PHASE II
INVESTIGATION REPORT

AREA B: PARCEL B5
TRADEPOINT ATLANTIC
SPARROWS POINT, MARYLAND

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1.0 INTRODUCTION

ARM Group Inc. (ARM), on behalf of EnviroAnalytics Group (EAG), has completed a Phase II Investigation of a portion of the Tradepoint Atlantic property (formerly Sparrows Point Terminal, LLC) that has been designated as Area B: Parcel B5 (the Site). Parcel B5 is comprised of 305 acres of the approximately 3,100-acre former steel making facility (**Figure 1**). The Site is bounded to the west by the former Basic Oxygen Furnace (BOF), Mould Yard, and Continuous Caster (currently designated as Parcel B4), as well as a former Coke Oven Laboratory and the Kinder Morgan Warehouse (currently designated as Parcel B18); to the north by the former Primary Rolling Mill (currently designated Parcel B1) and the former Mason's Garage (currently designated as Parcel B2); to the south by the former Ore Yard Material Handling and former Bedding Plant Material Handling areas (currently designated as Parcels B13 and B20) and the Ore Dock; and to the east by former Oil Tanks (currently designated as Parcel B19), Jones Creek, and Old Road Bay.

The Phase II Investigation was performed in accordance with procedures outlined in the approved Phase II Investigation Work Plan – Parcel B5. This Work Plan (dated December 3, 2015) was approved by the Maryland Department of the Environment (MDE) and the United States Environmental Protection Agency (USEPA) on December 16, 2015. A Dioxin and Furan Work Plan Addendum dated November 28, 2016 was approved for fieldwork on December 20, 2016, with an associated comment response letter submitted to the agencies shortly thereafter (dated December 21, 2016). The investigation was implemented in compliance with requirements pursuant to the following:

- Administrative Consent Order (ACO) between Tradepoint Atlantic (formerly Sparrows Point Terminal, LLC) and the MDE, effective September 12, 2014; and
- Settlement Agreement and Covenant Not to Sue (SA) between Tradepoint Atlantic (formerly Sparrows Point Terminal, LLC) and the USEPA, effective November 25, 2014.

Parcel B5 is part of the acreage that was removed (Carveout Area) from inclusion in the Multimedia Consent Decree between Bethlehem Steel Corporation, the USEPA, and the MDE (effective October 8, 1997) as documented in correspondence received from the USEPA on September 12, 2014. Based on this agreement, the USEPA determined that no further investigation or corrective measures will be required under the terms of the Consent Decree for the Carveout Area. However, the SA reflects that the property within the Carveout Area will remain subject to the USEPA's Resource Conservation and Recovery Act (RCRA) Corrective Action authorities.

An application to enter the full Tradepoint Atlantic property (3,100 acres) into the Maryland Department of the Environment Voluntary Cleanup Program (MDE-VCP) was submitted to the

MDE and delivered on June 27, 2014. The property's current and anticipated future use is Tier 3 (Industrial), and plans for the property include demolition and redevelopment over the next several years.

1.1. SITE HISTORY

From the late 1800s until 2012, the production and manufacturing of steel was conducted at Sparrows Point. Iron and steel production operations and processes at Sparrows Point included raw material handling, coke production, sinter production, iron production, steel production, and semi-finished and finished product preparation. In 1970, Sparrows Point was the largest steel facility in the United States, producing hot and cold rolled sheets, coated materials, pipes, plates, and rod and wire. The steel making operations at Sparrows Point ceased in fall 2012.

Parcel B5 was formerly occupied by the Blast Furnace Area and part of the former Steel Making Area. A small portion of the former residential town was also present within Parcel B5. Several iron and steel work processes were completed within the boundary of the Site. Descriptions of the facilities and processes are provided below:

Sinter Plant:

The Sinter Plant produced sinter from iron-bearing fine materials. Burnt lime and the fine materials were combined and passed through an ignition furnace, which fused the materials into cohesive lumps. The finished sinter was cooled and stored before being transferred to be included as a raw material in the blast furnaces.

Blast Furnaces:

Several high temperature blast furnaces were used for extracting iron from ore and other iron-rich recyclable materials. The furnaces received ore, sinter, coke, limestone and/or dolomite, and heated air, and produced a molten iron product and slag as a by-product. This slag was stored in piles outside of the furnaces, before being transported out of the Parcel B5 area to be crushed and screened for sale as a product. At the time the Description of Current Conditions (DCC) Report (prepared by Rust Environment and Infrastructure, dated January 1998) was developed, blast furnaces A through G and K had been previously demolished and removed from the site. Blast furnaces H, J, and L remained on site, with only blast furnace L remaining operational.

Recirculating Industrial Water (RIW) System:

The RIW systems acted as gas-cleaning water treatment systems for the blast furnaces. A variety of features were included in the system, including a pipeline, sumps, holding tanks, clarifying tanks, and RIW wastewater treatment plant.

Mould Yard:

When the BOF facilities were unable to receive the hot metals produced from the blast furnaces, the iron could be temporarily stored in the Mould Yard. The hot metal was poured on the ground and allowed to cool. Once it was cooled it could be broken into smaller pieces and then transferred to the BOF.

Iron and Brass Foundry:

The iron and brass foundry was used in casting operations. The metals were melted, poured and cast, and according to the Phase I Environmental Site Assessment (ESA) prepared by Weaver Boos dated May 19, 2014, lead-containing dust may have been produced from saws, shot blasters, and grinders within the foundry.

1.2. OBJECTIVES

The objective of this Phase II Investigation was to fully characterize the nature and extent of contamination at the Site. A summary table of the site investigation locations, including the boring identification numbers and the analyses performed, is provided as **Appendix A**. This report includes a summary of the work performed, including the environmental setting, site investigation methods, analytical results and data usability assessment, and findings and recommendations.

As specified in the approved Work Plan for Parcel B5, groundwater at the Site was investigated as described in the separate Area B Groundwater Investigation Work Plan (dated October 6, 2015), the final version of which was approved by the agencies via email on October 5, 2015. A separate Area B Groundwater Phase II Investigation Report has been submitted (Revision 0 dated September 30, 2016) to discuss the findings of the groundwater investigation.

2.0 ENVIRONMENTAL SETTING

2.1. LAND USE AND SURFACE FEATURES

The Tradepoint Atlantic property consists of the former Sparrows Point steel mill. According to the Phase I ESA prepared by Weaver Boos dated May 19, 2014, the property is zoned Manufacturing Heavy-Industrial Major (MH-IM). Surrounding property zoning classifications (beyond Tradepoint Atlantic) include the following: Manufacturing Light (ML); Resource Conservation (RC); Density Residential (DR); Business Roadside (BR); Business Major (BM); Business Local (BL); and Residential Office (RO). Light industrial and commercial properties are located northeast of the property and northwest of the property across Bear Creek. Residential areas of Edgemere and Fort Howard are located northeast of the property across Jones Creek and to the southeast across Old Road Bay, respectively. Residential and commercial areas of Dundalk are located northwest of the property across Bear Creek.

According to topographic maps provided by EAG, the Site is at an approximate mean elevation of 19 feet above mean sea level (amsl). Elevations in the parcel range between 0 and 64 feet (stockpiled mounds) over the entire parcel area. The central portion of the Site appears to be relatively consistent, and ranges from 10 feet amsl to 16 feet amsl. Along the eastern edge, the parcel slopes sharply downward to the adjacent Jones Creek and Old Road Bay at sea level. Surface elevations also slope sharply downward from approximately 14 feet amsl to sea level from the north, west, and south sides of the Pennwood Canal (identified in **Figure 1**). According to Figure B-2 of the Stormwater Pollution Prevention Plan (SWPPP) Revision 5 dated June 1, 2017, stormwater from the majority of the parcel is discharged through the Pennwood Canal and National Pollution Discharge Elimination System (NPDES) Outfall 001. However, runoff from the southeastern corner of the parcel is directed towards the Ore Dock (ultimately discharging through either Outfall 055 or Outfall 056 into the Patapsco River), and runoff from the northeastern parcel appears to drain into Parcel B19.

2.2. REGIONAL GEOLOGY

The Site is located within the Atlantic Coastal Plain Physiographic Province (Coastal Plain). The western boundary of the Coastal Plain is the "Fall Line", which separates the Coastal Plain from the Piedmont Plateau Province. The Fall Line runs from northeast to southwest along the western boundary of the Chesapeake Bay, passing through Elkton (MD), Havre de Grace (MD), Baltimore City (MD), and Laurel (MD). The eastern boundary of the Coastal Plain is the off-shore Continental Shelf.

The unconsolidated sediments beneath the Site belong to the Talbot Formation (Pleistocene), which is then underlain by the Cretaceous formations which comprise the Potomac Group (Patapsco Formation, Arundel Formation and the Patuxent Formation). The Potomac Group

formations are comprised of unconsolidated sediments of varying thicknesses and types, which may be several hundred feet to several thousand feet thick. These unconsolidated formations may overlie deeper Mesozoic and/or Precambrian bedrock. Depth to bedrock is approximately 700 feet within the Site.

2.3. SITE GEOLOGY

Groundcover at the Site is comprised of approximately 64% natural soils and 36% slag fill based on the approximate shoreline of the Sparrows Point Peninsula in 1916, as shown on **Figure 2** (adapted from Figure 2-20 in the DCC Report prepared by Rust Environment and Infrastructure, dated January 1998).

In general, the encountered subsurface geology included slag fill materials overlying natural soils, which included fine-grained sediments (clays and silts) and coarse-grained sediments (sands). Slag fill materials were encountered at depths ranging from 0 to 16.5 feet below the ground surface (bgs). Groundwater was observed in the soil borings at depths ranging from 2 to 19 feet below the ground surface (bgs) across the Site. Soil boring observation logs are provided in **Appendix B**. Please note that unless otherwise indicated, all Unified Soil Classification System (USCS) group symbols provided on the attached boring logs are from visual observations, and not from laboratory testing.

3.0 SITE INVESTIGATION

A total of 325 soil samples (from 172 boring locations) and six sediment samples were collected for analysis between December 21, 2015 and April 13, 2016 as part of the Parcel B5 Phase II Investigation. In addition, eight surface soil samples (0 to 1 foot bgs) were collected in the vicinity of the former Sinter Plant on January 9, 2017 as part of the Dioxin and Furan Work Plan Addendum. This Phase II Investigation utilized methods and protocols that followed the procedures included in the Quality Assurance Project Plan (QAPP) dated October 2, 2015 (updated April 5, 2016) approved by the agencies to support the investigation and remediation of the Tradepoint Atlantic property. Information regarding the project organization, field activities and sampling methods, sampling equipment, sample handling and management procedures, the selected laboratory and analytical methods, quality control and quality assurance procedures, investigation-derived waste (IDW) management methods, and reporting requirements are described in detail in the approved Parcel B5 Work Plan dated December 3, 2015, the Dioxin and Furan Work Plan Addendum dated November 28, 2016 (and associated comment response letter dated December 21, 2016), and the QAPP.

All site characterization activities were conducted under the site-specific health and safety plan (HASP) provided as Appendix C of the approved Work Plan.

3.1. SAMPLE TARGET IDENTIFICATION

Previous activities within and around the buildings and facilities located on the Tradepoint Atlantic property may have been historical sources of environmental contamination. If present, source areas were identified as targets for sampling through a careful review of historical documents. When a sampling target was identified, a boring was placed at or next to its location using Geographic Information Systems (GIS) software (ArcMap Version 10.2.2).

Sampling targets included, as applicable, 1) Recognized Environmental Conditions (RECs) shown on the REC Location Map provided in Weaver Boos' Phase I ESA, 2) additional findings (non-RECs) from the Phase I ESA which were identified as potential environmental concerns, and 3) Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) identified from the DCC Report prepared by Rust Environment and Infrastructure. The following RECs were identified in the Parcel B5 Work Plan: the Former Electrical Repair Shop (ERS) Oily Wastewater Tank (REC 8A, Finding 199, also listed as SWMU 195) and Residential Town Tanks (REC 21, Finding 271). The following additional SWMUs or AOCs were identified in the Parcel B5 Work Plan: PCB-Contaminated Oil Spill (AOC C) and Slag Pit/Piles (SWMU 165). Additional information regarding these features is presented in the approved Work Plan.

Four sets of historical drawings were also reviewed to identify potential sampling targets for the Site. These drawings included the 5000 Set (Plant Arrangement), the 5100 Set (Plant Index), the

5500 Set (Plant Sewer Lines), and a set of drawings indicating coke oven gas distribution drip leg locations. Drip legs are points throughout the distribution system where coke oven gas condensate was removed from the gas pipelines. The condensate from the drip legs was typically discharged to drums, although it is possible some spilled out of the drums and on to the ground. There were 20 drip legs identified inside the boundary of Parcel B5. A summary of the specific drawings covering the Site is presented in **Table 1**. Sampling target locations were identified if the historical drawings depicted industrial activities or a specific feature at a location that may have been a source of environmental contamination that potentially impacted the Site.

Based on the review of plant drawings and Phase I ESA documents (or based on direct agency guidance for additional features), sampling targets were identified at the Site that included the following: Dispersant Tank/Acid Storage Tank, Fuel/Oil Tanks, Fuel/Oil Loading and Unloading Stations, Fuel Shop, Fuel Storage Area, Iron and Brass Foundry, Iron Beaching Pit, Oil Houses, Paint Shops, "Trans" Pits, Settling Tank, (Unknown Contents) Tanks, Tar Storage Area, Thickener Tanks, Wastewater Treatment Building, Open Hearth Furnace Area, Old H Furnace Area, Nos. 3 and 4 Mould Yard (and Stripper), Storage Area, Electric Substation, Sinter Area, Railroad Tracks, Tar/Underground Conduit/Transformer, Industrial Buildings, and Ladle Repair Shop. A summary of the areas that were investigated, along with the applicable boring identification numbers and the analyses performed, has been provided as **Appendix A**. Additional sample locations were then added to fill in spatial gaps between proposed borings to provide complete coverage of the Site. During the completion of fieldwork, it was necessary to shift some borings from the approved locations given in the Work Plan, primarily due to access restrictions and/or refusal. **Table 2** provides the identification numbers of the field adjusted borings, the coordinates of the proposed and final locations, and the distance/direction of the field shifts.

The density of soil borings met the requirements set forth in QAPP Worksheet 17 – Sampling Design and Rationale. Parcel B5 contained a total of 191.0 acres without engineered barriers and 114.2 acres with engineered barriers. Of the 114.2 acres with engineered barriers, 48.7 acres contained former building slabs and 65.6 acres consists of parking/roads. In accordance with the relevant sampling density requirements, a minimum of 64 soil borings were required to cover the area without engineered barriers, and a minimum of 20 soil borings were required to cover areas with barriers. A total of 84 borings were required to meet the density specification; 172 soil borings were completed during the Phase II Investigation. Eight additional surface samples were collected in the vicinity and downwind of the former Sinter Plant, not included in the original Parcel B5 Phase II Investigation but covered by the Dioxin and Furan Work Plan Addendum.

In an e-mail to EAG from the MDE dated November 30, 2015, the agency requested that samples from the borings in the vicinity of the former Sinter Plant be analyzed for dioxins and furans. Based on this request, the Dioxin and Furan Work Plan Addendum was developed to provide characterization data in the vicinity and downwind of the former Sinter Plant. An

additional eight surface soil sample locations (B5-181-SB through B5-188-SB) were completed for the Phase II Investigation of Parcel B5.

In addition, the Pennwood Powerhouse Staining and Sediments (Finding 267 not identified as a REC, SWMU, or AOC) were selected as a target for sediment sampling. During a former site visit discussed in the Phase I ESA, the Pennwood Powerhouse contained large out-of-service equipment, with observed surface staining on and below the equipment. Past flooding (at least one previous incident) caused water to pool on the equipment room floor and drain to the adjacent Pennwood Canal. The Phase I ESA concluded that it was unlikely that the flooding of the Pennwood Powerhouse resulted in a significant release, and the canal sediments were classified as a non-REC. However, the Pennwood Canal was selected as a target for sediment sampling (six samples) to characterize current conditions.

3.2. SOIL INVESTIGATION

Continuous core soil borings were successfully advanced at 172 locations across the Site to assess the presence or absence of soil contamination, and to assess the vertical distribution of any encountered contamination (**Figure 3a**). The continuous core soil borings were advanced to depths between 1 and 20 feet bgs using the Geoprobe® MC-7 Macrocore soil sampler (surface to 10 feet bgs) and the Geoprobe® D-22 Dual-Tube Sampler (depths >10 feet bgs). At each location, each soil core was visually inspected and screened with a hand-held photoionization detector (PID) prior to logging soil types. Soil boring logs have been included as **Appendix B**, and the PID calibration log has been included as **Appendix C**. Unless otherwise indicated, all USCS group symbols provided on the attached boring logs are from visual observations.

One shallow sample was collected from the 0 to 1 foot depth interval, and a deeper sample was collected from the 4 to 5 foot depth interval from each continuous core soil boring. One additional set of samples was also collected from the 9 to 10 foot depth interval if groundwater had not been encountered; however, these samples were held by the laboratory pending the analysis of the 0 to 1 and 4 to 5 foot depth interval samples, and were only analyzed for parameters that were detected in the 5 foot depth samples at concentrations above the Project Action Limits (PALs). If the PID or other field observations indicated contamination to exist at a depth greater than 3 feet bgs but less than 9 feet bgs, and was above the water table, the sample from the deeper 4 to 5 foot interval was shifted to the alternate depth interval. It should be noted that soil samples were not collected from depths that were below the water table.

An additional eight locations in the vicinity and downwind of the Sinter Plant were successfully completed to assess the presence or absence of dioxin and furan soil contamination in the shallow (0 to 1 foot) sample interval (**Figure 3b**).

Soil sampling activities were conducted in accordance with the procedures and methods referenced in **Field Standard Operating Procedure (SOP) Numbers 008, 009, 012, and 013**

provided in Appendix A of the QAPP. Down-hole soil sampling equipment was decontaminated after soil sampling had been concluded at a location, according to the procedures and methods referenced in **Field SOP Number 016** provided in Appendix A of the QAPP.

Soil samples were submitted to Pace Analytical Services, Inc. (PACE), and analyzed for Target Compound List (TCL) volatile organic compounds (VOCs) via USEPA Method 8260B, TCL semi-volatile organic compounds (SVOCs) via USEPA Methods 8270D and 8270D SIM, Target Analyte List (TAL) Metals via 6010C and 7471C, hexavalent chromium via USEPA Method 7196A, cyanide via USEPA Method 9012, and total petroleum hydrocarbon (TPH) diesel range organics (DRO) and gasoline range organics (GRO) via USEPA Methods 8015B and 8015D. The Work Plan requirements for analysis of TPH-DRO/GRO and/or Oil & Grease have evolved throughout the investigation process and changed several times since late-2015 under agency guidance. During the implementation of the Parcel B5 Work Plan, TPH-DRO/GRO analysis was required at every location, but Oil & Grease analysis was not required or completed. Additionally, the shallow soil samples collected across the Site from the 0 to 1 foot bgs interval were also analyzed for polychlorinated biphenyls (PCBs) via USEPA Method 8082. Select shallow soil samples (listed in **Appendix A**) were also analyzed for asbestos via USEPA Method 600/R-93/116 based on their proximity to a former overhead gas line. Soil samples collected for dioxin and furan characterization adjacent to the Sinter Plant were analyzed via USEPA Method 8290. Sample containers, preservatives, and holding times for the sample analyses are listed in the QAPP Worksheet 19 & 30 – Sample Containers, Preservation, and Holding Times.

