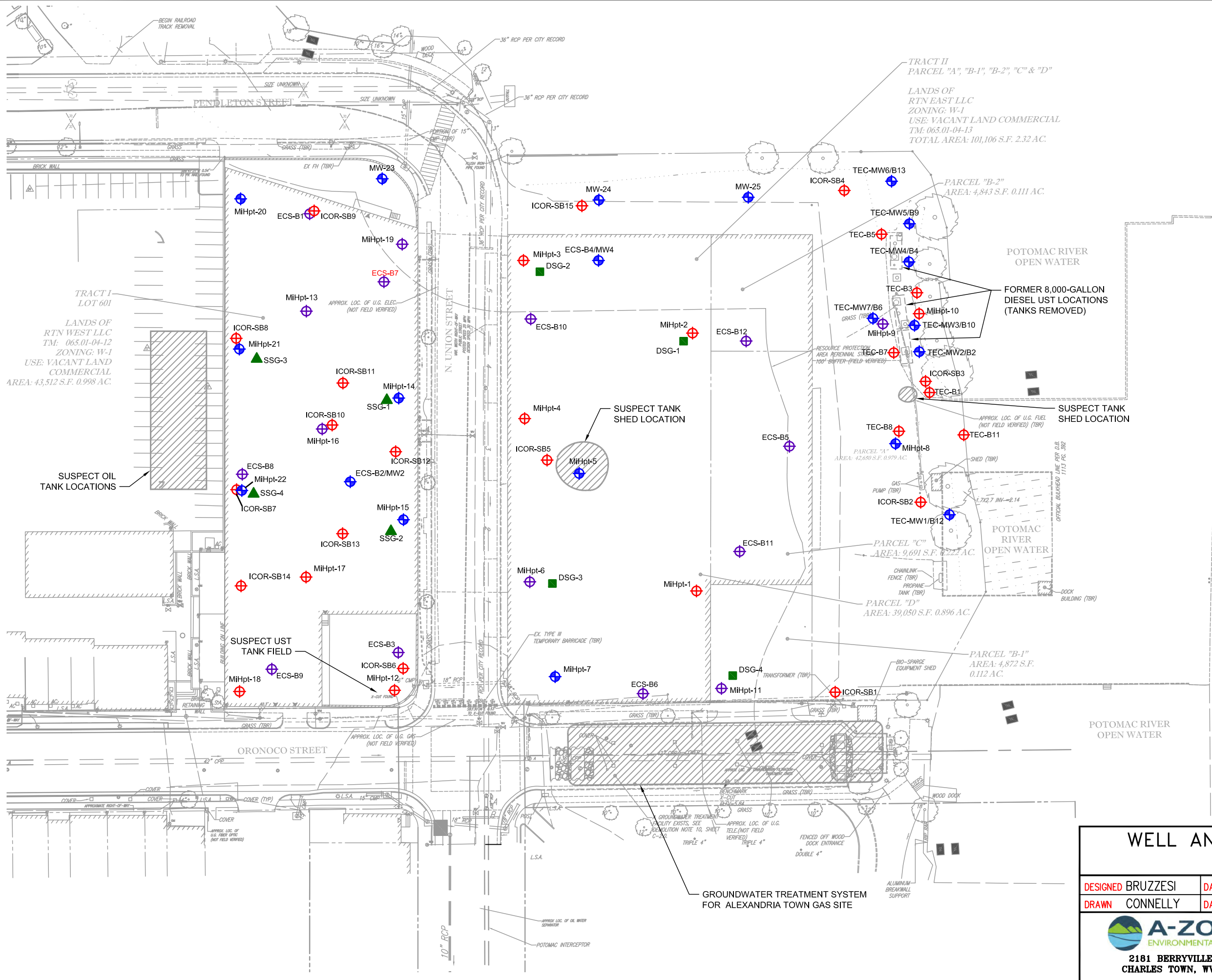
PROJECT NO. 6078.04	SCALE: AS SHOWN
DRAWING NO.	FIGURE 2



SITE PLAN (EXISTING CONDITIONS)			
DESIGNED	BRUZZESI	DATE	04/04/17
DRAWN	CONNELLY	DATE	04/04/17
		FORMER ROBINSON TERMINAL NORTH 500 AND 501 NORTH UNION STREET ALEXANDRIA, VA	
2181 BERRYVILLE PIKE CHARLES TOWN, WV 25414		PROJECT NO. 6078.04	SCALE: AS SHOWN
		DRAWING NO.	FIGURE 3

6078-04-RTN_SCR03-EXIST_SITE.DWG - July 6, 2016

6078-04-RTN SCR04-WELL BOR LOC MAP.DWG -- July 6, 2016



LEGEND

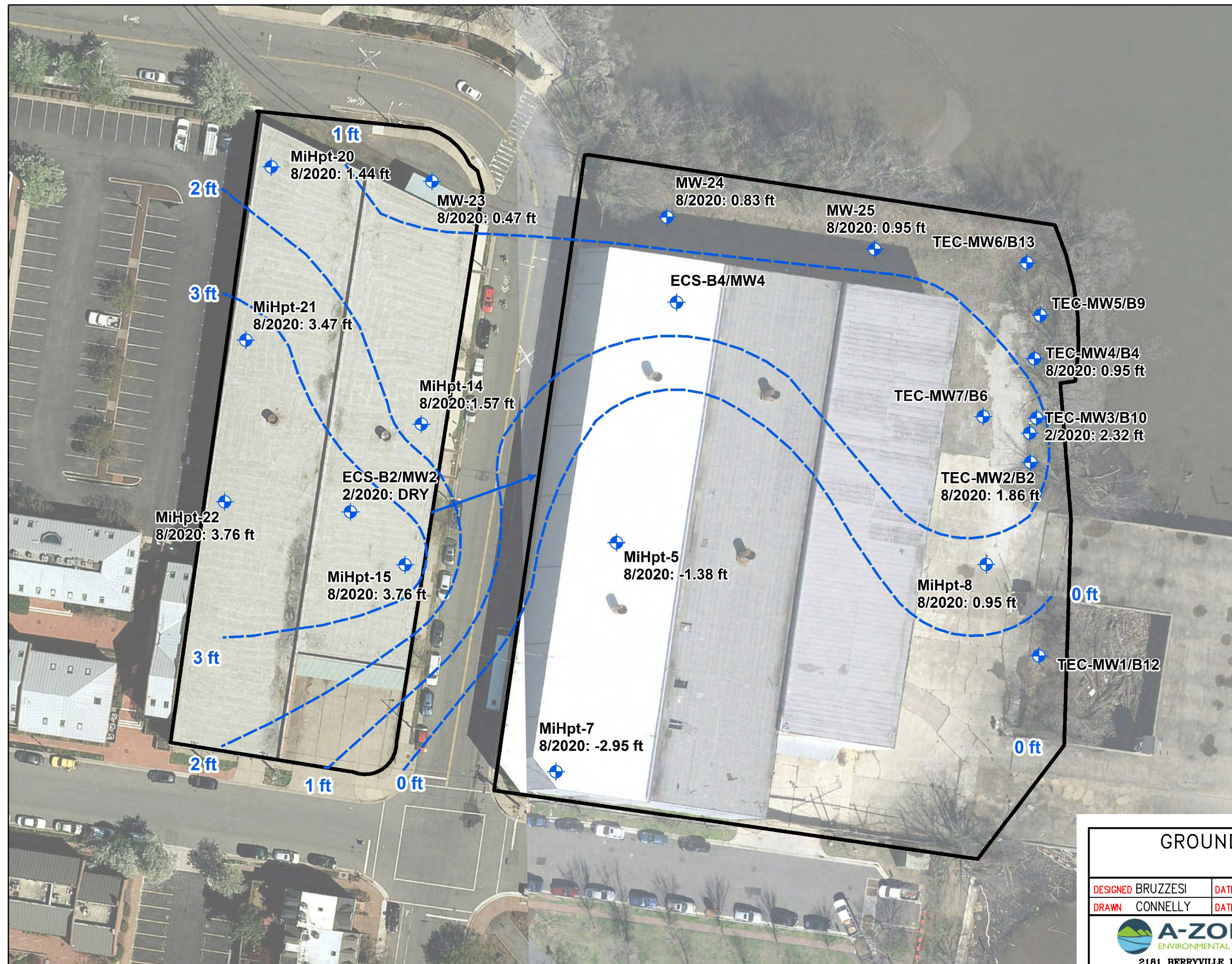
- GROUNDWATER MONITORING WELL
- HISTORICAL SHALLOW TEST BORING (<30 FT)
- HISTORICAL DEEP TEST BORING (>30 FT)
- SUB-SLAB SOIL GAS SAMPLING POINT
- DEEP SOIL GAS SAMPLING POINT
- DESIGNATES A REAL-TIME ASSESSMENT BORING LOCATION



WELL AND BORING LOCATION MAP

DESIGNED BRUZZESI	DATE 01/19/17	FORMER ROBINSON TERMINAL NORTH 500 AND 501 NORTH UNION STREET ALEXANDRIA, VA
DRAWN CONNELLY	DATE 01/19/17	
 2181 BERRYVILLE PIKE CHARLES TOWN, WV 25414		PROJECT NO. 6078.04
		SCALE: AS SHOWN
		DRAWING NO.
		FIGURE 4

6078-04-RTN SCR05-GW CONT MAP.DWG - July 6, 2016



Legend

- Site Property
- Groundwater Monitoring Well
- Groundwater Contours (8/2020)
- Direction

Notes:
DRY - Well was dry.



GROUNDWATER CONTOUR MAP (02/05/20)

DESIGNED BRUZZESI
DRAWN CONNELLY

DATE 07/28/19
DATE 07/28/19

FORMER ROBINSON TERMINAL NORTH
500 AND 501 NORTH UNION STREET
ALEXANDRIA, VA



2181 BERRYVILLE PIKE
CHARLES TOWN, WV 25414

PROJECT NO. 6078.04

SCALE: AS SHOWN

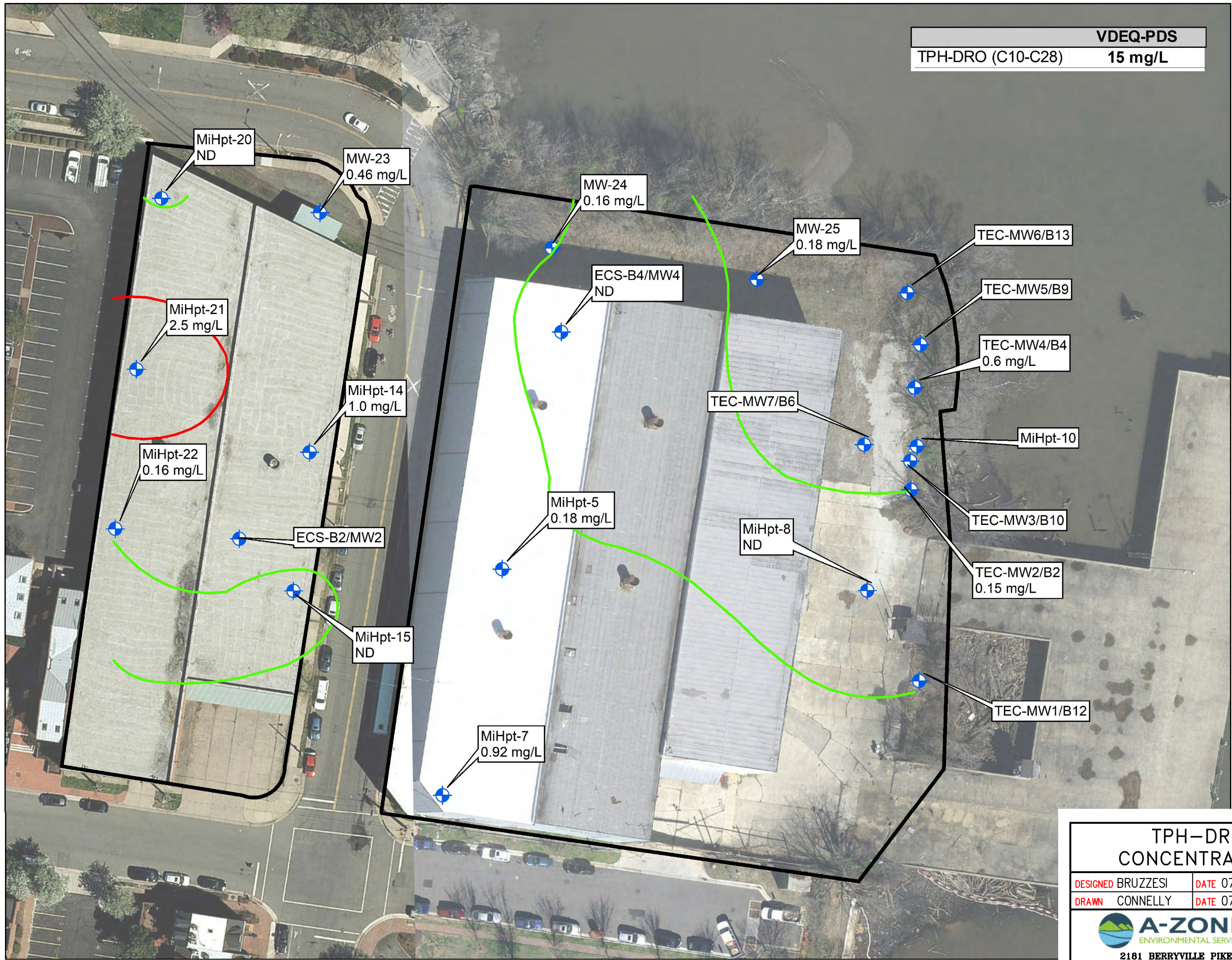
DRAWING NO.

FIGURE 5

6078-04-RTN SCR06-TPHGRO GW CONC.DWG - July 6, 2016

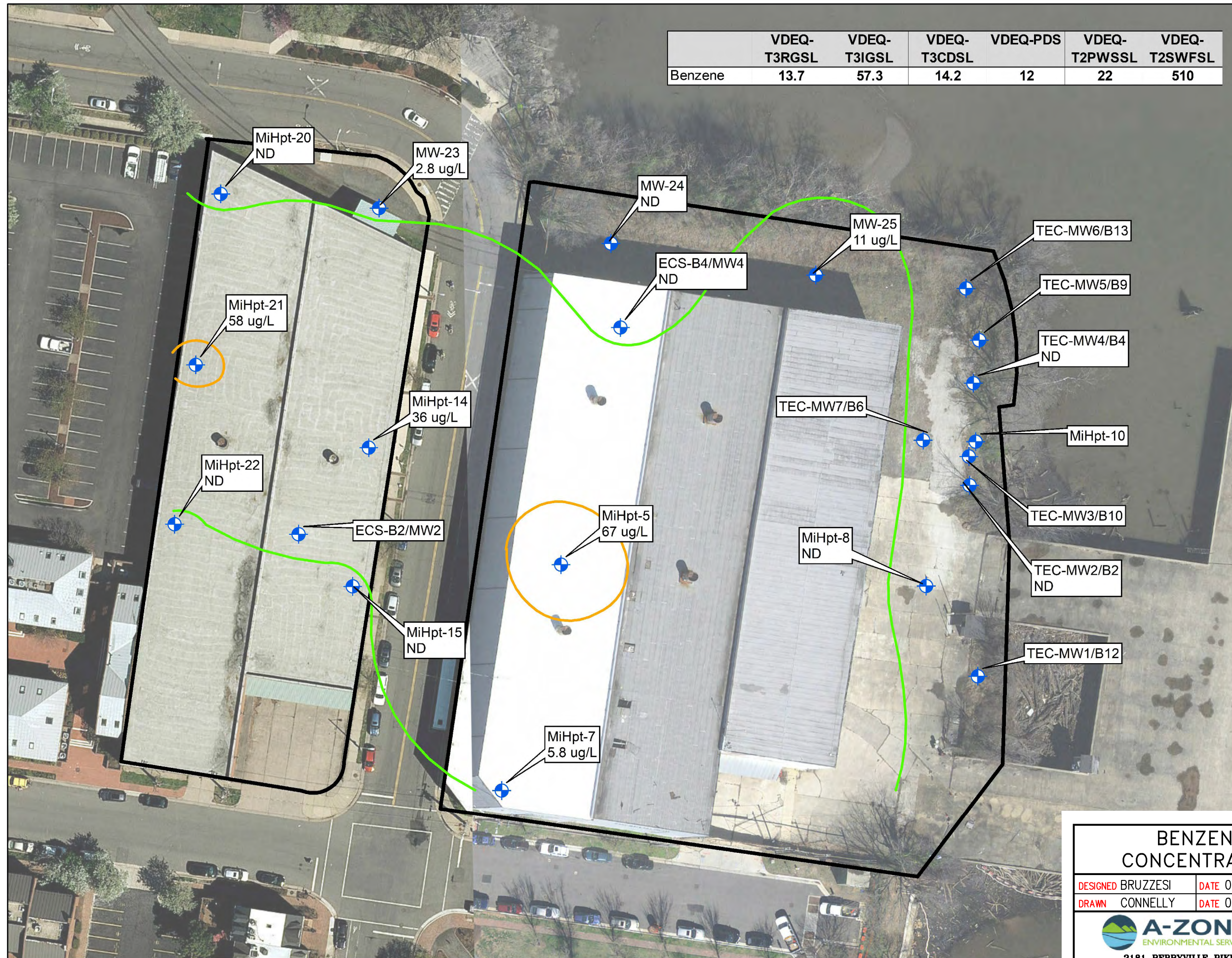


6078-04-RTN SCR07-TPHDRO GW CONC.DWG - July 6, 2016



DESIGNED BRUZZESI		DATE 07/28/19	FORMER ROBINSON TERMINAL NORTH 500 AND 501 NORTH UNION STREET ALEXANDRIA, VA
DRAWN CONNELLY		DATE 07/28/19	
			
2181 BERRYVILLE PIKE CHARLES TOWN, WV 25414			
PROJECT NO. 6078.04		SCALE: AS SHOWN	
DRAWING NO.		FIGURE 7	

6078-04-RTN SCR08-BENZ GW CONC.DWG - July 6, 2016



N

Legend

- Site Property
- Groundwater Monitoring Well

Isoconcentration (Benzene)

- 5 ug/L
- 50 ug/L

Sample ID

Benzene Concentration (ug/L)

Notes:

ND - Non-Detect

VDEQ-T3RGSL = VDEQ Tier III residential groundwater vapor intrusion screening level

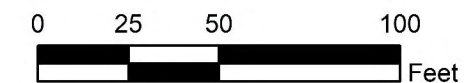
VDEQ-T3CGSL = VDEQ Tier III industrial groundwater vapor intrusion screening level

VDEQ-T3CDSL = VDEQ Tier III construction direct (<15 feet) screening level

VDEQ-PDS = general permit discharge standard for petroleum contaminated water

VDEQ-T2PWSSL = VDEQ Tier II public water supply screening level

VDEQ-T2SWFSL = VDEQ Tier II surface water fresh screening level



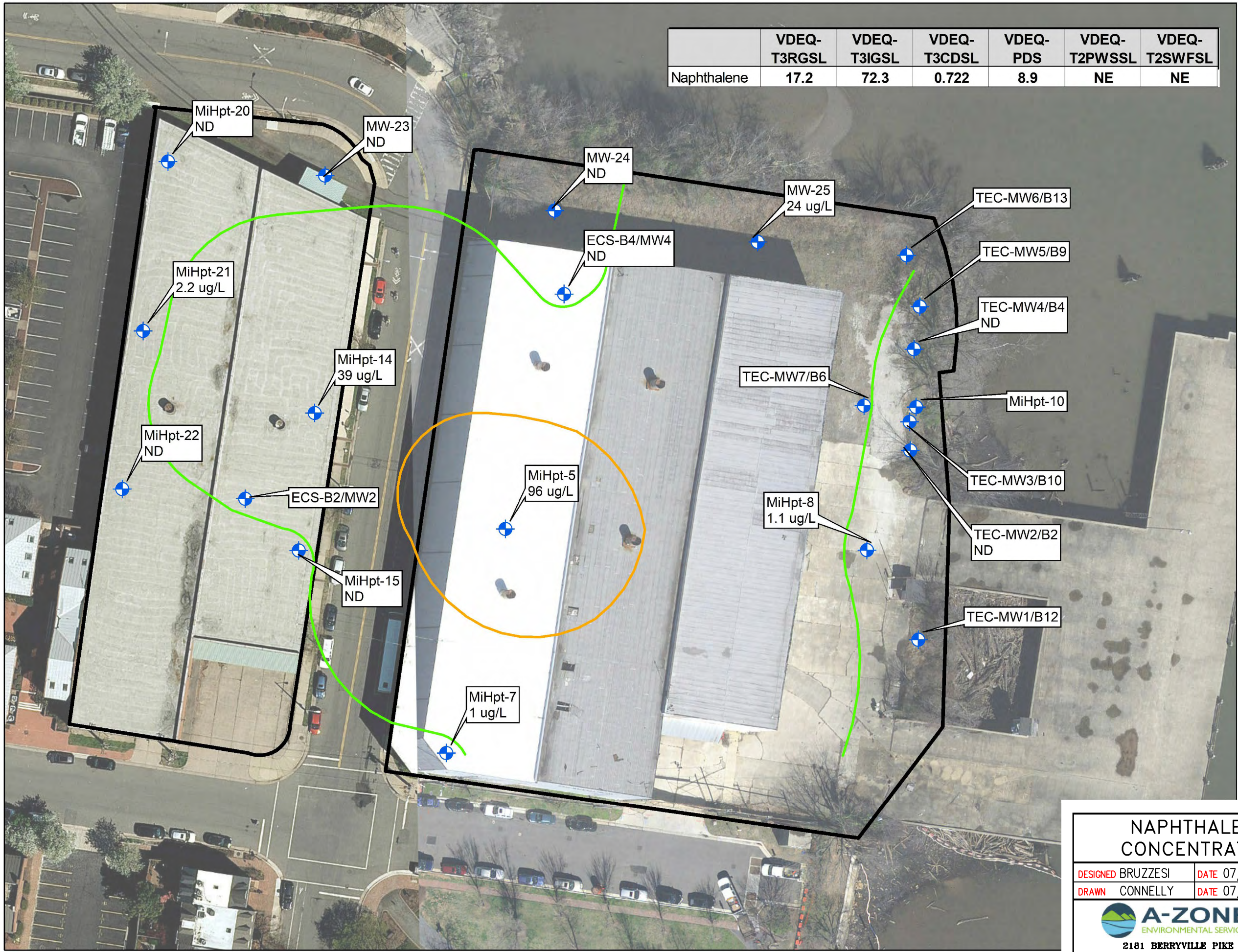
BENZENE IN GROUNDWATER CONCENTRATION MAP (02/05/20)

DESIGNED BRUZZESI	DATE 07/28/19	FORMER ROBINSON TERMINAL NORTH 500 AND 501 NORTH UNION STREET ALEXANDRIA, VA
DRAWN CONNELLY	DATE 07/28/19	

A-ZONE
ENVIRONMENTAL SERVICES
2181 BERRYVILLE PIKE
CHARLES TOWN, WV 25414

PROJECT NO. 6078.04	SCALE: AS SHOWN
DRAWING NO.	FIGURE 8

6078-04-RTN SCR09-NAPTH GW CONC.DWG - July 6, 2016



N

Site Property

Groundwater Monitoring Well

Isoconcentration (Naphthalene)

5 ug/L

50 ug/L

Sample ID

Naphthalene Concentration (ug/L)

Notes:

ND - Non-Detect

NE - Non-Established

VDEQ-T3RGSL = VDEQ Tier III residential groundwater vapor intrusion screening level

VDEQ-T3CGSL = VDEQ Tier III industrial groundwater vapor intrusion screening level

VDEQ-T3CDSL = VDEQ Tier III construction direct (<15 feet) screening level

VDEQ-PDS = general permit discharge standard for petroleum contaminated water

VDEQ-T2PWSSL = VDEQ Tier II public water supply screening level

VDEQ-T2SWFSL = VDEQ Tier II surface water fresh screening level

0 25 50 100 Feet

NAPHTHALENE IN GROUNDWATER CONCENTRATION MAP (02/05/20)

DESIGNED BRUZZESI	DATE 07/28/19	FORMER ROBINSON TERMINAL NORTH 500 AND 501 NORTH UNION STREET ALEXANDRIA, VA
DRAWN CONNELLY	DATE 07/28/19	

2181 BERRYVILLE PIKE
CHARLES TOWN, WV 25414

PROJECT NO. 6078.04	SCALE: AS SHOWN
DRAWING NO.	FIGURE 9

TABLES

TABLE 1. WELL CONSTRUCTION INFORMATION

FORMER ROBINSON TERMINAL NORTH
500 AND 501 NORTH UNION STREET
ALEXANDRIA, VA

Well ID	Date Installed	Well Diameter (inches ID)	Well Material	Total Depth (feet bgs)	Screen Interval (feet bgs)
TEC-MW1	4/27/06	1	PVC	10.0	UKN
TEC-MW2	4/27/06	1	PVC	16.0	UKN
TEC-MW3	UKN	1	PVC	UKN	UKN
TEC-MW4	4/27/06	1	PVC	12.0	UKN
TEC-MW5	4/27/06	1	PVC	16.0	UKN
TEC-MW6	4/28/06	1	PVC	16.0	UKN
TEC-MW7	4/27/06	1	PVC	12.0	UKN
ECS-MW2	12/20/07	1	PVC	UKN	UKN
ECS-MW4	12/27/07	1	PVC	UKN	UKN
MiHpt-5	9/7/16	1	PVC	16.0	6.0 - 16.0
MiHpt-7	9/6/16	1	PVC	17.0	7.0 - 17.0
MiHpt-8	9/6/16	1	PVC	20.0	10.0 - 20.0
MiHpt-14	9/8/16	1	PVC	16.0	6.0 - 16.0
MiHpt-15	9/8/16	1	PVC	16.0	6.0 - 16.0
MiHpt-20	9/8/16	1	PVC	18.0	8.0 - 18.0
MiHpt-21	9/9/16	1	PVC	16.0	6.0 - 16.0
MiHpt-22	9/9/16	1	PVC	16.0	6.0 - 16.0
MW23	1/22/18	1	PVC	19.8	4.8 - 19.8
MW24	1/22/18	1	PVC	19.0	4.0 - 19.0
MW25	1/22/18	1	PVC	19.0	4.0 - 19.0

NOTES:

ID = inner diameter

bgs = below surface grade

UKN = unknown

TABLE 2. HISTORICAL GROUNDWATER MEASUREMENTS

FORMER ROBINSON TERMINAL NORTH
500 AND 501 NORTH UNION STREET
ALEXANDRIA, VA

Well ID	Well TOC Elevation (feet)	Date	Total Well Depth (feet bgs)	Depth to Groundwater (feet bgs)	Groundwater Elevation (feet)
TEC-MW1	7.92	5/4/06	10.0	5.64	2.28
TEC-MW2	9.26	5/4/06	16.0	6.79	2.47
		9/21/16		6.74	2.52
		2/7/17		7.21	2.05
		1/29/18		7.81	1.45
		6/7/18		6.32	2.94
		7/11/19		6.33	2.93
		2/5/20		7.01	2.25
		8/20/20		7.40	1.86
TEC-MW3	9.47	5/4/06	UKN	7.00	2.47
		9/21/16		7.22	2.25
		2/7/17		7.44	2.03
		1/29/18		OBS	OBS
		6/7/18		6.39	3.08
		2/5/20		7.15	2.32
TEC-MW4	9.51	5/4/06	12.0	7.05	2.46
		9/21/16		7.23	2.28
		2/7/17		7.50	2.01
		1/29/18		8.12	1.39
		6/7/18		6.45	3.06
		7/11/19		6.45	3.06
		2/5/20		7.27	2.24
		8/20/20		8.56	0.95
TEC-MW5	8.02	5/4/06	16.0	7.89	0.13
		9/21/16		7.58	0.44
		2/7/17		6.83	1.19
		1/29/18		6.31	1.71
TEC-MW6	7.52	5/4/06	16.0	6.40	1.12
TEC-MW7	8.70	5/4/06	12.0	6.49	2.21
ECS-MW2	11.48	12/20/07	UKN	10.08	1.40
		9/21/16		6.97	4.51
		2/7/17		6.53	4.95

TABLE 2. HISTORICAL GROUNDWATER MEASUREMENTS

FORMER ROBINSON TERMINAL NORTH
500 AND 501 NORTH UNION STREET
ALEXANDRIA, VA

Well ID	Well TOC Elevation (feet)	Date	Total Well Depth (feet bgs)	Depth to Groundwater (feet bgs)	Groundwater Elevation (feet)
		1/29/18 6/7/18 7/11/19 2/5/20 8/20/20		DRY DRY DRY DRY DRY	DRY DRY DRY DRY DRY
ECS-MW4	8.76	12/20/07 9/21/16 2/7/17 1/29/18 6/7/18 7/11/19 2/5/20 8/20/20	UKN	9.15 2.98 3.38 4.65 2.73 1.90 3.11 14.64	-0.39 5.78 5.38 4.11 6.03 6.86 5.65 -5.88
MiHpt-5	8.82	9/21/16 2/7/17 1/29/18 6/7/18 7/11/19 2/5/20 8/20/20	16.0	5.37 6.62 6.31 4.52 4.22 5.22 10.20	3.45 2.20 2.51 4.30 4.60 3.60 -1.38
MiHpt-7	8.97	9/21/16 2/7/17 1/29/17 6/7/18 7/11/19 2/5/20 8/20/20	17.0	5.18 5.07 6.11 4.50 4.17 5.28 11.92	3.79 3.90 2.86 4.47 4.80 3.69 -2.95
MiHpt-8	8.21	9/21/16 2/7/17 1/29/18 6/7/18 7/11/19	20.0	5.99 6.19 6.16 5.13 5.16	2.22 2.02 2.05 3.08 3.05

