

September 16, 2019

Richelle Hanson, Project Manager
Maryland Department of the Environment
Land and Materials Administration
Voluntary Cleanup Program
1800 Washington Boulevard, Suite 625
Baltimore, Maryland 21230

Re: Shallow Soil Characterization Report
Purple Line – Parcel 138
8998 Talbot Avenue, Silver Spring, Maryland

Dear Ms. Hanson:

Introduction

RK&K, on behalf of the Maryland Department of Transportation (MDOT) Maryland Transit Administration (MTA), is pleased to submit the following Shallow Soil Characterization Letter Report summarizing the shallow soil investigation at the Maryland National Capital Purple Line Site 138 located at 8998 Talbot Avenue, Silver Spring, Maryland (the Site, see **Figure 1**). Site development is occurring within a portion of the former Georgetown Branch of the Baltimore and Ohio Railroad (B&O) line, also known as the Georgetown Industrial Track. The Site was largely undeveloped prior to purchase as part of the MDOT MTA development of the Purple Line transitway from CSX Transportation, Inc. (CSX) in February 2019.

Following purchase, Chesapeake Environmental Management, Inc. (CEM) conducted a subsurface soil investigation collecting twelve samples from six locations on April 2, 2019 (MTA, 2019). Analytical results for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH) and polychlorinated biphenyls (PCBs) were below laboratory detection limits. Priority Pollutant List (PPL) metals analysis found only arsenic and thallium concentrations above residential cleanup standards. All arsenic concentrations, however, were below the anticipated typical concentration (ATC) for central Maryland. The two thallium concentrations in exceedance of both the residential cleanup standard and the ATC were collected from locations greater than 19 feet below ground surface (bgs).

The Site is currently in use as a temporary staging area for construction materials as part of Purple Line light rail alignment development. MDOT MTA, acting on behalf of Montgomery County, proposes redevelopment of the non-Purple Line portions of the Site for use as an extension of the Capital Crescent Trail (CCT) for pedestrian and bicycle use. In addition, the Maryland National Capital Park and Planning Commission – Montgomery County (MNCPPC-MC) has shown interest in developing the remainder of the site as a park as part of a potential separate future project.

As part of the purchase of the Parcel 138 from CSX, the former owner placed use limitations on the parcel requiring regulatory review prior to use for ‘any recreational purpose’ (see **Attachment 1**). In order to remove the recreational use restrictions, on June 27, 2019, MDOT MTA requested the Maryland Department of the Environment (MDE) Land Restoration Program (LRP) review of the deed, previous soil sampling date and proposed site development plans.

On August 15, 2019, MDOT MTA received notice from MDE requesting additional shallow soil testing across the Site to support removal of the deed restriction and allow recreational use. The Work Plan was

approved on August 26, 2019 (see **Attachment 2**). This document summarizes the investigation and findings.

Investigation Approach

The investigation collected ten shallow soil samples and field photoionization measurements to characterize surficial soil conditions across the proposed bike path and park use areas (see **Figure 2**). Upon notice to proceed from MDOT MTA, RK&K prepared a work plan, a sampling plan, health and safety documentation, and a mobilization schedule. Site access was coordinated through Purple Line personnel. Prior to site mobilization, RK&K prepared a site-specific Health and Safety Plan and Analytical Sampling Plan identifying ten sampling locations for soil characterization. The soil sampling work plan included sampling locations distributed across the Site in areas with permeable surfaces accessible with a hand auger. The ten planned borings, S-07 through S-16, were evenly distributed across the Site. Small field adjustments to the locations were required due to parked cars, construction activity, material piles, fencing, asphalt and crushed stone surfacing obstructing access.

Borings S-08, S-11, S-13, S-15 and S-16 were located within the proposed bike path. Borings S-07, S-09, S-10, S-12 and S-14 were within the proposed park area. A duplicate soil sample was analyzed for metals as part of the quality control procedures.

On Wednesday, August 28, 2019, RK&K mobilized to the Site with Mike Gales as an escort based on Purple Line safety requirements. The weather was overcast and dry, with a temperature high of 82 °F and no wind. Precipitation had not occurred within 48 hours of the site investigation. The field crew reviewed the RK&K HASP, and discussed potential site-specific hazards.

At all ten boring locations, soil samples were collected from 0 to 1 feet below ground surface (bgs). S-08, S-09 and S-12 were sampled in areas recently covered by geotextile and a cobble surface of approximately 0.5 feet. Thus, the samples collected at these points were from the first 1 foot of soil below the textile, 0.5 to 1.5 feet bgs. S-08 and S-09 were offset due to refusal in the heavily used construction area in the center-southeast area of the Site. All soil collection activities were photographed and included as **Attachment 3**. All soil descriptions were logged by the RK&K geologist and recorded with the observations in a field log (see **Attachment 4**).

Each sample was screened visually and with a PID for indications of potential gross or volatile contaminant impacts, respectively. Each soil sample was placed into a medium Ziploc® bag for PID headspace analysis. Field headspace screenings were conducted using an Ion Science PhoCheck 1000 PID equipped with a 10.6 eV Krypton ionization lamp. Before use that day, the PID was calibrated according to manufacturer specifications to 100 parts per million (ppm) isobutylene. Soil vapors were allowed to equilibrate inside the Ziploc® bag for 10 to 20 minutes. The field notes list the maximum PID headspace readings from each headspace sample (0.5 to 19.5 ppm). The field crew did not detect any odor or see any visible signs of gross contamination in any sample. The soil duplicate sample was collected at S-15.

Since no indications of petroleum or gross contamination were noted during the field operations, all sampling points were backfilled with the remaining soil collected at each location. The unused soil cores were reinserted into the borehole where they had originated, compacted and capped with a soil plug. For the three borings that were dug through the cobble surface, the top 0.5-foot of each boring was filled with an appropriate cobble to grade.

Each soil sample was collected using a pair of disposable nitrile gloves, and all reusable equipment was decontaminated between boring locations using a scrub brush, water and inert Alconox rinse. Following decontamination at S-12 and before sampling at S-11, a rinsate blank was collected by running distilled water over the interior of the hand auger and collected in a laboratory provided sample container.



Sampling point locations were recorded using an iPad Air connected to a GENEQ, Inc. iSXBlue II + GNSS receiver unit. The soil samples were transferred to laboratory-provided containers for laboratory analysis. The samples were placed in the sample cooler and maintained at approximately 4 °C. The samples were hand-delivered with appropriate chain-of-custody documentation to Maryland Spectral Services, Inc., in Halethorpe, Maryland for analysis on standard turnaround time.

Requested laboratory analyses included:

- Diesel-range organics (DRO) by EPA method 8015C;
- Polycyclic aromatic hydrocarbons (PAHs) by EPA method 8270D with selected ion monitoring (SIM); and
- Priority Pollutant List (PPL) metals by EPA method 6020A.

During the sampling event, the field crew noted two 500-gallon aboveground fuel storage tanks in the adjacent property (see **Attachment 3**). The tanks were each within secondary containment and were on a concrete pad. Dispensers were attached to both tanks. There were no signs of spills or other contaminant releases related to the tanks.

Investigation Findings

The results of the soil screening and sampling analysis are presented in **Table 1** and compared with MDE Non-Residential and Residential Cleanup Standards, and with the Anticipated Typical Concentrations (ATC) for background levels of metals in Central Maryland. The full Maryland Spectral Services laboratory report is included as **Attachment 5**.

TPH DRO

DRO was detected in five of the ten sampling locations: S-09, S-11, S-12, S-14, S-15 and S-16. Sample S-16 (452 mg/kg) exceeded the MDE Residential Cleanup Standard of 230 mg/kg.

PAHs

PAHs were detected at seven of the ten shallow soil sampling locations. No PAHs were detected at S-08, S-10 and S-13. PAHs were detected at concentrations below the respective Residential Cleanup Standards at S-07, S-09 and S-11. The following PAHs were detected above their Residential Cleanup Standards on the western portion of the Site:

- Benzo(b)fluoranthene (MDE Residential Cleanup Standard: 1,100 µg/kg) – S-15 (1,690 µg/kg) and S-16 (1,470 µg/kg);
- Benzo(a)pyrene (MDE Residential Cleanup Standard: 110 µg/kg) – S-12 (113 µg/kg), S-14 (727 µg/kg), S-15 (954 µg/kg), and S-16 (830 µg/kg);
- Dibenz(a,h)anthracene (MDE Residential Cleanup Standard: 110 mg/kg) – S-14 (123 µg/kg) and S-15 (174 µg/kg).

No PAHs were detected above their respective Non-Residential Cleanup Standards.

PPL Metals

In all sampling locations, antimony, beryllium, cadmium, copper, lead, mercury, selenium, silver, thallium and zinc concentrations were below their corresponding MDE Residential Cleanup Standards. Silver and thallium were not detected in any sample.

Total chromium – MDE Residential and Non- Residential Cleanup Standards were removed from the MDE 2018 updated screening level tables. Comparison with the ATC of 30 mg/kg identified exceedances at eight of the ten sampling locations.

Arsenic concentrations exceeded the MDE Residential Cleanup Standard of 0.68 mg/kg at all ten soil sampling locations. They also exceeded the Non-Residential Cleanup Standard of 3 mg/kg at nine soil sampling locations, excepting S-11 (2.65 mg/kg). The ATC of 4.9 mg/kg was exceeded at four locations (S-12, S-14, S-15 and S16) on the western portion of the Site.


Nickel concentrations exceeded the MDE Residential Cleanup Standard of 150 mg/kg at the sampling locations of S-15 (297 mg/kg) and S-16 (299 mg/kg).

Analysis

Arsenic, chromium, nickel, benzo(a)pyrene, benzo(b)fluoranthene, dibenz(a,h)anthracene and DRO concentrations above the MDE Residential Cleanup Standard at S-15 and S-16 will be contained underneath an impermeable cap with the construction of a bike path. Excavated material from these areas will need to be placed under the bike path cap, regraded in the light rail non-residential use area or sent offsite for disposal at a licensed receiving facility, as the material does not qualify under the MDE Category 1 scenario for residential or recreational unrestricted use (MDE, 2017).

Arsenic, benzo(a)pyrene and dibenz(a,h)anthracene concentrations at S-12 and S-14 are above the MDE Residential Cleanup Standard in the southwestern portion of the potential park site. Due to the shallow depth, a potential exposure risk could occur for future public use of the Site as a park. Up to two feet of soil may require removal as part of MNCPPC-MC potential development of the property.

Sincerely,
Rummel, Klepper & Kahl, LLP



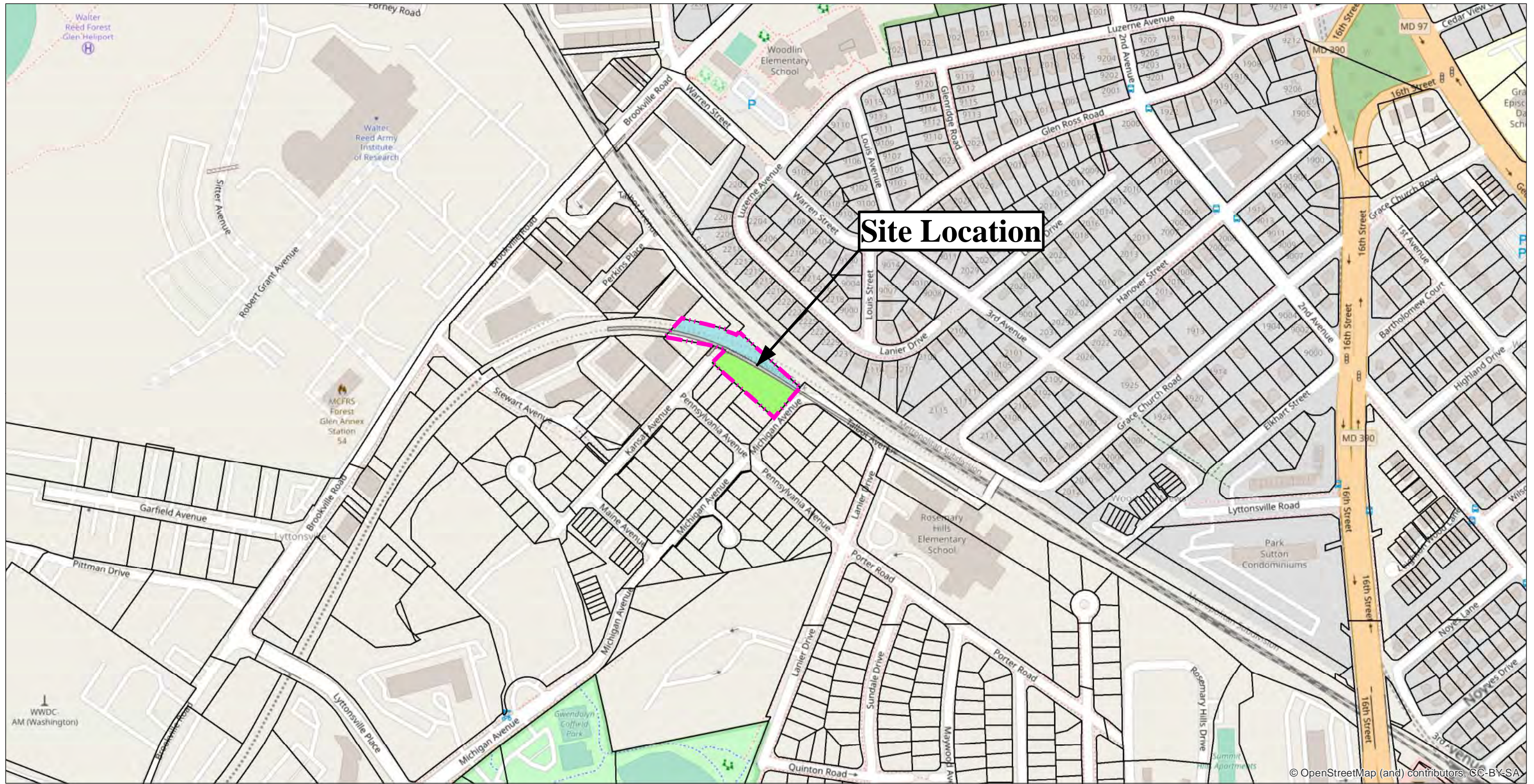
Tyler Lane, CHMM, LRS
Project Manager

Enclosures: Figure 1 – Site Location Map
Figure 2 – Soil Sampling Map
Table 1 – Soil Screening and Laboratory Analytical Results
Attachment 1 – CSX Quitclaim Deed, February 5, 2019
Attachment 2 – MDE Approved Work Plan
Attachment 3 – Photolog
Attachment 4 – Field Notes
Attachment 5 – Laboratory Report

cc: Steve Kolarz, MTA
Steve Mangano, MTA

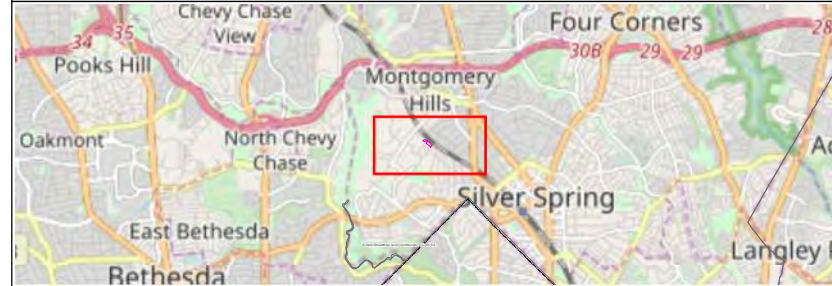
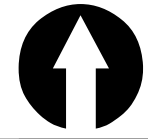
References

- MDE. (2013). *Bioavailability of Arsenic in Soils*. Baltimore Maryland: Maryland Department of the Environment Land Restoration Program, July 17, 2013.
- MDE. (2018). *Cleanup Standards for Soil and Groundwater – Interim Final Guidance (Update No. 3)*. Baltimore, MD: Maryland Department of the Environment, October 2018.
- MDE. (2017). *Innovative Reuse and Beneficial Use of Dredged Material Guidance Document*. Baltimore, Maryland; August 2017: Maryland Department of the Environment in collaboration with Maryland Department of Transportation and Maryland Port Administration.
- MTA. (2019). *Subsurface Investigation Talbot Avenue Property, Talbot Avenue, Silver Spring, Maryland*. Baltimore, Maryland: Maryland Transit Administration, May 2019.



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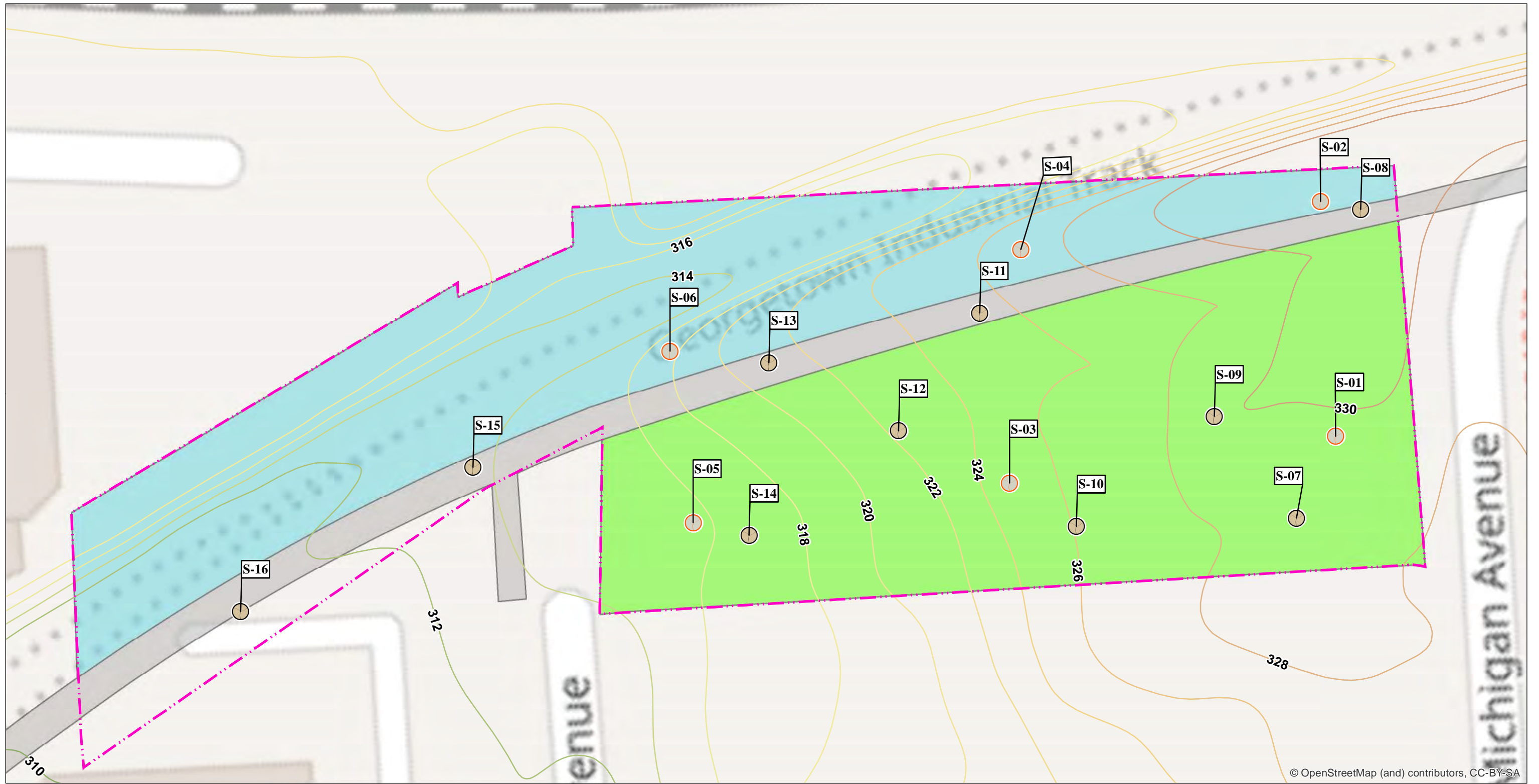


- LEGEND:**
- Proposed Transitway
 - Proposed Bike Path
 - Potential Future Park
 - Parcel 138
 - Parcels



PURPLE LINE PARCEL 138
TALBOT AVENUE, SILVER SPRING, MD

Map Title: Figure 1 - Sheet 1 Site Map	
Data Source: MTA	Date: September 2019
Scale: 1" = 459'	



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LEGEND:

- RK&K Soil Samples, August 2019
- CEM Soil Samples, April 2019
- Proposed Transitway
- Proposed Bike Path
- Potential Future Park

- Contours (feet above MSL)**
- 310
 - 312
 - 314
 - 316
 - 318

- 320
- 322
- 324
- 326
- 328
- 330



PURPLE LINE PARCEL 138 TALBOT AVENUE, SILVER SPRING, MD	
Map Title: Figure 2 - Sheet 1: Soil Sampling Map	
Data Source: CEM, RK&K Site Inspection	Date: September 2019
Scale: 1" = 46'	



Purple Line Site 138
Table 1 - Soil Screening and Analytical Results

This material is the property of the Maryland Transit Administration and is provided for information purposes only. MTA assumes no liability for the information contained in this material. The borrower is responsible for verification of all information.

Parameter	TPH (8015C)	PAHs (8270D-SIM)																			
	DRO	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Benzo(a)pyrene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene				
MDE Non-Residential	620	4.5E+06	n/a	2.3E+07	2.1E+04	2.1E+04	2.1E+05	n/a	2.1E+03	2.1E+06	2.1E+03	3.0E+06	3.0E+06	2.1E+04	1.7E+04	2.3E+06	2.3E+06				
MDE Residential	230	3.6E+05	n/a	1.8E+06	1.1E+03	1.1E+03	1.1E+04	n/a	1.1E+02	1.1E+05	1.1E+02	2.4E+05	2.4E+05	1.1E+03	3.8E+03	1.8E+05	1.8E+05				
ATC (Central MD)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a				
Sample ID	Proposed Area	Date	PID Screening (ppm)	Units	mg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg		
				Sample Depth (feet bgs)																	
S-07	Future Park	2019-08-28	5.2	0 to 1.0	<9.5	<11.9	<11.9	<11.9	12.2	17.8	<11.9	<11.9	<11.9	14.5	<11.9	19.9	<11.9	<11.9	16.1	16.9	
S-08	Bike Path	2019-08-28	8.5	0.5 to 1.5	<9.0	<11.2	<11.2	<11.2	<11.2	<11.2	<11.2	<11.2	<11.2	<11.2	<11.2	<11.2	<11.2	<11.2	<11.2	<11.2	
S-09	Future Park	2019-08-28	1.8	0.5 to 1.5	32.4	<12.0	<12.0	<12.0	<12.0	16.8	<12.0	<12.0	<12.0	13.7	<12.0	21.7	<12.0	<12.0	<12.0	16.3	17.8
S-10	Future Park	2019-08-28	5.9	0 to 1.0	<9.5	<11.9	<11.9	<11.9	<11.9	<11.9	<11.9	<11.9	<11.9	<11.9	<11.9	<11.9	<11.9	<11.9	<11.9	<11.9	
S-11	Bike Path	2019-08-28	6.6	0 to 1.0	107	<11.8	21.5	23.3	85.5	91.5	23.4	47.1	66.2	78.8	12.4	111	<11.8	48.8	<11.8	70.0	131
S-12	Future Park	2019-08-28	5.3	0.5 to 1.5	64.3	<48.2	<48.2	<48.2	105	161	<48.2	97.3	113	101	<48.2	165	<48.2	96.4	<48.2	105	146
S-13	Bike Path	2019-08-28	0.9	0 to 1.0	<10.0	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5	<12.5
S-14	Future Park	2019-08-28	0.5	0 to 1.0	111	<60.2	168	187	894	1,050	274	506	727	707	123	1,410	<60.2	581	78.3	953	1,290
S-15	Bike Path	2019-08-28	19.5	0 to 1.0	140	<154	<154	315	884	1,690	411	698	954	948	174	1,160	<154	808	<154	620	1,240
S-15 Dup	Bike Path	2019-08-28	19.5	0 to 1.0	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt
S-16	Bike Path	2019-08-28	15.2	0 to 1.0	452	<352	<352	419	911	1,470	510	673	830	1,110	<352	1,130	<352	697	<352	378	1,110
Quality Control ID	Date	Source	Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
Rinsate Blank	2019-08-28	Hand Auger	-	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt	nt

Red shading - detected concentration above the Non-Residential Cleanup Standard (Cleanup Standards for Soil and Groundwater, MDE October 2018).

Orange shading - detected concentration above the Residential Cleanup Standard (Cleanup Standards for Soil and Groundwater, MDE October 2018).

Green shading - detected concentration above the Anticipated Typical Concentration (ATC) for Eastern Maryland (Cleanup Standards for Soil and Groundwater, MDE October 2018).

ND - Not detected at or above the method detection limit.

nt - Sample not taken or analyzed.

mg/kg - milligrams per kilogram (equivalent to parts per million).

µg/kg - micrograms per kilogram (equivalent to parts per billion).

mg/L - milligrams per liter (equivalent to parts per million).



Purple Line Site 138
Table 1 - Soil Screening and Analytical Results

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Parameter	PPL Metals (6020A)																
	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc				
MDE Non-Residential	47,000	3	230	98	n/a	4,700	800	4.6	2,200	580	580	1.2	35,000				
MDE Residential	3.1	0.68	16	7.11	n/a	310	400	1.1	150	39	39	0.078	2,300				
ATC (Central MD)	6.8	4.9	1.6	1.1	30	42	61	0.14	22	1	1	1.5	73				
Sample ID	Proposed Area	Date	PID Screening (ppm)	Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
				Sample Depth (feet bgs)													
S-07	Future Park	2019-08-28	5.2	0 to 1.0	<0.298	4.55	1.16	<0.298	24.6	30.4	78.3	0.0696	20.6	2.26	<0.298	<0.298	85.0
S-08	Bike Path	2019-08-28	8.5	0.5 to 1.5	<0.281	3.18	1.56	<0.281	30.1	40.0	14.7	0.0215	21.0	3.08	<0.281	<0.281	45.4
S-09	Future Park	2019-08-28	1.8	0.5 to 1.5	<0.301	4.13	1.04	<0.301	29.7	28.5	67.7	0.0659	45.2	3.42	<0.301	<0.301	102
S-10	Future Park	2019-08-28	5.9	0 to 1.0	<0.298	3.15	1.02	<0.298	23.6	23.6	20.4	0.0310	14.7	2.73	<0.298	<0.298	52.0
S-11	Bike Path	2019-08-28	6.6	0 to 1.0	<0.294	2.65	0.953	<0.294	18.7	23.2	83.4	0.0673	15.8	2.64	<0.294	<0.294	91.6
S-12	Future Park	2019-08-28	5.3	0.5 to 1.5	2.65	6.20	1.18	0.714	36.9	53.2	204	0.0798	30.0	2.59	<0.301	<0.301	299
S-13	Bike Path	2019-08-28	0.9	0 to 1.0	<0.313	4.08	1.71	<0.313	32.3	41.4	15.0	0.0207	20.7	3.53	<0.313	<0.313	52.5
S-14	Future Park	2019-08-28	0.5	0 to 1.0	0.765	7.36	1.05	1.52	37.2	55.8	331	0.173	53.1	2.20	<0.301	<0.301	300
S-15	Bike Path	2019-08-28	19.5	0 to 1.0	0.703	13.5	1.38	1.64	108	75.1	95.0	0.129	297	1.85	<0.385	<0.385	1,720
S-15 Dup	Bike Path	2019-08-28	19.5	0 to 1.0	0.619	13.1	1.62	1.27	87.3	78.4	84.5	0.101	253	1.66	<0.352	<0.352	1,260
S-16	Bike Path	2019-08-28	15.2	0 to 1.0	1.37	15.2	2.83	1.24	132	158	127	0.126	299	1.56	<0.338	<0.338	741
Quality Control ID	Date	Source	Units	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Rinsate Blank	2019-08-28	Hand Auger	-	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<0.100	<1.00	<1.00	<1.00	<1.00	<1.00

Red shading - detected concentration above the Non-Residential Cleanup Standard (Cleanup Standards for Soil and Groundwater, MDE October 2018).

Orange shading - detected concentration above the Residential Cleanup Standard (Cleanup Standards for Soil and Groundwater, MDE October 2018).

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ND - Not detected at or above the method detection limit.

nt - Sample not taken or analyzed.

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QUITCLAIM DEED

THIS QUITCLAIM DEED, made this 5 day of February, 2019, between CSX TRANSPORTATION, INC., a Virginia corporation, whose mailing address is 500 Water Street, Jacksonville, Florida 32202, hereinafter called "Grantor", and MARYLAND TRANSIT ADMINISTRATION, a modal administration of the Maryland Department of Transportation ("MTA") acting for and on behalf of the State of Maryland, a governmental agency whose address is 6 Saint Paul Street, Baltimore, Maryland 21202 hereinafter called "Grantee", WITNESSETH:

(Wherever used herein, the terms "Grantor" and "Grantee" may be construed in the singular or plural as the context may require or admit, and for purposes of exceptions, reservations and/or covenants, shall include the, legal representatives and assigns of individuals or the successors and assigns of corporations.)

THAT Grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00), to it in hand paid by Grantee, the receipt and adequacy of which is hereby acknowledged, does hereby RELEASE, REMISE and forever QUITCLAIM unto Grantee, its successors and assigns, all right, title and interest of Grantor, if any, in and to that certain tract or parcel of land situate, lying and being at Silver Spring, County of Montgomery, the State of Maryland, hereinafter designated "the Premises," more particularly described in Exhibit "A", attached hereto and incorporated herein, and containing 3.401 acres, of land, more or less.

EXCEPTING and RESERVING, unto Grantor, for itself, its successors and/or assigns, a perpetual exclusive fiber optic easement "Exclusive Fiber Optic Easement", including rights to construct, maintain, operate, use, replace, relocate, renew, and/or remove fiber optic communication cables, lines or facilities (subterranean cables, surface light wave repeater/regenerators, etc.) Together with right to assign all or a portion of such Exclusive Fiber Optic Easement, rights and facilities in whole or in part and to lease, license, or permit third parties to use the same.

TO HAVE AND TO HOLD the Premises, and all the estate, right, title, lien, interest and claim whatsoever of Grantor therein, either in law or equity, and all improvements thereon and appurtenances thereto, unto the proper use, benefit and enjoyment of Grantee, Grantee's successors and or assigns, forever; SUBJECT to reservations, easements, covenants, restrictions and limitations of record or platted, all existing public utilities and roadways, and all existing encroachments, ways and servitudes, howsoever created.

Grantee acknowledges that the Premises conveyed hereunder has been historically used for railroad industrial operations and is being conveyed for use as a fixed guideway transportation system or only as industrial or commercial property. Grantee, by acceptance of this deed, hereby covenants that it, its successors, , legal representatives or assigns shall not use the Premises for any purpose other than as a fixed guideway transportation system, industrial or commercial purposes and that the Premises will not be used for (a) any residential purpose of any kind or nature (residential use shall be defined broadly to include, without limitation, any use of the Premises by individuals or families for purposes of personal living, dwelling, or overnight accommodations, whether such uses are in single family residences, apartments, duplexes, or other multiple residential dwellings, trailers, trailer parks, camping sites, motels, hotels, or any other dwelling use of any kind), (b) any public or private school, day care, or any organized long-term or short term child care of any kind, (c) any recreational purpose (recreational use shall be defined broadly to include, without limitation, use as a public park, hiking or biking trail, athletic fields or courts, or public gathering place), (d) any agricultural purpose that results in, or could potentially result in, the human consumption of crops or livestock raised on the property (agricultural purpose shall be defined broadly to include, without limitation, activities such as food crop production, dairy farming, livestock breeding and keeping, and cultivation of grazing land that would ultimately produce, or lead to the production of, a product that could be consumed by a human) or (e) the establishment of a mitigation bank and/or the sale, lease, license, conveyance or in any way distribution of mitigation credits. By acceptance of this deed, Grantee further covenants that it, its successors, , legal representatives or assigns shall not use the groundwater underneath the Premises for human consumption, irrigation, or other purposes.

Grantee on its behalf, its , successors and assigns, agrees that any construction and related activities on the Premises herein granted shall be governed by the Master Construction Agreement and any improvements shall be constructed, maintained, repaired, renewed, reconstructed, and/or removed in accordance with the plans approved by or to be approved by Grantor. The approved plans and the Master Construction Agreement will be on file in the respective offices of Grantor and Grantee. No construction or related activities shall be commenced by Grantee its successors and assigns on the Premises until all plans have been approved by Grantor.

Grantee, by acceptance of this deed, covenants and represents that Grantee owns property adjoining the Premises and has access to the Premises through Grantee's adjoining property or through other property not owned by Grantor. Grantee, on its behalf, its successors and assigns, releases Grantor, its successors and assigns, from any responsibility, obligation or liability to provide access to the Premises through land now owned or subsequently acquired by Grantor. Should Grantee ever convey the Premises, or any portion thereof, to a third party, Grantee will provide access to the Premises through Grantee's adjoining property or through other property not owned by Grantor.

Grantee, by the acceptance hereof, hereby covenants and agrees with Grantor that Grantor shall not be required to erect or maintain any fences, railings or guard rails along any boundary lines between the Premises and the adjacent land(s) of Grantor or of any other company affiliated with Grantor; or be liable for or required to pay any part of the cost or expense of erecting or maintaining such fences, railings or guard rails or any part thereof; or be liable for any damage, loss or injury that may result by reason of the non-existence or the condition of any fences, railings or guard rails. Grantee assumes liability and responsibility respecting fences, railings or guardrails, or the absence thereof.

Prior to commencement of any development or construction on the Premises, Grantee shall construct and maintain, at Grantee's sole cost and expense, an adequate and suitable fence along the Premises which adjoins Grantor's railroad track for so long as a railroad track exists on the adjoining railroad operating property. The fence shall be of a type satisfactory to Grantor and reasonably sufficient to keep persons and vehicles from trespassing on Grantor's adjoining operating property.

Grantee, by acceptance of this deed, hereby covenants that it, its successors, legal representatives or assigns shall maintain the existing drainage on the Premises in such a manner as not to impair adjacent railroad operating property drainage and not to redirect or increase the quantity or velocity of surface water runoff or any streams into Grantor's drainage system or upon the adjacent railroad operating property or other lands and facilities of Grantor. If the Premises or existing drainage are modified or improved, Grantee agrees to construct and maintain, in accordance with all applicable statutes, ordinances, building and subdivision codes, covenants and restrictions, an adequate and separate drainage system from Grantor owned drainage facilities from or satisfactorily below the Premises to the nearest public or non-Grantor owned drainage or storm sewer system, in order to prevent the discharge of roof, surface, stream and other drainage waters upon railroad operating property or other adjacent lands and facilities of Grantor.

Grantee acknowledges that this deed is made upon Grantee's solicitation and request and was not in any way initiated by Grantor. Grantor does not represent or warrant to Grantee any ownership or estate in the Property or any specific title or interest in the Premises, which constituted a strip of Grantor's former railroad operating property; and Grantee hereby releases Grantor, its officers and agents, from any claim or demand resulting from this deed, or from any failure of or defect in Grantee's title to the Premises.

Grantee hereby agrees, as additional consideration for the conveyance of the Premises, to the extent permitted by Maryland law, and subject to available appropriations, to defend, indemnify and hold Grantor harmless from and against liability, loss, cost and/or expense, including reasonable attorney fees, arising out of or in connection with any and all suits or causes

of actions against Grantor or Grantee as a result of the conveyance of the Premises to Grantee or as a result of the failure of title to any portion of the Premises.

So long as Grantor, its successors, assigns, lessees or licensees has operable railroad track or facilities adjacent to the Premises, Grantee, by acceptance of this deed, for itself, its successors and assigns, hereby covenants and agrees that neither Grantee, nor its successors and assigns or those acting on its behalf, shall engage in construction, maintenance, or work on the Premises within a distance of fifty feet (50') from said operable railroad track or facilities without first having received written approval by Grantor for such construction, maintenance, and/or work. Upon such approval by Grantor, Grantee:

- (i) Shall provide Grantor written notice of Grantee's intention to commence said construction, maintenance, or work at least thirty (30) days in advance of actual commencement;
- (ii) Agrees to promptly pay to Grantor, on bills rendered by Grantor, the full amount of all costs and expenses which may be incurred by Grantor in furnishing watchmen, flagmen, inspectors, or other supervisors or personnel deemed necessary to protect Grantor's adjacent operable railroad track or facilities during such construction, maintenance, or work; and
- (iii) Shall procure or require any third party contractor performing the construction, maintenance or work to procure and maintain during the period of construction, maintenance or work, at no cost to Grantor, a policy of Railroad Protective Liability (RPL) Insurance naming Grantor or its designee, as named insured and providing coverage in the amount of Grantor's then current limits.

Grantee, its successors and assigns, by acceptance of this deed, hereby covenants and agrees with Grantor that Grantor shall not be required to erect or maintain any noise, light, fume or vibration abatement or reduction structure along any boundary lines between the Premises and the adjacent land(s) of Grantor or any other company affiliated with Grantor; or be liable for or required to pay any part of the cost or expense of erecting or maintaining such abatement or reduction structures or any part hereof; or be liable for any damage, loss or injury that may result by reason of the non-existence or the condition of any noise, light, fume or vibration abatement or reduction structures. Grantee assumes liability and responsibility respecting noise, light, fume or vibration abatement or reduction structures and covenants not to sue Grantor, its successors or assigns for existence of the noise, light, fumes and vibrations from Grantor's operations. Grantee acknowledges that the Grantor's adjacent railroad operation is a 24-hour a day, seven day a week continuous operation that may create noise, vibration, light, smoke and other inconveniences.

Grantee, by acceptance of this deed, hereby covenants that it, its successors, legal representatives or assigns, shall not use the Premises, or any portion thereof, for railroad freight service.

Grantee and Grantor agree and acknowledge the covenants and easements contained in this Deed shall be covenants "in gross" and easements "in gross" which shall remain binding on

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Grantee, its successors, legal representatives and assigns regardless of whether Grantor continues to own property adjacent to the Premises. Grantee acknowledges Grantor will continue to have a substantial interest in enforcement of the said covenants and easements whether or not Grantor retains title to property adjacent to the Premises.

Said covenant(s) shall run with title to the Premises conveyed, and bind upon Grantee, Grantee's, legal representatives and assigns, or successors and assigns, and anyone claiming title to or holding Premises through Grantee.

Grantor, by its undersigned officer, hereby certifies that the full value of all land or property conveyed hereby, or the actual consideration for the release of all property rights quitclaimed hereby, is \$_____.

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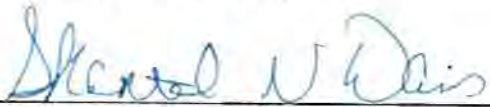
IN WITNESS WHEREOF, CSX TRANSPORTATION, INC., pursuant to due corporate authority, has caused its name to be signed hereto by its officers hereunto duly authorized and its corporate seal, duly attested, to be hereunto affixed.

Signed, sealed and delivered
in the presence of:




Jennifer Bryan

CSX TRANSPORTATION, INC.:

By: 

Name: Shantel N. Davis
Title: Vice President
Real Estate and Facilities



Eric Horton

Attest  (SEAL)

Secretary

Print Name: **STEVEN ARMBRUST**
ASST. CORPORATE SECRETARY

This instrument prepared by
or under the direction of:



Kim R. Bongiovanni
Assistant General Counsel
Law Department
500 Water Street
Jacksonville, Florida 32202

STATE OF FLORIDA)
) SS.
COUNTY OF DUVAL)

I, Jennifer Bryan, a Notary Public of the State of Florida and the County of Duval, do certify that, on the date below, before me in said County came Shantel N. Davis (X) to me known, and/or () proven by satisfactory current evidence to be the person whose name is subscribed to the above instrument, who, being by me first duly sworn, did make oath, acknowledge and say that: she is Vice President - Real Estate and Facilities of CSX Transportation, Inc., the corporation described in and which executed said instrument; she is fully informed of the contents of the instrument; she knows the seal of said corporation; the seal affixed to said instrument is such seal; it was so affixed by authority of the Board of Directors of said corporation; she signed her name thereto for said corporation pursuant to Board authority; and instrument is the free act and deed of said corporation; and the conveyance herein is not part of a transaction, sale, lease, exchange or other transfer or conveyance of all or substantially all of the property and/or assets of the Grantor.

IN WITNESS WHEREOF, I hereunto set my hand and official seal, this 5 day of February, 2019.

My commission expires on:



Jennifer Bryan (SEAL)
Notary Public
Print Name: Jennifer Bryan

EXEMPTION FROM RECORDATION AND TRANSFER TAXES

As a transfer of property to an agency of the State of Maryland, this instrument is not subject to recordation tax (Pursuant to Section 12-108(a) of the Tax-Property Article of the Annotated Code of Maryland) and transfer tax (Pursuant to Section 13-207(a)(1) of the Tax-Property Article of the Annotated Code of Maryland).

This instrument is being presented for recording by, or on behalf of, an agency of the State of Maryland, which is a party to this instrument. Therefore, for the reasons described in a letter from the Office of the Attorney General dated December 21, 2001, this instrument is to be recorded without charge for the recording fee and Real Property Records Improvement Fund surcharge which would otherwise be due pursuant to Section 3-601 of the Real Property Article and Section 13-604 of the Courts and Judicial Proceedings Article, respectively, of the Annotated Code of Maryland.

EXHIBIT A

Description of property at: Baltimore, Montgomery County, Maryland
To: Maryland Transit Administration
CSXT Deed File No.: 2016-1982

SHA ITEM NO. 900063 - MTA ITEM NO. 01413

Being part of Circuit Court Inquisition No. 242 to Baltimore and Ohio Railroad Company (B&O) from Thomas B. Cissel and Margaret D. Cissel dated 1867 as now owned by CSX Transportation, Inc. (CSX) as successor in title to B&O and being all of the property identified as SHA Item No. 900063 and MTA Item No. 01413 on State Highway Administration Plat No. 59213; Plat No. 60992, replacing part of Plat No. 59214; Plat No. 59292; Plat No. 60993, replacing part of Plat No. 59215; and Plat No. 59256, replacing part of Plat No. 59216 and being more particularly described as follows:

Beginning at the intersection of the northwestern right-of-way line of Michigan Avenue with the northern right-of-way line of Talbot Avenue as shown on the plat entitled "Lots 20-27, Block 3 Perkins & Burrows Addition to Linden" recorded among the land records of Montgomery County, Maryland as Plat No. 11830 at a point located on the CSX southern existing right-of-way line as shown on Baltimore and Ohio Railroad Company Valuation Map V25.1-2 (CSX Valuation Map No. V08574) located approximately at railroad valuation station 443+39 and being further described as located 21.04 feet left of baseline of right-of-way station 171+69.77 as shown on said SHA Plat No.'s 59213 and 60992; thence, with bearings and distances now referenced to the Maryland Coordinate System NAD83/1991 datum, leaving said northern right-of-way line of Talbot Avenue and said southern CSX existing right-of-way line and running through said CSX property along new lines of division for the Purple Line Right-of-way Line the following fourteen courses:

1. South 58°33'41" East, 462.12 feet; thence
2. 186.69 feet along the arc of a non-tangent left circular curve having a radius of 16,369.87 feet and a chord of South 58°28'56" East, 186.69 feet; thence with a reverse circular curve:
3. 40.00 feet along the arc of a tangent right circular curve having a radius of 10,931.75 feet and a chord of South 58°42'15" East, 40.00 feet; thence with a tangent line:
4. South 58°35'57" East, 280.13 feet; thence
5. 72.91 feet along the arc of a non-tangent right circular curve having a radius of 13,579.17 feet and a chord of South 58°47'11" East, 72.91 feet; thence with a non-tangent line:
6. South 58°34'34" East, 40.02 feet; thence

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7. South 58°32'53" East, 323.88 feet; thence
8. South 58°39'36" East, 630.58 feet; thence
9. South 58°10'20" East, 382.26 feet; thence
10. South 40°09'09" East, 5.10 feet; thence
11. South 31°19'49" West, 6.09 feet; thence
12. South 58°31'25" East, 105.92 feet; thence
13. North 31°26'44" East, 6.00 feet; thence
14. South 58°33'16" East, 28.55 feet to the eastern right-of-way line of Maryland Route 390, 16th Street, per the conveyance from Baltimore and Ohio Railroad Company to the State of Maryland to the use of the State Roads Commission by deed dated December 18, 1959 and recorded among said land records in Liber 2700 at folio 411 and as shown on Maryland State Roads Commission Plat No. 22188 and being located on the western right-of-way line for the Washington Metropolitan Area Transit Authority (WMATA) at a point located along and 24.41 feet distant from the beginning of the forty-ninth or North 09°56'21" West, 121.32 feet line of the conveyance from CSX Transportation, Inc. to Washington Metropolitan Area Transit Authority by deed dated July 30, 1991 and recorded among said land records in Liber 11572 at folio 293; thence leaving said new lines of division for the Purple Line Right-of-way Line and running with said eastern right-of-way line of 16th Street and with said western WMATA existing right-of-way line and running reversely with part of said forty-ninth course of the WMATA conveyance:
15. South 09°56'42" East, 24.41 feet to the beginning of said forty-ninth course of the WMATA conveyance at a point located on said southern CSX existing right-of-way line; thence leaving said 16th Street eastern right-of-way line and said WMATA western right-of-way line and running with said CSX southern right-of-way line across said 16th Street right-of-way the following two courses:
16. North 61°46'52" West, 73.61 feet; thence
17. North 55°01'42" West, 89.85 feet to the end of the tenth or South 55°06'20" East, 13.32 feet line of the conveyance from Smith Property Holdings Five L.P. to Bradford Place LLC by deed dated December 21, 1999 and recorded among said land records in Liber 17772 at folio 275; thence continuing with said CSX southern right-of-way line and running reversely with the tenth through eighth courses of said Bradford Place LLC conveyance the following three courses:
18. North 55°10'18" West, 13.32 feet; thence

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19. North 52°40'18" West, 146.80 feet; thence
20. North 68°10'18" West, 287.91 feet to an iron pipe found and held on the outline of Parcel Two as shown on the plat of "Parcel Two Rosemary Woods" recorded among said land records as Plat No. 6298; thence leaving said Bradford Place LLC conveyance and continuing with said CSX southern right-of-way line along the outline of said Parcel Two Rosemary Woods the following two courses:
21. North 03°27'59" West, 19.43 feet; thence
22. North 53°51'57" West, 18.96 feet to an iron pipe found and held at the northeastern-most corner of Section II, Rosemary Village as shown on the plat of "Rosemary Village" recorded among said land records as Plat No. 3420; thence leaving the outline of said Parcel Two Rosemary Woods and continuing with said CSX southern right-of-way line along the outline of said Section II Rosemary Village the following two courses:
23. North 53°51'57" West, 343.88 feet; thence
24. North 61°19'57" West, 226.02 feet to an iron pipe found and held at the northeastern corner of Lot 7, Block F as shown on the plat of "Part of Block 'F' Rosemary Knolls" recorded among said land records as Plat No. 5206; thence continuing with said CSX southern right-of-way line along the outline of Lots 7, 8 and 9 of said Block F Rosemary Knolls the following three courses:
25. North 61°25'36" West, 30.33 feet to the northeastern corner of Lot 8; thence
26. North 61°25'36" West, 123.70 feet to the northeastern corner of Lot 9; thence
27. North 61°25'36" West, 135.08 feet to the beginning of the last or South 58°31'20" East, 711.41 feet course of the conveyance from Marion Rasche to the Board of Education of Montgomery County by deed dated June 1, 1955 and recorded among said land records in Liber 2066 at folio 534; thence leaving said outline of Lot 9 Rosemary Knolls and continuing with said CSX southern right-of-way line along said last course of the Board of Education conveyance:
28. North 58°35'51" West, 711.61 feet to the intersection of the center of Lanier Drive with the north right-of-way line Talbot Avenue as shown on the plat of "Correction Plat for Lots 37 & 38, Block 4 Resubdivision of Perkins and Burrows Addition to Linden" recorded among said land records as Plat No. 11672; thence leaving said Board of Education outline and continuing with said CSX southern right-of-way line along said northern right-of-way line of Talbot Avenue as shown on said Plat No. 11672 and said Plat No. 11830 the following two courses:
29. North 54°13'56" West, 329.62 feet; thence

30. North 48°01'09" West, 40.83 feet to the point of beginning and:

Containing 60,606 square feet or 1.391 acres of land, more or less.

SHA ITEM NO. 900075 - MTA ITEM NO. 01414

Being all the remaining land of the conveyance from Richard T. Willson and Laura C. Willson, his wife, to the Baltimore and Ohio Railroad Company (B&O) by deed dated July 5, 1871 and recorded among the land records of Montgomery County, Maryland in Liber EBP 21 at folio 201 and shown as property no. 9 on CSX Valuation Map No. V40136 and being shown as part of Washington Metropolitan Area Transit Authority (WMATA) property number MB268 on an unrecorded WMATA plat entitled "Ownership Map, Glenmont Route, Sta. 457+00 to Sta. 469+50", WMATA drawing no. RB40 as held for this survey and identified on WMATA plan sheet "Glenmont Route, Right-of-way Plan, Sta. 457+00 to Sta. 469+50", drawing no. B6-R-23 as "Prc1 9 – on V.S.25.1./1 shown as B.&O.RR. property" and being more particularly described as follows:

Commencing at the intersection of the southeastern right-of-way line of Spring Street and the northwestern outline of Parcel 3, Rosemary Woods as shown on a plat recorded among the land records of Montgomery County, Maryland as Plat No. 6645 with the WMATA existing southern right-of-way line located at a WMATA concrete right-of-way monument found at the end of the third or North 81°05'14" West, 53.57 foot line of the conveyance from Nick Basiliko and Josephine Basiliko to WMATA by deed dated November 2, 1972 recorded among said land records in Liber 4307 at folio 267 and being located 5.95 feet right of baseline of right-of-way station 211+62.15 as shown on Maryland State Highway Administration Plat No. 61014 (replacing parts of Plat No.'s 59380 and 59217); thence running reversely with said third line and part of the second line of said WMATA conveyance: South 81°05'35" East, 53.57 feet, thence South 45°40'01" East, 211.25 feet to the Point of Beginning.