3.3. SEDIMENT INVESTIGATION

Sediment samples were collected from six locations across three transects of the Pennwood Canal in order to characterize sediment quality in the inflow and outflow canals. Each transect consisted of two sampling locations; one sediment sample from the middle of the inflow canal and one sediment sample from the middle of the outflow canal. Sediment samples were collected from the top 12 inches of sediment using a Petite Ponar Sampler (scoop sample). An aluminum flat boat was piloted to the center of each inflow/outflow canal transect to facilitate the collection of the sediment samples. Sediment samples were collected in accordance with **Field SOP Number 003** provided in Appendix A of the QAPP.

Sediment sampling equipment was decontaminated after sampling had been concluded at each location, according to the procedures and methods referenced in **Field SOP Number 016** provided in Appendix A of the QAPP.

The Phase II Investigation sediment samples were submitted to PACE and analyzed for TCL-VOCs, TCL-SVOCs, TAL-Metals, TPH-DRO, TPH-GRO, PCBs, hexavalent chromium, and cyanide via the same methods listed above (Soil Investigation). Sample containers, preservatives, and holding times for the sample analyses are listed in the QAPP Worksheet 19 & 30 – Sample Containers, Preservation, and Holding Times.

3.4. DEVIATIONS FROM SAMPLING PLAN

During the course of fieldwork, one deviation from the original sampling plan presented in the approved Parcel B5 Work Plan was necessary based on encountered field conditions. Shallow refusal (0 to 1 foot bgs) was encountered at sample locations B5-035-SB and B5-036-SB due to densely compacted slag. Several attempts to collect samples were made; however, recovery was minimal and consisted of very coarse slag fragments which were not suitable for collection. These borings targeted one drip leg, but the 19 additional drip legs which were characterized should provide adequate analytical data such that the loss of these samples is not significant.

3.5. MANAGEMENT OF INVESTIGATION-DERIVED WASTE (IDW)

In accordance with **Field SOP Number 005** provided in Appendix A of the QAPP, potentially impacted materials, or IDW, generated during this Phase II Investigation was containerized in 55-gallon (DOT-UN1A2) drums. The types of IDW that were generated during this Phase II Investigation included the following:

- soil cuttings generated from soil borings or the installation of the temporary screening piezometers;
- decontamination fluids; and
- used personal protective equipment

Following the completion of field activities, two composite samples were gathered from the Parcel B5 Phase II IDW soil drums for TCLP analysis. Following this analysis, the waste soil was characterized as non-hazardous. A list of all results from the soil TCLP procedure can be found in **Table 3**, which indicates no exceedances of TCLP criteria.

IDW drums containing aqueous materials were characterized by preparing composite samples from randomly selected drums. The first set of composite samples was collected on March 22, 2016, after the majority of fieldwork on Parcel B5 was completed. Each composite sample included aliquots from three individual drums that were chosen from a set of 30 drums being staged on-site at the date of collection. A second aqueous composite sampling event was performed on July 22, 2016, to characterize additional waste (primarily from other parcels). This composite sample included aqueous waste from four individual drums that were chosen from a set of 30 drums being stored on-site at the date of collection. A total of nine aqueous composite samples were collected for TCLP analysis. Following this analysis, the aqueous waste was characterized as non-hazardous. A list of all results from the aqueous TCLP procedure can be found in **Table 4**, which indicates no exceedances of TCLP criteria.

The parcel specific IDW drum log from the Phase II investigation is included as **Appendix D**. All IDW procedures were carried out in accordance with methods referenced in the QAPP Worksheet 21 – Field SOPs and Appendix A of the QAPP.

4.0 ANALYTICAL RESULTS

4.1. SOIL CONDITIONS

Soil analytical results were screened against PALs established in the property-wide QAPP (or other direct guidance from the agencies; i.e. TPH-DRO/GRO) to determine PAL exceedances. PALs are generally based on the USEPA's Regional Screening Levels (RSLs) for the Composite Worker exposure to soil. The Composite Worker is defined by the USEPA as a long-term receptor exposed during the work day who is a full time employee that spends most of the workday conducting maintenance activities (which typically involve on-site exposures to surface soils) outdoors.

The analytical results for the detected parameters are summarized and compared to the PALs in **Table 5a** (Organics) and **Table 6** (Inorganics). Measured concentrations for individual dioxin and furan isomers were converted to total 2,3,7,8-tetrachlorodibenzo-p-dioxin (2,3,7,8-TCDD) toxic equivalents using the 2005 World Health Organization (WHO) toxicity equivalency factors, and the total toxic equivalents values (as 2,3,7,8-TCDD) were screened against the PAL of 2.2E-5 mg/kg to characterize potential contamination in the vicinity of the former Sinter Plant (**Table 5b**). There were no detections of asbestos in the samples collected from Parcel B5, so a table is not warranted. The laboratory Certificates of Analysis (including Chains of Custody) and Data Validation Reports (DVRs) have been included as electronic attachments. The DVRs contain a glossary of qualifiers for the final flags assigned to individual results in the attached summary tables.

4.1.1. Soil Conditions: Organic Compounds

As provided on **Table 5a** several VOCs were identified above the laboratory's method detection limits (MDLs) in the soil boring samples collected from across the Site. There were no VOCs detected above their respective PALs.

Table 5a provides a summary of SVOCs detected above the laboratory's MDLs in soil boring samples collected from across the Site. The PALs for relevant polynuclear aromatic hydrocarbons (PAHs) have been adjusted upward based on revised toxicity data published in the USEPA RSL Composite Worker Soil Table. Therefore, exceedances for PAHs are based on the adjusted PALs rather than those presented in the QAPP. Seven SVOCs, all PAHs, were detected above their respective PALs. These SVOCs were benz[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene, dibenz[a,h]anthracene, indeno[1,2,3-c,d]pyrene, and naphthalene. Benzo[k]fluoranthene was the least common exceedance, with only one detection above the PAL (270 mg/kg in sample B5-161-SB-1). Benzo[a]pyrene exceeded the PAL in the largest number of samples of any SVOC (21), with a maximum detection of 215 mg/kg in sample B5-161-SB-4. Exceedances were noted at approximately 10% of the boring

locations distributed throughout the parcel. A summary of the PAL exceedance locations and results has been provided as **Figure SB-1**.

Shallow soil samples collected across the Site from the 0 to 1 foot bgs interval were also analyzed for PCBs. **Table 5a** provides a summary of the PCBs detected above the laboratory's MDLs. Aroclor 1254, Aroclor 1260, and total PCBs exceeded their respective PALs in multiple locations (11 total) collected across the Site. These PAL exceedance locations have been provided on **Figure SB-2**. One sample (B5-101-SB-1 associated with a storage tank with unknown contents) had a detection which exceeded 50 mg/kg of Aroclor 1254 (and total PCBs).

Table 5a provides a summary of the TPH-DRO and TPH-GRO detections in the parcel. GRO was detected above the laboratory's MDL at multiple locations; however, no detections exceeded the PAL. DRO was detected above its PAL in three samples (B5-099-SB-4.5, B5-144-SB-4, and B5-161-SB-4), with the highest detection of 17,900 mg/kg identified in sample B5-161-SB-4. A summary of the PAL exceedance locations has been provided on **Figure SB-3**.

Table 5b provides the individual dioxin and furan results from samples collected in the vicinity of the former Sinter Plant, with calculations presented for equivalent concentrations of total 2,3,7,8-TCDD using the 2005 WHO toxicity equivalency factors. While none of the individual samples exceeded the PAL for 2,3,7,8-TCDD (2.2E-5 mg/kg), the blind field duplicate for sample B5-088-SB-1 had higher concentrations than the associated field sample (and exceeded the PAL). This sample had total 2,3,7,8-TCDD equivalents detected at 6.5E-5 mg/kg.

4.1.2. Soil Conditions: Inorganic Constituents

Table 6 provides a summary of inorganic constituents detected above the laboratory's MDLs in the soil samples collected from across the Site. Eight inorganic compounds (antimony, arsenic, lead, manganese, thallium, vanadium, hexavalent chromium, and cyanide) were detected above their respective PALs. Antimony and cyanide were only detected above their respective PALs at single isolated locations (B5-068-SB-1 and B5-038-SB-5, respectively). Arsenic was by far the most common inorganic exceedance (detected above the PAL in 232 soil samples), followed by manganese (detected above the PAL in 32 soil samples). The remaining four inorganic PAL exceedances (lead, thallium, vanadium, and hexavalent chromium) accounted for a total of 22 total exceedances. A summary of the inorganic PAL exceedance locations has been provided on **Figure SB-4**.

4.1.3. Soil Conditions: Results Summary

Table 5a and **Table 6** provide a summary of the detected organic and inorganic compounds in the soil samples submitted for laboratory analysis, and **Figure SB-1** through **Figure SB-4** present summaries of the soil sample results that exceeded the PALs. **Table 7** provides a summary of results for all PAL exceedances in soil, including detection frequencies and

maximum results. **Table 8** indicates which soil impacts (PAL exceedances) are associated with the specific targets listed in the Parcel B5 Work Plan. There were no detections of VOCs above the applicable PALs. PAL exceedances in soil within Parcel B5 consisted of eight inorganics (antimony, arsenic, lead, manganese, thallium, vanadium, hexavalent chromium, and cyanide), seven SVOCs (benz[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene, dibenz[a,h]anthracene, indeno[1,2,3-c,d]pyrene, and naphthalene), three PCB groups (Aroclor 1254, Aroclor 1260, and total PCBs), and DRO. In addition, one sample (the field duplicate of B5-088-SB-1) had cumulative detections of dioxins/furans which resulted in a total concentration of 2,3,7,8-TCDD equivalents above the applicable PAL. The detected concentrations of dioxins and furans and the computations for 2,3,7,8-TCDD equivalents are given in **Table 5b**.

Arsenic was detected above the PAL in most soil samples, and the highest arsenic detection was 33.8 mg/kg at sample location B5-133-SB-1. Manganese was detected above its PAL in 32 soil samples across the Site with the maximum detection at sample location B5-123-SB-8 (91,800 mg/kg). Lead was detected above its PAL in 14 samples with the highest detection of 4,910 mg/kg at sample location B5-015-SB-1. Hexavalent chromium and thallium were detected above their PALs in only three soil samples each, vanadium was detected above the PALs in only two soil samples, and cyanide and antimony were detected above their respective PALs in only one sample location each. Of these less common inorganics (antimony, thallium, vanadium, hexavalent chromium, and cyanide), only antimony had any detections exceeding two times the PAL (with a maximum detection less than four times the PAL). It should be noted that the maximum detection of antimony of 1,680 mg/kg in sample B5-068-SB-1 (targeting a former paint shop) is notably higher than any other detections throughout the parcel, and additional investigation and/or remedial action may ultimately be necessary at this location depending on future development planning.

The maximum detections of all SVOC/PAH compounds, with the exception of naphthalene, were associated with a single location (B5-161-SB). The maximum detections of benz[a]anthracene, benzo[a]pyrene, dibenz[a,h]anthracene, and indeno[1,2,3-c,d]pyrene were associated with the 4-foot bgs sample, while the maximum detections of benzo[b]fluoranthene and benzo[k]fluoranthene were associated with the 1-foot bgs sample. PCBs (total) were detected above the PAL in 11 samples. Aroclor 1260 was far more common than Aroclor 1254, with these PCB groups responsible (independently) for eight and two PAL exceedances, respectively. The only location where total PCBs were detected above the PAL with contributions from multiple PCB groups was at B5-162-SB-1.

Lead, PCBs, and TPH-DRO/GRO are subject to special requirements as designated by the agencies: lead results above 10,000 mg/kg are subject to additional delineation (and possible excavation), PCB results above 50 mg/kg are subject to delineation and excavation, and TPH-DRO/GRO results above 6,200 mg/kg should be evaluated for the potential presence and mobility of non-aqueous phase liquid (NAPL) in any future development planning:

- Concentrations of lead did not exceed the delineation criterion of 10,000 mg/kg in any soil samples collected at the Site.

- Concentrations of total PCBs (and Aroclor 1254) exceeded the mandatory excavation criterion of 50 mg/kg at sample location B5-101-SB-1 (54.2 mg/kg), which targeted a storage tank with unknown contents. Therefore, delineation of PCBs was required to define the extent of elevated PCBs this location for evaluation for excavation and disposal. As documented in other reports submitted to, and approved by, the agencies, the elevated PCB detection at B5-101-SB has been fully delineated and the impacts appear to be extremely limited. These delineation activities were completed outside of the scope of the original Phase II Investigation. Following their review of the Delineation and Excavation of PCB Impacted Soil Notification Letter dated May 11, 2017, the agencies have approved the recommendation that excavation is not warranted, and no further action is required. This agency approval was received on May 16, 2017.

- Concentrations of DRO exceeded the PAL in three soil samples (B5-099-SB-4.5, B5-144-SB-4, and B5-161-SB-4) with a maximum detection of 17,900 mg/kg in sample B5-161-SB-4. Two of the DRO PAL exceedances exhibited evidence of possible NAPL contamination in the corresponding soil cores (B5-099-SB and B5-144-SB). A total of five soil boring locations exhibited physical evidence of product (visible sheens or NAPL) in the soil cores (B5-097-SB, B5-098-SB, B5-099-SB, B5-103-SB, and B5-144-SB). These locations are discussed in greater detail in Section 4.1.4 (Summary of NAPL Observations in Soil Cores) and Section 4.2.2 (Summary of NAPL Observations in Piezometers). Each location should be considered for proximity to proposed utilities in any future development plans.

4.1.4. Summary of NAPL Observations in Soil Cores

Soil cores were screened for evidence of possible NAPL contamination during the completion of the Phase II soil borings in Parcel B5. During soil core screenings, five sample locations had physical evidence of possible product which was noted on the soil boring logs. The locations with physical evidence of possible product (visible sheens or NAPL) included B5-097-SB, B5-098-SB, B5-099-SB, B5-103-SB, and B5-144-SB. These boring locations with physical evidence of NAPL are highlighted on **Figure SB-3**. The physical observations of NAPL (as indicated on the boring logs) were as follows:

- B5-097-SB: A sticky black substance (possible product) was observed in the soil core in a 1 to 2 inch interval at approximately 4.5 feet bgs. A soil sample was collected from the shallow interval (0 to 1 feet) and an intermediate interval (3 to 4 feet). Due to encountered groundwater a deep sample was not collected. The intermediate sample interval had detected DRO at 1,540 mg/kg.

- B5-098-SB: A small amount of visible product was noted in the soil core sleeve from 7.5 to 10 feet bgs. A soil sample was collected from the shallow interval (0 to 1 feet) and an intermediate interval (3 to 4 feet). Due to encountered groundwater a deep sample was not collected. The intermediate sample interval had detected DRO at 4,760 mg/kg.
- B5-099-SB: Visible product was noted in the soil core sleeve from 7 to 10 feet bgs. A soil sample was collected from the shallow interval (0 to 1 feet) and an intermediate interval (3.5 to 4.5 feet). Due to encountered groundwater a deep sample was not collected. The intermediate sample interval had detected DRO at 7,780 mg/kg (above the PAL of 6,200 mg/kg).
- B5-103-SB: An oily sheen was noted in the soil core from 3 to 4.5 feet bgs, but not free phase product. A soil sample was collected from the shallow interval (0 to 1 feet) and an intermediate interval (3.5 to 4.5 feet). Due to encountered groundwater a deep sample was not collected. The intermediate sample interval had detected DRO at 251 mg/kg.
- B5-144-SB: Product and a strong odor were noted in soil sample B5-144-SB from 4 to 5 feet bgs. A soil sample was collected from the shallow interval (0 to 1 feet) and an intermediate interval (3 to 4 feet). Due to encountered groundwater a deep sample was not collected. The intermediate sample interval had detected DRO at 8,430 mg/kg (above the PAL of 6,200 mg/kg).

Based on these observations, temporary screening piezometers were installed at each of these five locations to delineate and assess the potential mobility of free-phase product (NAPL) to groundwater. A sixth piezometer was installed at location B5-161-SB, even though there was no evidence of NAPL in the soil cores from this boring. Soil from this boring (3 to 4 feet bgs) exhibited an elevated detection of DRO in the low percentage range. Based on this elevated DRO detection (17,900 mg/kg), a piezometer was installed at this location to determine the potential presence of any NAPL. Descriptions of the piezometer installation and gauging events at these six locations, as well as any subsequent delineation activities in these areas, are provided in Section 4.2.2 (Summary of NAPL Observations in Piezometers).

4.2. GROUNDWATER CONDITIONS

4.2.1. Area B Groundwater Investigation

As specified in the approved Parcel B5 Work Plan, groundwater at the Site was investigated as described in the separate Area B Groundwater Investigation Work Plan (dated October 6, 2015). The Area B Groundwater Phase II Investigation Report (Revision 0 dated September 30, 2016) has been submitted to discuss the detailed finding of this groundwater investigation. Groundwater results obtained during the separate investigation were screened against the PALs established in the property-wide QAPP (or other direct guidance from the agencies) to determine exceedances. The complete findings of the groundwater investigation, including detection

summary tables and exceedance figures, were provided in the respective Phase II Investigation Report. A figure summarizing the shallow aqueous PAL exceedances (for all classes of compounds) in the vicinity of Parcel B5 is provided in **Appendix E**. The groundwater analytical results obtained from the intermediate and lower hydrogeologic zones are not relevant for this Parcel B5 Phase II Investigation, but can be reviewed in the separate groundwater report.

Regarding the shallow groundwater exceedances, some of the PALs have been updated since the submission of the Area B Groundwater Phase II Investigation Report. In particular, the aqueous screening levels for some PAH constituents have been adjusted upward. Similar to the evaluation of soil data, the PALs for relevant PAHs have been modified based on revised toxicity data published in the USEPA RSL Resident Tapwater Table. Aqueous PAL exceedances in the shallow groundwater in the vicinity of Parcel B5 consisted of three VOCs (chloroform, methyl tertiary-butyl ether (MTBE), and benzene), three SVOCs (naphthalene, benz[a]anthracene, and pentachlorophenol), nine inorganics including total/dissolved metals (cobalt, manganese, thallium, vanadium, beryllium, lead, iron, hexavalent chromium, and cyanide), DRO, and GRO. For simplicity, the inorganic PAL exceedances shown on the figure do not include duplicate exceedances of total and dissolved metals at relevant sample locations. If both total and dissolved concentrations exceeded the PAL for a specific compound, the value for total metals is displayed on the figure for each sample.

Each permanent well sampled during the Area B Groundwater Investigation was checked for the potential presence of NAPL using an oil-water interface probe prior to sampling. During these checks, NAPL was not detected in any of the permanent monitoring wells.

Groundwater data were also screened to determine whether any individual sample results, or cumulative results summed by sample location, may exceed the USEPA Vapor Intrusion (VI) Screening Levels (Target Cancer Risk (TCR) of 1E-5 and Target Hazard Quotient (THQ) of 1) as determined by the Vapor Intrusion Screening Level (VISL) Calculator version 3.5 (https://www.epa.gov/vaporintrusion/vapor-intrusion-screening-levels-visls). The aqueous PALs specified in the QAPP are based upon drinking water use, which is not a potential exposure pathway for groundwater at the Site. There were no potential VI risks identified from the shallow groundwater sampling points located in the vicinity of Parcel B5. Total cyanide had previously been identified as a potential VI hazard in the Area B Groundwater Phase II Investigation Report at several locations, but the screening level for cyanide has since been adjusted upward by the USEPA, eliminating this concern.