TABLE 2. HISTORICAL GROUNDWATER MEASUREMENTS

FORMER ROBINSON TERMINAL NORTH
500 AND 501 NORTH UNION STREET
ALEXANDRIA, VA

Well ID	Well TOC Elevation (feet)	Date	Total Well Depth (feet bgs)	Depth to Groundwater (feet bgs)	Groundwater Elevation (feet)
MiHpt-14	11.48	2/5/20	16.0	5.96	2.25
		8/20/20		7.26	0.95
		9/21/16		7.90	3.58
		2/7/17		7.62	3.86
		1/29/18		8.95	2.53
		6/7/18		7.39	4.09
		7/11/19		6.97	4.51
		2/5/20		7.81	3.67
MiHpt-15	11.54	8/20/20	16.0	9.91	1.57
		9/21/16		7.22	4.32
		2/7/17		6.59	4.95
		1/29/17		8.11	3.43
		6/7/18		6.58	4.96
		7/11/19		6.21	5.33
		2/5/20		6.78	4.76
		8/20/20		7.78	3.76
MiHpt-20	11.59	9/21/16	18.0	9.41	2.18
		2/7/17		9.50	2.09
		1/29/18		10.57	1.02
		6/7/18		8.14	3.45
		7/11/19		8.91	2.68
		2/5/20		9.10	2.49
		8/20/20		10.15	1.44
MiHpt-21	11.56	9/21/16	16.0	7.19	4.37
		2/7/17		6.99	4.57
		1/29/18		11.05	0.51
		6/7/18		6.70	4.86
		7/11/19		5.84	5.72
		2/5/20		6.80	4.76
		8/20/20		8.09	3.47

TABLE 2. HISTORICAL GROUNDWATER MEASUREMENTS

FORMER ROBINSON TERMINAL NORTH
500 AND 501 NORTH UNION STREET
ALEXANDRIA, VA

Well ID	Well TOC Elevation (feet)	Date	Total Well Depth (feet bgs)	Depth to Groundwater (feet bgs)	Groundwater Elevation (feet)
MiHpt-22	11.63	9/21/16	16.0	7.30	4.33
		2/7/17		6.99	4.64
		1/29/18		8.10	3.53
		6/7/18		6.57	5.06
		7/11/19		8.94	2.69
		2/5/20		6.65	4.98
		8/20/20		7.87	3.76
MW23	9.12	1/29/18	19.8	8.27	0.85
		6/7/18		6.43	2.69
		7/11/19		6.42	2.70
		2/5/20		7.45	1.67
		8/20/20		8.65	0.47
MW24	8.62	1/29/18	19.0	7.61	1.01
		6/7/18		5.79	2.83
		7/11/19		5.32	3.30
		2/5/20		6.07	2.55
		8/20/20		7.79	0.83
MW25	7.73	1/29/18	19.0	6.49	1.24
		6/7/18		4.85	2.88
		7/11/19		4.74	2.99
		2/5/20		5.52	2.21
		8/20/20		6.78	0.95

NOTES:

All survey data generated by a professional surveyor

TOC = top of casing

bgs = below ground surface

UKN = unknown

OBS = obstructed

DRY = well dry

TABLE 3. GROUNDWATER PARAMETER READINGS AT STABILIZATION

FORMER ROBINSON TERMINAL NORTH
500 AND 501 NORTH UNION STREET
ALEXANDRIA, VA

Well ID	Date Measurement Collected	Time to Stabilization (minutes)	Temperature (°C)	Specific Conductance (mS/cm)	pH	Oxygen Reduction Potential (mv)	Dissolved Oxygen (mg/l)	Turbidity (NTU)
TEC-MW2	1/29/18	10/DRY	12.68	0.413	6.80	-145	8.5	113.0
	6/7/18	15/DRY	16.32	1.010	6.67	-70	1.0	22.0
	7/11/19	15/DRY	21.24	1.690	6.57	-71	1.5	122.0
	2/5/20	15/DRY	12.88	1.760	6.88	-60	2.5	308.0
	8/20/20	15/DRY	22.17	1.020	6.12	93	22.0	70.0
TEC-MW4	1/29/18	35	14.00	0.888	6.81	-109	0.0	3.3
	6/7/18	30	15.43	0.722	6.67	-67	0.0	11.0
	7/11/19	30	17.99	1.290	7.37	-123	0.0	0.0
	2/5/20	30	12.48	1.300	6.99	-109	0.0	6.2
	8/20/20	30	20.57	1.240	6.75	-52	5.5	0.0
ECS-MW4	1/29/18	35	15.74	0.485	6.60	-92	0.0	10.3
	6/7/18	30	17.43	0.565	6.72	-145	0.0	4.7
	7/11/19	25	18.08	0.671	6.95	-130	0.0	15.5
	2/5/20	35	15.01	0.551	6.81	-82	0.8	5.6
	8/20/20	30	19.26	0.501	5.72	99	7.2	33.0
MiHpt-5	1/29/18	35	14.18	0.843	2.37	351	4.8	410.0
	6/7/18	30	15.55	0.779	2.66	322	0.0	0.0
	7/11/19	25	18.33	0.939	2.98	297	0.0	20.0
	2/5/20	30	13.43	4.500	2.79	373	0.0	98.0
	8/20/20	10/DRY	20.95	7.470	2.19	337	11.6	35.0
MiHpt-7	1/29/18	35	15.69	0.469	6.81	-116	0.0	15.5
	6/7/18	25	16.70	0.486	6.76	-138	0.0	9.0
	7/11/19	25	18.34	0.598	7.24	-161	0.0	0.0
	2/5/20	25	14.32	0.476	6.67	-81	0.0	56.7
	8/20/20	25	20.46	0.752	6.43	-99	0.0	45.2
MiHpt-8	1/29/18	40	12.01	1.870	7.08	-245	7.5	3.5
	6/7/18	40	18.07	1.120	6.67	-419	0.0	9.2
	7/11/19	25	23.61	1.760	6.94	-339	0.0	34.9
	2/5/20	35	15.34	1.720	6.84	-322	5.4	13.0
	8/20/20	35	22.45	0.890	7.14	-133	1.5	45.9
MiHpt-14	1/29/18	35	15.83	1.330	5.81	-6	0.0	33.2
	6/7/18	25	16.99	1.050	6.00	-8	0.0	2.0
	7/11/19	35	21.42	1.360	6.11	-38	0.0	11.0
	2/5/20	30	14.68	1.140	5.76	22	0.0	0.0
	8/20/20	30	20.27	1.800	5.79	-10	0.0	0.0
MiHpt-15	1/29/18	25	13.50	0.592	6.19	52	0.0	18.1
	6/7/18	25	18.03	0.903	6.16	50	0.0	70.5
	7/11/19	20	22.19	1.430	6.32	-6	0.0	23.4
	2/5/20	30	13.46	0.663	5.99	134	0.0	129
	8/20/20	15/DRY	21.13	0.514	6.41	103	3.4	130

TABLE 3. GROUNDWATER PARAMETER READINGS AT STABILIZATION

FORMER ROBINSON TERMINAL NORTH
500 AND 501 NORTH UNION STREET
ALEXANDRIA, VA

Well ID	Date Measurement Collected	Time to Stabilization (minutes)	Temperature (°C)	Specific Conductance (mS/cm)	pH	Oxygen Reduction Potential (mv)	Dissolved Oxygen (mg/l)	Turbidity (NTU)
MiHpt-20	1/29/18	35	16.12	0.754	6.43	19	0.0	11.2
	6/7/18	30	16.37	0.947	5.92	119	0.1	115.0
	7/11/19	25	22.11	0.668	6.11	164	0.8	19.0
	2/5/20	35	14.05	0.620	6.03	177	0.0	52.7
	8/20/20	35	19.73	0.542	6.35	286	0.7	6.7
MiHpt-21	1/29/18	10/DRY	15.48	0.948	6.26	-25	0.0	148.0
	6/7/18	10/DRY	17.06	1.150	6.41	-22	2.7	437.0
	7/11/19	20/DRY	23.36	1.610	6.92	-106	0.0	46.7
	2/5/20	30	14.52	1.700	6.65	-72	0.0	28.5
	8/20/20	15/DRY	20.72	1.710	6.78	-89	2.8	23.5
MiHpt-22	1/29/18	15/DRY	14.72	0.654	6.26	-24	0.0	28.6
	6/7/18	25	17.10	0.772	6.50	-48	0.0	170.0
	7/11/19	25	22.10	0.903	6.79	-99	0.0	40.1
	2/5/20	30	13.86	0.793	6.16	-6	2.7	66.9
	8/20/20	15/DRY	20.53	0.900	7.08	-94	3.9	112.0
MW-23	1/29/18	35	15.78	0.536	6.66	-74	0.0	60.7
	6/7/18	30	17.58	0.730	6.48	-40	0.0	5.2
	7/11/19	25	18.86	1.060	6.45	-81	0.0	18.1
	2/5/20	25	15.96	0.782	6.68	-117	0.8	19.0
	8/20/20	35	27.27	1.660	5.88	41	1.7	8.4
MW-24	1/29/18	35	12.40	0.570	6.63	-132	0.0	3.1
	6/7/18	30	12.51	0.597	6.20	-31	0.0	3.3
	7/11/19	20	23.01	0.872	6.33	-48	0.0	16.7
	2/5/20	30	12.67	0.653	6.49	-181	2.2	1.1
	8/20/20	25	22.46	0.656	6.35	-47	0.0	0.0
MW-25	1/29/18	35	14.78	2.380	4.39	75	0.0	6.3
	6/7/18	30	15.13	2.390	4.16	85	0.0	2.3
	7/11/19	25	22.17	2.640	4.03	67	0.0	13.2
	2/5/20	30	13.10	3.060	4.08	-156	0.8	27.0
	8/20/20	30	20.24	1.530	4.71	77	0.0	2.5

NOTES:

°C = degrees Celcius

mS/cm = milliSiemens per cubic meter

mv = millivolts

mg/l = milligrams per liter

NTU = Nephelometric Turbidity Units

NM = not measured

DRY = well went dry

TABLE 4. GROUNDWATER ANALYTICAL RESULTS (DETECTIONS ONLY)

FORMER ROBINSON TERMINAL NORTH
500 AND 501 NORTH UNION STREET
ALEXANDRIA, VA

Sample ID:	Units	CAS No.	VDEQ-T3RGS�	VDEQ-T3IGSL	VDEQ-T3CDSL	VDEQ-PDS	VDEQ-T2PWSSL	VDEQ-T2SWFSL	TEC-MW2							TEC-MW4						
Sample Date:									9/21/16	2/7/17	1/29/18	6/7/18	7/11/19	2/5/20	8/20/20	9/21/16	2/7/17	1/29/18	6/7/18	7/11/19	2/5/20	8/20/20
TPH 8015																						
TPH-GRO (C6-C10)	mg/L	C6C10GRO	NE	NE	NE	15	NE	NE	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TPH-DRO (C10-C28)	mg/L	C10C28DRO	NE	NE	NE	15	NE	NE	0.21	0.18	0.28	0.22	<0.13	0.12	0.15	0.21	0.26	0.30	0.17	0.11	0.19	0.60
TCL VOCs 8260B																						
Acetone	ug/L	67-64-1	2240000	9780000	13400	NE	NE	NE	<10	<10	<10	<10	<10	<5.0	<5.0	<10	<10	<10	<10	<10	<5.0	<5.0
Benzene	ug/L	71-43-2	13.7	57.3	14.2	12	22	510	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Disulfide	ug/L	75-15-0	124	527	122	NE	NE	NE	<10	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<10	<1.0	<1.0
Chloroform	ug/L	67-66-3	8	35.3	54.3	80	340	11000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	ug/L	74-87-3	26.07	108.16	432.29	NE	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cyclohexane	ug/L	110-82-7	103	424	3330	NE	NE	NE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	ug/L	100-41-4	34.1	152	591	4.3	530	2100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	ug/L	98-82-8	89.3	383	19.9	NE	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl-t-butyl ether	ug/L	1634-04-4	4580	19600	524	15	NE	NE	2.5	2.8	2.3	1.5	<1.0	1.1	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylcyclohexane	ug/L	108-87-2	NE	NE	NE	NE	NE	NE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	91-20-3	17.2	72.3	0.722	8.9	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene (PCE)	ug/L	127-18-4	5.8	24.9	10.4	5	6.9	33	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	108-88-3	1920	8100	949	43	510	6000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene (TCE)	ug/L	79-01-6	0.521	2.19	0.46	5	25	300	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	ug/L	156-59-2	NE	NE	2260	70	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/L	156-60-5	NE	NE	157	100	140	10000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
m,p-Xylenes	ug/L	108-38-3	150	1290	20.8	33	NE	NE	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
o-Xylene	ug/L	95-47-6	47.2	208	20.9	33	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
TCL SVOCs 8270C																						
2,4,5-Trichlorophenol	ug/L	95-95-4	NE	NE	7860	NE	300	600	NA	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50
2,4,6-Trichlorophenol	ug/L	88-06-2	NE	NE	27.37	NE	14	24	NA	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50
2,4-Dichlorophenol	ug/L	120-83-2	NE	NE	1060	NE	77	290	NA	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50
2,4-Dimethylphenol	ug/L	105-67-9	NE	NE	5388.61	NE	380	850	NA	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50
2-Chlorophenol	ug/L	95-57-8	NE	NE	1110	NE	81	150	NA	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50
2-Methylnaphthalene	ug/L	91-57-6	NE	NE	59	NE	NE	NE	NA	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
2-Methyl phenol	ug/L	95-48-7	NE	NE	30174.44	NE	NE	NE	NA	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50
3&4-Methylphenol	ug/L		NE	NE	NE	NE	NE	NE	NA	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50
Acenaphthene	ug/L	83-32-9	NE	NE	2950	NE	670	990	NA	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<5.0	<0.50	<0.50	<0.50	<0.50	0.30	<0.25
Acenaphthylene	ug/L	208-96-8	NE	NE	1430	NE	NE	NE	NA	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
Anthracene	ug/L	120-12-7	NE	NE	7850	NE	8300	40000	NA	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
Benzo(a)anthracene	ug/L	56-55-3	346.52	4076.67	69.33	NE	0.038	0.18	NA	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
Biphenyl (Diphenyl)	ug/L	92-52-4	3.34	14.3	1.18	NE	NE	NE	NA	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50
Carbazole	ug/L	86-74-8	NE	NE	NE	NE	NE	NE	NA	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50
Dibenzofuran	ug/L	132-64-9	NE	NE	48.4	NE	NE	NE	NA	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50
Fluoranthene	ug/L	206-44-0	NE	NE	311	NE	130	140	NA	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
Fluorene	ug/L	86-73-7	NE	NE	4370	NE	1100	5300	NA	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
Naphthalene	ug/L	91-20-3	17.2	72.3	0.722	8.9	NE	NE	NA	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
Pentachlorophenol	ug/L	87-86-5	NE	NE	5.54	NE	0.03	0.04	NA	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0
Phenanthrene	ug/L	85-01-8	NE	NE	1430	NE	NE	NE	NA	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
Pyrene	ug/L	129-00-0	NE	NE	1430	NE	830	4000	NA	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
bis(2-ethylhexyl) phthalate	ug/L	117-81-7	0.00252	0.01122	0.02572	NE	12	22	NA	<0.50	<0.50	<0.50	<0.50	0.83	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

NOTES:
TPH = total petroleum hydrocarbons
TPH-DRO = diesel range TPH
TPH-GRO = gasoline range TPH
TCL = Target Compound List
VOCs = volatile organic compounds
SVOCs = semi-VOCs
EPA 8260B = United States Environmental Protection Agency SW-846 analytical method
ug/L = micrograms per liter
mg/L = milligrams per liter
<1.0 = not detected above analytical method reporting limit (RL)
VDEQ = Commonwealth of Virginia Department of Environmental Quality
VDEQ-T3RGS� = VDEQ Tier III residential groundwater vapor intrusion screening level
VDEQ-T3CGSL = VDEQ Tier III industrial groundwater vapor intrusion screening level
VDEQ-T3CDSL = VDEQ Tier III construction direct (<15 feet) screening level
VDEQ-PDS = general permit discharge standard for petroleum contaminated water
VDEQ-T2PWSSL = VDEQ Tier II public water supply screening level
VDEQ-T2SWFSL = VDEQ Tier II surface water fresh screening level
NE = not established
Bold and right justification designates target compound was detected at a concentration above RL
Yellow highlighting designates target compound was detected at a concentration above the VDEQ groundwater screening level in at least 1 sample
Blue highlighting designates target compound was detected at a concentration above the VDEQ surface water screening level in at least 1 sample
Green highlighting designates target compound was detected at a concentration above the VDEQ groundwater and surface water screening level in at least 1 sample

TABLE 4. GROUNDWATER ANALYTICAL RESULTS (DETECTIONS ONLY)

FORMER ROBINSON TERMINAL NORTH
500 AND 501 NORTH UNION STREET
ALEXANDRIA, VA

Sample ID:	Units	CAS No.	VDEQ-T3RGS�	VDEQ-T3IGSL	VDEQ-T3CDSL	VDEQ-PDS	VDEQ-T2PWSSL	VDEQ-T2SWFSL	ECS-MW4							MiHpt-05						
Sample Date:									9/21/16	2/7/17	1/29/18	6/71/18	7/11/19	2/5/20	8/20/20	9/21/16	2/7/17	1/29/18	6/7/18	7/11/19	2/5/20	8/20/20
TPH 8015																						
TPH-GRO (C6-C10)	mg/L	C6C10GRO	NE	NE	NE	15	NE	NE	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.81	0.79	0.6	0.95	0.45	0.49	0.19
TPH-DRO (C10-C28)	mg/L	C10C28DRO	NE	NE	NE	15	NE	NE	<0.10	<0.10	0.11	<0.10	<0.10	<0.11	<0.11	0.52	0.41	0.41	0.48	0.70	0.44	0.18
TCL VOCs 8260B																						
Acetone	ug/L	67-64-1	2240000	9780000	13400	NE	NE	NE	<10	<10	<10	<10	<10	<5.0	<5.0	<10	<10	<10	<10	<10	<5.0	<5.0
Benzene	ug/L	71-43-2	13.7	57.3	14.2	12	22	510	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	110	150	130	130	100	91	67
Carbon Disulfide	ug/L	75-15-0	124	527	122	NE	NE	NE	<10	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<10	<1.0	<1.0
Chloroform	ug/L	67-66-3	8	35.3	54.3	80	340	11000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	ug/L	74-87-3	26.07	108.16	432.29	NE	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cyclohexane	ug/L	110-82-7	103	424	3330	NE	NE	NE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	ug/L	100-41-4	34.1	152	591	4.3	530	2100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	26	14	13	24	30	48	<1.0
Isopropylbenzene	ug/L	98-82-8	89.3	383	19.9	NE	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.5	4.4	5.5	7.9	10	12	2.4
Methyl-t-butyl ether	ug/L	1634-04-4	4580	19600	524	15	NE	NE	3.7	4.7	4.9	4.8	5.9	5.1	3.9	<1.0	<1.0	<1.0	<1.0	<1.0	1.7	<1.0
Methylcyclohexane	ug/L	108-87-2	NE	NE	NE	NE	NE	NE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	91-20-3	17.2	72.3	0.722	8.9	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	170	250	220	340	390	430	96
Tetrachloroethene (PCE)	ug/L	127-18-4	5.8	24.9	10.4	5	6.9	33	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	108-88-3	1920	8100	949	43	510	6000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.4	1.0	1.5	2.6	2.9	2.8	<1.0
Trichloroethene (TCE)	ug/L	79-01-6	0.521	2.19	0.46	5	25	300	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	ug/L	156-59-2	NE	NE	2260	70	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/L	156-60-5	NE	NE	157	100	140	10000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
m,p-Xylenes	ug/L	108-38-3	150	1290	20.8	33	NE	NE	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	12	18	19	22	27	26	6.4
o-Xylene	ug/L	95-47-6	47.2	208	20.9	33	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	23	38	39	37	45	47	17
TCL SVOCs 8270C																						
2,4,5-Trichlorophenol	ug/L	95-95-4	NE	NE	7860	NE	300	600	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50	<5.3	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50
2,4,6-Trichlorophenol	ug/L	88-06-2	NE	NE	27.37	NE	14	24	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50	<5.3	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50
2,4-Dichlorophenol	ug/L	120-83-2	NE	NE	1060	NE	77	290	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50	<5.3	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50
2,4-Dimethylphenol	ug/L	105-67-9	NE	NE	5388.61	NE	380	850	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50	<5.3	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50
2-Chlorophenol	ug/L	95-57-8	NE	NE	1110	NE	81	150	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<5.3	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50
2-Methylnaphthalene	ug/L	91-57-6	NE	NE	59	NE	NE	NE	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	16	1.9	1.4	8.0	36	53	0.65
2-Methyl phenol	ug/L	95-48-7	NE	NE	30174.44	NE	NE	NE	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<5.3	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50
3&4-Methylphenol	ug/L		NE	NE	NE	NE	NE	NE	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<5.3	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50
Acenaphthene	ug/L	83-32-9	NE	NE	2950	NE	670	990	<5.0	2.5	2.1	1.1	5.0	7.4	7.1	<5.3	1.0	<0.50	1.7	8.7	15	<0.25
Acenaphthylene	ug/L	208-96-8	NE	NE	1430	NE	NE	NE	<5.0	<0.50	<0.50	<0.50	0.70	0.93	0.82	<5.3	<0.50	<0.50	<0.50	<0.50	0.50	<0.25
Anthracene	ug/L	120-12-7	NE	NE	7850	NE	8300	40000	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<5.3	<0.50	<0.50	<0.50	<0.50	0.29	<0.25
Benzo(a)anthracene	ug/L	56-55-3	346.52	4076.67	69.33	NE	0.038	0.18	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<5.3	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
Biphenyl (Diphenyl)	ug/L	92-52-4	3.34	14.3	1.18	NE	NE	NE	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<5.3	<5.0	<5.0	<5.0	<5.0	3.1	<0.50
Carbazole	ug/L	86-74-8	NE	NE	NE	NE	NE	NE	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<5.3	<5.0	<5.0	<5.0	<5.0	0.78	<0.50
Dibenzofuran	ug/L	132-64-9	NE	NE	48.4	NE	NE	NE	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<5.3	<5.0	<5.0	<5.0	<5.0	5.6	<0.50
Fluoranthene	ug/L	206-44-0	NE	NE	311	NE	130	140	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<5.3	<0.50	<0.50	<0.50	<0.50	0.68	<0.25
Fluorene	ug/L	86-73-7	NE	NE	4370	NE	1100	5300	<5.0	0.75	0.66	<0.50	1.3	1.9	1.8	<5.3	1.1	<0.50	1.3	4.9	7.0	<0.25
Naphthalene	ug/L	91-20-3	17.2	72.3	0.722	8.9	NE	NE	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	83	47	16	48	190	230	29
Pentachlorophenol	ug/L	87-86-5	NE	NE	5.54	NE	0.03	0.04	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	<5.3	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0
Phenanthrene	ug/L	85-01-8	NE	NE	1430	NE	NE	NE	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<5.3	<0.50	<0.50	0.55	1.8	3.1	<0.25
Pyrene	ug/L	129-00-0	NE	NE	1430	NE	830	4000	<5.0	<0.50	<0.50	<0.50	<0.50	0.28	<0.25	<5.3	<0.50	<0.50	<0.50	<0.50	0.48	<0.25
bis(2-ethylhexyl) phthalate	ug/L	117-81-7	0.00252	0.01122	0.02572	NE	12	22	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

NOTES:
TPH = total petroleum hydrocarbons
TPH-DRO = diesel range TPH
TPH-GRO = gasoline range TPH
TCL = Target Compound List
VOCs = volatile organic compounds
SVOCs = semi-VOCs
EPA 8260B = United States Environmental Protection Agency SW-846 analytical method
ug/L = micrograms per liter
mg/L = milligrams per liter
<1.0 = not detected above analytical method reporting limit (RL)
VDEQ = Commonwealth of Virginia Department of Environmental Quality
VDEQ-T3RGS� = VDEQ Tier III residential groundwater vapor intrusion screening level
VDEQ-T3CGSL = VDEQ Tier III industrial groundwater vapor intrusion screening level
VDEQ-T3CDSL = VDEQ Tier III construction direct (<15 feet) screening level
VDEQ-PDS = general permit discharge standard for petroleum contaminated water
VDEQ-T2PWSSL = VDEQ Tier II public water supply screening level
VDEQ-T2SWFSL = VDEQ Tier II surface water fresh screening level
NE = not established
Bold and right justification designates target compound was detected at a concentration above RL
Yellow highlighting designates target compound was detected at a concentration above the VDEQ groundwater screening level in at least 1 sample
Blue highlighting designates target compound was detected at a concentration above the VDEQ surface water screening level in at least 1 sample
Green highlighting designates target compound was detected at a concentration above the VDEQ groundwater and surface water screening level in at least 1 sample

TABLE 4. GROUNDWATER ANALYTICAL RESULTS (DETECTIONS ONLY)

FORMER ROBINSON TERMINAL NORTH
500 AND 501 NORTH UNION STREET
ALEXANDRIA, VA

Sample ID:	Units	CAS No.	VDEQ-T3RGSL	VDEQ-T3IGSL	VDEQ-T3CDSL	VDEQ-PDS	VDEQ-T2PWSSL	VDEQ-T2SWFSL	MiHpt-07								MiHpt-08							
Sample Date:									9/21/16	2/7/17	1/29/18	6/7/18	7/11/19	2/5/20	8/20/20	9/21/16	2/7/17	1/29/18	6/7/18	7/11/19	2/5/20	8/20/20		
TPH 8015																								
TPH-GRO (C6-C10)	mg/L	C6C10GRO	NE	NE	NE	15	NE	NE	0.88	0.89	1.4	2.1	1	0.97	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TPH-DRO (C10-C28)	mg/L	C10C28DRO	NE	NE	NE	15	NE	NE	2.0	1.8	2.6	3.6	2.7	1.5	0.92	0.15	0.20	0.22	0.17	<0.12	<0.10	<0.11		
TCL VOCs 8260B																								
Acetone	ug/L	67-64-1	2240000	9780000	13400	NE	NE	NE	<10	<10	<10	<10	<10	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<5.0	<5.0	
Benzene	ug/L	71-43-2	13.7	57.3	14.2	12	22	510	25	31	59	75	88	93	5.8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon Disulfide	ug/L	75-15-0	124	527	122	NE	NE	NE	<10	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<10	<10	<1.0	<1.0	<1.0
Chloroform	ug/L	67-66-3	8	35.3	54.3	80	340	11000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	ug/L	74-87-3	26.07	108.16	432.29	NE	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cyclohexane	ug/L	110-82-7	103	424	3330	NE	NE	NE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	ug/L	100-41-4	34.1	152	591	4.3	530	2100	61	57	94	110	140	120	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	ug/L	98-82-8	89.3	383	19.9	NE	NE	NE	12	13	15	23	25	21	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl-t-butyl ether	ug/L	1634-04-4	4580	19600	524	15	NE	NE	1.0	1.6	1.4	1.7	1.7	1.6	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylcyclohexane	ug/L	108-87-2	NE	NE	NE	NE	NE	NE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	91-20-3	17.2	72.3	0.722	8.9	NE	NE	830	720	970	1400	1900	1500	1.0	14	14	<1.0	21	20	16	1.1		
Tetrachloroethene (PCE)	ug/L	127-18-4	5.8	24.9	10.4	5	6.9	33	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	108-88-3	1920	8100	949	43	510	6000	3.7	2.7	2.9	2.9	4.2	3.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene (TCE)	ug/L	79-01-6	0.521	2.19	0.46	5	25	300	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	ug/L	156-59-2	NE	NE	2260	70	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/L	156-60-5	NE	NE	157	100	140	10000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
m,p-Xylenes	ug/L	108-38-3	150	1290	20.8	33	NE	NE	32	30	39	52	110	78	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
o-Xylene	ug/L	95-47-6	47.2	208	20.9	33	NE	NE	32	38	56	61	77	70	1.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
TCL SVOCs 8270C																								
2,4,5-Trichlorophenol	ug/L	95-95-4	NE	NE	7860	NE	300	600	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50	<5.3	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50	<0.50
2,4,6-Trichlorophenol	ug/L	88-06-2	NE	NE	27.37	NE	14	24	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50	<5.3	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50	<0.50
2,4-Dichlorophenol	ug/L	120-83-2	NE	NE	1060	NE	77	290	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50	<5.3	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50	<0.50
2,4-Dimethylphenol	ug/L	105-67-9	NE	NE	5388.61	NE	380	850	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50	<5.3	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50	<0.50
2-Chlorophenol	ug/L	95-57-8	NE	NE	1110	NE	81	150	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<5.3	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50
2-Methylnaphthalene	ug/L	91-57-6	NE	NE	59	NE	NE	NE	40	28	4.7	37	190	270	<0.25	<5.3	<0.50	<0.50	0.74	1.0	1.9	<0.25		
2-Methyl phenol	ug/L	95-48-7	NE	NE	30174.44	NE	NE	NE	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<5.3	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50	<0.50
3&4-Methylphenol	ug/L		NE	NE	NE	NE	NE	NE	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<5.3	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50	<0.50
Acenaphthene	ug/L	83-32-9	NE	NE	2950	NE	670	990	36	38	14	25	74	130	61	<5.3	1.6	0.66	1.4	1.8	4.2	7.7		
Acenaphthylene	ug/L	208-96-8	NE	NE	1430	NE	NE	NE	<5.0	1.2	<0.50	0.57	0.92	0.91	1.3	<5.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<0.25
Anthracene	ug/L	120-12-7	NE	NE	7850	NE	8300	40000	<5.0	1.6	0.61	1.7	3.3	5.1	3.1	<5.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<0.25
Benzo(a)anthracene	ug/L	56-55-3	346.52	4076.67	69.33	NE	0.038	0.18	<5.3	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<5.3	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<0.25	<0.25
Biphenyl (Diphenyl)	ug/L	92-52-4	3.34	14.3	1.18	NE	NE	NE	7.0	7.1	<5.0	5.4	17	29	2.7	<5.3	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<0.50	<0.50
Carbazole	ug/L	86-74-8	NE	NE	NE	NE	NE	NE	<5.0	<5.0	<5.0	<5.0	<5.0	6.0	2.5	<5.3	<5.0	<5.0	<5.0	<5.0	2.0	<0.50	<0.50	<0.50
Dibenzofuran	ug/L	132-64-9	NE	NE	48.4	NE	NE	NE	<5.0	<5.0	<5.0	<5.0	5.3	7.4	3.3	<5.3	<5.0	<5.0	<5.0	<5.0	1.4	<0.50	<0.50	<0.50
Fluoranthene	ug/L	206-44-0	NE	NE	311	NE	130	140	<5.0	<0.50	<0.50	<0.50	0.67	1.1	0.64	<5.3	<0.50	<0.50	<0.50	<0.50	0.38	0.29		
Fluorene	ug/L	86-73-7	NE	NE	4370	NE	1100	5300	8.2	9.5	3.5	7.2	18	28	16	<5.3	0.51	<0.50	0.68	0.70	1.6	0.54		
Naphthalene	ug/L	91-20-3	17.2	72.3	0.722	8.9	NE	NE	200	170	73	170	740	1100	<0.25	<5.3	2.2	<0.50	4.1	4.8	7.6	0.91		
Pentachlorophenol	ug/L	87-86-5	NE	NE	5.54	NE	0.03	0.04	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	<5.3	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0		
Phenanthrene	ug/L	85-01-8	NE	NE	1430	NE	NE	NE	8.7	8.8	3.2	8.3	17	27	12	<5.3	<0.50	<0.50	<0.50	<0.50	1.2	0.30		
Pyrene	ug/L	129-00-0	NE	NE	1430	NE	830	4000	<5.0	<0.50	<0.50	<0.50	0.77	1.3	0.74	<5.3	<0.50	<0.50	<0.50	<0.50	<0.25	0.26		
bis(2-ethylhexyl) phthalate	ug/L	117-81-7	0.00252	0.01122	0.02572	NE	12	22	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