Beginning at the Point of Beginning as described above located on the existing WMATA southern right-of-way line at the intersection of the third or South 46°45' West, 94 foot line of said B&O conveyance recorded in Liber EBP 21 at folio 201 with said second or North 45°39'40" West, 361.78 foot line of said WMATA conveyance recorded in Liber 4307 at folio 267 at a point located 48.68 feet from the beginning of said third line of the B&O conveyance and located 211.25 feet from the end of said second line of the WMATA conveyance and being further described as located 25.25 feet left of baseline of right-of-way station 214+17.03 as shown on said SHA Plat No. 61014; thence, with bearings and distances now referenced to the Maryland Coordinate System NAD83/1991 datum, running with said WMATA southern right-of-way line and said second line of Liber 4307 at folio 267:

1. South 45°40'01" East, 19.90 feet to intersect the first line of said B&O conveyance in Liber EBP 21 at folio 201; thence leaving said WMATA southern right-of-way line and said second course of Liber 4307 at folio 267 and running through said Parcel 3, Rosemary

Woods reversely with said first line, fourth line and part of said third line of the B&O conveyance in Liber EBP 21 at folio 201 the following three courses:

2. South 46°19'59" West, 45.66 feet; thence
3. North 39°54'43" West, 19.93 feet; thence
4. North 46°19'59" East, 43.66 feet to the point of beginning and:

Containing 888 square feet or 0.020 acres of land, more or less.

SHA ITEM NO. 900093 - MTA ITEM NO. 01452

Being all of the remaining lands of the conveyance to Metropolitan Southern Railroad Company (MSRRC) from John Adrian Epping by deed dated April 23, 1891 and recorded among the land records of Montgomery County, Maryland in Liber JA 25 at folio 489 and being a part of the conveyances to MSRRC from Mary E. Hartwell by deed dated April 29, 1891 and recorded in Liber JA 25 at folio 483; from John J. Horgan by deed dated May 7, 1891 recorded in Liber JA 25 at folio 495; from Bishop W. Perkins, Louise E. Perkins, Julius C. Burrows and Francis S. Burrows by deed dated April 29, 1891 recorded in Liber JA 25 at folio 496; and from Bishop W. Perkins, Julius C. Burrows and Edward L. Mullineaux by deed dated April 29, 1891 recorded in Liber JA 27 at folio 1 as now owned by CSX Transportation, Inc. (CSX) as successor in title to MSRRC and being all of the property identified and shown as SHA Item No. 900093 and MTA Item No. 01452 on Maryland State Highway Administration (SHA) Plat No. 59213, Revision 3 dated December 6, 2018 and being more particularly described as follows:

Beginning at a Montgomery County brass disk in concrete stamped "No. 1278" found and held on the southern CSX existing right-of-way line at railroad valuation station 12+00 as shown on MSRRC Valuation Map 24.1, Sheet 1 of 4 and also being the southeastern-most corner of the portion of right-of-way conveyed from Metropolitan Southern Railroad Company (MSRRC), Washington and Western Maryland Railroad Company and CSX Transportation, Inc. (CSX) to Montgomery County, Maryland by deed dated December 16, 1988 and recorded among said land records in Liber 8613 at folio 497 and as shown on an unrecorded survey entitled "Plat of Survey Georgetown Branch CSX Railroad" dated April 1996 by Montgomery County Department of Transportation and being further described as located 50.04 feet right of baseline of right-of-way station 162+09.07 as shown on said SHA Plat No. 59213; thence, with bearings and distances now referenced to the Maryland Coordinate System NAD83/1991 datum, running with the line of division line between said Montgomery County conveyance recorded in Liber 8613 at folio 497 and the remaining lands of CSX:

1. North 17°01'56" West, 60.00 feet to a Montgomery County brass disk in concrete stamped "No. 1277" found and held on the northern CSX existing right-of-way line at said railroad valuation station 12+00 being located on the third or 545 feet along an arc having a radius of 1071.74 feet course of said MSRRC conveyance recorded in Liber JA 25 at folio 483 and

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being located at the northeastern-most corner of said Montgomery County conveyance recorded in Liber 8613 at folio 497 and being located along and 284.40 feet distant along an arc from the beginning of the fourth or 586.77 foot along the arc of a left circular curve having a radius of 1,071.74 course of the adjoining conveyance from Garfield Properties, LLC to E. Austin Carlin, Sr. by deed dated November 9, 2007 and recorded among said land records in Liber 35238 at folio 707; then leaving said line of division between Montgomery County and CSX and running with said northern CSX existing right-of-way along the remainder of said third course of Liber JA 25 at folio 483 and running with the second or 206 feet along an arc having a radius of 1071.74 feet course of the last parcel described in said MSRRC conveyance recorded in Liber JA 25 at folio 496 and running reversely with said adjoining fourth course of Liber 32283 at folio 707 and also running with the adjoining second or 172.82 feet along an arc having a radius of 1,071.74 feet course of Parcel I of the conveyance from Joseph F. Amato, Jr. to Talbot Properties, LLC by deed dated June 19, 1997 and recorded among said land records in Liber 15007 at folio 141:

2. 457.19 feet along the arc of a non-tangent right circular curve having a radius of 1,071.74 feet and a chord of North 85°11'19" East, 453.73 feet to the end of said second course of the last parcel described in Liber JA 25 at folio 496 and being located along the line of division between Lot 7 and Lot 3 of Block 1 as described on the plat entitled "Plat of Perkins and Burrows Addition to Linden" originally recorded among said land records in Liber JA 17 at folio 157 and rerecorded among plat records in Plat Book A at No. 58 and to the end of the first or South 41°43'10" West, 126.88 foot line of said Parcel I of adjoining Talbot Properties, LLC conveyance recorded in Liber 15007 at folio 141; thence continuing with said northern CSX existing right-of-way line and said line of division between Lot 7 and Lot 3 along a non-tangent line and running reversely with a part of said first line of Parcel I of the Talbot Properties, LLC conveyance:
3. North 41°58'51" East, 9.70 feet to the end of the third or 172.31 feet along the arc of a curve having a radius of 1,079.74 feet and chord of North 77°38' 41" West, 172.12 feet course of Parcel III of said adjoining Talbot Properties, LLC conveyance recorded in Liber 15007 at folio 141; thence continuing with said northern CSX existing right-of-way line and running reversely with said third course of Parcel III of the adjoining Talbot Properties, LLC conveyance:
4. 172.86 feet along the arc of a non-tangent right circular curve having a radius of 1,079.74 feet and a chord of South 77°42'45" East, 172.67 feet to the western right-of-way line of Kansas Avenue as shown on said Plat of Perkins and Burrows Addition to Linden recorded in Plat Book A at No. 58; thence continuing with said northern CSX existing right-of-way line and running with said western right-of-way line of Kansas Avenue along a non-tangent line:
5. South 41°58'51" West, 8.84 feet; thence leaving said western right-of-way line of Kansas Avenue and continuing with said northern CSX existing right-of-way line across Kansas Avenue:
6. 49.26 feet along the arc of a non-tangent right circular curve having a radius of 1,071.74 and

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a chord of South 72°00'36" East, 49.26 feet to the eastern right-of-way line of Kansas Avenue and the northwestern outline of Lot 6, Block 2 of Perkins and Burrows Addition to Linden recorded in Plat Book A at No. 58 and the outline of the MSRRC conveyance recorded in Liber JA 25 at folio 495; thence leaving said northern CSX existing right-of-way line and running with non-tangent line for a new Purple Line right-of-way line along said eastern right-of-way line of Kansas Avenue and said northwestern outline of Lot 6:

7. South 42°01'00" West, 25.53 feet; thence leaving said eastern right-of-way line of Kansas Avenue and said northwestern outline of Lot 6 and continuing with said new Purple Line right-of-way lines through Lots 4, 5 and 6 and across a portion of Railroad Avenue of said Block 2 of Perkins and Burrows Addition to Linden recorded in Plat Book A at No. 58 and across said MSRRC conveyances recorded in Liber JA 25 at folio 489, Liber JA 25 at folio 495 and Liber JA 25 at folio 496 the following five courses:
8. 84.46 feet along the arc of a non-tangent right circular curve having a radius of 910.83 feet and a chord of South 62°18'22" East, 84.43 feet; thence with a non-tangent line:
9. South 30°21'01" West, 2.00 feet; thence
10. South 60°18'55" East, 24.98 feet; thence
11. 33.20 feet along the arc of a tangent right circular curve having a radius of 1,087.13 feet and a chord of South 59°26'26" East, 33.19 feet; thence with a tangent line:
12. South 58°33'56" East, 163.66 feet to the southern CSX existing right-of-way line at a point in Railroad Avenue as shown on said Plat of Perkins and Burrows Addition to Linden recorded in Plat Book A at No. 58 and being located on the southeastern outline of the Railroad Avenue parcel as described in said MSRRC conveyance recorded in Liber JA 25 at liber 496; thence leaving said new Purple Line right-of-way lines and running with said southern CSX existing right-of-way line along said outline of Liber JA 25 at folio 496 and running with the western right-of-way line Michigan Avenue as shown on said Plat of Perkins and Burrows Addition to Linden recorded in Plat Book A at No. 58:
13. South 41°58'51" West, 178.43 feet to the common corner of Lot 1 and Lot 7 of Block 2 of said Plat of Perkins and Burrows Addition to Linden recorded in Plat Book A at No. 58; thence leaving said western right-of-way line of Michigan Avenue and continuing with said southern CSX existing right-of-way line along the outline of said MSRRC conveyances recorded in Liber JA 25 at folio 496, Liber JA 25 at folio 489 and Liber JA 25 at folio 495 and running with the southwestern lines of Lots 1 through 6 and the northeastern lines of Lot 7 of Block 2 of said Plat of Perkins and Burrows Addition to Linden recorded in Plat Book A at No. 58 and running with the northeastern lines of Lots 13 through 15 of Block 2 as shown on plat entitled "Lots 13, 14, 15, Block 2 & Lots 19-24, Block 5, Perkins & Burrows Addition to Linden" recorded among said land records as Plat No. 11832:
14. North 48°01'09" West, 300.04 feet to said eastern right-of-way line of Kansas Avenue and

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passing over an iron pipe found and held at the common corner of Lots 3, 4 & 7 of said plat recorded in Plat Book A at No. 58 and Lot 13 of Block 2 of said plat recorded as Plat No. 11832 located 150.01 feet distant from the beginning of this course; thence continuing with said southern CSX existing right-of-way line and running with said eastern right-of-way line of Kansas Avenue:

15. North $41^{\circ}58'51''$ East, 77.87 feet; thence leaving said eastern right-of-way line of Kansas Avenue and continuing with said southern CSX existing right-of-way line through said Kansas Avenue:
16. 49.87 feet along the arc of a non-tangent left circular curve having a radius of 1,011.74 feet and a chord of North $73^{\circ}31'57''$ West, 49.86 feet to said western right-of-way line of Kansas Avenue; thence continuing with said southern CSX existing right-of-way line and running with said western right-of-way line of Kansas Avenue along a non-tangent line:
17. South $41^{\circ}58'51''$ West, 8.98 feet to the end of the third or 177.58 feet along an arc having a radius of 1,003.74 feet and chord of South $80^{\circ}13'40''$ East, 177.34 feet course of Part 6 of 6 of the conveyance from Scott C. Powell to L.R.S. Group, L.L.C. by deed dated July 7, 1999 and recorded in Liber 17271 at folio 673; thence leaving said western right-of-way line of Kansas Avenue and continuing with said southern CSX existing right-of-way line and running reversely with said third line of L.R.S. Group, L.L.C. conveyance recorded in Liber 17271 at folio 673:
18. 177.54 feet along the arc of a non-tangent left circular curve having a radius of 1,003.74 feet and a chord of North $80^{\circ}14'38''$ West, 177.31 feet to the outline of said MSRRRC conveyance recorded in Liber JA 25 at folio 496 at a point located on the line of division between Lot 4 and Lot 7 of said Block 1 of Plat of Perkins and Burrows Addition to Linden recorded in Plat Book A at No. 58 and being located along the adjoining fourth or South $42^{\circ}00'07''$ West, 10.82 foot line of Parcel 3 of said Talbot Properties, LLC conveyance; thence continuing with said southern CSX existing right-of-way line along said line of division between Lots 4 and 7 and running reversely with said adjoining fourth line of Parcel 3 of Talbot Properties, LLC conveyance along a non-tangent line:
19. North $41^{\circ}58'51''$ East, 10.03 feet to the beginning of the fifth or 214 feet along an arc having a radius of 1,011.74 course of the last parcel of said MSRRRC conveyance recorded in Liber JA 25 at folio 496 and to the end of the adjoining third or 183.85 feet along an arc having a radius of 1,011.74 feet course of said Parcel 3 of Talbot Properties, LLC conveyance; thence leaving said line of division between Lots 4 and 7 and continuing with said southern CSX existing right-of-way line along said fifth line of the last parcel of Liber JA 25 at folio 496 and running with a part of the fifth or 481 feet along an arc having a radius of 1,011.74 course of said MSRRRC conveyance recorded in Liber JA 25 at folio 489 and running reversely with said adjoining third course of Parcel 3 of Talbot Properties, LLC conveyance and running reversely with the adjoining fourth course of Parcel 6 of said Talbot Properties, LLC conveyance and running with part of the adjoining northern outline of Lot 14, Block 6 of Perkins and Burrows Addition to Linden recorded among said land records as Plat No.

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CSX Quitclaim Deed, February 5, 2019

17600 as conveyed from John J. DiGregorio and Joan A. DiGregorio to DiGregorio Stewart Avenue, LLC by deed dated September 29, 2003 and recorded among said land records in Liber 26554 at folio 636:

20. 389.63 feet along the arc of a non-tangent left circular curve having a radius of 1,011.74 feet and a chord of South 84°00'01" West, 387.23 feet to the point of beginning and:

Containing 86,705 square feet or 1.990 acres of land, more or less.

DEED OF EASEMENT

THIS EASEMENT DEED, made as of 5 day of February, 2019, by and between CSX TRANSPORTATION, INC., a Virginia corporation, whose mailing address is 500 Water Street, Jacksonville, Florida 32202, hereinafter called "Grantor," and Maryland Transit Administration, a modal agency of the Maryland Department of Transportation ("MTA") acting for and on behalf of the State of Maryland, a governmental agency whose address is 6 Saint Paul Street, Baltimore, Maryland 21202 hereinafter called "Grantee"; WITNESSETH:

(Wherever used herein, the terms "Grantor" and "Grantee" may be construed in the singular or plural as the context may require or admit, and for purposes of exceptions, reservations and/or covenants, shall include the heirs, legal representatives and assigns of individuals or the successors and assigns of corporations.)

THAT, for and in consideration of payment of the sum of TEN AND NO/100 DOLLARS (\$10.00), which is the full monetary consideration for this conveyance, and other valuable consideration, the receipt whereof is hereby acknowledged, Grantor does hereby GRANT and CONVEY unto Grantee, Grantee's successors and assigns, WITHOUT WARRANTY and only to the extent that Grantor's title permits, and FURTHER SUBJECT TO the terms, conditions, exceptions and reservations herein made, a non-exclusive AERIAL easement(s), above over or across Grantor's property at Silver Spring, County of Montgomery, State of Maryland, hereinafter designated "the Easement(s)", which Easement(s) is/are more particularly described in Exhibit A, attached hereto and incorporated herein, for the purpose of expanding and relocating the Talbot Ave overpass and which includes the overpass, the decking, girders, piers, pilings, supports, trusses, support cables, and drainage facilities, warning devices, signal and wire lines, gates, barricades, signs, appliances and ancillary facilities to said bridge and approaches, and the continued occupation thereof, hereinafter the "Crossing".

EXCEPTING and RESERVING unto Grantor, its successors and assigns, the right to continue to occupy, possess and use the Easement(s) is/are imposed for any and all railroad purposes consistent with Grantor's operations and needs, including but not limited to the placement, repair, relocation and removal of fiber optic cable, and the right to construct, reconstruct, relocate, operate, maintain, repair, renew, replace and remove Grantor's tracks and other facilities as now exist or which may in the future be located in, upon, over, under or across the Easement(s).

TO HAVE AND TO HOLD the Easement(s) and rights herein granted, solely for the purpose herein contained; SUBJECT, however, to any public or private utilities, cables, wires,

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pipes and other facilities located in, on, over, under or across the Easement(s), and all agreements, easements and rights granted or reserved therefor, whether the instruments granting or reserving the same be recorded or unrecorded; ALSO SUBJECT TO the following terms, conditions, exceptions and reservations:

1. The Crossing shall be constructed in accordance with the provisions of that certain Master Construction Agreement made between Maryland Transit Administration and Grantor dated March 1, 2004, Addendum No. 19A dated March 12, 2010, and Addendum No. 19B dated January 4, 2016 as amended by Amendment to Addendum No. 19B dated March 15, 2018, collectively the "Master Construction Agreement", and thereafter maintained, repaired, renewed, reconstructed and/or removed by Grantee pursuant to a separate maintenance agreement as required by the Purchase Sale Agreement by and between the parties hereto dated _____ (the "PSA"). Said Master Construction Agreement, PSA and the requisite maintenance agreement are on file in the respective offices of said parties; and the provisions of said Master Construction Agreement and certain provisions of the PSA (as provided therein), including without limitation, the requirement for execution of the maintenance agreement shall survive delivery of this deed.
2. Grantee, its successors and assigns, shall provide and maintain, at Grantee's sole expense, drainage facilities in accordance with plans and specifications for said Crossing, which plans and specifications are on file in the respective offices of the parties hereto, to prevent runoff and other surface waters collected on the Easement(s) from flowing over Grantor's tracks and adjacent properties.
3. Grantee, its successors and assigns, shall not at any time impair or interfere with the lateral or subjacent support of Grantor's properties, structures, tracks or improvements on or adjacent to the Easement(s), or otherwise damage the same in any way.
4. Excluded from this grant are any and all rights of way for access, ingress or egress, whether by way of necessity, implication or otherwise, across, under or over any adjoining properties of Grantor.
5. The Crossing shall be constructed, erected and maintained by Grantee or its agent, above, across or over the Easement(s) to provide for a minimum vertical clearance of twenty-three (23) feet from top of existing rails and a future third track, and minimum lateral clearance of twenty-five (25) feet (from center line of existing mainline track on the southern half of Grantor's adjacent right of way) and forty-five (45) feet (from the centerline of the existing track on the northern half of Grantor's adjacent right of way) for the entirety of the Easement(s) area(s).
6. In the event Grantor determines the Crossing be changed, altered or relocated after initial construction because of Grantor's own track or facility relocations or rail operational needs or plans (including, without limitation, additions, deletions or changes to track(s) to accommodate freight or passenger customers of Railroad), or any governmental agency or requirement, Railroad shall promptly give written notice thereof to Grantee of such needs or plans. Within sixty (60) days of receipt of such notice, Grantee shall change, alter, or relocate the Crossing Grantee's sole cost and expense, and in a manner satisfactory to Grantor.

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7. If, at any time, the Easement(s) herein granted, or any part thereof, shall no longer be used or required Grantee, its successors or assigns, for the purposes for which granted, the same shall terminate, and Grantee, its successors or assigns, shall execute such instrument as provided or as hereafter may be required by law to clear title to the aforesaid property.


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Attachment 1
CSX Quitclaim Deed, February 5, 2019


IN WITNESS WHEREOF, CSX TRANSPORTATION, INC., pursuant to due corporate authority, has caused its name to be signed hereto by its officers hereunto duly authorized and its corporate seal, duly attested, to be hereunto affixed.

Signed, sealed and delivered
in the presence of:

CSX TRANSPORTATION, INC.:



Jennifer Bryan

By: 
Name: Shantel N. Davis
Title: Vice President - Real Estate and Facilities
Management




Eric Horton

Attest  (SEAL)
Secretary

Print Name: _____ **STEVEN ARMBRUST**
ASST. CORPORATE SECRETARY

This instrument prepared by
or under the direction of:



a party to this instrument.

Kim R. Bongiovanni
Assistant General Counsel
Law Department
500 Water Street
Jacksonville, Florida 32202

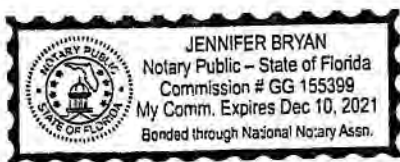
Approved by the Maryland Board of Public Works at a meeting held on the ____ day of _____, 2019, as Item No. ___-RP. MDOT Agenda.

STATE OF FLORIDA)
) SS.
COUNTY OF DUVAL)

I, Jennifer Bryan, a Notary Public of the State of Florida and the County of Duval, do certify that, on the date below, before me in said County came Shantel Davis (X) to me known, and/or () proven by satisfactory current evidence to be the person whose name is subscribed to the above instrument, who, being by me first duly sworn, did make oath, acknowledge and say that: he resides in Jacksonville, Duval County, Florida; she is Vice President Real Estate and Facilities, CSX Transportation, Inc., the corporation described in and which executed said instrument; he is fully informed of the contents of the instrument; he knows the seal of said corporation; e seal affixed to said instrument is such seal; it was so affixed by authority of the Board of Directors of said corporation; he signed his name thereto for said corporation pursuant to Board authority; and instrument is the free act and deed of said corporation; and the conveyance herein is not part of a transaction, sale, lease, exchange or other transfer or conveyance of all or substantially of the property and/or assets of the Grantor.

IN WITNESS WHEREOF, I hereunto set my hand and official seal, this 5 day of February, 2019.

Jennifer Bryan (SEAL)
Notary
Public Print
Name: Jennifer Bryan
My commission expires on: 12/10/2021



EXEMPTION FROM RECORDATION AND TRANSFER TAXES

As a transfer of property to an agency of the State of Maryland, this instrument is not subject to recordation tax (Pursuant to Section 12-108(a) of the Tax-Property Article of the Annotated Code of Maryland) and transfer tax (Pursuant to Section 13-207(a)(1) of the Tax-Property Article of the Annotated Code of Maryland).

This instrument is being presented for recording by, or on behalf of, an agency of the State of Maryland, which is a party to this instrument. Therefore, for the reasons described in a letter from the Office of the Attorney General dated December 21, 2001, this instrument is to be recorded without charge for the recording fee and Real Property Records Improvement Fund surcharge which would otherwise be due pursuant to Section 3-601 of the Real Property Article and Section 13-604 of the Courts and Judicial Proceedings Article, respectively, of the Annotated Code of Maryland.

EXHIBIT A

Description of Easement at: Montgomery County, Maryland
To: Maryland Transportation Authority
CSXT Deed File No.:

SHA ITEM NO. 900063 - MTA ITEM NO. 01413

Being part of Circuit Court Inquisition No. 242 to Baltimore and Ohio Railroad Company (B&O) from Thomas B. Cissel and Margaret D. Cissel dated 1867 as now owned by CSX Transportation, Inc. (CSX) as successor in title to B&O and being all of the property identified as SHA Item No. 900063 and MTA Item No. 01413 on State Highway Administration Plat No. 59213; Plat No. 60992, replacing part of Plat No. 59214; Plat No. 59292; Plat No. 60993, replacing part of Plat No. 59215; and Plat No. 59256, replacing part of Plat No. 59216 and being more particularly described as follows:

PERPETUAL AERIAL EASEMENT FOR OVERHEAD ROAD CROSSING – PARCEL B

Beginning on the northern CSX existing right-of-way line as shown on said Baltimore and Ohio Railroad Company Valuation Map V25.1-2 (CSX Valuation Map No. V08574) located at approximately railroad valuation station 435+87.5 and also being located on the southern right-of-way line for Fourth Avenue as shown on the plat of "B.F. Leighton's Addition to Woodside" recorded among said land records in Plat Book A at No. 60 at a point located South 59°20'25" East, 212.98 feet from the southeastern corner of Lot 13, Block 26 as shown on the plat of "B.F. Leighton's Addition to Woodside" recorded among said land records as Plat No. 12913 and being further described as located 102.96 feet left of baseline of right-of-way station 179+22.35 as shown on said SHA Plat No.'s 60992 and 59292; thence running with said southern right-of-way line of Fourth Avenue and said CSX northern right-of-way line:

1. South 59°20'25" East, 68.07 feet; thence leaving said with said southern right-of-way line of Fourth Avenue and said CSX northern right-of-way line and running through said CSX property along new lines for a perpetual easement the following three courses:
2. South 30°48'29" West, 5.00 feet; thence
3. North 59°20'25" West, 8.05 feet; thence
4. South 55°30'31" West, 84.24 feet to a point located along and 5.85 feet distant from the beginning of the fourth or South 59°10'58" East, 50.60 line of the herein described Perpetual Easement For Construction, Operation, And Maintenance Of Transit Services – Parcel A; thence running reversely with the second, third and part of said fourth line of Parcel A the following three courses:
5. North 59°10'58" West, 5.85 feet; thence
6. North 30°48'29" East, 2.17 feet; thence

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CSX Quitclaim Deed, February 5, 2019

7. North 59°29'30" West, 57.60 feet to the beginning of said second line of Parcel A; thence leaving the outline of said Parcel A and running through said CSX property along new lines for a perpetual aerial easement the following three courses:
8. North 59°57'43" East, 85.33 feet; thence
9. North 59°20'25" West, 2.94 feet; thence
10. North 30°48'29" East, 5.00 feet to the point of beginning and:

Containing 4,867 square feet or 0.112 acres of land, more or less.

DEED OF EASEMENT

THIS EASEMENT DEED, made as of 5 day of February, 2019, by and between CSX TRANSPORTATION, INC., a Virginia corporation, whose mailing address is 500 Water Street, Jacksonville, Florida 32202, hereinafter called "Grantor," and Maryland Transit Administration, a modal agency of the Maryland Department of Transportation ("MTA") acting for and on behalf of the State of Maryland, a governmental agency whose address is 6 Saint Paul Street, Baltimore, Maryland 21202, hereinafter called "Grantee"; WITNESSETH:

(Wherever used herein, the terms "Grantor" and "Grantee" may be construed in the singular or plural as the context may require or admit, and for purposes of exceptions, reservations and/or covenants, shall include the heirs, legal representatives and assigns of individuals or the successors and assigns of corporations.)

THAT, for and in consideration of payment of the sum of TEN AND NO/100 DOLLARS (\$10.00), which is the full monetary consideration for this conveyance, and other valuable consideration, the receipt whereof is hereby acknowledged, Grantor does hereby GRANT and CONVEY unto Grantee, Grantee's successors and assigns, WITHOUT WARRANTY and only to the extent that Grantor's title permits, and FURTHER SUBJECT TO the terms, conditions, exceptions and reservations herein made, (a) non-exclusive subgrade perpetual easement, under Grantor's property at Silver Spring, County of Montgomery, State of Maryland, hereinafter designated "the Perpetual Easement", which Perpetual Easement is more particularly described in Exhibit "A", attached hereto and incorporated herein, for the purpose of locating the subsurface crash wall footing (the "Subsurface Footing") in accordance with the Master Construction Agreement dated March 1, 2004, Addendum No. 19A dated March 12, 2010, and Addendum Number 19B dated January 4, 2016 as amended by Amendment to Addendum Number 19B dated March 15, 2018, collectively referred to herein as the "Master Construction Agreement".

EXCEPTING and RESERVING unto Grantor, its successors and assigns, the right to continue to occupy, possess and use the land upon which the Perpetual Easement is/are imposed for any and all purposes, including but not limited to the placement, repair, relocation and removal of utilities, and the right to construct, reconstruct, relocate, operate, maintain, repair, renew, replace and remove Grantor's tracks and other facilities as now exist or which may in the future be located in, upon, over, under or across the Perpetual Easement.

TO HAVE AND TO HOLD the Perpetual Easement and rights herein granted, solely for the purpose herein contained; SUBJECT, however, to any public or private utilities, cables, wires, pipes and other facilities located in, on, over, under or across the Perpetual Easement, and all

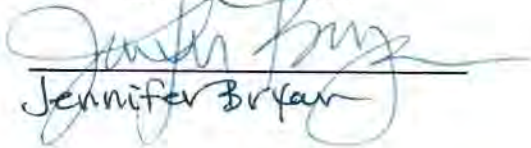
agreements, easements and rights granted or reserved therefor, whether the instruments granting or reserving the same be recorded or unrecorded; ALSO SUBJECT TO the following terms, conditions, exceptions and reservations:

1. Said Subsurface Footing shall be constructed, maintained, repaired, renewed, reconstructed and/or removed in accordance with the provisions of the Master Construction Agreement, which is on file in the respective offices of said parties; and the provisions of the Master Construction Agreement shall survive delivery of this deed.
2. The Subsurface Footing shall be constructed and exist within the Perpetual Easement described in Exhibit A and shall maintain a minimum horizontal clearance distance of 23-feet, 6-inches from centerline of nearest mainline Grantor's track to the closest edge of the Subsurface Footing. Depth of Subsurface Footing where located within this Perpetual Easement(s) shall be a minimum of 4-foot below adjacent Grantor's railroad ditch invert elevation to the top surface of the Subsurface Footing. The Subsurface Footing within the Perpetual Easement shall not provide drainage for or include any facilities for the related crash wall.
3. Grantee, its successors and assigns, shall not at any time impair or interfere with the lateral or subjacent support of Grantor's properties, structures, tracks or improvements on or adjacent to the Perpetual Easement, or otherwise damage the same in any way.
4. Grantee shall, at Grantee's sole cost and expense, remove and/or relocate the Subsurface Footing, within forty-five (45) days written notice from Grantor to Grantee that the Subsurface Footing interferes with Grantor's current or future rail operations or work planned by Grantor within or adjacent to this Perpetual Easement. Grantee shall reimburse Grantor for any and all costs associated with administration, management, engineering review, flagging, and inspections for such relocation or removal work. If the grantee fails to remediate the subsurface interference within 45 days, Grantor shall have the right to remediate the interference, subject to a force account agreement, and Grantee shall be responsible for all such costs associated with the remediation. Grantee shall maintain insurance in amount sufficient to cover this risk.
5. Excluded from this Perpetual Easement are any and all rights of way for access, ingress or egress, whether by way of necessity, implication or otherwise, across, under or over any adjoining properties of Grantor.
6. If, at any time, the Perpetual Easement herein granted, or any part thereof, shall no longer be used or required by Grantee, its successors or assigns, for the purposes for which granted, the same shall terminate, and Grantee, its successors or assigns, shall execute such instrument as provided or as hereafter may be required by law to clear title to the aforesaid property.

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IN WITNESS WHEREOF, CSX TRANSPORTATION, INC., pursuant to due corporate authority, has caused its name to be signed hereto by its officers hereunto duly authorized and its corporate seal, duly attested, to be hereunto affixed.


Signed, sealed and delivered
in the presence of:




Jennifer Bryan

CSX TRANSPORTATION, INC.:


By:  (SEAL)
Print Name: Shantel N. Davis
Print Title: Vice President
Real Estate and Facilities



Eric Horton

Attest  (SEAL)
Secretary
Print Name: _____ **STEVEN ARMBRUST** _____
ASST. CORPORATE SECRETARY

This instrument prepared by
or under the direction of:



a party to this instrument.

Kim R. Bongiovanni
Assistant General Counsel
Law Department
500 Water Street
Jacksonville, Florida 32202

Approved by the Maryland Board of Public Works at a meeting held on the ____ day of _____, 2019, as Item No. __-RP. MDOT Agenda.

EXHIBIT A

Description of Easement at: Montgomery County, Maryland
To: Maryland Transportation Authority
CSXT Deed File No.:

SHA ITEM NO. 900063 - MTA ITEM NO. 01413

Being part of Circuit Court Inquisition No. 242 to Baltimore and Ohio Railroad Company (B&O) from Thomas B. Cissel and Margaret D. Cissel dated 1867 as now owned by CSX Transportation, Inc. (CSX) as successor in title to B&O and being all of the property identified as SHA Item No. 900063 and MTA Item No. 01413 on State Highway Administration Plat No. 59213; Plat No. 60992, replacing part of Plat No. 59214; Plat No. 59292; Plat No. 60993, replacing part of Plat No. 59215; and Plat No. 59256, replacing part of Plat No. 59216 and being more particularly described as follows:

PERPETUAL EASEMENT FOR CONSTRUCTION, OPERATION, AND MAINTENANCE OF TRANSIT SERVICES – PARCEL A

Beginning at a point located along and 23.23 feet distant from the beginning of the fourth or South 58°35'57" East, 280.13 foot line of the herein described Fee Simple Area and being further described as located 20.43 feet left of baseline of right-of-way station 178+82.03 as shown on SHA Plat No. 60992; thence leaving said fourth line of the herein described Fee Simple Area and running through said CSX Transportation, Inc. (CSX) property along new lines for a perpetual easement the following nine courses:

1. North 59°57'43" East, 3.46 feet; thence
2. South 59°29'30" East, 57.60 feet; thence
3. South 30°48'29" West, 2.17 feet; thence
4. South 59°10'58" East, 50.60 feet; thence
5. South 58°10'15" East, 23.21 feet; thence
6. South 59°14'52" East, 133.82 feet; thence
7. South 58°32'53" East, 664.95 feet; thence
8. South 58°21'36" East, 150.97 feet; thence
9. South 58°10'20" East, 241.48 feet to the end of the eighth or South 58°39'36" East, 630.58 foot line of the herein described Fee Simple Area; thence running reversely with the eighth, seventh, sixth, fifth and part of the fourth courses of said herein described Fee Simple Area the following five courses:

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10. North 58°39'36" West, 630.58 feet, thence
11. North 58°32'53" West, 323.88 feet, thence
12. North 58°34'34" West, 40.02 feet, thence
13. 72.91 feet along the arc of a non-tangent left circular curve having a radius of 13,579.17 feet and a chord of North 58°47'11" West, 72.91 feet, thence with a non-tangent line:
14. North 58°35'57" West, 256.90 feet to the point of beginning and:

Containing 3,513 square feet or 0.081 acres, more or less.

DEED OF TEMPORARY EASEMENT

THIS TEMPORARY EASEMENT DEED, made this 5 day of February, 2019, between CSX TRANSPORTATION, INC., a Virginia corporation, whose mailing address is 500 Water Street, Jacksonville, Florida 32202, hereinafter called "Grantor", and the Maryland Transit Administration, a modal agency of the Maryland Department of Transportation ("MTA") acting for and on behalf of the State of Maryland, a governmental agency whose address is 6 Saint Paul Street, Baltimore, Maryland 21202 hereinafter called "Grantee", WITNESSETH:

(Wherever used herein, the terms "Grantor" and "Grantee" may be construed in the singular or plural as the context may require or admit, and for purposes of exceptions, reservations and/or covenants, shall include the heirs, legal representatives and assigns of individuals or the successors and assigns of corporations.)

THAT, for and in consideration of payment of the sum of TEN AND NO/100 DOLLARS (\$10.00), which is the full monetary consideration for this conveyance, and other valuable consideration, the receipt whereof is hereby acknowledged, Grantor does hereby GRANT and CONVEY unto Grantee, Grantee's successors and assigns, WITHOUT WARRANTY and only to the extent that Grantor's title permits, and FURTHER SUBJECT TO the terms, conditions, exceptions and reservations herein made, (a) non-exclusive temporary access easement(s), on, over or across Grantor's property at Silver Spring, County of Montgomery, State of Maryland, hereinafter designated "the Easement(s)", which Easement(s) is/are more particularly described in Exhibit A, attached hereto and incorporated herein, for ingress/egress access to and from adjacent property on which grading, installation and maintenance of sediment and erosion control measures and construction access during the construction of a fixed guideway light rail transportation system hereinafter referred to as the "Purple Line" will occur. The term of this Easement(s) shall expire one (1) year from date hereof (the "Term"). Grantee, shall have the option to extend the Term of this Easement, for up to three (3) one (1) year periods (each an "Extension Period"), by providing written notice sixty (60) days prior to the expiration of the Term or Extension Period, and payment in the amount of SIX HUNDRED THREE THOUSAND FIVE HUNDRED FIFTY-FOUR AND NO/100 U.S. DOLLARS (\$603,554.00) for the first Extension Period, SIX HUNDRED TWENTY ONE THOUSAND SIX HUNDRED SIXTY ONE AND NO/100 U.S. DOLLARS (\$621,661.00) for the second Extension Period, and SIX HUNDRED FORTY THOUSAND THREE HUNDRED ELEVEN AND NO/100 U.S. DOLLARS (\$640,311.00) for the third Extension Period.

EXCEPTING and RESERVING unto Grantor, its successors and assigns, the right to continue to occupy, possess and use the land upon which the Easement(s) is/are imposed for any

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and all railroad purposes consistent with Grantor's operations and needs, including but not limited to the placement, repair, relocation and removal of fiber optic cable, and the right to construct, reconstruct, relocate, operate, maintain, repair, renew, replace and remove Grantor's tracks and other facilities as now exist or which may in the future be located in, upon, over, under or across the Easement(s).

TO HAVE AND TO HOLD the Easement(s) and rights herein granted, solely for the purpose herein contained; SUBJECT, however, to any public or private utilities, cables, wires, pipes and other facilities located in, on, over, under or across the Easement(s), and all agreements, easements and rights granted or reserved therefor, whether the instruments granting or reserving the same be recorded or unrecorded; ALSO SUBJECT TO the following terms, conditions, exceptions and reservations:

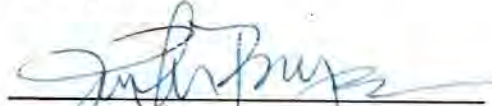
1. Said Purple Line shall be constructed, maintained, repaired, renewed, reconstructed and/or removed property adjacent to the Easement(s) in accordance with the provisions of that certain Master Construction Agreement made between CSX Transportation, Inc. and Maryland Transit Administration dated March 1, 2004, Addendum No. 19A dated March 12, 2010, and Addendum No. 19B dated January 4, 2016, as amended by Amendment to Addendum No. 19B dated March 15, 2018, collectively the "Master Construction Agreement". Said Master Construction Agreement is on file in the respective offices of said parties; and the provisions of said Master Construction Agreement shall survive delivery of this deed.
2. Grantee, its successors and assigns, shall provide and maintain, at Grantee's sole expense, drainage facilities in accordance with plans and specifications for said Purple Line project, which plans and specifications are on file in the respective offices of the parties hereto, to prevent runoff and other surface waters collected on the Easement(s) from flowing over Grantor's tracks and adjacent properties.
4. Grantee, its successors and assigns, shall not any time impair or interfere with the lateral or subjacent support of Grantor's properties, structures, tracks or improvements on or adjacent to the Easement(s), or otherwise damage the same in any way.
5. Grantee, its successors and assigns, use of the Easements shall not at any time block, obstruct, or restrict Grantor's access, via Talbot Avenue, 3rd Ave, or any other CSX entrance road, gate, driveway, or path, to and from Grantor's properties, structures, tracks or improvements. At such time as Montgomery County grants an easement to Grantor for access off of Fenwick Ln and a new access road from Fenwick Ln to the existing 3rd Ave access is completed, then Grantor shall no longer require access through 3rd Ave.
6. Excluded from this grant are any and all rights of way for access, ingress or egress, whether by way of necessity, implication or otherwise, across, under or over any adjoining properties of Grantor.

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Attachment 1
CSX Quitclaim Deed, February 5, 2019


IN WITNESS WHEREOF, CSX TRANSPORTATION, INC., pursuant to due corporate authority, has caused its name to be signed hereto by its officers hereunto duly authorized and its corporate seal, duly attested, to be hereunto affixed.

Signed, sealed and delivered
in the presence of:



Jennifer Bryan

CSX TRANSPORTATION, INC.:

By: 

Name: Shantel N. Davis
Title: Vice President – Real Estate and Facilities
Management



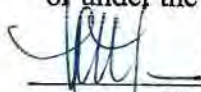
Eric Horton

Attest  (SEAL)

Secretary

Print Name: _____ **STEVEN ARMBRUST**
ASST. CORPORATE SECRETARY

This instrument prepared by
or under the direction of:



a party to this instrument.

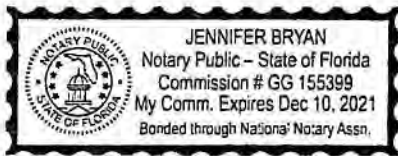
Kim R. Bongiovanni
Senior Counsel
Law Department
500 Water Street
Jacksonville, Florida 32202

Approved by the Maryland Board of Public Works at a meeting held on the ____ day of _____, 2019, as Item No. ___-RP. MDOT Agenda.

STATE OF FLORIDA)
) SS.
COUNTY OF DUVAL)

I, Jennifer Bryan, a Notary Public of the State of Florida and the County of Duval, do certify that, on the date below, before me in said County came Shantel Davis (X) to me known, and/or () proven by satisfactory current evidence to be the person whose name is subscribed to the above instrument, who, being by me first duly sworn, did make oath, acknowledge and say that: he resides in Jacksonville, Duval County, Florida; she is Vice President Real Estate and Facilities, signing on behalf of CSX Transportation, Inc., the corporation described in and which executed said instrument; he is fully informed of the contents of the instrument; he knows the seal of said corporation; the seal affixed to said instrument is such seal; it was so affixed by authority of the Board of Directors of said corporation; he signed his name thereto for said corporation pursuant to Board authority; and instrument is the free act and deed of said corporation; and the conveyance herein is not part of a transaction, sale, lease, exchange or other transfer or conveyance of all or substantially all of the property and/or assets of the Grantor.

IN WITNESS WHEREOF, I hereunto set my hand and official seal, this 5 day of February, 2019.



Jennifer Bryan (SEAL)
Notary Public
Print Name: Jennifer Bryan
My commission expires on: 12/10/2021

EXEMPTION FROM RECORDATION AND TRANSFER TAXES

As a transfer of property to an agency of the State of Maryland, this instrument is not subject to recordation tax (Pursuant to Section 12-108(a) of the Tax-Property Article of the Annotated Code of Maryland) and transfer tax (Pursuant to Section 13-207(a)(1) of the Tax-Property Article of the Annotated Code of Maryland).

This instrument is being presented for recording by, or on behalf of, an agency of the State of Maryland, which is a party to this instrument. Therefore, for the reasons described in a letter from the Office of the Attorney General dated December 21, 2001, this instrument is to be recorded without charge for the recording fee and Real Property Records Improvement Fund surcharge which would otherwise be due pursuant to Section 3-601 of the Real Property Article and Section 13-604 of the Courts and Judicial Proceedings Article, respectively, of the Annotated Code of Maryland.

EXHIBIT A

Description of Easement at: Montgomery County, Maryland

To: Maryland Transportation Authority

CSXT Deed File No.:

SHA ITEM NO. 900063 - MTA ITEM NO. 01413

Being part of Circuit Court Inquisition No. 242 to Baltimore and Ohio Railroad Company (B&O) from Thomas B. Cissel and Margaret D. Cissel dated 1867 as now owned by CSX Transportation, Inc. (CSX) as successor in title to B&O and being all of the property identified as SHA Item No. 900063 and MTA Item No. 01413 on State Highway Administration Plat No. 59213; Plat No. 60992, replacing part of Plat No. 59214; Plat No. 59292; Plat No. 60993, replacing part of Plat No. 59215; and Plat No. 59256, replacing part of Plat No. 59216 and being more particularly described as follows:

I. TEMPORARY CONSTRUCTION EASEMENT (ALONG CSX SOUTHERN RIGHT-OF-WAY)

Beginning at the point of beginning for the herein described Fee Simple Area and being further described as located 21.04 feet left of baseline of right-of-way station 171+69.77 as shown on said SHA Plat No.'s 59213 and 60992; thence running with said CSX southern right-of-way line and running with the northern right-of-way line of Talbot Avenue, formerly known as Railroad Avenue, as shown on said "Plat of Perkins and Burrows Addition to Linden" originally recorded among said land records in Liber JA 17 at folio 157 and rerecorded among plat records in Plat Book A at No. 58 the following three courses:

1. North 48°01'09" West, 301.13 feet; thence
2. North 43°56'53" West, 335.06 feet; thence
3. North 36°13'17" West, 20.43 feet; thence leaving said CSX southern right-of-way line and said northern right-of-way line of Talbot Avenue and running through said CSX Transportation, Inc. property along new construction easement lines the following twenty-three courses:
 4. North 49°23'54" East, 37.02 feet, thence
 5. South 41°08'18" East, 52.86 feet; thence
 6. South 41°10'59" East, 41.73 feet; thence
 7. South 42°59'43" East, 68.83 feet; thence
 8. South 43°51'51" East, 66.09 feet; thence
 9. South 45°24'27" East, 61.73 feet; thence

Attachment 1

CSX Quitclaim Deed, February 5, 2019

10. South 46°17'49" East, 88.51 feet; thence
11. South 48°22'51" East, 147.92 feet; thence
12. South 51°27'44" East, 124.34 feet; thence
13. South 51°27'44" East, 85.16 feet; thence
14. South 54°34'44" East, 152.57 feet; thence
15. South 55°58'38" East, 74.86 feet; thence
16. South 58°06'55" East, 374.64 feet; thence
17. South 75°37'50" East, 6.74 feet; thence
18. South 55°43'47" East, 26.98 feet; thence
19. South 56°03'48" East, 55.54 feet; thence
20. South 58°00'23" East, 35.88 feet; thence
21. South 58°30'19" East, 329.62 feet; thence
22. South 58°40'03" East, 269.88 feet; thence
23. South 58°36'10" East, 499.65 feet; thence
24. South 58°35'04" East, 310.19 feet; thence
25. South 60°49'24" East, 80.02 feet; thence
26. South 56°11'28" East, 238.90 feet to the eastern right-of-way line of Maryland Route 390, 16th Street, per the conveyance from Baltimore and Ohio Railroad Company to the State of Maryland to the use of the State Roads Commission by deed dated December 18, 1959 and recorded among said land records in Liber 2700 at folio 411 and as shown on Maryland State Roads Commission Plat No. 22188 and being located on the western right-of-way line for the Washington Metropolitan Area Transit Authority (WMATA) at a point located along and 40.61 feet distant from the beginning of the forty-ninth or North 09°56'21" West, 121.32 feet line of the conveyance from CSX Transportation, Inc. to Washington Metropolitan Area Transit Authority by deed dated July 30, 1991 and recorded among said land records in Liber 11572 at folio 293; thence leaving said new easement lines and running with said eastern right-of-way line of 16th Street and with said western WMATA right-of-way line reversely with said forty-ninth course of the WMATA conveyance:
27. South 09°56'42" East, 16.20 feet to the end of the fourteenth or South 58°33'16" East, 28.55 line of the herein described Fee Simple Area; thence running reversely with the fourteenth through ninth courses of said Fee Simple Area the following six courses:

Attachment 1

CSX Quitclaim Deed, February 5, 2019

28. North 58°33'16" West, 28.55 feet; thence
29. South 31°26'44" West, 6.00 feet; thence
30. North 58°31'25" West, 105.92 feet; thence
31. North 31°19'49" East, 6.09 feet; thence
32. North 40°09'09" West, 5.10 feet; thence
33. North 58°10'20" West, 382.26 feet to the end of the ninth or South 58°10'20" East, 241.48 line of the herein described Parcel A; thence running reversely with the first through ninth courses of said Parcel A the following nine courses:
 34. North 58°10'20" West, 241.48 feet; thence
 35. North 58°21'36" West, 150.97 feet; thence
 36. North 58°32'53" West, 664.95 feet; thence
 37. North 59°14'52" West, 133.82 feet; thence
 38. North 58°10'15" West, 23.21 feet; thence
 39. North 59°10'58" West, 50.60 feet; thence
 40. North 30°48'29" East, 2.17 feet; thence
 41. North 59°29'30" West, 57.60 feet; thence
 42. South 59°57'43" West, 3.46 feet to the point of beginning for said Parcel A at a point located along and 23.23 feet distant from the beginning of the fourth or South 58°35'57" East, 280.13 foot line of the herein described Fee Simple Area; thence running reversely with the first through third and part of said fourth courses of said Fee Simple Area the following four courses:
 43. North 58°35'57" West, 23.23 feet, thence
 44. 40.00 feet along the arc of a tangent left circular curve having a radius of 10,931.75 feet and a chord of North 58°42'15" West, 40.00 feet to point of reverse curvature; thence
 45. 186.69 feet along the arc of a tangent right circular curve having a radius of 16,369.87 feet and a chord of North 58°28'56" West, 186.69 feet; thence with a non-tangent line:
 46. North 58°33'41" West, 462.12 feet to the point of beginning and:

Containing 66,514 square feet or 1.527 acres of land, more or less.

II. TEMPORARY CONSTRUCTION EASEMENT (ALONG CSX NORTHERN RIGHT-OF-WAY)

Beginning on the southern right-of-way line for Fourth Avenue as shown on plat of "B.F. Leighton's Addition to Woodside" recorded among said land records in Plat Book A at No. 60 and being located on the northern CSX right-of-way line at the end of the first line of the herein Perpetual Easement for a Bridge and Abutments – Parcel B and being further described as located 103.14 feet left of baseline of right-of-way station 179+90.42 as shown on said SHA Plat No. 60992; thence running with said southern right-of-way line of Fourth Avenue and said CSX northern right-of-way line:

1. South 59°20'25" East, 177.94 feet; thence leaving said CSX northern right-of-way line and said southern right-of-way line of Fourth Avenue and running through said CSX Transportation, Inc. property along new temporary construction easement lines the following four courses:
2. South 30°39'35" West, 13.41 feet; thence
3. North 59°48'02" West, 177.91 feet; thence
4. North 59°28'32" West, 68.15 feet; thence
5. North 30°48'29" East, 10.00 feet to the end of the ninth North 59°20'25" West, 2.94 foot line of said Parcel B; thence running reversely with said ninth line and with a new line of division for the temporary construction easement and reversely with the second and third lines of said Parcel B the following two courses:
6. South 59°20'25" East, 68.07 feet; thence
7. North 30°48'29" East, 5.00 feet to the point of beginning and:

Containing 3,189 square feet or 0.073 acres of land, more or less.