4.2.2. Summary of NAPL Observations in Piezometers

Based on the field observations of potential NAPL in the associated soil cores and/or elevated detections of DRO, temporary screening piezometers were installed at six locations in Parcel B5 (B5-097-PZ, B5-098-PZ, B5-099-PZ, B5-103-PZ, B5-144-PZ, and B5-161-PZ) to assess the potential mobility of NAPL from the soil to groundwater. Piezometer B5-144-PZ (screened

from 2 to 10 feet bgs) was installed on January 6, 2016. Piezometers B5-098-PZ and B5-099-PZ (both screened from 2 to 12 feet bgs) were installed on January 7, 2016. More recently, piezometers B5-103-PZ (screened from 4 to 21 feet bgs), B5-161-PZ (screened from 7 to 17 feet bgs), and B5-097-PZ (screened from 5 to 15 feet bgs) were installed on April 24, April 26, and April 27, 2017, respectively.

Immediately after installation, each piezometer was gauged using an oil-water interface probe to determine the presence or absence of NAPL. The piezometers were gauged again after approximately 48 hours and again after at least 30 days had passed to allow for equilibration. NAPL was not detected in any temporary screening piezometer during these checks.

The six NAPL screening piezometers were revisited and evaluated for abandonment on November 7, 2017. At that time, three of the locations with clean 30-day gauging measurements (B5-097-PZ, B5-103-PZ, and B5-144-PZ) were observed to have been destroyed by vehicle traffic or other causes. The remaining three piezometers were gauged on November 7, 2017, and NAPL was detected in one location. Piezometer B5-098-PZ contained approximately 1.8 feet of NAPL during this gauging event, prompting extended delineation according to standard procedures (i.e., additional piezometers installed at surrounding locations). Location B5-099-PZ did not contain any accumulated NAPL at that time, but was also proposed to be retained because it was located in the immediate vicinity of B5-098-PZ (approximately 10 feet to the west). Location B5-161-PZ did not contain any accumulated NAPL, and abandonment of this location was proposed. Supplemental test pitting work was later completed in the vicinity of B5-161-PZ due to the presence of elevated PAHs and DRO contamination in soil (and to investigate for the possible presence of NAPL).

The exact dates of gauging activities completed through November 7, 2017, as well as NAPL thickness measurements and water level measurements for that time period, have been included in **Appendix F**. This attachment also includes the installation date of each NAPL screening piezometer, as well as relevant construction details (screen intervals, etc.). In order to avoid the need for continued updates to this Phase II Investigation Report, NAPL gauging and delineation/response activities completed after November 7, 2017 are addressed in separate reports for the NAPL investigations in Parcel B5. Specifically, the Response Action Work Plan: Delineation Completion Report and Proposed Excavation of NAPL at B5-098-SB (dated February 27, 2019) and the Test Pitting Work Plan for B5-161-SB (Revision 1 dated May 8, 2019) were submitted to the MDE and discussed supplemental work in each of these respective areas. Both of these Work Plan documents have since been implemented, and final Completion Reports for these areas are anticipated to be submitted to the MDE outside of the scope of this Phase II Investigation Report.

4.3. SEDIMENT CONDITIONS

The sediment samples were screened against the PALs established in the QAPP (for soil) to determine potential direct exposure risks. The sediment analytical results were additionally compared to the Biological Technical Assistance Group (BTAG) Marine Sediment Screening Benchmark values. The analytical results for the detected parameters are summarized and compared to the PALs and BTAG Marine Sediment Screening Benchmark values in attached **Table 9** (Organics) and **Table 10** (Inorganics). The laboratory Certificates of Analysis (including Chains of Custody) have been included as electronic attachments. The laboratory Certificates of Analysis contain a glossary of qualifiers for the flags assigned to individual results in the attached summary tables.

Arsenic was the only compound to exceed the specified PAL (3 mg/kg), and was detected above this threshold in each sample. The maximum detection of arsenic in sediment was 21.2 mg/kg in B5-127-SD. Several organics and inorganics (SVOCs, PCBs, and metals) were detected in the sediment samples above their respective BTAG Marine Sediment Screening Benchmark values. These included 15 SVOCs (2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, benz[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, chrysene, dibenz[a,h]anthracene, fluoranthene, fluorine, indeno[1,2,3-c,d]pyrene, naphthalene, phenanthrene, and pyrene), two PCB groups (Aroclor 1254 and total PCBs), and nine inorganics (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc).

Each compound identified as an exceedance of the BTAG values was detected above its applicable criterion in at least two samples. However, the majority of the BTAG exceedances (100 results out of 108 total exceedances) were less than 10 times the BTAG values, so potential risks to aquatic life are expected to be low. The only compounds to exceed 10 times the BTAG criteria were benzo[b]fluoranthene, naphthalene, copper, zinc, and total PCBs, and each of these exceedances was by less than a factor of 15. Summary figures indicating the BTAG exceedances in the Pennwood Canal sediment samples have been provided as **Figure SD-1** (organics) and **Figure SD-2** (inorganics).

PCBs in the canal sediments were identified above the BTAG criteria in four of the six sediment samples (B5-126-SD through B5-129-SD). The maximum detection of total PCBs was 0.53 mg/kg, which is below the soil PAL (0.97 mg/kg) but exceeds the BTAG value (0.04 mg/kg). The four exceedances of the total PCB BTAG criterion were identified in the four samples positioned closest to the Pennwood Powerhouse at the western end of the canal. The two samples located closest to the shoreline (B5-130-SD and B5-131-SD) did not exceed any of the BTAG values for PCBs. Thus, it does not appear that PCBs have migrated to surface waters via sediment transport.

Based on the relatively low magnitude of the PAL and BTAG exceedances relative to the screening criteria as described above, the detections of constituents in the Pennwood Canal sediment are not a significant concern at this time. Since the sediments are below the water

surface, there is no direct exposure pathway for a current worker to encounter the canal sediments. Furthermore, since arsenic was the only compound to exceed its PAL in the sediments, the potential risks to workers who could in the future be exposed to canal sediments are expected to be low. No additional action or remediation is proposed at this time with regard to the canal sediments. As specified in correspondence received via email on September 5, 2017, the MDE and USEPA have agreed that no additional action or remediation is required at this time; however, future site work in the canal may require additional sampling or response actions. If necessary, such actions would be coordinated with the MDE.

5.0 DATA USABILITY ASSESSMENT

The approved property-wide QAPP specified a process for evaluating data usability in the context of meeting project goals. Specifically, the goal of the Phase II Investigation is to determine if potentially hazardous substances or petroleum products (VOCs, SVOCs, PCBs, TAL-Metals, cyanide, TPH-DRO/GRO, dioxins/furans, or asbestos) are present in Site media (soil and sediment) at concentrations that could pose an unacceptable risk to Site receptors. Individual results are compared to the PALs established in the QAPP (i.e., the most current USEPA RSLs) or based on other direct guidance from the agencies, to identify the presence of exceedances in each environmental medium.

Quality assurance and quality control (QA/QC) samples were collected during field studies to evaluate field/laboratory variability. A summary of QA/QC samples associated with this investigation has been included as **Appendix G**. The following QA/QC samples were submitted for analysis to support the data validation:

- Trip Blank – at a rate of one per day
  - Soil – VOCs only
  - Sediment – VOCs only
- Blind Field Duplicate – at a rate of one per twenty samples
  - Soil – VOCs, SVOCs, Metals, TPH-DRO, TPH-GRO, PCBs, Hexavalent Chromium, Cyanide, and Dioxins/Furans
  - Sediment – VOCs, SVOCs, Metals, TPH-DRO, TPH-GRO, PCBs, Hexavalent Chromium, and Cyanide
- Matrix Spike/Matrix Spike Duplicate – at a rate of one per twenty samples
  - Soil – VOCs, SVOCs, Metals, TPH-DRO, TPH-GRO, PCBs, Hexavalent Chromium, and Dioxins/Furans
  - Sediment – VOCs, SVOCs, Metals, TPH-DRO, TPH-GRO, PCBs, and Hexavalent Chromium
- Field Blank and Equipment Blank – at a rate of one per twenty samples
  - Soil – VOCs, SVOCs, Metals, TPH-DRO, TPH-GRO, Hexavalent Chromium, Cyanide, and Dioxins/Furans
  - Sediment – VOCs, SVOCs, Metals, TPH-DRO, TPH-GRO, Hexavalent Chromium, and Cyanide

The QA/QC samples were collected and analyzed in accordance with the QAPP Worksheet 12 – Measurement Performance Criteria, QAPP Worksheet 20 – Field Quality Control, and QAPP Worksheet 28 – Analytical Quality Control and Corrective Action.

5.1. DATA VERIFICATION

A verification review was performed on documentation generated during sample collection and analysis. The verification included a review of field log books, field data sheets, and Chain of

Custody forms to ensure that all planned samples were collected, and to ensure consistency with the field methods and decontamination procedures specified in the QAPP Worksheet 21 – Field SOPs and Appendix A of the QAPP. In addition, calibration logs were reviewed to ensure that field equipment was calibrated and/or checked once per day. The logs have been provided in **Appendix C** (PID calibration log).

The laboratory deliverables were reviewed to ensure that all records specified in the QAPP as well as necessary signatures and dates are present. Sample receipt records were reviewed to ensure that the sample condition upon receipt was noted, and any missing/broken sample containers (if any) were noted and reported according to plan. The data packages were compared to the Chains of Custody to verify that results were provided for all collected samples. The data package case narratives were reviewed to ensure that all exceptions (if any) are described.

5.2. DATA VALIDATION

USEPA Stage 2B data validation was completed for a representative 50% of the environmental sample analyses performed by PACE and supporting Level IV Data Package information by Environmental Data Quality Inc. (EDQI).

Sample analyses have undergone an analytical quality assurance review to ensure adherence to the required protocols. The Stage 2B review was performed as outlined in "Guide for Labeling Externally Validated Laboratory Analytical Data for Superfund Use", EPA-540-R-08-005. Results have been validated or qualified according to general guidance provided in "USEPA National Functional Guidelines for Inorganic Superfund Data Review (ISM02.1)", USEPA October 2013. Region III references this guidance for validation requirements. This document specifies procedures for validating data generated for Contract Laboratory Program (CLP) analyses. The approved QAPP dated October 2, 2015 (updated April 5, 2016) and the quality control requirements specified in the methods and associated acceptance criteria were also used to evaluate the non-CLP data. The validation of 100% of the dioxin/furan data collected in the vicinity of the former Sinter Plant was conducted using the USEPA Region III Dioxin/Furan Data Validation Guidance, DRAFT, dated March 1999.

Data validation has been completed for a representative 50% of all sample results, and the DVRs provided by EDQI have been included as electronic attachments. The USEPA has previously specified that results flagged with a "JB" qualifier are erroneous, and any such results should be revised to display the "B" qualifier only. EDQI reviews and corrects any "JB" qualified results during the data validation procedure. Therefore, any result originally flagged with a "JB" qualifier in the laboratory certificate is reported as a "B" qualified non-detect result in this Phase II Investigation Report. ARM has reviewed all non-validated laboratory reports (those which were not designated to be reviewed by EDQI), and applied the same validation correction to any relevant "JB" qualified results. ARM has also revised the non-validated results to eliminate any

laboratory-specific, non-standardized qualifiers (L2, 6c, ip, 4c, etc.), which are customarily removed by EDQI during the validation procedure.

5.3. DATA USABILITY

The data were evaluated with respect to the quality control elements of precision, bias, representativeness, comparability, completeness, and sensitivity relative to data quality indicators and performance measurement criteria outlined in QAPP Worksheet 12 – Measurement Performance Criteria. The following discussion details deviation from the performance measurement criteria, and the impact on data quality and usability.

The measurement performance criteria of precision and bias were evaluated in the data validation process as described in the DVRs provided as electronic attachments. Where appropriate, potential limitations in the results have been indicated through final data flags. These flags indicate whether particular data points were quantitative estimates, biased high/low, associated with blank contamination, etc. Individual data flags are provided with the results in the detection summary tables. A qualifier code glossary is included with each DVR provided by EDQI. Particular results may have been marked with the "R" flag if the result was deemed to be unreliable and was not included in any further data evaluation. A list of the soil results that were rejected during data validation has been provided in **Table 11**. A discussion of data completeness (the proportion of valid data) is included below.

Representativeness is a measure of how accurately and precisely the data describe the Site conditions. Representativeness of the samples submitted for analysis was ensured by adherence to standard sampling techniques and protocols, as well as appropriate sample preservation prior to analysis. Sampling was conducted in accordance with the QAPP Worksheet 21 – Field SOPs and Appendix A of the QAPP. Specific Field SOPs applicable to the assessment of representativeness include **Field SOP Numbers 003, 008, 009, 010, 011, 017, and 024**. Review of the field notes and laboratory sample receipt records indicated that collection of samples at the Site was representative, with no significant deviations from the SOPs.

Comparability describes the degree of confidence in comparing two sets of data. Comparability is maintained across multiple datasets by the use of consistent sampling and analytical methods across multiple project phases. Comparability of sample results was ensured through the use of approved standard sampling and analysis methods outlined in the QAPP. QA/QC protocols help to maintain the comparability of datasets, and in this case were assessed via blind duplicates, blank samples, and spiked samples, where applicable. No deviations from the QAPP were noted in the dataset.

Sensitivity is a determination of whether the analytical methods and quantitation limits will satisfy the requirements of the project. The laboratory reports were reviewed to verify that reporting limits met the quantitation limits for specific analytes provided in QAPP Worksheet

#15 – Project Action Limits and Laboratory-Specific Detection/Quantitation Limits. In general the laboratory reporting limits met the detection and quantitation limits specified in the QAPP.

Completeness is expressed as a ratio of the number of valid data points to the total number of analytical data results. Non-usable ("R" flagged) data results were determined through the data validation process. The approved QAPP specifies that the completeness of data is assessed by professional judgement, but should be greater than or equal to 90%. Data completeness for each compound (with the exception of dioxins/furans which were validated but had no rejected analytical results) is provided in **Appendix H**. This evaluation of completeness includes only the representative 50% of sample results which were randomly selected for validation.

The only soil compounds with an overall completeness value below 90% were 1,4-dioxane, methyl acetate, bromomethane, 3,3'-dichlorobenzidine, n-nitroso-di-n-propylamine, and pentachlorophenol. Only 1,4-dioxane and methyl acetate had completeness values below 80% (23.3% and 68.3%, respectively). A substantial amount of the 1,4-dioxane and methyl acetate soil datasets were rejected (138 and 57 results, respectively), but the valid results did not indicate that these appear to be significant contaminants at the Site. There were no detections of 1,4-dioxane in soil throughout the parcel. Methyl acetate had only two detections out of 180 total validated samples (both flagged with the "J" qualifier indicating that they are quantitative estimates). Furthermore, the maximum detection of methyl acetate was 0.31 mg/kg, which is insignificant in comparison to the PAL of 1,200,000 mg/kg. Bromomethane had a completeness ratio of 80.0%, and pentachlorophenol, n-nitroso-di-n-propylamine, and 3,3'-dichlorobenzidine all had completeness ratios of 85.6%. However, there were no detections of any of these parameters among the validated results. (Pentachlorophenol had two non-validated detections with a maximum result of 0.07 mg/kg flagged with the "J" qualifier, in comparison to the PAL of 4 mg/kg.)

Overall, the soil (and sediment) data can be used as intended, and no significant data gaps were identified. While a limited set of compounds did not meet the completeness goal of 90%, these compounds do not appear to be significant contaminants at the Site.

6.0 FINDINGS AND RECOMMENDATIONS

The objective of this Phase II Investigation was to fully characterize the nature and extent of contamination at the Site. During the Phase II Investigation, a total of 333 soil samples (all locations/depths including the eight supplemental locations sampled for dioxins/furans) and six sediment samples were collected and analyzed to define the nature and extent of contamination in Parcel B5. The sampling and analysis plan for the parcel was developed to target specific features which represented a potential release of hazardous substances and/or petroleum products to the environment. Soil boring samples were analyzed for TCL-VOCs, TCL-SVOCs, TPH-DRO, TPH-GRO, TAL-Metals, hexavalent chromium, and cyanide. Shallow soil samples from across the site (0 to 1 foot bgs) were analyzed for PCBs. Select shallow soil samples were also analyzed for asbestos or dioxins/furans. Sediment samples collected from the Pennwood Canal were analyzed for TCL-VOCs, TCL-SVOCs, TPH-DRO, TPH-GRO, TAL-Metals, PCBs, hexavalent chromium, and cyanide.

6.1. SOIL

The concentrations of constituents in the soil have been characterized by the Phase II Investigation to provide estimates of exposure point concentrations to support risk assessment.

Lead concentrations are well below the levels that would warrant evaluation of a removal remedy. There were no locations where detections of lead exceeded 10,000 mg/kg, the designated threshold at which delineation would be required.

Aroclor 1254, Aroclor 1260, and total PCBs exceeded their respective PALs in multiple locations (11 total) collected across the Site. However, only one detection of Aroclor 1254 (and total PCBs) exceeded the mandatory excavation criterion of 50 mg/kg. This detection (54.2 mg/kg) was identified at sample location B5-101-SB-1, which targeted a storage tank with unknown contents. Therefore, delineation of PCBs was required to define the extent of elevated PCBs this location for evaluation for excavation and disposal. As reported in the Delineation and Excavation of PCB Impacted Soil Notification Letter dated May 11, 2017, the elevated PCB detection at B5-101-SB has been fully delineated and the impacts appear to be extremely limited. Therefore, on May 16, 2017 the agencies approved the recommendation at excavation is not warranted and no further action is required.

There were three soil PAL exceedances of DRO in the parcel (B5-099-SB-4.5, B5-144-SB-4, and B5-161-SB-4). The highest detection of DRO was 17,900 mg/kg in sample B5-161-SB-4, which targeted the No. 3 Mould Yard. The remaining two samples where DRO was detected above 6,200 mg/kg were B5-144-SB-4 at 8,430 mg/kg (providing general site coverage) and B5-099-SB-4.5 at 7,780 mg/kg (targeting a tank with unknown contents). Locations impacted by elevated TPH represent areas where free product (NAPL) could potentially mobilize, particularly

along utility corridors. These elevated TPH results above the PAL of 6,200 mg/kg are discussed in greater detail in Section 6.3 (Non-Aqueous Phase Liquid).

There were no soil PAL exceedances or concerns related to VOCs or asbestos at the Site. Additional PAL exceedances in the soil included eight inorganics (antimony, arsenic, lead, manganese, thallium, vanadium, hexavalent chromium, and cyanide) and seven SVOCs (benz[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[k]fluoranthene, dibenz[a,h]anthracene, indeno[1,2,3-c,d]pyrene, and naphthalene). Arsenic was the most common inorganic exceedance, and was detected above the PAL in the majority of soil samples analyzed at the Site (232 total). The maximum detections for all SVOC compounds, with the exception of naphthalene, were associated with a single location (B5-161-SB). The maximum detections of benz[a]anthracene, benzo[a]pyrene, dibenz[a,h]anthracene, and indeno[1,2,3-c,d]pyrene were associated with the 4-foot sample, while the maximum detections of benzo[b]fluoranthene and benzo[k]fluoranthene were associated with the 1-foot sample. The most common SVOC exceedance was benzo[a]pyrene, with 21 detections above the PAL. One supplemental sample collected for the characterization of dioxins/furans (field duplicate of B5-088-SB-1) had cumulative detections which resulted in a total concentration of 2,3,7,8-TCDD equivalents above the applicable PAL.