NOTES:
TPH = total petroleum hydrocarbons
TPH-DRO = diesel range TPH
TPH-GRO = gasoline range TPH
TCL = Target Compound List
VOCs = volatile organic compounds
SVOCs = semi-VOCs
EPA 8260B = United States Environmental Protection Agency SW-846 analytical method
ug/L = micrograms per liter
mg/L = milligrams per liter
<1.0 = not detected above analytical method reporting limit (RL)
VDEQ = Commonwealth of Virginia Department of Environmental Quality
VDEQ-T3RGSL = VDEQ Tier III residential groundwater vapor intrusion screening level
VDEQ-T3CGSL = VDEQ Tier III industrial groundwater vapor intrusion screening level
VDEQ-T3CDSL = VDEQ Tier III construction direct (<15 feet) screening level
VDEQ-PDS = general permit discharge standard for petroleum contaminated water
VDEQ-T2PWSSL = VDEQ Tier II public water supply screening level
VDEQ-T2SWFSL = VDEQ Tier II surface water fresh screening level
NE = not established
Bold and right justification designates target compound was detected at a concentration above RL
Yellow highlighting designates target compound was detected at a concentration above the VDEQ groundwater screening level in at least 1 sample
Blue highlighting designates target compound was detected at a concentration above the VDEQ surface water screening level in at least 1 sample
Green highlighting designates target compound was detected at a concentration above the VDEQ groundwater and surface water screening level in at least 1 sample

TABLE 4. GROUNDWATER ANALYTICAL RESULTS (DETECTIONS ONLY)

FORMER ROBINSON TERMINAL NORTH
500 AND 501 NORTH UNION STREET
ALEXANDRIA, VA

Sample ID:	Units	CAS No.	VDEQ-T3RGSL	VDEQ-T3IGSL	VDEQ-T3CDSL	VDEQ-PDS	VDEQ-T2PWSSL	VDEQ-T2SWFSL	MiHpt-14							MiHpt-15						
Sample Date:									9/21/16	2/7/17	1/29/18	6/7/18	7/11/19	2/5/20	8/20/20	9/21/16	2/7/17	1/29/18	6/7/18	7/11/19	2/5/20	8/20/20
TPH 8015																						
TPH-GRO (C6-C10)	mg/L	C6C10GRO	NE	NE	NE	15	NE	NE	0.33	0.41	0.28	0.41	0.22	0.21	0.18	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TPH-DRO (C10-C28)	mg/L	C10C28DRO	NE	NE	NE	15	NE	NE	0.75	1.2	1.5	1.3	0.59	0.84	1.0	<0.10	<0.10	<0.10	<0.10	<0.11	<0.10	<0.13
TCL VOCs 8260B																						
Acetone	ug/L	67-64-1	2240000	9780000	13400	NE	NE	NE	<10	<10	<10	<10	<10	<5.0	<5.0	<10	<10	<10	<10	<10	<5.0	<5.0
Benzene	ug/L	71-43-2	13.7	57.3	14.2	12	22	510	66	70	66	92	73	49	36	9.9	6.2	<1.0	1.6	11	4.7	<1.0
Carbon Disulfide	ug/L	75-15-0	124	527	122	NE	NE	NE	<10	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<1.0	<1.0	<1.0
Chloroform	ug/L	67-66-3	8	35.3	54.3	80	340	11000	1.4	1.3	2.2	1.1	6.8	9.1	10	7.7	63	12	43	1.7	5.8	49
Chloromethane	ug/L	74-87-3	26.07	108.16	432.29	NE	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cyclohexane	ug/L	110-82-7	103	424	3330	NE	NE	NE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	ug/L	100-41-4	34.1	152	591	4.3	530	2100	5.4	7.4	6.0	9.8	10	6.4	3.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	ug/L	98-82-8	89.3	383	19.9	NE	NE	NE	<1.0	<1.0	<1.0	1.3	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl-t-butyl ether	ug/L	1634-04-4	4580	19600	524	15	NE	NE	<1.0	<1.0	<1.0	<1.0	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylcyclohexane	ug/L	108-87-2	NE	NE	NE	NE	NE	NE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	91-20-3	17.2	72.3	0.722	8.9	NE	NE	37	48	48	62	56	39	39	<1.0	1.1	<1.0	<1.0	1.1	1.5	<1.0
Tetrachloroethene (PCE)	ug/L	127-18-4	5.8	24.9	10.4	5	6.9	33	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	108-88-3	1920	8100	949	43	510	6000	5.6	5.6	4.7	6.1	6.2	5.0	4.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene (TCE)	ug/L	79-01-6	0.521	2.19	0.46	5	25	300	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	ug/L	156-59-2	NE	NE	2260	70	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/L	156-60-5	NE	NE	157	100	140	10000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
m,p-Xylenes	ug/L	108-38-3	150	1290	20.8	33	NE	NE	2.8	4.5	3.8	4.9	5.8	4.0	2.6	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
o-Xylene	ug/L	95-47-6	47.2	208	20.9	33	NE	NE	4.8	7.4	5.7	8.5	9.2	6.1	3.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
TCL SVOCs 8270C																						
2,4,5-Trichlorophenol	ug/L	95-95-4	NE	NE	7860	NE	300	600	<5.0	<5.0	<5.3	<5.0	<2.0	0.70	<0.50	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50
2,4,6-Trichlorophenol	ug/L	88-06-2	NE	NE	27.37	NE	14	24	<5.0	<5.0	<5.3	<5.0	<2.0	<0.50	<0.50	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50
2,4-Dichlorophenol	ug/L	120-83-2	NE	NE	1060	NE	77	290	13	<5.0	<5.3	<5.0	<2.0	7.8	8.5	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50
2,4-Dimethylphenol	ug/L	105-67-9	NE	NE	5388.61	NE	380	850	<5.3	<5.0	<5.3	<5.0	<2.0	0.63	0.56	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50
2-Chlorophenol	ug/L	95-57-8	NE	NE	1110	NE	81	150	<5.0	<5.0	<5.3	<5.0	<5.0	1.2	0.92	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50
2-Methylnaphthalene	ug/L	91-57-6	NE	NE	59	NE	NE	NE	<5.0	0.68	<0.53	0.54	1.1	2.1	2.4	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
2-Methyl phenol	ug/L	95-48-7	NE	NE	30174.44	NE	NE	NE	<5.0	<5.0	<5.3	<5.0	<5.0	0.78	0.92	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50
3&4-Methylphenol	ug/L		NE	NE	NE	NE	NE	NE	<5.0	<5.0	<5.3	<5.0	<5.0	1.7	1.2	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50
Acenaphthene	ug/L	83-32-9	NE	NE	2950	NE	670	990	12	8.5	2.5	5.9	18	34	28	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
Acenaphthylene	ug/L	208-96-8	NE	NE	1430	NE	NE	NE	<5.0	<0.50	<0.53	<0.50	1.2	2.0	2.1	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
Anthracene	ug/L	120-12-7	NE	NE	7850	NE	8300	40000	6.3	2.4	0.83	1.6	3.8	9.1	8.9	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
Benzo(a)anthracene	ug/L	56-55-3	346.52	4076.67	69.33	NE	0.038	0.18	<5.3	<0.50	<0.50	<0.50	<0.50	0.41	0.36	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
Biphenyl (Diphenyl)	ug/L	92-52-4	3.34	14.3	1.18	NE	NE	NE	<5.0	<5.0	<5.3	<5.0	<5.0	6.5	5.4	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50
Carbazole	ug/L	86-74-8	NE	NE	NE	NE	NE	NE	7.4	<5.0	<5.3	<5.0	13	20	14	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50
Dibenzofuran	ug/L	132-64-9	NE	NE	48.4	NE	NE	NE	13	7.2	<5.3	<5.0	14	28	24	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50
Fluoranthene	ug/L	206-44-0	NE	NE	311	NE	130	140	<5.0	1.9	0.60	1.1	2.5	6.0	5.2	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
Fluorene	ug/L	86-73-7	NE	NE	4370	NE	1100	5300	18	9.6	2.9	6.0	17	35	31	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
Naphthalene	ug/L	91-20-3	17.2	72.3	0.722	8.9	NE	NE	10	8.8	2.9	7.1	17	29	20	<5.0	1.7	1.8	<0.50	0.62	0.66	<0.25
Pentachlorophenol	ug/L	87-86-5	NE	NE	5.54	NE	0.03	0.04	<5.0	<5.0	<5.3	<5.0	<5.0	<2.0	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0
Phenanthrene	ug/L	85-01-8	NE	NE	1430	NE	NE	NE	21	6.9	2.3	4.1	10	24	25	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
Pyrene	ug/L	129-00-0	NE	NE	1430	NE	830	4000	<5.0	1.3	<0.53	0.71	1.8	4.0	3.6	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
bis(2-ethylhexyl) phthalate	ug/L	117-81-7	0.00252	0.01122	0.02572	NE	12	22	<5.0	<0.50	<0.53	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

NOTES:
TPH = total petroleum hydrocarbons
TPH-DRO = diesel range TPH
TPH-GRO = gasoline range TPH
TCL = Target Compound List
VOCs = volatile organic compounds
SVOCs = semi-VOCs
EPA 8260B = United States Environmental Protection Agency SW-846 analytical method
ug/L = micrograms per liter
mg/L = milligrams per liter
<1.0 = not detected above analytical method reporting limit (RL)
VDEQ = Commonwealth of Virginia Department of Environmental Quality
VDEQ-T3RGSL = VDEQ Tier III residential groundwater vapor intrusion screening level
VDEQ-T3CGSL = VDEQ Tier III industrial groundwater vapor intrusion screening level
VDEQ-T3CDSL = VDEQ Tier III construction direct (<15 feet) screening level
VDEQ-PDS = general permit discharge standard for petroleum contaminated water
VDEQ-T2PWSSL = VDEQ Tier II public water supply screening level
VDEQ-T2SWFSL = VDEQ Tier II surface water fresh screening level
NE = not established
Bold and right justification designates target compound was detected at a concentration above RL
Yellow highlighting designates target compound was detected at a concentration above the VDEQ groundwater screening level in at least 1 sample
Blue highlighting designates target compound was detected at a concentration above the VDEQ surface water screening level in at least 1 sample
Green highlighting designates target compound was detected at a concentration above the VDEQ groundwater and surface water screening level in at least 1 sample

TABLE 4. GROUNDWATER ANALYTICAL RESULTS (DETECTIONS ONLY)

FORMER ROBINSON TERMINAL NORTH
500 AND 501 NORTH UNION STREET
ALEXANDRIA, VA

Sample ID:	Units	CAS No.	VDEQ-T3RGSL	VDEQ-T3IGSL	VDEQ-T3CDSL	VDEQ-PDS	VDEQ-T2PWSSL	VDEQ-T2SWFSL	MiHpt-20							MiHpt-21						
Sample Date:									9/21/16	2/7/17	1/29/18	6/7/18	7/11/19	2/5/20	8/20/20	9/21/16	2/7/17	1/29/18	6/7/18	7/11/19	2/5/20	8/20/20
TPH 8015																						
TPH-GRO (C6-C10)	mg/L	C6C10GRO	NE	NE	NE	15	NE	NE	0.18	0.14	0.16	<0.1	<0.1	<0.1	<0.1	7.5	15	4.5	12	12	12	8.9
TPH-DRO (C10-C28)	mg/L	C10C28DRO	NE	NE	NE	15	NE	NE	0.72	0.62	0.77	<0.10	<0.10	<0.10	<0.11	1.7	1.2	2.3	2.4	2.2	1.5	2.5
TCL VOCs 8260B																						
Acetone	ug/L	67-64-1	2240000	9780000	13400	NE	NE	NE	<10	<10	<10	<10	<10	<5.0	<5.0	<50	<100	19	<10	<10	<5.0	<5.0
Benzene	ug/L	71-43-2	13.7	57.3	14.2	12	22	510	14	13	14	<1.0	<1.0	<1.0	<1.0	58	59	75	74	77	71	58
Carbon Disulfide	ug/L	75-15-0	124	527	122	NE	NE	NE	<10	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<10	<1.0	<1.0
Chloroform	ug/L	67-66-3	8	35.3	54.3	80	340	11000	<1.0	<1.0	<1.0	1.2	1.4	1.3	1.4	<5.0	<10	<1.0	8.4	<1.0	<1.0	<1.0
Chloromethane	ug/L	74-87-3	26.07	108.16	432.29	NE	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	10	<1.0
Cyclohexane	ug/L	110-82-7	103	424	3330	NE	NE	NE	<10	<10	<10	<10	<10	<10	<10	560	710	460	1200	1500	1600	490
Ethylbenzene	ug/L	100-41-4	34.1	152	591	4.3	530	2100	1.4	<1.0	1.5	<1.0	<1.0	<1.0	<1.0	150	160	73	140	170	150	130
Isopropylbenzene	ug/L	98-82-8	89.3	383	19.9	NE	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	17	15	8.4	15	14	12	11
Methyl-t-butyl ether	ug/L	1634-04-4	4580	19600	524	15	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<10	<1.0	<1.0	<1.0	<1.0	<1.0
Methylcyclohexane	ug/L	108-87-2	NE	NE	NE	NE	NE	NE	<10	<10	<10	<10	<10	<10	<10	460	690	340	670	740	690	280
Naphthalene	ug/L	91-20-3	17.2	72.3	0.722	8.9	NE	NE	67	42	64	<1.0	<1.0	<1.0	<1.0	6.4	<10	3.2	3.2	3.1	3.3	2.2
Tetrachloroethene (PCE)	ug/L	127-18-4	5.8	24.9	10.4	5	6.9	33	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	47	64	26	60	76	70	46
Toluene	ug/L	108-88-3	1920	8100	949	43	510	6000	2.6	2.0	2.2	<1.0	<1.0	<1.0	<1.0	45	44	31	46	67	62	52
Trichloroethene (TCE)	ug/L	79-01-6	0.521	2.19	0.46	5	25	300	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	10	11	10	14	27	26	24
cis-1,2-Dichloroethene	ug/L	156-59-2	NE	NE	2260	70	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.1	2.1	5.4	4.4	6.4
trans-1,2-Dichloroethene	ug/L	156-60-5	NE	NE	157	100	140	10000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3	6.1	5.5	4.4
m,p-Xylenes	ug/L	108-38-3	150	1290	20.8	33	NE	NE	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	190	240	110	200	250	240	190
o-Xylene	ug/L	95-47-6	47.2	208	20.9	33	NE	NE	1.4	1.1	1.6	<1.0	<1.0	<1.0	<1.0	9.1	11	4.6	7.6	11	9.6	8.2
TCL SVOCs 8270C																						
2,4,5-Trichlorophenol	ug/L	95-95-4	NE	NE	7860	NE	300	600	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50	53	19	11	32	32	75	50
2,4,6-Trichlorophenol	ug/L	88-06-2	NE	NE	27.37	NE	14	24	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50	<5.0	<5.0	<5.0	<5.0	<2.0	3.3	1.6
2,4-Dichlorophenol	ug/L	120-83-2	NE	NE	1060	NE	77	290	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50	710	220	120	370	290	920	700
2,4-Dimethylphenol	ug/L	105-67-9	NE	NE	5388.61	NE	380	850	<5.0	<5.0	<5.0	<5.0	<2.0	<0.50	<0.50	<5.0	<5.0	<5.0	<5.0	<2.0	0.61	0.78
2-Chlorophenol	ug/L	95-57-8	NE	NE	1110	NE	81	150	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	8.3	<5.0	<5.0	5.1	13	47	42
2-Methylnaphthalene	ug/L	91-57-6	NE	NE	59	NE	NE	NE	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<5.0	<0.50	<0.50	<0.50	<0.50	0.35	0.32
2-Methyl phenol	ug/L	95-48-7	NE	NE	30174.44	NE	NE	NE	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50
3&4-Methylphenol	ug/L		NE	NE	NE	NE	NE	NE	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	1.1	<0.50
Acenaphthene	ug/L	83-32-9	NE	NE	2950	NE	670	990	6.3	1.7	2.0	<0.50	<0.50	0.30	<0.25	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
Acenaphthylene	ug/L	208-96-8	NE	NE	1430	NE	NE	NE	<5.0	0.94	1.2	<0.50	<0.50	<0.25	<0.25	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
Anthracene	ug/L	120-12-7	NE	NE	7850	NE	8300	40000	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
Benzo(a)anthracene	ug/L	56-55-3	346.52	4076.67	69.33	NE	0.038	0.18	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
Biphenyl (Diphenyl)	ug/L	92-52-4	3.34	14.3	1.18	NE	NE	NE	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50
Carbazole	ug/L	86-74-8	NE	NE	NE	NE	NE	NE	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50
Dibenzofuran	ug/L	132-64-9	NE	NE	48.4	NE	NE	NE	11	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50	<5.0	<5.0	<5.0	<5.0	<5.0	<0.50	<0.50
Fluoranthene	ug/L	206-44-0	NE	NE	311	NE	130	140	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
Fluorene	ug/L	86-73-7	NE	NE	4370	NE	1100	5300	12	2.5	<0.50	<0.50	<0.50	<0.25	<0.25	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
Naphthalene	ug/L	91-20-3	17.2	72.3	0.722	8.9	NE	NE	13	4.3	5.7	0.52	<0.50	0.62	<0.25	35	0.66	<0.50	26	48	1.1	<0.25
Pentachlorophenol	ug/L	87-86-5	NE	NE	5.54	NE	0.03	0.04	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	13	<5.0	<5.0	6.8	7.8	22	15
Phenanthrene	ug/L	85-01-8	NE	NE	1430	NE	NE	NE	10	1.5	1.7	<0.50	<0.50	0.25	<0.25	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
Pyrene	ug/L	129-00-0	NE	NE	1430	NE	830	4000	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25	<5.0	<0.50	<0.50	<0.50	<0.50	<0.25	<0.25
bis(2-ethylhexyl) phthalate	ug/L	117-81-7	0.00252	0.01122	0.02572	NE	12	22	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

NOTES:
TPH = total petroleum hydrocarbons
TPH-DRO = diesel range TPH
TPH-GRO = gasoline range TPH
TCL = Target Compound List
VOCs = volatile organic compounds
SVOCs = semi-VOCs
EPA 8260B = United States Environmental Protection Agency SW-846 analytical method
ug/L = micrograms per liter
mg/L = milligrams per liter
<1.0 = not detected above analytical method reporting limit (RL)
VDEQ = Commonwealth of Virginia Department of Environmental Quality
VDEQ-T3RGSL = VDEQ Tier III residential groundwater vapor intrusion screening level
VDEQ-T3CGSL = VDEQ Tier III industrial groundwater vapor intrusion screening level
VDEQ-T3CDSL = VDEQ Tier III construction direct (<15 feet) screening level
VDEQ-PDS = general permit discharge standard for petroleum contaminated water
VDEQ-T2PWSSL = VDEQ Tier II public water supply screening level
VDEQ-T2SWFSL = VDEQ Tier II surface water fresh screening level
NE = not established
Bold and right justification designates target compound was detected at a concentration above RL
Yellow highlighting designates target compound was detected at a concentration above the VDEQ groundwater screening level in at least 1 sample
Blue highlighting designates target compound was detected at a concentration above the VDEQ surface water screening level in at least 1 sample
Green highlighting designates target compound was detected at a concentration above the VDEQ groundwater and surface water screening level in at least 1 sample

TABLE 4. GROUNDWATER ANALYTICAL RESULTS (DETECTIONS ONLY)

FORMER ROBINSON TERMINAL NORTH
500 AND 501 NORTH UNION STREET
ALEXANDRIA, VA

Sample ID:	Units	CAS No.	VDEQ-T3RGSL	VDEQ-T3IGSL	VDEQ-T3CDSL	VDEQ-PDS	VDEQ-T2PWSSL	VDEQ-T2SWFSL	MiHpt-22							MW-23				
Sample Date:									9/21/16	2/7/17	1/29/18	6/7/18	7/11/19	2/5/20	8/20/20	1/29/18	6/7/18	7/11/19	2/5/20	8/20/20
TPH 8015																				
TPH-GRO (C6-C10)	mg/L	C6C10GRO	NE	NE	NE	15	NE	NE	0.38	2.3	0.27	0.56	0.23	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
TPH-DRO (C10-C28)	mg/L	C10C28DRO	NE	NE	NE	15	NE	NE	0.27	0.19	33	0.38	0.12	<0.11	0.16	0.28	0.15	<0.10	<0.10	0.46
TCL VOCs 8260B																				
Acetone	ug/L	67-64-1	2240000	9780000	13400	NE	NE	NE	<10	<10	<10	<10	<10	<5.0	<5.0	<10	<10	<10	<5.0	5.2
Benzene	ug/L	71-43-2	13.7	57.3	14.2	12	22	510	130	630	34	200	93	33	<1.0	<1.0	<1.0	<1.0	<1.0	2.8
Carbon Disulfide	ug/L	75-15-0	124	527	122	NE	NE	NE	<10	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<1.0	<1.0
Chloroform	ug/L	67-66-3	8	35.3	54.3	80	340	11000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	ug/L	74-87-3	26.07	108.16	432.29	NE	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cyclohexane	ug/L	110-82-7	103	424	3330	NE	NE	NE	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	ug/L	100-41-4	34.1	152	591	4.3	530	2100	1.6	16	<1.0	2.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	ug/L	98-82-8	89.3	383	19.9	NE	NE	NE	<1.0	1.6	1.2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl-t-butyl ether	ug/L	1634-04-4	4580	19600	524	15	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.3	5.5	5.7	6.4	<1.0
Methylcyclohexane	ug/L	108-87-2	NE	NE	NE	NE	NE	NE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	91-20-3	17.2	72.3	0.722	8.9	NE	NE	<1.0	3.1	1.3	<1.0	1.1	<1.0	<1.0	1.4	1.3	<1.0	<1.0	<1.0
Tetrachloroethene (PCE)	ug/L	127-18-4	5.8	24.9	10.4	5	6.9	33	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	108-88-3	1920	8100	949	43	510	6000	<1.0	3.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene (TCE)	ug/L	79-01-6	0.521	2.19	0.46	5	25	300	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	ug/L	156-59-2	NE	NE	2260	70	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/L	156-60-5	NE	NE	157	100	140	10000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
m,p-Xylenes	ug/L	108-38-3	150	1290	20.8	33	NE	NE	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
o-Xylene	ug/L	95-47-6	47.2	208	20.9	33	NE	NE	<1.0	8.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
TCL SVOCs 8270C																				
2,4,5-Trichlorophenol	ug/L	95-95-4	NE	NE	7860	NE	300	600	<5.0	<5.0	<5.6	<5.0	<2.0	<0.50	<0.50	<5.0	<5.0	<2.0	<0.50	<0.50
2,4,6-Trichlorophenol	ug/L	88-06-2	NE	NE	27.37	NE	14	24	<5.0	<5.0	<5.6	<5.0	<2.0	<0.50	<0.50	<5.0	<5.0	<2.0	<0.50	<0.50
2,4-Dichlorophenol	ug/L	120-83-2	NE	NE	1060	NE	77	290	<5.0	<5.0	<5.6	<5.0	<2.0	<0.50	<0.50	<5.0	<5.0	<2.0	<0.50	<0.50
2,4-Dimethylphenol	ug/L	105-67-9	NE	NE	5388.61	NE	380	850	<5.0	<5.0	<5.6	<5.0	<2.0	<0.50	<0.50	<5.0	<5.0	<2.0	<0.50	<0.50
2-Chlorophenol	ug/L	95-57-8	NE	NE	1110	NE	81	150	<5.0	<5.0	<5.6	<5.0	<5.0	<0.50	<0.50	<5.0	<5.0	<5.0	<0.50	<0.50
2-Methylnaphthalene	ug/L	91-57-6	NE	NE	59	NE	NE	NE	<5.0	<0.50	<0.56	<0.50	0.69	<0.25	<0.25	<0.50	<0.50	<0.50	<0.25	<0.25
2-Methyl phenol	ug/L	95-48-7	NE	NE	30174.44	NE	NE	NE	<5.0	<5.0	<5.6	<5.0	<5.0	<0.50	<0.50	<5.0	<5.0	<5.0	<0.50	<0.50
3&4-Methylphenol	ug/L		NE	NE	NE	NE	NE	NE	<5.0	<5.0	<5.6	<5.0	<5.0	<0.50	<0.50	<5.0	<5.0	<5.0	<0.50	<0.50
Acenaphthene	ug/L	83-32-9	NE	NE	2950	NE	670	990	<5.0	<0.50	<0.56	<0.50	0.75	<0.25	<0.25	0.90	1.5	7.2	6.8	19
Acenaphthylene	ug/L	208-96-8	NE	NE	1430	NE	NE	NE	<5.0	<0.50	<0.56	<0.50	<0.50	<0.25	<0.25	<0.50	<0.50	<0.50	<0.25	1.2
Anthracene	ug/L	120-12-7	NE	NE	7850	NE	8300	40000	<5.0	<0.50	<0.56	<0.50	<0.50	<0.25	<0.25	<0.50	<0.50	0.50	0.47	4.7
Benzo(a)anthracene	ug/L	56-55-3	346.52	4076.67	69.33	NE	0.038	0.18	<5.0	<0.50	<0.56	<0.50	<0.50	<0.25	<0.25	<0.50	<0.50	<0.50	<0.25	<0.25
Biphenyl (Diphenyl)	ug/L	92-52-4	3.34	14.3	1.18	NE	NE	NE	<5.0	<5.0	<5.6	<5.0	<5.0	<0.50	<0.50	<5.0	<5.0	<5.0	<0.50	<0.50
Carbazole	ug/L	86-74-8	NE	NE	NE	NE	NE	NE	<5.0	<5.0	<5.6	<5.0	<5.0	<0.50	<0.50	<5.0	<5.0	<5.0	3.7	23
Dibenzofuran	ug/L	132-64-9	NE	NE	48.4	NE	NE	NE	<5.0	<5.0	<5.6	<5.0	<5.0	<0.50	<0.50	<5.0	<5.0	<5.0	3.7	15
Fluoranthene	ug/L	206-44-0	NE	NE	311	NE	130	140	<5.0	<0.50	<0.56	<0.50	<0.50	<0.25	<0.25	<0.50	<0.50	0.67	0.77	6.5
Fluorene	ug/L	86-73-7	NE	NE	4370	NE	1100	5300	<5.0	<0.50	<0.56	<0.50	<0.50	<0.25	<0.25	0.52	0.77	3.8	3.4	7.4
Naphthalene	ug/L	91-20-3	17.2	72.3	0.722	8.9	NE	NE	<5.0	<0.50	<0.56	<0.50	0.99	<0.25	<0.25	<0.50	<0.50	<0.50	<0.25	<0.25
Pentachlorophenol	ug/L	87-86-5	NE	NE	5.54	NE	0.03	0.04	<5.0	<5.0	<5.6	<5.0	<5.0	<2.0	<2.0	<5.0	<5.0	<5.0	<2.0	<2.0
Phenanthrene	ug/L	85-01-8	NE	NE	1430	NE	NE	NE	<5.0	<0.50	<0.56	<0.50	<0.50	<0.25	<0.25	0.60	<0.50	1.5	1.5	0.48
Pyrene	ug/L	129-00-0	NE	NE	1430	NE	830	4000	<5.0	<0.50	<0.56	<0.50	<0.50	<0.25	<0.25	<0.50	<0.50	<0.50	0.56	4.5
bis(2-ethylhexyl) phthalate	ug/L	117-81-7	0.00252	0.01122	0.02572	NE	12	22	<5.0	<0.50	<0.56	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