SHA ITEM NO. 900093 - MTA ITEM NO. 01452

Being all of the remaining lands of the conveyance to Metropolitan Southern Railroad Company (MSRRC) from John Adrian Epping by deed dated April 23, 1891 and recorded among the land records of Montgomery County, Maryland in Liber JA 25 at folio 489 and being a part of the conveyances to MSRRC from Mary E. Hartwell by deed dated April 29, 1891 and recorded in Liber JA 25 at folio 483; from John J. Horgan by deed dated May 7, 1891 recorded in Liber JA 25 at folio 495; from Bishop W. Perkins, Louise E. Perkins, Julius C. Burrows and Francis S. Burrows by deed dated April 29, 1891 recorded in Liber JA 25 at folio 496; and from Bishop W. Perkins, Julius C. Burrows and Edward L. Mullineaux by deed dated April 29, 1891 recorded in Liber JA 27 at folio 1 as now owned by CSX Transportation, Inc. (CSX) as successor in title to MSRRC and being all of the property identified and shown as SHA Item No. 900093 and MTA Item No. 01452 on Maryland State Highway Administration (SHA) Plat No. 59213, Revision 3 dated December 6, 2018 and being more particularly described as follows:

III. TEMPORARY CONSTRUCTION EASEMENT:

Beginning at the northeastern-most corner of the Railroad Avenue parcel as described in said MSRRC conveyance recorded in Liber JA 25 at liber 496 and being located at the intersection of said western right-of-way line of Michigan Avenue extended to meet the northern right-of-way line of Railroad Avenue as shown on said Plat of Perkins and Burrows Addition to Linden recorded in Plat Book A at No. 58 and being further described as located North $41^{\circ}58'51''$ East, 1.57 feet from the beginning of the thirteenth line of the herein described Fee Simple Area and being further described as located 21.04 feet left of baseline of right-of-way station 171+69.77 as shown on said SHA Plat No. 59213; thence running with said extended western right-of-way line of Michigan Avenue and the eastern outline of said Railroad Avenue parcel in Liber JA 25 at folio 496:

1. South $41^{\circ}58'51''$ West, 1.57 feet to the end of the of the twelfth line of the herein described Fee Simple Area; thence running reversely with said twelfth through seventh lines said Fee Simple Area the following six courses:
2. North $58^{\circ}33'56''$ West, 163.66 feet; thence
3. 33.20 feet along the arc of a tangent left circular curve having a radius of 1,087.13 feet and a chord of North $59^{\circ}26'26''$ West, 33.19 feet; thence with a tangent line:
4. North $60^{\circ}18'55''$ West, 24.98 feet; thence
5. North $30^{\circ}21'01''$ East, 2.00 feet; thence
6. 84.46 feet along the arc of a non-tangent left circular curve having a radius of 910.83 feet and a chord of North $62^{\circ}18'22''$ West, 84.43 feet to said eastern right-of-way line of Kansas Avenue and said northwestern outline of Lot 6, Block 2 of Perkins and Burrows Addition to Linden recorded in Plat Book A at No. 58; thence continuing with said Fee Simple Area outline and running with said eastern right-of-way line of Kansas Avenue and said western outline of Lot 6 and the outline of said MSRRC conveyance in Liber JA 25 at folio 495:
7. North $42^{\circ}01'00''$ East, 25.53 feet to the beginning of the seventh line of the herein described Fee Simple Area; thence leaving said Fee Simple Area outline and continuing with said eastern right-of-way line of Kansas Avenue and said western outline of Lot 6:
8. North $41^{\circ}58'51''$ East, 6.77 feet to the northwestern corner of said Lot 6 at the intersection of said eastern right-of-way line of Kansas Avenue with the southern right-of-way line of Railroad Avenue; thence leaving said Lot 6 outline and said outline of the MSRRC conveyance recorded in Liber JA 25 at folio 495 and running across said Railroad Avenue with the northwestern outline of the Railroad Avenue parcel of said MSRRC conveyance recorded in Liber JA 25 at folio 496:
9. North $39^{\circ}53'29''$ East, 30.02 feet to the northwestern-most corner of said Railroad Avenue parcel of Liber JA 25 at folio 496 and said southern CSX existing right-of-way line as shown on Baltimore and Ohio Railroad Company railroad valuation map no. V08574; thence running with the northeastern right-of-way line of said Railroad Avenue and the northeastern outline of said Railroad Avenue parcel of Liber JA 25 at folio 496 and said southern CSX right-of-way line shown on valuation map V08574:

10. South 48°01'09" East, 301.13 feet to the point of beginning and:

Containing 9,009 square feet or 0.207 acres of land, more or less.

LIBER 21149 AT FOLIO 194

Being part of the conveyance from Washington Metropolitan Area Transit Authority (WMATA) to the Maryland Transit Administration (MTA) by deed dated April 25, 2002 and recorded among the land records of Montgomery County, Maryland in Liber 21149 at folio 194 being subject to the exclusive perpetual easements for transportation purposes conveyed by WMATA to CSX Transportation, Inc. (CSX) by deed dated July 30, 1991 and recorded among said land records in Liber 10237 at folio 789 and being more particularly described as follows:

IV. TEMPORARY CONSTRUCTION EASEMENT – PARCEL A

Beginning on the CSX Part Three siding easement northern existing right-of-way at a point located on and 46.01 feet southeast along an arc from the beginning of the nineteenth (19th) or 781.12 feet along the arc of a right circular curve having a radius of 14,323.56 feet and chord of South 40°19'27" East, 781.02 feet course of said CSX Part Three siding easement and being further described as located 4.84 feet right of baseline of right-of-way station 232+43.69 as shown on SHA Plat No. 61012; thence leaving said northern existing right-of-way line and said nineteenth (19th) course and, with bearings and distances now referenced to the Maryland Coordinate System NAD83/1991 datum, running through CSX Part Three siding easement and said Part One easement with new lines the following three courses:

1. South 47°41'49" West, 17.72 feet; thence
2. North 41°51'14" West, 75.77 feet; thence
3. North 47°57'39" East, 15.57 feet to the northeastern outline of said MTA conveyance first part at a point located along and 20.18 feet from the beginning of the sixth (6th) or South 44°31'58" East, 161.87 foot course thereof; thence running with said MTA outline along part of said sixth (6th) course:
4. South 44°29'59" East, 47.63 feet to intersect said CSX Part Three siding easement northern existing right-of-way line at a point located on said nineteenth (19th) course; thence leaving said MTA outline and running with part of said CSX Part Three northern existing right-of-way along part of said nineteenth (19th) course:
5. 28.11 feet along the arc of a non-tangent right circular curve having a radius of 14,323.56 feet and a chord of South 41°45'32" East, 28.11 feet to the point of beginning and:

Containing 1,292 square feet or 0.030 acres, more or less.

**V. TEMPORARY CONSTRUCTION EASEMENT FOR AERIAL MANEUVERING --
PARCEL B**

Beginning on the southwestern outline of said MTA conveyance first part at a point located on and 115.68 feet southeast along an arc from the end of the twelfth (12th) or 480.00 feet along the arc of left circular curve having a radius of 14,455.74 feet and a chord of North 41°12'58" West, 479.98 feet course thereof and being further described as located 28.25 feet right of baseline of right-of-way station 232+44.14 as shown on SHA Plat No. 61012; thence, with bearings and distances now referenced to the Maryland Coordinate System NAD83/1991 datum, running with said MTA southwestern outline along part of said twelfth (12th) course:

1. 75.80 feet along the arc of a left circular curve having a radius of 14,455.74 feet and a chord of North 41°53'41" West, 75.80 feet; thence leaving said MTA outline and said twelfth (12th) course and running through said CSX Part One easement with a new line:
2. North 47°57'39" East, 5.75 feet to the second (2nd) or North 41°51'14" West, 75.77 foot course of the herein described Parcel A; thence continuing through said CSX Part One easement reversely with said second (2nd) course of herein described Parcel A:
3. South 41°51'14" East, 75.77 feet; thence continuing through said CSX Part One easement with a new line:
4. South 47°41'49" West, 5.70 feet to the point of beginning and:

Containing 432 square feet or 0.010 acres, more or less.

SHA ITEM NO. 900073 - MTA ITEM NO. 01483

Being part of the exclusive perpetual easements for transportation purposes conveyed by Washington Metropolitan Area Transit Authority (WMATA) to CSX Transportation, Inc. (CSX) by deed dated July 30, 1991 and recorded among the land records of Montgomery County, Maryland in Liber 10237 at folio 789 and being more particularly described as follows:

VI. TEMPORARY CONSTRUCTION EASEMENT -- PARCEL G

Beginning on the northern existing WMATA right-of-way line and the southwestern outline of a plat entitled "Parcel A, Block 1, Silver Spring Metro Station, Glenmont Route" recorded among said land records as Plat No. 12175 at a point located on and 24.43 feet northwest along an arc from the southwestern end of the 184.29 feet along the arc of a curve having a radius of 14,323.56 course shown as Curve No. 2 on said plat of Parcel A and being further described as located 8.56 feet right of baseline of right-of-way station 231+06.04 as shown on SHA Plat No. 61012; thence leaving said WMATA existing right-of-way line and said southwestern outline of Parcel A of Plat No. 12175 and, with bearings and distances now referenced to the Maryland Coordinate System NAD83/1991 datum, running with new lines through Part One easement westbound and Part Three siding easement of said CSX conveyance recorded in Liber 10237 at folio 789 the following three courses:

Attachment 1

CSX Quitclaim Deed, February 5, 2019

1. South $47^{\circ}57'39''$ East, 15.69 feet; thence
2. North $42^{\circ}20'57''$ West, 57.24 feet; thence
3. North $47^{\circ}31'01''$ East, 14.82 feet to said WMATA existing right-of-way and said southwestern outline of Parcel A of Plat No. 12175; thence continuing through said CSX Part Three siding easement along said WMATA existing right-of-way and said southwestern outline of Parcel A of Plat No. 12175:
4. 57.36 feet along the arc of a non-tangent left circular curve having a radius of 14,323.56 and a chord of South $43^{\circ}13'02''$ East, 57.36 feet to the point of beginning and:

Containing 873 square feet or 0.020 acres, more or less.

VII. TEMPORARY CONSTRUCTION EASEMENT FOR AERIAL MANEUVERING – PARCEL H

Beginning on the CSX Part One easement westbound southern existing right-of-way at a point located along and 774.57 feet distant along an arc from the end of the sixth (6th) or 5,038.07 feet along the arc of a left circular curve having a radius of 14,287.06 feet and a chord of North $35^{\circ}15'28''$ West, 5,012.01 feet course of said Part One of the CSX conveyance recorded in Liber 10237 at folio 789 and being further described as located 43.16 feet right of baseline of right-of-way station 231+06.54 as shown on SHA Plat No. 61012; thence, with bearings and distances now referenced to the Maryland Coordinate System NAD83/1991 datum, running with said CSX Part One easement westbound southern existing right-of-way along part of said CSX Part One easement sixth (6th) line:

1. 57.09 feet along the arc of a left circular curve having a radius of 14,287.06 and a chord of North $42^{\circ}22'07''$ West, 57.09 feet; thence leaving said CSX Part One easement south existing right-of-way and running through said CSX Part One westbound easement with a new line:
2. North $47^{\circ}31'01''$ East, 18.93 feet to the end of the second (2nd) or North $42^{\circ}20'57''$ West, 57.24 feet line of the herein described Temporary Construction Easement – Parcel G; thence continuing through said CSX Part One easement and running reversely with said second (2nd) line of Parcel G:
3. South $42^{\circ}20'57''$ East, 57.24 feet; thence leaving the outline of said Parcel G and continuing through said CSX Part One easement with a new line:
4. South $47^{\circ}57'39''$ West, 18.91 feet to the point of beginning and:

Containing 1,081 square feet or 0.025 acres, more or less.

VIII. TEMPORARY CONSTRUCTION EASEMENT FOR AERIAL MANEUVERING – PARCEL I

Attachment 1
CSX Quitclaim Deed, February 5, 2019

Beginning on the CSX Part One easement westbound southern existing right-of-way line at a point located along and 836.57 feet distant along an arc from the end of the sixth (6th) or 5,037.07 feet along the arc of a left circular curve having a radius of 14,287.06 feet and a chord of North 35°15'28" West, 5,012.01 feet course of said Part One of the CSX conveyance recorded in Liber 10237 at folio 789 and being further described as located 42.17 feet right of baseline of right-of-way station 231+68.53 as shown on SHA Plat No. 61012; thence leaving said CSX Part One easement southern right-of-way line and, with bearings and distances now referenced to the Maryland Coordinate System NAD83/1991 datum, running with a new line through said CSX Part One easement:

1. North 47°57'39" East, 13.03 feet to the southwestern outline of the first part of the conveyance from WMATA to Maryland Transit Administration (MTA) by deed dated April 25, 2002 and recorded among said land records in Liber 21149 at folio 194 at a point located along the twelfth (12th) course of said MTA conveyance; thence continuing through said CSX Part One westbound easement and running with said MTA outline along part of said twelfth (12th) course of the MTA conveyance:
2. 75.80 feet along the arc of a non-tangent right circular curve having a radius of 14,455.74 and a chord of South 41°53'41" East, 75.80 feet; thence leaving said MTA outline and continuing through said CSX Part One easement along a new line:
3. South 47°41'49" West, 13.09 feet to said CSX Part One easement westbound southern existing right-of-way at a point located on said sixth (6th) line thereof; thence running with said CSX Part One easement southern existing right-of-way along part of said sixth (6th) line:
4. 75.86 feet along the arc of non-tangent left circular curve having a radius of 14,287.06 and a chord of North 41°51'12" West, 75.86 feet to the point of beginning and:

Containing 990 square feet or 0.023 acres, more or less.

IX. TEMPORARY CONSTRUCTION EASEMENT – PARCEL J

Beginning on the CSX Part One easement eastbound southern existing right-of-way at a point located along and 80.26 feet distant along an arc from the end of the thirty-seventh (37th) or 297.58 feet along the arc of a left circular curve having a radius of 14,198.06 feet and a chord of North 44°45'30" West, 297.57 feet course of said CSX Part One easement conveyance recorded in Liber 10237 at folio 789 and being further described as located 5.10 feet left of baseline of right-of-way station 223+81.78 as shown on SHA Plat No. 61013; thence, with bearings and distances now referenced to the Maryland Coordinate System NAD83/1991 datum, running with said CSX Part One easement eastbound southern right-of-way along part of said thirty-seventh (37th) course and with part of the thirty-eighth (38th) course the following two courses:

1. 80.26 feet along the arc of a left circular curve having a radius of 14,198.06 feet and a chord of North 45°11'49" West, 80.26 feet; thence
2. 27.49 feet along the arc of a tangent left circular curve having a radius of 18,936.48 feet and a chord of North 45°24'02" West, 27.49 feet; thence leaving said CSX Part One easement

Attachment 1
CSX Quitclaim Deed, February 5, 2019

eastbound southern existing right-of-way and running through said CSX Part One easement with new lines the following three courses:

3. North 44°18'49" East, 2.81 feet; thence
4. South 45°41'11" East, 107.79 feet; thence
5. South 44°57'54" West, 3.63 feet to the point of beginning and:

Containing 340 square feet or 0.008 acres, more or less.

X. TEMPORARY CONSTRUCTION EASEMENT – PARCEL K

Beginning at the intersection of the eastern right-of-way line of Spring Street with the CSX Part One easement eastbound southern existing right-of-way at a point located along and 214.12 feet distant from the end of the thirty-ninth (39th) or North 45°39'40" West, 1,246.72 foot course of said CSX Part One easement conveyance recorded in Liber 10237 at folio 789 and being further described as located 26.08 feet left of baseline of right-of-way station 211+65.11 as shown on SHA Plat No. 61014; thence, with bearings and distances now referenced to the Maryland Coordinate System NAD83/1991 datum, running with said CSX Part One easement eastbound southern right-of-way along part of said thirty-ninth (39th) course:

1. North 45°39'26" West, 27.82 feet; thence leaving said CSX southern existing right-of-way and thirty-ninth (39th) course and running through said CSX Part One easement with new lines the following seven courses:
2. North 44°20'20" East, 7.24 feet; thence
3. North 44°54'02" West, 72.16 feet; thence
4. North 45°05'58" East, 3.53 feet; thence
5. South 45°00'42" East, 140.57 feet; thence
6. South 44°28'03" West, 3.88 feet; thence
7. South 44°34'36" East, 169.30 feet; thence
8. South 45°25'24" West, 3.05 feet to said CSX southern existing right-of-way at a point located along said thirty-ninth (39th) course; thence running with said CSX southern existing right-of-way and a part of said thirty-ninth (39th) course:
9. North 45°39'40" West, 209.83 feet to the point of beginning and:

Containing 1,767 square feet or 0.041 acres, more or less.

XI. TEMPORARY CONSTRUCTION EASEMENT – PARCEL L

Beginning on the CSX Part One easement westbound northern existing right-of-way at the end of the fifty-fourth (54th) course and on the CSX Part Three siding easement southern existing right-of-way at the beginning of the fifth (5th) or 687.08 feet on a right circular curve having a radius of 5747.67 feet and a chord of North 49°50'17" West, 687.08 feet course and being further described as located 141.86 feet left of baseline of right-of-way station 211+75.77 as shown on SHA Plat No. 61013; thence, with bearings and distances now referenced to the Maryland

Coordinate System NAD83/1991 datum, running reversely with part of said Part One easement fifty-fourth (54th) course and with part of said Part Three siding easement fifth (5th) course:

1. 95.15 feet along the arc of a left circular curve having a radius of 5,747.67 feet and a chord of North 46°53'16" West, 95.15 feet; thence leaving said CSX Part One easement northern existing right-of-way and said CSX Part Three siding easement existing right-of-way and running through said CSX Part Three siding easement with a new line:
2. North 49°38'49" East, 9.07 feet to the CSX Part Three siding easement northern existing right-of-way line at point located along the eleventh (11th) line thereof; thence running with said CSX Part Three siding easement northern existing right-of-way line along part of said eleventh (11th) course and with part of the twelfth (12th) course the following two courses:
3. 94.19 feet along the arc of a non-tangent right circular curve having a radius of 5,756.67 feet and a chord of South 46°52'57" East, 94.19 feet to a point of compound curvature; thence
4. 64.88 feet along the arc of a tangent right circular curve having a radius of 7,659.96 feet and a chord of South 46°10'16" East, 64.88 feet; thence leaving said CSX Part Three siding easement northern existing right-of-way and running through said CSX Part Three siding easement with a new line:
5. South 42°38'49" West, 9.00 feet to said CSX Part One easement westbound northern existing right-of-way at a point located on the fifty-fifth (55th) course thereof and the CSX Part Three siding easement southern existing right-of-way at a point located on the fourth (4th) course thereof; thence running with said Part One northern right-of-way reversely with part of said fifty-fifth (55th) course and with said Part Three southern right-of-way line along part of said fourth (4th) course:
6. 65.02 feet along the arc of a non-tangent left circular curve having a radius of 7,650.96 feet and a chord of North 46°10'13" West, 65.02 feet to the point of beginning and:

Containing 1,437 square feet or 0.033 acres, more or less.

XII. TEMPORARY CONSTRUCTION EASEMENT – PARCEL M

Attachment 1
CSX Quitclaim Deed, February 5, 2019

Beginning at the intersection of the Purple Line right-of-way with the eastern right of way line of Maryland Route 390, 16th Street, and the CSX Part One easement western existing right-of-way line at a point located along and 24.41 feet distant from the beginning of the forty-seventh (47th) or North 09°56'21" West, 121.32 foot course of part one of said conveyance to CSX recorded in Liber 10237 at folio 789 and being further described as located 29.81 feet left of baseline of right-of-way station 197+26.07 as shown on SHA Plat No. 59256; thence, with bearings and distances now referenced to the Maryland Coordinate System NAD83/1991 datum, running with said eastern right-of-way line of 16th Street and said CSX Part One easement western existing right-of-way along part of said forty-seventh (47th) course:

1. North 09°56'42" West, 16.20 feet; thence leaving said eastern right-of-way line of 16th Street and said CSX Part One easement forty-seventh (47th) course and running through said CSX Part One easement with new lines the following fourteen courses:
 2. South 55°26'56" East, 80.69 feet; thence
 3. South 54°16'29" East, 156.27 feet; thence
 4. North 87°55'19" East, 4.21 feet; thence
 5. South 03°43'52" East, 2.94 feet; thence
 6. South 54°53'42" East, 138.28 feet; thence
 7. South 53°56'27" East, 129.94 feet; thence
 8. South 72°39'29" East, 7.46 feet; thence
 9. South 53°34'26" East, 85.32 feet; thence
 10. South 29°32'00" East, 4.08 feet; thence
 11. South 54°02'16" East, 34.14 feet; thence
 12. South 53°02'28" East, 99.64 feet; thence
 13. South 51°43'27" East, 109.70 feet; thence
 14. South 50°05'23" East, 79.81 feet; thence
15. South 36°58'47" West, 5.04 feet to said CSX Part One easement southern existing right-of-way at a point located on the forty-first (41st) course thereof; thence running with said southern existing right-of-way along part of said forty-first (41st) course and with the forty-second (42nd) through forty-fourth (44th) courses and with part of the forty-fifth (45th) course the following five courses:
 16. 25.21 feet along the arc of a non-tangent left circular curve having a radius of 3,161.31 feet and a chord of North 50°24'51" West, 25.21 feet to point of compound curvature; thence

17. 248.89 feet along the arc of a tangent left circular curve having a radius of 4,221.08 feet and a chord of North 52°19'54" West, 248.86 feet; thence with a tangent line:
18. North 54°01'15" West, 436.40 feet; thence
19. 90.10 feet along the arc of a tangent left circular curve having a radius of 7,619.80 feet and a chord of North 54°21'35" West, 90.10 feet; thence with a non-tangent line:
20. North 70°49'14" West, 17.12 feet to intersect the Purple Line right-of-way; thence leaving said CSX Part One easement southern existing right-of-way and said forty-fifth (45th) course thereof and running through said CSX Part One easement with new lines the following two courses:
21. 91.46 feet along the arc of a non-tangent left circular curve having a radius of 1,763.75 feet and a chord of North 55°29'39" West, 91.45 feet; thence with a non-tangent line:
22. North 58°33'16" West, 9.52 feet to the point of beginning and:

Containing 6,817 square feet or 0.156 acres, more or less

SHA ITEM NO. 900043 - MTA ITEM NO. 01472

Being part of the exclusive perpetual easements for transportation purposes Part Three siding easement conveyed by Washington Metropolitan Area Transit Authority (WMATA) to CSX Transportation, Inc. (CSX) by deed dated July 30, 1991 and recorded among the land records of Montgomery County, Maryland in Liber 10237 at folio 789 located on property now incorporated into the Silver Spring Transit Center (SSTC) by plat entitled "Parcel A, Block 1, Silver Spring Metro Station, Glenmont Route" recorded among said land records as Plat No. 12175 and by plats recorded with the conveyance from Montgomery County, Maryland to WMATA by deed dated August 13, 2015 and recorded among said land records in Liber 50808 at folio 7 and being more particularly described as follows:

XIII. TEMPORARY CONSTRUCTION EASEMENT – PARCEL A

Beginning on the northern existing WMATA right-of-way line and the southwestern outline of a plat entitled "Parcel A, Block 1, Silver Spring Metro Station, Glenmont Route" recorded among said land records as Plat No. 12175 at a point located on and 24.43 feet northwest along an arc from the southwestern end of the 184.29 feet along the arc of a curve having a radius of 14,323.56 course shown as Curve No. 2 on said plat of Parcel A and being further described as located 8.56 feet right of baseline of right-of-way station 231+06.04 as shown on SHA Plat No. 61012; thence, with bearings and distances now referenced to the Maryland Coordinate System NAD83/1991 datum, running with said WMATA existing right-of-way and said southwestern outline of Parcel A of Plat No. 12175:

Attachment 1
CSX Quitclaim Deed, February 5, 2019

1. 57.36 feet along the arc of a right circular having a radius of 14,323.56 feet and a chord of North 43°13'02" West, 57.36; thence leaving said WMATA existing right-of-way and said southwestern outline of Parcel A of Plat No. 12175 and running through said CSX Part Three siding easement with a new line:
2. North 47°31'01" East, 2.75 feet to the CSX Part Three siding easement northern existing right-of-way at a point located on and 81.03 feet northwest along an arc from the end of the fifteenth (15th) or 800.34 feet along an the arc of a right circular curve having a radius 14,323.56 feet and a chord of South 43°45'33" East, 800.23 feet course of said CSX Part Three siding easement; thence running through said SSTC with said CSX Part Three northern existing right-of-way along part of said fifteenth (15th) course:
3. 57.37 feet along the arc of a non-tangent right circular curve having a radius of 14,323.56 feet and a chord of South 42°22'06" East, 57.37 feet; thence leaving said Part Three siding easement northern existing right-of-way and running through said Part Three siding easement with a new line:
4. South 47°57'39" West, 1.90 feet to the point of beginning and:

Containing 135 square feet or 0.003 acres, more or less

**XIV. TEMPORARY CONSTRUCTION EASEMENT FOR AERIAL MANEUVERING
– PARCEL B**

Beginning on the CSX Part Three siding easement northern existing right-of-way at a point located on and 23.43 feet southeast from the beginning of the eighteenth (18th) or South 44°28'57" East, 53.14 feet course of said CSX Part Three siding easement and being further described as located 6.99 feet right of baseline of right-of-way station 231+68.02 as shown on SHA Plat No. 61012; thence, with bearings and distances now referenced to the Maryland Coordinate System NAD83/1991 datum, running with said CSX Part Three siding easement northern existing right-of-way along part of said eighteenth (18th) course:

1. South 44°28'57" East, 29.71 feet to the beginning of the nineteenth (19th) or 781.12 feet along the arc of a right circular curve having a radius of 14,323.56 and a chord of South 40°19'27" East, 781.12 feet course of said CSX Part Three siding easement; thence continuing with said CSX Part Three siding easement northern existing right-of-way along part of said nineteenth (19th) course:
2. 17.90 feet along the arc of a non-tangent right circular curve having a radius of 14,323.56 feet and a chord of South 41°51'03" East, 17.90 feet to intersect the southwestern outline of SSTC; thence leaving said CSX Part Three siding easement northern existing right-of-way and running with said SSTC southwestern outline:
3. North 44°29'59" West, 47.63 feet; thence leaving said SSTC southwestern outline and running through said CSX Part Three siding easement with a new line:

Attachment 1
CSX Quitclaim Deed, February 5, 2019

4. North 47°57'39" East, 0.84 feet to the point of beginning and:

Containing 32 square feet or 0.001 acres, more or less

**TEMPORARY CONSTRUCTION EASEMENT AREAS I THROUGH XIV
COLLECTIVELY TOTAL 93,958.92 SQUARE FEET OR 2.157 ACRES MORE OR
LESS**



Attachment 2
MDE Approved Work Plan
PURPLE LINE – PARCEL 138 SOIL INVESTIGATION
SHALLOW SOIL SAMPLING
WORK PLAN FY 2019 (v0)

Page 1 of 1
Prepared by: Tyler Lane
Date: 8/1/19
Checked by: S Kolarz
Date: 8/20/19

Location: Talbot and Michigan Avenues, Silver Spring, Maryland

Work Hours: Monday-Friday, 9 a.m. – 4:00 p.m., or as required

Objectives:

1. Soil sampling at Parcel 138 to identify potential COCs in shallow surface (0-1 feet bgs).
2. Characterization of potential COC extents for mitigation or clearance of the site to remove existing deed restrictions for use as a bike path and park.

Equipment:

- PPE/1st Aid Kit
- Sample containers
- Photoionization Detector (PID)
- Sampling decon equipment
- Spill kit
- Ice
- Plastic zip-lock bags
- Camera

Documents:

- HASP
- Parcel 138 Analytical Plan
- Boring/Field/Daily Logs
- Parcel 138 Work Plan
- Parcel 138 Map
- MTA Public Relations Letter

Notifications:

1. MDE (Richelle Hanson 410 537-3493).
2. Site Access: David Fertal david.fertal@purplelinemd.com
3. MTA (Steve Kolarz 410 462-9175).

Permits:

- None.

Pre-Work Tasks:

1. Review and sign-off on site specific Health and Safety plan.
2. Hold tool box talk with all drilling personnel and review site specific health and safety considerations and permitting.
3. Calibrate Photoionization Detector (PID) using fresh or zero air and standard calibration gas and record results in the field notes.
4. Contact MTA Manager to discuss means for minimizing the disturbance of onsite operations.

Personnel assignments:

- Inspection: T. Chadeayne 410 245-2966.
- Environmental Lead: T. Lane 410 462-9191.
- Safety Manager: S. Young 484 322-27100.
- MTA Manager: K. Oberheim/D. Fertal
- Laboratory Manager: C Koons 410 247-7600.
- Project Manager: S. Kolarz 410 462-9175.

Hand Augering:

1. Consult Parcel 138 Map to identify proposed sampling locations and allow for modest adjustments according to field conditions or utilities.
2. Set up exclusion zone around work area using field vehicles, cones and flags, as needed to prevent pedestrians or vehicles from entering the work zone.
3. Log subsurface lithology, sample location, depth and other pertinent information in field notes.

Soil Sample Collection:

1. Cuttings from each boring location will be screened with a Photoionization Detector (PID) by the onsite inspector:
 - a. Half fill a zip-lock bag with soil and seal.
 - b. Lightly break the soil apart inside the bag and bring soil to ~68 °F, potentially in field vehicle on cold days and avoid direct sunlight to prevent condensation inside the bag.
 - c. If free-product is present, identified as non-aqueous phase petroleum liquid pooling within the sample bag, take photo and immediately contact Environmental Lead for 2-hour MDE notification at 866-633-4686 (24 hour) or 410-974-3551.

- d. After approximately 5 minutes shake the bag and insert the PID probe into the headspace of the bag.
 - e. Photograph and record the depth and PID reading in the field notes.
 - f. Dispose of PID screening soil with boring cuttings.
2. Collect soil samples directly from auger and fill the laboratory-provided containers using material from the hand auger to provide a sample from 0-1 ft. bgs.
 3. Collect QA/QC field duplicate and rinsate blank, as required by the Parcel138 Analytical Plan.
 4. Label each sample container and place in sample shipment container/cooler.
 5. Decontaminate all sampling and monitoring equipment prior to moving to the next sampling location.
 - a. For standard decontamination: triple rinse the sampling and monitoring equipment with an inert cleaner, such as Liquinox, and deionized water at the sampling location.
 6. Record sample ID and requested analyses on Chain of Custody and in Field Notes.

Site Restoration:

1. Seal all hand auger holes with backfill/to the surface, unless signs of gross contamination require drumming and label 'pending analysis'.
2. Restore surface to avoid tripping hazards.
3. Clean and restore site to pre-investigation conditions.
4. Ensure any drums or containers left onsite are properly labeled with information on originating source, potential hazard and 'pending analysis'.
5. Complete field and daily logs recording time onsite for all onsite personnel.

Sample Shipment:

1. Soil samples will be analyzed on standard turnaround time.
2. Prepare the laboratory provided chain of custody and select appropriate laboratory analysis in accordance with the Parcel 138 Analytical Plan.
3. Place COC laboratory copy, temperature blank inside the sample container and apply custody seal for shipment.
4. Deliver sample container within 24 hours to MD Spectral 1500 Caton Center Drive, Suite G, Baltimore, MD 21227.

References:

- MDE. (2003). *MDE Maryland Environmental Assessment Technology for Leaking Underground Storage Tanks, Revised*. Maryland Department of the Environment.
- MDE. (2018). *Cleanup Standards for Soil and Groundwater – Interim Final Guidance (Update No. 3)*. Baltimore, MD, October 2018: Maryland Department of the Environment.
- RK&K. (2014). *Field Investigation Manual*. Baltimore, MD: RK&K Engineering.

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Purple Line Parcel 138
Talbot Michigan Avenue Samples
Analytical Sampling Plan (v0)



Field Soil

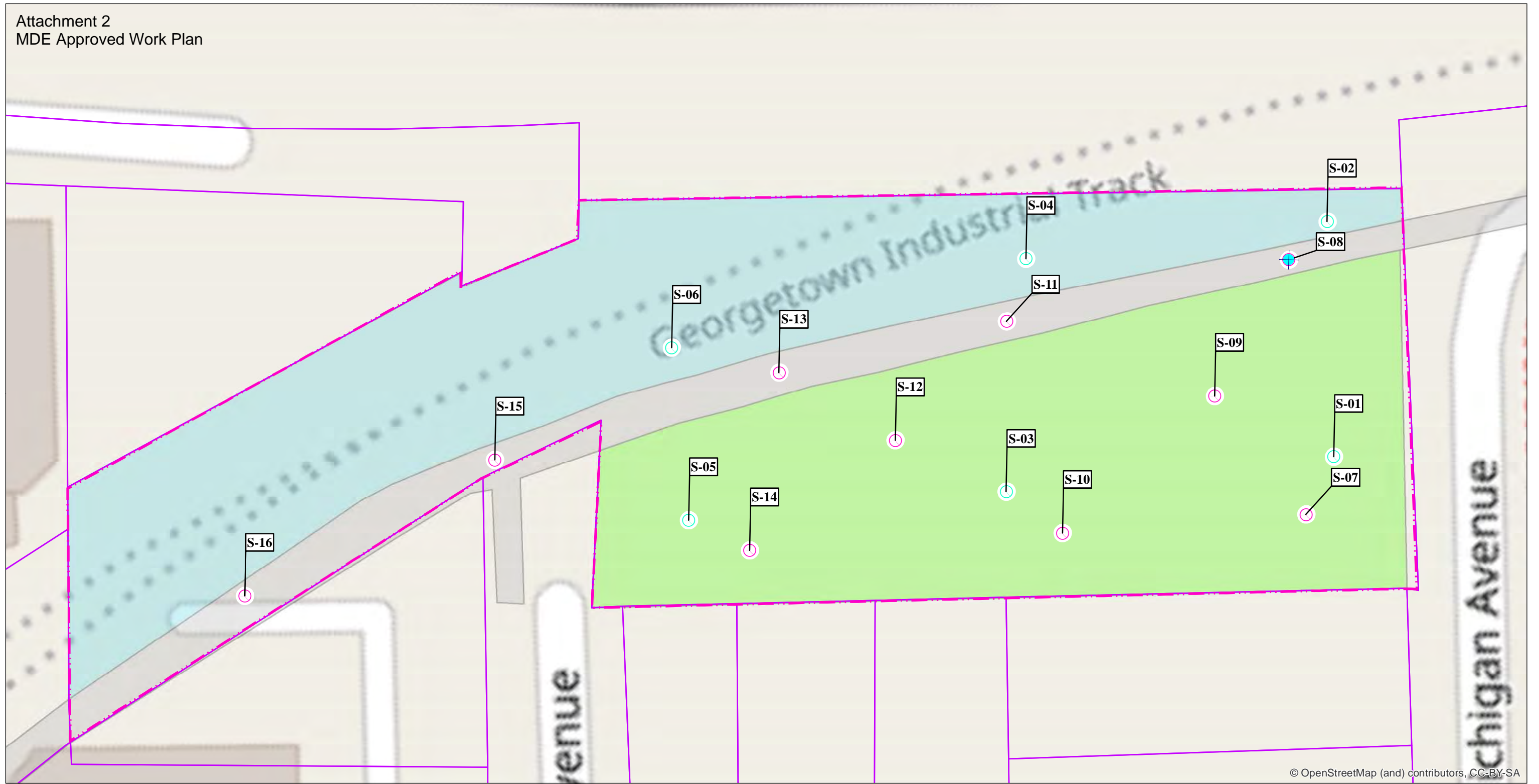
Parameter	Boring Depth	Sample Depth	pH	Temp	Depth	PID Screen	DRO	PPL Metals	PAHs	Rationale	
							8015M	6010	8270D		
Detection Limit											
Figure	Boring ID	ft	ft	-	°C	ft	ppm	mg/kg	mg/kg		mg/kg
1	SB-07	1	0-1					X	X	X	Proposed park
1	SB-08	1	0-1					X	X	X	Proposed bike path
1	SB-09	1	0-1					X	X	X	Proposed park
1	SB-10	1	0-1					X	X	X	Proposed park
1	SB-11	1	0-1					X	X	X	Proposed bike path
1	SB-12	1	0-1					X	X	X	Proposed park
1	SB-13	1	0-1					X	X	X	Proposed bike path
1	SB-14	1	0-1					X	X	X	Proposed bike path
1	SB-15	1	0-1					X	X	X	Proposed bike path
1	SB-16	1	0-1					X	X	X	Proposed bike path
		n/a	n/a						QC		QA/QC Field Duplicate
		n/a	n/a	n/a	n/a	n/a	n/a		QC		QA/QC Rinsate Blank (1/event)

Total sampling locations	# Screening	0	10	10	10
Sampling completed	# Sampled	0	0	0	0
No sampling	# Cancelled	0	0	0	0
Remaining locations	# QA	0	0	2	0
% complete	# Remaining	0	10	12	10

- NOTES:**
- Collect all samples 0-1 feet below ground surface.
 - All sampling locations are approximated based on historical data. Please contact Tyler Lane at 410 462-9191 if field conditions require significant adjustment of boring locations.

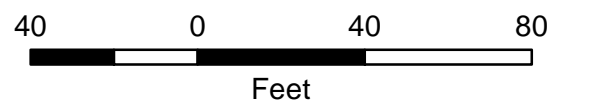
X: Collect sample
 XX: Sample requested but boring cancelled
 C: Sample collected
 QC: Quality sample collected
 H: Hold unless PID >10 ppm

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LEGEND:

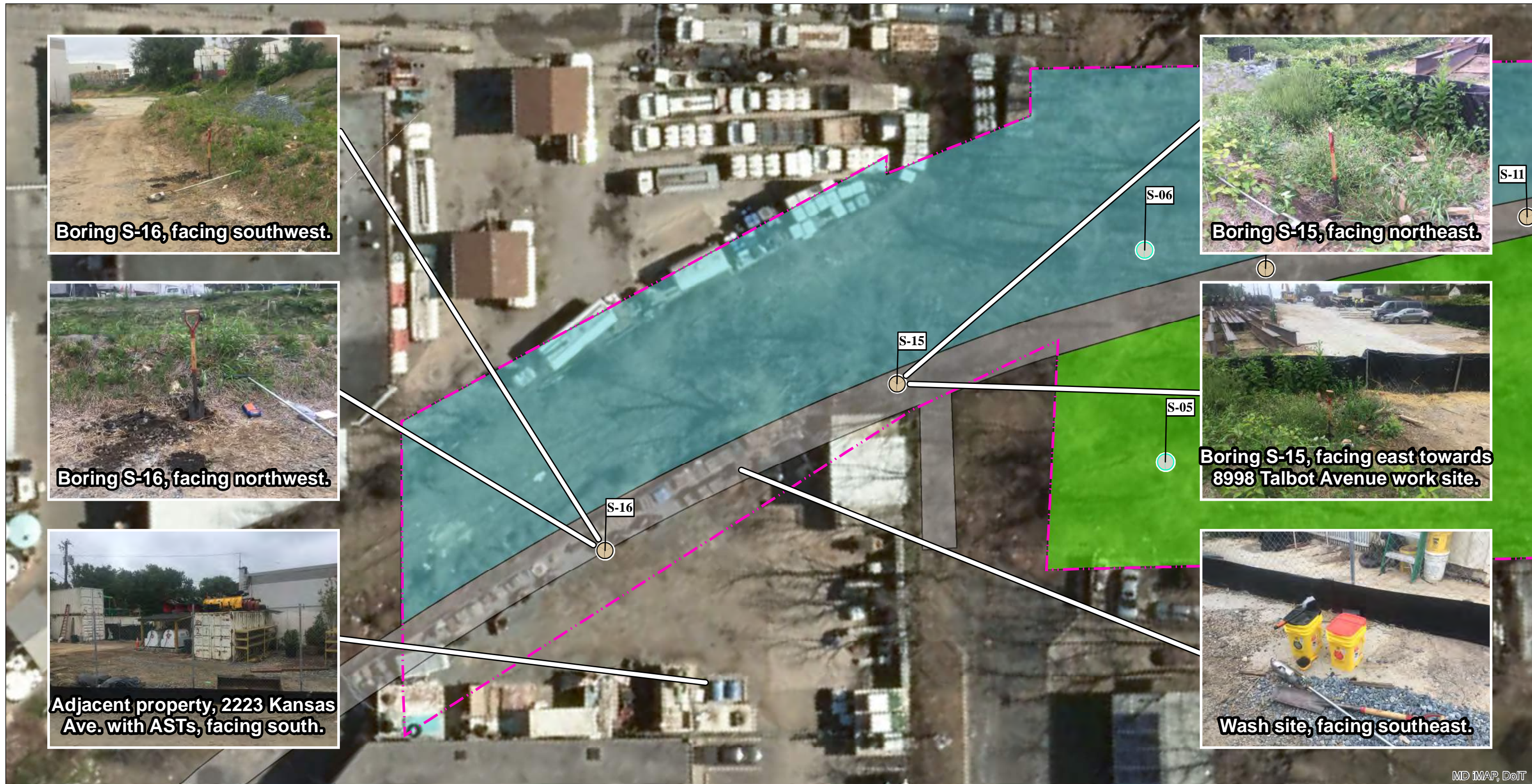
- Parcel 138
- Parcels
- CEM Soil Samples
- Proposed Soil Samples
- Proposed Bike Path
- Proposed Park
- Proposed Transitway



PURPLE LINE SITE 138
TALBOT AVENUE, SILVER SPRING, MD

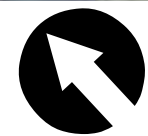
Map Title:
Figure 1 - Sheet 1:
Site Map & Proposed Boring Locations

Data Source: CEM, Site Inspection	Date: August 2019
	Scale: 1" = 46'



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- LEGEND:**
- RK&K Soil Samples, August 2019
 - CEM Soil Samples, April 2019
 - Parcel 138
 - Proposed Bike Path
 - Proposed Transitway
 - Potential Future Park

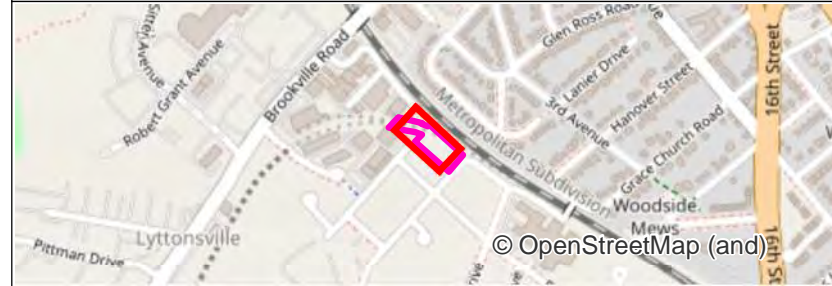
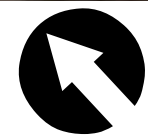


PURPLE LINE SITE 138 TALBOT AVENUE, SILVER SPRING, MD	
Map Title: Attachment 3 - Sheet 1: Site Photographs	
Data Source: CEM, Site Inspection	Date: September 2019
Scale: 1" = 38'	



MD IMAP, DoIT

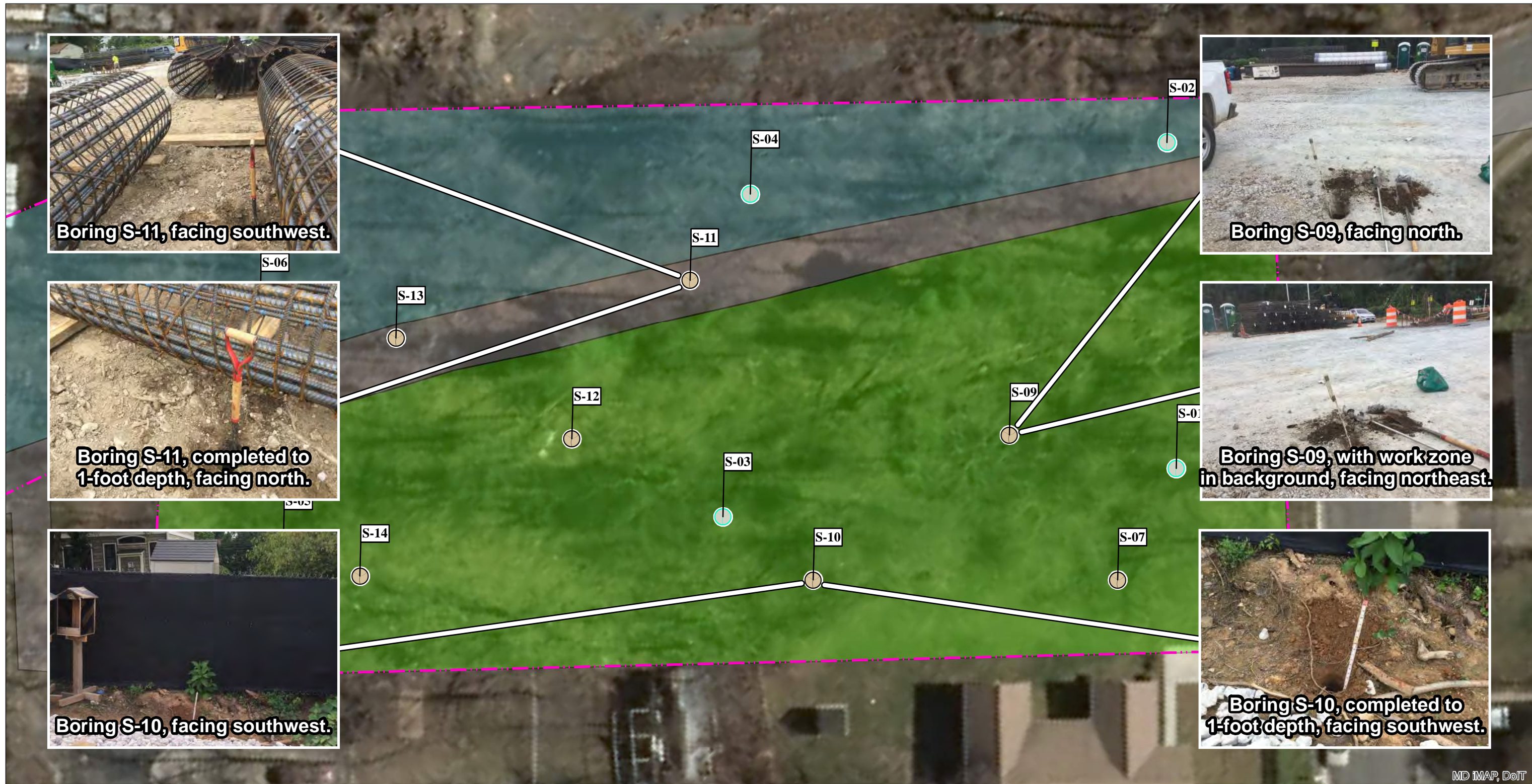
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- LEGEND:**
- RK&K Soil Samples, August 2019
 - CEM Soil Samples, April 2019
 - Parcel 138
 - Proposed Bike Path
 - Proposed Transitway
 - Potential Future Park

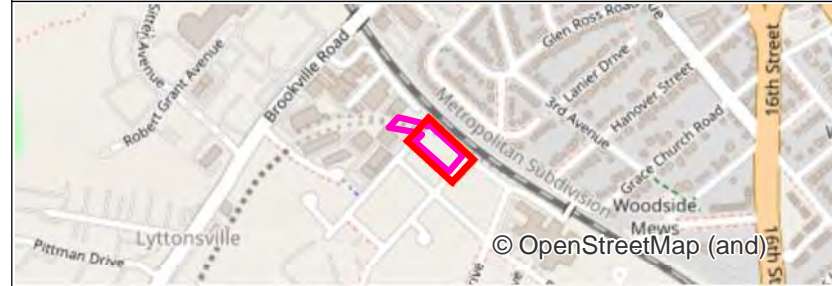


<p>PURPLE LINE SITE 138 TALBOT AVENUE, SILVER SPRING, MD</p>	
<p>Map Title: Attachment 3 - Sheet 2: Site Photographs</p>	
<p>Data Source: CEM, Site Inspection</p>	<p>Date: September 2019</p>
<p>Scale: 1" = 33'</p>	



MD IMAP, DoIT

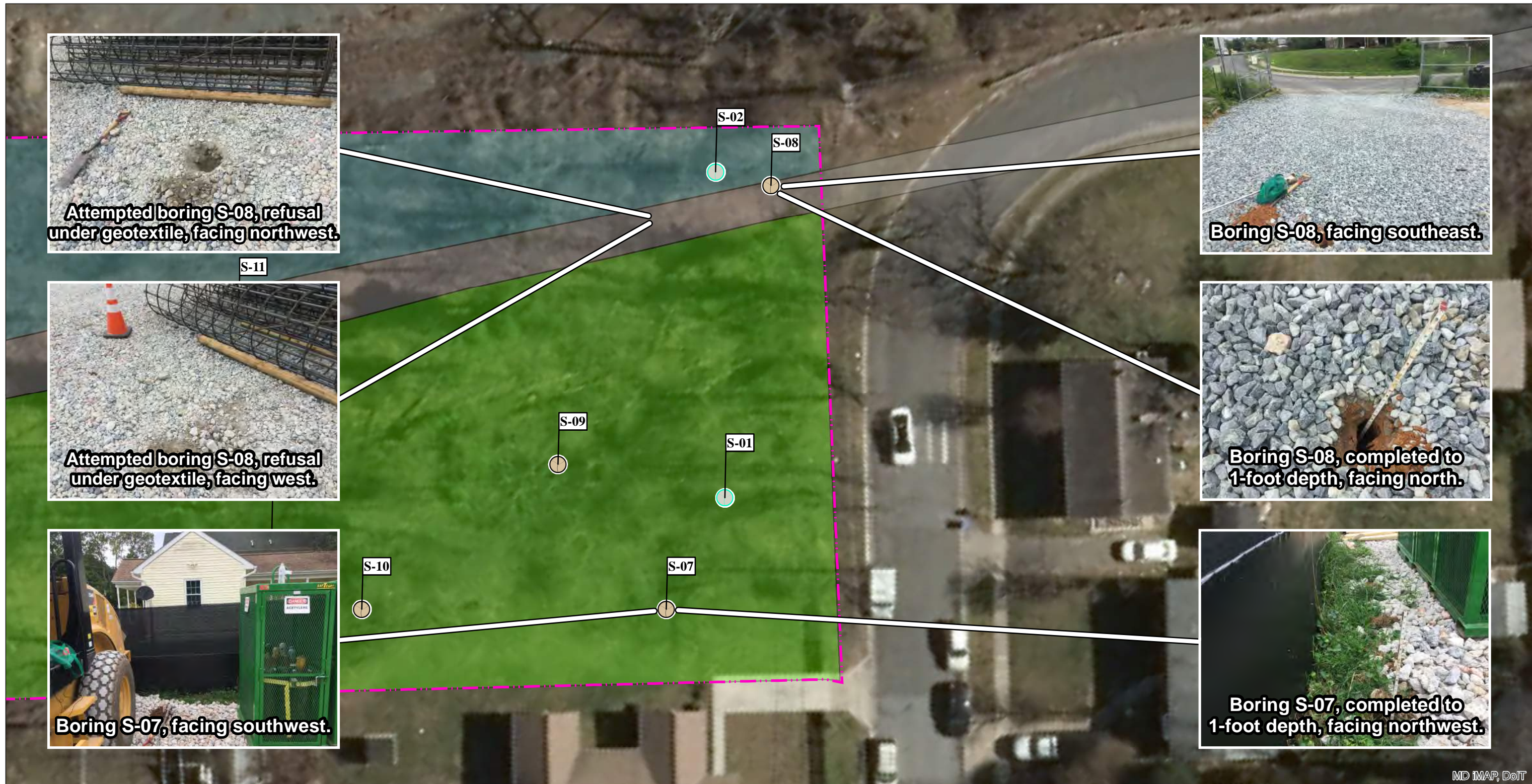
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- LEGEND:**
- RK&K Soil Samples, August 2019
 - CEM Soil Samples, April 2019
 - Parcel 138
 - Proposed Bike Path
 - Proposed Transitway
 - Potential Future Park

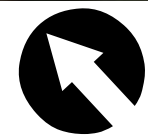


<p>PURPLE LINE SITE 138 TALBOT AVENUE, SILVER SPRING, MD</p>	
<p>Map Title: Attachment 3 - Sheet 3: Site Photographs</p>	
<p>Data Source: CEM, Site Inspection</p>	<p>Date: September 2019</p>
<p>Scale: 1" = 33'</p>	




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- LEGEND:**
- RK&K Soil Samples, August 2019
 - CEM Soil Samples, April 2019
 - Parcel 138
 - Proposed Bike Path
 - Proposed Transitway
 - Potential Future Park



PURPLE LINE SITE 138
TALBOT AVENUE, SILVER SPRING, MD

Map Title:
Attachment 3 - Sheet 4:
Site Photographs

Data Source:
CEM, Site Inspection

Date: September 2019

Scale: 1" = 33'

8-28 - Purple line - Talbot

0845 - arrive onsite, meeting
with Mike Gales

0900 - driving to site
discussion of site conditions

0910 - PID calibration

[0925 - begin 5-16
gravel, compacted, cover
geomembrane at 6"

very dark brown "grey GRAVEL
little sand and clay, sl moist

1000 - sampled 0-1' 15.2 ppm

1005 - back fill + clean up augers + spade

1015 - begin 5-15, 0-1'
brown GRAVEL and f-c sand,
little silt, slightly moist
geomembrane not encountered

1025 - sampled 0-1' for 19.5 ppm
5-15 and Duplicate

1030 - back fill + clean up

1035 - begin 5-13
orange CLAY, slightly moist, little
dark staining, no odor
geomembrane not encountered

1050 - sample 0-1' 0.9 ppm

- backfilling and cleaning up
- 1105- begin S-14
dark brown SAND and gravel,
little silt, debris, slightly moist
- 1110- taking sample 0-1' 0.5 ppm
- 1120- backfill and clean up
- 1130- begin S-12
0-0.5 ft - cobble cover
0.5-1.5 ft - very dark brown
SAND, some gravel, little clay,
dry, woody debris
- 1155- sample 0.5-1.5' 5.3 ppm
- 1200- safety meeting, clean up
- 1215- rinseate blank
- 1230- begin S-11
- 1238- offset due to refusal
- 1255- sample taken 0-1'
brown SAND, little clay & gravel
minor roots, dry. 6.6 ppm
back fill & clean up
- 1300- begin S-09, offset south
to avoid construction vehicle area
cobble ~~0-0.5~~ 0-0.5
dark brown SAND, some silt/clay-
clay, trace gravel, dry
- 1315- sample taken 0.5-1.5' 1.8 ppm

- 1320 backfill + clean up
1335 - begin S-08
cobbles ~~0.5~~ 0-0.5 ft
1405 - more cobbles under geomembrane
unable to continue
offsetting along bike path
to southeast, loose cobble
1410 - begin new S-08
cobble 0-0.5', membrane
orange CLAY, silty, very dry
1420 - sample 0.5-1.5' 8.5 ppm
1430 - backfill both S-08 and old S-06
clean up
1440 - begin S-07, at property
boundary, next to silt fence,
no stones
brown clayey SILT, some sand
(nice loam); slightly moist
1450 - sample 0-1.0' 5.2 ppm
1455 - backfill + clean up
1505 - begin S-10, at property line, no stones
brown silty CLAY, some sand, slightly moist
1510 - sample 0-1.0' 5.9 ppm
1515 - cleaning up
1525 - off-site, calling Mike

10 September 2019

Report revised. Original report ID 9082820 09 06 19 1128.