6.2. GROUNDWATER

Groundwater is not used on the Tradepoint Atlantic property (and is not proposed to be utilized); therefore, there is no potential for direct human exposure for a Composite Worker. In the event that future construction/excavation leads to a potential Construction Worker exposure to groundwater, health and safety plans should be implemented to limit exposure risk. Findings from the Area B Groundwater Phase II Investigation which include the groundwater data obtained within Parcel B5 are presented in the Area B Groundwater Phase II Investigation Report (Revision 0) dated September 30, 2016, which was submitted to the agencies for review. An aqueous PAL exceedance figure is provided in **Appendix E** to indicate the locations of any shallow groundwater exceedances from the Area B Groundwater Investigation.

The groundwater data were screened to determine whether any cumulative (or individual) sample results exceeded the USEPA VI TCR (carcinogen) or THQ (non-carcinogen) Screening Levels. Among the samples obtained during the separate Area B Groundwater Investigation, there were no potential VI risks identified from the permanent monitoring wells located in the vicinity of Parcel B5. Total cyanide had previously been identified as a potential VI risk in the Area B Groundwater Phase II Investigation Report, but the screening level for cyanide has since been adjusted upward by the USEPA, eliminating this concern.

6.3. NON-AQUEOUS PHASE LIQUID

There were three samples (from three individual borings) where TPH-DRO was detected above the screening level of 6,200 mg/kg. These samples include the following: B5-099-SB-4.5 at 7,780 mg/kg, B5-144-SB-4 at 8,430 mg/kg, and B5-161-SB-4 at 17,900 mg/kg. Soil cores were screened for evidence of possible NAPL contamination during the completion of the Phase II soil borings in Parcel B5. The field observations were noted on the boring logs, and several sample locations had visible sheens or NAPL noted in the soil cores. Five boring locations had physical evidence of possible product in the cores: B5-097-SB, B5-098-SB, B5-099-SB, B5-103-SB, and B5-144-SB.

To assess the potential presence and mobility of NAPL in groundwater, temporary piezometers were installed at six soil boring locations (B5-097-SB, B5-098-SB, B5-099-SB, B5-103-SB, B5-144-SB and B5-161-SB) following the visual observation of evidence of NAPL in these soil cores during the field investigation and/or elevated analytical detections of DRO. An oil-water interface probe was used to check each piezometer for the presence of NAPL immediately after installation, 48 hours after installation, and again after approximately 30 days. NAPL was not detected in any temporary screening piezometer during these checks.

The piezometers were evaluated for their suitability for abandonment on November 7, 2017. At that time, three locations (B5-097-PZ, B5-103-PZ, and B5-144-PZ) had apparently been destroyed by vehicle traffic or other causes. The remaining three piezometers were gauged on November 7, 2017, and NAPL was detected in one location (B5-098-PZ) with an accumulated thickness of 1.8 feet. The detection of NAPL during this gauging event prompted extended delineation surrounding B5-098-PZ according to standard procedures. Location B5-099-PZ (which did not contain any accumulated NAPL) was also proposed to be retained because it was located in the immediate vicinity of B5-098-PZ (approximately 10 feet to the west). Location B5-161-PZ did not contain any accumulated NAPL, but supplemental test pitting work was later completed in the vicinity of B5-161-PZ to investigate for the possible presence of NAPL due to the elevated analytical detections of PAHs and DRO in soil.

In order to avoid the need for continued updates to this Phase II Investigation Report, NAPL gauging and delineation/response activities completed after November 7, 2017 are addressed in separate reports for the NAPL investigations in Parcel B5. Specifically, the Response Action Work Plan: Delineation Completion Report and Proposed Excavation of NAPL at B5-098-SB (dated February 27, 2019) and the Test Pitting Work Plan for B5-161-SB (Revision 1 dated May 8, 2019) were submitted to the MDE and discussed supplemental work in each of these respective areas. Both of these Work Plan documents have since been implemented, and final Completion Reports for these areas are anticipated to be submitted to the MDE.

Each of the soil boring locations at which a piezometer was installed due to the presence of NAPL and/or elevated TPH detections should be considered for proximity to proposed utilities in any future development plans. Appropriate protocols should be documented in a Response and Development Work Plan (as necessary) to prevent the mobilization of any product if future utilities are proposed in the vicinity of these impacts.

6.4. SEDIMENT

Sediment analytical results were screened against the soil PALs and BTAG Marine Sediment Screening Benchmark values to identify potential human health or ecological risks presented by sediments in the Pennwood Canal. Evaluation against the soil PALs established in the QAPP indicated that arsenic was the only compound that exceeded its PAL (3 mg/kg), with a maximum detection of 21.1 mg/kg. The sediment samples were primarily screened against the BTAG criteria (rather than human health screening criteria) since no direct exposures to sediments in the Pennwood Canal are anticipated.

Several organic and inorganic compounds (SVOCs, PCBs, and metals) were detected in the sediment samples above their respective BTAG Marine Sediment Screening Benchmark values. These included 15 SVOCs (2-methylnaphthalene, acenaphthene, acenaphthylene, anthracene, benz[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, chrysene, dibenz[a,h]anthracene, fluoranthene, fluorine, indeno[1,2,3-c,d]pyrene, naphthalene, phenanthrene, and pyrene), two PCB groups (Aroclor 1254 and total PCBs), and nine inorganics (arsenic, cadmium, chromium, copper, lead, mercury, nickel, silver, and zinc). The majority of the BTAG criteria exceedances appear to be fairly low and would not pose a significant hazard to aquatic life.

Only eight total exceedances (limited to detections of benzo[b]fluoranthene, naphthalene, copper, zinc, and total PCBs) exceeded their applicable BTAG screening levels by more than a factor of 10. Benzo[b]fluoranthene was responsible for the most significant exceedance, and was detected above the BTAG value by an approximate factor of 14. PCBs in the canal sediments were detected above the BTAG criteria in the four samples positioned closest to the Pennwood Powerhouse (B5-126-SD through B5-129-SD). The two samples located closest to the shoreline did not exceed the PCB BTAG criteria. Thus, it does not appear that PCBs are directly discharging to surface waters via sediment transport.

Based on the relatively low magnitude of the PAL and BTAG exceedances relative to the screening criteria, the detections of constituents in the Pennwood Canal sediment are not a significant concern at this time. Since the sediments are below the water surface, there is no direct exposure pathway for a current worker to encounter the canal sediments. Furthermore, since arsenic was the only compound to exceed its PAL in the sediments, the potential risks to workers who could in the future be exposed to canal sediments are expected to be low. No additional action or remediation is proposed at this time with regard to the canal sediments. As specified in correspondence received via email on September 5, 2017, the MDE and USEPA

have agreed that no additional action or remediation is required at this time; however, future site work in the canal may require additional sampling or response actions. If necessary, such actions would be coordinated with the MDE.

6.5. RECOMMENDATIONS

Sufficient investigation data has been collected to evaluate the nature and extent of possible constituents of concern in Parcel B5. The presence and absence of soil and sediment impacts within Parcel B5 have been adequately described and further site-wide investigation is not warranted to characterize overall conditions. Recommendations for the Site are as follows:

- Soil impacted by elevated PCBs (>50 mg/kg) in the vicinity of the former storage tank with unknown contents targeted by B5-101-SB have been delineated and were evaluated for excavation as reported in the Delineation and Excavation of PCB Impacted Soil Notification Letter dated May 11, 2017. Following a review of the delineation data, the agencies approved the recommendation at excavation is not warranted and no further action is required.

- Soil boring locations with physical evidence of possible NAPL and/or elevated TPH detections (B5-097-SB, B5-098-SB, B5-099-SB, B5-103-SB, B5-144-SB, and B5-161-SB) should be considered for proximity to proposed utilities in any future development plans. If future utilities are proposed in the vicinity of these borings, appropriate protocols for the mitigation of potential product mobility should be specified in a Response and Development Work Plan.

- Site-wide NAPL gauging and delineation/response activities completed after November 7, 2017 are addressed in separate reports for the NAPL investigations in Parcel B5. Specifically, the Response Action Work Plan: Delineation Completion Report and Proposed Excavation of NAPL at B5-098-SB (dated February 27, 2019) and the Test Pitting Work Plan for B5-161-SB (Revision 1 dated May 8, 2019) were submitted to the MDE and discussed supplemental work in each of these respective areas. Both of these Work Plan documents have since been implemented, and final Completion Reports for these areas are anticipated to be submitted to the MDE.

- At multiple locations in the Pennwood Canal, sediment samples exceeded PALs (arsenic only) and BTAG criteria (SVOCs, PCBs, and metals). Based on the relatively low magnitude of the exceedances relative to the specified criteria, and lack of a direct exposure pathway for a current worker to encounter canal sediments, no additional action or remediation is proposed at this time with regard to the Pennwood Canal. As specified in correspondence received via email on September 5, 2017, the MDE and USEPA have agreed that no additional action or remediation is required at this time; however, future site work in the canal may require additional sampling or response actions. If necessary, such actions would be coordinated in the future with the MDE.

7.0 REFERENCES

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FIGURES



Tradepoint Atlantic
Area A and Area B Parcels

July 25, 2017

Figure
1

ARM Group Inc.
Earth Resource Engineers and Consultants

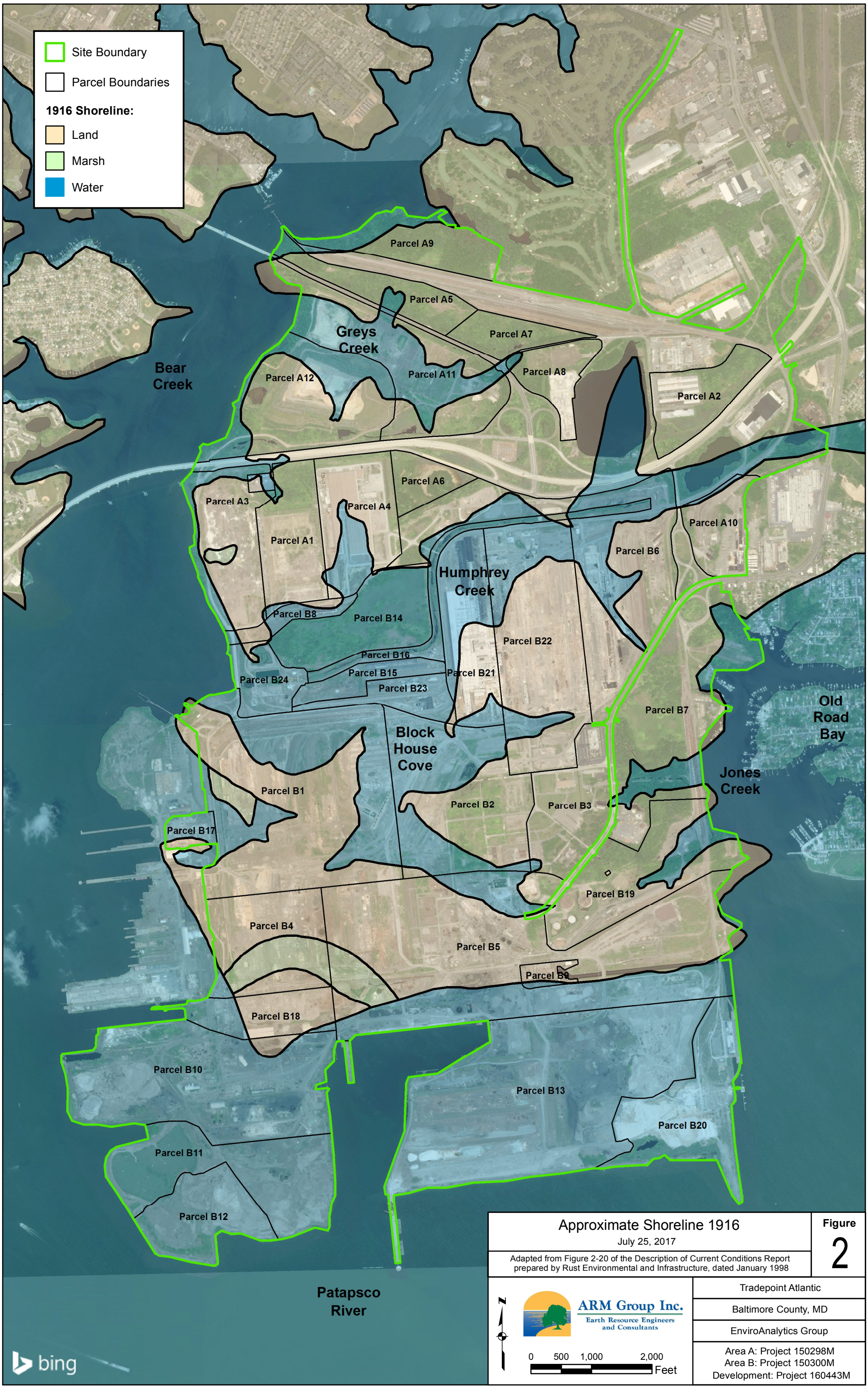
0 500 1,000 2,000 Feet

Tradepoint Atlantic

Baltimore County, MD

EnviroAnalytics Group

Area A: Project 150298M
Area B: Project 150300M
Development: Project 160443M



Approximate Shoreline 1916

July 25, 2017

Adapted from Figure 2-20 of the Description of Current Conditions Report prepared by Rust Environmental and Infrastructure, dated January 1998

Figure 2

ARM Group Inc.
Earth Resource Engineers and Consultants

0 500 1,000 2,000 Feet

Tradepoint Atlantic

Baltimore County, MD

EnviroAnalytics Group

Area A: Project 150298M
Area B: Project 150300M
Development: Project 160443M



ARM Group Inc.
Earth Resource Engineers and Consultants

0 175 350 700 Feet

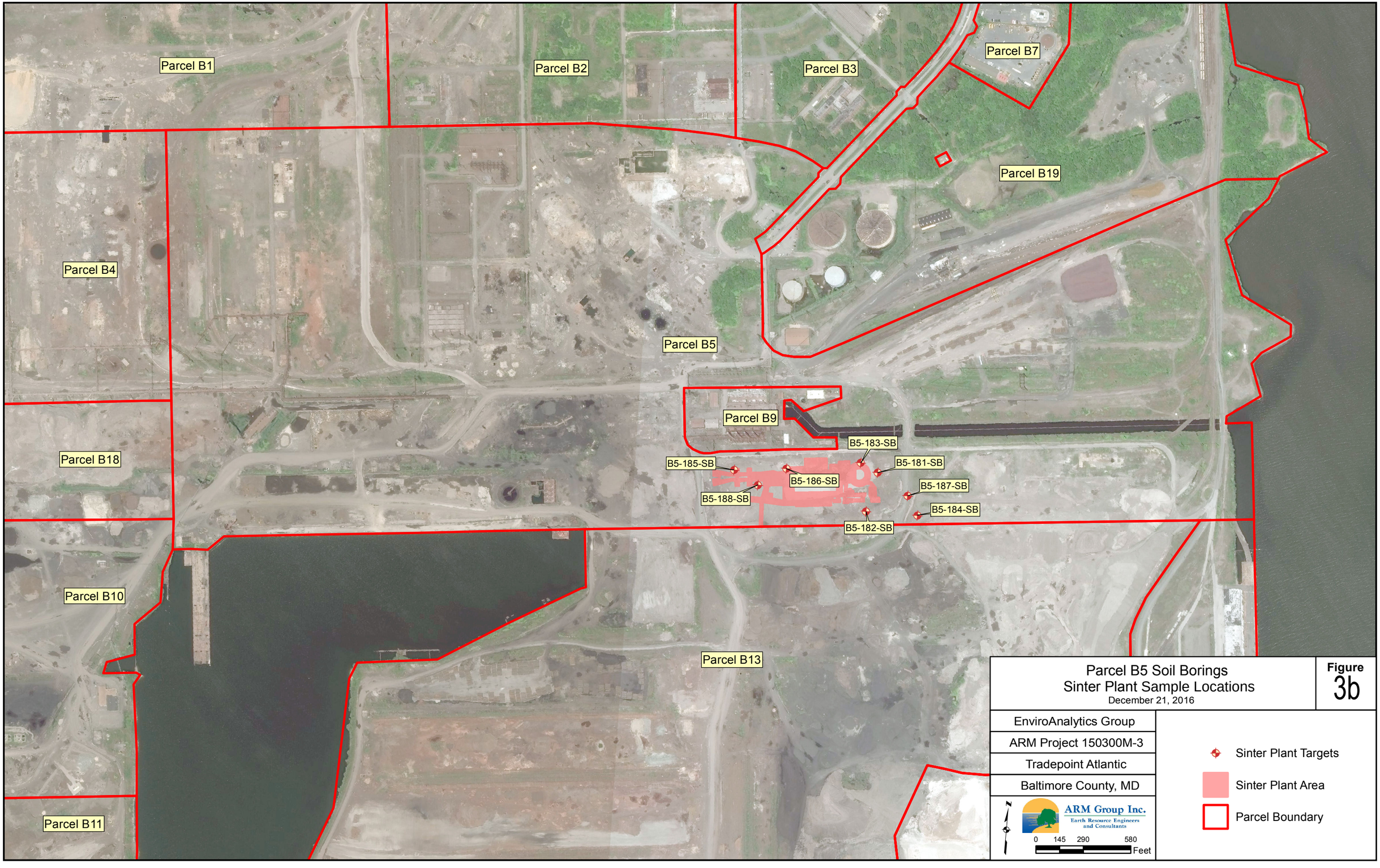
- Phase II Sediment
- Phase II Soil Boring
- Parcel Boundary

Area B5 Soil Borings
Final Field Sample Locations

November 10, 2016

EnviroAnalytics Group	Sparrows Point Terminal
ARM Project 150300M	Baltimore County, MD

Figure 3a



Parcel B5 Soil Borings
Sinter Plant Sample Locations
December 21, 2016

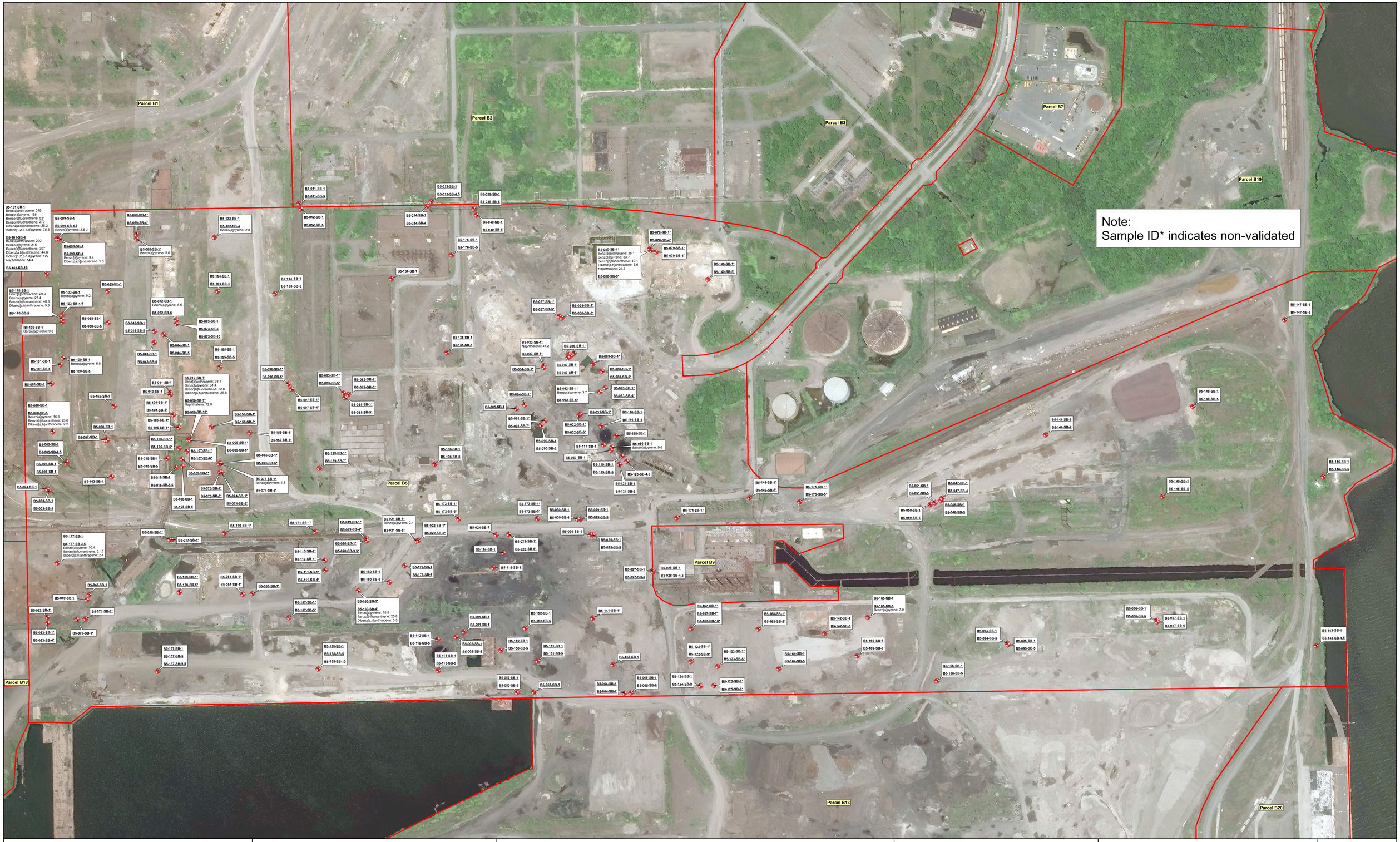
Figure 3b

EnviroAnalytics Group
ARM Project 150300M-3
Tradepoint Atlantic
Baltimore County, MD