NOTES:
TPH = total petroleum hydrocarbons
TPH-DRO = diesel range TPH
TPH-GRO = gasoline range TPH
TCL = Target Compound List
VOCs = volatile organic compounds
SVOCs = semi-VOCs
EPA 8260B = United States Environmental Protection Agency SW-846 analytical method
ug/L = micrograms per liter
mg/L = milligrams per liter
<1.0 = not detected above analytical method reporting limit (RL)
VDEQ = Commonwealth of Virginia Department of Environmental Quality
VDEQ-T3RGSL = VDEQ Tier III residential groundwater vapor intrusion screening level
VDEQ-T3CGSL = VDEQ Tier III industrial groundwater vapor intrusion screening level
VDEQ-T3CDSL = VDEQ Tier III construction direct (<15 feet) screening level
VDEQ-PDS = general permit discharge standard for petroleum contaminated water
VDEQ-T2PWSSL = VDEQ Tier II public water supply screening level
VDEQ-T2SWFSL = VDEQ Tier II surface water fresh screening level
NE = not established
Bold and right justification designates target compound was detected at a concentration above RL
Yellow highlighting designates target compound was detected at a concentration above the VDEQ groundwater screening level in at least 1 sample
Blue highlighting designates target compound was detected at a concentration above the VDEQ surface water screening level in at least 1 sample
Green highlighting designates target compound was detected at a concentration above the VDEQ groundwater and surface water screening level in at least 1 sample

TABLE 4. GROUNDWATER ANALYTICAL RESULTS (DETECTIONS ONLY)

FORMER ROBINSON TERMINAL NORTH
500 AND 501 NORTH UNION STREET
ALEXANDRIA, VA

Sample ID:	Units	CAS No.	VDEQ-T3RGSL	VDEQ-T3IGSL	VDEQ-T3CDSL	VDEQ-PDS	VDEQ-T2PWSSL	VDEQ-T2SWFSL	MW-24					MW-25				
Sample Date:									1/29/18	6/7/18	7/11/19	2/5/20	8/20/20	1/29/18	6/7/18	7/11/19	2/5/20	8/20/20
TPH 8015																		
TPH-GRO (C6-C10)	mg/L	C6C10GRO	NE	NE	NE	15	NE	NE	<0.1	<0.1	<0.1	<0.1	<0.1	0.11	0.16	<0.1	<0.1	<0.1
TPH-DRO (C10-C28)	mg/L	C10C28DRO	NE	NE	NE	15	NE	NE	1.1	0.61	0.13	0.47	0.16	0.45	0.33	0.16	0.26	0.18
TCL VOCs 8260B																		
Acetone	ug/L	67-64-1	2240000	9780000	13400	NE	NE	NE	<10	<10	<10	<5.0	<5.0	<10	<10	<10	<5.0	<5.0
Benzene	ug/L	71-43-2	13.7	57.3	14.2	12	22	510	<1.0	<1.0	<1.0	<1.0	<1.0	14	17	26	23	11
Carbon Disulfide	ug/L	75-15-0	124	527	122	NE	NE	NE	<10	<10	<10	<1.0	<1.0	<10	<10	15	11	5.6
Chloroform	ug/L	67-66-3	8	35.3	54.3	80	340	11000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloromethane	ug/L	74-87-3	26.07	108.16	432.29	NE	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cyclohexane	ug/L	110-82-7	103	424	3330	NE	NE	NE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Ethylbenzene	ug/L	100-41-4	34.1	152	591	4.3	530	2100	<1.0	<1.0	<1.0	<1.0	<1.0	2.3	2.1	2.8	2.3	1.1
Isopropylbenzene	ug/L	98-82-8	89.3	383	19.9	NE	NE	NE	1.7	2.7	<1.0	2.8	<1.0	1.6	1.7	1.5	1.3	<1.0
Methyl-t-butyl ether	ug/L	1634-04-4	4580	19600	524	15	NE	NE	3.9	1.9	1.5	3.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methylcyclohexane	ug/L	108-87-2	NE	NE	NE	NE	NE	NE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Naphthalene	ug/L	91-20-3	17.2	72.3	0.722	8.9	NE	NE	2.6	3.4	<1.0	2.1	<1.0	83	77	78	65	24
Tetrachloroethene (PCE)	ug/L	127-18-4	5.8	24.9	10.4	5	6.9	33	<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0
Toluene	ug/L	108-88-3	1920	8100	949	43	510	6000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene (TCE)	ug/L	79-01-6	0.521	2.19	0.46	5	25	300	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene	ug/L	156-59-2	NE	NE	2260	70	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-Dichloroethene	ug/L	156-60-5	NE	NE	157	100	140	10000	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
m,p-Xylenes	ug/L	108-38-3	150	1290	20.8	33	NE	NE	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
o-Xylene	ug/L	95-47-6	47.2	208	20.9	33	NE	NE	<1.0	<1.0	<1.0	<1.0	<1.0	2.4	1.9	2.5	2.1	<1.0
TCL SVOCs 8270C																		
2,4,5-Trichlorophenol	ug/L	95-95-4	NE	NE	7860	NE	300	600	<5.0	<5.0	<2.0	<0.50	<0.50	<5.0	<5.0	<2.0	<0.50	<0.50
2,4,6-Trichlorophenol	ug/L	88-06-2	NE	NE	27.37	NE	14	24	<5.0	<5.0	<2.0	<0.50	<0.50	<5.0	<5.0	<2.0	<0.50	<0.50
2,4-Dichlorophenol	ug/L	120-83-2	NE	NE	1060	NE	77	290	<5.0	<5.0	<2.0	<0.50	<0.50	<5.0	<5.0	<2.0	<0.50	<0.50
2,4-Dimethylphenol	ug/L	105-67-9	NE	NE	5388.61	NE	380	850	<5.0	<5.0	<2.0	<0.50	<0.50	<5.0	<5.0	<2.0	0.54	<0.50
2-Chlorophenol	ug/L	95-57-8	NE	NE	1110	NE	81	150	<5.0	<5.0	<5.0	<0.50	<0.50	<5.0	<5.0	<5.0	<0.50	<0.50
2-Methylnaphthalene	ug/L	91-57-6	NE	NE	59	NE	NE	NE	<0.50	<0.50	<0.50	<0.25	<0.25	<0.50	0.58	1.9	3.5	0.85
2-Methyl phenol	ug/L	95-48-7	NE	NE	30174.44	NE	NE	NE	<5.0	<5.0	<5.0	<0.50	<0.50	<5.0	<5.0	<5.0	<0.50	<0.50
3&4-Methylphenol	ug/L		NE	NE	NE	NE	NE	NE	<5.0	<5.0	<5.0	<0.50	<0.50	<5.0	<5.0	<5.0	<0.50	<0.50
Acenaphthene	ug/L	83-32-9	NE	NE	2950	NE	670	990	2.5	8.3	8.0	56	15	0.81	1.5	5.0	11	5.3
Acenaphthylene	ug/L	208-96-8	NE	NE	1430	NE	NE	NE	<0.50	<0.50	<0.50	0.38	<0.25	<0.50	<0.50	<0.50	<0.25	<0.25
Anthracene	ug/L	120-12-7	NE	NE	7850	NE	8300	40000	0.55	1.1	0.73	7.2	1.2	<0.50	<0.50	<0.50	0.71	0.54
Benzo(a)anthracene	ug/L	56-55-3	346.52	4076.67	69.33	NE	0.038	0.18	<0.50	<0.50	<0.50	0.25	<0.25	<0.50	<0.50	<0.50	<0.25	<0.25
Biphenyl (Diphenyl)	ug/L	92-52-4	3.34	14.3	1.18	NE	NE	NE	<5.0	<5.0	<5.0	<0.50	<0.50	<5.0	<5.0	<5.0	1.3	<0.50
Carbazole	ug/L	86-74-8	NE	NE	NE	NE	NE	NE	<5.0	<5.0	<5.0	0.79	<0.50	<5.0	<5.0	<5.0	5.8	2.9
Dibenzofuran	ug/L	132-64-9	NE	NE	48.4	NE	NE	NE	<5.0	<5.0	<5.0	23	2.1	<5.0	<5.0	<5.0	3.7	1.6
Fluoranthene	ug/L	206-44-0	NE	NE	311	NE	130	140	1.1	0.91	0.87	6.7	2.9	<0.50	<0.50	<0.50	1.1	0.79
Fluorene	ug/L	86-73-7	NE	NE	4370	NE	1100	5300	1.3	3.9	3.8	28	5.8	<0.50	0.75	2.5	5.3	2.6
Naphthalene	ug/L	91-20-3	17.2	72.3	0.722	8.9	NE	NE	<0.50	<0.50	<0.50	0.98	<0.25	3.5	6.1	20	35	8.3
Pentachlorophenol	ug/L	87-86-5	NE	NE	5.54	NE	0.03	0.04	<5.0	<5.0	<5.0	<2.0	<2.0	<5.0	<5.0	<5.0	<2.0	<2.0
Phenanthrene	ug/L	85-01-8	NE	NE	1430	NE	NE	NE	2.2	5.8	3.5	34	0.50	<0.50	1.1	2.6	5.7	3.1
Pyrene	ug/L	129-00-0	NE	NE	1430	NE	830	4000	0.88	0.59	0.56	4.3	2.2	<0.50	<0.50	<0.50	0.70	0.62
bis(2-ethylhexyl) phthalate	ug/L	117-81-7	0.00252	0.01122	0.02572	NE	12	22	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

NOTES:
TPH = total petroleum hydrocarbons
TPH-DRO = diesel range TPH
TPH-GRO = gasoline range TPH
TCL = Target Compound List
VOCs = volatile organic compounds
SVOCs = semi-VOCs
EPA 8260B = United States Environmental Protection Agency SW-846 analytical method
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<1.0 = not detected above analytical method reporting limit (RL)
VDEQ = Commonwealth of Virginia Department of Environmental Quality
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VDEQ-T2SWFSL = VDEQ Tier II surface water fresh screening level
NE = not established
Bold and right justification designates target compound was detected at a concentration above RL
Yellow highlighting designates target compound was detected at a concentration above the VDEQ groundwater screening level in at least 1 sample
Blue highlighting designates target compound was detected at a concentration above the VDEQ surface water screening level in at least 1 sample
Green highlighting designates target compound was detected at a concentration above the VDEQ groundwater and surface water screening level in at least 1 sample

ATTACHMENT 1

**LABORATORY REPORT OF
ANALYSIS**

Project Name: RTN
PSS Project No.: 20082101

August 28, 2020

Mike Bruzzesi
A-Zone Environmental Services
2181 Berryville Pike
Charles Town, WV 25414

Reference: PSS Project No: **20082101**
Project Name: RTN
Project Location: Alexandria, VA



Dear Mike Bruzzesi:

This report includes the analytical results from the analyses performed on the samples received under the project name referenced above and identified with the Phase Separation Science (PSS) Project number(s) **20082101**.

All work reported herein has been performed in accordance with current NELAP standards, referenced methodologies, PSS Standard Operating Procedures and the PSS Quality Assurance Manual unless otherwise noted in the Case Narrative Summary. PSS is limited in liability to the actual cost of the sample analysis done.

PSS reserves the right to return any unused samples, extracts or related solutions. Otherwise, the samples are scheduled for disposal, without any further notice, on September 25, 2020, with the exception of air canisters which are cleaned immediately following analysis. This includes any samples that were received with a request to be held but lacked a specific hold period. It is your responsibility to provide a written request defining a specific disposal date if additional storage is required. Upon receipt, the request will be acknowledged by PSS, thus extending the storage period.

This report shall not be reproduced except in full, without the written approval of an authorized PSS representative. A copy of this report will be retained by PSS for at least 5 years, after which time it will be disposed of without further notice, unless prior arrangements have been made.

We thank you for selecting Phase Separation Science, Inc. to serve your analytical needs. If you have any questions concerning this report, do not hesitate to contact us at 410-747-8770 or info@phaseonline.com.

Sincerely,


Dan Prucnal

Laboratory Manager



Project Name: RTN
PSS Project No.: 20082101

The following samples were received under chain of custody by Phase Separation Science (PSS) on 08/21/2020 at 11:30 am

PSS Sample ID	Sample ID	Matrix	Date/Time Collected
20082101-001	TEC-MW2	GROUND WATER	08/20/20 08:20
20082101-002	TEC-MW4	GROUND WATER	08/20/20 09:05
20082101-003	ECS-MW4	GROUND WATER	08/20/20 10:20
20082101-004	MiHpt-5	GROUND WATER	08/20/20 11:05
20082101-005	MiHpt-7	GROUND WATER	08/20/20 11:30
20082101-006	MiHpt-8	GROUND WATER	08/20/20 08:25
20082101-007	MiHpt-14	GROUND WATER	08/20/20 12:18
20082101-008	MiHpt-15	GROUND WATER	08/20/20 11:13
20082101-009	MiHpt-20	GROUND WATER	08/20/20 08:27
20082101-010	MiHpt-21	GROUND WATER	08/20/20 09:18
20082101-011	MiHpt-22	GROUND WATER	08/20/20 10:02
20082101-012	MW23	GROUND WATER	08/20/20 12:15
20082101-013	MW24	GROUND WATER	08/20/20 10:15
20082101-014	MW25	GROUND WATER	08/20/20 09:20

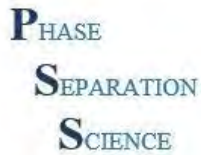
Please reference the Chain of Custody and Sample Receipt Checklist for specific container counts and preservatives. Any sample conditions not in compliance with sample acceptance criteria are described in Case Narrative Summary.

Notes:

1. The presence of a common laboratory contaminant such as methylene chloride may be considered a possible laboratory artifact. Where observed, appropriate consideration of data should be taken.
2. Unless otherwise noted in the case narrative, results are reported on a dry weight basis with the exception of pH, flashpoint, moisture, and paint filter test.
3. Drinking water samples collected for the purpose of compliance with SDWA may not be suitable for their intended use unless collected by a certified sampler [COMAR 26.08.05.07.C.2].
4. The analyses of 1,2-dibromo-3-chloropropane (DBCP) and 1,2-dibromoethane (EDB) by EPA 524.2 and calcium, magnesium, sodium and iron by EPA 200.8 are not currently promulgated for use in testing to meet the Safe Drinking Water Act and as such cannot be used for compliance purposes. The listings of the current promulgated methods for testing in compliance with the Safe Drinking Water Act can be found in the 40 CFR part 141.1, for the primary drinking water contaminants, and part 141.3, for the secondary drinking water contaminants.
5. Sample prepared under EPA 3550C with concentrations greater than 20 mg/Kg should employ the microtip extraction procedure if required to meet data quality objectives.
6. The analysis of acrolein by EPA 624 must be analyzed within three days of sampling unless pH is adjusted to 4-5 units [40 CFR part 136.3(e)].
7. Method 180.1, The Determination of Turbidity by Nephelometry, recommends samples over 40 NTU be diluted until the turbidity falls below 40 units. Routine samples over 40 NTU may not be diluted as long as the data quality objectives are not affected.
8. Alkalinity results analyzed by EPA 310.2 that are reported by dilution are estimated and are not in compliance with method requirements.

Standard Flags/Abbreviations:

- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- C** Results Pending Final Confirmation.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- Fail** The result exceeds the regulatory level for Toxicity Characteristic (TCLP) as cited in 40 CFR 261.24 Table 1.
- J** The target analyte was positively identified below the reporting limit but greater than the MDL.
- MDL** This is the Laboratory Method Detection Limit which is equivalent to the Limit of Detection (LOD). The LOD is an estimate of the minimum amount of a substance that an analytical process can reliably detect. This value will remain constant across multiple similar instrumentation and among different analysts. An LOD is analyte and matrix specific.
- ND** Not Detected at or above the reporting limit.
- RL** PSS Reporting Limit.
- U** Not detected.



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Explanation of Qualifiers

Project Name: RTN
PSS Project No.: 20082101

Certifications:

NELAP Certifications: PA 68-03330, VA 460156
State Certifications: MD 179, WV 303
Regulated Soil Permit: P330-12-00268
NSWC USCG Accepted Laboratory
LDBE MWAA LD1997-0041-2015

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: TEC-MW2	Date/Time Sampled: 08/20/2020 08:20	PSS Sample ID: 20082101-001
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015C DRO Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.15	mg/L	0.11		1	08/24/20	08/24/20 14:22	1070
Surrogate(s)	Recovery		Limits					
o-Terphenyl	67	%	52-100		1	08/24/20	08/24/20 14:22	1070

Total Petroleum Hydrocarbons-GRO Analytical Method: SW-846 8015C GRO Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	100		1	08/27/20	08/27/20 15:01	1045
Surrogate(s)	Recovery		Limits					
a,a,a-Trifluorotoluene	79	%	73-115		1	08/27/20	08/27/20 15:01	1045

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	ND	ug/L	5.0		1	08/25/20	08/25/20 18:41	1011
Benzene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
Bromochloromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
Bromodichloromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
Bromoform	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
Bromomethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
2-Butanone (MEK)	ND	ug/L	5.0		1	08/25/20	08/25/20 18:41	1011
Carbon Disulfide	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
Carbon tetrachloride	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
Chlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
Chloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
Chloroform	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
Chloromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
Cyclohexane	ND	ug/L	10		1	08/25/20	08/25/20 18:41	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0		1	08/25/20	08/25/20 18:41	1011
Dibromochloromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: TEC-MW2	Date/Time Sampled: 08/20/2020 08:20	PSS Sample ID: 20082101-001
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,3-Dichlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
Dichlorodifluoromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
Ethylbenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
2-Hexanone (MBK)	ND	ug/L	5.0		1	08/25/20	08/25/20 18:41	1011
Isopropylbenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
Methyl Acetate	ND	ug/L	10		1	08/25/20	08/25/20 18:41	1011
Methylcyclohexane	ND	ug/L	10		1	08/25/20	08/25/20 18:41	1011
Methylene chloride	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	08/25/20	08/25/20 18:41	1011
Methyl-t-Butyl Ether	1.0	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
Naphthalene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
Styrene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
Tetrachloroethene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
Toluene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
Trichloroethene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
Trichlorofluoromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
Vinyl chloride	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011
m&p-Xylene	ND	ug/L	2.0		1	08/25/20	08/25/20 18:41	1011
o-Xylene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:41	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: TEC-MW2 **Date/Time Sampled: 08/20/2020 08:20** **PSS Sample ID: 20082101-001**
Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Surrogate(s)	Recovery	Limits					
4-Bromofluorobenzene	102 %	88-112	1	08/25/20	08/25/20 18:41	1011	
Dibromofluoromethane	102 %	93-111	1	08/25/20	08/25/20 18:41	1011	
Toluene-D8	98 %	94-107	1	08/25/20	08/25/20 18:41	1011	

TCL Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	0.25		1	08/26/20	08/27/20 17:27	1059
Acenaphthylene	ND	ug/L	0.25		1	08/26/20	08/27/20 17:27	1059
Acetophenone	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
Anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 17:27	1059
Atrazine	ND	ug/L	2.0		1	08/26/20	08/27/20 17:27	1059
Benzo(a)anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 17:27	1059
Benzo(a)pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 17:27	1059
Benzo(b)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 17:27	1059
Benzo(g,h,i)perylene	ND	ug/L	0.25		1	08/26/20	08/27/20 17:27	1059
Benzo(k)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 17:27	1059
Biphenyl (Diphenyl)	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
Butyl benzyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
bis(2-chloroethoxy) methane	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
bis(2-ethylhexyl) phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
4-Bromophenylphenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
Di-n-butyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
Carbazole	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
Caprolactam	ND	ug/L	2.0		1	08/26/20	08/27/20 17:27	1059
4-Chloro-3-methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
4-Chloroaniline	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
2-Chloronaphthalene	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
2-Chlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
4-Chlorophenyl Phenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
Chrysene	ND	ug/L	0.25		1	08/26/20	08/27/20 17:27	1059
Dibenz(a,h)Anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 17:27	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: TEC-MW2	Date/Time Sampled: 08/20/2020 08:20	PSS Sample ID: 20082101-001
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Semivolatile Organic Compounds	Analytical Method: SW-846 8270 C	Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dibenzofuran	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
2,4-Dichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
Diethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
Dimethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
2,4-Dimethylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	08/26/20	08/27/20 17:27	1059
2,4-Dinitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 17:27	1059
2,4-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 17:27	1059
2,6-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 17:27	1059
Fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 17:27	1059
Fluorene	ND	ug/L	0.25		1	08/26/20	08/27/20 17:27	1059
Hexachlorobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
Hexachlorobutadiene	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
Hexachlorocyclopentadiene	ND	ug/L	2.0		1	08/26/20	08/27/20 17:27	1059
Hexachloroethane	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 17:27	1059
Isophorone	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
2-Methylnaphthalene	ND	ug/L	0.25		1	08/26/20	08/27/20 17:27	1059
2-Methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
3&4-Methylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
Naphthalene	ND	ug/L	0.25		1	08/26/20	08/27/20 17:27	1059
2-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 17:27	1059
3-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 17:27	1059
4-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 17:27	1059
Nitrobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
2-Nitrophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
4-Nitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 17:27	1059
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
N-Nitrosodiphenylamine	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
Di-n-octyl phthalate	ND	ug/L	2.0		1	08/26/20	08/27/20 17:27	1059
Pentachlorophenol	ND	ug/L	2.0		1	08/26/20	08/27/20 17:27	1059
Phenanthrene	ND	ug/L	0.25		1	08/26/20	08/27/20 17:27	1059
Phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
Pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 17:27	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: TEC-MW2	Date/Time Sampled: 08/20/2020 08:20	PSS Sample ID: 20082101-001
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Semivolatile Organic Compounds	Analytical Method: SW-846 8270 C	Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Pyridine	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
2,4,5-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
2,4,6-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 17:27	1059
Surrogate(s)	Recovery		Limits					
2-Fluorobiphenyl	79	%	35-107		1	08/26/20	08/27/20 17:27	1059
2-Fluorophenol	82	%	32-106		1	08/26/20	08/27/20 17:27	1059
Nitrobenzene-d5	72	%	34-123		1	08/26/20	08/27/20 17:27	1059
Phenol-d6	71	%	36-111		1	08/26/20	08/27/20 17:27	1059
Terphenyl-D14	97	%	43-143		1	08/26/20	08/27/20 17:27	1059
2,4,6-Tribromophenol	88	%	26-122		1	08/26/20	08/27/20 17:27	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: TEC-MW4	Date/Time Sampled: 08/20/2020 09:05	PSS Sample ID: 20082101-002
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015C DRO Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.60	mg/L	0.11		1	08/24/20	08/24/20 14:22	1070
Surrogate(s)	Recovery		Limits					
o-Terphenyl	87	%	52-100		1	08/24/20	08/24/20 14:22	1070

Total Petroleum Hydrocarbons-GRO Analytical Method: SW-846 8015C GRO Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	100		1	08/27/20	08/27/20 15:24	1045
Surrogate(s)	Recovery		Limits					
a,a,a-Trifluorotoluene	78	%	73-115		1	08/27/20	08/27/20 15:24	1045

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	ND	ug/L	5.0		1	08/25/20	08/25/20 19:03	1011
Benzene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
Bromochloromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
Bromodichloromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
Bromoform	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
Bromomethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
2-Butanone (MEK)	ND	ug/L	5.0		1	08/25/20	08/25/20 19:03	1011
Carbon Disulfide	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
Carbon tetrachloride	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
Chlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
Chloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
Chloroform	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
Chloromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
Cyclohexane	ND	ug/L	10		1	08/25/20	08/25/20 19:03	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0		1	08/25/20	08/25/20 19:03	1011
Dibromochloromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: TEC-MW4	Date/Time Sampled: 08/20/2020 09:05	PSS Sample ID: 20082101-002
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Volatile Organic Compounds	Analytical Method: SW-846 8260 B	Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,3-Dichlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
Dichlorodifluoromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
Ethylbenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
2-Hexanone (MBK)	ND	ug/L	5.0		1	08/25/20	08/25/20 19:03	1011
Isopropylbenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
Methyl Acetate	ND	ug/L	10		1	08/25/20	08/25/20 19:03	1011
Methylcyclohexane	ND	ug/L	10		1	08/25/20	08/25/20 19:03	1011
Methylene chloride	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	08/25/20	08/25/20 19:03	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
Naphthalene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
Styrene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
Tetrachloroethene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
Toluene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
Trichloroethene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
Trichlorofluoromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
Vinyl chloride	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011
m&p-Xylene	ND	ug/L	2.0		1	08/25/20	08/25/20 19:03	1011
o-Xylene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:03	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: TEC-MW4 **Date/Time Sampled: 08/20/2020 09:05** **PSS Sample ID: 20082101-002**
Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

<i>Surrogate(s)</i>	<i>Recovery</i>		<i>Limits</i>					
4-Bromofluorobenzene	97	%	88-112	1	08/25/20	08/25/20 19:03	1011	
Dibromofluoromethane	101	%	93-111	1	08/25/20	08/25/20 19:03	1011	
Toluene-D8	99	%	94-107	1	08/25/20	08/25/20 19:03	1011	

TCL Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:04	1059
Acenaphthylene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:04	1059
Acetophenone	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
Anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:04	1059
Atrazine	ND	ug/L	2.0		1	08/26/20	08/27/20 19:04	1059
Benzo(a)anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:04	1059
Benzo(a)pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:04	1059
Benzo(b)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:04	1059
Benzo(g,h,i)perylene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:04	1059
Benzo(k)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:04	1059
Biphenyl (Diphenyl)	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
Butyl benzyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
bis(2-chloroethoxy) methane	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
bis(2-ethylhexyl) phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
4-Bromophenylphenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
Di-n-butyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
Carbazole	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
Caprolactam	ND	ug/L	2.0		1	08/26/20	08/27/20 19:04	1059
4-Chloro-3-methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
4-Chloroaniline	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
2-Chloronaphthalene	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
2-Chlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
4-Chlorophenyl Phenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
Chrysene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:04	1059
Dibenz(a,h)Anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:04	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: TEC-MW4	Date/Time Sampled: 08/20/2020 09:05	PSS Sample ID: 20082101-002
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Semivolatile Organic Compounds	Analytical Method: SW-846 8270 C	Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dibenzofuran	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
2,4-Dichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
Diethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
Dimethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
2,4-Dimethylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	08/26/20	08/27/20 19:04	1059
2,4-Dinitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 19:04	1059
2,4-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 19:04	1059
2,6-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 19:04	1059
Fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:04	1059
Fluorene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:04	1059
Hexachlorobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
Hexachlorobutadiene	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
Hexachlorocyclopentadiene	ND	ug/L	2.0		1	08/26/20	08/27/20 19:04	1059
Hexachloroethane	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:04	1059
Isophorone	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
2-Methylnaphthalene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:04	1059
2-Methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
3&4-Methylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
Naphthalene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:04	1059
2-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 19:04	1059
3-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 19:04	1059
4-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 19:04	1059
Nitrobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
2-Nitrophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
4-Nitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 19:04	1059
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
N-Nitrosodiphenylamine	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
Di-n-octyl phthalate	ND	ug/L	2.0		1	08/26/20	08/27/20 19:04	1059
Pentachlorophenol	ND	ug/L	2.0		1	08/26/20	08/27/20 19:04	1059
Phenanthrene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:04	1059
Phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
Pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:04	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: TEC-MW4	Date/Time Sampled: 08/20/2020 09:05	PSS Sample ID: 20082101-002
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Pyridine	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
2,4,5-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
2,4,6-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 19:04	1059
Surrogate(s)	Recovery		Limits					
2-Fluorobiphenyl	77	%	35-107		1	08/26/20	08/27/20 19:04	1059
2-Fluorophenol	84	%	32-106		1	08/26/20	08/27/20 19:04	1059
Nitrobenzene-d5	69	%	34-123		1	08/26/20	08/27/20 19:04	1059
Phenol-d6	68	%	36-111		1	08/26/20	08/27/20 19:04	1059
Terphenyl-D14	96	%	43-143		1	08/26/20	08/27/20 19:04	1059
2,4,6-Tribromophenol	88	%	26-122		1	08/26/20	08/27/20 19:04	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: ECS-MW4 **Date/Time Sampled: 08/20/2020 10:20** **PSS Sample ID: 20082101-003**
Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015C DRO Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/L	0.11		1	08/24/20	08/24/20 14:47	1070
Surrogate(s)	Recovery		Limits					
<i>o</i> -Terphenyl	71	%	52-100		1	08/24/20	08/24/20 14:47	1070

Total Petroleum Hydrocarbons-GRO Analytical Method: SW-846 8015C GRO Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	100		1	08/27/20	08/27/20 15:47	1045
Surrogate(s)	Recovery		Limits					
<i>a,a,a</i> -Trifluorotoluene	76	%	73-115		1	08/27/20	08/27/20 15:47	1045

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	ND	ug/L	5.0		1	08/25/20	08/25/20 18:18	1011
Benzene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
Bromochloromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
Bromodichloromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
Bromoform	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
Bromomethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
2-Butanone (MEK)	ND	ug/L	5.0		1	08/25/20	08/25/20 18:18	1011
Carbon Disulfide	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
Carbon tetrachloride	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
Chlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
Chloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
Chloroform	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
Chloromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
Cyclohexane	ND	ug/L	10		1	08/25/20	08/25/20 18:18	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0		1	08/25/20	08/25/20 18:18	1011
Dibromochloromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: ECS-MW4	Date/Time Sampled: 08/20/2020 10:20	PSS Sample ID: 20082101-003
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,3-Dichlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
Dichlorodifluoromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
Ethylbenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
2-Hexanone (MBK)	ND	ug/L	5.0		1	08/25/20	08/25/20 18:18	1011
Isopropylbenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
Methyl Acetate	ND	ug/L	10		1	08/25/20	08/25/20 18:18	1011
Methylcyclohexane	ND	ug/L	10		1	08/25/20	08/25/20 18:18	1011
Methylene chloride	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	08/25/20	08/25/20 18:18	1011
Methyl-t-Butyl Ether	3.9	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
Naphthalene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
Styrene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
Tetrachloroethene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
Toluene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
Trichloroethene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
Trichlorofluoromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
Vinyl chloride	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011
m&p-Xylene	ND	ug/L	2.0		1	08/25/20	08/25/20 18:18	1011
o-Xylene	ND	ug/L	1.0		1	08/25/20	08/25/20 18:18	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: ECS-MW4 **Date/Time Sampled: 08/20/2020 10:20** **PSS Sample ID: 20082101-003**
Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Surrogate(s)	Recovery		Limits				
4-Bromofluorobenzene	99	%	88-112	1	08/25/20	08/25/20 18:18	1011
Dibromofluoromethane	101	%	93-111	1	08/25/20	08/25/20 18:18	1011
Toluene-D8	100	%	94-107	1	08/25/20	08/25/20 18:18	1011