Tyler Lane
RK&K Engineers
700 East Pratt ST, STE 500
Baltimore, MD 21202
RE: PURPLE LINE-TALBOT

Enclosed are the results of analyses for samples received by the laboratory on 08/28/19 17:52.

Please visit our website at www.mdspectral.com for a complete listing of our accreditations.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Rabecka Koons
Quality Assurance Officer

1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
MD DW LabID 153

Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

Report revised. Original report ID 9082820 09 06 19 1128.
Reported:
09/10/19 15:28

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-07		9082820-01	Soil	08/28/19 14:50	08/28/19 17:52
SB-08		9082820-02	Soil	08/28/19 14:20	08/28/19 17:52
SB-09		9082820-03	Soil	08/28/19 13:15	08/28/19 17:52
SB-10		9082820-04	Soil	08/28/19 15:10	08/28/19 17:52
SB-11		9082820-05	Soil	08/28/19 12:55	08/28/19 17:52
SB-12		9082820-06	Soil	08/28/19 11:55	08/28/19 17:52
SB-13		9082820-07	Soil	08/28/19 10:50	08/28/19 17:52
SB-14		9082820-08	Soil	08/28/19 11:10	08/28/19 17:52
SB-15		9082820-09	Soil	08/28/19 10:25	08/28/19 17:52
SB-16		9082820-10	Soil	08/28/19 10:00	08/28/19 17:52
DUP		9082820-11	Soil	08/28/19 00:00	08/28/19 17:52
RINSATE BLANK		9082820-12	Nonpotable Water	08/28/19 12:15	08/28/19 17:52



Rabecka Koons, Quality Assurance Officer

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Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

Report revised. Original report ID 9082820 09 06 19 1128.
Reported:

09/10/19 15:28

SB-07

9082820-01 (Soil)
Sample Date: 08/28/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D (GC/MS)									
Acenaphthene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 14:46	WB
Acenaphthylene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 14:46	WB
Anthracene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 14:46	WB
Benzo[a]anthracene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 14:46	WB
Benzo[b]fluoranthene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 14:46	WB
Benzo[k]fluoranthene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 14:46	WB
Benzo[ghi]perylene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 14:46	WB
Benzo[a]pyrene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 14:46	WB
Chrysene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 14:46	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 14:46	WB
Fluoranthene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 14:46	WB
Fluorene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 14:46	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 14:46	WB
2-Methylnaphthalene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 14:46	WB
Naphthalene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 14:46	WB
Phenanthrene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 14:46	WB
Pyrene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 14:46	WB
Surrogate: 2-Fluorophenol			23-121	45 %	08/29/19		08/30/19 14:46		
Surrogate: Phenol-d5			24-113	48 %	08/29/19		08/30/19 14:46		
Surrogate: Nitrobenzene-d5			23-120	53 %	08/29/19		08/30/19 14:46		
Surrogate: 2,4,6-Tribromophenol			19-122	66 %	08/29/19		08/30/19 14:46		
Surrogate: 2-Fluorobiphenyl			30-115	48 %	08/29/19		08/30/19 14:46		
Surrogate: Terphenyl-d14			18-137	88 %	08/29/19		08/30/19 14:46		
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D-SIM (GC/MS)									
Acenaphthene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 10:53	WB
Acenaphthylene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 10:53	WB
Anthracene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 10:53	WB
Benzo[a]anthracene	12.2		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 10:53	WB
Benzo[b]fluoranthene	17.8		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 10:53	WB
Benzo[k]fluoranthene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 10:53	WB
Benzo[ghi]perylene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 10:53	WB
Benzo[a]pyrene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 10:53	WB
Chrysene	14.5		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 10:53	WB



Rabecka Koons, Quality Assurance Officer

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Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

Report revised. Original report ID 9082820 09 06 19 1128.
Reported:
09/10/19 15:28

SB-07

9082820-01 (Soil)
Sample Date: 08/28/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D-SIM (GC/MS) (continued)									
Dibenzo[a,h]anthracene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 10:53	WB
Fluoranthene	19.9		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 10:53	WB
Fluorene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 10:53	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 10:53	WB
Naphthalene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 10:53	WB
Phenanthrene	16.1		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 10:53	WB
Pyrene	16.9		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 10:53	WB
Surrogate: Nitrobenzene-d5		23-120		70 %	09/09/19		09/10/19 10:53		
Surrogate: 2-Fluorobiphenyl		30-115		61 %	09/09/19		09/10/19 10:53		
Surrogate: Terphenyl-d14		18-137		68 %	09/09/19		09/10/19 10:53		
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	ND		mg/kg dry	9.5	9.5	1	08/29/19	08/30/19 22:41	SJA
Surrogate: o-Terphenyl		70-130		73 %	08/29/19		08/30/19 22:41		
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	84		%			1	09/05/19	09/06/19 11:04	RH
TOTAL METALS ANALYSIS BY EPA 3050B/6020A									
Antimony	ND		mg/kg dry	0.298	0.298	1	08/29/19	08/30/19 14:30	VVD
Arsenic	4.55		mg/kg dry	0.298	0.298	1	08/29/19	08/30/19 14:30	VVD
Beryllium	1.16		mg/kg dry	0.298	0.298	1	08/29/19	08/30/19 14:30	VVD
Cadmium	ND		mg/kg dry	0.298	0.298	1	08/29/19	08/30/19 14:30	VVD
Chromium	24.6		mg/kg dry	0.298	0.298	1	08/29/19	08/30/19 14:30	VVD
Copper	30.4		mg/kg dry	0.298	0.298	1	08/29/19	08/30/19 14:30	VVD
Lead	78.3		mg/kg dry	0.298	0.298	1	08/29/19	08/30/19 14:30	VVD
Mercury	0.0696		mg/kg dry	0.0149	0.0149	1	08/29/19	08/30/19 14:30	VVD
Nickel	20.6		mg/kg dry	0.298	0.298	1	08/29/19	08/30/19 14:30	VVD
Selenium	2.26		mg/kg dry	0.298	0.298	1	08/29/19	08/30/19 14:30	VVD
Silver	ND		mg/kg dry	0.298	0.298	1	08/29/19	08/30/19 14:30	VVD
Thallium	ND		mg/kg dry	0.298	0.298	1	08/29/19	08/30/19 14:30	VVD
Zinc	85.0		mg/kg dry	1.49	1.49	1	08/29/19	08/30/19 14:30	VVD



Rabecka Koons, Quality Assurance Officer

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Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

Report revised. Original report ID 9082820 09 06 19 1128.
Reported:
09/10/19 15:28

SB-08

9082820-02 (Soil)
Sample Date: 08/28/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D (GC/MS)									
Acenaphthene	ND		ug/kg dry	281	112	1	08/29/19	08/30/19 15:09	WB
Acenaphthylene	ND		ug/kg dry	281	112	1	08/29/19	08/30/19 15:09	WB
Anthracene	ND		ug/kg dry	281	112	1	08/29/19	08/30/19 15:09	WB
Benzo[a]anthracene	ND		ug/kg dry	281	112	1	08/29/19	08/30/19 15:09	WB
Benzo[b]fluoranthene	ND		ug/kg dry	281	112	1	08/29/19	08/30/19 15:09	WB
Benzo[k]fluoranthene	ND		ug/kg dry	281	112	1	08/29/19	08/30/19 15:09	WB
Benzo[ghi]perylene	ND		ug/kg dry	281	112	1	08/29/19	08/30/19 15:09	WB
Benzo[a]pyrene	ND		ug/kg dry	281	112	1	08/29/19	08/30/19 15:09	WB
Chrysene	ND		ug/kg dry	281	112	1	08/29/19	08/30/19 15:09	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	281	112	1	08/29/19	08/30/19 15:09	WB
Fluoranthene	ND		ug/kg dry	281	112	1	08/29/19	08/30/19 15:09	WB
Fluorene	ND		ug/kg dry	281	112	1	08/29/19	08/30/19 15:09	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	281	112	1	08/29/19	08/30/19 15:09	WB
2-Methylnaphthalene	ND		ug/kg dry	281	112	1	08/29/19	08/30/19 15:09	WB
Naphthalene	ND		ug/kg dry	281	112	1	08/29/19	08/30/19 15:09	WB
Phenanthrene	ND		ug/kg dry	281	112	1	08/29/19	08/30/19 15:09	WB
Pyrene	ND		ug/kg dry	281	112	1	08/29/19	08/30/19 15:09	WB
Surrogate: 2-Fluorophenol			23-121	54 %	08/29/19		08/30/19 15:09		
Surrogate: Phenol-d5			24-113	58 %	08/29/19		08/30/19 15:09		
Surrogate: Nitrobenzene-d5			23-120	62 %	08/29/19		08/30/19 15:09		
Surrogate: 2,4,6-Tribromophenol			19-122	59 %	08/29/19		08/30/19 15:09		
Surrogate: 2-Fluorobiphenyl			30-115	58 %	08/29/19		08/30/19 15:09		
Surrogate: Terphenyl-d14			18-137	88 %	08/29/19		08/30/19 15:09		
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D-SIM (GC/MS)									
Acenaphthene	ND		ug/kg dry	11.2	11.2	1	09/09/19	09/10/19 11:16	WB
Acenaphthylene	ND		ug/kg dry	11.2	11.2	1	09/09/19	09/10/19 11:16	WB
Anthracene	ND		ug/kg dry	11.2	11.2	1	09/09/19	09/10/19 11:16	WB
Benzo[a]anthracene	ND		ug/kg dry	11.2	11.2	1	09/09/19	09/10/19 11:16	WB
Benzo[b]fluoranthene	ND		ug/kg dry	11.2	11.2	1	09/09/19	09/10/19 11:16	WB
Benzo[k]fluoranthene	ND		ug/kg dry	11.2	11.2	1	09/09/19	09/10/19 11:16	WB
Benzo[ghi]perylene	ND		ug/kg dry	11.2	11.2	1	09/09/19	09/10/19 11:16	WB
Benzo[a]pyrene	ND		ug/kg dry	11.2	11.2	1	09/09/19	09/10/19 11:16	WB



Rabecka Koons, Quality Assurance Officer

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Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

Report revised. Original report ID 9082820 09 06 19 1128.
Reported:
09/10/19 15:28

SB-08

9082820-02 (Soil)
Sample Date: 08/28/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D-SIM (GC/MS) (continued)									
Chrysene	ND		ug/kg dry	11.2	11.2	1	09/09/19	09/10/19 11:16	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	11.2	11.2	1	09/09/19	09/10/19 11:16	WB
Fluoranthene	ND		ug/kg dry	11.2	11.2	1	09/09/19	09/10/19 11:16	WB
Fluorene	ND		ug/kg dry	11.2	11.2	1	09/09/19	09/10/19 11:16	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	11.2	11.2	1	09/09/19	09/10/19 11:16	WB
Naphthalene	ND		ug/kg dry	11.2	11.2	1	09/09/19	09/10/19 11:16	WB
Phenanthrene	ND		ug/kg dry	11.2	11.2	1	09/09/19	09/10/19 11:16	WB
Pyrene	ND		ug/kg dry	11.2	11.2	1	09/09/19	09/10/19 11:16	WB
<i>Surrogate: Nitrobenzene-d5</i>			23-120	62 %	09/09/19		09/10/19 11:16		
<i>Surrogate: 2-Fluorobiphenyl</i>			30-115	59 %	09/09/19		09/10/19 11:16		
<i>Surrogate: Terphenyl-d14</i>			18-137	72 %	09/09/19		09/10/19 11:16		
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	ND		mg/kg dry	9.0	9.0	1	08/29/19	08/30/19 23:07	SJA
<i>Surrogate: o-Terphenyl</i>			70-130	93 %	08/29/19		08/30/19 23:07		
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	89		%			1	09/05/19	09/06/19 11:04	RH
TOTAL METALS ANALYSIS BY EPA 3050B/6020A									
Antimony	ND		mg/kg dry	0.281	0.281	1	08/29/19	08/30/19 14:32	VVD
Arsenic	3.18		mg/kg dry	0.281	0.281	1	08/29/19	08/30/19 14:32	VVD
Beryllium	1.56		mg/kg dry	0.281	0.281	1	08/29/19	08/30/19 14:32	VVD
Cadmium	ND		mg/kg dry	0.281	0.281	1	08/29/19	08/30/19 14:32	VVD
Chromium	30.1		mg/kg dry	0.281	0.281	1	08/29/19	08/30/19 14:32	VVD
Copper	40.0		mg/kg dry	0.281	0.281	1	08/29/19	08/30/19 14:32	VVD
Lead	14.7		mg/kg dry	0.281	0.281	1	08/29/19	08/30/19 14:32	VVD
Mercury	0.0215		mg/kg dry	0.0140	0.0140	1	08/29/19	08/30/19 14:32	VVD
Nickel	21.0		mg/kg dry	0.281	0.281	1	08/29/19	08/30/19 14:32	VVD
Selenium	3.08		mg/kg dry	0.281	0.281	1	08/29/19	08/30/19 14:32	VVD
Silver	ND		mg/kg dry	0.281	0.281	1	08/29/19	08/30/19 14:32	VVD
Thallium	ND		mg/kg dry	0.281	0.281	1	08/29/19	08/30/19 14:32	VVD
Zinc	45.4		mg/kg dry	1.40	1.40	1	08/29/19	08/30/19 14:32	VVD



Rabecka Koons, Quality Assurance Officer

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Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

Report revised. Original report ID 9082820 09 06 19 1128.
Reported:
09/10/19 15:28

SB-09

9082820-03 (Soil)
Sample Date: 08/28/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D (GC/MS)									
Acenaphthene	ND		ug/kg dry	301	120	1	08/29/19	08/30/19 15:31	WB
Acenaphthylene	ND		ug/kg dry	301	120	1	08/29/19	08/30/19 15:31	WB
Anthracene	ND		ug/kg dry	301	120	1	08/29/19	08/30/19 15:31	WB
Benzo[a]anthracene	ND		ug/kg dry	301	120	1	08/29/19	08/30/19 15:31	WB
Benzo[b]fluoranthene	ND		ug/kg dry	301	120	1	08/29/19	08/30/19 15:31	WB
Benzo[k]fluoranthene	ND		ug/kg dry	301	120	1	08/29/19	08/30/19 15:31	WB
Benzo[ghi]perylene	ND		ug/kg dry	301	120	1	08/29/19	08/30/19 15:31	WB
Benzo[a]pyrene	ND		ug/kg dry	301	120	1	08/29/19	08/30/19 15:31	WB
Chrysene	ND		ug/kg dry	301	120	1	08/29/19	08/30/19 15:31	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	301	120	1	08/29/19	08/30/19 15:31	WB
Fluoranthene	ND		ug/kg dry	301	120	1	08/29/19	08/30/19 15:31	WB
Fluorene	ND		ug/kg dry	301	120	1	08/29/19	08/30/19 15:31	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	301	120	1	08/29/19	08/30/19 15:31	WB
2-Methylnaphthalene	ND		ug/kg dry	301	120	1	08/29/19	08/30/19 15:31	WB
Naphthalene	ND		ug/kg dry	301	120	1	08/29/19	08/30/19 15:31	WB
Phenanthrene	ND		ug/kg dry	301	120	1	08/29/19	08/30/19 15:31	WB
Pyrene	ND		ug/kg dry	301	120	1	08/29/19	08/30/19 15:31	WB
Surrogate: 2-Fluorophenol			23-121	63 %	08/29/19		08/30/19 15:31		
Surrogate: Phenol-d5			24-113	68 %	08/29/19		08/30/19 15:31		
Surrogate: Nitrobenzene-d5			23-120	72 %	08/29/19		08/30/19 15:31		
Surrogate: 2,4,6-Tribromophenol			19-122	80 %	08/29/19		08/30/19 15:31		
Surrogate: 2-Fluorobiphenyl			30-115	68 %	08/29/19		08/30/19 15:31		
Surrogate: Terphenyl-d14			18-137	88 %	08/29/19		08/30/19 15:31		
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D-SIM (GC/MS)									
Acenaphthene	ND		ug/kg dry	12.0	12.0	1	09/09/19	09/10/19 11:39	WB
Acenaphthylene	ND		ug/kg dry	12.0	12.0	1	09/09/19	09/10/19 11:39	WB
Anthracene	ND		ug/kg dry	12.0	12.0	1	09/09/19	09/10/19 11:39	WB
Benzo[a]anthracene	ND		ug/kg dry	12.0	12.0	1	09/09/19	09/10/19 11:39	WB
Benzo[b]fluoranthene	16.8		ug/kg dry	12.0	12.0	1	09/09/19	09/10/19 11:39	WB
Benzo[k]fluoranthene	ND		ug/kg dry	12.0	12.0	1	09/09/19	09/10/19 11:39	WB
Benzo[ghi]perylene	ND		ug/kg dry	12.0	12.0	1	09/09/19	09/10/19 11:39	WB
Benzo[a]pyrene	ND		ug/kg dry	12.0	12.0	1	09/09/19	09/10/19 11:39	WB



Rabecka Koons, Quality Assurance Officer

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Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

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Reported:
09/10/19 15:28

SB-09

9082820-03 (Soil)
Sample Date: 08/28/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D-SIM (GC/MS) (continued)									
Chrysene	13.7		ug/kg dry	12.0	12.0	1	09/09/19	09/10/19 11:39	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	12.0	12.0	1	09/09/19	09/10/19 11:39	WB
Fluoranthene	21.7		ug/kg dry	12.0	12.0	1	09/09/19	09/10/19 11:39	WB
Fluorene	ND		ug/kg dry	12.0	12.0	1	09/09/19	09/10/19 11:39	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	12.0	12.0	1	09/09/19	09/10/19 11:39	WB
Naphthalene	ND		ug/kg dry	12.0	12.0	1	09/09/19	09/10/19 11:39	WB
Phenanthrene	16.3		ug/kg dry	12.0	12.0	1	09/09/19	09/10/19 11:39	WB
Pyrene	17.8		ug/kg dry	12.0	12.0	1	09/09/19	09/10/19 11:39	WB
Surrogate: Nitrobenzene-d5		23-120		43 %	09/09/19		09/10/19 11:39		
Surrogate: 2-Fluorobiphenyl		30-115		40 %	09/09/19		09/10/19 11:39		
Surrogate: Terphenyl-d14		18-137		71 %	09/09/19		09/10/19 11:39		
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	32.4		mg/kg dry	9.6	9.6	1	08/29/19	08/30/19 23:34	SJA
Surrogate: o-Terphenyl		70-130		88 %	08/29/19		08/30/19 23:34		
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	83		%			1	09/05/19	09/06/19 11:04	RH
TOTAL METALS ANALYSIS BY EPA 3050B/6020A									
Antimony	ND		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:35	VVD
Arsenic	4.13		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:35	VVD
Beryllium	1.04		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:35	VVD
Cadmium	ND		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:35	VVD
Chromium	29.7		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:35	VVD
Copper	28.5		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:35	VVD
Lead	67.7		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:35	VVD
Mercury	0.0659		mg/kg dry	0.0151	0.0151	1	08/29/19	08/30/19 14:35	VVD
Nickel	45.2		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:35	VVD
Selenium	3.42		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:35	VVD
Silver	ND		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:35	VVD
Thallium	ND		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:35	VVD
Zinc	102		mg/kg dry	1.51	1.51	1	08/29/19	08/30/19 14:35	VVD



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Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

Report revised. Original report ID 9082820 09 06 19 1128.
Reported:
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SB-10

9082820-04 (Soil)
Sample Date: 08/28/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D (GC/MS)									
Acenaphthene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 15:54	WB
Acenaphthylene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 15:54	WB
Anthracene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 15:54	WB
Benzo[a]anthracene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 15:54	WB
Benzo[b]fluoranthene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 15:54	WB
Benzo[k]fluoranthene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 15:54	WB
Benzo[ghi]perylene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 15:54	WB
Benzo[a]pyrene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 15:54	WB
Chrysene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 15:54	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 15:54	WB
Fluoranthene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 15:54	WB
Fluorene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 15:54	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 15:54	WB
2-Methylnaphthalene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 15:54	WB
Naphthalene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 15:54	WB
Phenanthrene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 15:54	WB
Pyrene	ND		ug/kg dry	298	119	1	08/29/19	08/30/19 15:54	WB
Surrogate: 2-Fluorophenol			23-121	50 %	08/29/19		08/30/19 15:54		
Surrogate: Phenol-d5			24-113	53 %	08/29/19		08/30/19 15:54		
Surrogate: Nitrobenzene-d5			23-120	55 %	08/29/19		08/30/19 15:54		
Surrogate: 2,4,6-Tribromophenol			19-122	64 %	08/29/19		08/30/19 15:54		
Surrogate: 2-Fluorobiphenyl			30-115	45 %	08/29/19		08/30/19 15:54		
Surrogate: Terphenyl-d14			18-137	78 %	08/29/19		08/30/19 15:54		
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D-SIM (GC/MS)									
Acenaphthene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 12:02	WB
Acenaphthylene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 12:02	WB
Anthracene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 12:02	WB
Benzo[a]anthracene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 12:02	WB
Benzo[b]fluoranthene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 12:02	WB
Benzo[k]fluoranthene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 12:02	WB
Benzo[ghi]perylene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 12:02	WB
Benzo[a]pyrene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 12:02	WB



Rabecka Koons, Quality Assurance Officer

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Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

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SB-10

9082820-04 (Soil)
Sample Date: 08/28/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D-SIM (GC/MS) (continued)									
Chrysene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 12:02	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 12:02	WB
Fluoranthene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 12:02	WB
Fluorene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 12:02	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 12:02	WB
Naphthalene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 12:02	WB
Phenanthrene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 12:02	WB
Pyrene	ND		ug/kg dry	11.9	11.9	1	09/09/19	09/10/19 12:02	WB
<i>Surrogate: Nitrobenzene-d5</i>			23-120	61 %	09/09/19		09/10/19 12:02		
<i>Surrogate: 2-Fluorobiphenyl</i>			30-115	59 %	09/09/19		09/10/19 12:02		
<i>Surrogate: Terphenyl-d14</i>			18-137	87 %	09/09/19		09/10/19 12:02		
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	ND		mg/kg dry	9.5	9.5	1	08/29/19	08/31/19 00:01	SJA
<i>Surrogate: o-Terphenyl</i>			70-130	93 %	08/29/19		08/31/19 00:01		
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	84		%			1	09/05/19	09/06/19 11:04	RH
TOTAL METALS ANALYSIS BY EPA 3050B/6020A									
Antimony	ND		mg/kg dry	0.298	0.298	1	08/29/19	08/30/19 14:37	VVD
Arsenic	3.15		mg/kg dry	0.298	0.298	1	08/29/19	08/30/19 14:37	VVD
Beryllium	1.02		mg/kg dry	0.298	0.298	1	08/29/19	08/30/19 14:37	VVD
Cadmium	ND		mg/kg dry	0.298	0.298	1	08/29/19	08/30/19 14:37	VVD
Chromium	23.6		mg/kg dry	0.298	0.298	1	08/29/19	08/30/19 14:37	VVD
Copper	23.6		mg/kg dry	0.298	0.298	1	08/29/19	08/30/19 14:37	VVD
Lead	20.4		mg/kg dry	0.298	0.298	1	08/29/19	08/30/19 14:37	VVD
Mercury	0.0310		mg/kg dry	0.0149	0.0149	1	08/29/19	08/30/19 14:37	VVD
Nickel	14.7		mg/kg dry	0.298	0.298	1	08/29/19	08/30/19 14:37	VVD
Selenium	2.73		mg/kg dry	0.298	0.298	1	08/29/19	08/30/19 14:37	VVD
Silver	ND		mg/kg dry	0.298	0.298	1	08/29/19	08/30/19 14:37	VVD
Thallium	ND		mg/kg dry	0.298	0.298	1	08/29/19	08/30/19 14:37	VVD
Zinc	52.0		mg/kg dry	1.49	1.49	1	08/29/19	08/30/19 14:37	VVD



Rabecka Koons, Quality Assurance Officer

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Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

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Reported:

09/10/19 15:28

SB-11

9082820-05 (Soil)
Sample Date: 08/28/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D (GC/MS)									
Acenaphthene	ND		ug/kg dry	294	118	1	08/29/19	08/30/19 16:16	WB
Acenaphthylene	ND		ug/kg dry	294	118	1	08/29/19	08/30/19 16:16	WB
Anthracene	ND		ug/kg dry	294	118	1	08/29/19	08/30/19 16:16	WB
Benzo[a]anthracene	ND		ug/kg dry	294	118	1	08/29/19	08/30/19 16:16	WB
Benzo[b]fluoranthene	ND		ug/kg dry	294	118	1	08/29/19	08/30/19 16:16	WB
Benzo[k]fluoranthene	ND		ug/kg dry	294	118	1	08/29/19	08/30/19 16:16	WB
Benzo[ghi]perylene	ND		ug/kg dry	294	118	1	08/29/19	08/30/19 16:16	WB
Benzo[a]pyrene	ND		ug/kg dry	294	118	1	08/29/19	08/30/19 16:16	WB
Chrysene	ND		ug/kg dry	294	118	1	08/29/19	08/30/19 16:16	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	294	118	1	08/29/19	08/30/19 16:16	WB
Fluoranthene	ND		ug/kg dry	294	118	1	08/29/19	08/30/19 16:16	WB
Fluorene	ND		ug/kg dry	294	118	1	08/29/19	08/30/19 16:16	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	294	118	1	08/29/19	08/30/19 16:16	WB
2-Methylnaphthalene	ND		ug/kg dry	294	118	1	08/29/19	08/30/19 16:16	WB
Naphthalene	ND		ug/kg dry	294	118	1	08/29/19	08/30/19 16:16	WB
Phenanthrene	ND		ug/kg dry	294	118	1	08/29/19	08/30/19 16:16	WB
Pyrene	126	J	ug/kg dry	294	118	1	08/29/19	08/30/19 16:16	WB
Surrogate: 2-Fluorophenol			23-121	45 %	08/29/19		08/30/19 16:16		
Surrogate: Phenol-d5			24-113	49 %	08/29/19		08/30/19 16:16		
Surrogate: Nitrobenzene-d5			23-120	51 %	08/29/19		08/30/19 16:16		
Surrogate: 2,4,6-Tribromophenol			19-122	76 %	08/29/19		08/30/19 16:16		
Surrogate: 2-Fluorobiphenyl			30-115	48 %	08/29/19		08/30/19 16:16		
Surrogate: Terphenyl-d14			18-137	85 %	08/29/19		08/30/19 16:16		
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D-SIM (GC/MS)									
Acenaphthene	ND		ug/kg dry	11.8	11.8	1	09/09/19	09/10/19 12:25	WB
Acenaphthylene	21.5		ug/kg dry	11.8	11.8	1	09/09/19	09/10/19 12:25	WB
Anthracene	23.3		ug/kg dry	11.8	11.8	1	09/09/19	09/10/19 12:25	WB
Benzo[a]anthracene	85.5		ug/kg dry	11.8	11.8	1	09/09/19	09/10/19 12:25	WB
Benzo[b]fluoranthene	91.5		ug/kg dry	11.8	11.8	1	09/09/19	09/10/19 12:25	WB
Benzo[k]fluoranthene	23.4		ug/kg dry	11.8	11.8	1	09/09/19	09/10/19 12:25	WB
Benzo[ghi]perylene	47.1		ug/kg dry	11.8	11.8	1	09/09/19	09/10/19 12:25	WB
Benzo[a]pyrene	66.2		ug/kg dry	11.8	11.8	1	09/09/19	09/10/19 12:25	WB
Chrysene	78.8		ug/kg dry	11.8	11.8	1	09/09/19	09/10/19 12:25	WB



Rabecka Koons, Quality Assurance Officer

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Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

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SB-11

9082820-05 (Soil)
Sample Date: 08/28/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D-SIM (GC/MS) (continued)									
Dibenzo[a,h]anthracene	12.4		ug/kg dry	11.8	11.8	1	09/09/19	09/10/19 12:25	WB
Fluoranthene	111		ug/kg dry	11.8	11.8	1	09/09/19	09/10/19 12:25	WB
Fluorene	ND		ug/kg dry	11.8	11.8	1	09/09/19	09/10/19 12:25	WB
Indeno[1,2,3-cd]pyrene	48.8		ug/kg dry	11.8	11.8	1	09/09/19	09/10/19 12:25	WB
Naphthalene	ND		ug/kg dry	11.8	11.8	1	09/09/19	09/10/19 12:25	WB
Phenanthrene	70.0		ug/kg dry	11.8	11.8	1	09/09/19	09/10/19 12:25	WB
Pyrene	131		ug/kg dry	11.8	11.8	1	09/09/19	09/10/19 12:25	WB
Surrogate: Nitrobenzene-d5		23-120		37 %	09/09/19		09/10/19 12:25		
Surrogate: 2-Fluorobiphenyl		30-115		25 %	09/09/19		09/10/19 12:25		S-BN
Surrogate: Terphenyl-d14		18-137		75 %	09/09/19		09/10/19 12:25		
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	107		mg/kg dry	9.4	9.4	1	08/29/19	08/31/19 00:27	SJA
Surrogate: o-Terphenyl		70-130		92 %	08/29/19		08/31/19 00:27		
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	85		%			1	09/05/19	09/06/19 11:04	RH
TOTAL METALS ANALYSIS BY EPA 3050B/6020A									
Antimony	ND		mg/kg dry	0.294	0.294	1	08/29/19	08/30/19 14:40	VVD
Arsenic	2.65		mg/kg dry	0.294	0.294	1	08/29/19	08/30/19 14:40	VVD
Beryllium	0.953		mg/kg dry	0.294	0.294	1	08/29/19	08/30/19 14:40	VVD
Cadmium	ND		mg/kg dry	0.294	0.294	1	08/29/19	08/30/19 14:40	VVD
Chromium	18.7		mg/kg dry	0.294	0.294	1	08/29/19	08/30/19 14:40	VVD
Copper	23.2		mg/kg dry	0.294	0.294	1	08/29/19	08/30/19 14:40	VVD
Lead	83.4		mg/kg dry	0.294	0.294	1	08/29/19	08/30/19 14:40	VVD
Mercury	0.0673		mg/kg dry	0.0147	0.0147	1	08/29/19	08/30/19 14:40	VVD
Nickel	15.8		mg/kg dry	0.294	0.294	1	08/29/19	08/30/19 14:40	VVD
Selenium	2.64		mg/kg dry	0.294	0.294	1	08/29/19	08/30/19 14:40	VVD
Silver	ND		mg/kg dry	0.294	0.294	1	08/29/19	08/30/19 14:40	VVD
Thallium	ND		mg/kg dry	0.294	0.294	1	08/29/19	08/30/19 14:40	VVD
Zinc	91.6		mg/kg dry	1.47	1.47	1	08/29/19	08/30/19 14:40	VVD



Rabecka Koons, Quality Assurance Officer

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Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

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Reported:
09/10/19 15:28

SB-12

9082820-06 (Soil)
Sample Date: 08/28/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D (GC/MS)									
Acenaphthene	ND		ug/kg dry	6020	2410	10	08/29/19	08/30/19 16:39	WB
Acenaphthylene	ND		ug/kg dry	6020	2410	10	08/29/19	08/30/19 16:39	WB
Anthracene	ND		ug/kg dry	6020	2410	10	08/29/19	08/30/19 16:39	WB
Benzo[a]anthracene	ND		ug/kg dry	6020	2410	10	08/29/19	08/30/19 16:39	WB
Benzo[b]fluoranthene	ND		ug/kg dry	6020	2410	10	08/29/19	08/30/19 16:39	WB
Benzo[k]fluoranthene	ND		ug/kg dry	6020	2410	10	08/29/19	08/30/19 16:39	WB
Benzo[ghi]perylene	ND		ug/kg dry	6020	2410	10	08/29/19	08/30/19 16:39	WB
Benzo[a]pyrene	ND		ug/kg dry	6020	2410	10	08/29/19	08/30/19 16:39	WB
Chrysene	ND		ug/kg dry	6020	2410	10	08/29/19	08/30/19 16:39	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	6020	2410	10	08/29/19	08/30/19 16:39	WB
Fluoranthene	ND		ug/kg dry	6020	2410	10	08/29/19	08/30/19 16:39	WB
Fluorene	ND		ug/kg dry	6020	2410	10	08/29/19	08/30/19 16:39	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	6020	2410	10	08/29/19	08/30/19 16:39	WB
2-Methylnaphthalene	ND		ug/kg dry	6020	2410	10	08/29/19	08/30/19 16:39	WB
Naphthalene	ND		ug/kg dry	6020	2410	10	08/29/19	08/30/19 16:39	WB
Phenanthrene	ND		ug/kg dry	6020	2410	10	08/29/19	08/30/19 16:39	WB
Pyrene	ND		ug/kg dry	6020	2410	10	08/29/19	08/30/19 16:39	WB
Surrogate: 2-Fluorophenol			23-121	54 %	08/29/19		08/30/19 16:39		
Surrogate: Phenol-d5			24-113	72 %	08/29/19		08/30/19 16:39		
Surrogate: Nitrobenzene-d5			23-120	78 %	08/29/19		08/30/19 16:39		
Surrogate: 2,4,6-Tribromophenol			19-122	60 %	08/29/19		08/30/19 16:39		
Surrogate: 2-Fluorobiphenyl			30-115	80 %	08/29/19		08/30/19 16:39		
Surrogate: Terphenyl-d14			18-137	86 %	08/29/19		08/30/19 16:39		
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D-SIM (GC/MS)									
Acenaphthene	ND		ug/kg dry	48.2	48.2	2	09/09/19	09/10/19 12:48	WB
Acenaphthylene	ND		ug/kg dry	48.2	48.2	2	09/09/19	09/10/19 12:48	WB
Anthracene	ND		ug/kg dry	48.2	48.2	2	09/09/19	09/10/19 12:48	WB
Benzo[a]anthracene	105		ug/kg dry	48.2	48.2	2	09/09/19	09/10/19 12:48	WB
Benzo[b]fluoranthene	161		ug/kg dry	48.2	48.2	2	09/09/19	09/10/19 12:48	WB
Benzo[k]fluoranthene	ND		ug/kg dry	48.2	48.2	2	09/09/19	09/10/19 12:48	WB
Benzo[ghi]perylene	97.3		ug/kg dry	48.2	48.2	2	09/09/19	09/10/19 12:48	WB
Benzo[a]pyrene	113		ug/kg dry	48.2	48.2	2	09/09/19	09/10/19 12:48	WB
Chrysene	101		ug/kg dry	48.2	48.2	2	09/09/19	09/10/19 12:48	WB



Rabecka Koons, Quality Assurance Officer

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Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

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Reported:

09/10/19 15:28

SB-12

9082820-06 (Soil)
Sample Date: 08/28/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D-SIM (GC/MS) (continued)									
Dibenzo[a,h]anthracene	ND		ug/kg dry	48.2	48.2	2	09/09/19	09/10/19 12:48	WB
Fluoranthene	165		ug/kg dry	48.2	48.2	2	09/09/19	09/10/19 12:48	WB
Fluorene	ND		ug/kg dry	48.2	48.2	2	09/09/19	09/10/19 12:48	WB
Indeno[1,2,3-cd]pyrene	96.4		ug/kg dry	48.2	48.2	2	09/09/19	09/10/19 12:48	WB
Naphthalene	ND		ug/kg dry	48.2	48.2	2	09/09/19	09/10/19 12:48	WB
Phenanthrene	105		ug/kg dry	48.2	48.2	2	09/09/19	09/10/19 12:48	WB
Pyrene	146		ug/kg dry	48.2	48.2	2	09/09/19	09/10/19 12:48	WB
Surrogate: Nitrobenzene-d5		23-120		70 %	09/09/19		09/10/19 12:48		
Surrogate: 2-Fluorobiphenyl		30-115		77 %	09/09/19		09/10/19 12:48		
Surrogate: Terphenyl-d14		18-137		86 %	09/09/19		09/10/19 12:48		
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	64.3		mg/kg dry	19.3	19.3	1	08/29/19	08/31/19 00:54	SJA
Surrogate: o-Terphenyl		70-130		95 %	08/29/19		08/31/19 00:54		
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	83		%			1	09/05/19	09/06/19 11:04	RH
TOTAL METALS ANALYSIS BY EPA 3050B/6020A									
Antimony	2.65		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:42	VVD
Arsenic	6.20		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:42	VVD
Beryllium	1.18		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:42	VVD
Cadmium	0.714		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:42	VVD
Chromium	36.9		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:42	VVD
Copper	53.2		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:42	VVD
Lead	204		mg/kg dry	1.51	1.51	5	08/29/19	08/30/19 15:49	VVD
Mercury	0.0798		mg/kg dry	0.0151	0.0151	1	08/29/19	08/30/19 14:42	VVD
Nickel	30.0		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:42	VVD
Selenium	2.59		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:42	VVD
Silver	ND		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:42	VVD
Thallium	ND		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:42	VVD
Zinc	299		mg/kg dry	1.51	1.51	1	08/29/19	08/30/19 14:42	VVD



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Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

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SB-13

9082820-07 (Soil)
Sample Date: 08/28/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D (GC/MS)									
Acenaphthene	ND		ug/kg dry	313	125	1	08/29/19	08/30/19 17:01	WB
Acenaphthylene	ND		ug/kg dry	313	125	1	08/29/19	08/30/19 17:01	WB
Anthracene	ND		ug/kg dry	313	125	1	08/29/19	08/30/19 17:01	WB
Benzo[a]anthracene	ND		ug/kg dry	313	125	1	08/29/19	08/30/19 17:01	WB
Benzo[b]fluoranthene	ND		ug/kg dry	313	125	1	08/29/19	08/30/19 17:01	WB
Benzo[k]fluoranthene	ND		ug/kg dry	313	125	1	08/29/19	08/30/19 17:01	WB
Benzo[ghi]perylene	ND		ug/kg dry	313	125	1	08/29/19	08/30/19 17:01	WB
Benzo[a]pyrene	ND		ug/kg dry	313	125	1	08/29/19	08/30/19 17:01	WB
Chrysene	ND		ug/kg dry	313	125	1	08/29/19	08/30/19 17:01	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	313	125	1	08/29/19	08/30/19 17:01	WB
Fluoranthene	ND		ug/kg dry	313	125	1	08/29/19	08/30/19 17:01	WB
Fluorene	ND		ug/kg dry	313	125	1	08/29/19	08/30/19 17:01	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	313	125	1	08/29/19	08/30/19 17:01	WB
2-Methylnaphthalene	ND		ug/kg dry	313	125	1	08/29/19	08/30/19 17:01	WB
Naphthalene	ND		ug/kg dry	313	125	1	08/29/19	08/30/19 17:01	WB
Phenanthrene	ND		ug/kg dry	313	125	1	08/29/19	08/30/19 17:01	WB
Pyrene	ND		ug/kg dry	313	125	1	08/29/19	08/30/19 17:01	WB
Surrogate: 2-Fluorophenol			23-121	62 %	08/29/19		08/30/19 17:01		
Surrogate: Phenol-d5			24-113	65 %	08/29/19		08/30/19 17:01		
Surrogate: Nitrobenzene-d5			23-120	68 %	08/29/19		08/30/19 17:01		
Surrogate: 2,4,6-Tribromophenol			19-122	76 %	08/29/19		08/30/19 17:01		
Surrogate: 2-Fluorobiphenyl			30-115	64 %	08/29/19		08/30/19 17:01		
Surrogate: Terphenyl-d14			18-137	90 %	08/29/19		08/30/19 17:01		
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D-SIM (GC/MS)									
Acenaphthene	ND		ug/kg dry	12.5	12.5	1	09/09/19	09/10/19 13:11	WB
Acenaphthylene	ND		ug/kg dry	12.5	12.5	1	09/09/19	09/10/19 13:11	WB
Anthracene	ND		ug/kg dry	12.5	12.5	1	09/09/19	09/10/19 13:11	WB
Benzo[a]anthracene	ND		ug/kg dry	12.5	12.5	1	09/09/19	09/10/19 13:11	WB
Benzo[b]fluoranthene	ND		ug/kg dry	12.5	12.5	1	09/09/19	09/10/19 13:11	WB
Benzo[k]fluoranthene	ND		ug/kg dry	12.5	12.5	1	09/09/19	09/10/19 13:11	WB
Benzo[ghi]perylene	ND		ug/kg dry	12.5	12.5	1	09/09/19	09/10/19 13:11	WB
Benzo[a]pyrene	ND		ug/kg dry	12.5	12.5	1	09/09/19	09/10/19 13:11	WB



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Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

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SB-13

9082820-07 (Soil)
Sample Date: 08/28/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D-SIM (GC/MS) (continued)									
Chrysene	ND		ug/kg dry	12.5	12.5	1	09/09/19	09/10/19 13:11	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	12.5	12.5	1	09/09/19	09/10/19 13:11	WB
Fluoranthene	ND		ug/kg dry	12.5	12.5	1	09/09/19	09/10/19 13:11	WB
Fluorene	ND		ug/kg dry	12.5	12.5	1	09/09/19	09/10/19 13:11	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	12.5	12.5	1	09/09/19	09/10/19 13:11	WB
Naphthalene	ND		ug/kg dry	12.5	12.5	1	09/09/19	09/10/19 13:11	WB
Phenanthrene	ND		ug/kg dry	12.5	12.5	1	09/09/19	09/10/19 13:11	WB
Pyrene	ND		ug/kg dry	12.5	12.5	1	09/09/19	09/10/19 13:11	WB
<i>Surrogate: Nitrobenzene-d5</i>			23-120	43 %			09/09/19	09/10/19 13:11	
<i>Surrogate: 2-Fluorobiphenyl</i>			30-115	42 %			09/09/19	09/10/19 13:11	
<i>Surrogate: Terphenyl-d14</i>			18-137	75 %			09/09/19	09/10/19 13:11	
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	ND		mg/kg dry	10.0	10.0	1	08/29/19	08/31/19 01:20	SJA
<i>Surrogate: o-Terphenyl</i>			70-130	97 %			08/29/19	08/31/19 01:20	
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	80		%			1	09/05/19	09/06/19 11:04	RH
TOTAL METALS ANALYSIS BY EPA 3050B/6020A									
Antimony	ND		mg/kg dry	0.313	0.313	1	08/29/19	08/30/19 14:45	VVD
Arsenic	4.08		mg/kg dry	0.313	0.313	1	08/29/19	08/30/19 14:45	VVD
Beryllium	1.71		mg/kg dry	0.313	0.313	1	08/29/19	08/30/19 14:45	VVD
Cadmium	ND		mg/kg dry	0.313	0.313	1	08/29/19	08/30/19 14:45	VVD
Chromium	32.3		mg/kg dry	0.313	0.313	1	08/29/19	08/30/19 14:45	VVD
Copper	41.4		mg/kg dry	0.313	0.313	1	08/29/19	08/30/19 14:45	VVD
Lead	15.0		mg/kg dry	0.313	0.313	1	08/29/19	08/30/19 14:45	VVD
Mercury	0.0207		mg/kg dry	0.0156	0.0156	1	08/29/19	08/30/19 14:45	VVD
Nickel	20.7		mg/kg dry	0.313	0.313	1	08/29/19	08/30/19 14:45	VVD
Selenium	3.53		mg/kg dry	0.313	0.313	1	08/29/19	08/30/19 14:45	VVD
Silver	ND		mg/kg dry	0.313	0.313	1	08/29/19	08/30/19 14:45	VVD
Thallium	ND		mg/kg dry	0.313	0.313	1	08/29/19	08/30/19 14:45	VVD
Zinc	52.5		mg/kg dry	1.56	1.56	1	08/29/19	08/30/19 14:45	VVD



Rabecka Koons, Quality Assurance Officer

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Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

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SB-14

9082820-08 (Soil)
Sample Date: 08/28/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D (GC/MS)									
Acenaphthene	ND		ug/kg dry	602	241	2	08/29/19	08/30/19 17:24	WB
Acenaphthylene	246	J	ug/kg dry	602	241	2	08/29/19	08/30/19 17:24	WB
Anthracene	383	J	ug/kg dry	602	241	2	08/29/19	08/30/19 17:24	WB
Benzo[a]anthracene	1220		ug/kg dry	602	241	2	08/29/19	08/30/19 17:24	WB
Benzo[b]fluoranthene	1520		ug/kg dry	602	241	2	08/29/19	08/30/19 17:24	WB
Benzo[k]fluoranthene	578	J	ug/kg dry	602	241	2	08/29/19	08/30/19 17:24	WB
Benzo[ghi]perylene	734		ug/kg dry	602	241	2	08/29/19	08/30/19 17:24	WB
Benzo[a]pyrene	1250		ug/kg dry	602	241	2	08/29/19	08/30/19 17:24	WB
Chrysene	1250		ug/kg dry	602	241	2	08/29/19	08/30/19 17:24	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	602	241	2	08/29/19	08/30/19 17:24	WB
Fluoranthene	2620		ug/kg dry	602	241	2	08/29/19	08/30/19 17:24	WB
Fluorene	ND		ug/kg dry	602	241	2	08/29/19	08/30/19 17:24	WB
Indeno[1,2,3-cd]pyrene	780		ug/kg dry	602	241	2	08/29/19	08/30/19 17:24	WB
2-Methylnaphthalene	ND		ug/kg dry	602	241	2	08/29/19	08/30/19 17:24	WB
Naphthalene	ND		ug/kg dry	602	241	2	08/29/19	08/30/19 17:24	WB
Phenanthrene	1610		ug/kg dry	602	241	2	08/29/19	08/30/19 17:24	WB
Pyrene	2260		ug/kg dry	602	241	2	08/29/19	08/30/19 17:24	WB
Surrogate: 2-Fluorophenol		23-121		90 %	08/29/19		08/30/19 17:24		
Surrogate: Phenol-d5		24-113		105 %	08/29/19		08/30/19 17:24		
Surrogate: Nitrobenzene-d5		23-120		105 %	08/29/19		08/30/19 17:24		
Surrogate: 2,4,6-Tribromophenol		19-122		109 %	08/29/19		08/30/19 17:24		
Surrogate: 2-Fluorobiphenyl		30-115		103 %	08/29/19		08/30/19 17:24		
Surrogate: Terphenyl-d14		18-137		119 %	08/29/19		08/30/19 17:24		
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D-SIM (GC/MS)									
Acenaphthene	ND		ug/kg dry	60.2	60.2	5	09/09/19	09/10/19 13:34	WB
Acenaphthylene	168		ug/kg dry	60.2	60.2	5	09/09/19	09/10/19 13:34	WB
Anthracene	187		ug/kg dry	60.2	60.2	5	09/09/19	09/10/19 13:34	WB
Benzo[a]anthracene	894		ug/kg dry	60.2	60.2	5	09/09/19	09/10/19 13:34	WB
Benzo[b]fluoranthene	1050		ug/kg dry	60.2	60.2	5	09/09/19	09/10/19 13:34	WB
Benzo[k]fluoranthene	274		ug/kg dry	60.2	60.2	5	09/09/19	09/10/19 13:34	WB
Benzo[ghi]perylene	506		ug/kg dry	60.2	60.2	5	09/09/19	09/10/19 13:34	WB
Benzo[a]pyrene	727		ug/kg dry	60.2	60.2	5	09/09/19	09/10/19 13:34	WB
Chrysene	707		ug/kg dry	60.2	60.2	5	09/09/19	09/10/19 13:34	WB
Dibenzo[a,h]anthracene	123		ug/kg dry	60.2	60.2	5	09/09/19	09/10/19 13:34	WB
Fluoranthene	1410		ug/kg dry	60.2	60.2	5	09/09/19	09/10/19 13:34	WB