ARM Group Inc.
Earth Resource Engineers and Consultants

0 145 290 580 Feet

Sinter Plant Targets
Sinter Plant Area
Parcel Boundary



ARM Group Inc.
Earth Resource Engineers and Consultants

0 175 350 700 Feet

Phase II Soil Boring

Parcel Boundary

Area B5 Soil Borings
Phase II SVOC Exceedances (mg/kg)
March 15, 2018

EnviroAnalytics Group

ARM Project 150300M

Sparrows Point Terminal

Baltimore County, MD

Figure
SB-1

Parcel B1
Parcel B2
Parcel B3
Parcel B7
Parcel B19
Parcel B5
Parcel B9
Parcel B13
Parcel B20

Note:
Sample ID* indicates non-validated

B5-132-SB-1
Aroclor 1260: 23.7
PCBs (total): 23.7 J

B5-154-SB-1
Aroclor 1260: 15.4
PCBs (total): 15.4

B5-155-SB-1
Aroclor 1260: 43.3
PCBs (total): 43.3 J

B5-101-SB-1
Aroclor 1254: 54.2
PCBs (total): 54.2 J

B5-162-SB-1
Aroclor 1254: 1.0
PCBs (total): 1.7

B5-166-SB-1*
Aroclor 1260: 3.0
PCBs (total): 3.0

B5-159-SB-1*
Aroclor 1260: 36.1
PCBs (total): 36.1 J

B5-077-SB-1*
Aroclor 1260: 13.6
PCBs (total): 13.6

B5-076-SB-1*
Aroclor 1260: 11.3
PCBs (total): 11.3 J

B5-174-SB-1*
Aroclor 1260: 2.1
PCBs (total): 2.1 J

B5-072-SB-1
PCBs (total): 0.97 J

B5-011-SB-1
B5-012-SB-1
B5-013-SB-1
B5-014-SB-1
B5-039-SB-1
B5-040-SB-1
B5-098-SB-1
B5-099-SB-1
B5-069-SB-1*
B5-068-SB-1*
B5-176-SB-1
B5-134-SB-1
B5-133-SB-1
B5-161-SB-1
B5-059-SB-1
B5-103-SB-1
B5-178-SB-1
B5-058-SB-1
B5-102-SB-1
B5-045-SB-1
B5-044-SB-1
B5-043-SB-1
B5-135-SB-1
B5-100-SB-1
B5-061-SB-1
B5-042-SB-1
B5-041-SB-1
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B5-007-SB-1
B5-105-SB-1*
B5-009-SB-1
B5-106-SB-1*
B5-010-SB-1*
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B5-075-SB-1*
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B5-139-SB-1*
B5-136-SB-1
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B5-087-SB-1*
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B5-033-SB-1*
B5-089-SB-1*
B5-034-SB-1*
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B5-092-SB-1*
B5-093-SB-1*
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B5-168-SB-1*
B5-165-SB-1
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B5-094-SB-1
B5-095-SB-1
B5-169-SB-1
B5-122-SB-1*
B5-123-SB-1*
B5-164-SB-1
B5-124-SB-1
B5-125-SB-1*
B5-166-SB-1
B5-143-SB-1

ARM Group Inc.
Earth Resource Engineers and Consultants

0 175 350 700 Feet

Phase II Soil Boring

Parcel Boundary

Area B5 Soil Borings
Phase II PCB Exceedances (mg/kg)

November 27, 2017

EnviroAnalytics Group	Sparrows Point Terminal
ARM Project 150300M	Baltimore County, MD

Figure
SB-2

Parcel B1
Parcel B2
Parcel B3
Parcel B7
Parcel B19
Parcel B5
Parcel B9
Parcel B13
Parcel B20

Note:
Sample ID* indicates non-validated

B5-099-SB-1
B5-099-SB-4.5
DRO: 7,760
B5-096-SB-1
B5-096-SB-4
B5-069-SB-1*
B5-069-SB-4*
B5-068-SB-1*
B5-132-SB-1
B5-132-SB-4
B5-161-SB-1
B5-161-SB-4
DRO: 17,900
B5-059-SB-1
B5-154-SB-1
B5-154-SB-4
B5-133-SB-1
B5-133-SB-5
B5-103-SB-1
B5-103-SB-4.5
B5-179-SB-1
B5-179-SB-5
B5-102-SB-1
B5-058-SB-1
B5-058-SB-5
B5-045-SB-1
B5-045-SB-5
B5-072-SB-1
B5-072-SB-6
B5-073-SB-1
B5-073-SB-5
B5-043-SB-1
B5-043-SB-5
B5-044-SB-1
B5-044-SB-5
B5-100-SB-1
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B5-013-SB-1
B5-013-SB-4.5
B5-014-SB-1
B5-014-SB-4
B5-039-SB-1
B5-039-SB-5
B5-040-SB-1
B5-040-SB-5
B5-176-SB-1
B5-176-SB-5
B5-134-SB-1
B5-135-SB-1
B5-135-SB-5
B5-172-SB-1*
B5-172-SB-5*
B5-173-SB-1*
B5-173-SB-5*
B5-030-SB-1
B5-030-SB-4
B5-029-SB-1
B5-029-SB-5
B5-174-SB-1*
B5-020-SB-1*
B5-020-SB-3.5*
B5-019-SB-1*
B5-019-SB-4*
B5-021-SB-1*
B5-021-SB-5*
B5-022-SB-1*
B5-022-SB-5*
B5-024-SB-1
B5-023-SB-1*
B5-023-SB-5*
B5-114-SB-1
B5-026-SB-1
B5-025-SB-1
B5-025-SB-5
B5-110-SB-1*
B5-110-SB-4*
B5-111-SB-1*
B5-111-SB-4*
B5-180-SB-1
B5-180-SB-5
B5-179-SB-1
B5-179-SB-9
B5-115-SB-1
B5-027-SB-1
B5-027-SB-5
B5-028-SB-1
B5-028-SB-4.5
B5-160-SB-1*
B5-160-SB-4*
B5-157-SB-1*
B5-157-SB-5*
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B5-112-SB-5
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B5-138-SB-5
B5-053-SB-1
B5-053-SB-9
B5-052-SB-1
B5-152-SB-1
B5-152-SB-5
B5-151-SB-1
B5-151-SB-5
B5-141-SB-1*
B5-153-SB-1
B5-064-SB-1
B5-064-SB-7
B5-065-SB-1
B5-065-SB-6
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B5-125-SB-8*
B5-037-SB-1*
B5-037-SB-5*
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B5-038-SB-5*
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B5-087-SB-5*
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B5-033-SB-5
B5-034-SB-1*
B5-086-SB-1*
B5-089-SB-1*
B5-088-SB-1*
B5-088-SB-5*
B5-092-SB-1*
B5-092-SB-5*
B5-093-SB-1*
B5-093-SB-4*
B5-085-SB-1
B5-084-SB-1*
B5-091-SB-1*
B5-091-SB-7*
B5-090-SB-1
B5-090-SB-5
B5-032-SB-1
B5-032-SB-5
B5-031-SB-1*
B5-116-SB-1
B5-116-SB-4
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B5-117-SB-1
B5-067-SB-1
B5-119-SB-1
B5-119-SB-5
B5-121-SB-1
B5-121-SB-5
B5-120-SB-1
B5-120-SB-4.5
B5-149-SB-1*
B5-149-SB-5*
B5-175-SB-1*
B5-175-SB-5*
B5-079-SB-1*
B5-079-SB-4*
B5-078-SB-1*
B5-078-SB-4*
B5-080-SB-1*
B5-080-SB-5*
B5-140-SB-1*
B5-140-SB-5*
B5-167-SB-1*
B5-167-SB-7*
B5-168-SB-1*
B5-168-SB-5*
B5-142-SB-1
B5-142-SB-5
B5-165-SB-1
B5-165-SB-5
B5-122-SB-1*
B5-122-SB-9*
B5-123-SB-1*
B5-123-SB-8*
B5-164-SB-1
B5-164-SB-5
B5-169-SB-1
B5-169-SB-5
B5-166-SB-1
B5-166-SB-5
B5-166-SB-10
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B5-051-SB-5
B5-047-SB-1
B5-047-SB-4
B5-050-SB-1
B5-050-SB-5
B5-046-SB-1
B5-046-SB-5
B5-144-SB-1
B5-144-SB-4
DRO: 8,430
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B5-148-SB-5
B5-145-SB-1
B5-145-SB-5
B5-146-SB-1
B5-146-SB-5
B5-147-SB-1
B5-147-SB-5
B5-056-SB-1
B5-056-SB-5
B5-057-SB-1
B5-057-SB-6
B5-094-SB-1
B5-094-SB-5
B5-095-SB-1
B5-095-SB-5
B5-143-SB-1
B5-143-SB-4.5

N

ARM Group Inc.
Earth Resource Engineers and Consultants

0 175 350 700 Feet

Phase II Soil Boring
Phase II Soil Boring (w/ evidence of NAPL)
Parcel Boundary

Area B5 Soil Borings
Phase II DRO Exceedances (mg/kg)