TCL Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	7.1	ug/L	0.25		1	08/26/20	08/27/20 18:16	1059
Acenaphthylene	0.82	ug/L	0.25		1	08/26/20	08/27/20 18:16	1059
Acetophenone	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
Anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:16	1059
Atrazine	ND	ug/L	2.0		1	08/26/20	08/27/20 18:16	1059
Benzo(a)anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:16	1059
Benzo(a)pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:16	1059
Benzo(b)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:16	1059
Benzo(g,h,i)perylene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:16	1059
Benzo(k)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:16	1059
Biphenyl (Diphenyl)	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
Butyl benzyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
bis(2-chloroethoxy) methane	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
bis(2-ethylhexyl) phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
4-Bromophenylphenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
Di-n-butyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
Carbazole	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
Caprolactam	ND	ug/L	2.0		1	08/26/20	08/27/20 18:16	1059
4-Chloro-3-methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
4-Chloroaniline	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
2-Chloronaphthalene	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
2-Chlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
4-Chlorophenyl Phenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
Chrysene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:16	1059
Dibenz(a,h)Anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:16	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: ECS-MW4 **Date/Time Sampled: 08/20/2020 10:20** **PSS Sample ID: 20082101-003**
Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

TCL Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dibenzofuran	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
2,4-Dichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
Diethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
Dimethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
2,4-Dimethylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	08/26/20	08/27/20 18:16	1059
2,4-Dinitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 18:16	1059
2,4-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 18:16	1059
2,6-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 18:16	1059
Fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:16	1059
Fluorene	1.8	ug/L	0.25		1	08/26/20	08/27/20 18:16	1059
Hexachlorobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
Hexachlorobutadiene	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
Hexachlorocyclopentadiene	ND	ug/L	2.0		1	08/26/20	08/27/20 18:16	1059
Hexachloroethane	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:16	1059
Isophorone	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
2-Methylnaphthalene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:16	1059
2-Methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
3&4-Methylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
Naphthalene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:16	1059
2-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 18:16	1059
3-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 18:16	1059
4-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 18:16	1059
Nitrobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
2-Nitrophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
4-Nitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 18:16	1059
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
N-Nitrosodiphenylamine	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
Di-n-octyl phthalate	ND	ug/L	2.0		1	08/26/20	08/27/20 18:16	1059
Pentachlorophenol	ND	ug/L	2.0		1	08/26/20	08/27/20 18:16	1059
Phenanthrene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:16	1059
Phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
Pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:16	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: ECS-MW4 **Date/Time Sampled: 08/20/2020 10:20** **PSS Sample ID: 20082101-003**

Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

TCL Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Pyridine	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
2,4,5-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
2,4,6-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 18:16	1059
Surrogate(s)	Recovery		Limits					
2-Fluorobiphenyl	80	%	35-107		1	08/26/20	08/27/20 18:16	1059
2-Fluorophenol	86	%	32-106		1	08/26/20	08/27/20 18:16	1059
Nitrobenzene-d5	74	%	34-123		1	08/26/20	08/27/20 18:16	1059
Phenol-d6	73	%	36-111		1	08/26/20	08/27/20 18:16	1059
Terphenyl-D14	96	%	43-143		1	08/26/20	08/27/20 18:16	1059
2,4,6-Tribromophenol	85	%	26-122		1	08/26/20	08/27/20 18:16	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-5 **Date/Time Sampled: 08/20/2020 11:05** **PSS Sample ID: 20082101-004**
Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015C DRO Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.18	mg/L	0.12		1	08/24/20	08/24/20 14:47	1070
Surrogate(s)	Recovery		Limits					
<i>o</i> -Terphenyl	74	%	52-100		1	08/24/20	08/24/20 14:47	1070

Total Petroleum Hydrocarbons-GRO Analytical Method: SW-846 8015C GRO Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	190	ug/L	100		1	08/27/20	08/27/20 16:11	1045
Surrogate(s)	Recovery		Limits					
<i>a,a,a</i> -Trifluorotoluene	74	%	73-115		1	08/27/20	08/27/20 16:11	1045

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	ND	ug/L	5.0		1	08/25/20	08/25/20 19:26	1011
Benzene	67	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
Bromochloromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
Bromodichloromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
Bromoform	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
Bromomethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
2-Butanone (MEK)	ND	ug/L	5.0		1	08/25/20	08/25/20 19:26	1011
Carbon Disulfide	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
Carbon tetrachloride	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
Chlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
Chloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
Chloroform	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
Chloromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
Cyclohexane	ND	ug/L	10		1	08/25/20	08/25/20 19:26	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0		1	08/25/20	08/25/20 19:26	1011
Dibromochloromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-5	Date/Time Sampled: 08/20/2020 11:05	PSS Sample ID: 20082101-004
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Volatile Organic Compounds	Analytical Method: SW-846 8260 B	Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,3-Dichlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
Dichlorodifluoromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
Ethylbenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
2-Hexanone (MBK)	ND	ug/L	5.0		1	08/25/20	08/25/20 19:26	1011
Isopropylbenzene	2.4	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
Methyl Acetate	ND	ug/L	10		1	08/25/20	08/25/20 19:26	1011
Methylcyclohexane	ND	ug/L	10		1	08/25/20	08/25/20 19:26	1011
Methylene chloride	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	08/25/20	08/25/20 19:26	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
Naphthalene	96	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
Styrene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
Tetrachloroethene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
Toluene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
Trichloroethene	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
Trichlorofluoromethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
Vinyl chloride	ND	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011
m&p-Xylene	6.4	ug/L	2.0		1	08/25/20	08/25/20 19:26	1011
o-Xylene	17	ug/L	1.0		1	08/25/20	08/25/20 19:26	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-5	Date/Time Sampled: 08/20/2020 11:05	PSS Sample ID: 20082101-004
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Volatile Organic Compounds	Analytical Method: SW-846 8260 B	Preparation Method: 5030B

Surrogate(s)	Recovery	Limits					
4-Bromofluorobenzene	100 %	88-112	1	08/25/20	08/25/20 19:26	1011	
Dibromofluoromethane	100 %	93-111	1	08/25/20	08/25/20 19:26	1011	
Toluene-D8	97 %	94-107	1	08/25/20	08/25/20 19:26	1011	

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:40	1059
Acenaphthylene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:40	1059
Acetophenone	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
Anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:40	1059
Atrazine	ND	ug/L	2.0		1	08/26/20	08/27/20 18:40	1059
Benzo(a)anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:40	1059
Benzo(a)pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:40	1059
Benzo(b)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:40	1059
Benzo(g,h,i)perylene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:40	1059
Benzo(k)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:40	1059
Biphenyl (Diphenyl)	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
Butyl benzyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
bis(2-chloroethoxy) methane	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
bis(2-ethylhexyl) phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
4-Bromophenylphenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
Di-n-butyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
Carbazole	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
Caprolactam	ND	ug/L	2.0		1	08/26/20	08/27/20 18:40	1059
4-Chloro-3-methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
4-Chloroaniline	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
2-Chloronaphthalene	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
2-Chlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
4-Chlorophenyl Phenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
Chrysene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:40	1059
Dibenz(a,h)Anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:40	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-5 **Date/Time Sampled: 08/20/2020 11:05** **PSS Sample ID: 20082101-004**
Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

TCL Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dibenzofuran	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
2,4-Dichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
Diethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
Dimethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
2,4-Dimethylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	08/26/20	08/27/20 18:40	1059
2,4-Dinitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 18:40	1059
2,4-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 18:40	1059
2,6-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 18:40	1059
Fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:40	1059
Fluorene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:40	1059
Hexachlorobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
Hexachlorobutadiene	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
Hexachlorocyclopentadiene	ND	ug/L	2.0		1	08/26/20	08/27/20 18:40	1059
Hexachloroethane	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:40	1059
Isophorone	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
2-Methylnaphthalene	0.65	ug/L	0.25		1	08/26/20	08/27/20 18:40	1059
2-Methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
3&4-Methylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
Naphthalene	29	ug/L	0.25		1	08/26/20	08/27/20 18:40	1059
2-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 18:40	1059
3-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 18:40	1059
4-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 18:40	1059
Nitrobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
2-Nitrophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
4-Nitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 18:40	1059
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
N-Nitrosodiphenylamine	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
Di-n-octyl phthalate	ND	ug/L	2.0		1	08/26/20	08/27/20 18:40	1059
Pentachlorophenol	ND	ug/L	2.0		1	08/26/20	08/27/20 18:40	1059
Phenanthrene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:40	1059
Phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
Pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 18:40	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-5 **Date/Time Sampled: 08/20/2020 11:05** **PSS Sample ID: 20082101-004**

Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

TCL Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Pyridine	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
2,4,5-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
2,4,6-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 18:40	1059
Surrogate(s)	Recovery		Limits					
2-Fluorobiphenyl	52	%	35-107		1	08/26/20	08/27/20 18:40	1059
2-Fluorophenol	45	%	32-106		1	08/26/20	08/27/20 18:40	1059
Nitrobenzene-d5	46	%	34-123		1	08/26/20	08/27/20 18:40	1059
Phenol-d6	37	%	36-111		1	08/26/20	08/27/20 18:40	1059
Terphenyl-D14	96	%	43-143		1	08/26/20	08/27/20 18:40	1059
2,4,6-Tribromophenol	76	%	26-122		1	08/26/20	08/27/20 18:40	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-7	Date/Time Sampled: 08/20/2020 11:30	PSS Sample ID: 20082101-005
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015C DRO Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.92	mg/L	0.11		1	08/24/20	08/24/20 15:37	1070
Surrogate(s)	Recovery		Limits					
o-Terphenyl	73	%	52-100		1	08/24/20	08/24/20 15:37	1070

Total Petroleum Hydrocarbons-GRO Analytical Method: SW-846 8015C GRO Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	100		1	08/27/20	08/27/20 16:34	1045
Surrogate(s)	Recovery		Limits					
a,a,a-Trifluorotoluene	75	%	73-115		1	08/27/20	08/27/20 16:34	1045

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	ND	ug/L	5.0		1	08/26/20	08/26/20 12:36	1011
Benzene	5.8	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
Bromochloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
Bromodichloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
Bromoform	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
Bromomethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
2-Butanone (MEK)	ND	ug/L	5.0		1	08/26/20	08/26/20 12:36	1011
Carbon Disulfide	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
Carbon tetrachloride	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
Chlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
Chloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
Chloroform	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
Chloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
Cyclohexane	ND	ug/L	10		1	08/26/20	08/26/20 12:36	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0		1	08/26/20	08/26/20 12:36	1011
Dibromochloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-7	Date/Time Sampled: 08/20/2020 11:30	PSS Sample ID: 20082101-005
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Volatile Organic Compounds	Analytical Method: SW-846 8260 B	Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,3-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
Dichlorodifluoromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
Ethylbenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
2-Hexanone (MBK)	ND	ug/L	5.0		1	08/26/20	08/26/20 12:36	1011
Isopropylbenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
Methyl Acetate	ND	ug/L	10		1	08/26/20	08/26/20 12:36	1011
Methylcyclohexane	ND	ug/L	10		1	08/26/20	08/26/20 12:36	1011
Methylene chloride	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	08/26/20	08/26/20 12:36	1011
Methyl-t-Butyl Ether	1.3	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
Naphthalene	1.0	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
Styrene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
Tetrachloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
Toluene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
Trichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
Trichlorofluoromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
Vinyl chloride	ND	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011
m&p-Xylene	ND	ug/L	2.0		1	08/26/20	08/26/20 12:36	1011
o-Xylene	1.7	ug/L	1.0		1	08/26/20	08/26/20 12:36	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-7	Date/Time Sampled: 08/20/2020 11:30	PSS Sample ID: 20082101-005
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Volatile Organic Compounds	Analytical Method: SW-846 8260 B	Preparation Method: 5030B

Surrogate(s)	Recovery	Limits					
4-Bromofluorobenzene	97 %	88-112	1	08/26/20	08/26/20 12:36	1011	
Dibromofluoromethane	102 %	93-111	1	08/26/20	08/26/20 12:36	1011	
Toluene-D8	100 %	94-107	1	08/26/20	08/26/20 12:36	1011	

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	61	ug/L	0.25		1	08/26/20	08/27/20 19:29	1059
Acenaphthylene	1.3	ug/L	0.25		1	08/26/20	08/27/20 19:29	1059
Acetophenone	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
Anthracene	3.1	ug/L	0.25		1	08/26/20	08/27/20 19:29	1059
Atrazine	ND	ug/L	2.0		1	08/26/20	08/27/20 19:29	1059
Benzo(a)anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:29	1059
Benzo(a)pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:29	1059
Benzo(b)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:29	1059
Benzo(g,h,i)perylene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:29	1059
Benzo(k)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:29	1059
Biphenyl (Diphenyl)	2.7	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
Butyl benzyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
bis(2-chloroethoxy) methane	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
bis(2-ethylhexyl) phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
4-Bromophenylphenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
Di-n-butyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
Carbazole	2.5	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
Caprolactam	ND	ug/L	2.0		1	08/26/20	08/27/20 19:29	1059
4-Chloro-3-methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
4-Chloroaniline	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
2-Chloronaphthalene	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
2-Chlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
4-Chlorophenyl Phenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
Chrysene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:29	1059
Dibenz(a,h)Anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:29	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-7	Date/Time Sampled: 08/20/2020 11:30	PSS Sample ID: 20082101-005
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Semivolatile Organic Compounds	Analytical Method: SW-846 8270 C	Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dibenzofuran	3.3	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
2,4-Dichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
Diethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
Dimethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
2,4-Dimethylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	08/26/20	08/27/20 19:29	1059
2,4-Dinitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 19:29	1059
2,4-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 19:29	1059
2,6-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 19:29	1059
Fluoranthene	0.64	ug/L	0.25		1	08/26/20	08/27/20 19:29	1059
Fluorene	16	ug/L	0.25		1	08/26/20	08/27/20 19:29	1059
Hexachlorobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
Hexachlorobutadiene	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
Hexachlorocyclopentadiene	ND	ug/L	2.0		1	08/26/20	08/27/20 19:29	1059
Hexachloroethane	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:29	1059
Isophorone	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
2-Methylnaphthalene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:29	1059
2-Methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
3&4-Methylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
Naphthalene	ND	ug/L	0.25		1	08/26/20	08/27/20 19:29	1059
2-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 19:29	1059
3-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 19:29	1059
4-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 19:29	1059
Nitrobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
2-Nitrophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
4-Nitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 19:29	1059
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
N-Nitrosodiphenylamine	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
Di-n-octyl phthalate	ND	ug/L	2.0		1	08/26/20	08/27/20 19:29	1059
Pentachlorophenol	ND	ug/L	2.0		1	08/26/20	08/27/20 19:29	1059
Phenanthrene	12	ug/L	0.25		1	08/26/20	08/27/20 19:29	1059
Phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
Pyrene	0.74	ug/L	0.25		1	08/26/20	08/27/20 19:29	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-7	Date/Time Sampled: 08/20/2020 11:30	PSS Sample ID: 20082101-005
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Semivolatile Organic Compounds	Analytical Method: SW-846 8270 C	Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Pyridine	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
2,4,5-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
2,4,6-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 19:29	1059
Surrogate(s)	Recovery		Limits					
2-Fluorobiphenyl	83	%	35-107		1	08/26/20	08/27/20 19:29	1059
2-Fluorophenol	88	%	32-106		1	08/26/20	08/27/20 19:29	1059
Nitrobenzene-d5	73	%	34-123		1	08/26/20	08/27/20 19:29	1059
Phenol-d6	71	%	36-111		1	08/26/20	08/27/20 19:29	1059
Terphenyl-D14	98	%	43-143		1	08/26/20	08/27/20 19:29	1059
2,4,6-Tribromophenol	80	%	26-122		1	08/26/20	08/27/20 19:29	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-8 **Date/Time Sampled: 08/20/2020 08:25** **PSS Sample ID: 20082101-006**
Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015C DRO Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/L	0.11		1	08/24/20	08/24/20 16:02	1070
Surrogate(s)	Recovery		Limits					
<i>o</i> -Terphenyl	71	%	52-100		1	08/24/20	08/24/20 16:02	1070

Total Petroleum Hydrocarbons-GRO Analytical Method: SW-846 8015C GRO Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	100		1	08/27/20	08/27/20 16:57	1045
Surrogate(s)	Recovery		Limits					
<i>a,a,a</i> -Trifluorotoluene	74	%	73-115		1	08/27/20	08/27/20 16:57	1045

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	ND	ug/L	5.0		1	08/26/20	08/26/20 12:13	1011
Benzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
Bromochloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
Bromodichloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
Bromoform	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
Bromomethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
2-Butanone (MEK)	ND	ug/L	5.0		1	08/26/20	08/26/20 12:13	1011
Carbon Disulfide	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
Carbon tetrachloride	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
Chlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
Chloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
Chloroform	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
Chloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
Cyclohexane	ND	ug/L	10		1	08/26/20	08/26/20 12:13	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0		1	08/26/20	08/26/20 12:13	1011
Dibromochloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-8	Date/Time Sampled: 08/20/2020 08:25	PSS Sample ID: 20082101-006
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Volatile Organic Compounds	Analytical Method: SW-846 8260 B	Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,3-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
Dichlorodifluoromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
Ethylbenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
2-Hexanone (MBK)	ND	ug/L	5.0		1	08/26/20	08/26/20 12:13	1011
Isopropylbenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
Methyl Acetate	ND	ug/L	10		1	08/26/20	08/26/20 12:13	1011
Methylcyclohexane	ND	ug/L	10		1	08/26/20	08/26/20 12:13	1011
Methylene chloride	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	08/26/20	08/26/20 12:13	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
Naphthalene	1.1	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
Styrene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
Tetrachloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
Toluene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
Trichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
Trichlorofluoromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
Vinyl chloride	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011
m&p-Xylene	ND	ug/L	2.0		1	08/26/20	08/26/20 12:13	1011
o-Xylene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:13	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-8	Date/Time Sampled: 08/20/2020 08:25	PSS Sample ID: 20082101-006
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Volatile Organic Compounds	Analytical Method: SW-846 8260 B	Preparation Method: 5030B

Surrogate(s)	Recovery	Limits					
4-Bromofluorobenzene	101 %	88-112	1	08/26/20	08/26/20 12:13	1011	
Dibromofluoromethane	103 %	93-111	1	08/26/20	08/26/20 12:13	1011	
Toluene-D8	101 %	94-107	1	08/26/20	08/26/20 12:13	1011	

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C
Qualifier(s): See Batch 177365 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	7.7	ug/L	0.25		1	08/26/20	08/28/20 14:06	1059
Acenaphthylene	ND	ug/L	0.25		1	08/26/20	08/28/20 14:06	1059
Acetophenone	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
Anthracene	ND	ug/L	0.25		1	08/26/20	08/28/20 14:06	1059
Atrazine	ND	ug/L	2.0		1	08/26/20	08/28/20 14:06	1059
Benzo(a)anthracene	ND	ug/L	0.25		1	08/26/20	08/28/20 14:06	1059
Benzo(a)pyrene	ND	ug/L	0.25		1	08/26/20	08/28/20 14:06	1059
Benzo(b)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/28/20 14:06	1059
Benzo(g,h,i)perylene	ND	ug/L	0.25		1	08/26/20	08/28/20 14:06	1059
Benzo(k)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/28/20 14:06	1059
Biphenyl (Diphenyl)	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
Butyl benzyl phthalate	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
bis(2-chloroethoxy) methane	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
bis(2-ethylhexyl) phthalate	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
4-Bromophenylphenyl ether	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
Di-n-butyl phthalate	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
Carbazole	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
Caprolactam	ND	ug/L	2.0		1	08/26/20	08/28/20 14:06	1059
4-Chloro-3-methyl phenol	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
4-Chloroaniline	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
2-Chloronaphthalene	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
2-Chlorophenol	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
4-Chlorophenyl Phenyl ether	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
Chrysene	ND	ug/L	0.25		1	08/26/20	08/28/20 14:06	1059
Dibenz(a,h)Anthracene	ND	ug/L	0.25		1	08/26/20	08/28/20 14:06	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-8 **Date/Time Sampled: 08/20/2020 08:25** **PSS Sample ID: 20082101-006**
Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 177365 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dibenzofuran	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
2,4-Dichlorophenol	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
Diethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
Dimethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
2,4-Dimethylphenol	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	08/26/20	08/28/20 14:06	1059
2,4-Dinitrophenol	ND	ug/L	5.0		1	08/26/20	08/28/20 14:06	1059
2,4-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/28/20 14:06	1059
2,6-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/28/20 14:06	1059
Fluoranthene	0.29	ug/L	0.25		1	08/26/20	08/28/20 14:06	1059
Fluorene	0.54	ug/L	0.25		1	08/26/20	08/28/20 14:06	1059
Hexachlorobenzene	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
Hexachlorobutadiene	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
Hexachlorocyclopentadiene	ND	ug/L	2.0		1	08/26/20	08/28/20 14:06	1059
Hexachloroethane	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.25		1	08/26/20	08/28/20 14:06	1059
Isophorone	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
2-Methylnaphthalene	ND	ug/L	0.25		1	08/26/20	08/28/20 14:06	1059
2-Methyl phenol	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
3&4-Methylphenol	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
Naphthalene	0.91	ug/L	0.25		1	08/26/20	08/28/20 14:06	1059
2-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/28/20 14:06	1059
3-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/28/20 14:06	1059
4-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/28/20 14:06	1059
Nitrobenzene	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
2-Nitrophenol	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
4-Nitrophenol	ND	ug/L	5.0		1	08/26/20	08/28/20 14:06	1059
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
N-Nitrosodiphenylamine	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
Di-n-octyl phthalate	ND	ug/L	2.0		1	08/26/20	08/28/20 14:06	1059
Pentachlorophenol	ND	ug/L	2.0		1	08/26/20	08/28/20 14:06	1059
Phenanthrene	0.30	ug/L	0.25		1	08/26/20	08/28/20 14:06	1059
Phenol	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
Pyrene	0.26	ug/L	0.25		1	08/26/20	08/28/20 14:06	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-8 **Date/Time Sampled: 08/20/2020 08:25** **PSS Sample ID: 20082101-006**
Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

Qualifier(s): See Batch 177365 on Case Narrative.

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Pyridine	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
2,4,5-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
2,4,6-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/28/20 14:06	1059
Surrogate(s)	Recovery		Limits					
2-Fluorobiphenyl	79	%	35-107		1	08/26/20	08/28/20 14:06	1059
2-Fluorophenol	76	%	32-106		1	08/26/20	08/28/20 14:06	1059
Nitrobenzene-d5	77	%	34-123		1	08/26/20	08/28/20 14:06	1059
Phenol-d6	82	%	36-111		1	08/26/20	08/28/20 14:06	1059
Terphenyl-D14	92	%	43-143		1	08/26/20	08/28/20 14:06	1059
2,4,6-Tribromophenol	89	%	26-122		1	08/26/20	08/28/20 14:06	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-14 **Date/Time Sampled: 08/20/2020 12:18** **PSS Sample ID: 20082101-007**
Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015C DRO Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	1.00	mg/L	0.12		1	08/24/20	08/24/20 16:02	1070
Surrogate(s)	Recovery		Limits					
<i>o</i> -Terphenyl	66	%	52-100		1	08/24/20	08/24/20 16:02	1070

Total Petroleum Hydrocarbons-GRO Analytical Method: SW-846 8015C GRO Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	180	ug/L	100		1	08/27/20	08/27/20 17:20	1045
Surrogate(s)	Recovery		Limits					
<i>a,a,a</i> -Trifluorotoluene	76	%	73-115		1	08/27/20	08/27/20 17:20	1045

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	ND	ug/L	5.0		1	08/26/20	08/26/20 12:59	1011
Benzene	36	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
Bromochloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
Bromodichloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
Bromoform	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
Bromomethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
2-Butanone (MEK)	ND	ug/L	5.0		1	08/26/20	08/26/20 12:59	1011
Carbon Disulfide	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
Carbon tetrachloride	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
Chlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
Chloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
Chloroform	10	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
Chloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
Cyclohexane	ND	ug/L	10		1	08/26/20	08/26/20 12:59	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0		1	08/26/20	08/26/20 12:59	1011
Dibromochloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-14	Date/Time Sampled: 08/20/2020 12:18	PSS Sample ID: 20082101-007
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Volatile Organic Compounds	Analytical Method: SW-846 8260 B	Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,3-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
Dichlorodifluoromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
Ethylbenzene	3.3	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
2-Hexanone (MBK)	ND	ug/L	5.0		1	08/26/20	08/26/20 12:59	1011
Isopropylbenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
Methyl Acetate	ND	ug/L	10		1	08/26/20	08/26/20 12:59	1011
Methylcyclohexane	ND	ug/L	10		1	08/26/20	08/26/20 12:59	1011
Methylene chloride	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	08/26/20	08/26/20 12:59	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
Naphthalene	39	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
Styrene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
Tetrachloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
Toluene	4.2	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
Trichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
Trichlorofluoromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
Vinyl chloride	ND	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011
m&p-Xylene	2.6	ug/L	2.0		1	08/26/20	08/26/20 12:59	1011
o-Xylene	3.3	ug/L	1.0		1	08/26/20	08/26/20 12:59	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-14	Date/Time Sampled: 08/20/2020 12:18	PSS Sample ID: 20082101-007
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Volatile Organic Compounds	Analytical Method: SW-846 8260 B	Preparation Method: 5030B

<i>Surrogate(s)</i>	<i>Recovery</i>		<i>Limits</i>				
4-Bromofluorobenzene	99	%	88-112	1	08/26/20	08/26/20 12:59	1011
Dibromofluoromethane	102	%	93-111	1	08/26/20	08/26/20 12:59	1011
Toluene-D8	103	%	94-107	1	08/26/20	08/26/20 12:59	1011

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	28	ug/L	0.25		1	08/26/20	08/27/20 20:18	1059
Acenaphthylene	2.1	ug/L	0.25		1	08/26/20	08/27/20 20:18	1059
Acetophenone	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
Anthracene	8.9	ug/L	0.25		1	08/26/20	08/27/20 20:18	1059
Atrazine	ND	ug/L	2.0		1	08/26/20	08/27/20 20:18	1059
Benzo(a)anthracene	0.36	ug/L	0.25		1	08/26/20	08/27/20 20:18	1059
Benzo(a)pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:18	1059
Benzo(b)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:18	1059
Benzo(g,h,i)perylene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:18	1059
Benzo(k)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:18	1059
Biphenyl (Diphenyl)	5.4	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
Butyl benzyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
bis(2-chloroethoxy) methane	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
bis(2-ethylhexyl) phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
4-Bromophenylphenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
Di-n-butyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
Carbazole	14	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
Caprolactam	ND	ug/L	2.0		1	08/26/20	08/27/20 20:18	1059
4-Chloro-3-methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
4-Chloroaniline	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
2-Chloronaphthalene	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
2-Chlorophenol	0.92	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
4-Chlorophenyl Phenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
Chrysene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:18	1059
Dibenz(a,h)Anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:18	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-14	Date/Time Sampled: 08/20/2020 12:18	PSS Sample ID: 20082101-007
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Semivolatile Organic Compounds	Analytical Method: SW-846 8270 C	Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dibenzofuran	24	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
2,4-Dichlorophenol	8.5	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
Diethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
Dimethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
2,4-Dimethylphenol	0.56	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	08/26/20	08/27/20 20:18	1059
2,4-Dinitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 20:18	1059
2,4-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 20:18	1059
2,6-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 20:18	1059
Fluoranthene	5.2	ug/L	0.25		1	08/26/20	08/27/20 20:18	1059
Fluorene	31	ug/L	0.25		1	08/26/20	08/27/20 20:18	1059
Hexachlorobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
Hexachlorobutadiene	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
Hexachlorocyclopentadiene	ND	ug/L	2.0		1	08/26/20	08/27/20 20:18	1059
Hexachloroethane	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:18	1059
Isophorone	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
2-Methylnaphthalene	2.4	ug/L	0.25		1	08/26/20	08/27/20 20:18	1059
2-Methyl phenol	0.92	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
3&4-Methylphenol	1.2	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
Naphthalene	20	ug/L	0.25		1	08/26/20	08/27/20 20:18	1059
2-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 20:18	1059
3-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 20:18	1059
4-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 20:18	1059
Nitrobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
2-Nitrophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
4-Nitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 20:18	1059
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
N-Nitrosodiphenylamine	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
Di-n-octyl phthalate	ND	ug/L	2.0		1	08/26/20	08/27/20 20:18	1059
Pentachlorophenol	ND	ug/L	2.0		1	08/26/20	08/27/20 20:18	1059
Phenanthrene	25	ug/L	0.25		1	08/26/20	08/27/20 20:18	1059
Phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
Pyrene	3.6	ug/L	0.25		1	08/26/20	08/27/20 20:18	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-14	Date/Time Sampled: 08/20/2020 12:18	PSS Sample ID: 20082101-007
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Pyridine	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
2,4,5-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
2,4,6-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 20:18	1059
Surrogate(s)	Recovery		Limits					
2-Fluorobiphenyl	84	%	35-107		1	08/26/20	08/27/20 20:18	1059
2-Fluorophenol	90	%	32-106		1	08/26/20	08/27/20 20:18	1059
Nitrobenzene-d5	76	%	34-123		1	08/26/20	08/27/20 20:18	1059
Phenol-d6	81	%	36-111		1	08/26/20	08/27/20 20:18	1059
Terphenyl-D14	98	%	43-143		1	08/26/20	08/27/20 20:18	1059
2,4,6-Tribromophenol	92	%	26-122		1	08/26/20	08/27/20 20:18	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-15	Date/Time Sampled: 08/20/2020 11:13	PSS Sample ID: 20082101-008
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015C DRO Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/L	0.13		1	08/24/20	08/24/20 16:26	1070
Surrogate(s)	Recovery		Limits					
<i>o</i> -Terphenyl	83	%	52-100		1	08/24/20	08/24/20 16:26	1070