Rabecka Koons, Quality Assurance Officer

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Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

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SB-14

9082820-08 (Soil)
Sample Date: 08/28/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D-SIM (GC/MS) (continued)									
Fluorene	ND		ug/kg dry	60.2	60.2	5	09/09/19	09/10/19 13:34	WB
Indeno[1,2,3-cd]pyrene	581		ug/kg dry	60.2	60.2	5	09/09/19	09/10/19 13:34	WB
Naphthalene	78.3		ug/kg dry	60.2	60.2	5	09/09/19	09/10/19 13:34	WB
Phenanthrene	953		ug/kg dry	60.2	60.2	5	09/09/19	09/10/19 13:34	WB
Pyrene	1290		ug/kg dry	60.2	60.2	5	09/09/19	09/10/19 13:34	WB
Surrogate: Nitrobenzene-d5		23-120		75 %	09/09/19		09/10/19 13:34		
Surrogate: 2-Fluorobiphenyl		30-115		76 %	09/09/19		09/10/19 13:34		
Surrogate: Terphenyl-d14		18-137		96 %	09/09/19		09/10/19 13:34		
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	111		mg/kg dry	19.3	19.3	1	08/29/19	08/31/19 01:46	SJA
Surrogate: o-Terphenyl		70-130		76 %	08/29/19		08/31/19 01:46		
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	83		%			1	09/05/19	09/06/19 11:04	RH
TOTAL METALS ANALYSIS BY EPA 3050B/6020A									
Antimony	0.765		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:48	VVD
Arsenic	7.36		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:48	VVD
Beryllium	1.05		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:48	VVD
Cadmium	1.52		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:48	VVD
Chromium	37.2		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:48	VVD
Copper	55.8		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:48	VVD
Lead	331		mg/kg dry	1.51	1.51	5	08/29/19	08/30/19 15:52	VVD
Mercury	0.173		mg/kg dry	0.0151	0.0151	1	08/29/19	08/30/19 14:48	VVD
Nickel	53.1		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:48	VVD
Selenium	2.20		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:48	VVD
Silver	ND		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:48	VVD
Thallium	ND		mg/kg dry	0.301	0.301	1	08/29/19	08/30/19 14:48	VVD
Zinc	300		mg/kg dry	7.53	7.53	5	08/29/19	08/30/19 15:52	VVD



Rabecka Koons, Quality Assurance Officer

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Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

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Reported:

09/10/19 15:28

SB-15

9082820-09 (Soil)
Sample Date: 08/28/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D (GC/MS)									
Acenaphthene	ND		ug/kg dry	385	154	1	08/29/19	08/30/19 17:47	WB
Acenaphthylene	182	J	ug/kg dry	385	154	1	08/29/19	08/30/19 17:47	WB
Anthracene	638		ug/kg dry	385	154	1	08/29/19	08/30/19 17:47	WB
Benzo[a]anthracene	1330		ug/kg dry	385	154	1	08/29/19	08/30/19 17:47	WB
Benzo[b]fluoranthene	2090		ug/kg dry	385	154	1	08/29/19	08/30/19 17:47	WB
Benzo[k]fluoranthene	653		ug/kg dry	385	154	1	08/29/19	08/30/19 17:47	WB
Benzo[ghi]perylene	685		ug/kg dry	385	154	1	08/29/19	08/30/19 17:47	WB
Benzo[a]pyrene	1220		ug/kg dry	385	154	1	08/29/19	08/30/19 17:47	WB
Chrysene	2110		ug/kg dry	385	154	1	08/29/19	08/30/19 17:47	WB
Dibenzo[a,h]anthracene	195	J	ug/kg dry	385	154	1	08/29/19	08/30/19 17:47	WB
Fluoranthene	2650		ug/kg dry	385	154	1	08/29/19	08/30/19 17:47	WB
Fluorene	ND		ug/kg dry	385	154	1	08/29/19	08/30/19 17:47	WB
Indeno[1,2,3-cd]pyrene	782		ug/kg dry	385	154	1	08/29/19	08/30/19 17:47	WB
2-Methylnaphthalene	ND		ug/kg dry	385	154	1	08/29/19	08/30/19 17:47	WB
Naphthalene	ND		ug/kg dry	385	154	1	08/29/19	08/30/19 17:47	WB
Phenanthrene	452		ug/kg dry	385	154	1	08/29/19	08/30/19 17:47	WB
Pyrene	2890		ug/kg dry	385	154	1	08/29/19	08/30/19 17:47	WB
Surrogate: 2-Fluorophenol		23-121		54 %	08/29/19		08/30/19 17:47		
Surrogate: Phenol-d5		24-113		61 %	08/29/19		08/30/19 17:47		
Surrogate: Nitrobenzene-d5		23-120		59 %	08/29/19		08/30/19 17:47		
Surrogate: 2,4,6-Tribromophenol		19-122		77 %	08/29/19		08/30/19 17:47		
Surrogate: 2-Fluorobiphenyl		30-115		56 %	08/29/19		08/30/19 17:47		
Surrogate: Terphenyl-d14		18-137		79 %	08/29/19		08/30/19 17:47		

SEMIVOLATILE ORGANICS BY EPA METHOD 8270D-SIM (GC/MS)									
Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Acenaphthene	ND		ug/kg dry	154	154	5	09/09/19	09/10/19 13:57	WB
Acenaphthylene	ND		ug/kg dry	154	154	5	09/09/19	09/10/19 13:57	WB
Anthracene	315		ug/kg dry	154	154	5	09/09/19	09/10/19 13:57	WB
Benzo[a]anthracene	884		ug/kg dry	154	154	5	09/09/19	09/10/19 13:57	WB
Benzo[b]fluoranthene	1690		ug/kg dry	154	154	5	09/09/19	09/10/19 13:57	WB
Benzo[k]fluoranthene	411		ug/kg dry	154	154	5	09/09/19	09/10/19 13:57	WB
Benzo[ghi]perylene	698		ug/kg dry	154	154	5	09/09/19	09/10/19 13:57	WB
Benzo[a]pyrene	954		ug/kg dry	154	154	5	09/09/19	09/10/19 13:57	WB
Chrysene	948		ug/kg dry	154	154	5	09/09/19	09/10/19 13:57	WB
Dibenzo[a,h]anthracene	174		ug/kg dry	154	154	5	09/09/19	09/10/19 13:57	WB
Fluoranthene	1160		ug/kg dry	154	154	5	09/09/19	09/10/19 13:57	WB



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1500 Caton Center Dr Suite G
Baltimore MD 21227
410-247-7600
www.mdspectral.com
MD DW LabID 153

Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

Report revised. Original report ID 9082820 09 06 19 1128.
Reported:
09/10/19 15:28

SB-15

9082820-09 (Soil)
Sample Date: 08/28/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D-SIM (GC/MS) (continued)									
Fluorene	ND		ug/kg dry	154	154	5	09/09/19	09/10/19 13:57	WB
Indeno[1,2,3-cd]pyrene	808		ug/kg dry	154	154	5	09/09/19	09/10/19 13:57	WB
Naphthalene	ND		ug/kg dry	154	154	5	09/09/19	09/10/19 13:57	WB
Phenanthrene	620		ug/kg dry	154	154	5	09/09/19	09/10/19 13:57	WB
Pyrene	1240		ug/kg dry	154	154	5	09/09/19	09/10/19 13:57	WB
Surrogate: Nitrobenzene-d5		23-120		70 %	09/09/19		09/10/19 13:57		
Surrogate: 2-Fluorobiphenyl		30-115		65 %	09/09/19		09/10/19 13:57		
Surrogate: Terphenyl-d14		18-137		75 %	09/09/19		09/10/19 13:57		
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	140		mg/kg dry	24.6	24.6	1	08/29/19	08/31/19 02:13	SJA
Surrogate: o-Terphenyl		70-130		75 %	08/29/19		08/31/19 02:13		
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	65		%			1	09/05/19	09/06/19 11:04	RH
TOTAL METALS ANALYSIS BY EPA 3050B/6020A									
Antimony	0.703		mg/kg dry	0.385	0.385	1	08/29/19	08/30/19 14:55	VVD
Arsenic	13.5		mg/kg dry	0.385	0.385	1	08/29/19	08/30/19 14:55	VVD
Beryllium	1.38		mg/kg dry	0.385	0.385	1	08/29/19	08/30/19 14:55	VVD
Cadmium	1.64		mg/kg dry	0.385	0.385	1	08/29/19	08/30/19 14:55	VVD
Chromium	108		mg/kg dry	0.385	0.385	1	08/29/19	08/30/19 14:55	VVD
Copper	75.1		mg/kg dry	0.385	0.385	1	08/29/19	08/30/19 14:55	VVD
Lead	95.0		mg/kg dry	0.385	0.385	1	08/29/19	08/30/19 14:55	VVD
Mercury	0.129		mg/kg dry	0.0192	0.0192	1	08/29/19	08/30/19 14:55	VVD
Nickel	297		mg/kg dry	3.85	3.85	10	08/29/19	08/30/19 15:54	VVD
Selenium	1.85		mg/kg dry	0.385	0.385	1	08/29/19	08/30/19 14:55	VVD
Silver	ND		mg/kg dry	0.385	0.385	1	08/29/19	08/30/19 14:55	VVD
Thallium	ND		mg/kg dry	0.385	0.385	1	08/29/19	08/30/19 14:55	VVD
Zinc	1720		mg/kg dry	19.2	19.2	10	08/29/19	08/30/19 15:54	VVD



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Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

Report revised. Original report ID 9082820 09 06 19 1128.
Reported:

09/10/19 15:28

SB-16

9082820-10 (Soil)
Sample Date: 08/28/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
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SEMIVOLATILE ORGANICS BY EPA METHOD 8270D (GC/MS)

Acenaphthene	ND		ug/kg dry	17600	7040	10	08/29/19	08/30/19 18:09	WB
Acenaphthylene	ND		ug/kg dry	17600	7040	10	08/29/19	08/30/19 18:09	WB
Anthracene	ND		ug/kg dry	17600	7040	10	08/29/19	08/30/19 18:09	WB
Benzo[a]anthracene	ND		ug/kg dry	17600	7040	10	08/29/19	08/30/19 18:09	WB
Benzo[b]fluoranthene	ND		ug/kg dry	17600	7040	10	08/29/19	08/30/19 18:09	WB
Benzo[k]fluoranthene	ND		ug/kg dry	17600	7040	10	08/29/19	08/30/19 18:09	WB
Benzo[ghi]perylene	ND		ug/kg dry	17600	7040	10	08/29/19	08/30/19 18:09	WB
Benzo[a]pyrene	ND		ug/kg dry	17600	7040	10	08/29/19	08/30/19 18:09	WB
Chrysene	ND		ug/kg dry	17600	7040	10	08/29/19	08/30/19 18:09	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	17600	7040	10	08/29/19	08/30/19 18:09	WB
Fluoranthene	ND		ug/kg dry	17600	7040	10	08/29/19	08/30/19 18:09	WB
Fluorene	ND		ug/kg dry	17600	7040	10	08/29/19	08/30/19 18:09	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	17600	7040	10	08/29/19	08/30/19 18:09	WB
2-Methylnaphthalene	ND		ug/kg dry	17600	7040	10	08/29/19	08/30/19 18:09	WB
Naphthalene	ND		ug/kg dry	17600	7040	10	08/29/19	08/30/19 18:09	WB
Phenanthrene	ND		ug/kg dry	17600	7040	10	08/29/19	08/30/19 18:09	WB
Pyrene	ND		ug/kg dry	17600	7040	10	08/29/19	08/30/19 18:09	WB
Surrogate: 2-Fluorophenol			23-121	51 %	08/29/19		08/30/19 18:09		
Surrogate: Phenol-d5			24-113	75 %	08/29/19		08/30/19 18:09		
Surrogate: Nitrobenzene-d5			23-120	84 %	08/29/19		08/30/19 18:09		
Surrogate: 2,4,6-Tribromophenol			19-122	87 %	08/29/19		08/30/19 18:09		
Surrogate: 2-Fluorobiphenyl			30-115	91 %	08/29/19		08/30/19 18:09		
Surrogate: Terphenyl-d14			18-137	110 %	08/29/19		08/30/19 18:09		

SEMIVOLATILE ORGANICS BY EPA METHOD 8270D-SIM (GC/MS)

Acenaphthene	ND		ug/kg dry	352	352	5	09/09/19	09/10/19 14:20	WB
Acenaphthylene	ND		ug/kg dry	352	352	5	09/09/19	09/10/19 14:20	WB
Anthracene	419		ug/kg dry	352	352	5	09/09/19	09/10/19 14:20	WB
Benzo[a]anthracene	911		ug/kg dry	352	352	5	09/09/19	09/10/19 14:20	WB
Benzo[b]fluoranthene	1470		ug/kg dry	352	352	5	09/09/19	09/10/19 14:20	WB
Benzo[k]fluoranthene	510		ug/kg dry	352	352	5	09/09/19	09/10/19 14:20	WB
Benzo[ghi]perylene	673		ug/kg dry	352	352	5	09/09/19	09/10/19 14:20	WB
Benzo[a]pyrene	830		ug/kg dry	352	352	5	09/09/19	09/10/19 14:20	WB
Chrysene	1110		ug/kg dry	352	352	5	09/09/19	09/10/19 14:20	WB



Rabecka Koons, Quality Assurance Officer

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Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

Report revised. Original report ID 9082820 09 06 19 1128.
Reported:
09/10/19 15:28

SB-16

9082820-10 (Soil)
Sample Date: 08/28/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
SEMIVOLATILE ORGANICS BY EPA METHOD 8270D-SIM (GC/MS) (continued)									
Dibenzo[a,h]anthracene	ND		ug/kg dry	352	352	5	09/09/19	09/10/19 14:20	WB
Fluoranthene	1130		ug/kg dry	352	352	5	09/09/19	09/10/19 14:20	WB
Fluorene	ND		ug/kg dry	352	352	5	09/09/19	09/10/19 14:20	WB
Indeno[1,2,3-cd]pyrene	697		ug/kg dry	352	352	5	09/09/19	09/10/19 14:20	WB
Naphthalene	ND		ug/kg dry	352	352	5	09/09/19	09/10/19 14:20	WB
Phenanthrene	378		ug/kg dry	352	352	5	09/09/19	09/10/19 14:20	WB
Pyrene	1110		ug/kg dry	352	352	5	09/09/19	09/10/19 14:20	WB
Surrogate: Nitrobenzene-d5		23-120		134 %	09/09/19		09/10/19 14:20		S-07
Surrogate: 2-Fluorobiphenyl		30-115		107 %	09/09/19		09/10/19 14:20		
Surrogate: Terphenyl-d14		18-137		125 %	09/09/19		09/10/19 14:20		
DIESEL RANGE ORGANICS BY EPA 3540/8015C									
Diesel-Range Organics	452		mg/kg dry	56.3	56.3	1	08/29/19	08/31/19 02:39	SJA
Surrogate: o-Terphenyl		70-130		91 %	08/29/19		08/31/19 02:39		
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	71		%			1	09/05/19	09/06/19 11:04	RH
TOTAL METALS ANALYSIS BY EPA 3050B/6020A									
Antimony	1.37		mg/kg dry	0.352	0.352	1	08/29/19	08/30/19 14:58	VVD
Arsenic	15.2		mg/kg dry	0.352	0.352	1	08/29/19	08/30/19 14:58	VVD
Beryllium	2.83		mg/kg dry	0.352	0.352	1	08/29/19	08/30/19 14:58	VVD
Cadmium	1.24		mg/kg dry	0.352	0.352	1	08/29/19	08/30/19 14:58	VVD
Chromium	132		mg/kg dry	0.352	0.352	1	08/29/19	08/30/19 14:58	VVD
Copper	158		mg/kg dry	1.76	1.76	5	08/29/19	08/30/19 15:57	VVD
Lead	127		mg/kg dry	0.352	0.352	1	08/29/19	08/30/19 14:58	VVD
Mercury	0.126		mg/kg dry	0.0176	0.0176	1	08/29/19	08/30/19 14:58	VVD
Nickel	299		mg/kg dry	1.76	1.76	5	08/29/19	08/30/19 15:57	VVD
Selenium	1.56		mg/kg dry	0.352	0.352	1	08/29/19	08/30/19 14:58	VVD
Silver	ND		mg/kg dry	0.352	0.352	1	08/29/19	08/30/19 14:58	VVD
Thallium	ND		mg/kg dry	0.352	0.352	1	08/29/19	08/30/19 14:58	VVD
Zinc	741		mg/kg dry	8.80	8.80	5	08/29/19	08/30/19 15:57	VVD



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Baltimore MD 21227
410-247-7600

www.mdspectral.com
MD DW LabID 153

Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

Report revised. Original report ID 9082820 09 06 19 1128.
Reported:

09/10/19 15:28

DUP

9082820-11 (Soil)
Sample Date: 08/28/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05									
Percent Solids	74		%			1	09/05/19	09/06/19 11:04	RH
TOTAL METALS ANALYSIS BY EPA 3050B/6020A									
Antimony	0.619		mg/kg dry	0.338	0.338	1	08/29/19	08/30/19 15:00	VVD
Arsenic	13.1		mg/kg dry	0.338	0.338	1	08/29/19	08/30/19 15:00	VVD
Beryllium	1.62		mg/kg dry	0.338	0.338	1	08/29/19	08/30/19 15:00	VVD
Cadmium	1.27		mg/kg dry	0.338	0.338	1	08/29/19	08/30/19 15:00	VVD
Chromium	87.3		mg/kg dry	0.338	0.338	1	08/29/19	08/30/19 15:00	VVD
Copper	78.4		mg/kg dry	0.338	0.338	1	08/29/19	08/30/19 15:00	VVD
Lead	84.5		mg/kg dry	0.338	0.338	1	08/29/19	08/30/19 15:00	VVD
Mercury	0.101		mg/kg dry	0.0169	0.0169	1	08/29/19	08/30/19 15:00	VVD
Nickel	253		mg/kg dry	3.38	3.38	10	08/29/19	08/30/19 15:59	VVD
Selenium	1.66		mg/kg dry	0.338	0.338	1	08/29/19	08/30/19 15:00	VVD
Silver	ND		mg/kg dry	0.338	0.338	1	08/29/19	08/30/19 15:00	VVD
Thallium	ND		mg/kg dry	0.338	0.338	1	08/29/19	08/30/19 15:00	VVD
Zinc	1260		mg/kg dry	16.9	16.9	10	08/29/19	08/30/19 15:59	VVD



Rabecka Koons, Quality Assurance Officer

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Baltimore MD 21227
410-247-7600
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MD DW LabID 153

Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

Report revised. Original report ID 9082820 09 06 19 1128.
Reported:
09/10/19 15:28

RINSATE BLANK

9082820-12 (Nonpotable Water)
Sample Date: 08/28/19

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
TOTAL METALS ANALYSIS BY EPA 3010A/6020A									
Antimony	ND		ug/L	1.00	1.00	1	08/30/19	09/03/19 13:35	VVD
Arsenic	ND		ug/L	1.00	1.00	1	08/30/19	09/03/19 13:35	VVD
Beryllium	ND		ug/L	1.00	1.00	1	08/30/19	09/03/19 13:35	VVD
Cadmium	ND		ug/L	1.00	1.00	1	08/30/19	09/03/19 13:35	VVD
Chromium	ND		ug/L	1.00	1.00	1	08/30/19	09/03/19 13:35	VVD
Copper	ND		ug/L	1.00	1.00	1	08/30/19	09/03/19 13:35	VVD
Lead	ND		ug/L	1.00	1.00	1	08/30/19	09/03/19 13:35	VVD
Mercury	ND		ug/L	0.100	0.100	1	08/30/19	09/03/19 13:35	VVD
Nickel	ND		ug/L	1.00	1.00	1	08/30/19	09/03/19 13:35	VVD
Selenium	ND		ug/L	1.00	1.00	1	08/30/19	09/03/19 13:35	VVD
Silver	ND		ug/L	1.00	1.00	1	08/30/19	09/03/19 13:35	VVD
Thallium	ND		ug/L	1.00	1.00	1	08/30/19	09/03/19 13:35	VVD
Zinc	ND		ug/L	5.00	5.00	1	08/30/19	09/03/19 13:35	VVD



Rabecka Koons, Quality Assurance Officer

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Project: PURPLE LINE-TALBOT

Project Number: [none]
Project Manager: Tyler Lane

Report revised. Original report ID 9082820 09 06 19 1128.
Reported:
09/10/19 15:28

Notes and Definitions

- S-BN Base/Neutral surrogate recovery outside of control limits. The data was accepted based on valid recovery of remaining two base/neutral surrogates.
- S-07 Surrogate recovery outside control limits due to sample matrix effect.
- QM-4X The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
- QM-06 Due to noted non-homogeneity of the QC sample matrix, the MS/MSD did not provide reliable results for accuracy and precision. Sample results for the QC batch were accepted based on LCS/LCSD percent recoveries and RPD values.
- J Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- %-Solids Percent Solids is a supportive test and as such does not require accreditation



Rabecka Koons, Quality Assurance Officer

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Company Name:		Project Manager:		Analysis Requested		CHAIN-OF-CUSTODY RECORD	
RKOK		Tyler Lane				Maryland Spectral Services, Inc. 1500 Caton Center Drive, Suite G Baltimore, MD 21227 410-247-7600 • Fax 410-247-7602 reporting@mdspectral.com	
Project Name:		Project ID:				Matrix Codes: NW (non-potable water) PW (potable water)	
Purple Line-Talbot						Preservative: 1+1 HCl, H ₂ SO ₄ , Methanol, Na ₂ S ₂ O ₃ , NaHCO ₃	
Sampler(s):		P.O. Number:				MSS Lab ID	
Ted Chadeayne						9082820-01	
Field Sample ID	Date	Time	Water	Soil	Other	No. of Containers	
SB-07	8-28	1450	✓			2	
SB-08	8-28	1420	✓			2	
SB-09	8-28	1315	✓			2	
SB-10	8-28	1510	✓			2	
SB-11	8-28	1255	✓			2	
SB-12	8-28	1155	✓			2	
SB-13	8-28	1050	✓			2	
SB-14	8-28	1110	✓			2	
SB-15	8-28	1025	✓			2	
SB-16	8-28	1000	✓			2	
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time	
<i>T Chadeayne</i>		1752		<i>T Chadeayne</i>			
(Printed)				(Printed)			
T Chadeayne		8/28/19		Received by Lab: (Signature)		Date/Time	
(Printed)				<i>T Chadeayne</i>			
Relinquished by: (Signature)		Date/Time		Turn Around Time:		Lab Use:	
				Normal (7 day)		Temp: <u>5.1</u> °C	
				5 day		<input checked="" type="checkbox"/> Received on Ice	
				4 day		<input type="checkbox"/> Received same day	
				3 day		<input type="checkbox"/> Preservation Appropriate	
				Rush (2 day)		Sample Disposal:	
				Next Day		<input type="checkbox"/> Return to Client	
				Other: _____		<input checked="" type="checkbox"/> Disposal by lab	
				Specific Due Date: _____		<input type="checkbox"/> Archive for _____ days	

Report revised. Original report ID 9082820 09 06 19 1128.

May 3, 2021

Ms. Anita Rodgers
Maryland Transit Administration
6811 Kenilworth Avenue
Riverdale, MD 20737

Re: Additional Soil Characterization Report
Parcel 138
8998 Talbot Avenue, Silver Spring, Maryland

INTRODUCTION

In response to the need to understand and assess construction soil management during the redevelopment of this property the Maryland Department of Transportation (MDOT) Maryland Transit Administration (MTA) tasked Rummel, Klepper and Kahl (RK&K) to implement additional soil characterization of Maryland National Capital Purple Line Site Parcel 138, located at 8998 Talbot Avenue, between Michigan Avenue and Kansas Avenue, in Silver Spring, Maryland (Site). The results of this sampling are described herein and were designed to provide an understanding of distribution of metals, polycyclic aromatic hydrocarbons, and diesel range organics detected in the near-surface soil on the Site.

The Site is currently in use as a temporary staging area for construction materials as part of Purple Line light rail alignment development. MDOT MTA intends to transfer the property to Maryland National Capital Park and Planning Commission – Montgomery County for redevelopment of the Site for recreational use, which may include a stormwater management basin, fitness area, playground, and trail/girder plaza, with walkways between the areas. In November 2020, RK&K was provided with a conceptual plan for the parcel; this plan included elevation cross-sections suggesting much of the site will be subject to cut grading to achieve the finish grade elevations and foundation excavation depths of up to approximately five feet. Based on these conceptual design identified depths and prior contaminant investigation findings, the following additional soil investigation was conducted to evaluate soil conditions at anticipated finish-grade elevations. A photolog of the Site is located in **Attachment 1**.

BACKGROUND

The Site address is currently identified as 8998 Talbot Avenue; however, according to Montgomery County, Maryland Real Property Data Search, the Site is addressed as 2205 Kansas Avenue and was acquired by MTA from CSX Transportation (Tax ID 01409096). The property boundaries extend approximately 200 feet west of the current Site boundaries utilized during this sampling event.

Historic Aerial Review

RK&K conducted a historic aerial photograph review of the Site using Historic Aerials by Netronline ([NETRonline: Historic Aerials](#)). Aerial years ranged from 1957 to 2015.

From 1957 until 1970 an unpaved road traverses the Site from southeast to northwest with some structures to the north and south of the road. A rail line is depicted to the north of the Site. In 1970, the area to the south of the road is wooded and the area to the north appears to be grassy. From then until 2015 the Site is heavily wooded.



Purple Line Supplemental Hazardous Materials Technical Report, Chesapeake Environmental Management, Inc. (CEM), August 2013

This Supplemental Hazardous Materials Technical Report was prepared to support the Final Environmental Impact Statement for the Purple Line and was intended to identify potentially hazardous waste issues or other recognized environmental concerns (RECs) related to sites located within the project's proposed limit of disturbance (LOD). The current Site was identified as Site ID #138 "wooded lot" located at 2205 Kansas Avenue. The Site was ranked a "4" – medium potential for impact and soil sampling was recommended to evaluate subsurface conditions. It appears that the current Site boundaries are smaller than reviewed in the 2013 report, where the Site boundary on the western portion extended 200 feet west of the current Site boundaries. The Site was also addressed as 2205 Kansas Avenue and owned by LRS Group LLC.

Subsurface Investigation Talbot Avenue Property, Talbot Avenue, Silver Spring, Maryland, Chesapeake Environmental Management, Inc., May 2019

In the May 2019 report, Chesapeake Environmental Management, Inc. (CEM) included a discussion of a Phase I ESA that was conducted. In 2011 and 2012, CEM performed a Phase I ESA of the Purple Line alignment. CEM stated that the Site was an undeveloped lot until approximately 1908. From 1908 to 1910 the Site was developed within a portion of the Georgetown Branch of the larger Baltimore and Ohio Railroad (B&O) line (north of the Site). The rail line extended through the Site from east to west and continued south towards Georgetown. The line carried coal and other merchandise until it was discontinued in 1985. The Site remained largely vacant once service along the line was discontinued, and during that time the Site became overgrown; however, remnants of the former Georgetown Branch were still present on Site. As part of the Phase I ESA Parcel 138 (the Site) was ranked a "4" with a moderate potential for environmental impacts to the proposed alignment due to historical railroad activities in the area. Based on this ranking, the following soil investigation was conducted under guidance from the Purple Line Program Management Consultant:

On April 2, 2019, CEM conducted a soil investigation collecting 12 soil samples from six locations. Refusal was encountered at each of the six borings between 20 and 27 feet below ground surface (bgs). Perched groundwater was encountered between 9 to 17 feet bgs. Six surficial soil samples were collected from 0 to 5 feet bgs, six subsurface soil samples were collected from 5 feet to 27 feet bgs, and four groundwater samples were collected and submitted to the laboratory for analysis of: volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH)-gasoline range organics (GRO) and diesel range organics (DRO), and polychlorinated biphenyls (PCBs), and Priority Pollutant List (PPL) metals.

For the groundwater samples, VOCs, SVOCs, TPH-GRO and DRO, and PCBs were below laboratory detection limits. Levels were detected above laboratory detection limits for metals; however, they were below MDE Cleanup Standards.

SVOCs, TPH-GRO and DRO, and PCBs were below laboratory detection limits for the soil samples. The VOCs analysis identified methylene chloride and acetone detected above laboratory detection limits; but below MDE Cleanup Standards; however, these were identified as laboratory contaminants.

The PPL metals analysis found arsenic above the MDE Residential Cleanup Standard (0.68 mg/kg) in 11 of the 12 samples, ranging from 0.724 mg/kg to 4.23 mg/kg, collected from 4 to 27 feet bgs. One of the 11 samples (4.23 mg/kg, collected 4 to 5 feet bgs) was identified above the MDE Non-residential Cleanup Standard (3 mg/kg). None were above the MDE Anticipated Typical Concentrations (ATCs) for central Maryland (4.9 mg/kg).



The PPL metals analysis also identified thallium above MDE Residential Cleanup Standard (0.078 mg/kg) in six of the 12 samples, ranging from 0.320 mg/kg to 3.39 mg/kg, collected from 4 to 27 feet bgs. One of the samples (3.39 mg/kg, collected 19-20 feet bgs) was above the MDE Non-Residential Cleanup Standard (1.2 mg/kg). One sample (3.39 mg/kg, collected 19 to 20 feet bgs) was above the ATC for central Maryland (1.5 mg/kg).

Shallow Soil Characterization Report, Purple Line-Parcel 138, 8998 Talbot Avenue, Silver Spring, Maryland, RK&K, September 16, 2019

In 2019, the Site was being used as a temporary staging area for construction materials as part of Purple Line light rail alignment development. MDOT MTA, acting on behalf of Montgomery County, proposed redevelopment of the non-Purple Line portions of the Site for use as an extension of the Capital Crescent Trail (CCT) for pedestrian and bicycle use. In addition, the Maryland National Capital Park and Planning Commission – Montgomery County (MNCPPC-MC) had shown interest in developing the remainder of the Site as a park as part of a potential separate future project.

As part of the purchase of the Parcel 138 from CSX, the former owner placed use limitations on the parcel requiring regulatory review prior to use for ‘any recreational purpose.’ In order to remove the recreational use restrictions, on June 27, 2019, MDOT MTA requested the Maryland Department of the Environment (MDE) Land Restoration Program (LRP) review of the deed, previous soil sampling date, and proposed site development plans. On August 15, 2019, MDOT MTA received notice from MDE requesting additional shallow soil testing across the Site to support removal of the deed restriction and allow recreational use.

In 2019, RK&K conducted a shallow soil investigation, which consisted of a total of ten borings, five of which were collected in the proposed bike path, north/northwest of the current Site, and the other five were collected in the future park area (current Site). Borings S-08, S-11, S-13, S-15, and S-16 were collected in the proposed bike path and borings S-07, S-09, S-10, S-12, and S-14 were collected in the future park area (current Site). The borings were collected from 0 to 1 foot bgs, however, due to rock coverage, S-08, S-09, and S-12 were collected from 0.5 to 1.5 feet bgs. All soil samples were analyzed for TPH-DRO, polycyclic aromatic hydrocarbons (PAHs), and PPL metals.

TPH-DRO was detected in one sample within the bike path area (452 mg/kg) above the MDE Residential Cleanup Standard (230 mg/kg); however, no samples exceeded the MDE Residential Cleanup Standard in the future park area (current Site).

Benzo(b)fluoranthene was detected in two samples within the bike path area (1,690 ug/kg and 1,470 ug/kg) above MDE Residential Cleanup Standard (1,100 ug/kg); however, no samples exceeded the MDE Residential Cleanup Standard in the future park area (current Site).

Benzo(a)pyrene was detected in two samples within the bike path area (954 ug/kg and 830 ug/kg) and two samples in the future park area (current Site) (S-12, 113 ug/kg and S-14, 727 ug/kg) above the MDE Residential Cleanup Standard (110 ug/kg).

Dibenz(a,h)anthracene was detected in one sample within the bike path area (174 ug/kg) and one within the future park area (current Site) (S-14, 123 ug/kg) above the MDE Residential Cleanup Standard (110 ug/kg).



Arsenic was identified above the MDE Residential Cleanup Standard (0.68 mg/kg) in all samples collected, ranging from 2.65 to 15.2 mg/kg. The levels identified in the future park area were identified as:

- S-07, 4.55 mg/kg
- S-09, 4.13 mg/kg
- S-10, 3.15 mg/kg
- S-12, 6.20 mg/kg
- S-14, 7.36 mg/kg

All of the arsenic levels identified in the future park area (current Site) are also above the MDE Non-Residential Standard (3 mg/kg) and two (S-12 and S-14) are above the ATC for central Maryland (4.9 mg/kg).

The arsenic levels identified in the bike path were identified as:

- S-08, 3.18 mg/kg
- S-11, 2.65 mg/kg
- S-13, 4.08 mg/kg
- S-15, 13.5 mg/kg
- S-16, 15.2 mg/kg

All but one of the arsenic levels identified in the bike path area are also above the MDE Non-Residential Standard (3 mg/kg) and two (S-15 and S-16) are above the ATC for central Maryland (4.9 mg/kg).

Nickel was detected in three bike path area samples (297, 253, 299 mg/kg) above the MDE Residential Cleanup Standard (150 mg/kg); however, no samples exceeded the MDE Residential Cleanup Standard in the future park area (current Site).

SOIL INVESTIGATION

Prior to mobilization, RK&K prepared a site-specific sampling and analysis plan (SAP) and site-specific Health and Safety Plan (HASP). The SAP selected boring locations based on identified data gaps identified in prior soil investigations and considered the conceptual site layout provided by Montgomery County Parks and Recreation, dated November 2020. The objective was to better understand:

- The distribution and concentration of contaminants of concern (COC);
- Whether excavated soil may be beneficially reused for the planned redevelopment; and
- Whether cut grading would expose soil with CoC at finish grade elevations.

On March 3, 2021, Tidewater, Inc. (Tidewater) submitted a Miss Utility ticket for subsurface excavation clearance, for an extent of work that included an area with all of the proposed soil sampling locations. All utility responses were received before mobilizing to the site and were listed as “Clear/No conflict” except for Washington Gas and Washington Suburban Sanitary Commission, which were listed as marked.

On March 9 and 10, 2021, RK&K mobilized to the Site, in accordance with the RK&K HASP and Purple Line safety requirements. The weather was partly sunny to clear and dry, with a temperature high in the low 70s °F and no wind on both days. Precipitation had not occurred within 48 hours of the site investigation. The field crew reviewed the RK&K HASP and discussed potential site-specific hazards such as slips, trips and falls; contact with wildlife; and sunburns.



A geophysical investigation, consisting of ground penetrating radar (GPR) survey was conducted on March 9, 2021, at all of the proposed soil boring locations, by Tidewater. Based on GPR outcome and accessibility at the Site (equipment/storage blocking areas), some planned boring locations were field-adjusted.

Following the GPR clearance, Mr. Chadeayne, oversaw the advancement of 31 soil borings (P138-01 through P138-31) via Geoprobe® drilling technology, by Tidewater, at various areas of the Site. The following table summarizes the boring locations relative to the planned development feature, elevation, and the sample collection depth.

Boring	Proposed Area	Current Elevation	Planned Elevation	Cut Depth	Sample Depth (feet bgs)
P138-01	Plaza	331	328	3 feet (+3 footing) = 6	5
P138-02	Plaza	330	328	2 feet (+3 footing) = 5	5
P138-03	Plaza	330	328	2 feet (+3 footing) = 5	5
P138-04	Playground	330	325	5 feet (+3 footing) = 8	5
P138-05	Plaza	329	328	1 foot (+3 footing) = 4	4
P138-06	Playground	330	325	5 feet (+3 footing) = 8	5
P138-07	Exterior	329	327	2 feet	2
P138-08	Playground	329	325	4 feet (+3 footing) = 7	5
P138-09	Exterior	328	326	2 feet	2
P138-10	Playground	328	325	3 feet (+3 footing) = 6	5
P138-11	Exterior	328	326	2 feet	2
P138-12	Playground	327	325	2 feet (+3 footing) = 5	5
P138-13	Playground	327	325	2 feet (+3 footing) = 5	5
P138-14	Exterior	326	325	1 foot	2
P138-15	Playground	326	325	1 foot (+3 footing) = 4	4
P138-16	Playground	326	325	1 foot (+3 footing) = 4	4
P138-17	Exterior	325	325	0 feet	2
P138-18	Playground	325	325	0 feet (+3 footing) = 3	3
P138-19	Playground	324	325	-1 foot (+3 footing) = 2	2
P138-20	Exterior	324	323	1 foot	2
P138-21	Exterior	323	321	2 feet	2
P138-22	Fitness	322	320	2 feet (+3 footing) = 5	5
P138-23	Fitness	322	320	2 feet (+3 footing) = 5	5
P138-24	Exterior	321	321	0 feet	2
P138-25	Fitness	320	320	0 feet (+3 footing) = 3	3
P138-26	Fitness	319	320	-1 foot (+3 footing) = 2	2
P138-27	Fitness	318	320	-2 feet (+3 footing) = 1	2
P138-28	Exterior	317	315	2 feet	2
P138-29	SWM	316	314	2 feet (+5 SWM) = 7	5
P138-30	SWM	316	314	2 feet (+5 SWM) = 7	5
P138-31	SWM	316	314	2 feet (+5 SWM) = 7	5

Soil boring locations are provided in **Figure 1**, and cross sections of the Site are provided in **Figure 2**.

The majority of the soil was a brownish gray to reddish brown fine to medium sand, with little silt and gravel. Borings along the north side of the Site (from P138-09 to P138-28) had an emplaced coarse light gray gravel surface, between 0.5 to 1.5 feet deep, often with a black fabric underneath. Scattered borings (P138-04, P138-09, P138-17, and P138-19) had soils that were stained black and/or contained small pieces of black woody debris. No detectable odor was present with these soils. Most of the soils below 1 to 2 feet bgs were slightly to highly micaceous. Borings from the center to the northwest side of the Site (from P138-19 to P138-26) showed degraded rock structure, indicating that the soils developed in place from



weathered bedrock. The soils in the majority of the Site were either dry or slightly moist. The soils around the planned SWM area (P138-28 to P138-31) were moist to wet.

Each sample was screened visually for indications of potential gross or volatile contaminant impacts (visual/olfactory/photo-ionization detector (as needed)). RK&K did not detect any odors or see any visible signs of gross contamination in any sample. Since no indications of gross contamination were noted during the field investigation, all sampling points were backfilled at the respective location with the remaining soil after collection of the sample retained for laboratory analyses. Sampling point locations were recorded using an iPad Air connected to a GENEQ, Inc. iSXBlue II + GNSS receiver unit. The horizontal accuracy for all collected locations was under 2.1 feet. Groundwater was not encountered in any of the soil borings.

Each soil sample was collected using a pair of disposable nitrile gloves, and all reusable equipment was decontaminated between boring locations using a scrub brush, water and inert Alconox rinse. RK&K collected 31 soil samples, along with two rinsate blank samples (one per day) for quality control, for a total of 33 samples, which were placed in laboratory-provided containers. The sample containers were placed in the sample cooler and maintained at approximately 4 °C. The samples were hand-delivered with appropriate chain-of-custody documentation to Maryland Spectral Services, Inc., in Halethorpe, Maryland. Requested standard turnaround time laboratory analyses for the identified COCs included:

- TPH-DRO by EPA method 8015C;
- PAHs by EPA method 8270D with selected ion monitoring (SIM); and
- PPL metals by EPA method 6020B/7199.

SOIL SAMPLE RESULTS

The results of the soil sampling are presented in **Table 1** and are compared to MDE Non-Residential and Residential Cleanup Standards and the Anticipated Typical Concentrations (ATC) of naturally-occurring substance (background) in Central Maryland (MDE, 2018). The full Maryland Spectral Services laboratory report is included as **Attachment 2**. The findings for the soil samples include:

TPH-DRO

Detections were identified above method detection limits (MDLs); however, all were below the MDE Residential Cleanup Standard.

PAHs

Benzo(a)pyrene was detected in six samples: P138-03 (333 ug/kg), P138-04 (118 ug/kg), P139-19 (204 ug/kg), P138-20 (164 ug/kg), P138-26 (145 ug/kg), and P138-27 (536 ug/kg), above the MDE Residential Cleanup Standard (110 µg/kg); however, none are above the MDE Non-Residential Cleanup Standard (2,100 ug/kg).

Other PAHs were identified above their MDLs; however, all were below their respective MDE Residential Cleanup Standards.

PPL Metals

Arsenic concentrations were identified in all 31 samples, ranging from 1.5 mg/kg (P138-21) to 5.55 (P138-20).

- All 31 samples exceed the MDE Residential Cleanup Standard of 0.68 mg/kg
- 12 samples exceed the MDE Non-Residential Cleanup Standard of 3 mg/kg

- 2 samples exceed the ATC for background levels of metals in Central Maryland of 4.9 mg/kg

Thallium was detected in five samples: P138-05 (0.39 mg/kg), P138-06 (0.342 mg/kg), P138-07 (0.298 mg/kg), P128-21 (0.342 mg/kg), P138-23 (31 mg/kg), above the MDE Residential Cleanup Standard (0.078 mg/kg); however, none are above the MDE Non-Residential Cleanup Standard (1.2 mg/kg).

Other metals were identified above their MDLs; however, all were below their respective MDE Residential Cleanup Standards.

CONCLUSIONS

Based on the results of the recent soil sampling investigation, RK&K makes the following conclusions:

- TPH-DRO constituents were not identified above MDE Residential Cleanup Standards.
- One PAH, benzo(a)pyrene, was detected in six samples, throughout the Site, above MDE Residential Cleanup Standards; however, they are below MDE Non-Residential Cleanup Standards.
- Two PPL metals were detected above MDE Standards, thallium and arsenic:
 - Thallium was detected in five samples, throughout the Site, above MDE Residential Cleanup Standards; however, they are below MDE Non-Residential Cleanup Standards.
 - Arsenic was detected in all 31 samples collected, above the MDE Residential Cleanup Standard. Of the 31, 12 samples exceed the MDE Non-Residential Cleanup Standard and 2 samples exceed the ATC for background levels in Central Maryland.

The arsenic levels identified in the 2021 most recent sampling event mimics the arsenic levels identified during the CEM and RK&K sampling events in 2019. Arsenic was detected by CEM ranging from 0.724 mg/kg to 4.23 mg/kg collected from depths ranging from 4 to 27 feet bgs and by RK&K ranging from 2.65 to 15.2 mg/kg collected from depths up to 1.5 feet bgs. The most recent sampling detected arsenic ranging from 1.5 mg/kg to 5.55 mg/kg collected from depths from 2 to 5 feet bgs.

The thallium levels identified by CEM in 2019 also mimic the levels identified during the 2021 sampling event. Thallium was detected by CEM ranging from 0.320 mg/kg to 3.39 mg/kg, collected from 4 to 27 feet bgs and by RK&K in 2021 ranging from 0.298 mg/kg to 31 mg/kg collected from 2 to 5 feet bgs.

Benzo(a)pyrene was detected in the RK&K 2019 and 2021 sampling events, with similar levels. In 2019 ranging from 113 ug/kg to 727 ug/kg in soils up to 1.5 feet bgs and in 2021 ranging from 118 to 536 ug/kg from 2 to 5 feet bgs.

Review of the cross sections provided in **Figure 2** suggest the following:

- There are planned cut and fill grading proposed to establish planned finish grade elevations;
- The conceptual buildout includes planned hardscape features such as sidewalks or hard-surface court areas;
- Soil excavated in higher portions of the Site will contain metals above the MDE risk-based residential standards; and
- Soil exposed at the finish surface by cut grading will contain metals above MDE risk-based residential standards.

Review of this data validates that metals (arsenic and thallium) and one PAH (benzo(a)pyrene) are present in the near surface and underlying soils, wide-spread throughout the Site, at concentrations consistent with prior sampling; this includes samples with detected concentrations above MDE residential exposure

concentration standards. The occurrence of the metals and benzo(a)pyrene in soil does not appear to be related to the historical use of this parcel or associated with a point source spill. Therefore, the metals are considered natural-occurring from bedrock-derived soil, and this is acknowledged by MDE as a geographic consideration in Maryland. Benzo(a)pyrene is not produced or used commercially; however, it is commonly found in urban areas as it is formed as a result of combustion (i.e., air pollution). Nevertheless, the planned use as an active residential park property suggests that reuse of Site generated soil to obtain planned graded elevations, and portions of the Site where cut grading exposes soil containing these metals requires an engineering control to minimize exposure to Site users. The engineering controls can include hardscape features, overlying imported clean fill, or a combination of these or similar constructed preventative features.

If you have any questions or comments regarding this report, please contact the undersigned at (610) 962-7860.

This report was prepared by:
Rummel, Klepper & Kahl, LLP



Nicole Bruno
Project Manager



Jeffrey C. Obrecht, PG
Manager, Environmental Health and
Safety Services

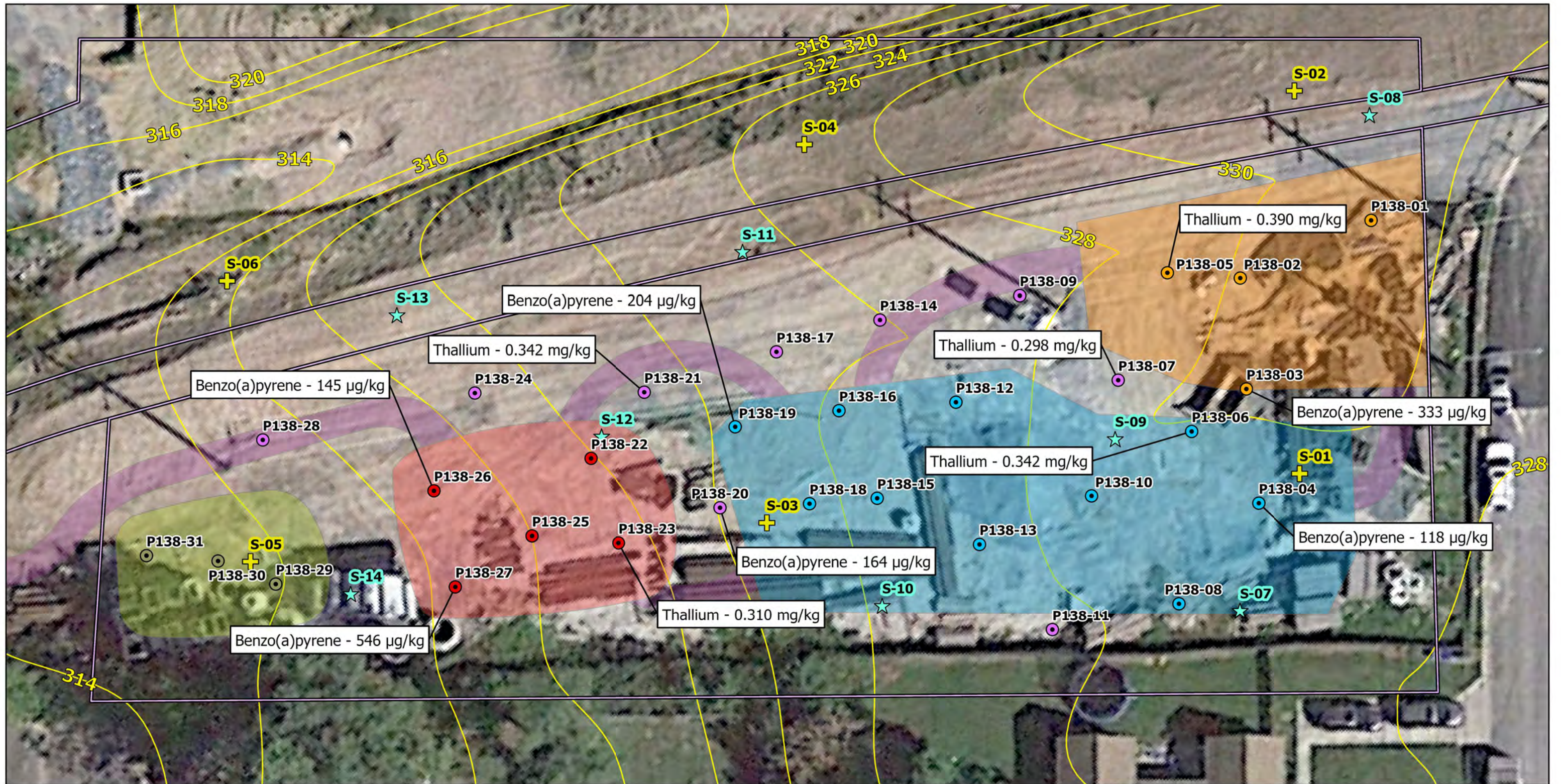
Enclosures: Figure 1 – Additional Soil Sampling Map
Figure 2 – Cross Sections Map
Table 1 – Soil Analytical Results
Attachment 1 – Photolog
Attachment 2 – Laboratory Report

cc: Steve Kolarz, MTA/PMC

REFERENCES

- CEM. (2013, August). Purple Line Supplemental Hazardous Materials Technical Report, Chesapeake Environmental Management, Inc.
- CEM. (2019, May). Subsurface Investigation Talbot Avenue Property, Talbot Avenue, Silver Spring, Maryland, Chesapeake Environmental Management, Inc.
- MDE. (2018, October). Cleanup Standards for Soil and Groundwater – Interim Final Guidance (Update No. 3). Baltimore, Maryland: Maryland Department of the Environment.
- RK&K. (2019, September 16). Shallow Soil Characterization Report, Purple Line – Parcel 138. Baltimore, Maryland: Rummel, Klepper & Kahl, LLP.
- Historic Aerials by Netronline ([NETRonline: Historic Aerials](#))

Figures



This material is the property of Maryland MTA and is provided for information purposes only. The MTA assumes no liability for the information contained in this material. The borrower is responsible for verification of all information.