November 27, 2017

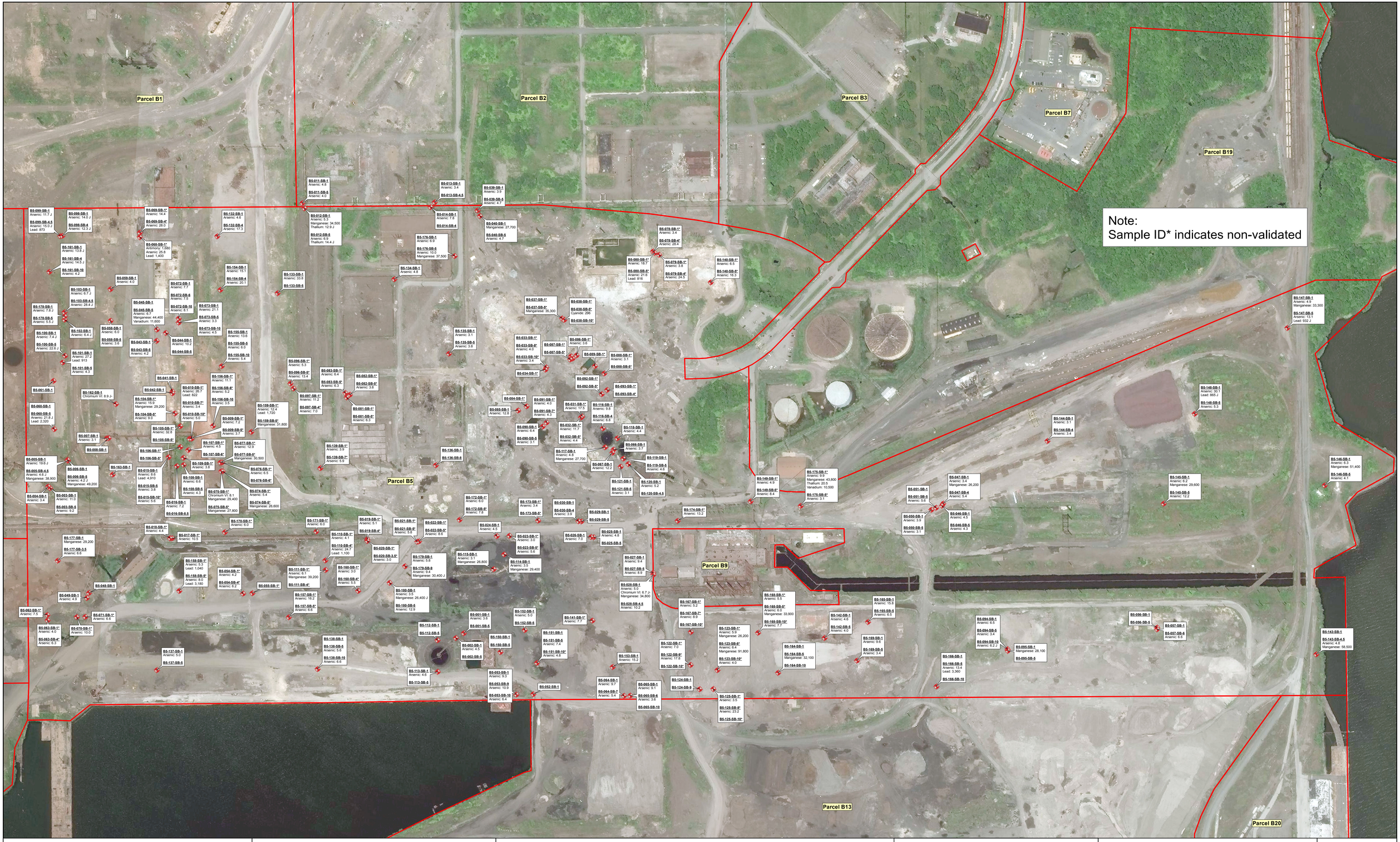
EnviroAnalytics Group

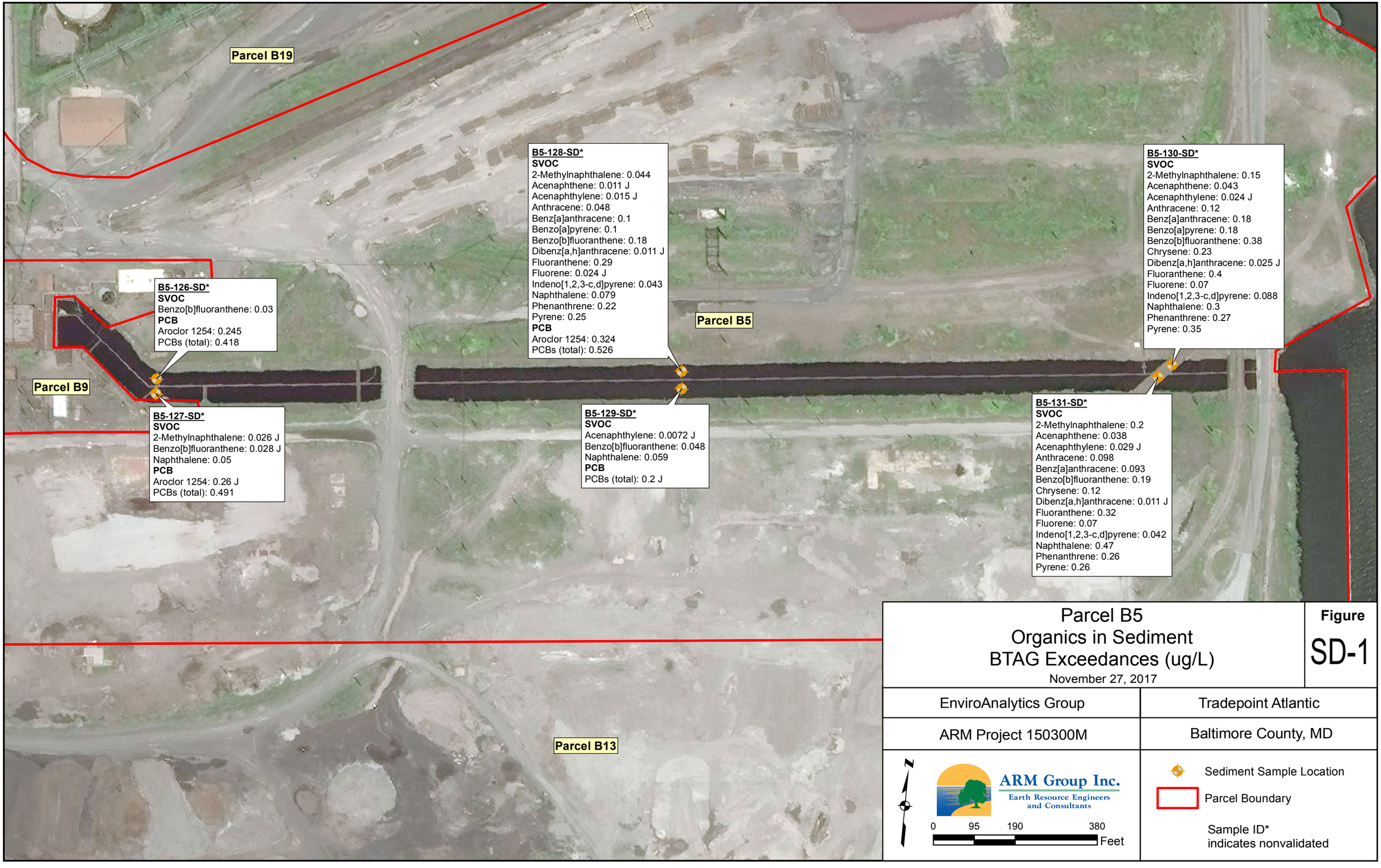
ARM Project 150300M

Sparrows Point Terminal

Baltimore County, MD

Figure
SB-3


Parcel B1
Parcel B2
Parcel B3
Parcel B7
Parcel B19
Parcel B5
Parcel B9
Parcel B13
Parcel B20
Note:
Sample ID* indicates non-validated
B5-099-SB-1 Arsenic: 11.7 J
B5-099-SB-4.5 Arsenic: 15.0 J Lead: 873
B5-098-SB-1 Arsenic: 14.0 J
B5-098-SB-4 Arsenic: 12.3 J
B5-069-SB-1* Arsenic: 14.4
B5-069-SB-4* Arsenic: 28.0
B5-068-SB-1* Antimony: 1,680 Arsenic: 25.8 Lead: 1,400
B5-132-SB-1 Arsenic: 4.6
B5-132-SB-4 Arsenic: 17.3
B5-161-SB-1 Arsenic: 13.8 J
B5-161-SB-4 Arsenic: 14.5 J
B5-161-SB-10 Arsenic: 4.2
B5-059-SB-1 Arsenic: 4.0
B5-154-SB-1 Arsenic: 15.1
B5-154-SB-4 Arsenic: 20.1
B5-133-SB-1 Arsenic: 33.6
B5-133-SB-5
B5-103-SB-1 Arsenic: 8.7 J
B5-103-SB-4.5 Arsenic: 28.4 J
B5-178-SB-1 Arsenic: 7.8 J
B5-178-SB-5 Arsenic: 5.5 J
B5-100-SB-1 Arsenic: 7.4 J
B5-100-SB-5 Arsenic: 22.6 J
B5-102-SB-1 Arsenic: 6.4 J
B5-058-SB-1 Arsenic: 6.0
B5-058-SB-5 Arsenic: 3.6
B5-101-SB-1 Arsenic: 27.2 Lead: 910
B5-101-SB-5 Arsenic: 4.3
B5-045-SB-1
B5-045-SB-5 Arsenic: 8.7 Manganese: 44,400 Vanadium: 11,600
B5-043-SB-1
B5-043-SB-5 Arsenic: 4.2
B5-072-SB-1 Arsenic: 7.7
B5-072-SB-5 Arsenic: 7.8
B5-072-SB-10 Arsenic: 8.1
B5-044-SB-1 Arsenic: 10.2
B5-044-SB-5
B5-073-SB-1 Arsenic: 21.1
B5-073-SB-5 Arsenic: 3.3
B5-073-SB-10 Arsenic: 4.5
B5-155-SB-1 Arsenic: 13.6
B5-155-SB-5 Arsenic: 6.0
B5-155-SB-10 Arsenic: 5.4
B5-135-SB-1 Arsenic: 3.1
B5-135-SB-5 Arsenic: 3.8
B5-011-SB-1 Arsenic: 4.8
B5-011-SB-5 Arsenic: 4.0
B5-012-SB-1 Arsenic: 5.3 Manganese: 34,500 Thallium: 12.9 J
B5-012-SB-5 Arsenic: 6.9 Thallium: 14.4 J
B5-013-SB-1 Arsenic: 3.4
B5-013-SB-4.5
B5-014-SB-1 Arsenic: 7.8
B5-014-SB-4
B5-176-SB-1 Arsenic: 6.9
B5-176-SB-5 Arsenic: 10.0 Manganese: 37,500
B5-134-SB-1 Arsenic: 4.8
B5-039-SB-1 Arsenic: 3.9
B5-039-SB-5 Arsenic: 4.7
B5-040-SB-1 Manganese: 27,700
B5-040-SB-5 Arsenic: 4.7
B5-078-SB-1* Arsenic: 3.4
B5-078-SB-4* Arsenic: 28.4
B5-080-SB-1* Arsenic: 18.7
B5-080-SB-5* Arsenic: 21.6 Lead: 816
B5-079-SB-1* Arsenic: 3.8
B5-079-SB-4* Arsenic: 24.5
B5-140-SB-1* Arsenic: 6.5
B5-140-SB-5* Arsenic: 16.3
B5-037-SB-1* Arsenic: 5.0
B5-037-SB-5* Manganese: 35,300
B5-038-SB-1* Arsenic: 3.6
B5-038-SB-5* Cyanide: 296
B5-038-SB-10*
B5-033-SB-1* Arsenic: 4.0
B5-033-SB-5* Arsenic: 3.4
B5-033-SB-10* Arsenic: 3.4
B5-034-SB-1*
B5-087-SB-1* Arsenic: 3.6
B5-087-SB-5*
B5-086-SB-1* Arsenic: 3.6
B5-009-SB-1*
B5-088-SB-1* Arsenic: 3.1
B5-088-SB-5*
B5-092-SB-1* Arsenic: 5.2
B5-092-SB-5*
B5-093-SB-1* Arsenic: 3.4
B5-093-SB-4*
B5-084-SB-1*
B5-565-SB-1 Arsenic: 12.8
B5-091-SB-1* Arsenic: 4.0
B5-091-SB-7* Arsenic: 4.3
B5-090-SB-1* Arsenic: 6.4
B5-090-SB-5 Arsenic: 3.1
B5-031-SB-1* Arsenic: 17.5
B5-032-SB-1* Arsenic: 11.7
B5-032-SB-5* Arsenic: 4.4
B5-117-SB-1 Arsenic: 4.8 Manganese: 27,700
B5-116-SB-1 Arsenic: 9.8
B5-116-SB-4 Arsenic: 6.8
B5-067-SB-1 Arsenic: 12.2
B5-118-SB-1 Arsenic: 4.4
B5-066-SB-1 Arsenic: 3.7
B5-119-SB-1
B5-119-SB-5 Arsenic: 4.6
B5-121-SB-1
B5-121-SB-5 Arsenic: 3.1
B5-120-SB-1 Arsenic: 5.2
B5-120-SB-4.5
B5-149-SB-1* Arsenic: 4.9
B5-149-SB-5* Arsenic: 8.4
B5-175-SB-1* Arsenic: 9.9 Manganese: 43,800 Thallium: 20.5 Vanadium: 10,500
B5-175-SB-5* Arsenic: 3.1
B5-174-SB-1* Arsenic: 13.2
B5-047-SB-1 Arsenic: 3.4 Manganese: 26,200
B5-047-SB-4 Arsenic: 5.4
B5-051-SB-1
B5-051-SB-5 Arsenic: 5.6
B5-050-SB-1 Arsenic: 3.9
B5-050-SB-5 Arsenic: 3.1
B5-046-SB-1 Arsenic: 4.5
B5-046-SB-5 Arsenic: 4.3
B5-145-SB-1 Arsenic: 6.2 Manganese: 29,600
B5-145-SB-5 Arsenic: 12.2
B5-146-SB-1 Arsenic: 6.3 Manganese: 51,400
B5-146-SB-5 Arsenic: 4.1
B5-147-SB-1 Arsenic: 8.9 Manganese: 33,300
B5-147-SB-5 Arsenic: 13.1 Lead: 932 J
B5-140-SB-1 Arsenic: 50.1 Lead: 860 J
B5-140-SB-5 Arsenic: 5.3
B5-144-SB-1 Arsenic: 3.1
B5-144-SB-4 Arsenic: 3.4
B5-005-SB-1 Arsenic: 19.6 J
B5-005-SB-4.5 Arsenic: 4.6 J Manganese: 38,900
B5-004-SB-1 Arsenic: 3.4
B5-006-SB-1 Arsenic: 4.2 J
B5-006-SB-5 Arsenic: 4.2 J Manganese: 49,200
B5-003-SB-1 Arsenic: 11.0
B5-003-SB-5 Arsenic: 9.2
B5-162-SB-1
B5-007-SB-1 Arsenic: 3.1
B5-008-SB-1
B5-015-SB-1 Arsenic: 5.6 Lead: 4,910
B5-015-SB-5 Arsenic: 3.8
B5-015-SB-10* Arsenic: 5.6
B5-016-SB-1 Arsenic: 7.2
B5-016-SB-8.5
B5-106-SB-1
B5-106-SB-5*
B5-105-SB-1* Arsenic: 32.8
B5-105-SB-5*
B5-107-SB-1* Arsenic: 4.5
B5-107-SB-5*
B5-108-SB-1 Arsenic: 5.6
B5-108-SB-5 Arsenic: 4.3
B5-109-SB-1* Arsenic: 3.8
B5-009-SB-1* Arsenic: 7.2
B5-009-SB-5* Arsenic: 3.7
B5-077-SB-1* Arsenic: 12.9
B5-077-SB-5* Manganese: 30,500
B5-076-SB-1* Arsenic: 6.5
B5-076-SB-5*
B5-075-SB-1* Chromium VI: 8.1 Manganese: 29,400
B5-075-SB-5* Manganese: 27,800
B5-074-SB-1* Arsenic: 5.4
B5-074-SB-5* Manganese: 26,600
B5-170-SB-1* Arsenic: 6.0
B5-171-SB-1* Arsenic: 6.0
B5-019-SB-1* Arsenic: 5.1
B5-019-SB-4* Arsenic: 4.1
B5-110-SB-1* Arsenic: 4.1
B5-110-SB-4* Arsenic: 24.7 Lead: 1,100
B5-020-SB-1*
B5-020-SB-3.5* Arsenic: 3.0
B5-021-SB-1* Arsenic: 5.8
B5-021-SB-5* Arsenic: 5.8
B5-022-SB-1* Arsenic: 6.6
B5-022-SB-5* Arsenic: 6.6
B5-179-SB-1 Arsenic: 5.8
B5-179-SB-9 Arsenic: 9.4 Manganese: 30,400 J
B5-111-SB-1 Arsenic: 3.1 Manganese: 26,800
B5-024-SB-1 Arsenic: 4.8
B5-023-SB-1* Arsenic: 3.0
B5-023-SB-5* Arsenic: 5.6
B5-114-SB-1 Arsenic: 3.5 Manganese: 29,400
B5-030-SB-1 Arsenic: 3.9
B5-030-SB-4 Arsenic: 3.9
B5-029-SB-1
B5-029-SB-5
B5-026-SB-1 Arsenic: 7.0
B5-025-SB-1 Arsenic: 4.8
B5-025-SB-5
B5-027-SB-1 Arsenic: 9.4
B5-027-SB-5 Arsenic: 8.9
B5-028-SB-1 Arsenic: 5.0 Chromium VI: 6.7 J- Manganese: 34,800
B5-028-SB-4.5 Arsenic: 10.2
B5-167-SB-1* Arsenic: 5.2
B5-167-SB-7* Arsenic: 8.9
B5-167-SB-10*
B5-168-SB-1* Arsenic: 5.5
B5-168-SB-5* Arsenic: 6.0 Manganese: 33,900
B5-168-SB-10* Arsenic: 7.7
B5-165-SB-1 Arsenic: 15.8
B5-165-SB-5 Arsenic: 6.5
B5-142-SB-1 Arsenic: 4.6
B5-142-SB-5 Arsenic: 4.0
B5-123-SB-1* Arsenic: 5.9 Manganese: 26,200
B5-123-SB-8* Arsenic: 6.4 Manganese: 91,800
B5-123-SB-10* Arsenic: 4.0
B5-169-SB-1 Arsenic: 9.6
B5-169-SB-5 Arsenic: 3.4
B5-164-SB-1
B5-164-SB-5 Manganese: 32,100
B5-164-SB-10
B5-094-SB-1 Arsenic: 6.5
B5-094-SB-5 Arsenic: 3.4
B5-094-SB-10 Arsenic: 6.2 J
B5-095-SB-1 Manganese: 28,100
B5-095-SB-5
B5-166-SB-1
B5-166-SB-5 Arsenic: 13.4 Lead: 3,360
B5-166-SB-10
B5-056-SB-1
B5-056-SB-5
B5-057-SB-1
B5-057-SB-6 Arsenic: 6.6
B5-143-SB-1
B5-143-SB-4.5 Arsenic: 4.8 Manganese: 58,500
B5-122-SB-1* Arsenic: 7.0
B5-122-SB-5* Arsenic: 17.8
B5-122-SB-10*
B5-124-SB-1
B5-124-SB-9
B5-125-SB-1* Arsenic: 3.5
B5-125-SB-8* Arsenic: 23.2
B5-125-SB-10*
B5-065-SB-1 Arsenic: 9.1
B5-065-SB-6 Arsenic: 3.6
B5-065-SB-10
B5-064-SB-1 Arsenic: 9.7
B5-064-SB-7 Arsenic: 5.4
B5-153-SB-1 Arsenic: 15.2
B5-152-SB-1 Arsenic: 5.0
B5-152-SB-5
B5-141-SB-1* Arsenic: 7.7
B5-151-SB-1
B5-151-SB-5 Arsenic: 7.4
B5-151-SB-10* Arsenic: 4.8
B5-052-SB-1
B5-001-SB-1 Arsenic: 3.6
B5-001-SB-5
B5-002-SB-1 Arsenic: 4.5
B5-002-SB-5
B5-150-SB-1
B5-150-SB-5
B5-053-SB-1 Arsenic: 9.3
B5-053-SB-9 Arsenic: 10.9
B5-053-SB-10 Arsenic: 6.4
B5-112-SB-1
B5-112-SB-5
B5-113-SB-1 Arsenic: 4.6
B5-113-SB-5
B5-136-SB-1
B5-136-SB-8
B5-139-SB-1* Arsenic: 3.9
B5-139-SB-7* Arsenic: 5.9
B5-138-SB-1
B5-138-SB-5 Arsenic: 5.6
B5-138-SB-10 Arsenic: 6.6
B5-096-SB-1* Arsenic: 5.3
B5-096-SB-5* Arsenic: 13.4
B5-097-SB-1* Arsenic: 11.2
B5-097-SB-4* Arsenic: 7.0
B5-083-SB-1* Arsenic: 6.4
B5-083-SB-5* Arsenic: 6.3
B5-082-SB-1* Arsenic: 3.8
B5-082-SB-4* Arsenic: 3.8
B5-081-SB-1* Arsenic: 6.3
B5-081-SB-5* Arsenic: 6.3
B5-159-SB-1* Arsenic: 12.4 Lead: 1,720
B5-159-SB-5* Manganese: 31,800
B5-156-SB-1* Arsenic: 11.1
B5-156-SB-4* Arsenic: 5.2
B5-156-SB-10 Arsenic: 3.5
B5-041-SB-1
B5-042-SB-1
B5-104-SB-1* Arsenic: 15.5 Manganese: 29,200
B5-104-SB-5* Arsenic: 9.0
B5-015-SB-1* Arsenic: 26.7 Lead: 822
B5-015-SB-7* Arsenic: 3.4
B5-015-SB-10* Arsenic: 5.0
B5-162-SB-1 Chromium VI: 8.9 J-
B5-177-SB-1 Manganese: 29,200
B5-177-SB-3.5 Arsenic: 6.6
B5-018-SB-1* Arsenic: 4.4
B5-017-SB-1* Arsenic: 10.5
B5-158-SB-1 Arsenic: 5.3 Lead: 1,040
B5-158-SB-4* Arsenic: 8.0 Lead: 3,180
B5-054-SB-1* Arsenic: 4.2
B5-054-SB-4* Arsenic: 6.2
B5-055-SB-1*
B5-111-SB-1* Arsenic: 6.1 Manganese: 39,200
B5-111-SB-4*
B5-160-SB-1* Arsenic: 3.0
B5-160-SB-4* Arsenic: 5.5
B5-180-SB-1 Arsenic: 3.6 Manganese: 26,400 J
B5-180-SB-5 Arsenic: 12.9
B5-157-SB-1* Arsenic: 18.2
B5-157-SB-4* Arsenic: 6.6
B5-048-SB-1
B5-049-SB-1 Arsenic: 4.9
B5-062-SB-1* Arsenic: 7.5
B5-071-SB-1* Arsenic: 6.6
B5-063-SB-1* Arsenic: 4.0
B5-063-SB-4* Arsenic: 6.3
B5-070-SB-1* Arsenic: 10.0
B5-137-SB-1 Arsenic: 5.0
B5-137-SB-5
Chromium VI: 6.7 J-
Phase II Soil Boring
Parcel Boundary
ARM Group Inc.
Earth Resource Engineers and Consultants
0 175 350 700 Feet
Area B5 Soil Borings
Phase II Inorganic Exceedances (mg/kg)
November 29, 2017
EnviroAnalytics Group
ARM Project 150300M
Sparrows Point Terminal
Baltimore County, MD
Figure
SB-4



Parcel B5
Organics in Sediment
BTAG Exceedances (ug/L)

November 27, 2017

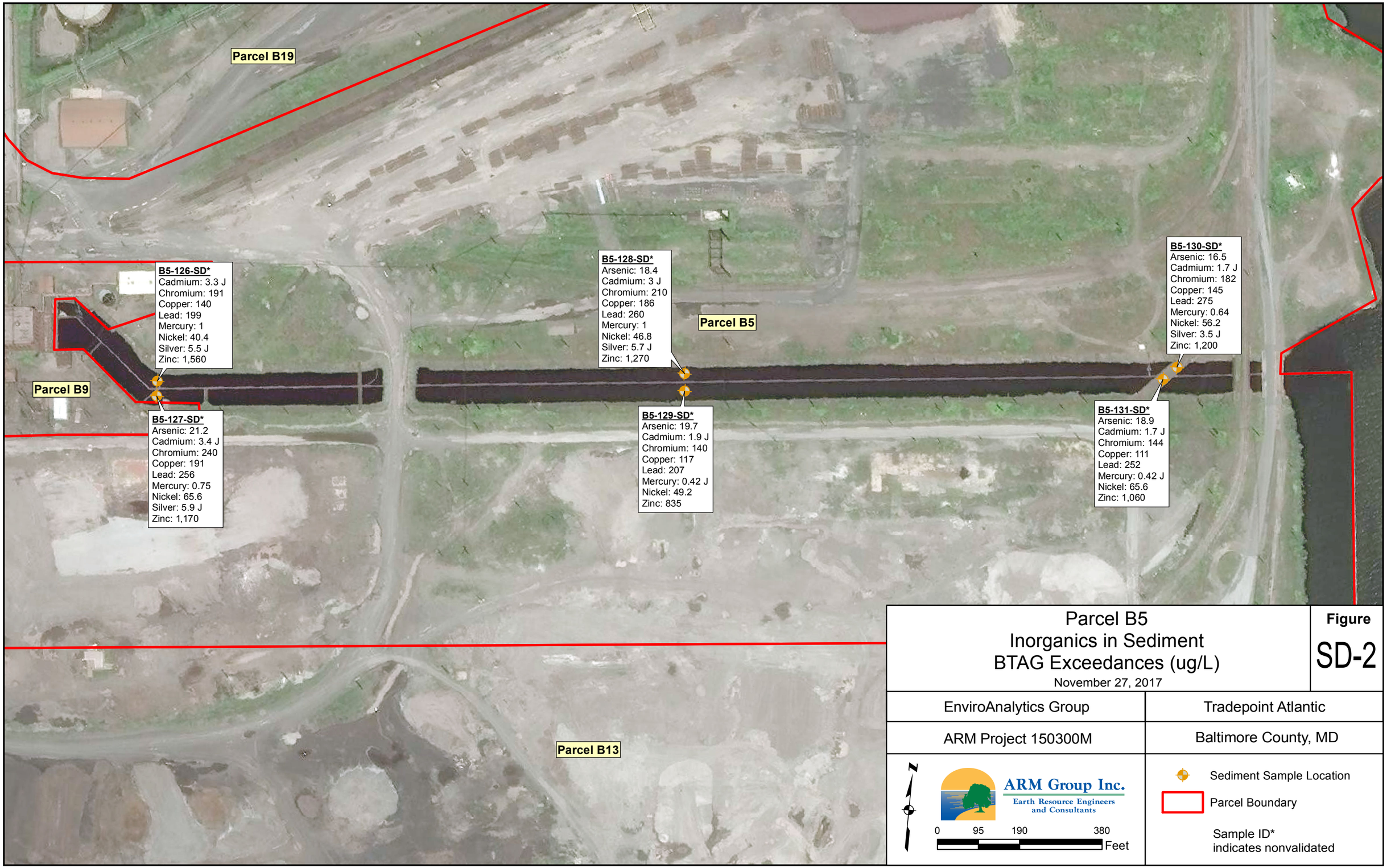
Figure
SD-1

EnviroAnalytics Group	Tradepoint Atlantic
ARM Project 150300M	Baltimore County, MD

ARM Group Inc.
Earth Resource Engineers and Consultants

0 95 190 380 Feet

Sediment Sample Location
Parcel Boundary
Sample ID*
indicates nonvalidated



Parcel B5
Inorganics in Sediment
BTAG Exceedances (ug/L)