Total Petroleum Hydrocarbons-GRO Analytical Method: SW-846 8015C GRO Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	100		1	08/27/20	08/27/20 17:44	1045
Surrogate(s)	Recovery		Limits					
<i>a,a,a</i> -Trifluorotoluene	76	%	73-115		1	08/27/20	08/27/20 17:44	1045

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	ND	ug/L	5.0		1	08/26/20	08/26/20 19:09	1011
Benzene	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
Bromochloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
Bromodichloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
Bromoform	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
Bromomethane	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
2-Butanone (MEK)	ND	ug/L	5.0		1	08/26/20	08/26/20 19:09	1011
Carbon Disulfide	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
Carbon tetrachloride	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
Chlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
Chloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
Chloroform	49	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
Chloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
Cyclohexane	ND	ug/L	10		1	08/26/20	08/26/20 19:09	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0		1	08/26/20	08/26/20 19:09	1011
Dibromochloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-15	Date/Time Sampled: 08/20/2020 11:13	PSS Sample ID: 20082101-008
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,3-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
Dichlorodifluoromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
Ethylbenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
2-Hexanone (MBK)	ND	ug/L	5.0		1	08/26/20	08/26/20 19:09	1011
Isopropylbenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
Methyl Acetate	ND	ug/L	10		1	08/26/20	08/26/20 19:09	1011
Methylcyclohexane	ND	ug/L	10		1	08/26/20	08/26/20 19:09	1011
Methylene chloride	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	08/26/20	08/26/20 19:09	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
Naphthalene	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
Styrene	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
Tetrachloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
Toluene	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
Trichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
Trichlorofluoromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
Vinyl chloride	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011
m&p-Xylene	ND	ug/L	2.0		1	08/26/20	08/26/20 19:09	1011
o-Xylene	ND	ug/L	1.0		1	08/26/20	08/26/20 19:09	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-15	Date/Time Sampled: 08/20/2020 11:13	PSS Sample ID: 20082101-008
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Volatile Organic Compounds	Analytical Method: SW-846 8260 B	Preparation Method: 5030B

Surrogate(s)	Recovery	Limits					
4-Bromofluorobenzene	98 %	88-112	1	08/26/20	08/26/20 19:09	1011	
Dibromofluoromethane	102 %	93-111	1	08/26/20	08/26/20 19:09	1011	
Toluene-D8	100 %	94-107	1	08/26/20	08/26/20 19:09	1011	

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:42	1059
Acenaphthylene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:42	1059
Acetophenone	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
Anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:42	1059
Atrazine	ND	ug/L	2.0		1	08/26/20	08/27/20 20:42	1059
Benzo(a)anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:42	1059
Benzo(a)pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:42	1059
Benzo(b)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:42	1059
Benzo(g,h,i)perylene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:42	1059
Benzo(k)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:42	1059
Biphenyl (Diphenyl)	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
Butyl benzyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
bis(2-chloroethoxy) methane	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
bis(2-ethylhexyl) phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
4-Bromophenylphenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
Di-n-butyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
Carbazole	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
Caprolactam	ND	ug/L	2.0		1	08/26/20	08/27/20 20:42	1059
4-Chloro-3-methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
4-Chloroaniline	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
2-Chloronaphthalene	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
2-Chlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
4-Chlorophenyl Phenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
Chrysene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:42	1059
Dibenz(a,h)Anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:42	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-15 **Date/Time Sampled: 08/20/2020 11:13** **PSS Sample ID: 20082101-008**
Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

TCL Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dibenzofuran	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
2,4-Dichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
Diethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
Dimethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
2,4-Dimethylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	08/26/20	08/27/20 20:42	1059
2,4-Dinitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 20:42	1059
2,4-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 20:42	1059
2,6-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 20:42	1059
Fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:42	1059
Fluorene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:42	1059
Hexachlorobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
Hexachlorobutadiene	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
Hexachlorocyclopentadiene	ND	ug/L	2.0		1	08/26/20	08/27/20 20:42	1059
Hexachloroethane	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:42	1059
Isophorone	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
2-Methylnaphthalene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:42	1059
2-Methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
3&4-Methylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
Naphthalene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:42	1059
2-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 20:42	1059
3-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 20:42	1059
4-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 20:42	1059
Nitrobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
2-Nitrophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
4-Nitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 20:42	1059
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
N-Nitrosodiphenylamine	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
Di-n-octyl phthalate	ND	ug/L	2.0		1	08/26/20	08/27/20 20:42	1059
Pentachlorophenol	ND	ug/L	2.0		1	08/26/20	08/27/20 20:42	1059
Phenanthrene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:42	1059
Phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
Pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 20:42	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-15 **Date/Time Sampled: 08/20/2020 11:13** **PSS Sample ID: 20082101-008**
Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Pyridine	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
2,4,5-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
2,4,6-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 20:42	1059
Surrogate(s)	Recovery		Limits					
2-Fluorobiphenyl	77	%	35-107		1	08/26/20	08/27/20 20:42	1059
2-Fluorophenol	89	%	32-106		1	08/26/20	08/27/20 20:42	1059
Nitrobenzene-d5	80	%	34-123		1	08/26/20	08/27/20 20:42	1059
Phenol-d6	67	%	36-111		1	08/26/20	08/27/20 20:42	1059
Terphenyl-D14	99	%	43-143		1	08/26/20	08/27/20 20:42	1059
2,4,6-Tribromophenol	86	%	26-122		1	08/26/20	08/27/20 20:42	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-20	Date/Time Sampled: 08/20/2020 08:27	PSS Sample ID: 20082101-009
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015C DRO Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	ND	mg/L	0.11		1	08/24/20	08/24/20 16:26	1070
Surrogate(s)	Recovery		Limits					
<i>o</i> -Terphenyl	68	%	52-100		1	08/24/20	08/24/20 16:26	1070

Total Petroleum Hydrocarbons-GRO Analytical Method: SW-846 8015C GRO Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	100		1	08/27/20	08/27/20 18:07	1045
Surrogate(s)	Recovery		Limits					
<i>a,a,a</i> -Trifluorotoluene	73	%	73-115		1	08/27/20	08/27/20 18:07	1045

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	ND	ug/L	5.0		1	08/26/20	08/26/20 13:44	1011
Benzene	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
Bromochloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
Bromodichloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
Bromoform	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
Bromomethane	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
2-Butanone (MEK)	ND	ug/L	5.0		1	08/26/20	08/26/20 13:44	1011
Carbon Disulfide	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
Carbon tetrachloride	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
Chlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
Chloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
Chloroform	1.4	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
Chloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
Cyclohexane	ND	ug/L	10		1	08/26/20	08/26/20 13:44	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0		1	08/26/20	08/26/20 13:44	1011
Dibromochloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-20	Date/Time Sampled: 08/20/2020 08:27	PSS Sample ID: 20082101-009
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,3-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
Dichlorodifluoromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
Ethylbenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
2-Hexanone (MBK)	ND	ug/L	5.0		1	08/26/20	08/26/20 13:44	1011
Isopropylbenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
Methyl Acetate	ND	ug/L	10		1	08/26/20	08/26/20 13:44	1011
Methylcyclohexane	ND	ug/L	10		1	08/26/20	08/26/20 13:44	1011
Methylene chloride	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	08/26/20	08/26/20 13:44	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
Naphthalene	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
Styrene	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
Tetrachloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
Toluene	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
Trichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
Trichlorofluoromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
Vinyl chloride	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011
m&p-Xylene	ND	ug/L	2.0		1	08/26/20	08/26/20 13:44	1011
o-Xylene	ND	ug/L	1.0		1	08/26/20	08/26/20 13:44	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-20	Date/Time Sampled: 08/20/2020 08:27	PSS Sample ID: 20082101-009
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Volatile Organic Compounds	Analytical Method: SW-846 8260 B	Preparation Method: 5030B

Surrogate(s)	Recovery	Limits					
4-Bromofluorobenzene	99 %	88-112	1	08/26/20	08/26/20 13:44	1011	
Dibromofluoromethane	100 %	93-111	1	08/26/20	08/26/20 13:44	1011	
Toluene-D8	100 %	94-107	1	08/26/20	08/26/20 13:44	1011	

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:07	1059
Acenaphthylene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:07	1059
Acetophenone	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
Anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:07	1059
Atrazine	ND	ug/L	2.0		1	08/26/20	08/27/20 21:07	1059
Benzo(a)anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:07	1059
Benzo(a)pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:07	1059
Benzo(b)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:07	1059
Benzo(g,h,i)perylene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:07	1059
Benzo(k)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:07	1059
Biphenyl (Diphenyl)	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
Butyl benzyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
bis(2-chloroethoxy) methane	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
bis(2-ethylhexyl) phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
4-Bromophenylphenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
Di-n-butyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
Carbazole	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
Caprolactam	ND	ug/L	2.0		1	08/26/20	08/27/20 21:07	1059
4-Chloro-3-methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
4-Chloroaniline	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
2-Chloronaphthalene	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
2-Chlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
4-Chlorophenyl Phenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
Chrysene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:07	1059
Dibenz(a,h)Anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:07	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-20	Date/Time Sampled: 08/20/2020 08:27	PSS Sample ID: 20082101-009
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Semivolatile Organic Compounds	Analytical Method: SW-846 8270 C	Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dibenzofuran	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
2,4-Dichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
Diethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
Dimethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
2,4-Dimethylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	08/26/20	08/27/20 21:07	1059
2,4-Dinitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 21:07	1059
2,4-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 21:07	1059
2,6-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 21:07	1059
Fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:07	1059
Fluorene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:07	1059
Hexachlorobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
Hexachlorobutadiene	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
Hexachlorocyclopentadiene	ND	ug/L	2.0		1	08/26/20	08/27/20 21:07	1059
Hexachloroethane	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:07	1059
Isophorone	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
2-Methylnaphthalene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:07	1059
2-Methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
3&4-Methylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
Naphthalene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:07	1059
2-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 21:07	1059
3-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 21:07	1059
4-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 21:07	1059
Nitrobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
2-Nitrophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
4-Nitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 21:07	1059
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
N-Nitrosodiphenylamine	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
Di-n-octyl phthalate	ND	ug/L	2.0		1	08/26/20	08/27/20 21:07	1059
Pentachlorophenol	ND	ug/L	2.0		1	08/26/20	08/27/20 21:07	1059
Phenanthrene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:07	1059
Phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
Pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:07	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-20	Date/Time Sampled: 08/20/2020 08:27	PSS Sample ID: 20082101-009
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Pyridine	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
2,4,5-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
2,4,6-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:07	1059
Surrogate(s)	Recovery		Limits					
2-Fluorobiphenyl	68	%	35-107		1	08/26/20	08/27/20 21:07	1059
2-Fluorophenol	73	%	32-106		1	08/26/20	08/27/20 21:07	1059
Nitrobenzene-d5	67	%	34-123		1	08/26/20	08/27/20 21:07	1059
Phenol-d6	53	%	36-111		1	08/26/20	08/27/20 21:07	1059
Terphenyl-D14	95	%	43-143		1	08/26/20	08/27/20 21:07	1059
2,4,6-Tribromophenol	79	%	26-122		1	08/26/20	08/27/20 21:07	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-21	Date/Time Sampled: 08/20/2020 09:18	PSS Sample ID: 20082101-010
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015C DRO Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	2.5	mg/L	0.11		1	08/24/20	08/24/20 16:51	1070
Surrogate(s)	Recovery		Limits					
o-Terphenyl	87	%	52-100		1	08/24/20	08/24/20 16:51	1070

Total Petroleum Hydrocarbons-GRO Analytical Method: SW-846 8015C GRO Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	8,900	ug/L	100		1	08/27/20	08/27/20 18:30	1045
Surrogate(s)	Recovery		Limits					
a,a,a-Trifluorotoluene	74	%	73-115		1	08/27/20	08/27/20 18:30	1045

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	ND	ug/L	5.0		1	08/26/20	08/26/20 14:06	1011
Benzene	58	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
Bromochloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
Bromodichloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
Bromoform	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
Bromomethane	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
2-Butanone (MEK)	ND	ug/L	5.0		1	08/26/20	08/26/20 14:06	1011
Carbon Disulfide	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
Carbon tetrachloride	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
Chlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
Chloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
Chloroform	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
Chloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
Cyclohexane	490	ug/L	100		10	08/26/20	08/26/20 19:31	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0		1	08/26/20	08/26/20 14:06	1011
Dibromochloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-21	Date/Time Sampled: 08/20/2020 09:18	PSS Sample ID: 20082101-010
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Volatile Organic Compounds	Analytical Method: SW-846 8260 B	Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,3-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
Dichlorodifluoromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
cis-1,2-Dichloroethene	6.4	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
trans-1,2-Dichloroethene	4.4	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
Ethylbenzene	130	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
2-Hexanone (MBK)	ND	ug/L	5.0		1	08/26/20	08/26/20 14:06	1011
Isopropylbenzene	11	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
Methyl Acetate	ND	ug/L	10		1	08/26/20	08/26/20 14:06	1011
Methylcyclohexane	280	ug/L	100		10	08/26/20	08/26/20 19:31	1011
Methylene chloride	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	08/26/20	08/26/20 14:06	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
Naphthalene	2.2	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
Styrene	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
Tetrachloroethene	46	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
Toluene	52	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
Trichloroethene	24	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
Trichlorofluoromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
Vinyl chloride	ND	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011
m&p-Xylene	190	ug/L	2.0		1	08/26/20	08/26/20 14:06	1011
o-Xylene	8.2	ug/L	1.0		1	08/26/20	08/26/20 14:06	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-21 **Date/Time Sampled: 08/20/2020 09:18** **PSS Sample ID: 20082101-010**
Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Surrogate(s)	Recovery		Limits				
4-Bromofluorobenzene	96	%	88-112	1	08/26/20	08/26/20 14:06	1011
Dibromofluoromethane	94	%	93-111	1	08/26/20	08/26/20 14:06	1011
Toluene-D8	101	%	94-107	1	08/26/20	08/26/20 14:06	1011
4-Bromofluorobenzene	100	%	88-112	10	08/26/20	08/26/20 19:31	1011
Dibromofluoromethane	100	%	93-111	10	08/26/20	08/26/20 19:31	1011
Toluene-D8	101	%	94-107	10	08/26/20	08/26/20 19:31	1011

TCL Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:31	1059
Acenaphthylene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:31	1059
Acetophenone	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
Anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:31	1059
Atrazine	ND	ug/L	2.0		1	08/26/20	08/27/20 21:31	1059
Benzo(a)anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:31	1059
Benzo(a)pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:31	1059
Benzo(b)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:31	1059
Benzo(g,h,i)perylene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:31	1059
Benzo(k)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:31	1059
Biphenyl (Diphenyl)	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
Butyl benzyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
bis(2-chloroethoxy) methane	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
bis(2-ethylhexyl) phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
4-Bromophenylphenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
Di-n-butyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
Carbazole	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
Caprolactam	ND	ug/L	2.0		1	08/26/20	08/27/20 21:31	1059
4-Chloro-3-methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
4-Chloroaniline	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
2-Chloronaphthalene	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
2-Chlorophenol	42	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
4-Chlorophenyl Phenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-21 **Date/Time Sampled: 08/20/2020 09:18** **PSS Sample ID: 20082101-010**
Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

TCL Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Chrysene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:31	1059
Dibenz(a,h)Anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:31	1059
Dibenzofuran	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
2,4-Dichlorophenol	700	ug/L	5.0		10	08/26/20	08/28/20 15:01	1059
Diethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
Dimethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
2,4-Dimethylphenol	0.78	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	08/26/20	08/27/20 21:31	1059
2,4-Dinitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 21:31	1059
2,4-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 21:31	1059
2,6-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 21:31	1059
Fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:31	1059
Fluorene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:31	1059
Hexachlorobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
Hexachlorobutadiene	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
Hexachlorocyclopentadiene	ND	ug/L	2.0		1	08/26/20	08/27/20 21:31	1059
Hexachloroethane	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:31	1059
Isophorone	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
2-Methylnaphthalene	0.32	ug/L	0.25		1	08/26/20	08/27/20 21:31	1059
2-Methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
3&4-Methylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
Naphthalene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:31	1059
2-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 21:31	1059
3-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 21:31	1059
4-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 21:31	1059
Nitrobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
2-Nitrophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
4-Nitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 21:31	1059
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
N-Nitrosodiphenylamine	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
Di-n-octyl phthalate	ND	ug/L	2.0		1	08/26/20	08/27/20 21:31	1059
Pentachlorophenol	15	ug/L	2.0		1	08/26/20	08/27/20 21:31	1059
Phenanthrene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:31	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-21 **Date/Time Sampled: 08/20/2020 09:18** **PSS Sample ID: 20082101-010**
Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

TCL Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
Pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:31	1059
Pyridine	ND	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
2,4,5-Trichlorophenol	50	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
2,4,6-Trichlorophenol	1.6	ug/L	0.50		1	08/26/20	08/27/20 21:31	1059
Surrogate(s)	Recovery		Limits					
2-Fluorobiphenyl	82	%	35-107		1	08/26/20	08/27/20 21:31	1059
2-Fluorophenol	87	%	32-106		1	08/26/20	08/27/20 21:31	1059
Nitrobenzene-d5	77	%	34-123		1	08/26/20	08/27/20 21:31	1059
Phenol-d6	82	%	36-111		1	08/26/20	08/27/20 21:31	1059
Terphenyl-D14	99	%	43-143		1	08/26/20	08/27/20 21:31	1059
2,4,6-Tribromophenol	91	%	26-122		1	08/26/20	08/27/20 21:31	1059
2-Fluorobiphenyl	84	%	35-107		10	08/28/20	08/28/20 15:01	1059
2-Fluorophenol	79	%	32-106		10	08/28/20	08/28/20 15:01	1059
Nitrobenzene-d5	74	%	34-123		10	08/28/20	08/28/20 15:01	1059
Phenol-d6	90	%	36-111		10	08/28/20	08/28/20 15:01	1059
Terphenyl-D14	94	%	43-143		10	08/28/20	08/28/20 15:01	1059
2,4,6-Tribromophenol	91	%	26-122		10	08/28/20	08/28/20 15:01	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-22 **Date/Time Sampled: 08/20/2020 10:02** **PSS Sample ID: 20082101-011**
Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015C DRO Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.16	mg/L	0.11		1	08/24/20	08/24/20 16:51	1070
Surrogate(s)	Recovery		Limits					
<i>o</i> -Terphenyl	69	%	52-100		1	08/24/20	08/24/20 16:51	1070

Total Petroleum Hydrocarbons-GRO Analytical Method: SW-846 8015C GRO Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	100		1	08/27/20	08/27/20 18:54	1045
Surrogate(s)	Recovery		Limits					
<i>a,a,a</i> -Trifluorotoluene	77	%	73-115		1	08/27/20	08/27/20 18:54	1045

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	ND	ug/L	5.0		1	08/26/20	08/26/20 15:23	1011
Benzene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
Bromochloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
Bromodichloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
Bromoform	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
Bromomethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
2-Butanone (MEK)	ND	ug/L	5.0		1	08/26/20	08/26/20 15:23	1011
Carbon Disulfide	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
Carbon tetrachloride	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
Chlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
Chloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
Chloroform	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
Chloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
Cyclohexane	ND	ug/L	10		1	08/26/20	08/26/20 15:23	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0		1	08/26/20	08/26/20 15:23	1011
Dibromochloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-22	Date/Time Sampled: 08/20/2020 10:02	PSS Sample ID: 20082101-011
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Volatile Organic Compounds	Analytical Method: SW-846 8260 B	Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,3-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
Dichlorodifluoromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
Ethylbenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
2-Hexanone (MBK)	ND	ug/L	5.0		1	08/26/20	08/26/20 15:23	1011
Isopropylbenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
Methyl Acetate	ND	ug/L	10		1	08/26/20	08/26/20 15:23	1011
Methylcyclohexane	ND	ug/L	10		1	08/26/20	08/26/20 15:23	1011
Methylene chloride	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	08/26/20	08/26/20 15:23	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
Naphthalene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
Styrene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
Tetrachloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
Toluene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
Trichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
Trichlorofluoromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
Vinyl chloride	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011
m&p-Xylene	ND	ug/L	2.0		1	08/26/20	08/26/20 15:23	1011
o-Xylene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:23	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-22	Date/Time Sampled: 08/20/2020 10:02	PSS Sample ID: 20082101-011
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

Surrogate(s)	Recovery		Limits					
4-Bromofluorobenzene	99	%	88-112	1	08/26/20	08/26/20 15:23	1011	
Dibromofluoromethane	99	%	93-111	1	08/26/20	08/26/20 15:23	1011	
Toluene-D8	99	%	94-107	1	08/26/20	08/26/20 15:23	1011	

TCL Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:55	1059
Acenaphthylene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:55	1059
Acetophenone	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
Anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:55	1059
Atrazine	ND	ug/L	2.0		1	08/26/20	08/27/20 21:55	1059
Benzo(a)anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:55	1059
Benzo(a)pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:55	1059
Benzo(b)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:55	1059
Benzo(g,h,i)perylene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:55	1059
Benzo(k)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:55	1059
Biphenyl (Diphenyl)	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
Butyl benzyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
bis(2-chloroethoxy) methane	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
bis(2-ethylhexyl) phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
4-Bromophenylphenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
Di-n-butyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
Carbazole	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
Caprolactam	ND	ug/L	2.0		1	08/26/20	08/27/20 21:55	1059
4-Chloro-3-methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
4-Chloroaniline	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
2-Chloronaphthalene	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
2-Chlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
4-Chlorophenyl Phenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
Chrysene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:55	1059
Dibenz(a,h)Anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:55	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-22	Date/Time Sampled: 08/20/2020 10:02	PSS Sample ID: 20082101-011
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Semivolatile Organic Compounds	Analytical Method: SW-846 8270 C	Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dibenzofuran	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
2,4-Dichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
Diethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
Dimethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
2,4-Dimethylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	08/26/20	08/27/20 21:55	1059
2,4-Dinitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 21:55	1059
2,4-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 21:55	1059
2,6-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 21:55	1059
Fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:55	1059
Fluorene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:55	1059
Hexachlorobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
Hexachlorobutadiene	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
Hexachlorocyclopentadiene	ND	ug/L	2.0		1	08/26/20	08/27/20 21:55	1059
Hexachloroethane	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:55	1059
Isophorone	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
2-Methylnaphthalene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:55	1059
2-Methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
3&4-Methylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
Naphthalene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:55	1059
2-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 21:55	1059
3-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 21:55	1059
4-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 21:55	1059
Nitrobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
2-Nitrophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
4-Nitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 21:55	1059
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
N-Nitrosodiphenylamine	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
Di-n-octyl phthalate	ND	ug/L	2.0		1	08/26/20	08/27/20 21:55	1059
Pentachlorophenol	ND	ug/L	2.0		1	08/26/20	08/27/20 21:55	1059
Phenanthrene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:55	1059
Phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
Pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 21:55	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MiHpt-22	Date/Time Sampled: 08/20/2020 10:02	PSS Sample ID: 20082101-011
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Semivolatile Organic Compounds	Analytical Method: SW-846 8270 C	Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Pyridine	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
2,4,5-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
2,4,6-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 21:55	1059
Surrogate(s)	Recovery		Limits					
2-Fluorobiphenyl	74	%	35-107		1	08/26/20	08/27/20 21:55	1059
2-Fluorophenol	72	%	32-106		1	08/26/20	08/27/20 21:55	1059
Nitrobenzene-d5	67	%	34-123		1	08/26/20	08/27/20 21:55	1059
Phenol-d6	66	%	36-111		1	08/26/20	08/27/20 21:55	1059
Terphenyl-D14	91	%	43-143		1	08/26/20	08/27/20 21:55	1059
2,4,6-Tribromophenol	85	%	26-122		1	08/26/20	08/27/20 21:55	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MW23 **Date/Time Sampled: 08/20/2020 12:15** **PSS Sample ID: 20082101-012**
Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015C DRO Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.46	mg/L	0.11		1	08/24/20	08/24/20 17:16	1070
Surrogate(s)	Recovery		Limits					
<i>o</i> -Terphenyl	81	%	52-100		1	08/24/20	08/24/20 17:16	1070

Total Petroleum Hydrocarbons-GRO Analytical Method: SW-846 8015C GRO Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	100		1	08/27/20	08/27/20 19:17	1045
Surrogate(s)	Recovery		Limits					
<i>a,a,a</i> -Trifluorotoluene	76	%	73-115		1	08/27/20	08/27/20 19:17	1045

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	5.2	ug/L	5.0		1	08/26/20	08/26/20 15:46	1011
Benzene	2.8	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
Bromochloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
Bromodichloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
Bromoform	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
Bromomethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
2-Butanone (MEK)	ND	ug/L	5.0		1	08/26/20	08/26/20 15:46	1011
Carbon Disulfide	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
Carbon tetrachloride	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
Chlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
Chloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
Chloroform	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
Chloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
Cyclohexane	ND	ug/L	10		1	08/26/20	08/26/20 15:46	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0		1	08/26/20	08/26/20 15:46	1011
Dibromochloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MW23	Date/Time Sampled: 08/20/2020 12:15	PSS Sample ID: 20082101-012
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Volatile Organic Compounds	Analytical Method: SW-846 8260 B	Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,3-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
Dichlorodifluoromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
Ethylbenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
2-Hexanone (MBK)	ND	ug/L	5.0		1	08/26/20	08/26/20 15:46	1011
Isopropylbenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
Methyl Acetate	ND	ug/L	10		1	08/26/20	08/26/20 15:46	1011
Methylcyclohexane	ND	ug/L	10		1	08/26/20	08/26/20 15:46	1011
Methylene chloride	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	08/26/20	08/26/20 15:46	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
Naphthalene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
Styrene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
Tetrachloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
Toluene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
Trichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
Trichlorofluoromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
Vinyl chloride	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011
m&p-Xylene	ND	ug/L	2.0		1	08/26/20	08/26/20 15:46	1011
o-Xylene	ND	ug/L	1.0		1	08/26/20	08/26/20 15:46	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MW23	Date/Time Sampled: 08/20/2020 12:15	PSS Sample ID: 20082101-012
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Volatile Organic Compounds	Analytical Method: SW-846 8260 B	Preparation Method: 5030B

Surrogate(s)	Recovery	Limits					
4-Bromofluorobenzene	100 %	88-112	1	08/26/20	08/26/20 15:46	1011	
Dibromofluoromethane	102 %	93-111	1	08/26/20	08/26/20 15:46	1011	
Toluene-D8	100 %	94-107	1	08/26/20	08/26/20 15:46	1011	

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	19	ug/L	0.25		1	08/26/20	08/27/20 22:20	1059
Acenaphthylene	1.2	ug/L	0.25		1	08/26/20	08/27/20 22:20	1059
Acetophenone	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
Anthracene	4.7	ug/L	0.25		1	08/26/20	08/27/20 22:20	1059
Atrazine	ND	ug/L	2.0		1	08/26/20	08/27/20 22:20	1059
Benzo(a)anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 22:20	1059
Benzo(a)pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 22:20	1059
Benzo(b)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 22:20	1059
Benzo(g,h,i)perylene	ND	ug/L	0.25		1	08/26/20	08/27/20 22:20	1059
Benzo(k)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 22:20	1059
Biphenyl (Diphenyl)	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
Butyl benzyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
bis(2-chloroethoxy) methane	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
bis(2-ethylhexyl) phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
4-Bromophenylphenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
Di-n-butyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
Carbazole	23	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
Caprolactam	ND	ug/L	2.0		1	08/26/20	08/27/20 22:20	1059
4-Chloro-3-methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
4-Chloroaniline	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
2-Chloronaphthalene	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
2-Chlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
4-Chlorophenyl Phenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
Chrysene	ND	ug/L	0.25		1	08/26/20	08/27/20 22:20	1059
Dibenz(a,h)Anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 22:20	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MW23 **Date/Time Sampled: 08/20/2020 12:15** **PSS Sample ID: 20082101-012**
Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

TCL Semivolatile Organic Compounds

Analytical Method: SW-846 8270 C

Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dibenzofuran	15	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
2,4-Dichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
Diethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
Dimethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
2,4-Dimethylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	08/26/20	08/27/20 22:20	1059
2,4-Dinitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 22:20	1059
2,4-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 22:20	1059
2,6-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 22:20	1059
Fluoranthene	6.5	ug/L	0.25		1	08/26/20	08/27/20 22:20	1059
Fluorene	7.4	ug/L	0.25		1	08/26/20	08/27/20 22:20	1059
Hexachlorobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
Hexachlorobutadiene	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
Hexachlorocyclopentadiene	ND	ug/L	2.0		1	08/26/20	08/27/20 22:20	1059
Hexachloroethane	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 22:20	1059
Isophorone	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
2-Methylnaphthalene	ND	ug/L	0.25		1	08/26/20	08/27/20 22:20	1059
2-Methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
3&4-Methylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
Naphthalene	ND	ug/L	0.25		1	08/26/20	08/27/20 22:20	1059
2-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 22:20	1059
3-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 22:20	1059
4-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 22:20	1059
Nitrobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
2-Nitrophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
4-Nitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 22:20	1059
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
N-Nitrosodiphenylamine	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
Di-n-octyl phthalate	ND	ug/L	2.0		1	08/26/20	08/27/20 22:20	1059
Pentachlorophenol	ND	ug/L	2.0		1	08/26/20	08/27/20 22:20	1059
Phenanthrene	0.48	ug/L	0.25		1	08/26/20	08/27/20 22:20	1059
Phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
Pyrene	4.5	ug/L	0.25		1	08/26/20	08/27/20 22:20	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MW23	Date/Time Sampled: 08/20/2020 12:15	PSS Sample ID: 20082101-012
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Semivolatile Organic Compounds	Analytical Method: SW-846 8270 C	Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Pyridine	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
2,4,5-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
2,4,6-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 22:20	1059
Surrogate(s)	Recovery		Limits					
2-Fluorobiphenyl	77	%	35-107		1	08/26/20	08/27/20 22:20	1059
2-Fluorophenol	84	%	32-106		1	08/26/20	08/27/20 22:20	1059
Nitrobenzene-d5	66	%	34-123		1	08/26/20	08/27/20 22:20	1059
Phenol-d6	64	%	36-111		1	08/26/20	08/27/20 22:20	1059
Terphenyl-D14	94	%	43-143		1	08/26/20	08/27/20 22:20	1059
2,4,6-Tribromophenol	84	%	26-122		1	08/26/20	08/27/20 22:20	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MW24	Date/Time Sampled: 08/20/2020 10:15	PSS Sample ID: 20082101-013
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015C DRO Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.16	mg/L	0.11		1	08/24/20	08/24/20 17:16	1070
Surrogate(s)	Recovery		Limits					
o-Terphenyl	66	%	52-100		1	08/24/20	08/24/20 17:16	1070