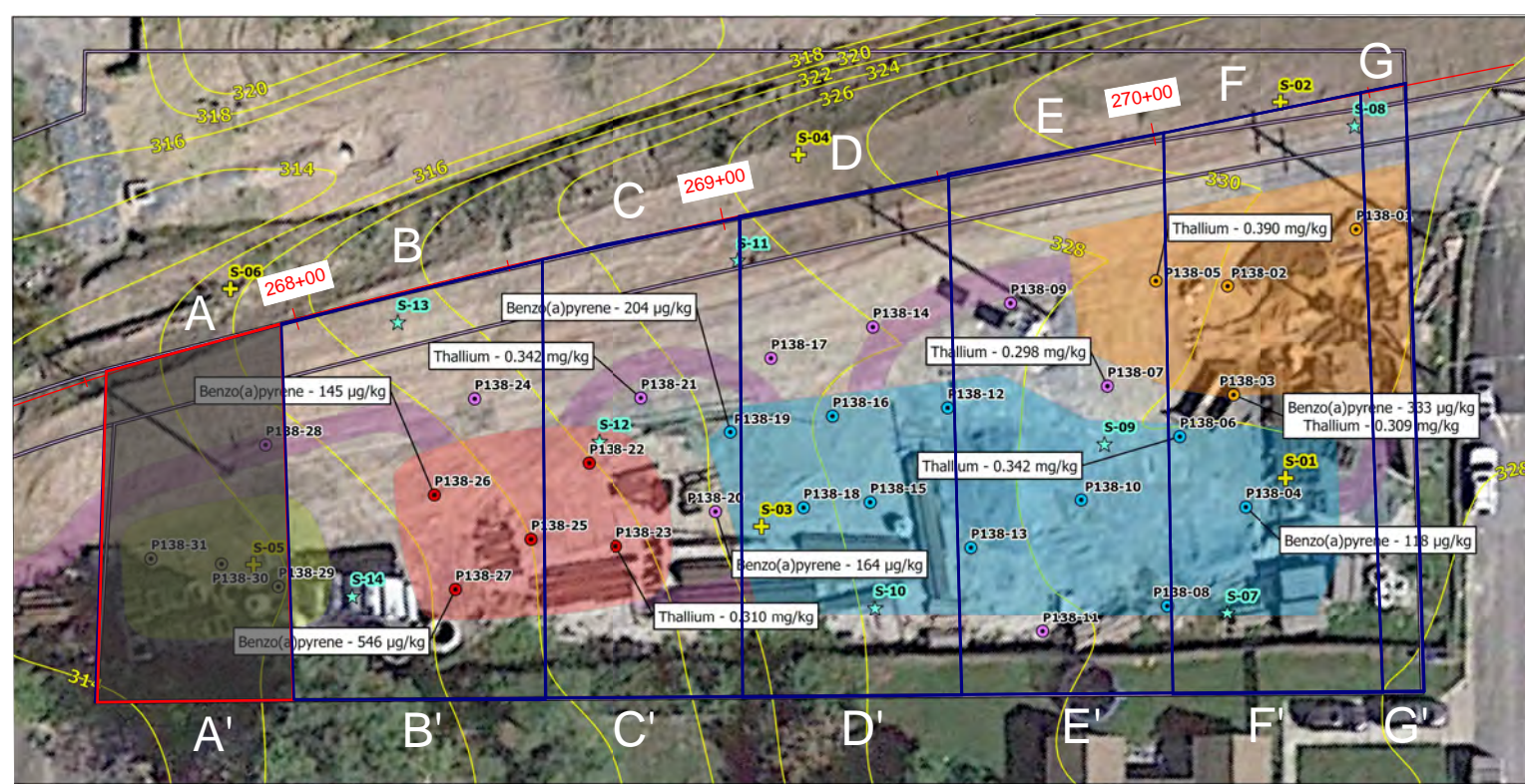
Legend		
2019 CEM Samples	SWM Area	Fitness Area
2019 Shallow Samples	Sidewalk/Exterior	Playground Area
2021 Park Borings	Trail Plaza	SWM Area
Fitness Area	Property Lines	Sidewalk
Playground		Trail Plaza

Lyttonsville Park - Hazardous Material Assessment
Additional Soil Sampling
Silver Spring, Maryland

Map Title:
Figure 1 - Sheet 1:
Site Map

Sources:
MTA

Date: April 2021
Scale: 1:340



A

A'

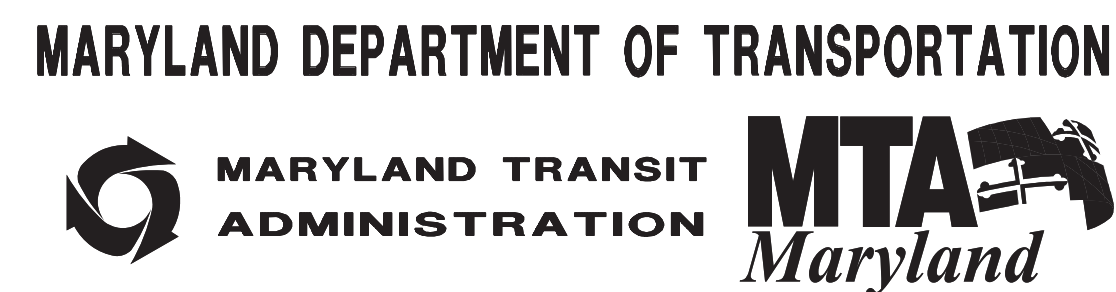


TRK 1 267+50



NOTE:
 PROPOSED RETAINING WALLS, TRACK, AND STATIONS
 SHOWN FOR REFERENCE ONLY. FOR DETAILS SEE
 PACKAGES S1-040, S1-041, S1-042, S1-043,
 S1-044, S1-050, AND S1-070.

THESE CROSS SECTIONS PROVIDE A REPRESENTATION OF THE DESIGN INTENT ONLY.
 FOR DETAILED DESIGN OF ELEMENTS DEPICTED IN THE CROSS SECTIONS REFER TO
 THEIR RESPECTIVE DESIGN PACKAGE.



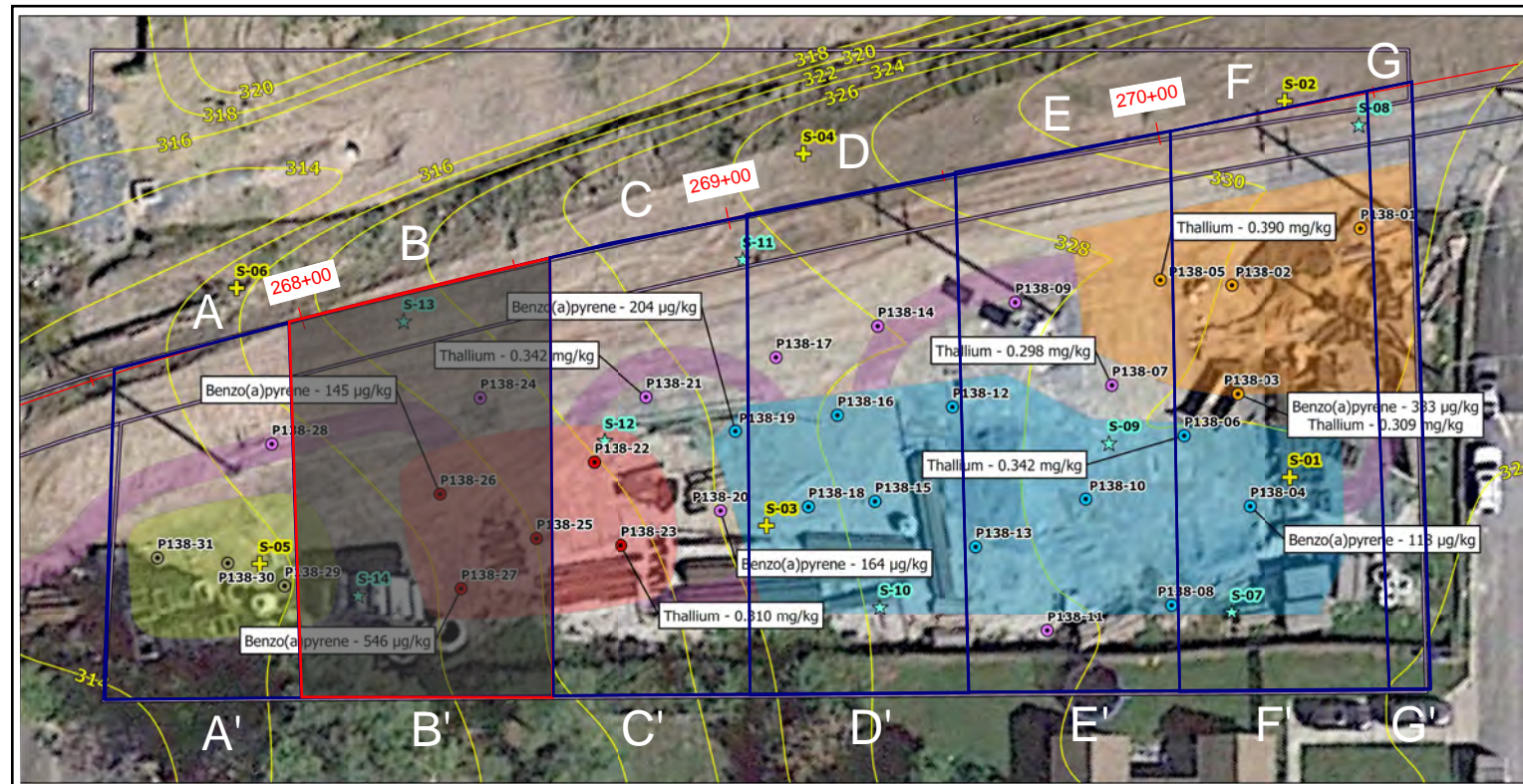
NO.	DESCRIPTION	BY	DATE
0	RELEASE FOR CONSTRUCTION	CJC	05/14/20
REVISIONS			

YK	DESIGN
RGK	DRAWING
YK	CHECK
CJC	APPROVE

Figure 2 PURPLE LINE LIGHT RAIL
 CIVIL DESIGN
 SEGMENT 1B
 CROSS SECTIONS
 STA 267+50 TO STA 267+50
 DATE: MAY 14, 2020 SCALE: 1"=10'

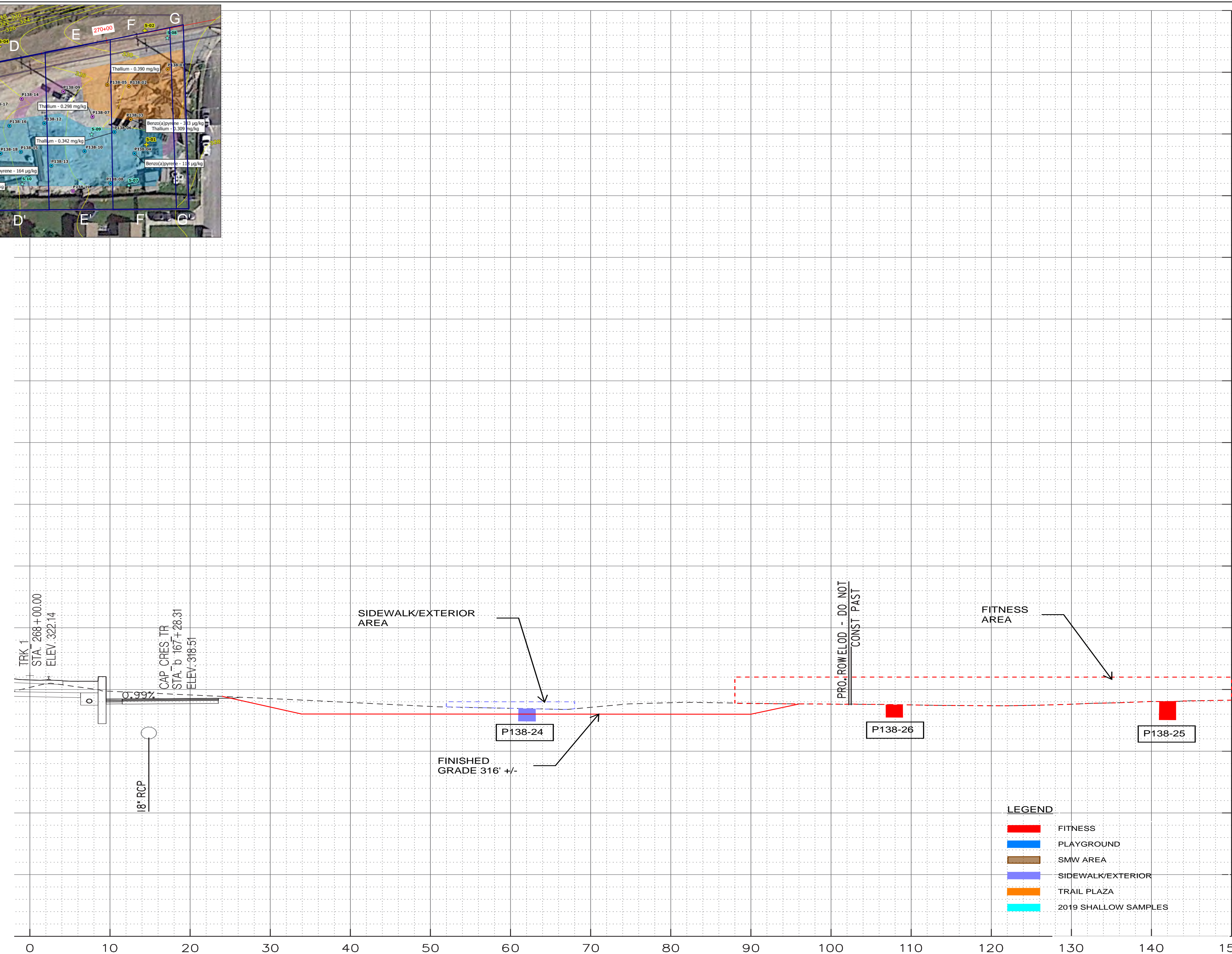
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 136 OF 290

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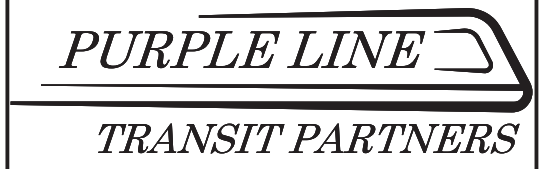


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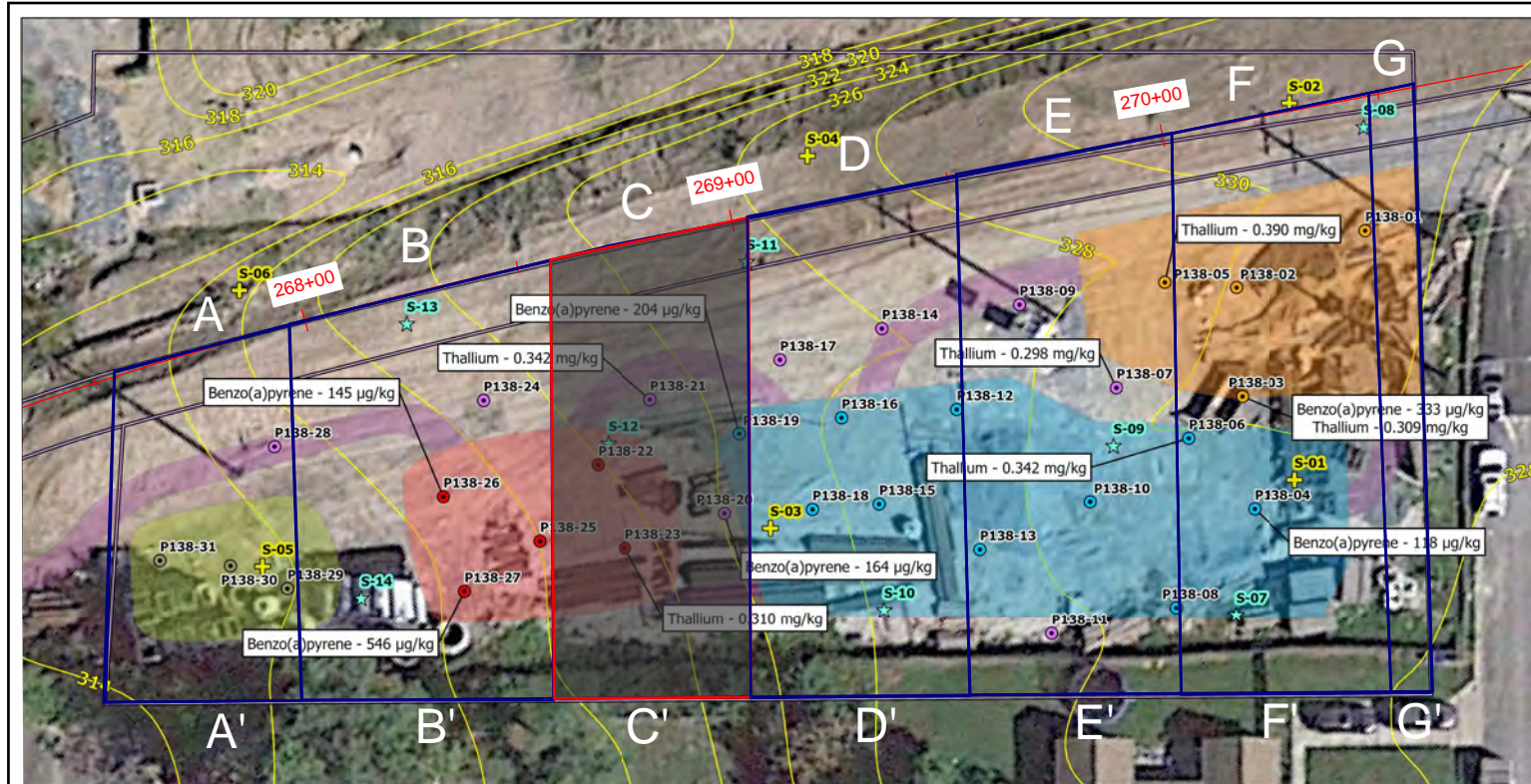
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0	RELEASE FOR CONSTRUCTION	CJC	05/14/20
REVISIONS			

PURPLE LINE LIGHT RAIL
CIVIL DESIGN
SEGMENT 1B

CROSS SECTIONS
STA 268+00 TO STA 268+00
 DATE: MAY 14, 2020 SCALE: 1" = 10'

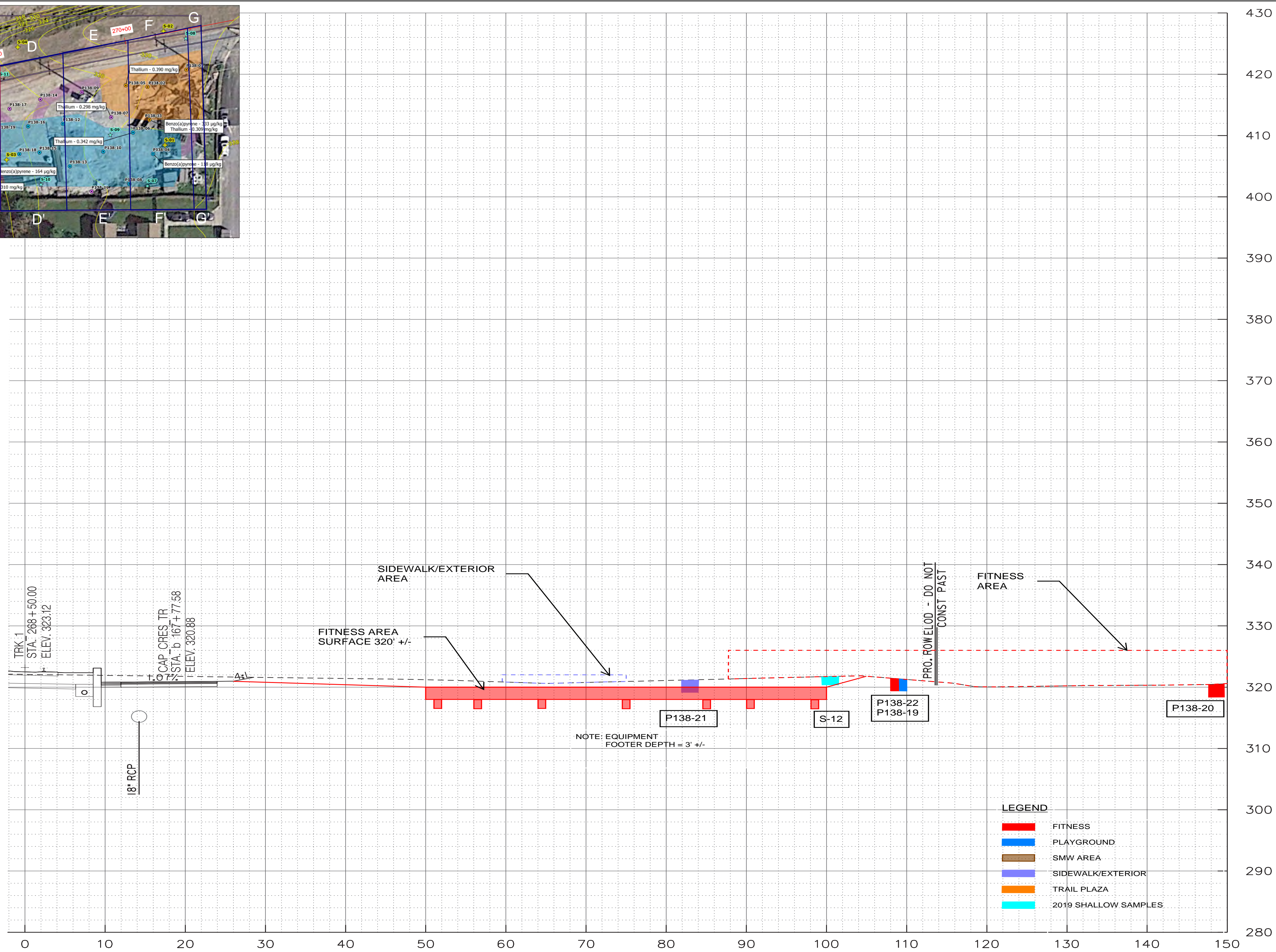
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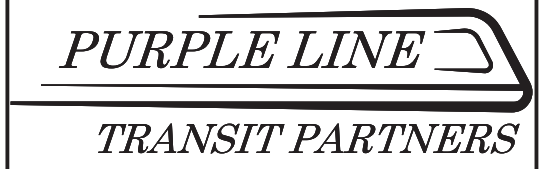


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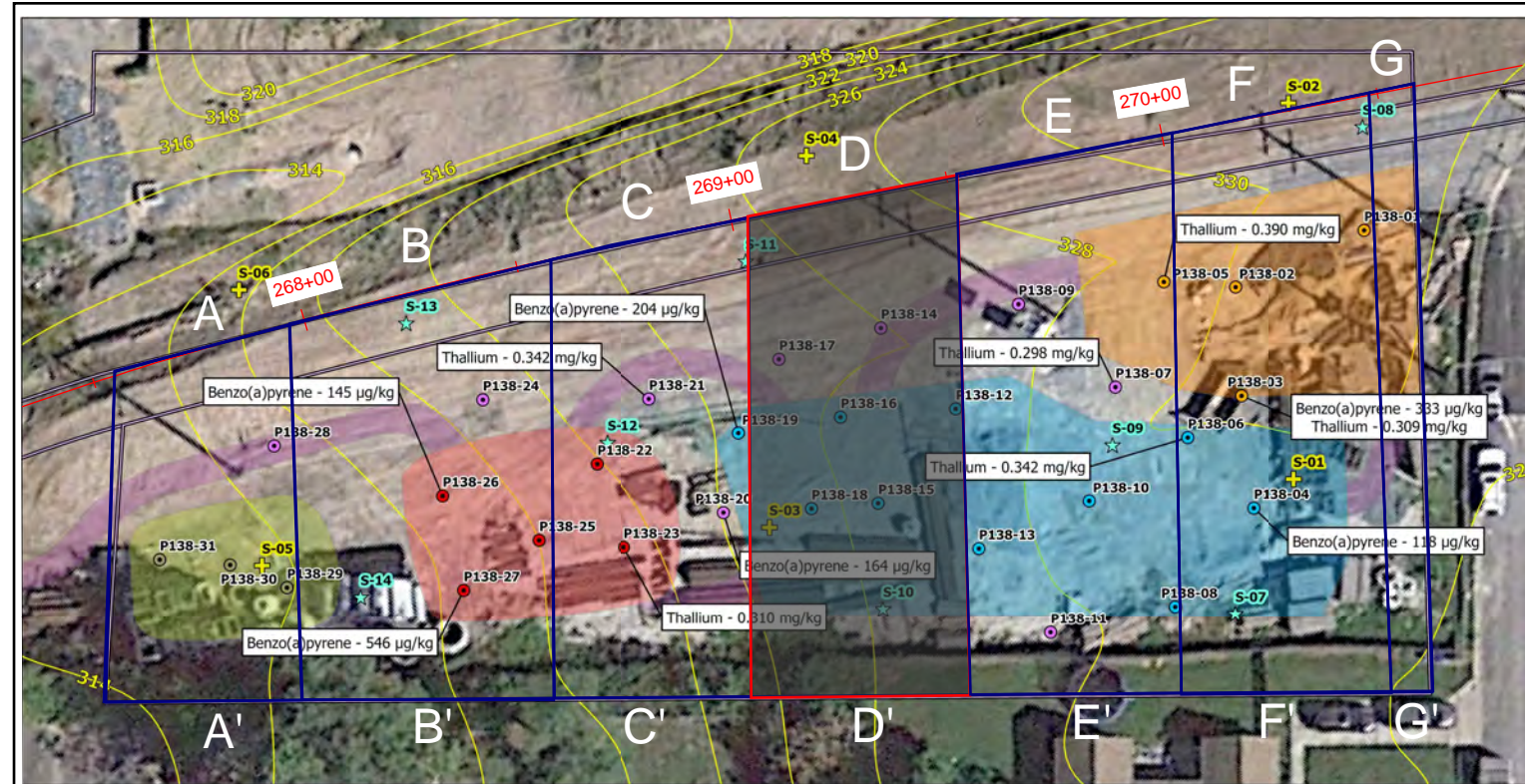


NO.	DESCRIPTION	BY	DATE
0	RELEASE FOR CONSTRUCTION	CJC	05/14/20
REVISIONS			

Figure 2 PURPLE LINE LIGHT RAIL
 CIVIL DESIGN
 SEGMENT 1B
 CROSS SECTIONS
 STA 268+50 TO STA 268+50
 DATE: MAY 14, 2020 SCALE: 1"=10'

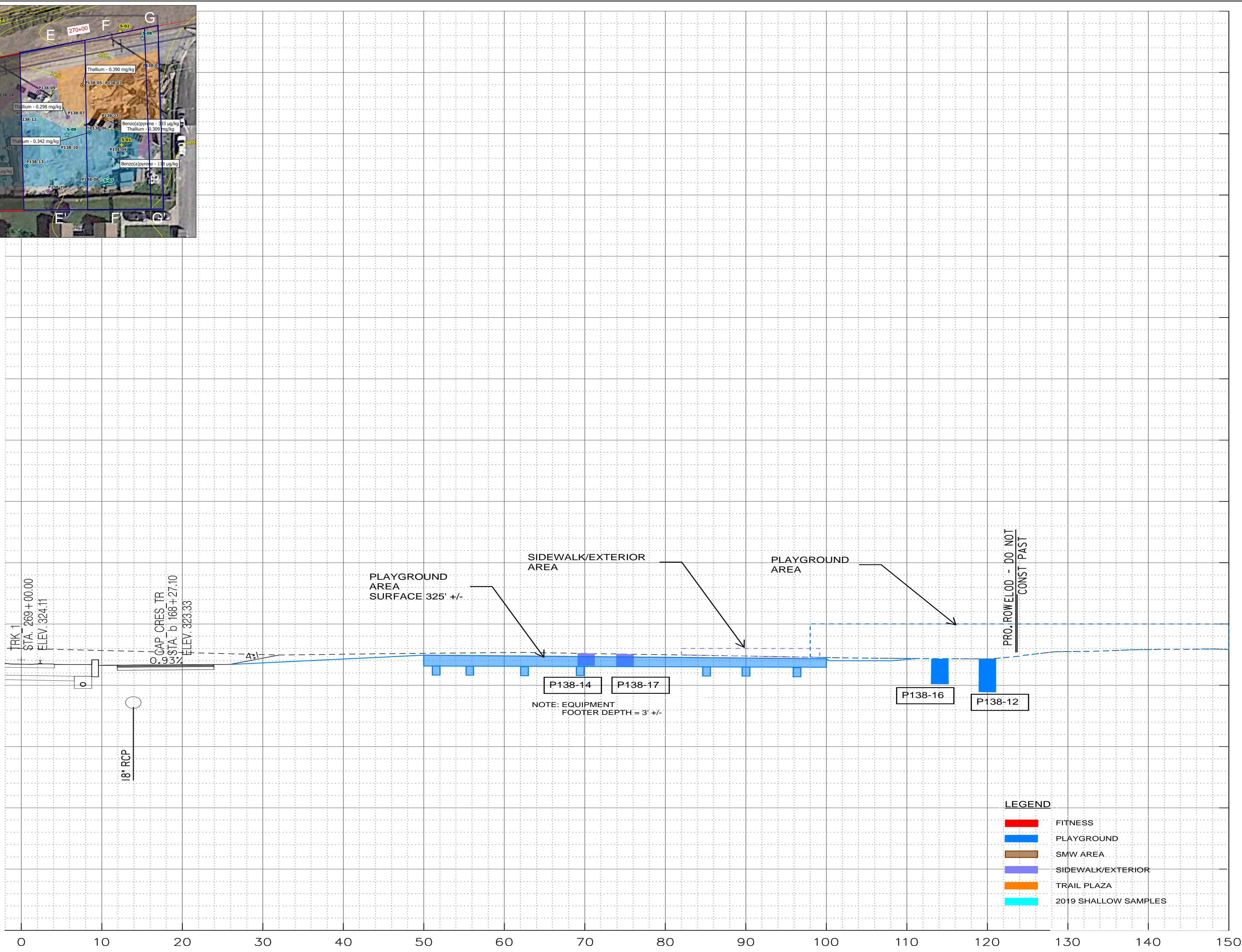
CONTRACT NO.
 0-00-00
 DRAWING NO.
 S1020PXS-101
 SHEET NO.
 138 OF 290

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 5/14/2020 3:46:49 PM



D

D'



0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

TRK 1 269+00



NOTE:
 PROPOSED RETAINING WALLS, TRACK, AND STATIONS
 SHOWN FOR REFERENCE ONLY. FOR DETAILS SEE
 PACKAGES S1-040, S1-041, S1-042, S1-043,
 S1-044, S1-050, AND S1-070.

THESE CROSS SECTIONS PROVIDE A REPRESENTATION OF THE DESIGN INTENT ONLY.
 FOR DETAILED DESIGN OF ELEMENTS DEPICTED IN THE CROSS SECTIONS REFER TO
 THEIR RESPECTIVE DESIGN PACKAGE.

LEGEND

█	FITNESS
█	PLAYGROUND
█	SMW AREA
█	SIDEWALK/EXTERIOR
█	TRAIL PLAZA
█	2019 SHALLOW SAMPLES

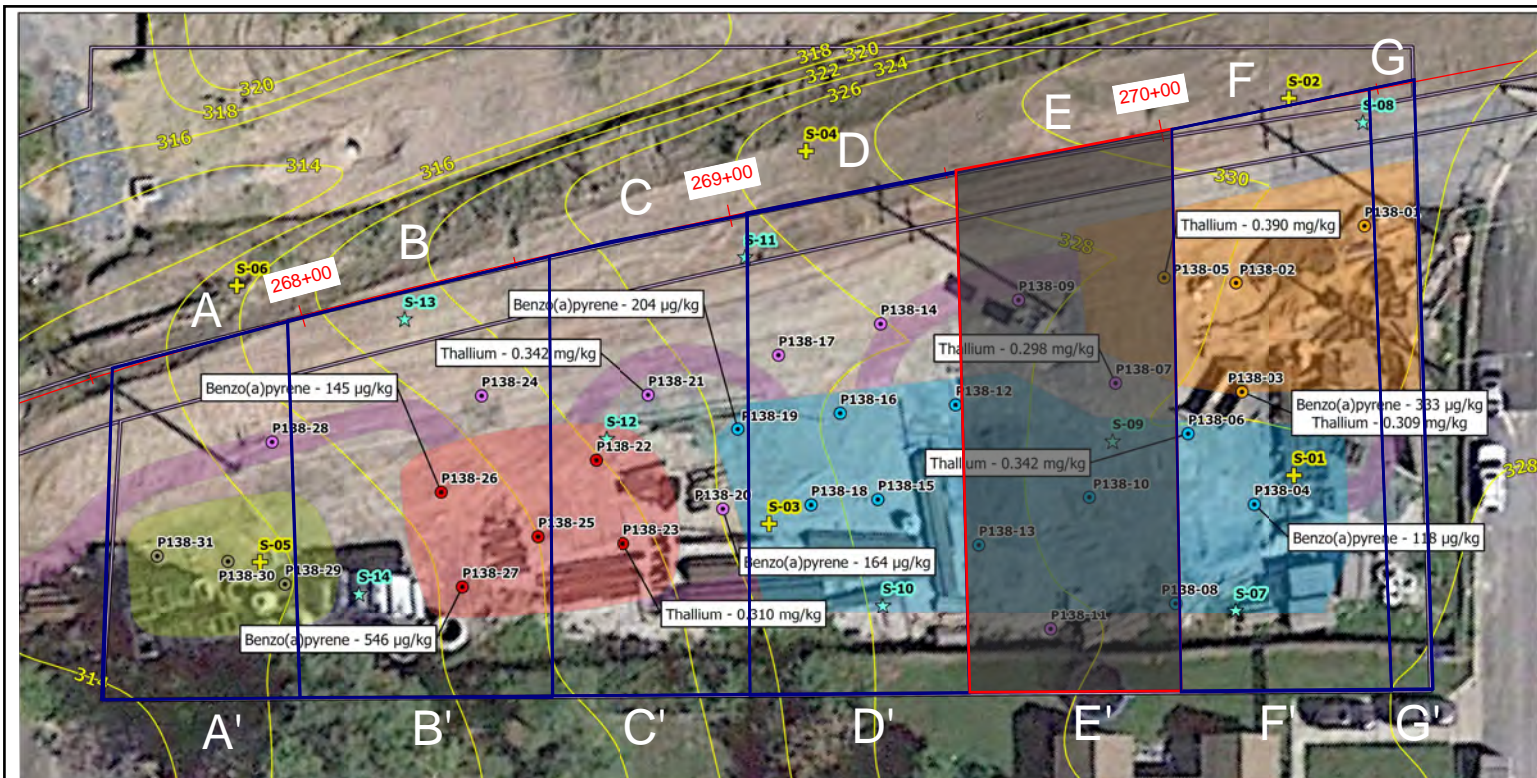


NO.	DESCRIPTION	BY	DATE
0	RELEASE FOR CONSTRUCTION	CJC	05/14/20
REVISIONS			

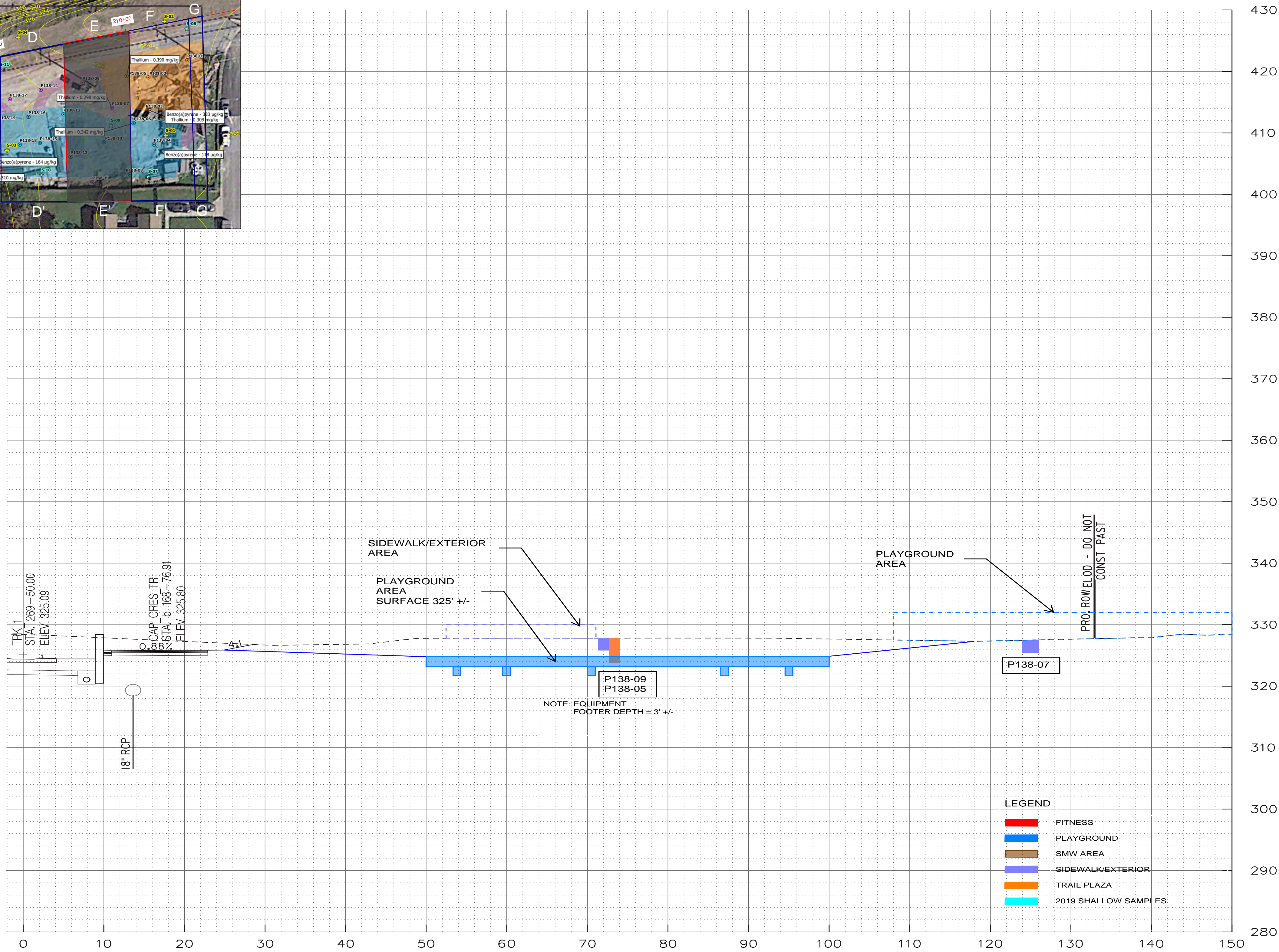
Figure 2 PURPLE LINE LIGHT RAIL
 CIVIL DESIGN
 SEGMENT 1B
 CROSS SECTIONS
 STA 269+00 TO STA 269+00
 DATE: MAY 14, 2020 SCALE: 1"=10'

CONTRACT NO.
 0-00-00
 DRAWING NO.
 S1020PXS-101
 SHEET NO.
 139 OF 290

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 5/14/2020 3:46:52 PM



E



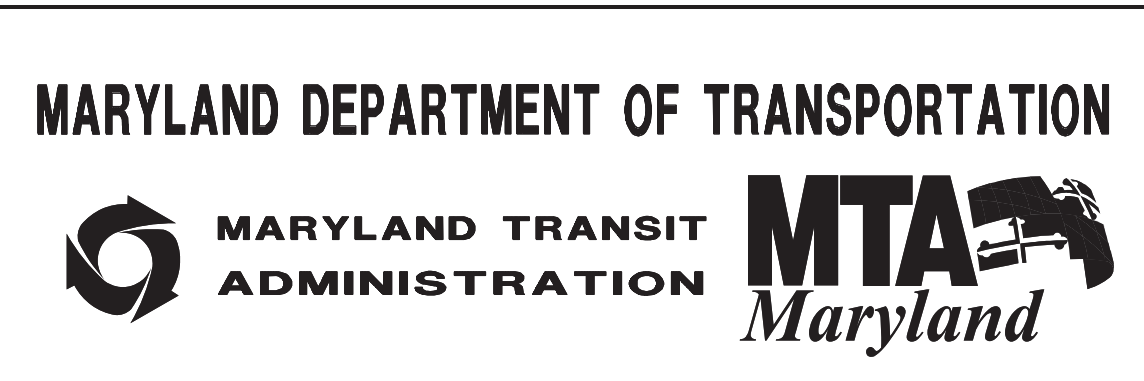
E

TRK 1 269+50



NOTE:
 PROPOSED RETAINING WALLS, TRACK, AND STATIONS SHOWN FOR REFERENCE ONLY. FOR DETAILS SEE PACKAGES S1-040, S1-041, S1-042, S1-043, S1-044, S1-050, AND S1-070.

THESE CROSS SECTIONS PROVIDE A REPRESENTATION OF THE DESIGN INTENT ONLY. FOR DETAILED DESIGN OF ELEMENTS DEPICTED IN THE CROSS SECTIONS REFER TO THEIR RESPECTIVE DESIGN PACKAGE.



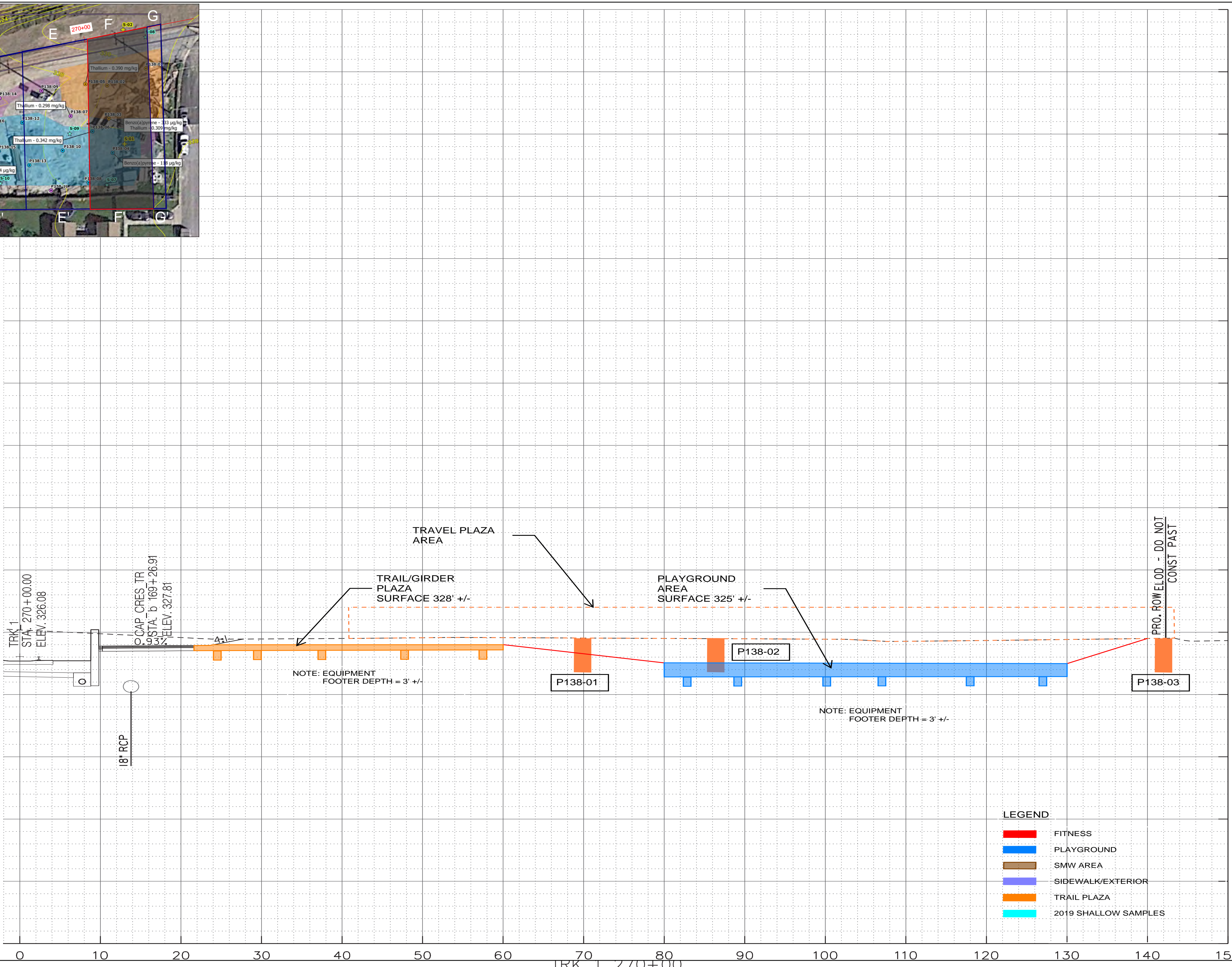
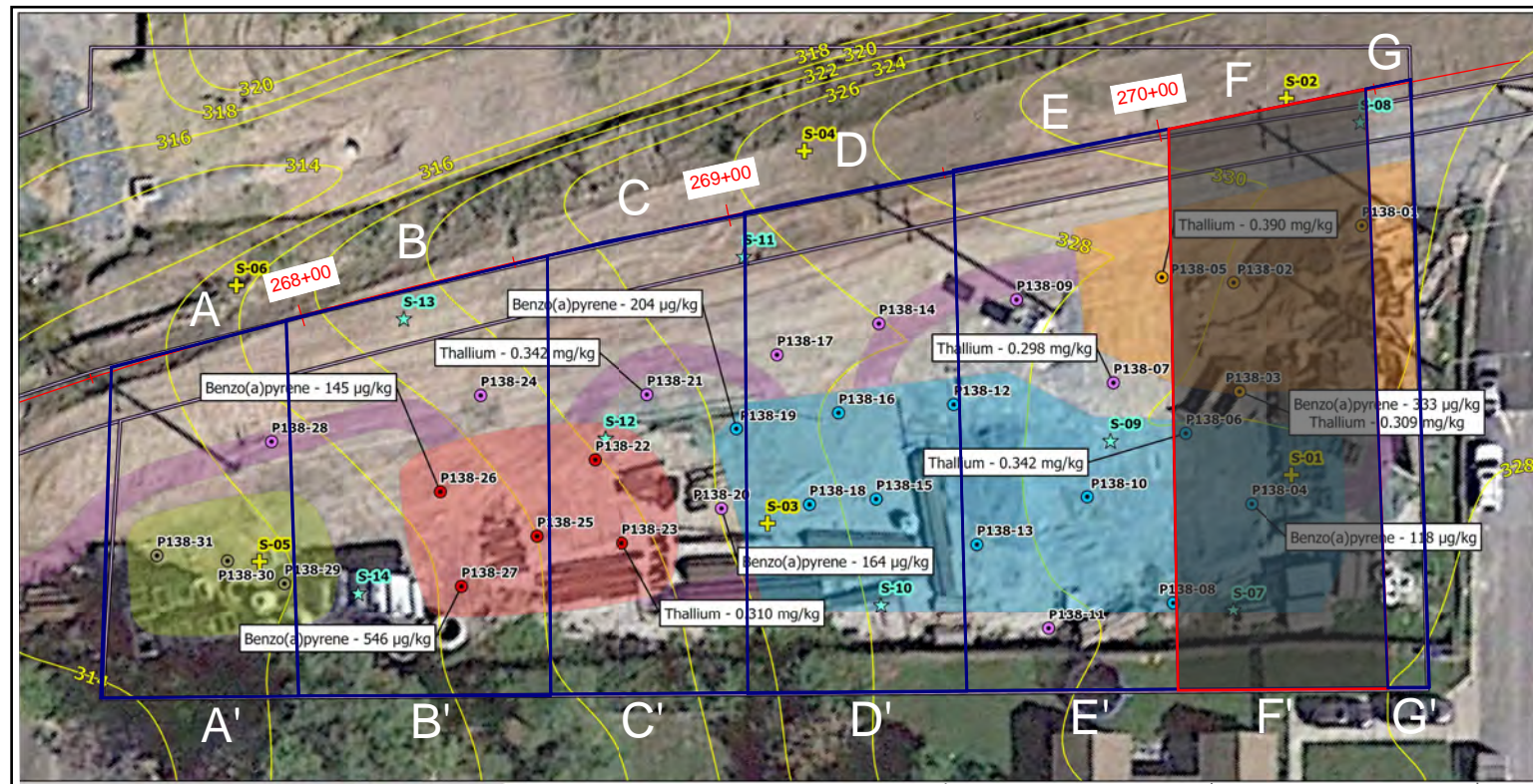
0	RELEASE FOR CONSTRUCTION	CJC	05/14/20
NO.	DESCRIPTION	BY	DATE
REVISIONS			

YK	APPR	CHECK	DRAWN	DESIGN
RGK				
YK				
CJC				

Figure 2 PURPLE LINE LIGHT RAIL
 CIVIL DESIGN
 SEGMENT 1B
 CROSS SECTIONS
 STA 269+50 TO STA 269+50
 DATE: MAY 14, 2020 SCALE: 1"=10'

CONTRACT NO.
 0-00-00
 DRAWING NO.
 S1020PXS-101
 SHEET NO.
 140 OF 290

p:\S\SD036343.wsk\kins.com:ATKINMBD\01\Documents\Purple Line P3 Design\4.0 CAD (Work in Progress)\Roadway\Segment 1\Drawings\S1-020\S1020pXS-101.dgn 5/14/2020 3:46:55 PM

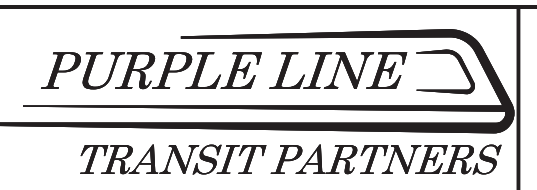
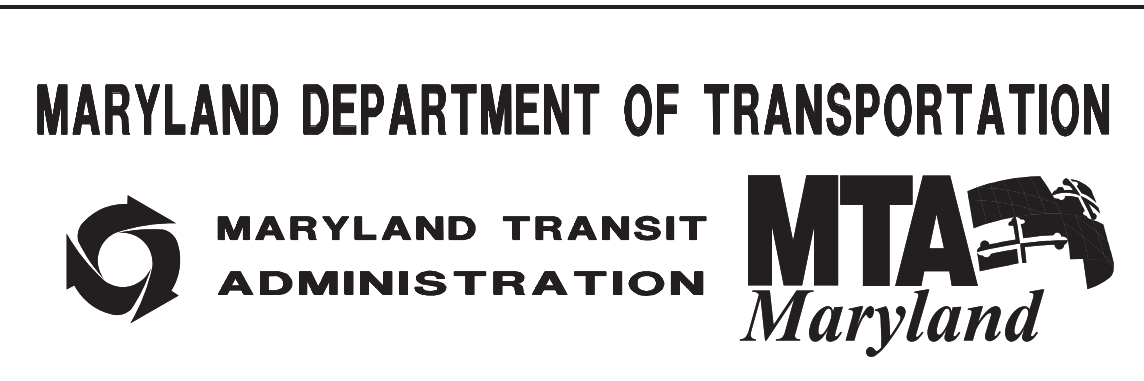


LEGEND

- FITNESS
- PLAYGROUND
- SMW AREA
- SIDEWALK/EXTERIOR
- TRAIL PLAZA
- 2019 SHALLOW SAMPLES

NOTE:
 PROPOSED RETAINING WALLS, TRACK, AND STATIONS SHOWN FOR REFERENCE ONLY. FOR DETAILS SEE PACKAGES S1-040, S1-041, S1-042, S1-043, S1-044, S1-050, AND S1-070.