November 27, 2017

Figure
SD-2

EnviroAnalytics Group	Tradepoint Atlantic
ARM Project 150300M	Baltimore County, MD

ARM Group Inc.
Earth Resource Engineers and Consultants

0 95 190 380
Feet

Sediment Sample Location

Parcel Boundary

Sample ID*
indicates nonvalidated

TABLES

TABLE 1
HISTORICAL SITE DRAWING DETAILS

Set Name	Typical Features Shown	Drawing Number	Original Date Drawn	Latest Revision Date
Plant Arrangement	Roads, water bodies, building/structure footprints, electric lines, above-ground pipelines (e.g.: steam, nitrogen, etc.)	5015	6/14/1957	3/12/1982
		5016	5/28/1958	3/12/1982
		5017	7/7/1958	3/12/1982
		5018	7/7/1958	3/12/1982
		5021	10/1/1958	3/11/1982
		5022	5/5/1958	3/11/1982
		5023	9/8/1958	3/11/1982
		5024	9/1/1958	3/11/1982
		5027	6/24/1959	3/11/1982
		5028	6/24/1959	3/11/1982
Plant Index	Roads, water bodies, demolished buildings/structures, electric lines, above-ground pipelines	5115	*Unknown*	9/4/2008
		5116	*Unknown*	8/14/2008
		5117	*Unknown*	8/14/2008
		5118	*Unknown*	8/14/2008
		5121	*Unknown*	11/7/2008
		5122	*Unknown*	11/7/2008
		5123	*Unknown*	11/7/2008
		5124	*Unknown*	5/3/2007
		5127	*Unknown*	8/14/2008
		5128	*Unknown*	12/14/2007
Plant Sewer Lines	Same as above plus trenches, sumps, underground piping (includes pipe materials)	5515	10/1/1958	9/11/2008
		5516	9/1/1958	9/12/2008
		5517	8/21/1959	2/9/1982
		5518	1/21/1957	2/10/1982
		5521	9/30/1959	9/10/2008
		5522	*Unknown*	9/10/2008
		5523	*Unknown*	2/24/1982
		5524	*Unknown*	2/24/1982
		5527	*Unknown*	9/10/2008
		5528	*Unknown*	9/10/2008
Drip Legs	Coke Oven Gas Drip Legs Locations	5885B	*Unknown*	Sept. 1988
		5886B	*Unknown*	Sept. 1988

TABLE 2
FIELD SHIFTED BORING LOCATIONS

Location ID	Sample Target	Proposed Location[¥]		Final Location[¥]		Relocation Distance & Direction	
		Northing	Easting	Northing	Easting		
B5-002-SB	Dispersant Tank and Acid Storage Tank	563632.241	1460341.262	563662.177	1460361.316	18 ft	W
B5-011-SB	Drip Leg 42	565669.287	1459341.671	565726.006	1459351.395	56 ft	N
B5-015-SB	Drip Leg 45	564370.040	1458823.978	564397.320	1458807.400	32 ft	NW
B5-016-SB	Drip Leg 45	564360.235	1458833.579	564357.240	1458852.880	19 ft	SE
B5-026-SB	Drip Leg 51	564173.000	1460948.358	564202.332	1460948.673	29 ft	N
B5-029-SB	Drip Leg 56	564228.315	1460920.026	564275.540	1460893.200	54 ft	NW
B5-030-SB	Drip Leg 56	564239.049	1460904.324	564274.750	1460878.130	45 ft	NW
B5-032-SB	Drip Leg 57	564790.889	1460834.583	564792.837	1460840.325	6 ft	E
B5-037-SB	Drip Leg 61	565242.386	1460741.618	565277.456	1460699.556	55 ft	NW
B5-066-SB	Oil Storage Tank	564644.138	1461011.495	564648.160	1461018.730	8 ft	NE
B5-078-SB	Residential Town Tank	565627.382	1461132.857	565653.990	1461120.030	30 ft	NW
B5-080-SB	Residential Town Tank	565647.971	1461129.012	565653.970	1461120.030	11 ft	SE
B5-085-SB	Slag Pit	564786.208	1460530.654	564798.009	1460524.435	13 ft	N
B5-088-SB	Slag Pit	565020.890	1460913.258	565023.346	1460936.211	23 ft	E
B5-089-SB	Slag Pit	564988.939	1460889.548	565054.860	1460885.528	66 ft	N
B5-090-SB	Slag Pit	564731.498	1460668.297	564729.747	1460655.415	13 ft	W
B5-093-SB	Tank (Settling Tank)	564949.307	1460945.381	564942.019	1460958.102	15 ft	SE
B5-097-SB	Tank (unknown contents)	564794.721	1459385.759	564799.570	1459395.964	11 ft	E
B5-104-SB	Thickener Tank	564603.612	1458847.990	564618.594	1458817.742	34 ft	NW
B5-106-SB	Thickener Tank	564456.811	1458882.358	564453.378	1458861.178	21 ft	W
B5-115-SB	Thickener Tank	564028.250	1460484.117	563995.750	1460479.060	33 ft	S
B5-118-SB	Thickener Tank	564704.591	1461061.005	564706.290	1461032.080	29 ft	W
B5-121-SB	Thickener Tank	564581.422	1461073.271	564567.170	1461062.270	18 ft	SW
B5-132-SB	Site wide borings	565411.886	1458936.761	565520.905	1458943.530	109 ft	N
B5-140-SB	Site wide borings	565516.748	1461450.344	565527.800	1461421.630	31 ft	NW
B5-149-SB	Site wide borings	564487.261	1461766.486	564457.480	1461725.380	51 ft	SW
B5-152-SB	Open Hearth Furnace Area	563708.347	1460674.460	563707.450	1460663.080	11 ft	W
B5-157-SB	Open Hearth Furnace Area	563664.421	1459479.244	563658.650	1459482.180	6 ft	S
B5-160-SB	Old H Furnace Area	563790.389	1459813.442	563822.390	1459815.040	32 ft	S
B5-165-SB	Sinter Area	563903.834	1462370.517	563912.450	1462367.290	9 ft	N
B5-175-SB	Railroad Tracks	564440.058	1461980.217	564457.880	1461976.710	18 ft	N

[¥]Reported northings and eastings are not survey accurate. Coordinates are reported in NAD 1983 Maryland State Plane (US feet).

TABLE 3
TCLP RESULTS FOR SOLID IDW

Sample ID	Parameter	Result (mg/L)	Laboratory Flag	TCLP Limit (mg/L)	TCLP Exceedance	Laboratory LOQ (mg/L)
B5 Waste Characterization	1,1-Dichloroethene	0.05	U	0.7	no	0.05
	1,2-Dichloroethane	0.05	U	0.5	no	0.05
	1,4-Dichlorobenzene	0.5	U	7.5	no	0.5
	2,4,5-Trichlorophenol	5	U	400	no	5
	2,4,6-Trichlorophenol	0.1	U	2	no	0.1
	2,4-Dinitrotoluene	0.1	U	0.13	no	0.1
	2-Butanone (MEK)	5	U	200	no	5
	2-Methylphenol	2	U	200	no	2
	3&4-Methylphenol(m&p Cresol)	2	U	200	no	2
	Arsenic	0.0037	J	5	no	0.05
	Barium	0.12	J	100	no	1
	Benzene	0.05	U	0.5	no	0.05
	Cadmium	0.00098	J	1	no	0.05
	Carbon tetrachloride	0.05	U	0.5	no	0.05
	Chlorobenzene	1	U	100	no	1
	Chloroform	0.5	U	6	no	0.5
	Chromium	0.0093	J	5	no	0.05
	Hexachlorobenzene	0.1	U	0.13	no	0.1
	Hexachloroethane	0.5	U	3	no	0.5
	Lead	0.25	U	5	no	0.25
	Mercury	0.001	U	0.2	no	0.001
	Nitrobenzene	0.1	U	2	no	0.1
	Pentachlorophenol	5	U	100	no	5
	Selenium	0.016	J	1	no	0.1
	Silver	0.05	U	5	no	0.05
	Tetrachloroethene	0.05	U	0.7	no	0.05
	Trichloroethene	0.05	U	0.5	no	0.05
	Vinyl chloride	0.05	U	0.2	no	0.05
B5 Waste Disposal	1,1-Dichloroethene	0.05	U	0.7	no	0.05
	1,2-Dichloroethane	0.05	U	0.5	no	0.05
	1,4-Dichlorobenzene	0.5	U	7.5	no	0.5
	2,4,5-Trichlorophenol	5	U	400	no	5
	2,4,6-Trichlorophenol	0.1	U	2	no	0.1
	2,4-Dinitrotoluene	0.1	U	0.13	no	0.1
	2-Butanone (MEK)	5	U	200	no	5
	2-Methylphenol	2	U	200	no	2
	3&4-Methylphenol(m&p Cresol)	2	U	200	no	2
	Arsenic	0.0037	J	5	no	0.05
	Barium	0.12	J	100	no	1
	Benzene	0.05	U	0.5	no	0.05
	Cadmium	0.00098	J	1	no	0.05
	Carbon tetrachloride	0.05	U	0.5	no	0.05
	Chlorobenzene	1	U	100	no	1
	Chloroform	0.5	U	6	no	0.5
	Chromium	0.0093	J	5	no	0.05
	Hexachlorobenzene	0.1	U	0.13	no	0.1
	Hexachloroethane	0.5	U	3	no	0.5
	Lead	0.25	U	5	no	0.25
	Mercury	0.001	U	0.2	no	0.001
	Nitrobenzene	0.1	U	2	no	0.1
	Pentachlorophenol	5	U	100	no	5
	Selenium	0.016	J	1	no	0.1
	Silver	0.05	U	5	no	0.05
	Tetrachloroethene	0.05	U	0.7	no	0.05
	Trichloroethene	0.05	U	0.5	no	0.05
	Vinyl chloride	0.05	U	0.2	no	0.05

J = The positivie result reported for this analyte is a quantitative estimate below the laboratory LOQ.
U = The analyte was not detected in the sample. The numeric value represents the sample LOQ.
TCLP = Toxicity characteristic leaching procedure
LOQ = Limit of Quantitation

TABLE 4
TCLP RESULTS FOR LIQUID IDW

Location ID	Parameter	Result (mg/L)	TCLP Limit (mg/L)	TCLP Exceedance	Laboratory Flag	Laboratory LOQ (mg/L)
Water Disposal	1,1-Dichloroethene	0.001	0.7	no	U	0.001
	1,2-Dichloroethane	0.001	0.5	no	U	0.001
	1,4-Dichlorobenzene	0.001	7.5	no	U	0.001
	2-Butanone (MEK)	0.01	200	no	U	0.01
	Arsenic	0.005	5	no	U	0.005
	Barium	0.0466	100	no		0.01
	Benzene	0.001	0.5	no	U	0.001
	Cadmium	0.003	1	no	U	0.003
	Carbon tetrachloride	0.001	0.5	no	U	0.001
	Chlorobenzene	0.001	100	no	U	0.001
	Chloroform	0.001	6	no	U	0.001
	Chromium	0.0011	5	no	J	0.005
	Lead	0.005	5	no	U	0.005
	Mercury	0.0002	0.2	no	U	0.0002
	Selenium	0.008	1	no	U	0.008
	Silver	0.006	5	no	U	0.006
	Tetrachloroethene	0.0035	0.7	no		0.001
	Trichloroethene	0.003	0.5	no		0.001
	Vinyl chloride	0.001	0.2	no	U	0.001
Water Disposal 1	1,1-Dichloroethene	0.001	0.7	no	U	0.001
	1,2-Dichloroethane	0.001	0.5	no	U	0.001
	1,4-Dichlorobenzene	0.001	7.5	no	U	0.001
	2-Butanone (MEK)	0.01	200	no	U	0.01
	Arsenic	0.005	5	no	U	0.005
	Barium	0.0338	100	no		0.01
	Benzene	0.001	0.5	no	U	0.001
	Cadmium	0.0006	1	no	J	0.003
	Carbon tetrachloride	0.001	0.5	no	U	0.001
	Chlorobenzene	0.001	100	no	U	0.001
	Chloroform	0.001	6	no	U	0.001
	Chromium	0.0016	5	no	J	0.005
	Lead	0.005	5	no	U	0.005
	Mercury	0.0002	0.2	no	U	0.0002
	Selenium	0.008	1	no	U	0.008
	Silver	0.006	5	no	U	0.006
	Tetrachloroethene	0.001	0.7	no	U	0.001
	Trichloroethene	0.001	0.5	no	U	0.001
	Vinyl chloride	0.001	0.2	no	U	0.001

TABLE 4
TCLP RESULTS FOR LIQUID IDW

Location ID	Parameter	Result (mg/L)	TCLP Limit (mg/L)	TCLP Exceedance	Laboratory Flag	Laboratory LOQ (mg/L)
Water Disposal 2	1,1-Dichloroethene	0.001	0.7	no	U	0.001
	1,2-Dichloroethane	0.001	0.5	no	U	0.001
	1,4-Dichlorobenzene	0.001	7.5	no	U	0.001
	2-Butanone (MEK)	0.01	200	no	U	0.01
	Arsenic	0.005	5	no	U	0.005
	Barium	0.0811	100	no		0.01
	Benzene	0.001	0.5	no	U	0.001
	Cadmium	0.003	1	no	U	0.003
	Carbon tetrachloride	0.001	0.5	no	U	0.001
	Chlorobenzene	0.001	100	no	U	0.001
	Chloroform	0.0029	6	no		0.001
	Chromium	0.0012	5	no	J	0.005
	Lead	0.005	5	no	U	0.005
	Mercury	0.0002	0.2	no	U	0.0002
	Selenium	0.008	1	no	U	0.008
	Silver	0.006	5	no	U	0.006
	Tetrachloroethene	0.001	0.7	no	U	0.001
	Trichloroethene	0.001	0.5	no	U	0.001
	Vinyl chloride	0.001	0.2	no	U	0.001
Water Disposal 3	1,1-Dichloroethene	0.001	0.7	no	U	0.001
	1,2-Dichloroethane	0.001	0.5	no	U	0.001
	1,4-Dichlorobenzene	0.001	7.5	no	U	0.001
	2-Butanone (MEK)	0.01	200	no	U	0.01
	Arsenic	0.005	5	no	U	0.005
	Barium	0.0051	100	no	J	0.01
	Benzene	0.001	0.5	no	U	0.001
	Cadmium	0.003	1	no	U	0.003
	Carbon tetrachloride	0.001	0.5	no	U	0.001
	Chlorobenzene	0.001	100	no	U	0.001
	Chloroform	0.0016	6	no		0.001
	Chromium	0.00085	5	no	J	0.005
	Lead	0.005	5	no	U	0.005
	Mercury	0.0002	0.2	no	U	0.0002
	Selenium	0.008	1	no	U	0.008
	Silver	0.006	5	no	U	0.006
	Tetrachloroethene	0.001	0.7	no	U	0.001
	Trichloroethene	0.001	0.5	no	U	0.001
	Vinyl chloride	0.001	0.2	no	U	0.001

TABLE 4
TCLP RESULTS FOR LIQUID IDW

Location ID	Parameter	Result (mg/L)	TCLP Limit (mg/L)	TCLP Exceedance	Laboratory Flag	Laboratory LOQ (mg/L)
Water Disposal 4	1,1-Dichloroethene	0.001	0.7	no	U	0.001
	1,2-Dichloroethane	0.001	0.5	no	U	0.001
	1,4-Dichlorobenzene	0.001	7.5	no	U	0.001
	2-Butanone (MEK)	0.01	200	no	U	0.01
	Arsenic	0.0094	5	no		0.005
	Barium	0.101	100	no		0.01
	Benzene	0.001	0.5	no	U	0.001
	Cadmium	0.003	1	no	U	0.003
	Carbon tetrachloride	0.001	0.5	no	U	0.001
	Chlorobenzene	0.001	100	no	U	0.001
	Chloroform	0.0024	6	no		0.001
	Chromium	0.0012	5	no	J	0.005
	Lead	0.005	5	no	U	0.005
	Mercury	0.0002	0.2	no	U	0.0002
	Selenium	0.008	1	no	U	0.008
	Silver	0.006	5	no	U	0.006
	Tetrachloroethene	0.001	0.7	no	U	0.001
	Trichloroethene	0.001	0.5	no	U	0.001
	Vinyl chloride	0.001	0.2	no	U	0.001
Water Disposal 5	1,1-Dichloroethene	0.001	0.7	no	U	0.001
	1,2-Dichloroethane	0.001	0.5	no	U	0.001
	1,4-Dichlorobenzene	0.001	7.5	no	U	0.001
	2-Butanone (MEK)	0.01	200	no	U	0.01
	Arsenic	0.005	5	no	U	0.005
	Barium	0.398	100	no		0.01
	Benzene	0.001	0.5	no	U	0.001
	Cadmium	0.00058	1	no	J	0.003
	Carbon tetrachloride	0.001	0.5	no	U	0.001
	Chlorobenzene	0.001	100	no	U	0.001
	Chloroform	0.0039	6	no		0.001
	Chromium	0.0012	5	no	J	0.005
	Lead	0.005	5	no	U	0.005
	Mercury	0.0002	0.2	no	U	0.0002
	Selenium	0.008	1	no	U	0.008
	Silver	0.006	5	no	U	0.006
	Tetrachloroethene	0.001	0.7	no	U	0.001
	Trichloroethene	0.001	0.5	no	U	0.001
	Vinyl chloride	0.001	0.2	no	U	0.001

TABLE 4
TCLP RESULTS FOR LIQUID IDW

Location ID	Parameter	Result (mg/L)	TCLP Limit (mg/L)	TCLP Exceedance	Laboratory Flag	Laboratory LOQ (mg/L)
Water Disposal 6	1,1-Dichloroethene	0.001	0.7	no	U	0.001
	1,2-Dichloroethane	0.001	0.5	no	U	0.001
	1,4-Dichlorobenzene	0.001	7.5	no	U	0.001
	2-Butanone (MEK)	0.01	200	no	U	0.01
	Arsenic	0.005	5	no	U	0.005
	Barium	2.14	100	no		0.01
	Benzene	0.001	0.5	no	U	0.001
	Cadmium	0.001	1	no	J	0.003
	Carbon tetrachloride	0.001	0.5	no	U	0.001
	Chlorobenzene	0.001	100	no	U	0.001
	Chloroform	0.00058	6	no	J	0.001
	Chromium	0.005	5	no	U	0.005
	Lead	0.005	5	no	U	0.005
	Mercury	0.0002	0.2	no	U	0.0002
	Selenium	0.008	1	no	U	0.008
	Silver	0.006	5	no	U	0.006
	Tetrachloroethene	0.001	0.7	no	U	0.001
	Trichloroethene	0.001	0.5	no	U	0.001
	Vinyl chloride	0.001	0.2	no	U	0.001
Water Disposal 7	1,1-Dichloroethene	0.001	0.7	no	U	0.001
	1,2-Dichloroethane	0.001	0.5	no	U	0.001
	1,4-Dichlorobenzene	0.001	7.5	no	U	0.001
	2-Butanone (MEK)	0.01	200	no	U	0.01
	Arsenic	0.005	5	no	U	0.005
	Barium	0.0889	100	no		0.01
	Benzene	0.001	0.5	no	U	0.001
	Cadmium	0.00067	1	no	J	0.003
	Carbon tetrachloride	0.001	0.5	no	U	0.001
	Chlorobenzene	0.001	100	no	U	0.001
	Chloroform	0.00075	6	no	J	0.001
	Chromium	0.005	5	no	U	0.005
	Lead	0.005	5	no	U	0.005
	Mercury	0.0002	0.2	no	U	0.0002
	Selenium	0.008	1	no	U	0.008
	Silver	0.006	5	no	U	0.006
	Tetrachloroethene	0.001	0.7	no	U	0.001
	Trichloroethene	0.00065	0.5	no	J	0.001
	Vinyl chloride	0.001	0.2	no	U	0.001