Total Petroleum Hydrocarbons-GRO Analytical Method: SW-846 8015C GRO Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	100		1	08/27/20	08/27/20 19:40	1045
Surrogate(s)	Recovery		Limits					
a,a,a-Trifluorotoluene	75	%	73-115		1	08/27/20	08/27/20 19:40	1045

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	ND	ug/L	5.0		1	08/26/20	08/26/20 16:08	1011
Benzene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
Bromochloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
Bromodichloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
Bromoform	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
Bromomethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
2-Butanone (MEK)	ND	ug/L	5.0		1	08/26/20	08/26/20 16:08	1011
Carbon Disulfide	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
Carbon tetrachloride	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
Chlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
Chloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
Chloroform	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
Chloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
Cyclohexane	ND	ug/L	10		1	08/26/20	08/26/20 16:08	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0		1	08/26/20	08/26/20 16:08	1011
Dibromochloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MW24 **Date/Time Sampled: 08/20/2020 10:15** **PSS Sample ID: 20082101-013**
Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

TCL Volatile Organic Compounds

Analytical Method: SW-846 8260 B

Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,3-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
Dichlorodifluoromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
Ethylbenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
2-Hexanone (MBK)	ND	ug/L	5.0		1	08/26/20	08/26/20 16:08	1011
Isopropylbenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
Methyl Acetate	ND	ug/L	10		1	08/26/20	08/26/20 16:08	1011
Methylcyclohexane	ND	ug/L	10		1	08/26/20	08/26/20 16:08	1011
Methylene chloride	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	08/26/20	08/26/20 16:08	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
Naphthalene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
Styrene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
Tetrachloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
Toluene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
Trichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
Trichlorofluoromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
Vinyl chloride	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011
m&p-Xylene	ND	ug/L	2.0		1	08/26/20	08/26/20 16:08	1011
o-Xylene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:08	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MW24	Date/Time Sampled: 08/20/2020 10:15	PSS Sample ID: 20082101-013
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Volatile Organic Compounds	Analytical Method: SW-846 8260 B	Preparation Method: 5030B

<i>Surrogate(s)</i>	<i>Recovery</i>	<i>Limits</i>					
4-Bromofluorobenzene	102 %	88-112	1	08/26/20	08/26/20 16:08	1011	
Dibromofluoromethane	101 %	93-111	1	08/26/20	08/26/20 16:08	1011	
Toluene-D8	101 %	94-107	1	08/26/20	08/26/20 16:08	1011	

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	15	ug/L	0.25		1	08/26/20	08/27/20 22:44	1059
Acenaphthylene	ND	ug/L	0.25		1	08/26/20	08/27/20 22:44	1059
Acetophenone	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
Anthracene	1.2	ug/L	0.25		1	08/26/20	08/27/20 22:44	1059
Atrazine	ND	ug/L	2.0		1	08/26/20	08/27/20 22:44	1059
Benzo(a)anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 22:44	1059
Benzo(a)pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 22:44	1059
Benzo(b)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 22:44	1059
Benzo(g,h,i)perylene	ND	ug/L	0.25		1	08/26/20	08/27/20 22:44	1059
Benzo(k)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 22:44	1059
Biphenyl (Diphenyl)	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
Butyl benzyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
bis(2-chloroethoxy) methane	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
bis(2-ethylhexyl) phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
4-Bromophenylphenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
Di-n-butyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
Carbazole	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
Caprolactam	ND	ug/L	2.0		1	08/26/20	08/27/20 22:44	1059
4-Chloro-3-methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
4-Chloroaniline	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
2-Chloronaphthalene	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
2-Chlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
4-Chlorophenyl Phenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
Chrysene	ND	ug/L	0.25		1	08/26/20	08/27/20 22:44	1059
Dibenz(a,h)Anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 22:44	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MW24	Date/Time Sampled: 08/20/2020 10:15	PSS Sample ID: 20082101-013
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Semivolatile Organic Compounds	Analytical Method: SW-846 8270 C	Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dibenzofuran	2.1	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
2,4-Dichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
Diethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
Dimethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
2,4-Dimethylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	08/26/20	08/27/20 22:44	1059
2,4-Dinitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 22:44	1059
2,4-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 22:44	1059
2,6-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 22:44	1059
Fluoranthene	2.9	ug/L	0.25		1	08/26/20	08/27/20 22:44	1059
Fluorene	5.8	ug/L	0.25		1	08/26/20	08/27/20 22:44	1059
Hexachlorobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
Hexachlorobutadiene	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
Hexachlorocyclopentadiene	ND	ug/L	2.0		1	08/26/20	08/27/20 22:44	1059
Hexachloroethane	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 22:44	1059
Isophorone	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
2-Methylnaphthalene	ND	ug/L	0.25		1	08/26/20	08/27/20 22:44	1059
2-Methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
3&4-Methylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
Naphthalene	ND	ug/L	0.25		1	08/26/20	08/27/20 22:44	1059
2-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 22:44	1059
3-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 22:44	1059
4-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 22:44	1059
Nitrobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
2-Nitrophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
4-Nitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 22:44	1059
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
N-Nitrosodiphenylamine	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
Di-n-octyl phthalate	ND	ug/L	2.0		1	08/26/20	08/27/20 22:44	1059
Pentachlorophenol	ND	ug/L	2.0		1	08/26/20	08/27/20 22:44	1059
Phenanthrene	0.50	ug/L	0.25		1	08/26/20	08/27/20 22:44	1059
Phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
Pyrene	2.2	ug/L	0.25		1	08/26/20	08/27/20 22:44	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MW24	Date/Time Sampled: 08/20/2020 10:15	PSS Sample ID: 20082101-013
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Semivolatile Organic Compounds	Analytical Method: SW-846 8270 C	Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Pyridine	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
2,4,5-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
2,4,6-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 22:44	1059
Surrogate(s)	Recovery		Limits					
2-Fluorobiphenyl	70	%	35-107		1	08/26/20	08/27/20 22:44	1059
2-Fluorophenol	79	%	32-106		1	08/26/20	08/27/20 22:44	1059
Nitrobenzene-d5	62	%	34-123		1	08/26/20	08/27/20 22:44	1059
Phenol-d6	56	%	36-111		1	08/26/20	08/27/20 22:44	1059
Terphenyl-D14	93	%	43-143		1	08/26/20	08/27/20 22:44	1059
2,4,6-Tribromophenol	74	%	26-122		1	08/26/20	08/27/20 22:44	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MW25 **Date/Time Sampled: 08/20/2020 09:20** **PSS Sample ID: 20082101-014**
Matrix: GROUND WATER **Date/Time Received: 08/21/2020 11:30**

Total Petroleum Hydrocarbons - DRO Analytical Method: SW-846 8015C DRO Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-DRO (Diesel Range Organics)	0.18	mg/L	0.12		1	08/24/20	08/24/20 17:41	1070
Surrogate(s)	Recovery		Limits					
<i>o</i> -Terphenyl	75	%	52-100		1	08/24/20	08/24/20 17:41	1070

Total Petroleum Hydrocarbons-GRO Analytical Method: SW-846 8015C GRO Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
TPH-GRO (Gasoline Range Organics)	ND	ug/L	100		1	08/27/20	08/27/20 20:03	1045
Surrogate(s)	Recovery		Limits					
<i>a,a,a</i> -Trifluorotoluene	75	%	73-115		1	08/27/20	08/27/20 20:03	1045

TCL Volatile Organic Compounds Analytical Method: SW-846 8260 B Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acetone	ND	ug/L	5.0		1	08/26/20	08/26/20 16:31	1011
Benzene	11	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
Bromochloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
Bromodichloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
Bromoform	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
Bromomethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
2-Butanone (MEK)	ND	ug/L	5.0		1	08/26/20	08/26/20 16:31	1011
Carbon Disulfide	5.6	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
Carbon tetrachloride	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
Chlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
Chloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
Chloroform	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
Chloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
Cyclohexane	ND	ug/L	10		1	08/26/20	08/26/20 16:31	1011
1,2-Dibromo-3-chloropropane	ND	ug/L	5.0		1	08/26/20	08/26/20 16:31	1011
Dibromochloromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
1,2-Dibromoethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
1,2-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MW25	Date/Time Sampled: 08/20/2020 09:20	PSS Sample ID: 20082101-014
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Volatile Organic Compounds	Analytical Method: SW-846 8260 B	Preparation Method: 5030B

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
1,3-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
Dichlorodifluoromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
1,4-Dichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
1,1-Dichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
1,2-Dichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
cis-1,2-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
1,1-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
1,2-Dichloropropane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
cis-1,3-Dichloropropene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
trans-1,3-Dichloropropene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
trans-1,2-Dichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
Ethylbenzene	1.1	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
2-Hexanone (MBK)	ND	ug/L	5.0		1	08/26/20	08/26/20 16:31	1011
Isopropylbenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
Methyl Acetate	ND	ug/L	10		1	08/26/20	08/26/20 16:31	1011
Methylcyclohexane	ND	ug/L	10		1	08/26/20	08/26/20 16:31	1011
Methylene chloride	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
4-Methyl-2-Pentanone (MIBK)	ND	ug/L	5.0		1	08/26/20	08/26/20 16:31	1011
Methyl-t-Butyl Ether	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
Naphthalene	24	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
Styrene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
1,1,2,2-Tetrachloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
Tetrachloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
Toluene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
1,2,3-Trichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
1,2,4-Trichlorobenzene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
1,1,1-Trichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
Trichloroethene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
1,1,2-Trichloroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
Trichlorofluoromethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
1,1,2-Trichlorotrifluoroethane	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
Vinyl chloride	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011
m&p-Xylene	ND	ug/L	2.0		1	08/26/20	08/26/20 16:31	1011
o-Xylene	ND	ug/L	1.0		1	08/26/20	08/26/20 16:31	1011

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MW25	Date/Time Sampled: 08/20/2020 09:20	PSS Sample ID: 20082101-014
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Volatile Organic Compounds	Analytical Method: SW-846 8260 B	Preparation Method: 5030B

<i>Surrogate(s)</i>	<i>Recovery</i>		<i>Limits</i>				
4-Bromofluorobenzene	98	%	88-112	1	08/26/20	08/26/20 16:31	1011
Dibromofluoromethane	102	%	93-111	1	08/26/20	08/26/20 16:31	1011
Toluene-D8	100	%	94-107	1	08/26/20	08/26/20 16:31	1011

TCL Semivolatile Organic Compounds Analytical Method: SW-846 8270 C Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Acenaphthene	5.3	ug/L	0.25		1	08/26/20	08/27/20 23:09	1059
Acenaphthylene	ND	ug/L	0.25		1	08/26/20	08/27/20 23:09	1059
Acetophenone	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
Anthracene	0.54	ug/L	0.25		1	08/26/20	08/27/20 23:09	1059
Atrazine	ND	ug/L	2.0		1	08/26/20	08/27/20 23:09	1059
Benzo(a)anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 23:09	1059
Benzo(a)pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 23:09	1059
Benzo(b)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 23:09	1059
Benzo(g,h,i)perylene	ND	ug/L	0.25		1	08/26/20	08/27/20 23:09	1059
Benzo(k)fluoranthene	ND	ug/L	0.25		1	08/26/20	08/27/20 23:09	1059
Biphenyl (Diphenyl)	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
Butyl benzyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
bis(2-chloroethoxy) methane	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
bis(2-chloroethyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
bis(2-chloroisopropyl) ether	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
bis(2-ethylhexyl) phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
4-Bromophenylphenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
Di-n-butyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
Carbazole	2.9	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
Caprolactam	ND	ug/L	2.0		1	08/26/20	08/27/20 23:09	1059
4-Chloro-3-methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
4-Chloroaniline	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
2-Chloronaphthalene	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
2-Chlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
4-Chlorophenyl Phenyl ether	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
Chrysene	ND	ug/L	0.25		1	08/26/20	08/27/20 23:09	1059
Dibenz(a,h)Anthracene	ND	ug/L	0.25		1	08/26/20	08/27/20 23:09	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MW25	Date/Time Sampled: 08/20/2020 09:20	PSS Sample ID: 20082101-014
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Semivolatile Organic Compounds	Analytical Method: SW-846 8270 C	Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Dibenzofuran	1.6	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
3,3-Dichlorobenzidine	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
2,4-Dichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
Diethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
Dimethyl phthalate	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
2,4-Dimethylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
4,6-Dinitro-2-methyl phenol	ND	ug/L	5.0		1	08/26/20	08/27/20 23:09	1059
2,4-Dinitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 23:09	1059
2,4-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 23:09	1059
2,6-Dinitrotoluene	ND	ug/L	2.0		1	08/26/20	08/27/20 23:09	1059
Fluoranthene	0.79	ug/L	0.25		1	08/26/20	08/27/20 23:09	1059
Fluorene	2.6	ug/L	0.25		1	08/26/20	08/27/20 23:09	1059
Hexachlorobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
Hexachlorobutadiene	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
Hexachlorocyclopentadiene	ND	ug/L	2.0		1	08/26/20	08/27/20 23:09	1059
Hexachloroethane	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
Indeno(1,2,3-c,d)Pyrene	ND	ug/L	0.25		1	08/26/20	08/27/20 23:09	1059
Isophorone	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
2-Methylnaphthalene	0.85	ug/L	0.25		1	08/26/20	08/27/20 23:09	1059
2-Methyl phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
3&4-Methylphenol	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
Naphthalene	8.3	ug/L	0.25		1	08/26/20	08/27/20 23:09	1059
2-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 23:09	1059
3-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 23:09	1059
4-Nitroaniline	ND	ug/L	2.0		1	08/26/20	08/27/20 23:09	1059
Nitrobenzene	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
2-Nitrophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
4-Nitrophenol	ND	ug/L	5.0		1	08/26/20	08/27/20 23:09	1059
N-Nitrosodi-n-propyl amine	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
N-Nitrosodiphenylamine	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
Di-n-octyl phthalate	ND	ug/L	2.0		1	08/26/20	08/27/20 23:09	1059
Pentachlorophenol	ND	ug/L	2.0		1	08/26/20	08/27/20 23:09	1059
Phenanthrene	3.1	ug/L	0.25		1	08/26/20	08/27/20 23:09	1059
Phenol	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
Pyrene	0.62	ug/L	0.25		1	08/26/20	08/27/20 23:09	1059

Certificate of Analysis

Project Name: RTN
PSS Project No.: 20082101

Sample ID: MW25	Date/Time Sampled: 08/20/2020 09:20	PSS Sample ID: 20082101-014
Matrix: GROUND WATER	Date/Time Received: 08/21/2020 11:30	
TCL Semivolatile Organic Compounds	Analytical Method: SW-846 8270 C	Preparation Method: SW3510C

	Result	Units	RL	Flag	Dil	Prepared	Analyzed	Analyst
Pyridine	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
2,4,5-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
2,4,6-Trichlorophenol	ND	ug/L	0.50		1	08/26/20	08/27/20 23:09	1059
Surrogate(s)	Recovery		Limits					
2-Fluorobiphenyl	55	%	35-107		1	08/26/20	08/27/20 23:09	1059
2-Fluorophenol	42	%	32-106		1	08/26/20	08/27/20 23:09	1059
Nitrobenzene-d5	44	%	34-123		1	08/26/20	08/27/20 23:09	1059
Phenol-d6	36	%	36-111		1	08/26/20	08/27/20 23:09	1059
Terphenyl-D14	94	%	43-143		1	08/26/20	08/27/20 23:09	1059
2,4,6-Tribromophenol	81	%	26-122		1	08/26/20	08/27/20 23:09	1059

Case Narrative

Project Name: RTN

PSS Project No.: 20082101

Any holding time exceedances, deviations from the method specifications, regulatory requirements or variations to the procedures outlined in the PSS Quality Assurance Manual are outlined below.

Matrix spike and matrix spike duplicate analyses may not be performed due to insufficient sample quantity. In these instances, a laboratory control sample and laboratory control sample duplicate are analyzed unless otherwise noted or specified in the method.

Sample Receipt:

Received 8 containers per sample.

Analytical:

TCL Semivolatile Organic Compounds

Batch: 177365

The continuing calibration verification (CCV-01) had a recovery outside the control limits of 80-120% for 4-Nitroaniline at 122%. The samples were non-detect for this analyte.

Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) exceedances identified; see QC summary. Exceedances meet marginal exceedance criteria.

NELAP accreditation was held for all analyses performed unless noted below. See www.phaseonline.com for complete PSS scope of accreditation.

Project Name: RTN
PSS Project No.: 20082101

Method	Client Sample ID	Analysis Type	PSS Sample ID	Mtx	Prep Batch	Analytical Batch	Prepared	Analyzed
SW-846 8015C DRO	TEC-MW4	Initial	20082101-002	W	82807	177187	08/24/2020 08:19	08/24/2020 14:22
	MiHpt-5	Initial	20082101-004	W	82807	177187	08/24/2020 08:19	08/24/2020 14:47
	MiHpt-7	Initial	20082101-005	W	82807	177187	08/24/2020 08:19	08/24/2020 15:37
	MiHpt-14	Initial	20082101-007	W	82807	177187	08/24/2020 08:19	08/24/2020 16:02
	MiHpt-20	Initial	20082101-009	W	82807	177187	08/24/2020 08:19	08/24/2020 16:26
	MiHpt-22	Initial	20082101-011	W	82807	177187	08/24/2020 08:19	08/24/2020 16:51
	MW24	Initial	20082101-013	W	82807	177187	08/24/2020 08:19	08/24/2020 17:16
	TEC-MW2	Initial	20082101-001	W	82807	177188	08/24/2020 08:19	08/24/2020 14:22
	ECS-MW4	Initial	20082101-003	W	82807	177188	08/24/2020 08:19	08/24/2020 14:47
	MiHpt-8	Initial	20082101-006	W	82807	177188	08/24/2020 08:19	08/24/2020 16:02
	MiHpt-15	Initial	20082101-008	W	82807	177188	08/24/2020 08:19	08/24/2020 16:26
	MiHpt-21	Initial	20082101-010	W	82807	177188	08/24/2020 08:19	08/24/2020 16:51
	MW23	Initial	20082101-012	W	82807	177188	08/24/2020 08:19	08/24/2020 17:16
	MW25	Initial	20082101-014	W	82807	177188	08/24/2020 08:19	08/24/2020 17:41
	82807-1-BKS	BKS	82807-1-BKS	W	82807	177188	08/24/2020 08:19	08/24/2020 11:54
	82807-1-BLK	BLK	82807-1-BLK	W	82807	177188	08/24/2020 08:19	08/24/2020 10:39
	82807-1-BSD	BSD	82807-1-BSD	W	82807	177188	08/24/2020 08:19	08/24/2020 12:18
SW-846 8015C GRO	TEC-MW2	Initial	20082101-001	W	82890	177356	08/27/2020 11:23	08/27/2020 15:01
	TEC-MW4	Initial	20082101-002	W	82890	177356	08/27/2020 11:23	08/27/2020 15:24
	ECS-MW4	Initial	20082101-003	W	82890	177356	08/27/2020 11:23	08/27/2020 15:47
	MiHpt-5	Initial	20082101-004	W	82890	177356	08/27/2020 11:23	08/27/2020 16:11
	MiHpt-7	Initial	20082101-005	W	82890	177356	08/27/2020 11:23	08/27/2020 16:34
	MiHpt-8	Initial	20082101-006	W	82890	177356	08/27/2020 11:23	08/27/2020 16:57
	MiHpt-14	Initial	20082101-007	W	82890	177356	08/27/2020 11:23	08/27/2020 17:20
	MiHpt-15	Initial	20082101-008	W	82890	177356	08/27/2020 11:23	08/27/2020 17:44
	MiHpt-20	Initial	20082101-009	W	82890	177356	08/27/2020 11:23	08/27/2020 18:07
	MiHpt-21	Initial	20082101-010	W	82890	177356	08/27/2020 11:23	08/27/2020 18:30
	MiHpt-22	Initial	20082101-011	W	82890	177356	08/27/2020 11:23	08/27/2020 18:54
	MW23	Initial	20082101-012	W	82890	177356	08/27/2020 11:23	08/27/2020 19:17
	MW24	Initial	20082101-013	W	82890	177356	08/27/2020 11:23	08/27/2020 19:40
	MW25	Initial	20082101-014	W	82890	177356	08/27/2020 11:23	08/27/2020 20:03
	82890-2-BKS	BKS	82890-2-BKS	W	82890	177356	08/27/2020 11:23	08/27/2020 11:55
	82890-2-BLK	BLK	82890-2-BLK	W	82890	177356	08/27/2020 11:23	08/27/2020 13:51
	82890-2-BSD	BSD	82890-2-BSD	W	82890	177356	08/27/2020 11:23	08/27/2020 12:18
	Influent Vessel #1 S	MS	20082104-001 S	W	82890	177356	08/27/2020 11:23	08/27/2020 12:41
	Influent Vessel #1 SD	MSD	20082104-001 S	W	82890	177356	08/27/2020 11:23	08/27/2020 13:04
SW-846 8260 B	TEC-MW2	Initial	20082101-001	W	82845	177247	08/25/2020 07:58	08/25/2020 18:41
	TEC-MW4	Initial	20082101-002	W	82845	177247	08/25/2020 07:58	08/25/2020 19:03
	ECS-MW4	Initial	20082101-003	W	82845	177247	08/25/2020 07:58	08/25/2020 18:18
	MiHpt-5	Initial	20082101-004	W	82845	177247	08/25/2020 07:58	08/25/2020 19:26
	82845-1-BKS	BKS	82845-1-BKS	W	82845	177247	08/25/2020 07:58	08/25/2020 09:01
	82845-1-BLK	BLK	82845-1-BLK	W	82845	177247	08/25/2020 07:58	08/25/2020 10:54
	WFSW-1 S	MS	20081920-001 S	W	82845	177247	08/25/2020 07:58	08/25/2020 16:48
	WFSW-1 SD	MSD	20081920-001 S	W	82845	177247	08/25/2020 07:58	08/25/2020 17:11
	MiHpt-7	Initial	20082101-005	W	82861	177268	08/26/2020 08:32	08/26/2020 12:36

Project Name: RTN
PSS Project No.: 20082101

Method	Client Sample ID	Analysis Type	PSS Sample ID	Mtx	Prep Batch	Analytical Batch	Prepared	Analyzed
SW-846 8260 B	MiHpt-8	Initial	20082101-006	W	82861	177288	08/26/2020 08:32	08/26/2020 12:13
	MiHpt-14	Initial	20082101-007	W	82861	177288	08/26/2020 08:32	08/26/2020 12:59
	MiHpt-15	Initial	20082101-008	W	82861	177288	08/26/2020 08:32	08/26/2020 19:09
	MiHpt-20	Initial	20082101-009	W	82861	177288	08/26/2020 08:32	08/26/2020 13:44
	MiHpt-21	Initial	20082101-010	W	82861	177288	08/26/2020 08:32	08/26/2020 14:06
	MiHpt-22	Initial	20082101-011	W	82861	177288	08/26/2020 08:32	08/26/2020 15:23
	MW23	Initial	20082101-012	W	82861	177288	08/26/2020 08:32	08/26/2020 15:46
	MW24	Initial	20082101-013	W	82861	177288	08/26/2020 08:32	08/26/2020 16:08
	MW25	Initial	20082101-014	W	82861	177288	08/26/2020 08:32	08/26/2020 16:31
	82861-1-BKS	BKS	82861-1-BKS	W	82861	177288	08/26/2020 08:32	08/26/2020 09:36
	82861-1-BLK	BLK	82861-1-BLK	W	82861	177288	08/26/2020 08:32	08/26/2020 11:28
	MiHpt-8 S	MS	20082101-006 S	W	82861	177288	08/26/2020 08:32	08/26/2020 17:38
	MiHpt-8 SD	MSD	20082101-006 S	W	82861	177288	08/26/2020 08:32	08/26/2020 18:01
	MiHpt-21	Reanalysis	20082101-010	W	82861	177288	08/26/2020 08:32	08/26/2020 19:31
SW-846 8270 C	TEC-MW2	Initial	20082101-001	W	82844	177338	08/26/2020 08:09	08/27/2020 17:27
	TEC-MW4	Initial	20082101-002	W	82844	177338	08/26/2020 08:09	08/27/2020 19:04
	ECS-MW4	Initial	20082101-003	W	82844	177338	08/26/2020 08:09	08/27/2020 18:16
	MiHpt-5	Initial	20082101-004	W	82844	177338	08/26/2020 08:09	08/27/2020 18:40
	MiHpt-7	Initial	20082101-005	W	82844	177338	08/26/2020 08:09	08/27/2020 19:29
	MiHpt-14	Initial	20082101-007	W	82844	177338	08/26/2020 08:09	08/27/2020 20:18
	MiHpt-15	Initial	20082101-008	W	82844	177338	08/26/2020 08:09	08/27/2020 20:42
	MiHpt-20	Initial	20082101-009	W	82844	177338	08/26/2020 08:09	08/27/2020 21:07
	MiHpt-21	Initial	20082101-010	W	82844	177338	08/26/2020 08:09	08/27/2020 21:31
	MiHpt-22	Initial	20082101-011	W	82844	177338	08/26/2020 08:09	08/27/2020 21:55
	MW23	Initial	20082101-012	W	82844	177338	08/26/2020 08:09	08/27/2020 22:20
	MW24	Initial	20082101-013	W	82844	177338	08/26/2020 08:09	08/27/2020 22:44
	MW25	Initial	20082101-014	W	82844	177338	08/26/2020 08:09	08/27/2020 23:09
	MiHpt-8	Initial	20082101-006	W	82844	177365	08/26/2020 08:09	08/28/2020 14:06
	82844-1-BKS	BKS	82844-1-BKS	W	82844	177365	08/26/2020 08:09	08/28/2020 14:33
	82844-1-BLK	BLK	82844-1-BLK	W	82844	177365	08/26/2020 08:09	08/28/2020 12:44
	82844-1-BSD	BSD	82844-1-BSD	W	82844	177365	08/26/2020 08:09	08/28/2020 13:38
	MiHpt-21	Reanalysis	20082101-010	W	82844	177365	08/26/2020 08:09	08/28/2020 15:01

QC Summary

6630 Baltimore National Pike
Baltimore, MD 21228
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Project Name RTN
PSS Project No.: 20082101

Analytical Method: SW-846 8015C DRO

Seq Number: 177188

Matrix: Water

Prep Method: SW3510C

Date Prep: 08/24/20

MB Sample Id: 82807-1-BLK

LCS Sample Id: 82807-1-BKS

LCSD Sample Id: 82807-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
TPH-DRO (Diesel Range Organics)	<0.1000	1.000	0.6814	68	0.6155	62	59-123	9	21	mg/L	
Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units			
o-Terphenyl	70		78		69		52-100	%			

QC Summary

6630 Baltimore National Pike
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Project Name RTN
PSS Project No.: 20082101