THESE CROSS SECTIONS PROVIDE A REPRESENTATION OF THE DESIGN INTENT ONLY. FOR DETAILED DESIGN OF ELEMENTS DEPICTED IN THE CROSS SECTIONS REFER TO THEIR RESPECTIVE DESIGN PACKAGE.



NO.	DESCRIPTION	BY	DATE
0	RELEASE FOR CONSTRUCTION	CJC	05/14/20
REVISIONS			

Figure 2 PURPLE LINE LIGHT RAIL
 CIVIL DESIGN
 SEGMENT 1B

CROSS SECTIONS
 STA 270+00 TO STA 270+00

DATE: MAY 14, 2020 SCALE: 1" = 10'

CONTRACT NO. 0-00-00
DRAWING NO. S1020PXS-101
SHEET NO. 141 OF 290

p:\S\SD036343.wsk\atkins.com\ATKINMBL01\Documents\Purple Line P3 Design\4.0 CAD (Work in Progress)\Roadway\Segment 1\Drawings\S1-020\S1020pXS-101.dgn 5/14/2020 3:46:58 PM

Table

Attachment 1

Photolog

Soil Characterization – Purple Line
Parcel 138
8998 Talbot Avenue
Silver Spring, Maryland



Photo #1: View from entrance of Parcel 138, off Talbot Avenue, facing west.



Photo #2: View of the northern portion of Parcel 138, facing north-northwest, view of railroad tracks.

Soil Characterization – Purple Line
Parcel 138
8998 Talbot Avenue
Silver Spring, Maryland



Photo #3: View of the northwestern portion of Parcel 138, facing north-northwest.



Photo #4: View of the central portion of Parcel 138, facing southwest.

Attachment 2
Laboratory Report

23 March 2021

Nicole Bruno
RK&K Engineers
680 American Ave Suite 300
King of Prussia, PA 19406
RE: PL, Parcel 138

Enclosed are the results of analyses for samples received by the laboratory on 03/12/21 11:26.

Maryland Spectral Services, Inc. is a TNI 2009 Standard accredited laboratory and as such, all analyses performed at Maryland Spectral Services included in this report are 2009 TNI certified except as indicated at the end of this report. Please visit our website at www.mdspectral.com for a complete listing of our TNI 2009 Standard accreditations.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Will Brewington
President

Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
P138-01		1031209-01	Soil	03/09/21 12:50	03/12/21 11:26
P138-02		1031209-02	Soil	03/09/21 09:15	03/12/21 11:26
P138-03		1031209-03	Soil	03/09/21 09:40	03/12/21 11:26
P138-04		1031209-04	Soil	03/09/21 09:45	03/12/21 11:26
P138-05		1031209-05	Soil	03/09/21 09:25	03/12/21 11:26
P138-06		1031209-06	Soil	03/09/21 09:35	03/12/21 11:26
P138-07		1031209-07	Soil	03/09/21 09:30	03/12/21 11:26
P138-08		1031209-08	Soil	03/09/21 09:55	03/12/21 11:26
P138-09		1031209-09	Soil	03/09/21 10:30	03/12/21 11:26
P138-10		1031209-10	Soil	03/09/21 09:50	03/12/21 11:26
P138-11		1031209-11	Soil	03/09/21 10:20	03/12/21 11:26
P138-12		1031209-12	Soil	03/09/21 10:25	03/12/21 11:26
P138-13		1031209-13	Soil	03/09/21 10:15	03/12/21 11:26
P138-14		1031209-14	Soil	03/09/21 12:00	03/12/21 11:26
P138-15		1031209-15	Soil	03/09/21 12:10	03/12/21 11:26
P138-16		1031209-16	Soil	03/09/21 12:05	03/12/21 11:26
P138-17		1031209-17	Soil	03/09/21 12:35	03/12/21 11:26
P138-18		1031209-18	Soil	03/09/21 12:15	03/12/21 11:26
P138-19		1031209-19	Soil	03/09/21 12:30	03/12/21 11:26
P138-20		1031209-20	Soil	03/09/21 12:20	03/12/21 11:26
P138-21		1031209-21	Soil	03/10/21 08:45	03/12/21 11:26
P138-22		1031209-22	Soil	03/10/21 08:50	03/12/21 11:26
P138-23		1031209-23	Soil	03/10/21 08:55	03/12/21 11:26
P138-24		1031209-24	Soil	03/10/21 09:00	03/12/21 11:26
P138-25		1031209-25	Soil	03/10/21 09:05	03/12/21 11:26
P138-26		1031209-26	Soil	03/10/21 09:10	03/12/21 11:26

Will Brewington, President

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All analyses performed at Maryland Spectral Services included in the report are TNI certified except as indicated at the end of the report

Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

Client Sample ID	Alternate Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
P138-27		1031209-27	Soil	03/10/21 09:30	03/12/21 11:26
P138-28		1031209-28	Soil	03/10/21 09:35	03/12/21 11:26
P138-29		1031209-29	Soil	03/10/21 09:50	03/12/21 11:26
P138-30		1031209-30	Soil	03/10/21 09:55	03/12/21 11:26
P138-31		1031209-31	Soil	03/10/21 10:00	03/12/21 11:26
EQ BLANK 3-9		1031209-32	Nonpotable Water	03/09/21 10:45	03/12/21 11:26
EQ BLANK 3-10		1031209-33	Nonpotable Water	03/10/21 09:25	03/12/21 11:26



Will Brewington, President

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-01

1031209-01 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 01:31	WB
Acenaphthylene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 01:31	WB
Anthracene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 01:31	WB
Benzo[a]anthracene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 01:31	WB
Benzo[b]fluoranthene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 01:31	WB
Benzo[k]fluoranthene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 01:31	WB
Benzo[ghi]perylene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 01:31	WB
Benzo[a]pyrene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 01:31	WB
Chrysene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 01:31	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 01:31	WB
Fluoranthene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 01:31	WB
Fluorene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 01:31	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 01:31	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 01:31	WB
Naphthalene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 01:31	WB
Phenanthrene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 01:31	WB
Pyrene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 01:31	WB
Surrogate: Nitrobenzene-d5		23-120		98 %	03/16/21		03/18/21 01:31		
Surrogate: 2-Fluorobiphenyl		30-115		76 %	03/16/21		03/18/21 01:31		
Surrogate: Terphenyl-d14		18-137		81 %	03/16/21		03/18/21 01:31		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	32.1		mg/kg dry	9.3	9.3	1	03/12/21	03/16/21 07:00	SJA
Surrogate: o-Terphenyl		70-130		73 %	03/12/21		03/16/21 07:00		

Will Brewington, President

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-01

1031209-01 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	86		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:02	CWK
Arsenic	3.48		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:02	CWK
Beryllium	1.02		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:02	CWK
Cadmium	ND		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:02	CWK
Chromium	21.9		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:02	CWK
Copper	32.2		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:02	CWK
Lead	31.1		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:02	CWK
Mercury	0.0420		mg/kg dry	0.0145	0.0145	1	03/15/21	03/16/21 12:02	CWK
Nickel	20.0		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:02	CWK
Selenium	2.82		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:02	CWK
Silver	ND		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:02	CWK
Thallium	ND		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:02	CWK
Zinc	42.6		mg/kg dry	1.45	1.45	1	03/15/21	03/16/21 12:02	CWK



Will Brewington, President

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-02

1031209-02 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	11.4	11.4	1	03/16/21	03/18/21 01:53	WB
Acenaphthylene	ND		ug/kg dry	11.4	11.4	1	03/16/21	03/18/21 01:53	WB
Anthracene	ND		ug/kg dry	11.4	11.4	1	03/16/21	03/18/21 01:53	WB
Benzo[a]anthracene	ND		ug/kg dry	11.4	11.4	1	03/16/21	03/18/21 01:53	WB
Benzo[b]fluoranthene	ND		ug/kg dry	11.4	11.4	1	03/16/21	03/18/21 01:53	WB
Benzo[k]fluoranthene	ND		ug/kg dry	11.4	11.4	1	03/16/21	03/18/21 01:53	WB
Benzo[ghi]perylene	ND		ug/kg dry	11.4	11.4	1	03/16/21	03/18/21 01:53	WB
Benzo[a]pyrene	ND		ug/kg dry	11.4	11.4	1	03/16/21	03/18/21 01:53	WB
Chrysene	ND		ug/kg dry	11.4	11.4	1	03/16/21	03/18/21 01:53	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	11.4	11.4	1	03/16/21	03/18/21 01:53	WB
Fluoranthene	ND		ug/kg dry	11.4	11.4	1	03/16/21	03/18/21 01:53	WB
Fluorene	ND		ug/kg dry	11.4	11.4	1	03/16/21	03/18/21 01:53	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	11.4	11.4	1	03/16/21	03/18/21 01:53	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	11.4	11.4	1	03/16/21	03/18/21 01:53	WB
Naphthalene	ND		ug/kg dry	11.4	11.4	1	03/16/21	03/18/21 01:53	WB
Phenanthrene	ND		ug/kg dry	11.4	11.4	1	03/16/21	03/18/21 01:53	WB
Pyrene	ND		ug/kg dry	11.4	11.4	1	03/16/21	03/18/21 01:53	WB
Surrogate: Nitrobenzene-d5		23-120		97 %	03/16/21		03/18/21 01:53		
Surrogate: 2-Fluorobiphenyl		30-115		86 %	03/16/21		03/18/21 01:53		
Surrogate: Terphenyl-d14		18-137		84 %	03/16/21		03/18/21 01:53		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	15.0		mg/kg dry	9.1	9.1	1	03/12/21	03/16/21 07:27	SJA
Surrogate: o-Terphenyl		70-130		71 %	03/12/21		03/16/21 07:27		

Will Brewington, President

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-02

1031209-02 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	88		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.284	0.284	1	03/15/21	03/16/21 12:05	CWK
Arsenic	2.15		mg/kg dry	0.284	0.284	1	03/15/21	03/16/21 12:05	CWK
Beryllium	1.13		mg/kg dry	0.284	0.284	1	03/15/21	03/16/21 12:05	CWK
Cadmium	ND		mg/kg dry	0.284	0.284	1	03/15/21	03/16/21 12:05	CWK
Chromium	27.0		mg/kg dry	0.284	0.284	1	03/15/21	03/16/21 12:05	CWK
Copper	29.8		mg/kg dry	0.284	0.284	1	03/15/21	03/16/21 12:05	CWK
Lead	17.6		mg/kg dry	0.284	0.284	1	03/15/21	03/16/21 12:05	CWK
Mercury	ND		mg/kg dry	0.0142	0.0142	1	03/15/21	03/16/21 12:05	CWK
Nickel	21.7		mg/kg dry	0.284	0.284	1	03/15/21	03/16/21 12:05	CWK
Selenium	3.07		mg/kg dry	0.284	0.284	1	03/15/21	03/16/21 12:05	CWK
Silver	ND		mg/kg dry	0.284	0.284	1	03/15/21	03/16/21 12:05	CWK
Thallium	ND		mg/kg dry	0.284	0.284	1	03/15/21	03/16/21 12:05	CWK
Zinc	40.8		mg/kg dry	1.42	1.42	1	03/15/21	03/16/21 12:05	CWK



Will Brewington, President

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All analyses performed at Maryland Spectral Services included in the report are TNI certified except as indicated at the end of the report

Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-03

1031209-03 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	12.3	12.3	1	03/16/21	03/18/21 02:16	WB
Acenaphthylene	ND		ug/kg dry	12.3	12.3	1	03/16/21	03/18/21 02:16	WB
Anthracene	16.8		ug/kg dry	12.3	12.3	1	03/16/21	03/18/21 02:16	WB
Benzo[a]anthracene	261		ug/kg dry	12.3	12.3	1	03/16/21	03/18/21 02:16	WB
Benzo[b]fluoranthene	210		ug/kg dry	12.3	12.3	1	03/16/21	03/18/21 02:16	WB
Benzo[k]fluoranthene	34.0		ug/kg dry	12.3	12.3	1	03/16/21	03/18/21 02:16	WB
Benzo[ghi]perylene	286		ug/kg dry	12.3	12.3	1	03/16/21	03/18/21 02:16	WB
Benzo[a]pyrene	333		ug/kg dry	12.3	12.3	1	03/16/21	03/18/21 02:16	WB
Chrysene	458		ug/kg dry	12.3	12.3	1	03/16/21	03/18/21 02:16	WB
Dibenzo[a,h]anthracene	61.3		ug/kg dry	12.3	12.3	1	03/16/21	03/18/21 02:16	WB
Fluoranthene	78.9		ug/kg dry	12.3	12.3	1	03/16/21	03/18/21 02:16	WB
Fluorene	ND		ug/kg dry	12.3	12.3	1	03/16/21	03/18/21 02:16	WB
Indeno[1,2,3-cd]pyrene	111		ug/kg dry	12.3	12.3	1	03/16/21	03/18/21 02:16	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	12.3	12.3	1	03/16/21	03/18/21 02:16	WB
Naphthalene	ND		ug/kg dry	12.3	12.3	1	03/16/21	03/18/21 02:16	WB
Phenanthrene	79.4		ug/kg dry	12.3	12.3	1	03/16/21	03/18/21 02:16	WB
Pyrene	258		ug/kg dry	12.3	12.3	1	03/16/21	03/18/21 02:16	WB
<i>Surrogate: Nitrobenzene-d5</i>		<i>23-120</i>		<i>101 %</i>	<i>03/16/21</i>		<i>03/18/21 02:16</i>		
<i>Surrogate: 2-Fluorobiphenyl</i>		<i>30-115</i>		<i>90 %</i>	<i>03/16/21</i>		<i>03/18/21 02:16</i>		
<i>Surrogate: Terphenyl-d14</i>		<i>18-137</i>		<i>99 %</i>	<i>03/16/21</i>		<i>03/18/21 02:16</i>		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	53.0		mg/kg dry	9.9	9.9	1	03/12/21	03/16/21 08:21	SJA
<i>Surrogate: o-Terphenyl</i>		<i>70-130</i>		<i>86 %</i>	<i>03/12/21</i>		<i>03/16/21 08:21</i>		



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-03

1031209-03 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	81		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 12:07	CWK
Arsenic	3.09		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 12:07	CWK
Beryllium	1.00		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 12:07	CWK
Cadmium	ND		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 12:07	CWK
Chromium	19.7		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 12:07	CWK
Copper	31.4		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 12:07	CWK
Lead	38.5		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 12:07	CWK
Mercury	0.0441		mg/kg dry	0.0154	0.0154	1	03/15/21	03/16/21 12:07	CWK
Nickel	18.7		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 12:07	CWK
Selenium	2.51		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 12:07	CWK
Silver	ND		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 12:07	CWK
Thallium	ND		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 12:07	CWK
Zinc	83.3		mg/kg dry	1.54	1.54	1	03/15/21	03/16/21 12:07	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-04

1031209-04 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	12.2	12.2	1	03/16/21	03/18/21 02:38	WB
Acenaphthylene	ND		ug/kg dry	12.2	12.2	1	03/16/21	03/18/21 02:38	WB
Anthracene	ND		ug/kg dry	12.2	12.2	1	03/16/21	03/18/21 02:38	WB
Benzo[a]anthracene	87.6		ug/kg dry	12.2	12.2	1	03/16/21	03/18/21 02:38	WB
Benzo[b]fluoranthene	79.5		ug/kg dry	12.2	12.2	1	03/16/21	03/18/21 02:38	WB
Benzo[k]fluoranthene	16.6		ug/kg dry	12.2	12.2	1	03/16/21	03/18/21 02:38	WB
Benzo[ghi]perylene	92.5		ug/kg dry	12.2	12.2	1	03/16/21	03/18/21 02:38	WB
Benzo[a]pyrene	118		ug/kg dry	12.2	12.2	1	03/16/21	03/18/21 02:38	WB
Chrysene	144		ug/kg dry	12.2	12.2	1	03/16/21	03/18/21 02:38	WB
Dibenzo[a,h]anthracene	20.1		ug/kg dry	12.2	12.2	1	03/16/21	03/18/21 02:38	WB
Fluoranthene	38.9		ug/kg dry	12.2	12.2	1	03/16/21	03/18/21 02:38	WB
Fluorene	ND		ug/kg dry	12.2	12.2	1	03/16/21	03/18/21 02:38	WB
Indeno[1,2,3-cd]pyrene	40.7		ug/kg dry	12.2	12.2	1	03/16/21	03/18/21 02:38	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	12.2	12.2	1	03/16/21	03/18/21 02:38	WB
Naphthalene	35.1		ug/kg dry	12.2	12.2	1	03/16/21	03/18/21 02:38	WB
Phenanthrene	54.2		ug/kg dry	12.2	12.2	1	03/16/21	03/18/21 02:38	WB
Pyrene	92.5		ug/kg dry	12.2	12.2	1	03/16/21	03/18/21 02:38	WB
<i>Surrogate: Nitrobenzene-d5</i>		23-120		92 %	03/16/21		03/18/21 02:38		
<i>Surrogate: 2-Fluorobiphenyl</i>		30-115		86 %	03/16/21		03/18/21 02:38		
<i>Surrogate: Terphenyl-d14</i>		18-137		93 %	03/16/21		03/18/21 02:38		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	40.8		mg/kg dry	9.8	9.8	1	03/12/21	03/16/21 08:48	SJA
<i>Surrogate: o-Terphenyl</i>		70-130		74 %	03/12/21		03/16/21 08:48		



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-04

1031209-04 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	82		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.305	0.305	1	03/15/21	03/16/21 12:10	CWK
Arsenic	3.50		mg/kg dry	0.305	0.305	1	03/15/21	03/16/21 12:10	CWK
Beryllium	1.08		mg/kg dry	0.305	0.305	1	03/15/21	03/16/21 12:10	CWK
Cadmium	0.328		mg/kg dry	0.305	0.305	1	03/15/21	03/16/21 12:10	CWK
Chromium	23.0		mg/kg dry	0.305	0.305	1	03/15/21	03/16/21 12:10	CWK
Copper	37.5		mg/kg dry	0.305	0.305	1	03/15/21	03/16/21 12:10	CWK
Lead	85.9		mg/kg dry	0.305	0.305	1	03/15/21	03/16/21 12:10	CWK
Mercury	0.0822		mg/kg dry	0.0152	0.0152	1	03/15/21	03/16/21 12:10	CWK
Nickel	20.7		mg/kg dry	0.305	0.305	1	03/15/21	03/16/21 12:10	CWK
Selenium	2.58		mg/kg dry	0.305	0.305	1	03/15/21	03/16/21 12:10	CWK
Silver	ND		mg/kg dry	0.305	0.305	1	03/15/21	03/16/21 12:10	CWK
Thallium	ND		mg/kg dry	0.305	0.305	1	03/15/21	03/16/21 12:10	CWK
Zinc	192		mg/kg dry	1.52	1.52	1	03/15/21	03/16/21 12:10	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-05

1031209-05 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 03:01	WB
Acenaphthylene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 03:01	WB
Anthracene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 03:01	WB
Benzo[a]anthracene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 03:01	WB
Benzo[b]fluoranthene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 03:01	WB
Benzo[k]fluoranthene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 03:01	WB
Benzo[ghi]perylene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 03:01	WB
Benzo[a]pyrene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 03:01	WB
Chrysene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 03:01	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 03:01	WB
Fluoranthene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 03:01	WB
Fluorene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 03:01	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 03:01	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 03:01	WB
Naphthalene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 03:01	WB
Phenanthrene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 03:01	WB
Pyrene	ND		ug/kg dry	11.6	11.6	1	03/16/21	03/18/21 03:01	WB
Surrogate: Nitrobenzene-d5		23-120		97 %	03/16/21		03/18/21 03:01		
Surrogate: 2-Fluorobiphenyl		30-115		87 %	03/16/21		03/18/21 03:01		
Surrogate: Terphenyl-d14		18-137		86 %	03/16/21		03/18/21 03:01		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	11.4		mg/kg dry	9.3	9.3	1	03/12/21	03/16/21 09:15	SJA
Surrogate: o-Terphenyl		70-130		72 %	03/12/21		03/16/21 09:15		

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-05

1031209-05 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	86		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:12	CWK
Arsenic	3.27		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:12	CWK
Beryllium	1.04		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:12	CWK
Cadmium	ND		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:12	CWK
Chromium	26.7		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:12	CWK
Copper	34.8		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:12	CWK
Lead	21.3		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:12	CWK
Mercury	ND		mg/kg dry	0.0145	0.0145	1	03/15/21	03/16/21 12:12	CWK
Nickel	28.6		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:12	CWK
Selenium	2.61		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:12	CWK
Silver	ND		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:12	CWK
Thallium	0.390		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:12	CWK
Zinc	45.3		mg/kg dry	1.45	1.45	1	03/15/21	03/16/21 12:12	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-06

1031209-06 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	11.9	11.9	1	03/16/21	03/18/21 03:24	WB
Acenaphthylene	ND		ug/kg dry	11.9	11.9	1	03/16/21	03/18/21 03:24	WB
Anthracene	ND		ug/kg dry	11.9	11.9	1	03/16/21	03/18/21 03:24	WB
Benzo[a]anthracene	ND		ug/kg dry	11.9	11.9	1	03/16/21	03/18/21 03:24	WB
Benzo[b]fluoranthene	ND		ug/kg dry	11.9	11.9	1	03/16/21	03/18/21 03:24	WB
Benzo[k]fluoranthene	ND		ug/kg dry	11.9	11.9	1	03/16/21	03/18/21 03:24	WB
Benzo[ghi]perylene	ND		ug/kg dry	11.9	11.9	1	03/16/21	03/18/21 03:24	WB
Benzo[a]pyrene	ND		ug/kg dry	11.9	11.9	1	03/16/21	03/18/21 03:24	WB
Chrysene	ND		ug/kg dry	11.9	11.9	1	03/16/21	03/18/21 03:24	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	11.9	11.9	1	03/16/21	03/18/21 03:24	WB
Fluoranthene	ND		ug/kg dry	11.9	11.9	1	03/16/21	03/18/21 03:24	WB
Fluorene	ND		ug/kg dry	11.9	11.9	1	03/16/21	03/18/21 03:24	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	11.9	11.9	1	03/16/21	03/18/21 03:24	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	11.9	11.9	1	03/16/21	03/18/21 03:24	WB
Naphthalene	ND		ug/kg dry	11.9	11.9	1	03/16/21	03/18/21 03:24	WB
Phenanthrene	ND		ug/kg dry	11.9	11.9	1	03/16/21	03/18/21 03:24	WB
Pyrene	ND		ug/kg dry	11.9	11.9	1	03/16/21	03/18/21 03:24	WB
Surrogate: Nitrobenzene-d5		23-120		99 %	03/16/21		03/18/21 03:24		
Surrogate: 2-Fluorobiphenyl		30-115		88 %	03/16/21		03/18/21 03:24		
Surrogate: Terphenyl-d14		18-137		86 %	03/16/21		03/18/21 03:24		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	11.5		mg/kg dry	9.5	9.5	1	03/12/21	03/16/21 09:42	SJA
Surrogate: o-Terphenyl		70-130		72 %	03/12/21		03/16/21 09:42		



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-06

1031209-06 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	84		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:15	CWK
Arsenic	3.49		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:15	CWK
Beryllium	1.44		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:15	CWK
Cadmium	ND		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:15	CWK
Chromium	40.3		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:15	CWK
Copper	36.3		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:15	CWK
Lead	17.1		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:15	CWK
Mercury	0.0151		mg/kg dry	0.0149	0.0149	1	03/15/21	03/16/21 12:15	CWK
Nickel	19.3		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:15	CWK
Selenium	3.06		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:15	CWK
Silver	ND		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:15	CWK
Thallium	0.342		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:15	CWK
Zinc	57.7		mg/kg dry	1.49	1.49	1	03/15/21	03/16/21 12:15	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-07

1031209-07 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 13:59	WB
Acenaphthylene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 13:59	WB
Anthracene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 13:59	WB
Benzo[a]anthracene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 13:59	WB
Benzo[b]fluoranthene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 13:59	WB
Benzo[k]fluoranthene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 13:59	WB
Benzo[ghi]perylene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 13:59	WB
Benzo[a]pyrene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 13:59	WB
Chrysene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 13:59	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 13:59	WB
Fluoranthene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 13:59	WB
Fluorene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 13:59	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 13:59	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 13:59	WB
Naphthalene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 13:59	WB
Phenanthrene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 13:59	WB
Pyrene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 13:59	WB
Surrogate: Nitrobenzene-d5		23-120		92 %	03/15/21		03/17/21 13:59		
Surrogate: 2-Fluorobiphenyl		30-115		78 %	03/15/21		03/17/21 13:59		
Surrogate: Terphenyl-d14		18-137		76 %	03/15/21		03/17/21 13:59		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	32.6		mg/kg dry	9.5	9.5	1	03/12/21	03/16/21 10:09	SJA
Surrogate: o-Terphenyl		70-130		72 %	03/12/21		03/16/21 10:09		

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-07

1031209-07 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	84		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:23	CWK
Arsenic	2.40		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:23	CWK
Beryllium	0.910		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:23	CWK
Cadmium	ND		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:23	CWK
Chromium	16.7		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:23	CWK
Copper	16.7		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:23	CWK
Lead	17.5		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:23	CWK
Mercury	0.0190		mg/kg dry	0.0149	0.0149	1	03/15/21	03/16/21 12:23	CWK
Nickel	29.1		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:23	CWK
Selenium	3.44		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:23	CWK
Silver	ND		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:23	CWK
Thallium	0.298		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:23	CWK
Zinc	35.4		mg/kg dry	1.49	1.49	1	03/15/21	03/16/21 12:23	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-08

1031209-08 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 14:21	WB
Acenaphthylene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 14:21	WB
Anthracene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 14:21	WB
Benzo[a]anthracene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 14:21	WB
Benzo[b]fluoranthene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 14:21	WB
Benzo[k]fluoranthene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 14:21	WB
Benzo[ghi]perylene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 14:21	WB
Benzo[a]pyrene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 14:21	WB
Chrysene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 14:21	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 14:21	WB
Fluoranthene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 14:21	WB
Fluorene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 14:21	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 14:21	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 14:21	WB
Naphthalene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 14:21	WB
Phenanthrene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 14:21	WB
Pyrene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 14:21	WB
<i>Surrogate: Nitrobenzene-d5</i>			23-120	92 %	03/15/21		03/17/21 14:21		
<i>Surrogate: 2-Fluorobiphenyl</i>			30-115	82 %	03/15/21		03/17/21 14:21		
<i>Surrogate: Terphenyl-d14</i>			18-137	83 %	03/15/21		03/17/21 14:21		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	ND		mg/kg dry	10.0	10.0	1	03/12/21	03/16/21 10:36	SJA
<i>Surrogate: o-Terphenyl</i>			70-130	76 %	03/12/21		03/16/21 10:36		

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-08

1031209-08 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	80		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.313	0.313	1	03/15/21	03/16/21 12:25	CWK
Arsenic	3.57		mg/kg dry	0.313	0.313	1	03/15/21	03/16/21 12:25	CWK
Beryllium	0.878		mg/kg dry	0.313	0.313	1	03/15/21	03/16/21 12:25	CWK
Cadmium	ND		mg/kg dry	0.313	0.313	1	03/15/21	03/16/21 12:25	CWK
Chromium	20.3		mg/kg dry	0.313	0.313	1	03/15/21	03/16/21 12:25	CWK
Copper	24.1		mg/kg dry	0.313	0.313	1	03/15/21	03/16/21 12:25	CWK
Lead	15.6		mg/kg dry	0.313	0.313	1	03/15/21	03/16/21 12:25	CWK
Mercury	0.0238		mg/kg dry	0.0156	0.0156	1	03/15/21	03/16/21 12:25	CWK
Nickel	12.4		mg/kg dry	0.313	0.313	1	03/15/21	03/16/21 12:25	CWK
Selenium	2.40		mg/kg dry	0.313	0.313	1	03/15/21	03/16/21 12:25	CWK
Silver	ND		mg/kg dry	0.313	0.313	1	03/15/21	03/16/21 12:25	CWK
Thallium	ND		mg/kg dry	0.313	0.313	1	03/15/21	03/16/21 12:25	CWK
Zinc	32.8		mg/kg dry	1.56	1.56	1	03/15/21	03/16/21 12:25	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-09

1031209-09 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	13.5	13.5	1	03/15/21	03/17/21 14:44	WB
Acenaphthylene	ND		ug/kg dry	13.5	13.5	1	03/15/21	03/17/21 14:44	WB
Anthracene	19.8		ug/kg dry	13.5	13.5	1	03/15/21	03/17/21 14:44	WB
Benzo[a]anthracene	94.2		ug/kg dry	13.5	13.5	1	03/15/21	03/17/21 14:44	WB
Benzo[b]fluoranthene	141		ug/kg dry	13.5	13.5	1	03/15/21	03/17/21 14:44	WB
Benzo[k]fluoranthene	50.6		ug/kg dry	13.5	13.5	1	03/15/21	03/17/21 14:44	WB
Benzo[ghi]perylene	81.5		ug/kg dry	13.5	13.5	1	03/15/21	03/17/21 14:44	WB
Benzo[a]pyrene	96.9		ug/kg dry	13.5	13.5	1	03/15/21	03/17/21 14:44	WB
Chrysene	134		ug/kg dry	13.5	13.5	1	03/15/21	03/17/21 14:44	WB
Dibenzo[a,h]anthracene	18.3		ug/kg dry	13.5	13.5	1	03/15/21	03/17/21 14:44	WB
Fluoranthene	157		ug/kg dry	13.5	13.5	1	03/15/21	03/17/21 14:44	WB
Fluorene	ND		ug/kg dry	13.5	13.5	1	03/15/21	03/17/21 14:44	WB
Indeno[1,2,3-cd]pyrene	79.7		ug/kg dry	13.5	13.5	1	03/15/21	03/17/21 14:44	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	13.5	13.5	1	03/15/21	03/17/21 14:44	WB
Naphthalene	22.9		ug/kg dry	13.5	13.5	1	03/15/21	03/17/21 14:44	WB
Phenanthrene	94.4		ug/kg dry	13.5	13.5	1	03/15/21	03/17/21 14:44	WB
Pyrene	156		ug/kg dry	13.5	13.5	1	03/15/21	03/17/21 14:44	WB
Surrogate: Nitrobenzene-d5		23-120		95 %	03/15/21		03/17/21 14:44		
Surrogate: 2-Fluorobiphenyl		30-115		82 %	03/15/21		03/17/21 14:44		
Surrogate: Terphenyl-d14		18-137		84 %	03/15/21		03/17/21 14:44		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	97.8		mg/kg dry	10.8	10.8	1	03/12/21	03/16/21 11:03	SJA
Surrogate: o-Terphenyl		70-130		88 %	03/12/21		03/16/21 11:03		



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-09

1031209-09 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	74		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	0.590		mg/kg dry	0.338	0.338	1	03/15/21	03/16/21 12:28	CWK
Arsenic	4.96		mg/kg dry	0.338	0.338	1	03/15/21	03/16/21 12:28	CWK
Beryllium	0.845		mg/kg dry	0.338	0.338	1	03/15/21	03/16/21 12:28	CWK
Cadmium	0.484		mg/kg dry	0.338	0.338	1	03/15/21	03/16/21 12:28	CWK
Chromium	34.3		mg/kg dry	0.338	0.338	1	03/15/21	03/16/21 12:28	CWK
Copper	37.1		mg/kg dry	0.338	0.338	1	03/15/21	03/16/21 12:28	CWK
Lead	150		mg/kg dry	0.338	0.338	1	03/15/21	03/16/21 12:28	CWK
Mercury	0.119		mg/kg dry	0.0169	0.0169	1	03/15/21	03/16/21 12:28	CWK
Nickel	31.9		mg/kg dry	0.338	0.338	1	03/15/21	03/16/21 12:28	CWK
Selenium	3.45		mg/kg dry	0.338	0.338	1	03/15/21	03/16/21 12:28	CWK
Silver	ND		mg/kg dry	0.338	0.338	1	03/15/21	03/16/21 12:28	CWK
Thallium	ND		mg/kg dry	0.338	0.338	1	03/15/21	03/16/21 12:28	CWK
Zinc	164		mg/kg dry	1.69	1.69	1	03/15/21	03/16/21 12:28	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-10

1031209-10 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 15:06	WB
Acenaphthylene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 15:06	WB
Anthracene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 15:06	WB
Benzo[a]anthracene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 15:06	WB
Benzo[b]fluoranthene	12.8		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 15:06	WB
Benzo[k]fluoranthene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 15:06	WB
Benzo[ghi]perylene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 15:06	WB
Benzo[a]pyrene	13.4		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 15:06	WB
Chrysene	16.4		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 15:06	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 15:06	WB
Fluoranthene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 15:06	WB
Fluorene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 15:06	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 15:06	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 15:06	WB
Naphthalene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 15:06	WB
Phenanthrene	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 15:06	WB
Pyrene	15.0		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 15:06	WB
<i>Surrogate: Nitrobenzene-d5</i>		<i>23-120</i>		<i>86 %</i>	<i>03/15/21</i>		<i>03/17/21 15:06</i>		
<i>Surrogate: 2-Fluorobiphenyl</i>		<i>30-115</i>		<i>82 %</i>	<i>03/15/21</i>		<i>03/17/21 15:06</i>		
<i>Surrogate: Terphenyl-d14</i>		<i>18-137</i>		<i>84 %</i>	<i>03/15/21</i>		<i>03/17/21 15:06</i>		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	ND		mg/kg dry	9.5	9.5	1	03/12/21	03/16/21 11:30	SJA
<i>Surrogate: o-Terphenyl</i>		<i>70-130</i>		<i>70 %</i>	<i>03/12/21</i>		<i>03/16/21 11:30</i>		



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-10

1031209-10 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	84		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:30	CWK
Arsenic	4.90		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:30	CWK
Beryllium	1.04		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:30	CWK
Cadmium	ND		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:30	CWK
Chromium	27.1		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:30	CWK
Copper	25.6		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:30	CWK
Lead	269		mg/kg dry	1.49	1.49	5	03/15/21	03/16/21 13:56	CWK
Mercury	0.0300		mg/kg dry	0.0149	0.0149	1	03/15/21	03/16/21 12:30	CWK
Nickel	14.1		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:30	CWK
Selenium	3.64		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:30	CWK
Silver	ND		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:30	CWK
Thallium	ND		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 12:30	CWK
Zinc	78.8		mg/kg dry	1.49	1.49	1	03/15/21	03/16/21 12:30	CWK

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-11

1031209-11 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 16:50	WB
Acenaphthylene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 16:50	WB
Anthracene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 16:50	WB
Benzo[a]anthracene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 16:50	WB
Benzo[b]fluoranthene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 16:50	WB
Benzo[k]fluoranthene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 16:50	WB
Benzo[ghi]perylene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 16:50	WB
Benzo[a]pyrene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 16:50	WB
Chrysene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 16:50	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 16:50	WB
Fluoranthene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 16:50	WB
Fluorene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 16:50	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 16:50	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 16:50	WB
Naphthalene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 16:50	WB
Phenanthrene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 16:50	WB
Pyrene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 16:50	WB
<i>Surrogate: Nitrobenzene-d5</i>			23-120	88 %	03/15/21		03/17/21 16:50		
<i>Surrogate: 2-Fluorobiphenyl</i>			30-115	82 %	03/15/21		03/17/21 16:50		
<i>Surrogate: Terphenyl-d14</i>			18-137	82 %	03/15/21		03/17/21 16:50		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	ND		mg/kg dry	9.6	9.6	1	03/12/21	03/16/21 11:57	SJA
<i>Surrogate: o-Terphenyl</i>			70-130	71 %	03/12/21		03/16/21 11:57		

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-11

1031209-11 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	83		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 12:33	CWK
Arsenic	2.99		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 12:33	CWK
Beryllium	0.938		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 12:33	CWK
Cadmium	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 12:33	CWK
Chromium	18.5		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 12:33	CWK
Copper	19.9		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 12:33	CWK
Lead	14.7		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 12:33	CWK
Mercury	0.0204		mg/kg dry	0.0151	0.0151	1	03/15/21	03/16/21 12:33	CWK
Nickel	12.5		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 12:33	CWK
Selenium	2.44		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 12:33	CWK
Silver	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 12:33	CWK
Thallium	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 12:33	CWK
Zinc	39.5		mg/kg dry	1.51	1.51	1	03/15/21	03/16/21 12:33	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-12

1031209-12 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:12	WB
Acenaphthylene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:12	WB
Anthracene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:12	WB
Benzo[a]anthracene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:12	WB
Benzo[b]fluoranthene	14.2		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:12	WB
Benzo[k]fluoranthene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:12	WB
Benzo[ghi]perylene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:12	WB
Benzo[a]pyrene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:12	WB
Chrysene	12.9		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:12	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:12	WB
Fluoranthene	16.6		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:12	WB
Fluorene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:12	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:12	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:12	WB
Naphthalene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:12	WB
Phenanthrene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:12	WB
Pyrene	14.2		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:12	WB
<i>Surrogate: Nitrobenzene-d5</i>		23-120		93 %	03/15/21		03/17/21 17:12		
<i>Surrogate: 2-Fluorobiphenyl</i>		30-115		80 %	03/15/21		03/17/21 17:12		
<i>Surrogate: Terphenyl-d14</i>		18-137		81 %	03/15/21		03/17/21 17:12		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	25.7		mg/kg dry	9.4	9.4	1	03/12/21	03/16/21 12:25	SJA
<i>Surrogate: o-Terphenyl</i>		70-130		73 %	03/12/21		03/16/21 12:25		

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-12

1031209-12 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	85		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:35	CWK
Arsenic	3.59		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:35	CWK
Beryllium	0.933		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:35	CWK
Cadmium	ND		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:35	CWK
Chromium	20.1		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:35	CWK
Copper	27.3		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:35	CWK
Lead	34.9		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:35	CWK
Mercury	0.0241		mg/kg dry	0.0147	0.0147	1	03/15/21	03/16/21 12:35	CWK
Nickel	16.2		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:35	CWK
Selenium	3.15		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:35	CWK
Silver	ND		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:35	CWK
Thallium	ND		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:35	CWK
Zinc	44.6		mg/kg dry	1.47	1.47	1	03/15/21	03/16/21 12:35	CWK

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-13

1031209-13 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 17:35	WB
Acenaphthylene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 17:35	WB
Anthracene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 17:35	WB
Benzo[a]anthracene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 17:35	WB
Benzo[b]fluoranthene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 17:35	WB
Benzo[k]fluoranthene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 17:35	WB
Benzo[ghi]perylene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 17:35	WB
Benzo[a]pyrene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 17:35	WB
Chrysene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 17:35	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 17:35	WB
Fluoranthene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 17:35	WB
Fluorene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 17:35	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 17:35	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 17:35	WB
Naphthalene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 17:35	WB
Phenanthrene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 17:35	WB
Pyrene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 17:35	WB
<i>Surrogate: Nitrobenzene-d5</i>			23-120	84 %	03/15/21		03/17/21 17:35		
<i>Surrogate: 2-Fluorobiphenyl</i>			30-115	79 %	03/15/21		03/17/21 17:35		
<i>Surrogate: Terphenyl-d14</i>			18-137	78 %	03/15/21		03/17/21 17:35		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	ND		mg/kg dry	9.6	9.6	1	03/12/21	03/16/21 12:52	SJA
<i>Surrogate: o-Terphenyl</i>			70-130	74 %	03/12/21		03/16/21 12:52		

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-13

1031209-13 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	83		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 12:38	CWK
Arsenic	2.88		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 12:38	CWK
Beryllium	0.963		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 12:38	CWK
Cadmium	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 12:38	CWK
Chromium	20.4		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 12:38	CWK
Copper	30.8		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 12:38	CWK
Lead	27.7		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 12:38	CWK
Mercury	0.0278		mg/kg dry	0.0151	0.0151	1	03/15/21	03/16/21 12:38	CWK
Nickel	15.1		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 12:38	CWK
Selenium	2.95		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 12:38	CWK
Silver	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 12:38	CWK
Thallium	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 12:38	CWK
Zinc	48.1		mg/kg dry	1.51	1.51	1	03/15/21	03/16/21 12:38	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-14

1031209-14 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:58	WB
Acenaphthylene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:58	WB
Anthracene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:58	WB
Benzo[a]anthracene	12.3		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:58	WB
Benzo[b]fluoranthene	20.2		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:58	WB
Benzo[k]fluoranthene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:58	WB
Benzo[ghi]perylene	13.0		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:58	WB
Benzo[a]pyrene	13.6		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:58	WB
Chrysene	19.6		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:58	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:58	WB
Fluoranthene	19.5		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:58	WB
Fluorene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:58	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:58	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:58	WB
Naphthalene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:58	WB
Phenanthrene	16.5		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:58	WB
Pyrene	19.2		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 17:58	WB
<i>Surrogate: Nitrobenzene-d5</i>			23-120	91 %	03/15/21		03/17/21 17:58		
<i>Surrogate: 2-Fluorobiphenyl</i>			30-115	80 %	03/15/21		03/17/21 17:58		
<i>Surrogate: Terphenyl-d14</i>			18-137	79 %	03/15/21		03/17/21 17:58		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	18.9		mg/kg dry	9.4	9.4	1	03/12/21	03/18/21 20:20	SJA
<i>Surrogate: o-Terphenyl</i>			70-130	89 %	03/12/21		03/18/21 20:20		

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-14

1031209-14 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	85		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:40	CWK
Arsenic	2.74		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:40	CWK
Beryllium	1.14		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:40	CWK
Cadmium	ND		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:40	CWK
Chromium	18.8		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:40	CWK
Copper	38.8		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:40	CWK
Lead	46.8		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:40	CWK
Mercury	0.0458		mg/kg dry	0.0147	0.0147	1	03/15/21	03/16/21 12:40	CWK
Nickel	56.3		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:40	CWK
Selenium	4.65		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:40	CWK
Silver	ND		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:40	CWK
Thallium	ND		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:40	CWK
Zinc	80.7		mg/kg dry	1.47	1.47	1	03/15/21	03/16/21 12:40	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-15

1031209-15 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 18:21	WB
Acenaphthylene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 18:21	WB
Anthracene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 18:21	WB
Benzo[a]anthracene	12.6		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 18:21	WB
Benzo[b]fluoranthene	22.1		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 18:21	WB
Benzo[k]fluoranthene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 18:21	WB
Benzo[ghi]perylene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 18:21	WB
Benzo[a]pyrene	13.3		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 18:21	WB
Chrysene	18.8		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 18:21	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 18:21	WB
Fluoranthene	26.4		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 18:21	WB
Fluorene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 18:21	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 18:21	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 18:21	WB
Naphthalene	15.2		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 18:21	WB
Phenanthrene	15.2		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 18:21	WB
Pyrene	22.2		ug/kg dry	12.5	12.5	1	03/15/21	03/17/21 18:21	WB
Surrogate: Nitrobenzene-d5		23-120		90 %	03/15/21		03/17/21 18:21		
Surrogate: 2-Fluorobiphenyl		30-115		83 %	03/15/21		03/17/21 18:21		
Surrogate: Terphenyl-d14		18-137		81 %	03/15/21		03/17/21 18:21		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	32.4		mg/kg dry	10.0	10.0	1	03/12/21	03/16/21 13:46	SJA
Surrogate: o-Terphenyl		70-130		78 %	03/12/21		03/16/21 13:46		

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-15

1031209-15 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	80		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.313	0.313	1	03/15/21	03/16/21 12:43	CWK
Arsenic	2.30		mg/kg dry	0.313	0.313	1	03/15/21	03/16/21 12:43	CWK
Beryllium	1.12		mg/kg dry	0.313	0.313	1	03/15/21	03/16/21 12:43	CWK
Cadmium	ND		mg/kg dry	0.313	0.313	1	03/15/21	03/16/21 12:43	CWK
Chromium	13.5		mg/kg dry	0.313	0.313	1	03/15/21	03/16/21 12:43	CWK
Copper	34.2		mg/kg dry	0.313	0.313	1	03/15/21	03/16/21 12:43	CWK
Lead	58.7		mg/kg dry	0.313	0.313	1	03/15/21	03/16/21 12:43	CWK
Mercury	0.0167		mg/kg dry	0.0156	0.0156	1	03/15/21	03/16/21 12:43	CWK
Nickel	19.0		mg/kg dry	0.313	0.313	1	03/15/21	03/16/21 12:43	CWK
Selenium	4.22		mg/kg dry	0.313	0.313	1	03/15/21	03/16/21 12:43	CWK
Silver	ND		mg/kg dry	0.313	0.313	1	03/15/21	03/16/21 12:43	CWK
Thallium	ND		mg/kg dry	0.313	0.313	1	03/15/21	03/16/21 12:43	CWK
Zinc	64.6		mg/kg dry	1.56	1.56	1	03/15/21	03/16/21 12:43	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-16

1031209-16 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 18:43	WB
Acenaphthylene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 18:43	WB
Anthracene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 18:43	WB
Benzo[a]anthracene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 18:43	WB
Benzo[b]fluoranthene	14.2		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 18:43	WB
Benzo[k]fluoranthene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 18:43	WB
Benzo[ghi]perylene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 18:43	WB
Benzo[a]pyrene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 18:43	WB
Chrysene	13.2		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 18:43	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 18:43	WB
Fluoranthene	17.9		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 18:43	WB
Fluorene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 18:43	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 18:43	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 18:43	WB
Naphthalene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 18:43	WB
Phenanthrene	11.8		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 18:43	WB
Pyrene	16.1		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 18:43	WB
Surrogate: Nitrobenzene-d5		23-120		87 %	03/15/21		03/17/21 18:43		
Surrogate: 2-Fluorobiphenyl		30-115		78 %	03/15/21		03/17/21 18:43		
Surrogate: Terphenyl-d14		18-137		79 %	03/15/21		03/17/21 18:43		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	11.4		mg/kg dry	9.3	9.3	1	03/12/21	03/16/21 14:13	SJA
Surrogate: o-Terphenyl		70-130		81 %	03/12/21		03/16/21 14:13		

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-16

1031209-16 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	86		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:45	CWK
Arsenic	3.10		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:45	CWK
Beryllium	0.946		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:45	CWK
Cadmium	ND		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:45	CWK
Chromium	20.3		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:45	CWK
Copper	27.7		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:45	CWK
Lead	48.3		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:45	CWK
Mercury	0.0288		mg/kg dry	0.0145	0.0145	1	03/15/21	03/16/21 12:45	CWK
Nickel	15.5		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:45	CWK
Selenium	2.35		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:45	CWK
Silver	ND		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:45	CWK
Thallium	ND		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:45	CWK
Zinc	67.1		mg/kg dry	1.45	1.45	1	03/15/21	03/16/21 12:45	CWK

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-17

1031209-17 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 19:06	WB
Acenaphthylene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 19:06	WB
Anthracene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 19:06	WB
Benzo[a]anthracene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 19:06	WB
Benzo[b]fluoranthene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 19:06	WB
Benzo[k]fluoranthene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 19:06	WB
Benzo[ghi]perylene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 19:06	WB
Benzo[a]pyrene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 19:06	WB
Chrysene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 19:06	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 19:06	WB
Fluoranthene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 19:06	WB
Fluorene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 19:06	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 19:06	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 19:06	WB
Naphthalene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 19:06	WB
Phenanthrene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 19:06	WB
Pyrene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 19:06	WB
<i>Surrogate: Nitrobenzene-d5</i>			23-120	89 %	03/15/21		03/17/21 19:06		
<i>Surrogate: 2-Fluorobiphenyl</i>			30-115	83 %	03/15/21		03/17/21 19:06		
<i>Surrogate: Terphenyl-d14</i>			18-137	82 %	03/15/21		03/17/21 19:06		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	ND		mg/kg dry	9.3	9.3	1	03/12/21	03/18/21 20:47	SJA
<i>Surrogate: o-Terphenyl</i>			70-130	92 %	03/12/21		03/18/21 20:47		

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-17

1031209-17 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	86		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:53	CWK
Arsenic	1.63		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:53	CWK
Beryllium	0.909		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:53	CWK
Cadmium	ND		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:53	CWK
Chromium	20.2		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:53	CWK
Copper	28.7		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:53	CWK
Lead	10.6		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:53	CWK
Mercury	ND		mg/kg dry	0.0145	0.0145	1	03/15/21	03/16/21 12:53	CWK
Nickel	13.5		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:53	CWK
Selenium	3.06		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:53	CWK
Silver	ND		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:53	CWK
Thallium	ND		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 12:53	CWK
Zinc	35.8		mg/kg dry	1.45	1.45	1	03/15/21	03/16/21 12:53	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-18

1031209-18 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 19:28	WB
Acenaphthylene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 19:28	WB
Anthracene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 19:28	WB
Benzo[a]anthracene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 19:28	WB
Benzo[b]fluoranthene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 19:28	WB
Benzo[k]fluoranthene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 19:28	WB
Benzo[ghi]perylene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 19:28	WB
Benzo[a]pyrene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 19:28	WB
Chrysene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 19:28	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 19:28	WB
Fluoranthene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 19:28	WB
Fluorene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 19:28	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 19:28	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 19:28	WB
Naphthalene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 19:28	WB
Phenanthrene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 19:28	WB
Pyrene	ND		ug/kg dry	11.8	11.8	1	03/15/21	03/17/21 19:28	WB
<i>Surrogate: Nitrobenzene-d5</i>			23-120	80 %	03/15/21		03/17/21 19:28		
<i>Surrogate: 2-Fluorobiphenyl</i>			30-115	75 %	03/15/21		03/17/21 19:28		
<i>Surrogate: Terphenyl-d14</i>			18-137	80 %	03/15/21		03/17/21 19:28		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	ND		mg/kg dry	9.4	9.4	1	03/12/21	03/18/21 21:14	SJA
<i>Surrogate: o-Terphenyl</i>			70-130	100 %	03/12/21		03/18/21 21:14		

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-18

1031209-18 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	85		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:55	CWK
Arsenic	2.74		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:55	CWK
Beryllium	1.45		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:55	CWK
Cadmium	ND		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:55	CWK
Chromium	24.0		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:55	CWK
Copper	38.9		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:55	CWK
Lead	15.1		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:55	CWK
Mercury	ND		mg/kg dry	0.0147	0.0147	1	03/15/21	03/16/21 12:55	CWK
Nickel	18.4		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:55	CWK
Selenium	3.91		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:55	CWK
Silver	ND		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:55	CWK
Thallium	ND		mg/kg dry	0.294	0.294	1	03/15/21	03/16/21 12:55	CWK
Zinc	57.1		mg/kg dry	1.47	1.47	1	03/15/21	03/16/21 12:55	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-19