Analytical Method: SW-846 8270 C

Seq Number: 177365

MB Sample Id: 82844-1-BLK

Matrix: Water

LCS Sample Id: 82844-1-BKS

Prep Method: SW3510C

Date Prep: 08/26/20

LCSD Sample Id: 82844-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
Acenaphthene	<0.2500	40.00	32.70	82	31.82	80	67-110	2	20	ug/L	
Acenaphthylene	<0.2500	40.00	32.95	82	32.95	82	69-106	0	20	ug/L	
Acetophenone	<0.5000	40.00	34.14	85	33.85	85	67-107	0	20	ug/L	
Anthracene	<0.2500	40.00	34.01	85	33.76	84	79-108	1	20	ug/L	
Atrazine	<2.000	40.00	36.04	90	36.59	91	17-98	1	20	ug/L	
Benzo(a)anthracene	<0.2500	40.00	34.19	85	33.50	84	76-109	1	20	ug/L	
Benzo(a)pyrene	<0.2500	40.00	37.68	94	37.75	94	76-114	0	20	ug/L	
Benzo(b)fluoranthene	<0.2500	40.00	37.47	94	37.54	94	67-121	0	20	ug/L	
Benzo(g,h,i)perylene	<0.2500	40.00	39.20	98	38.51	96	75-107	2	20	ug/L	
Benzo(k)fluoranthene	<0.2500	40.00	35.76	89	35.89	90	62-132	1	20	ug/L	
Biphenyl (Diphenyl)	<0.5000	40.00	30.61	77	31.10	78	71-108	1	20	ug/L	
Butyl benzyl phthalate	<0.5000	40.00	34.78	87	33.42	84	74-117	4	20	ug/L	
bis(2-chloroethoxy) methane	<0.5000	40.00	32.87	82	32.11	80	69-111	2	20	ug/L	
bis(2-chloroethyl) ether	<0.5000	40.00	30.33	76	31.05	78	62-103	3	20	ug/L	
bis(2-chloroisopropyl) ether	<0.5000	40.00	32.79	82	32.75	82	50-103	0	20	ug/L	
bis(2-ethylhexyl) phthalate	<0.5000	40.00	34.98	87	34.22	86	78-114	1	20	ug/L	
4-Bromophenylphenyl ether	<0.5000	40.00	32.58	81	32.20	81	82-108	0	20	ug/L	L
Di-n-butyl phthalate	<0.5000	40.00	35.98	90	35.02	88	71-115	2	20	ug/L	
Carbazole	<0.5000	40.00	38.39	96	38.29	96	52-134	0	20	ug/L	
Caprolactam	<2.000	40.00	34.07	85	35.59	89	50-125	5	20	ug/L	
4-Chloro-3-methyl phenol	<0.5000	40.00	33.53	84	34.36	86	72-121	2	20	ug/L	
4-Chloroaniline	<0.5000	40.00	32.16	80	33.16	83	54-103	4	20	ug/L	
2-Chloronaphthalene	<0.5000	40.00	33.70	84	33.77	84	66-105	0	20	ug/L	
2-Chlorophenol	<0.5000	40.00	32.74	82	33.26	83	63-109	1	20	ug/L	
4-Chlorophenyl Phenyl ether	<0.5000	40.00	32.95	82	32.09	80	73-100	2	20	ug/L	
Chrysene	<0.2500	40.00	34.82	87	34.32	86	78-111	1	20	ug/L	
Dibenz(a,h)Anthracene	<0.2500	40.00	40.04	100	39.95	100	76-106	0	20	ug/L	
Dibenzofuran	<0.5000	40.00	34.89	87	34.56	86	70-111	1	20	ug/L	
3,3-Dichlorobenzidine	<0.5000	40.00	35.97	90	36.89	92	79-132	2	20	ug/L	
2,4-Dichlorophenol	<0.5000	40.00	32.56	81	32.54	81	65-118	0	20	ug/L	
Diethyl phthalate	<0.5000	40.00	36.89	92	35.71	89	60-114	3	20	ug/L	
Dimethyl phthalate	<0.5000	40.00	34.65	87	34.71	87	66-107	0	20	ug/L	
2,4-Dimethylphenol	<0.5000	40.00	36.09	90	36.04	90	60-119	0	20	ug/L	
4,6-Dinitro-2-methyl phenol	<5.000	40.00	40.08	100	41.69	104	60-130	4	20	ug/L	
2,4-Dinitrophenol	<5.000	40.00	38.38	96	41.00	103	36-136	7	20	ug/L	
2,4-Dinitrotoluene	<2.000	40.00	36.85	92	36.78	92	70-119	0	20	ug/L	
2,6-Dinitrotoluene	<2.000	40.00	34.50	86	34.42	86	68-117	0	20	ug/L	
Fluoranthene	<0.2500	40.00	36.19	90	36.44	91	79-112	1	20	ug/L	
Fluorene	<0.2500	40.00	33.86	85	33.44	84	71-109	1	20	ug/L	
Hexachlorobenzene	<0.5000	40.00	33.74	84	34.62	87	76-110	4	20	ug/L	
Hexachlorobutadiene	<0.5000	40.00	31.14	78	31.18	78	64-113	0	20	ug/L	
Hexachlorocyclopentadiene	<2.000	40.00	39.67	99	39.72	99	49-124	0	20	ug/L	
Hexachloroethane	<0.5000	40.00	31.24	78	31.41	79	62-105	1	20	ug/L	
Indeno(1,2,3-c,d)Pyrene	<0.2500	40.00	38.71	97	38.74	97	69-120	0	20	ug/L	
Isophorone	<0.5000	40.00	32.47	81	31.97	80	68-108	1	20	ug/L	
2-Methylnaphthalene	<0.2500	40.00	31.29	78	31.06	78	64-117	0	20	ug/L	
2-Methyl phenol	<0.5000	40.00	34.46	86	33.40	84	67-111	2	20	ug/L	
3&4-Methylphenol	<0.5000	40.00	34.12	85	33.05	83	67-107	2	20	ug/L	
Naphthalene	<0.2500	40.00	31.03	78	31.32	78	65-103	0	20	ug/L	
2-Nitroaniline	<2.000	40.00	35.05	88	34.80	87	59-114	1	20	ug/L	
3-Nitroaniline	<2.000	40.00	36.37	91	36.82	92	60-109	1	20	ug/L	

QC Summary

6630 Baltimore National Pike
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Project Name RTN
PSS Project No.: 20082101

Analytical Method: SW-846 8270 C

Seq Number: 177365

MB Sample Id: 82844-1-BLK

Matrix: Water

LCS Sample Id: 82844-1-BKS

Prep Method: SW3510C

Date Prep: 08/26/20

LCSD Sample Id: 82844-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
4-Nitroaniline	<2.000	40.00	46.01	115	47.83	120	51-125	4	20	ug/L	
Nitrobenzene	<0.5000	40.00	33.46	84	33.01	83	60-107	1	20	ug/L	
2-Nitrophenol	<0.5000	40.00	35.32	88	35.09	88	65-119	0	20	ug/L	
4-Nitrophenol	<5.000	40.00	44.13	110	45.23	113	46-121	3	20	ug/L	
N-Nitrosodi-n-propyl amine	<0.5000	40.00	29.48	74	28.58	71	60-98	4	20	ug/L	
N-Nitrosodiphenylamine	<0.5000	40.00	32.52	81	33.37	83	68-106	2	20	ug/L	
Di-n-octyl phthalate	<2.000	40.00	35.59	89	34.52	86	69-120	3	20	ug/L	
Pentachlorophenol	<2.000	40.00	35.37	88	35.75	89	63-119	1	20	ug/L	
Phenanthrene	<0.2500	40.00	33.69	84	33.26	83	73-109	1	20	ug/L	
Phenol	<0.5000	40.00	34.91	87	34.94	87	65-110	0	20	ug/L	
Pyrene	<0.2500	40.00	35.08	88	33.85	85	78-111	3	20	ug/L	
Pyridine	<0.5000	40.00	33.03	83	32.20	81	47-105	2	20	ug/L	
2,4,5-Trichlorophenol	<0.5000	40.00	34.23	86	33.51	84	69-114	2	20	ug/L	
2,4,6-Trichlorophenol	<0.5000	40.00	34.22	86	33.69	84	68-118	2	20	ug/L	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units
2-Fluorobiphenyl	77		77		75		35-107	%
2-Fluorophenol	86		81		79		32-106	%
Nitrobenzene-d5	81		84		81		34-123	%
Phenol-d6	88		86		84		36-111	%
Terphenyl-D14	82		86		84		43-143	%
2,4,6-Tribromophenol	82		85		87		26-122	%

Analytical Method: SW-846 8015C GRO

Seq Number: 177356

MB Sample Id: 82890-2-BLK

Matrix: Water

LCS Sample Id: 82890-2-BKS

Prep Method: SW5030B

Date Prep: 08/27/20

LCSD Sample Id: 82890-2-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
TPH-GRO (Gasoline Range Organic:	<100	5000	4758	95	4516	90	83-109	5	20	ug/L	

Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	LCSD Result	LCSD Flag	Limits	Units
a,a,a-Trifluorotoluene	76		91		88		73-115	%

QC Summary

6630 Baltimore National Pike
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Project Name RTN
PSS Project No.: 20082101

Analytical Method: SW-846 8260 B

Seq Number: 177247

Matrix: Water

Prep Method: SW5030B

Date Prep: 08/25/20

MB Sample Id: 82845-1-BLK

LCS Sample Id: 82845-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Flag
Acetone	<5.000	50.00	52.62	105	26-128	ug/L	
Benzene	<1.000	50.00	49.98	100	82-115	ug/L	
Bromochloromethane	<1.000	50.00	50.75	102	91-115	ug/L	
Bromodichloromethane	<1.000	50.00	51.77	104	88-122	ug/L	
Bromoform	<1.000	50.00	51.11	102	79-122	ug/L	
Bromomethane	<1.000	50.00	40.84	82	50-143	ug/L	
2-Butanone (MEK)	<5.000	50.00	48.36	97	51-113	ug/L	
Carbon Disulfide	<1.000	50.00	49.85	100	71-132	ug/L	
Carbon tetrachloride	<1.000	50.00	52.32	105	85-125	ug/L	
Chlorobenzene	<1.000	50.00	50.39	101	80-116	ug/L	
Chloroethane	<1.000	50.00	37.78	76	58-115	ug/L	
Chloroform	<1.000	50.00	48.79	98	81-113	ug/L	
Chloromethane	<1.000	50.00	39.99	80	48-132	ug/L	
Cyclohexane	<10.00	50.00	51.60	103	81-125	ug/L	
1,2-Dibromo-3-chloropropane	<5.000	50.00	47.76	96	63-122	ug/L	
Dibromochloromethane	<1.000	50.00	51.36	103	84-120	ug/L	
1,2-Dibromoethane	<1.000	50.00	52.28	105	82-122	ug/L	
1,2-Dichlorobenzene	<1.000	50.00	52.40	105	79-122	ug/L	
1,3-Dichlorobenzene	<1.000	50.00	51.90	104	79-122	ug/L	
Dichlorodifluoromethane	<1.000	50.00	43.09	86	73-126	ug/L	
1,4-Dichlorobenzene	<1.000	50.00	50.27	101	79-119	ug/L	
1,1-Dichloroethane	<1.000	50.00	47.66	95	70-121	ug/L	
1,2-Dichloroethane	<1.000	50.00	48.98	98	78-118	ug/L	
cis-1,2-Dichloroethene	<1.000	50.00	49.22	98	76-116	ug/L	
1,1-Dichloroethene	<1.000	50.00	49.71	99	71-124	ug/L	
1,2-Dichloropropane	<1.000	50.00	51.24	102	79-121	ug/L	
cis-1,3-Dichloropropene	<1.000	50.00	52.04	104	83-123	ug/L	
trans-1,3-Dichloropropene	<1.000	50.00	53.02	106	82-125	ug/L	
trans-1,2-Dichloroethene	<1.000	50.00	46.61	93	74-118	ug/L	
Ethylbenzene	<1.000	50.00	52.36	105	85-120	ug/L	
2-Hexanone (MBK)	<5.000	50.00	43.01	86	51-126	ug/L	
Isopropylbenzene	<1.000	50.00	54.11	108	84-125	ug/L	
Methyl Acetate	<10.00	50.00	45.68	91	75-114	ug/L	
Methylcyclohexane	<10.00	50.00	53.38	107	88-124	ug/L	
Methylene chloride	<1.000	50.00	46.71	93	70-117	ug/L	
4-Methyl-2-Pentanone (MIBK)	<5.000	50.00	40.93	82	63-112	ug/L	
Methyl-t-Butyl Ether	<1.000	50.00	49.07	98	70-127	ug/L	
Naphthalene	<1.000	50.00	52.83	106	71-138	ug/L	
Styrene	<1.000	50.00	45.97	92	78-121	ug/L	
1,1,2,2-Tetrachloroethane	<1.000	50.00	50.21	100	70-118	ug/L	
Tetrachloroethene	<1.000	50.00	49.28	99	83-113	ug/L	
Toluene	<1.000	50.00	49.41	99	85-112	ug/L	
1,2,3-Trichlorobenzene	<1.000	50.00	57.05	114	80-134	ug/L	
1,2,4-Trichlorobenzene	<1.000	50.00	58.02	116	83-134	ug/L	
1,1,1-Trichloroethane	<1.000	50.00	52.27	105	84-122	ug/L	
Trichloroethene	<1.000	50.00	50.68	101	82-117	ug/L	
1,1,2-Trichloroethane	<1.000	50.00	49.98	100	82-115	ug/L	
Trichlorofluoromethane	<1.000	50.00	50.12	100	71-123	ug/L	
1,1,2-Trichlorotrifluoroethane	<1.000	50.00	50.54	101	72-126	ug/L	
Vinyl chloride	<1.000	50.00	43.64	87	75-113	ug/L	
m&p-Xylene	<2.000	100	104.4	104	87-120	ug/L	

QC Summary

6630 Baltimore National Pike
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Project Name RTN
PSS Project No.: 20082101

Analytical Method: SW-846 8260 B

Seq Number: 177247

Matrix: Water

Prep Method: SW5030B

Date Prep: 08/25/20

MB Sample Id: 82845-1-BLK

LCS Sample Id: 82845-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Flag
o-Xylene	<1.000	50.00	52.38	105	87-122	ug/L	
Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	
4-Bromofluorobenzene	100		99		88-112	%	
Dibromofluoromethane	101		98		93-111	%	
Toluene-D8	100		98		94-107	%	

QC Summary

6630 Baltimore National Pike
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Project Name RTN
PSS Project No.: 20082101

Analytical Method: SW-846 8260 B

Seq Number: 177288

Matrix: Water

Prep Method: SW5030B

Date Prep: 08/26/20

MB Sample Id: 82861-1-BLK

LCS Sample Id: 82861-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Flag
Acetone	<5.000	50.00	37.42	75	26-128	ug/L	
Benzene	<1.000	50.00	48.15	96	82-115	ug/L	
Bromochloromethane	<1.000	50.00	49.76	100	91-115	ug/L	
Bromodichloromethane	<1.000	50.00	52.24	104	88-122	ug/L	
Bromoform	<1.000	50.00	49.51	99	79-122	ug/L	
Bromomethane	<1.000	50.00	44.45	89	50-143	ug/L	
2-Butanone (MEK)	<5.000	50.00	35.25	71	51-113	ug/L	
Carbon Disulfide	<1.000	50.00	46.12	92	71-132	ug/L	
Carbon tetrachloride	<1.000	50.00	50.57	101	85-125	ug/L	
Chlorobenzene	<1.000	50.00	48.22	96	80-116	ug/L	
Chloroethane	<1.000	50.00	42.54	85	58-115	ug/L	
Chloroform	<1.000	50.00	48.32	97	81-113	ug/L	
Chloromethane	<1.000	50.00	41.77	84	48-132	ug/L	
Cyclohexane	<10.00	50.00	49.20	98	81-125	ug/L	
1,2-Dibromo-3-chloropropane	<5.000	50.00	43.76	88	63-122	ug/L	
Dibromochloromethane	<1.000	50.00	50.37	101	84-120	ug/L	
1,2-Dibromoethane	<1.000	50.00	50.10	100	82-122	ug/L	
1,2-Dichlorobenzene	<1.000	50.00	48.56	97	79-122	ug/L	
1,3-Dichlorobenzene	<1.000	50.00	47.98	96	79-122	ug/L	
Dichlorodifluoromethane	<1.000	50.00	40.05	80	73-126	ug/L	
1,4-Dichlorobenzene	<1.000	50.00	47.03	94	79-119	ug/L	
1,1-Dichloroethane	<1.000	50.00	48.26	97	70-121	ug/L	
1,2-Dichloroethane	<1.000	50.00	49.49	99	78-118	ug/L	
cis-1,2-Dichloroethene	<1.000	50.00	48.13	96	76-116	ug/L	
1,1-Dichloroethene	<1.000	50.00	46.47	93	71-124	ug/L	
1,2-Dichloropropane	<1.000	50.00	49.92	100	79-121	ug/L	
cis-1,3-Dichloropropene	<1.000	50.00	50.32	101	83-123	ug/L	
trans-1,3-Dichloropropene	<1.000	50.00	51.24	102	82-125	ug/L	
trans-1,2-Dichloroethene	<1.000	50.00	47.10	94	74-118	ug/L	
Ethylbenzene	<1.000	50.00	49.74	99	85-120	ug/L	
2-Hexanone (MBK)	<5.000	50.00	33.25	67	51-126	ug/L	
Isopropylbenzene	<1.000	50.00	49.82	100	84-125	ug/L	
Methyl Acetate	<10.00	50.00	43.65	87	75-114	ug/L	
Methylcyclohexane	<10.00	50.00	50.63	101	88-124	ug/L	
Methylene chloride	<1.000	50.00	45.71	91	70-117	ug/L	
4-Methyl-2-Pentanone (MIBK)	<5.000	50.00	34.93	70	63-112	ug/L	
Methyl-t-Butyl Ether	<1.000	50.00	50.14	100	70-127	ug/L	
Naphthalene	<1.000	50.00	48.11	96	71-138	ug/L	
Styrene	<1.000	50.00	47.73	95	78-121	ug/L	
1,1,2,2-Tetrachloroethane	<1.000	50.00	46.10	92	70-118	ug/L	
Tetrachloroethene	<1.000	50.00	47.12	94	83-113	ug/L	
Toluene	<1.000	50.00	47.62	95	85-112	ug/L	
1,2,3-Trichlorobenzene	<1.000	50.00	53.04	106	80-134	ug/L	
1,2,4-Trichlorobenzene	<1.000	50.00	53.49	107	83-134	ug/L	
1,1,1-Trichloroethane	<1.000	50.00	50.65	101	84-122	ug/L	
Trichloroethene	<1.000	50.00	48.71	97	82-117	ug/L	
1,1,2-Trichloroethane	<1.000	50.00	49.14	98	82-115	ug/L	
Trichlorofluoromethane	<1.000	50.00	47.77	96	71-123	ug/L	
1,1,2-Trichlorotrifluoroethane	<1.000	50.00	48.27	97	72-126	ug/L	
Vinyl chloride	<1.000	50.00	44.20	88	75-113	ug/L	
m&p-Xylene	<2.000	100	100.6	101	87-120	ug/L	

QC Summary

6630 Baltimore National Pike
Baltimore, MD 21228
410-747-8770
800-932-9047
www.phaseonline.com

Project Name RTN
PSS Project No.: 20082101

Analytical Method: SW-846 8260 B

Seq Number: 177288

Matrix: Water

Prep Method: SW5030B

Date Prep: 08/26/20

MB Sample Id: 82861-1-BLK

LCS Sample Id: 82861-1-BKS

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	Limits	Units	Flag
o-Xylene	<1.000	50.00	50.73	101	87-122	ug/L	
Surrogate	MB %Rec	MB Flag	LCS Result	LCS Flag	Limits	Units	
4-Bromofluorobenzene	99		96		88-112	%	
Dibromofluoromethane	103		100		93-111	%	
Toluene-D8	101		100		94-107	%	

QC Summary

6630 Baltimore National Pike
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800-932-9047
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Project Name RTN
PSS Project No.: 20082101

Analytical Method: SW-846 8260 B

Seq Number: 177288

Parent Sample Id: 20082101-006

Matrix: Ground Water

MS Sample Id: 20082101-006 S

Prep Method: SW5030B

Date Prep: 08/26/20

MSD Sample Id: 20082101-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
Acetone	<5.000	50.00	27.68	55	27.41	55	28-76	0	25	ug/L	
Benzene	<1.000	50.00	53.91	108	51.89	104	83-121	4	25	ug/L	
Bromochloromethane	<1.000	50.00	55.13	110	53.83	108	85-125	2	25	ug/L	
Bromodichloromethane	<1.000	50.00	55.79	112	54.43	109	85-129	3	25	ug/L	
Bromoform	<1.000	50.00	50.89	102	50.80	102	76-122	0	25	ug/L	
Bromomethane	<1.000	50.00	30.87	62	27.21	54	38-160	14	25	ug/L	
2-Butanone (MEK)	<5.000	50.00	32.80	66	34.71	69	53-93	4	25	ug/L	
Carbon Disulfide	<1.000	50.00	60.07	120	56.86	114	75-135	5	25	ug/L	
Carbon tetrachloride	<1.000	50.00	58.37	117	55.77	112	89-130	4	25	ug/L	
Chlorobenzene	<1.000	50.00	52.94	106	52.50	105	81-122	1	25	ug/L	
Chloroethane	<1.000	50.00	48.06	96	44.57	89	62-120	8	25	ug/L	
Chloroform	<1.000	50.00	52.83	106	50.96	102	82-120	4	25	ug/L	
Chloromethane	<1.000	50.00	41.11	82	37.43	75	55-134	9	25	ug/L	
Cyclohexane	<10.00	50.00	54.94	110	52.13	104	73-145	6	25	ug/L	
1,2-Dibromo-3-chloropropane	<5.000	50.00	47.42	95	48.06	96	56-136	1	25	ug/L	
Dibromochloromethane	<1.000	50.00	51.50	103	51.67	103	82-120	0	25	ug/L	
1,2-Dibromoethane	<1.000	50.00	52.38	105	52.05	104	81-122	1	25	ug/L	
1,2-Dichlorobenzene	<1.000	50.00	54.24	108	53.32	107	77-128	1	25	ug/L	
1,3-Dichlorobenzene	<1.000	50.00	53.17	106	52.80	106	77-126	0	25	ug/L	
Dichlorodifluoromethane	<1.000	50.00	45.49	91	43.32	87	78-130	4	25	ug/L	
1,4-Dichlorobenzene	<1.000	50.00	51.59	103	51.72	103	77-122	0	25	ug/L	
1,1-Dichloroethane	<1.000	50.00	54.29	109	52.16	104	74-127	5	25	ug/L	
1,2-Dichloroethane	<1.000	50.00	52.86	106	51.02	102	78-121	4	25	ug/L	
cis-1,2-Dichloroethene	<1.000	50.00	52.55	105	52.35	105	81-121	0	25	ug/L	
1,1-Dichloroethene	<1.000	50.00	55.35	111	52.79	106	76-130	5	25	ug/L	
1,2-Dichloropropane	<1.000	50.00	55.29	111	53.38	107	80-125	4	25	ug/L	
cis-1,3-Dichloropropene	<1.000	50.00	54.24	108	52.60	105	78-126	3	25	ug/L	
trans-1,3-Dichloropropene	<1.000	50.00	53.73	107	52.70	105	76-127	2	25	ug/L	
trans-1,2-Dichloroethene	<1.000	50.00	54.06	108	51.80	104	75-124	4	25	ug/L	
Ethylbenzene	<1.000	50.00	55.22	110	53.88	108	88-127	2	25	ug/L	
2-Hexanone (MBK)	<5.000	50.00	35.87	72	35.55	71	43-123	1	25	ug/L	
Isopropylbenzene	<1.000	50.00	56.76	114	55.51	111	84-135	3	25	ug/L	
Methyl Acetate	<10.00	50.00	47.10	94	45.53	91	72-119	3	25	ug/L	
Methylcyclohexane	<10.00	50.00	53.37	107	50.75	102	87-129	5	25	ug/L	
Methylene chloride	<1.000	50.00	52.92	106	50.93	102	74-121	4	25	ug/L	
4-Methyl-2-Pentanone (MIBK)	<5.000	50.00	42.00	84	41.27	83	61-122	1	25	ug/L	
Methyl-t-Butyl Ether	<1.000	50.00	56.13	112	55.03	110	66-129	2	25	ug/L	
Naphthalene	1.060	50.00	56.29	110	56.36	111	56-157	1	25	ug/L	
Styrene	<1.000	50.00	48.36	97	47.23	94	79-123	3	25	ug/L	
1,1,2,2-Tetrachloroethane	<1.000	50.00	50.07	100	50.29	101	70-124	1	25	ug/L	
Tetrachloroethene	<1.000	50.00	53.66	107	51.58	103	74-132	4	25	ug/L	
Toluene	<1.000	50.00	54.79	110	52.81	106	72-141	4	25	ug/L	
1,2,3-Trichlorobenzene	<1.000	50.00	56.63	113	55.75	112	71-139	1	25	ug/L	
1,2,4-Trichlorobenzene	<1.000	50.00	57.57	115	56.41	113	72-141	2	25	ug/L	
1,1,1-Trichloroethane	<1.000	50.00	57.01	114	55.17	110	84-129	4	25	ug/L	
Trichloroethene	<1.000	50.00	54.46	109	52.16	104	81-123	5	25	ug/L	
1,1,2-Trichloroethane	<1.000	50.00	52.92	106	51.58	103	81-118	3	25	ug/L	
Trichlorofluoromethane	<1.000	50.00	49.40	99	49.74	99	74-127	0	25	ug/L	
1,1,2-Trichlorotrifluoroethane	<1.000	50.00	52.86	106	50.09	100	74-128	6	25	ug/L	
Vinyl chloride	<1.000	50.00	46.81	94	43.34	87	71-126	8	25	ug/L	
m&p-Xylene	<2.000	100	110	110	107.6	108	88-128	2	25	ug/L	

QC Summary

6630 Baltimore National Pike
Baltimore, MD 21228
410-747-8770
800-932-9047
www.phaseonline.com

Project Name RTN
PSS Project No.: 20082101

Analytical Method: SW-846 8260 B

Seq Number: 177288

Parent Sample Id: 20082101-006

Matrix: Ground Water

MS Sample Id: 20082101-006 S

Prep Method: SW5030B

Date Prep: 08/26/20

MSD Sample Id: 20082101-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Flag
o-Xylene	<1.000	50.00	55.17	110	54.39	109	89-128	1	25	ug/L	

Surrogate

	MS Result	MS Flag	MSD Result	MSD Flag	Limits	Units
4-Bromofluorobenzene	97		98		88-112	%
Dibromofluoromethane	101		100		93-111	%
Toluene-D8	101		101		94-107	%

F = RPD exceeded the laboratory control limits

X = Recovery of MS, MSD or both outside of QC Criteria

H= Recovery of BS,BSD or both exceeded the laboratory control limits

L = Recovery of BS,BSD or both below the laboratory control limits

SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

www.phaseonline.com

email: info@phaseonline.com

20082100

[illegible]

6630 Baltimore National Pike • Route 40 West • Baltimore, Maryland 21228 • (410) 747-8770 • (800) 932-9047 • Fax (410) 788-8723

The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary. * = REQUIRED



SAMPLE CHAIN OF CUSTODY/AGREEMENT FORM

PHASE SEPARATION SCIENCE, INC.

20082101

www.phaseonline.com

email: info@phaseonline.com

1 *CLIENT: AZONE		*OFFICE LOC.: Charles Town, WV		PSS Work Order #: 20082022-8121TV		PAGE 2 OF 2												
*PROJECT MGR: M. Bruzzesi		*PHONE NO.: 703-608-5969		Matrix Codes: SW=Surface Wtr DW=Drinking Wtr GW=Ground Wtr WW=Waste Wtr O=Oil S=Soil WL=Waste Liquid WS=Waste Solid W= Wipe														
EMAIL: mbruzzesi@a-zoneenvironmental.com FAX NO.:				No. CONTAINERS	SAMPLE TYPE C = COMP G = GRAB	TPH-GRO 8015C	TPH-DRO 8015C	VOCs 8260B	SVOCs 8270C									Preservative Used ←
*PROJECT NAME: RTN		PROJECT NO.:																
SITE LOCATION: Alexandria, VA		P.O. NO.:																
SAMPLERS: M. Bruzzesi, C. Hebert, and R. Page DW CERT NO.:																		
2	LAB NO.	SAMPLE IDENTIFICATION	DATE	TIME	MATRIX (See Codes)													
	11	MiHpt-22	8/20/20	1002	GW	7	G	✓	✓	✓	✓							Click to enter Remarks
	12	MW23	8/20/20	1215	GW	7	G	✓	✓	✓	✓							
	13	MW24	8/20/20	1015	GW	7	G	✓	✓	✓	✓							
	14	MW25	8/20/20	0920	GW	7	G	✓	✓	✓	✓							
5	Relinquished By: (1)		Date	Time	Received By:		4 *Requested Turnaround Time				# of Coolers: 5							
			8/21/20	1045			☒ 5-Day ☐ 3-Day ☐ 2-Day				Custody Seal: ABS							
	Relinquished By: (2)		Date	Time	Received By:		☐ Next Day ☐ Emergency ☐ Other				Ice Present: PRES Temp: 4.4°S.5°							
			8/21/20	1130			Data Deliverables Required:				Shipping Carrier: TIE							
	Relinquished By: (3)		Date	Time	Received By:		Special Instructions:											
	Relinquished By: (4)		Date	Time	Received By:													

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The client (Client Name), by signing, or having client's agent sign, this "Sample Chain of Custody/Agreement Form", agrees to pay for the above requested services per the latest version of the Service Brochure or PSS-provided quotation including any and all attorney's or other reasonable fees if collection becomes necessary. * = REQUIRED

Sample Receipt Checklist

Project Name: RTN
PSS Project No.: 20082101

Client Name A-Zone Environmental Services
Disposal Date 09/25/2020

Received By Thomas Wingate
Date Received 08/21/2020 11:30:00 AM
Delivered By Trans Time Express
Tracking No Not Applicable
Logged In By Thomas Wingate

Shipping Container(s)

No. of Coolers 5

Custody Seal(s) Intact? N/A
Seal(s) Signed / Dated? N/A

Ice Present
Temp (deg C) 5.5
Temp Blank Present No

Documentation

COC agrees with sample labels? Yes
Chain of Custody Yes

Sampler Name M.Bruzzesi, C.Hebert, R.Pagel
MD DW Cert. No. N/A

Sample Container

Appropriate for Specified Analysis? Yes
Intact? Yes
Labeled and Labels Legible? Yes

Custody Seal(s) Intact? Not Applicable
Seal(s) Signed / Dated Not Applicable

Holding Time

All Samples Received Within Holding Time(s)? Yes

Total No. of Samples Received 14
Total No. of Containers Received 112

Preservation

Total Metals (pH<2) N/A
Dissolved Metals, filtered within 15 minutes of collection (pH<2) N/A
Orthophosphorus, filtered within 15 minutes of collection N/A
Cyanides (pH>12) N/A
Sulfide (pH>9) N/A
TOC, DOC (field filtered), COD, Phenols (pH<2) N/A
TOX, TKN, NH3, Total Phos (pH<2) N/A
VOC, BTEX (VOA Vials Rcvd Preserved) (pH<2) Yes
Do VOA vials have zero headspace? Yes
624 VOC (Rcvd at least one unpreserved VOA vial) N/A
524 VOC (Rcvd with trip blanks) (pH<2) N/A

Comments: (Any "No" response must be detailed in the comments section below.)

For any improper preservation conditions, list sample ID, preservative added (reagent ID number) below as well as documentation of any client notification as well as client instructions. Samples for pH, chlorine and dissolved oxygen should be analyzed as soon as possible, preferably in the field at the time of sampling. Samples which require thermal preservation shall be considered acceptable when received at a temperature above freezing to 6°C. Samples that are hand delivered on the day that they are collected may not meet these criteria but shall be considered acceptable if there is evidence that the chilling process has begun such as arrival on ice.

Received 8 containers per sample.

Samples Inspected/Checklist Completed By:



Thomas Wingate

Date: 08/21/2020

PM Review and Approval:



Lynn Jackson

Date: 08/21/2020