1031209-19 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	34.0		ug/kg dry	13.0	13.0	1	03/15/21	03/17/21 19:51	WB
Acenaphthylene	18.7		ug/kg dry	13.0	13.0	1	03/15/21	03/17/21 19:51	WB
Anthracene	95.0		ug/kg dry	13.0	13.0	1	03/15/21	03/17/21 19:51	WB
Benzo[a]anthracene	305		ug/kg dry	13.0	13.0	1	03/15/21	03/17/21 19:51	WB
Benzo[b]fluoranthene	375		ug/kg dry	13.0	13.0	1	03/15/21	03/17/21 19:51	WB
Benzo[k]fluoranthene	122		ug/kg dry	13.0	13.0	1	03/15/21	03/17/21 19:51	WB
Benzo[ghi]perylene	161		ug/kg dry	13.0	13.0	1	03/15/21	03/17/21 19:51	WB
Benzo[a]pyrene	204		ug/kg dry	13.0	13.0	1	03/15/21	03/17/21 19:51	WB
Chrysene	537		ug/kg dry	13.0	13.0	1	03/15/21	03/17/21 19:51	WB
Dibenzo[a,h]anthracene	45.3		ug/kg dry	13.0	13.0	1	03/15/21	03/17/21 19:51	WB
Fluoranthene	397		ug/kg dry	13.0	13.0	1	03/15/21	03/17/21 19:51	WB
Fluorene	34.9		ug/kg dry	13.0	13.0	1	03/15/21	03/17/21 19:51	WB
Indeno[1,2,3-cd]pyrene	171		ug/kg dry	13.0	13.0	1	03/15/21	03/17/21 19:51	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	13.0	13.0	1	03/15/21	03/17/21 19:51	WB
Naphthalene	58.0		ug/kg dry	13.0	13.0	1	03/15/21	03/17/21 19:51	WB
Phenanthrene	330		ug/kg dry	13.0	13.0	1	03/15/21	03/17/21 19:51	WB
Pyrene	396		ug/kg dry	13.0	13.0	1	03/15/21	03/17/21 19:51	WB
Surrogate: Nitrobenzene-d5		23-120		93 %	03/15/21		03/17/21 19:51		
Surrogate: 2-Fluorobiphenyl		30-115		77 %	03/15/21		03/17/21 19:51		
Surrogate: Terphenyl-d14		18-137		89 %	03/15/21		03/17/21 19:51		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	129		mg/kg dry	10.4	10.4	1	03/12/21	03/18/21 21:41	SJA
Surrogate: o-Terphenyl		70-130		85 %	03/12/21		03/18/21 21:41		

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-19

1031209-19 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	77		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	0.521		mg/kg dry	0.325	0.325	1	03/15/21	03/16/21 12:58	CWK
Arsenic	4.42		mg/kg dry	0.325	0.325	1	03/15/21	03/16/21 12:58	CWK
Beryllium	0.896		mg/kg dry	0.325	0.325	1	03/15/21	03/16/21 12:58	CWK
Cadmium	0.342		mg/kg dry	0.325	0.325	1	03/15/21	03/16/21 12:58	CWK
Chromium	22.0		mg/kg dry	0.325	0.325	1	03/15/21	03/16/21 12:58	CWK
Copper	37.5		mg/kg dry	0.325	0.325	1	03/15/21	03/16/21 12:58	CWK
Lead	127		mg/kg dry	0.325	0.325	1	03/15/21	03/16/21 12:58	CWK
Mercury	0.0726		mg/kg dry	0.0162	0.0162	1	03/15/21	03/16/21 12:58	CWK
Nickel	30.4		mg/kg dry	0.325	0.325	1	03/15/21	03/16/21 12:58	CWK
Selenium	2.73		mg/kg dry	0.325	0.325	1	03/15/21	03/16/21 12:58	CWK
Silver	ND		mg/kg dry	0.325	0.325	1	03/15/21	03/16/21 12:58	CWK
Thallium	ND		mg/kg dry	0.325	0.325	1	03/15/21	03/16/21 12:58	CWK
Zinc	117		mg/kg dry	1.62	1.62	1	03/15/21	03/16/21 12:58	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-20

1031209-20 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:14	WB
Acenaphthylene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:14	WB
Anthracene	192		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:14	WB
Benzo[a]anthracene	107		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:14	WB
Benzo[b]fluoranthene	284		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:14	WB
Benzo[k]fluoranthene	90.1		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:14	WB
Benzo[ghi]perylene	99.4		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:14	WB
Benzo[a]pyrene	164		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:14	WB
Chrysene	328		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:14	WB
Dibenzo[a,h]anthracene	32.6		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:14	WB
Fluoranthene	77.1		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:14	WB
Fluorene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:14	WB
Indeno[1,2,3-cd]pyrene	108		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:14	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:14	WB
Naphthalene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:14	WB
Phenanthrene	38.8		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:14	WB
Pyrene	71.5		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:14	WB
<i>Surrogate: Nitrobenzene-d5</i>		23-120		87 %	03/15/21		03/17/21 20:14		
<i>Surrogate: 2-Fluorobiphenyl</i>		30-115		73 %	03/15/21		03/17/21 20:14		
<i>Surrogate: Terphenyl-d14</i>		18-137		88 %	03/15/21		03/17/21 20:14		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	108		mg/kg dry	9.6	9.6	1	03/12/21	03/18/21 22:08	SJA
<i>Surrogate: o-Terphenyl</i>		70-130		88 %	03/12/21		03/18/21 22:08		



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-20

1031209-20 (Soil)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	83		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:00	CWK
Arsenic	5.55		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:00	CWK
Beryllium	0.984		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:00	CWK
Cadmium	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:00	CWK
Chromium	22.1		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:00	CWK
Copper	54.3		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:00	CWK
Lead	149		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:00	CWK
Mercury	0.0449		mg/kg dry	0.0151	0.0151	1	03/15/21	03/16/21 13:00	CWK
Nickel	30.5		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:00	CWK
Selenium	2.62		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:00	CWK
Silver	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:00	CWK
Thallium	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:00	CWK
Zinc	142		mg/kg dry	1.51	1.51	1	03/15/21	03/16/21 13:00	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-21

1031209-21 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 20:36	WB
Acenaphthylene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 20:36	WB
Anthracene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 20:36	WB
Benzo[a]anthracene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 20:36	WB
Benzo[b]fluoranthene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 20:36	WB
Benzo[k]fluoranthene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 20:36	WB
Benzo[ghi]perylene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 20:36	WB
Benzo[a]pyrene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 20:36	WB
Chrysene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 20:36	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 20:36	WB
Fluoranthene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 20:36	WB
Fluorene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 20:36	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 20:36	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 20:36	WB
Naphthalene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 20:36	WB
Phenanthrene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 20:36	WB
Pyrene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 20:36	WB
<i>Surrogate: Nitrobenzene-d5</i>			23-120	86 %	03/15/21		03/17/21 20:36		
<i>Surrogate: 2-Fluorobiphenyl</i>			30-115	81 %	03/15/21		03/17/21 20:36		
<i>Surrogate: Terphenyl-d14</i>			18-137	82 %	03/15/21		03/17/21 20:36		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	ND		mg/kg dry	9.3	9.3	1	03/12/21	03/15/21 20:37	SJA
<i>Surrogate: o-Terphenyl</i>			70-130	70 %	03/12/21		03/15/21 20:37		

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-21

1031209-21 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	86		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 13:13	CWK
Arsenic	1.50		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 13:13	CWK
Beryllium	1.19		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 13:13	CWK
Cadmium	ND		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 13:13	CWK
Chromium	13.0		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 13:13	CWK
Copper	45.4		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 13:13	CWK
Lead	7.14		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 13:13	CWK
Mercury	0.0162		mg/kg dry	0.0145	0.0145	1	03/15/21	03/16/21 13:13	CWK
Nickel	38.3		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 13:13	CWK
Selenium	4.30		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 13:13	CWK
Silver	ND		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 13:13	CWK
Thallium	0.342		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 13:13	CWK
Zinc	72.4		mg/kg dry	1.45	1.45	1	03/15/21	03/16/21 13:13	CWK

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-22

1031209-22 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:59	WB
Acenaphthylene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:59	WB
Anthracene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:59	WB
Benzo[a]anthracene	16.1		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:59	WB
Benzo[b]fluoranthene	25.9		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:59	WB
Benzo[k]fluoranthene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:59	WB
Benzo[ghi]perylene	16.0		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:59	WB
Benzo[a]pyrene	17.6		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:59	WB
Chrysene	21.9		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:59	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:59	WB
Fluoranthene	25.4		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:59	WB
Fluorene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:59	WB
Indeno[1,2,3-cd]pyrene	15.4		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:59	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:59	WB
Naphthalene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:59	WB
Phenanthrene	18.1		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:59	WB
Pyrene	26.3		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 20:59	WB
<i>Surrogate: Nitrobenzene-d5</i>		23-120		86 %	03/15/21		03/17/21 20:59		
<i>Surrogate: 2-Fluorobiphenyl</i>		30-115		80 %	03/15/21		03/17/21 20:59		
<i>Surrogate: Terphenyl-d14</i>		18-137		84 %	03/15/21		03/17/21 20:59		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	12.7		mg/kg dry	9.6	9.6	1	03/12/21	03/15/21 21:04	SJA
<i>Surrogate: o-Terphenyl</i>		70-130		72 %	03/12/21		03/15/21 21:04		



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-22

1031209-22 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	83		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	0.752		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:15	CWK
Arsenic	2.75		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:15	CWK
Beryllium	1.33		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:15	CWK
Cadmium	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:15	CWK
Chromium	20.4		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:15	CWK
Copper	42.8		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:15	CWK
Lead	113		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:15	CWK
Mercury	0.0294		mg/kg dry	0.0151	0.0151	1	03/15/21	03/16/21 13:15	CWK
Nickel	30.9		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:15	CWK
Selenium	4.45		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:15	CWK
Silver	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:15	CWK
Thallium	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:15	CWK
Zinc	110		mg/kg dry	1.51	1.51	1	03/15/21	03/16/21 13:15	CWK

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-23

1031209-23 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 21:22	WB
Acenaphthylene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 21:22	WB
Anthracene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 21:22	WB
Benzo[a]anthracene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 21:22	WB
Benzo[b]fluoranthene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 21:22	WB
Benzo[k]fluoranthene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 21:22	WB
Benzo[ghi]perylene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 21:22	WB
Benzo[a]pyrene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 21:22	WB
Chrysene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 21:22	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 21:22	WB
Fluoranthene	12.2		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 21:22	WB
Fluorene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 21:22	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 21:22	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 21:22	WB
Naphthalene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 21:22	WB
Phenanthrene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 21:22	WB
Pyrene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 21:22	WB
<i>Surrogate: Nitrobenzene-d5</i>			23-120	85 %	03/15/21		03/17/21 21:22		
<i>Surrogate: 2-Fluorobiphenyl</i>			30-115	77 %	03/15/21		03/17/21 21:22		
<i>Surrogate: Terphenyl-d14</i>			18-137	81 %	03/15/21		03/17/21 21:22		
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	83		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:23	CWK
Arsenic	2.20		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:23	CWK
Beryllium	1.51		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:23	CWK
Cadmium	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:23	CWK
Chromium	20.8		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:23	CWK
Copper	47.3		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:23	CWK
Lead	12.8		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:23	CWK
Mercury	ND		mg/kg dry	0.0151	0.0151	1	03/15/21	03/16/21 13:23	CWK
Nickel	25.1		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:23	CWK
Selenium	4.50		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:23	CWK
Silver	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:23	CWK

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-23

1031209-23 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion (continued)									
Thallium	0.310		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:23	CWK
Zinc	49.9		mg/kg dry	1.51	1.51	1	03/15/21	03/16/21 13:23	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-23

1031209-23RE1 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	ND		mg/kg dry	9.6	9.6	1	03/12/21	03/19/21 20:07	SJA
Surrogate: <i>o</i> -Terphenyl			70-130	92 %	03/12/21		03/19/21 20:07		



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-24

1031209-24 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 21:44	WB
Acenaphthylene	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 21:44	WB
Anthracene	17.3		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 21:44	WB
Benzo[a]anthracene	65.1		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 21:44	WB
Benzo[b]fluoranthene	88.9		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 21:44	WB
Benzo[k]fluoranthene	28.2		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 21:44	WB
Benzo[ghi]perylene	42.9		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 21:44	WB
Benzo[a]pyrene	58.6		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 21:44	WB
Chrysene	70.1		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 21:44	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 21:44	WB
Fluoranthene	110		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 21:44	WB
Fluorene	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 21:44	WB
Indeno[1,2,3-cd]pyrene	47.2		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 21:44	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 21:44	WB
Naphthalene	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 21:44	WB
Phenanthrene	49.9		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 21:44	WB
Pyrene	104		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 21:44	WB
Surrogate: Nitrobenzene-d5		23-120		76 %	03/15/21		03/17/21 21:44		
Surrogate: 2-Fluorobiphenyl		30-115		77 %	03/15/21		03/17/21 21:44		
Surrogate: Terphenyl-d14		18-137		82 %	03/15/21		03/17/21 21:44		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	15.8		mg/kg dry	9.9	9.9	1	03/12/21	03/15/21 21:58	SJA
Surrogate: o-Terphenyl		70-130		73 %	03/12/21		03/15/21 21:58		



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-24

1031209-24 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	81		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 13:25	CWK
Arsenic	2.95		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 13:25	CWK
Beryllium	0.996		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 13:25	CWK
Cadmium	ND		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 13:25	CWK
Chromium	26.8		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 13:25	CWK
Copper	26.5		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 13:25	CWK
Lead	42.1		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 13:25	CWK
Mercury	ND		mg/kg dry	0.0154	0.0154	1	03/15/21	03/16/21 13:25	CWK
Nickel	15.7		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 13:25	CWK
Selenium	2.51		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 13:25	CWK
Silver	ND		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 13:25	CWK
Thallium	ND		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 13:25	CWK
Zinc	63.2		mg/kg dry	1.54	1.54	1	03/15/21	03/16/21 13:25	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-25

1031209-25 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 22:07	WB
Acenaphthylene	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 22:07	WB
Anthracene	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 22:07	WB
Benzo[a]anthracene	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 22:07	WB
Benzo[b]fluoranthene	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 22:07	WB
Benzo[k]fluoranthene	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 22:07	WB
Benzo[ghi]perylene	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 22:07	WB
Benzo[a]pyrene	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 22:07	WB
Chrysene	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 22:07	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 22:07	WB
Fluoranthene	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 22:07	WB
Fluorene	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 22:07	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 22:07	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 22:07	WB
Naphthalene	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 22:07	WB
Phenanthrene	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 22:07	WB
Pyrene	ND		ug/kg dry	12.3	12.3	1	03/15/21	03/17/21 22:07	WB
<i>Surrogate: Nitrobenzene-d5</i>			23-120	89 %	03/15/21		03/17/21 22:07		
<i>Surrogate: 2-Fluorobiphenyl</i>			30-115	83 %	03/15/21		03/17/21 22:07		
<i>Surrogate: Terphenyl-d14</i>			18-137	82 %	03/15/21		03/17/21 22:07		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	ND		mg/kg dry	9.9	9.9	1	03/12/21	03/15/21 22:25	SJA
<i>Surrogate: o-Terphenyl</i>			70-130	71 %	03/12/21		03/15/21 22:25		

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-25

1031209-25 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	81		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 13:28	CWK
Arsenic	2.98		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 13:28	CWK
Beryllium	1.61		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 13:28	CWK
Cadmium	ND		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 13:28	CWK
Chromium	47.8		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 13:28	CWK
Copper	27.6		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 13:28	CWK
Lead	10.4		mg/kg dry	1.54	1.54	5	03/15/21	03/16/21 14:03	CWK
Mercury	ND		mg/kg dry	0.0154	0.0154	1	03/15/21	03/16/21 13:28	CWK
Nickel	28.5		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 13:28	CWK
Selenium	5.98		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 13:28	CWK
Silver	ND		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 13:28	CWK
Thallium	ND		mg/kg dry	0.309	0.309	1	03/15/21	03/16/21 13:28	CWK
Zinc	81.0		mg/kg dry	1.54	1.54	1	03/15/21	03/16/21 13:28	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-26

1031209-26 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	12.2	12.2	1	03/15/21	03/17/21 22:30	WB
Acenaphthylene	58.5		ug/kg dry	12.2	12.2	1	03/15/21	03/17/21 22:30	WB
Anthracene	33.8		ug/kg dry	12.2	12.2	1	03/15/21	03/17/21 22:30	WB
Benzo[a]anthracene	195		ug/kg dry	12.2	12.2	1	03/15/21	03/17/21 22:30	WB
Benzo[b]fluoranthene	208		ug/kg dry	12.2	12.2	1	03/15/21	03/17/21 22:30	WB
Benzo[k]fluoranthene	59.4		ug/kg dry	12.2	12.2	1	03/15/21	03/17/21 22:30	WB
Benzo[ghi]perylene	99.5		ug/kg dry	12.2	12.2	1	03/15/21	03/17/21 22:30	WB
Benzo[a]pyrene	145		ug/kg dry	12.2	12.2	1	03/15/21	03/17/21 22:30	WB
Chrysene	261		ug/kg dry	12.2	12.2	1	03/15/21	03/17/21 22:30	WB
Dibenzo[a,h]anthracene	26.7		ug/kg dry	12.2	12.2	1	03/15/21	03/17/21 22:30	WB
Fluoranthene	204		ug/kg dry	12.2	12.2	1	03/15/21	03/17/21 22:30	WB
Fluorene	ND		ug/kg dry	12.2	12.2	1	03/15/21	03/17/21 22:30	WB
Indeno[1,2,3-cd]pyrene	104		ug/kg dry	12.2	12.2	1	03/15/21	03/17/21 22:30	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	12.2	12.2	1	03/15/21	03/17/21 22:30	WB
Naphthalene	15.6		ug/kg dry	12.2	12.2	1	03/15/21	03/17/21 22:30	WB
Phenanthrene	101		ug/kg dry	12.2	12.2	1	03/15/21	03/17/21 22:30	WB
Pyrene	299		ug/kg dry	12.2	12.2	1	03/15/21	03/17/21 22:30	WB
Surrogate: Nitrobenzene-d5		23-120		90 %	03/15/21		03/17/21 22:30		
Surrogate: 2-Fluorobiphenyl		30-115		86 %	03/15/21		03/17/21 22:30		
Surrogate: Terphenyl-d14		18-137		94 %	03/15/21		03/17/21 22:30		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	16.5		mg/kg dry	9.8	9.8	1	03/12/21	03/15/21 22:52	SJA
Surrogate: o-Terphenyl		70-130		71 %	03/12/21		03/15/21 22:52		

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-26

1031209-26 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	82		%			1	03/16/21	03/17/21 10:00	MH
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	0.404		mg/kg dry	0.305	0.305	1	03/15/21	03/16/21 13:31	CWK
Arsenic	1.97		mg/kg dry	0.305	0.305	1	03/15/21	03/16/21 13:31	CWK
Beryllium	1.05		mg/kg dry	0.305	0.305	1	03/15/21	03/16/21 13:31	CWK
Cadmium	ND		mg/kg dry	0.305	0.305	1	03/15/21	03/16/21 13:31	CWK
Chromium	15.7		mg/kg dry	0.305	0.305	1	03/15/21	03/16/21 13:31	CWK
Copper	19.4		mg/kg dry	0.305	0.305	1	03/15/21	03/16/21 13:31	CWK
Lead	77.0		mg/kg dry	0.305	0.305	1	03/15/21	03/16/21 13:31	CWK
Mercury	0.0301		mg/kg dry	0.0152	0.0152	1	03/15/21	03/16/21 13:31	CWK
Nickel	11.3		mg/kg dry	0.305	0.305	1	03/15/21	03/16/21 13:31	CWK
Selenium	2.05		mg/kg dry	0.305	0.305	1	03/15/21	03/16/21 13:31	CWK
Silver	ND		mg/kg dry	0.305	0.305	1	03/15/21	03/16/21 13:31	CWK
Thallium	ND		mg/kg dry	0.305	0.305	1	03/15/21	03/16/21 13:31	CWK
Zinc	68.8		mg/kg dry	1.52	1.52	1	03/15/21	03/16/21 13:31	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-27

1031209-27 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	29.6		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 22:52	WB
Acenaphthylene	129		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 22:52	WB
Anthracene	356		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 22:52	WB
Benzo[a]anthracene	826	E	ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 22:52	WB
Benzo[b]fluoranthene	676	E	ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 22:52	WB
Benzo[k]fluoranthene	238		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 22:52	WB
Benzo[ghi]perylene	327		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 22:52	WB
Benzo[a]pyrene	536		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 22:52	WB
Chrysene	772	E	ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 22:52	WB
Dibenzo[a,h]anthracene	80.9		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 22:52	WB
Fluoranthene	1370	E	ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 22:52	WB
Fluorene	49.4		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 22:52	WB
Indeno[1,2,3-cd]pyrene	375		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 22:52	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 22:52	WB
Naphthalene	38.2		ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 22:52	WB
Phenanthrene	1480	E	ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 22:52	WB
Pyrene	1420	E	ug/kg dry	11.9	11.9	1	03/15/21	03/17/21 22:52	WB
Surrogate: Nitrobenzene-d5			23-120	86 %	03/15/21		03/17/21 22:52		
Surrogate: 2-Fluorobiphenyl			30-115	87 %	03/15/21		03/17/21 22:52		
Surrogate: Terphenyl-d14			18-137	98 %	03/15/21		03/17/21 22:52		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	30.2		mg/kg dry	9.5	9.5	1	03/12/21	03/15/21 23:19	SJA
Surrogate: o-Terphenyl			70-130	71 %	03/12/21		03/15/21 23:19		

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-27

1031209-27 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	84		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 13:33	CWK
Arsenic	2.16		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 13:33	CWK
Beryllium	0.748		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 13:33	CWK
Cadmium	ND		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 13:33	CWK
Chromium	16.6		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 13:33	CWK
Copper	17.5		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 13:33	CWK
Lead	12.0		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 13:33	CWK
Mercury	ND		mg/kg dry	0.0149	0.0149	1	03/15/21	03/16/21 13:33	CWK
Nickel	11.5		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 13:33	CWK
Selenium	2.47		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 13:33	CWK
Silver	ND		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 13:33	CWK
Thallium	ND		mg/kg dry	0.298	0.298	1	03/15/21	03/16/21 13:33	CWK
Zinc	33.0		mg/kg dry	1.49	1.49	1	03/15/21	03/16/21 13:33	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-28

1031209-28 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 23:15	WB
Acenaphthylene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 23:15	WB
Anthracene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 23:15	WB
Benzo[a]anthracene	11.9		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 23:15	WB
Benzo[b]fluoranthene	19.1		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 23:15	WB
Benzo[k]fluoranthene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 23:15	WB
Benzo[ghi]perylene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 23:15	WB
Benzo[a]pyrene	12.3		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 23:15	WB
Chrysene	18.3		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 23:15	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 23:15	WB
Fluoranthene	21.0		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 23:15	WB
Fluorene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 23:15	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 23:15	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 23:15	WB
Naphthalene	ND		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 23:15	WB
Phenanthrene	23.4		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 23:15	WB
Pyrene	18.5		ug/kg dry	11.6	11.6	1	03/15/21	03/17/21 23:15	WB
<i>Surrogate: Nitrobenzene-d5</i>		23-120		85 %	03/15/21		03/17/21 23:15		
<i>Surrogate: 2-Fluorobiphenyl</i>		30-115		80 %	03/15/21		03/17/21 23:15		
<i>Surrogate: Terphenyl-d14</i>		18-137		80 %	03/15/21		03/17/21 23:15		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	14.0		mg/kg dry	9.3	9.3	1	03/12/21	03/18/21 22:35	SJA
<i>Surrogate: o-Terphenyl</i>		70-130		97 %	03/12/21		03/18/21 22:35		



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-28

1031209-28 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	86		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 13:36	CWK
Arsenic	3.51		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 13:36	CWK
Beryllium	1.21		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 13:36	CWK
Cadmium	ND		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 13:36	CWK
Chromium	34.1		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 13:36	CWK
Copper	30.1		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 13:36	CWK
Lead	177		mg/kg dry	1.45	1.45	5	03/15/21	03/16/21 14:06	CWK
Mercury	0.0572		mg/kg dry	0.0145	0.0145	1	03/15/21	03/16/21 13:36	CWK
Nickel	16.7		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 13:36	CWK
Selenium	2.75		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 13:36	CWK
Silver	ND		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 13:36	CWK
Thallium	ND		mg/kg dry	0.291	0.291	1	03/15/21	03/16/21 13:36	CWK
Zinc	66.7		mg/kg dry	1.45	1.45	1	03/15/21	03/16/21 13:36	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-29

1031209-29 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 23:37	WB
Acenaphthylene	15.8		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 23:37	WB
Anthracene	28.4		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 23:37	WB
Benzo[a]anthracene	99.5		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 23:37	WB
Benzo[b]fluoranthene	113		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 23:37	WB
Benzo[k]fluoranthene	40.5		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 23:37	WB
Benzo[ghi]perylene	56.1		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 23:37	WB
Benzo[a]pyrene	84.0		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 23:37	WB
Chrysene	110		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 23:37	WB
Dibenzo[a,h]anthracene	13.4		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 23:37	WB
Fluoranthene	176		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 23:37	WB
Fluorene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 23:37	WB
Indeno[1,2,3-cd]pyrene	60.4		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 23:37	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 23:37	WB
Naphthalene	12.7		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 23:37	WB
Phenanthrene	131		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 23:37	WB
Pyrene	170		ug/kg dry	12.0	12.0	1	03/15/21	03/17/21 23:37	WB
Surrogate: Nitrobenzene-d5		23-120		91 %	03/15/21		03/17/21 23:37		
Surrogate: 2-Fluorobiphenyl		30-115		86 %	03/15/21		03/17/21 23:37		
Surrogate: Terphenyl-d14		18-137		87 %	03/15/21		03/17/21 23:37		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	16.6		mg/kg dry	9.6	9.6	1	03/12/21	03/16/21 00:13	SJA
Surrogate: o-Terphenyl		70-130		79 %	03/12/21		03/16/21 00:13		

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-29

1031209-29 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	83		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:38	CWK
Arsenic	4.33		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:38	CWK
Beryllium	0.946		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:38	CWK
Cadmium	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:38	CWK
Chromium	28.4		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:38	CWK
Copper	34.3		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:38	CWK
Lead	58.4		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:38	CWK
Mercury	0.0240		mg/kg dry	0.0151	0.0151	1	03/15/21	03/16/21 13:38	CWK
Nickel	22.1		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:38	CWK
Selenium	2.84		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:38	CWK
Silver	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:38	CWK
Thallium	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:38	CWK
Zinc	75.0		mg/kg dry	1.51	1.51	1	03/15/21	03/16/21 13:38	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-30

1031209-30 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/18/21 00:00	WB
Acenaphthylene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/18/21 00:00	WB
Anthracene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/18/21 00:00	WB
Benzo[a]anthracene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/18/21 00:00	WB
Benzo[b]fluoranthene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/18/21 00:00	WB
Benzo[k]fluoranthene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/18/21 00:00	WB
Benzo[ghi]perylene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/18/21 00:00	WB
Benzo[a]pyrene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/18/21 00:00	WB
Chrysene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/18/21 00:00	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/18/21 00:00	WB
Fluoranthene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/18/21 00:00	WB
Fluorene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/18/21 00:00	WB
Indeno[1,2,3-cd]pyrene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/18/21 00:00	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/18/21 00:00	WB
Naphthalene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/18/21 00:00	WB
Phenanthrene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/18/21 00:00	WB
Pyrene	ND		ug/kg dry	12.0	12.0	1	03/15/21	03/18/21 00:00	WB
<i>Surrogate: Nitrobenzene-d5</i>			23-120	81 %	03/15/21		03/18/21 00:00		
<i>Surrogate: 2-Fluorobiphenyl</i>			30-115	77 %	03/15/21		03/18/21 00:00		
<i>Surrogate: Terphenyl-d14</i>			18-137	79 %	03/15/21		03/18/21 00:00		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	ND		mg/kg dry	9.6	9.6	1	03/12/21	03/18/21 23:29	SJA
<i>Surrogate: o-Terphenyl</i>			70-130	93 %	03/12/21		03/18/21 23:29		

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-30

1031209-30 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	83		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:41	CWK
Arsenic	1.74		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:41	CWK
Beryllium	0.550		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:41	CWK
Cadmium	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:41	CWK
Chromium	20.0		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:41	CWK
Copper	13.4		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:41	CWK
Lead	24.5		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:41	CWK
Mercury	ND		mg/kg dry	0.0151	0.0151	1	03/15/21	03/16/21 13:41	CWK
Nickel	11.7		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:41	CWK
Selenium	1.42		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:41	CWK
Silver	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:41	CWK
Thallium	ND		mg/kg dry	0.301	0.301	1	03/15/21	03/16/21 13:41	CWK
Zinc	52.8		mg/kg dry	1.51	1.51	1	03/15/21	03/16/21 13:41	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-31

1031209-31 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3540-GCMS(Soxhlet)									
Acenaphthene	ND		ug/kg dry	12.7	12.7	1	03/15/21	03/18/21 00:23	WB
Acenaphthylene	ND		ug/kg dry	12.7	12.7	1	03/15/21	03/18/21 00:23	WB
Anthracene	ND		ug/kg dry	12.7	12.7	1	03/15/21	03/18/21 00:23	WB
Benzo[a]anthracene	43.2		ug/kg dry	12.7	12.7	1	03/15/21	03/18/21 00:23	WB
Benzo[b]fluoranthene	57.8		ug/kg dry	12.7	12.7	1	03/15/21	03/18/21 00:23	WB
Benzo[k]fluoranthene	17.4		ug/kg dry	12.7	12.7	1	03/15/21	03/18/21 00:23	WB
Benzo[ghi]perylene	25.9		ug/kg dry	12.7	12.7	1	03/15/21	03/18/21 00:23	WB
Benzo[a]pyrene	38.4		ug/kg dry	12.7	12.7	1	03/15/21	03/18/21 00:23	WB
Chrysene	46.7		ug/kg dry	12.7	12.7	1	03/15/21	03/18/21 00:23	WB
Dibenzo[a,h]anthracene	ND		ug/kg dry	12.7	12.7	1	03/15/21	03/18/21 00:23	WB
Fluoranthene	73.7		ug/kg dry	12.7	12.7	1	03/15/21	03/18/21 00:23	WB
Fluorene	ND		ug/kg dry	12.7	12.7	1	03/15/21	03/18/21 00:23	WB
Indeno[1,2,3-cd]pyrene	29.2		ug/kg dry	12.7	12.7	1	03/15/21	03/18/21 00:23	WB
N-Nitroso-di-n-propylamine	ND		ug/kg dry	12.7	12.7	1	03/15/21	03/18/21 00:23	WB
Naphthalene	ND		ug/kg dry	12.7	12.7	1	03/15/21	03/18/21 00:23	WB
Phenanthrene	41.1		ug/kg dry	12.7	12.7	1	03/15/21	03/18/21 00:23	WB
Pyrene	67.4		ug/kg dry	12.7	12.7	1	03/15/21	03/18/21 00:23	WB
<i>Surrogate: Nitrobenzene-d5</i>		23-120		86 %	03/15/21		03/18/21 00:23		
<i>Surrogate: 2-Fluorobiphenyl</i>		30-115		80 %	03/15/21		03/18/21 00:23		
<i>Surrogate: Terphenyl-d14</i>		18-137		81 %	03/15/21		03/18/21 00:23		
DIESEL RANGE ORGANICS BY EPA 3540/8015C Prepared by 3540-GC(Soxhlet)									
Diesel-Range Organics (C10-C28)	16.6		mg/kg dry	10.1	10.1	1	03/12/21	03/16/21 01:34	SJA
<i>Surrogate: o-Terphenyl</i>		70-130		70 %	03/12/21		03/16/21 01:34		



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

P138-31

1031209-31 (Soil)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
PERCENT SOLIDS BY ASTM D2216-05 Prepared by Percent Solids									
Percent Solids	79		%			1	03/15/21	03/16/21 12:58	AM
Total Metals Analysis by EPA 6020B Prepared by 3050B-Metals Digestion									
Antimony	ND		mg/kg dry	0.316	0.316	1	03/15/21	03/16/21 13:43	CWK
Arsenic	1.97		mg/kg dry	0.316	0.316	1	03/15/21	03/16/21 13:43	CWK
Beryllium	0.734		mg/kg dry	0.316	0.316	1	03/15/21	03/16/21 13:43	CWK
Cadmium	ND		mg/kg dry	0.316	0.316	1	03/15/21	03/16/21 13:43	CWK
Chromium	24.5		mg/kg dry	0.316	0.316	1	03/15/21	03/16/21 13:43	CWK
Copper	20.6		mg/kg dry	0.316	0.316	1	03/15/21	03/16/21 13:43	CWK
Lead	60.3		mg/kg dry	0.316	0.316	1	03/15/21	03/16/21 13:43	CWK
Mercury	0.0400		mg/kg dry	0.0158	0.0158	1	03/15/21	03/16/21 13:43	CWK
Nickel	16.5		mg/kg dry	0.316	0.316	1	03/15/21	03/16/21 13:43	CWK
Selenium	1.44		mg/kg dry	0.316	0.316	1	03/15/21	03/16/21 13:43	CWK
Silver	ND		mg/kg dry	0.316	0.316	1	03/15/21	03/16/21 13:43	CWK
Thallium	ND		mg/kg dry	0.316	0.316	1	03/15/21	03/16/21 13:43	CWK
Zinc	66.4		mg/kg dry	1.58	1.58	1	03/15/21	03/16/21 13:43	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

EQ BLANK 3-9

1031209-32 (Nonpotable Water)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3510-GCMS(Auto Sep Funnel) Acid Only									
Acenaphthene	ND		ug/L	0.253	0.023	1	03/15/21	03/17/21 11:21	WB
Acenaphthylene	ND		ug/L	0.253	0.023	1	03/15/21	03/17/21 11:21	WB
Anthracene	ND		ug/L	0.253	0.023	1	03/15/21	03/17/21 11:21	WB
Benzo[a]anthracene	ND		ug/L	0.253	0.023	1	03/15/21	03/17/21 11:21	WB
Benzo[b]fluoranthene	ND		ug/L	0.253	0.023	1	03/15/21	03/17/21 11:21	WB
Benzo[k]fluoranthene	ND		ug/L	0.253	0.023	1	03/15/21	03/17/21 11:21	WB
Benzo[ghi]perylene	ND		ug/L	0.253	0.023	1	03/15/21	03/17/21 11:21	WB
Benzo[a]pyrene	ND		ug/L	0.253	0.023	1	03/15/21	03/17/21 11:21	WB
Chrysene	ND		ug/L	0.253	0.023	1	03/15/21	03/17/21 11:21	WB
Dibenzo[a,h]anthracene	ND		ug/L	0.253	0.023	1	03/15/21	03/17/21 11:21	WB
Fluoranthene	ND		ug/L	0.253	0.023	1	03/15/21	03/17/21 11:21	WB
Fluorene	ND		ug/L	0.253	0.023	1	03/15/21	03/17/21 11:21	WB
Indeno[1,2,3-cd]pyrene	ND		ug/L	0.253	0.023	1	03/15/21	03/17/21 11:21	WB
N-Nitroso-di-n-propylamine	ND		ug/L	0.253	0.023	1	03/15/21	03/17/21 11:21	WB
Naphthalene	ND		ug/L	0.253	0.046	1	03/15/21	03/17/21 11:21	WB
Phenanthrene	ND		ug/L	0.253	0.023	1	03/15/21	03/17/21 11:21	WB
Pyrene	ND		ug/L	0.253	0.023	1	03/15/21	03/17/21 11:21	WB
<i>Surrogate: Nitrobenzene-d5</i>			35-114	94 %	03/15/21		03/17/21 11:21		
<i>Surrogate: 2-Fluorobiphenyl</i>			43-116	85 %	03/15/21		03/17/21 11:21		
<i>Surrogate: Terphenyl-d14</i>			33-141	89 %	03/15/21		03/17/21 11:21		
DIESEL RANGE ORGANICS BY EPA 3510/8015C Prepared by 3510-GC(Sep Funnel)									
Diesel-Range Organics (C10-C28)	ND		mg/L	0.25	0.25	1	03/15/21	03/16/21 15:26	SJA
<i>Surrogate: o-Terphenyl</i>			60-120	91 %	03/15/21		03/16/21 15:26		

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

EQ BLANK 3-9

1031209-32 (Nonpotable Water)
Sample Date: 03/09/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 6020B Prepared by 3010A-Metals Digestion									
Antimony	ND		ug/L	1.00	1.00	1	03/15/21	03/15/21 16:01	CWK
Arsenic	ND		ug/L	1.00	1.00	1	03/15/21	03/15/21 16:01	CWK
Beryllium	ND		ug/L	1.00	1.00	1	03/15/21	03/15/21 16:01	CWK
Cadmium	ND		ug/L	1.00	1.00	1	03/15/21	03/15/21 16:01	CWK
Chromium	ND		ug/L	1.00	1.00	1	03/15/21	03/15/21 16:01	CWK
Copper	ND		ug/L	1.00	1.00	1	03/15/21	03/15/21 16:01	CWK
Lead	ND		ug/L	1.00	1.00	1	03/15/21	03/15/21 16:01	CWK
Mercury	ND		ug/L	0.100	0.100	1	03/15/21	03/15/21 16:01	CWK
Nickel	ND		ug/L	1.00	1.00	1	03/15/21	03/15/21 16:01	CWK
Selenium	ND		ug/L	1.00	1.00	1	03/15/21	03/15/21 16:01	CWK
Silver	ND		ug/L	1.00	1.00	1	03/15/21	03/15/21 16:01	CWK
Thallium	ND		ug/L	1.00	1.00	1	03/15/21	03/15/21 16:01	CWK
Zinc	ND		ug/L	5.00	5.00	1	03/15/21	03/15/21 16:01	CWK



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

EQ BLANK 3-10

1031209-33 (Nonpotable Water)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Semivolatile Organics by EPA 8270D-SIM (GC/MS) Prepared by 3510-GCMS(Auto Sep Funnel) Acid Only									
Acenaphthene	ND		ug/L	0.256	0.023	1	03/15/21	03/17/21 10:58	WB
Acenaphthylene	ND		ug/L	0.256	0.023	1	03/15/21	03/17/21 10:58	WB
Anthracene	ND		ug/L	0.256	0.023	1	03/15/21	03/17/21 10:58	WB
Benzo[a]anthracene	ND		ug/L	0.256	0.023	1	03/15/21	03/17/21 10:58	WB
Benzo[b]fluoranthene	ND		ug/L	0.256	0.023	1	03/15/21	03/17/21 10:58	WB
Benzo[k]fluoranthene	ND		ug/L	0.256	0.023	1	03/15/21	03/17/21 10:58	WB
Benzo[ghi]perylene	ND		ug/L	0.256	0.023	1	03/15/21	03/17/21 10:58	WB
Benzo[a]pyrene	ND		ug/L	0.256	0.023	1	03/15/21	03/17/21 10:58	WB
Chrysene	ND		ug/L	0.256	0.023	1	03/15/21	03/17/21 10:58	WB
Dibenzo[a,h]anthracene	ND		ug/L	0.256	0.023	1	03/15/21	03/17/21 10:58	WB
Fluoranthene	ND		ug/L	0.256	0.023	1	03/15/21	03/17/21 10:58	WB
Fluorene	ND		ug/L	0.256	0.023	1	03/15/21	03/17/21 10:58	WB
Indeno[1,2,3-cd]pyrene	ND		ug/L	0.256	0.023	1	03/15/21	03/17/21 10:58	WB
N-Nitroso-di-n-propylamine	ND		ug/L	0.256	0.023	1	03/15/21	03/17/21 10:58	WB
Naphthalene	ND		ug/L	0.256	0.046	1	03/15/21	03/17/21 10:58	WB
Phenanthrene	ND		ug/L	0.256	0.023	1	03/15/21	03/17/21 10:58	WB
Pyrene	ND		ug/L	0.256	0.023	1	03/15/21	03/17/21 10:58	WB
<i>Surrogate: Nitrobenzene-d5</i>			35-114	90 %	03/15/21		03/17/21 10:58		
<i>Surrogate: 2-Fluorobiphenyl</i>			43-116	84 %	03/15/21		03/17/21 10:58		
<i>Surrogate: Terphenyl-d14</i>			33-141	85 %	03/15/21		03/17/21 10:58		
DIESEL RANGE ORGANICS BY EPA 3510/8015C Prepared by 3510-GC(Sep Funnel)									
Diesel-Range Organics (C10-C28)	ND		mg/L	0.25	0.25	1	03/15/21	03/16/21 15:53	SJA
<i>Surrogate: o-Terphenyl</i>			60-120	90 %	03/15/21		03/16/21 15:53		

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

EQ BLANK 3-10

1031209-33 (Nonpotable Water)
Sample Date: 03/10/21

Analyte	Result	Notes	Units	Reporting Limit (MRL)	Detection Limit (LOD)	Dilution	Prepared	Analyzed	Analyst
Total Metals Analysis by EPA 6020B Prepared by 3010A-Metals Digestion									
Antimony	ND		ug/L	1.00	1.00	1	03/15/21	03/15/21 16:03	CWK
Arsenic	ND		ug/L	1.00	1.00	1	03/15/21	03/15/21 16:03	CWK
Beryllium	ND		ug/L	1.00	1.00	1	03/15/21	03/15/21 16:03	CWK
Cadmium	ND		ug/L	1.00	1.00	1	03/15/21	03/15/21 16:03	CWK
Chromium	ND		ug/L	1.00	1.00	1	03/15/21	03/15/21 16:03	CWK
Copper	ND		ug/L	1.00	1.00	1	03/15/21	03/15/21 16:03	CWK
Lead	ND		ug/L	1.00	1.00	1	03/15/21	03/15/21 16:03	CWK
Mercury	ND		ug/L	0.100	0.100	1	03/15/21	03/15/21 16:03	CWK
Nickel	ND		ug/L	1.00	1.00	1	03/15/21	03/15/21 16:03	CWK
Selenium	ND		ug/L	1.00	1.00	1	03/15/21	03/15/21 16:03	CWK
Silver	ND		ug/L	1.00	1.00	1	03/15/21	03/15/21 16:03	CWK
Thallium	ND		ug/L	1.00	1.00	1	03/15/21	03/15/21 16:03	CWK
Zinc	6.12		ug/L	5.00	5.00	1	03/15/21	03/15/21 16:03	CWK

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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

Maryland Spectral Services does not maintain certification for the following analytical parameters:

Maryland Spectral Services

Matrix , Method , Analyte _____



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Analytical Results

Project: PL, Parcel 138

Project Number: 10025
Project Manager: Nicole Bruno

Reported:
03/23/21 12:46

Notes and Definitions

- S-98 Spike recovery outside of established control limits.
- S-01 The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference.
- QM-4X The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
- QM-06 Due to non-homogeneity of the QC sample matrix, the MS/MSD or MS/DUP did not provide reliable results for accuracy and precision. Sample results for the QC batch were accepted based on LCS percent recoveries.
- J Detected but below the reporting limit; therefore, result is an estimated concentration (CLP J-Flag).
- E The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate (CLP E-flag).
- B Analyte is found in the associated blank as well as in the sample (CLP B-flag).
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference
- %-Solids Percent Solids is a supportive test and as such does not require accreditation



Will Brewington, President

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Company Name: RK&K		Project Manager: Nicole Bruno		Analysis Requested		CHAIN-OF-CUSTODY RECORD			
Project Name: PL, Parcel 138		Project ID: 10025		No. of Containers		Maryland Spectral Services, Inc. 1500 Caton Center Drive, Suite G Baltimore, MD 21227 410-247-7600 • Fax 410-247-7602 labman@mdspectral.com			
Sampler(s): Ted Chadeayne		P.O. Number:				Matrix Codes: NW (nonpotable water) PW (potable water)			
Field Sample ID	Date	Time	Water	Soil	Other	Preservative: 1 + 1 HCL, H ₂ SO ₄ , Methanol, Na ₂ S ₂ O ₃ , NaHCO ₃	Field pH, Residual Chlorine, QC Request, Trip Blank, Field Blank	MSS Lab ID	
P138-01	3/9	1250	X			X		1031209-01	
P138-02	3/9	0915	X			X		-02	
P138-03	3/9	0940	X			X		-03	
P138-04	3/9	0945	X			X		-04	
P138-05	3/9	0925	X			X		-05	
P138-06	3/9	0935	X			X		-06	
P138-07	3/9	0930	X			X		-07	
P138-08	3/9	0955	X			X		-08	
P138-09	3/9	1030	X			X		-09	
P138-10	3/9	0950	X			X		-10	
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		Received by: (Signature)	
(Printed) Ted Chadeayne				(Printed)				(Printed)	
Relinquished by: (Signature)		Date/Time		Received by Lab: (Signature)		Date/Time		Lab Use:	
(Printed)		11:26				3-12-21		Temp: 3.3 °C <input type="checkbox"/> Received on ice <input type="checkbox"/> Received same day <input type="checkbox"/> Preservation Appropriate	
Delivery Method:		Special Instructions/QC Requirements & Comments:		Turn Around Time:		Sample Disposal:			
<input type="checkbox"/> Courier	<input checked="" type="checkbox"/> Client	Lori Foster		<input checked="" type="checkbox"/> Normal (7 day)	<input type="checkbox"/> 5 day	<input type="checkbox"/> Return to Client	<input type="checkbox"/> Disposal by lab		
<input type="checkbox"/> UPS	<input type="checkbox"/> FedEx			<input type="checkbox"/> 4 day	<input type="checkbox"/> 3 day	<input type="checkbox"/> Rush (2 day)	<input type="checkbox"/> Next Day		
<input type="checkbox"/> USPS	<input type="checkbox"/> Other:			<input type="checkbox"/> Rush (2 day)	<input type="checkbox"/> Next Day	<input type="checkbox"/> Other: _____	<input type="checkbox"/> Specific Due Date: _____		
<input type="checkbox"/> Other:				<input type="checkbox"/> Specific Due Date: _____					

Company Name: RK&K		Project Manager: Nicole Bruno		Analysis Requested		CHAIN-OF-CUSTODY RECORD	
Project Name: PL, Parcel 138		Project ID: 10025		PPL metals, 6020A PAHs, 8270D SIM DRO, 8015M		Maryland Spectral Services, Inc. 1500 Caton Center Drive, Suite G Baltimore, MD 21227 410-247-7600 • Fax 410-247-7602 labman@rmdspectral.com	
Sampler(s): Ted Chadeayne		P.O. Number:					
Field Sample ID	Date	Time	Water	Soil	Other	No. of Containers	MSS Lab ID
P138-11	3/9	1020	X	X		2	1031209 -11
P138-12	3/9	1025	X	X		2	-12
P138-13	3/9	1015	X	X		2	-13
P138-14	3/9	1200	X	X		2	-14
P138-15	3/9	1210	X	X		2	-15
P138-16	3/9	1205	X	X		2	-16
P138-17	3/9	1235	X	X		2	-17
P138-18	3/9	1215	X	X		2	-18
P138-19	3/9	1230	X	X		2	-19
P138-20	3/9	1220	X	X		2	-20
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time	
(Printed) Ted Chadeayne				(Printed)			
Relinquished by: (Signature)		Date/Time		Received by Lab: (Signature)		Date/Time	
(Printed)		11:26				3.3	
Relinquished by: (Signature)		Date/Time		Received by Lab: (Signature)		Date/Time	
(Printed)		3-12-21				3.3	
Delivery Method:		Special Instructions/QC Requirements & Comments:		Turn Around Time:		Lab Use:	
<input type="checkbox"/> Courier <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Other:	Normal (7 day) <input checked="" type="checkbox"/> 5 day <input type="checkbox"/> 4 day <input type="checkbox"/> 3 day <input type="checkbox"/> Rush (2 day) <input type="checkbox"/> Next Day <input type="checkbox"/> Other: _____ Date: _____			Temp: _____ °C <input type="checkbox"/> Received on Ice <input type="checkbox"/> Received same day <input type="checkbox"/> Preservation Appropriate		Sample Disposal: <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by lab <input type="checkbox"/> Archive for _____ days	

Company Name: RK&K		Project Manager: Nicole Bruno		Analysis Requested		CHAIN-OF-CUSTODY RECORD			
Project Name: PL, Parcel 138		Project ID: 10025		No. of Containers		Maryland Spectral Services, Inc. 1500 Caton Center Drive, Suite G Baltimore, MD 21227 410-247-7600 • Fax 410-247-7602 labman@mdspectral.com			
Sampler(s): Ted Chadeayne		P.O. Number:				Matrix Codes: NW (nonpotable water) PW (potable water)			
Field Sample ID	Date	Time	Water	Soil	Other	Preservative: 1+ 1 HCL, H ₂ SO ₄ , Methanol, Na ₂ S ₂ O ₃ , NaHCO ₃	Field pH, Residual Chlorine, QC Request, Trip Blank, Field Blank	MSS Lab ID	
P138-21	3/10	0845	X			X		1031209-21	
P138-22	3/10	0850	X			X		-22	
P138-23	3/10	0855	X			X		-23	
P138-24	3/10	0900	X			X		-24	
P138-25	3/10	0905	X			X		-25	
P138-26	3/10	0910	X			X		-26	
P138-27	3/10	0930	X			X		-27	
P138-28	3/10	0935	X			X		-28	
P138-29	3/10	0950	X			X		-29	
P138-30	3/10	0955	X			X		-30	
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		Received by: (Signature)	
(Printed) Ted Chadeayne				(Printed)		(Printed)		(Printed)	
Relinquished by: (Signature)		Date/Time		Received by Lab: (Signature)		Turn Around Time:		Lab Use:	
(Printed)		11:26				Normal (7 day) <input checked="" type="checkbox"/> 5 day <input type="checkbox"/> 4 day <input type="checkbox"/> 3 day Rush (2 day) <input type="checkbox"/> Next Day Other: _____ Specific Due Date: _____		Temp: 3.3 °C <input type="checkbox"/> Received on Ice <input type="checkbox"/> Received same day <input type="checkbox"/> Preservation Appropriate	
Special Instructions/QC Requirements & Comments:		Delivery Method: <input type="checkbox"/> Courier <input checked="" type="checkbox"/> Client <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Other: _____		Sample Disposal: <input type="checkbox"/> Return to Client <input checked="" type="checkbox"/> Disposal by lab <input type="checkbox"/> Archive for _____ days					