TABLE 4
TCLP RESULTS FOR LIQUID IDW

Location ID	Parameter	Result (mg/L)	TCLP Limit (mg/L)	TCLP Exceedance	Laboratory Flag	Laboratory LOQ (mg/L)
Water Disposal 8	1,1-Dichloroethene	0.001	0.7	no	U	0.001
	1,2-Dichloroethane	0.001	0.5	no	U	0.001
	1,4-Dichlorobenzene	0.001	7.5	no	U	0.001
	2-Butanone (MEK)	0.01	200	no	U	0.01
	Arsenic	0.005	5	no	U	0.005
	Barium	0.01	100	no	J	0.01
	Benzene	0.001	0.5	no	U	0.001
	Cadmium	0.003	1	no	U	0.003
	Carbon tetrachloride	0.001	0.5	no	U	0.001
	Chlorobenzene	0.001	100	no	U	0.001
	Chloroform	0.001	6	no	U	0.001
	Chromium	0.005	5	no	U	0.005
	Lead	0.005	5	no	U	0.005
	Mercury	0.0002	0.2	no	U	0.0002
	Selenium	0.008	1	no	U	0.008
	Silver	0.006	5	no	U	0.006
	Tetrachloroethene	0.001	0.7	no	U	0.001
	Trichloroethene	0.001	0.5	no	U	0.001
	Vinyl chloride	0.001	0.2	no	U	0.001

J = The positive result reported for this analyte is a quantitative estimate below the laboratory PQL.
U = The analyte was not detected in the sample. The numeric value represents the sample LOQ.
TCLP = Toxicity characterization leaching procedure
LOQ = Limit of Quantitation

Table 5a
Summary of Organics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-001-SB-1	B5-001-SB-5	B5-002-SB-1	B5-002-SB-5	B5-003-SB-1	B5-003-SB-5	B5-004-SB-1	B5-005-SB-1	B5-005-SB-4.5	B5-006-SB-1	B5-006-SB-5	B5-007-SB-1	B5-008-SB-1	B5-009-SB-1*	B5-009-SB-5*	B5-010-SB-1*
Volatile Organic Compounds																		
1,1,1-Trichloroethane	mg/kg	36,000	0.0062 U	0.0065 U	0.37 U	0.0067 U	0.0049 U	0.0047 U	0.0073 U	0.0069 U	0.0069 U	0.0051 U	0.0075 U	0.0082 U	0.0067 U	0.0059 U	0.0044 U	0.004 U
1,1-Dichloroethane	mg/kg	16	0.0062 U	0.0065 U	0.37 U	0.0067 U	0.0049 U	0.0047 U	0.0073 U	0.0069 U	0.0069 U	0.0051 U	0.0075 U	0.0082 U	0.0067 U	0.0059 U	0.0044 U	0.004 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0062 U	0.0065 U	0.37 U	0.0067 U	0.0049 U	0.0047 U	0.0073 U	0.0069 U	0.0069 U	0.0051 U	0.0075 U	0.0082 U	0.0067 U	0.0059 U	0.0044 U	0.004 U
1,2,4-Trichlorobenzene	mg/kg	110	0.0062 U	0.0065 U	0.37 U	0.0067 U	0.0049 U	0.0047 U	0.0073 U	0.0069 U	0.0069 U	0.0051 U	0.0075 U	0.0082 U	0.0067 U	0.0059 U	0.0044 U	0.004 U
2-Butanone (MEK)	mg/kg	190,000	0.012 U	0.013 U	0.73 U	0.013 U	0.0097 U	0.0093 U	0.015 U	0.014 U	0.014 U	0.01 U	0.015 U	0.016 U	0.013 U	0.012 U	0.0088 U	0.008 U
2-Hexanone	mg/kg	1,300	0.012 U	0.013 U	0.73 U	0.013 U	0.0097 U	0.0093 U	0.015 U	0.014 U	0.014 U	0.01 U	0.015 U	0.016 U	0.013 U	0.012 U	0.0088 U	0.008 U
Acetone	mg/kg	670,000	**0.052**	**0.009 J**	0.73 U	0.013 U	**0.1 J**	0.0093 UJ	**0.056 J**	**0.043**	**0.022**	**0.065**	**0.043**	**0.12 J**	**0.084 J**	0.012 U	0.0088 U	**0.071**
Benzene	mg/kg	5.1	0.0062 U	0.0065 U	**0.15 J**	0.0067 U	**0.0036 J**	0.0047 U	0.0073 U	0.0069 U	**0.0062 J**	**0.0029 J**	**0.0056 J**	0.0082 U	0.0067 U	0.0059 U	0.0044 U	0.004 U
Carbon tetrachloride	mg/kg	2.9	0.0062 U	0.0065 U	0.37 U	0.0067 U	0.0049 U	0.0047 U	0.0073 U	0.0069 U	0.0069 U	0.0051 U	0.0075 U	0.0082 U	0.0067 U	0.0059 U	0.0044 U	0.004 U
Chloroform	mg/kg	1.4	0.0062 U	0.0065 U	0.37 U	0.0067 U	0.0049 U	0.0047 U	0.0073 U	0.0069 U	0.0069 U	0.0051 U	0.0075 U	0.0082 U	0.0067 U	0.0059 U	0.0044 U	0.004 U
Cyclohexane	mg/kg	27,000	0.012 U	0.013 U	**1.1**	0.013 U	0.0097 U	0.0093 U	0.015 U	0.014 U	0.014 U	0.01 U	0.015 U	0.016 U	0.013 U	0.012 U	0.0088 U	0.008 U
Ethylbenzene	mg/kg	25	0.0062 U	0.0065 U	0.37 U	0.0067 U	0.0049 U	0.0047 U	0.0073 U	0.0069 U	**0.027**	0.0051 U	0.0075 U	0.0082 U	0.0067 U	0.0059 U	0.0044 U	0.004 U
Isopropylbenzene	mg/kg	9,900	0.0062 U	0.0065 U	0.37 U	0.0067 U	0.0049 U	0.0047 U	0.0073 U	0.0069 U	**0.0041 J**	0.0051 U	0.0075 U	0.0082 U	0.0067 U	0.0059 U	0.0044 U	0.004 U
Methyl Acetate	mg/kg	1,200,000	0.062 U	0.065 U	3.7 U	0.067 U	0.049 R	0.047 R	0.073 R	0.069 U	0.069 U	0.051 U	0.075 U	0.082 U	0.067 U	0.059 U	0.044 U	0.04 U
Methylene Chloride	mg/kg	1,000	0.0062 U	0.0065 U	0.37 U	0.0067 U	0.0049 U	0.0047 U	0.0073 U	0.0069 U	0.0069 U	0.0051 U	0.0075 U	0.0082 U	0.0067 U	0.0059 U	0.0044 U	0.004 U
Styrene	mg/kg	35,000	0.0062 U	0.0065 U	0.37 U	0.0067 U	0.0049 U	0.0047 U	0.0073 U	0.0069 U	0.0069 U	0.0051 U	0.0075 U	0.0082 U	0.0067 U	0.0059 U	0.0044 U	0.004 U
Tetrachloroethene	mg/kg	100	0.0062 U	0.0065 U	**2.4**	0.0067 U	0.0049 U	0.0047 U	0.0073 U	0.0069 U	0.0069 U	0.0051 U	0.0075 U	0.0082 U	0.0067 U	0.0059 U	0.0044 U	0.004 U
Toluene	mg/kg	47,000	0.0062 U	0.0065 U	**1.3**	0.0067 U	0.0049 U	0.0047 U	0.0073 U	0.0069 U	**0.034**	0.0051 U	**0.0032 J**	0.0082 U	0.0067 U	0.0059 U	0.0044 U	0.004 U
Trichloroethene	mg/kg	6	0.0062 U	0.0065 U	0.37 U	0.0067 U	0.0049 U	0.0047 U	0.0073 U	0.0069 U	0.0069 U	0.0051 U	0.0075 U	0.0082 U	0.0067 U	0.0059 U	0.0044 U	0.004 U
Xylenes	mg/kg	2,800	0.019 U	0.02 U	**2.8**	0.02 U	0.015 U	0.014 U	0.022 U	0.021 U	**0.022**	0.015 U	0.022 U	0.025 U	0.02 U	0.018 U	0.013 U	0.012 U
Semi-Volatile Organic Compounds^																		
1,1-Biphenyl	mg/kg	200	7.7 U	7.4 U	7.5 U	7.3 U	7.5 U	8 U	8.4 U	7.2 U	7.4 U	7.6 U	7.5 U	7.5 U	7.7 U	7.5 U	7.3 U	**3.1 J**
2,4-Dimethylphenol	mg/kg	16,000	7.7 U	7.4 U	7.5 U	7.3 U	7.5 U	8 U	8.4 U	7.2 U	7.4 U	7.6 U	7.5 U	7.5 U	7.7 U	7.5 U	7.3 U	7.6 U
2-Methylnaphthalene	mg/kg	3,000	**0.35**	0.0074 U	**1.3**	0.0075 U	**0.092**	**0.0047 J**	**0.12**	**0.067**	**0.0016 J**	**0.0045 J**	**0.0024 J**	0.15 U	0.15 U	**0.04 J**	**0.043 J**	**3.5**
2-Methylphenol	mg/kg	41,000	7.7 U	7.4 U	7.5 U	7.3 U	7.5 U	8 U	8.4 U	7.2 U	7.4 U	7.6 U	7.5 U	7.5 U	7.7 U	7.5 U	7.3 U	7.6 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	15.5 U	14.7 U	15 U	14.6 U	15.1 U	16 U	16.9 U	14.4 U	14.7 U	15.2 U	15 U	15 U	15.5 U	15.1 U	14.6 U	15.1 U
Acenaphthene	mg/kg	45,000	**0.047**	0.0074 U	**0.042**	0.0075 U	**0.03**	0.0083 U	**0.036**	**0.018**	**0.00076 J**	0.0077 U	0.0074 U	**0.023 J**	0.15 U	0.15 U	**0.025 J**	**16.2**
Acenaphthylene	mg/kg	45,000	**0.018**	0.0074 U	**0.022**	0.0075 U	**0.35**	**0.002 J**	**0.73**	**0.033**	**0.0029 J**	**0.0023 J**	0.0074 U	**0.019 J**	0.15 U	**0.096 J**	**0.23**	**21.4**
Acetophenone	mg/kg	120,000	7.7 U	7.4 U	7.5 U	7.3 U	7.5 U	8 U	8.4 U	7.2 U	7.4 U	7.6 U	7.5 U	7.5 U	7.7 U	7.5 U	7.3 U	7.6 U
Anthracene	mg/kg	230,000	**0.2**	**0.0008 J**	**0.14**	0.0075 U	**0.14**	**0.0013 J**	**0.14**	**0.076**	**0.0022 J**	**0.0032 J**	0.0074 U	**0.09 J**	**0.02 J**	**0.081 J**	**0.19**	**30.7**
Benz[a]anthracene	mg/kg	21.0	**0.32**	**0.0029 J**	**0.23**	0.0075 U	**0.47**	**0.0057 J**	**0.57**	**0.46**	**0.01**	**0.015**	**0.0029 J**	**0.37 J**	**0.057 J**	**0.14 J**	**1**	**38.1**
Benzaldehyde	mg/kg	120,000	7.7 U	7.4 U	7.5 U	7.3 U	7.5 U	8 UJ	8.4 U	7.2 UJ	7.4 UJ	7.6 UJ	7.5 UJ	7.5 U	7.7 U	7.5 U	7.3 U	7.6 U
Benzo[a]pyrene	mg/kg	2.10	**0.24**	**0.0019 J**	**0.21**	0.0075 U	**0.69**	**0.0049 J**	**0.89**	**0.5**	**0.0091**	**0.014**	**0.0025 J**	**0.23 J**	**0.032 J**	**0.13 J**	**0.74**	**31.4**
Benzo[b]fluoranthene	mg/kg	21.0	**0.63**	**0.0042 J**	**0.52**	0.0075 U	**1.2**	**0.0095**	**1.5**	**0.86**	**0.022**	**0.031**	**0.0077**	**0.61 J**	**0.096 J**	**0.18**	**1.7**	**52.6**
Benzo[g,h,i]perylene	mg/kg		**0.14**	**0.0017 J**	**0.15**	0.0075 U	**0.24**	**0.002 J**	**0.37**	**0.14**	**0.0038 J**	**0.0063 J**	0.0074 U	**0.1 J**	**0.025 J**	**0.12 J**	**0.28**	**8**
Benzo[k]fluoranthene	mg/kg	210	**0.64**	**0.0015 J**	**0.52**	0.0075 U	**0.58**	**0.0035 J**	**0.54**	**0.28**	**0.007 J**	**0.011**	**0.0063 J**	**0.18 J**	**0.022 J**	**0.071 J**	**0.5**	**18.3**
bis(2-Ethylhexyl)phthalate	mg/kg	160	7.7 U	7.4 U	7.5 U	7.3 U	7.5 U	8 U	8.4 U	7.2 U	7.4 U	7.6 U	7.5 U	7.5 U	7.7 U	7.5 U	7.3 U	7.6 U
Carbazole	mg/kg		7.7 U	7.4 U	7.5 U	7.3 U	7.5 U	8 U	8.4 U	7.2 U	7.4 U	7.6 U	7.5 U	7.5 U	7.7 U	7.5 U	7.3 U	**47.1**
Chrysene	mg/kg	2,100	**0.44**	**0.003 J**	**0.34**	0.0075 U	**0.53**	**0.0058 J**	**0.66**	**0.46**	**0.01**	**0.019**	**0.0025 J**	**0.8 J**	**0.099 J**	**0.14 J**	**1**	**32**
Dibenz[a,h]anthracene	mg/kg	2.10	**0.057**	0.0074 U	**0.074**	0.0075 U	**0.11**	0.0083 UJ	**0.16**	**0.071**	**0.0017 J**	**0.0026 J**	0.0074 U	**0.034 J**	0.15 UJ	**0.036 J**	**0.15 J**	**26.8**
Di-n-butylphthalate	mg/kg	82,000	7.7 U	7.4 U	7.5 U	7.3 U	7.5 U	8 U	8.4 U	7.2 U	7.4 U	7.6 U	7.5 U	7.5 U	7.7 U	7.5 U	7.3 U	**7.7**
Di-n-ocytlphthalate	mg/kg	8,200	7.7 U	7.4 U	7.5 U	7.3 U	7.5 U	8 U	8.4 U	7.2 U	7.4 U	7.6 U	7.5 U	7.5 UJ	7.7 UJ	7.5 U	7.3 U	7.6 U
Fluoranthene	mg/kg	30,000	**0.87**	**0.0095**	**0.44**	**0.0015 J**	**0.63**	**0.0076 J**	**0.69**	**1.1**	**0.02**	**0.029**	**0.0042 J**	**0.55**	**0.061 J**	**0.29**	**1.5**	**116**
Fluorene	mg/kg	30,000	**0.05**	0.0074 U	**0.049**	0.0075 U	**0.035**	**0.00072 J**	**0.027**	**0.016**	**0.00074 J**	0.0077 U	**0.0015 J**	**0.018 J**	0.15 U	**0.056 J**	**0.057 J**	**28.9**
Indeno[1,2,3-c,d]pyrene	mg/kg	21.0	**0.13**	**0.0016 J**	**0.13**	0.0075 U	**0.29**	**0.0019 J**	**0.44**	**0.17**	**0.0045 J**	**0.0064 J**	**0.0011 J**	**0.089 J**	0.15 UJ	**0.051 J**	**0.32**	**10.2**
Naphthalene	mg/kg	17.0	**0.28**	0.0041 B	**0.77**	0.0021 B	**0.39**	**0.078 J**	**0.5**	**0.071**	0.0048 B	**0.0081**	0.0025 B	0.021 B	0.15 U	**0.43**	**0.41**	**7.5**
Pentachlorophenol	mg/kg	4.00	19.3 U	18.4 U	18.7 U	18.3 U	0.19 UJ	0.2 UJ	0.21 UJ	0.18 U*	0.18 U*	0.19 U*	0.19 U*	0.19 UJ	0.19 UJ	0.19 U	0.18 U	0.19 U
Phenanthrene	mg/kg		**1.1**	**0.0067 J**	**1.1**	**0.0029 J**	**0.2**	**0.0045 J**	**0.23**	**0.34**	**0.0061 J**	**0.015**	**0.0062 J**	**0.3**	**0.038 J**	**0.2**	**0.42**	**130**
Phenol	mg/kg	250,000	7.7 U	7.4 U	7.5 U	7.3 U	7.5 U	8 U	8.4 U	7.2 U	7.4 U	7.6 U	7.5 U	7.5 U	7.7 U	7.5 U	7.3 U	7.6 U
Pyrene	mg/kg	23,000	**0.73**	**0.0072 J**	**0.4**	**0.0012 J**	**0.66**	**0.0067 J**	**0.82**	**0.89**	**0.014**	**0.023**	**0.0036 J**	**0.44**	**0.068 J**	**0.24**	**2.2**	**86.1**
PCBs																		
Aroclor 1016	mg/kg	27	0.019 U	N/A	0.019 U	N/A	0.096 U	N/A	0.11 U	0.018 U	N/A	0.019 U	N/A	0.37 U	0.39 U	0.019 U	N/A	0.38 U
Aroclor 1242	mg/kg	0.97	0.019 U	N/A	0.019 U	N/A	0.096 U	N/A	0.11 U	0.018 U	N/A	0.019 U	N/A	0.37 U	0.39 U	0.019 U	N/A	0.38 U
Aroclor 1248	mg/kg	0.94	0.019 U	N/A	0.019 U	N/A	0.096 U	N/A	0.11 U	0.018 U	N/A	0.019 U	N/A	0.37 U	0.39 U	0.019 U	N/A	0.38 U
Aroclor 1254	mg/kg	0.97	0.019 U	N/A	0.019 U	N/A	**0.14**	N/A	**0.15**	**0.11**	N/A	**0.039**	N/A	**0.31 J**	**0.19 J**	**0.099**	N/A	0.38 U
Aroclor 1260	mg/kg	0.99	0.019 U	N/A	0.019 U	N/A	**0.15**	N/A	**0.19**	0.018 U	N/A	0.019 U	N/A	0.37 U	0.39 U	0.019 U	N/A	0.38 U
Aroclor 1262	mg/kg		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
PCBs (total)	mg/kg	0.97	0.14 U	N/A	0.13 U	N/A	**0.29 J**	N/A	**0.33 J**	**0.11 J**	N/A	**0.039 J**	N/A	2.6 U	2.7 U	**0.099 J**	N/A	2.7 U
TPH																		
Diesel Range Organics	mg/kg	6,200	**102**	**9.5**	**118 J**	4.2 B	**138**	**6 J**	**156**	**40.2**	**4.8 J**	**47.7**	**66.6**	**433**	**730**	**181**	**89.9**	**3,760**
Gasoline Range Organics	mg/kg	6,200	11.8 U	9.7 U	**15.7**	14.7 U	9.8 U	9.8 U	**13.3 J**	14.4 U	18.7 U	13.2 U	16.1 U	17.7 U	13.5 U	11.5 U	10.2 U	48.4 U

Bold indicates detection
N/A: This parameter was not analyzed for this sample.
* Indicates non-validated
^ PAH compounds were analyzed for SIM
Red values indicate a detection exceedance of the Project Action Limit

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 5a
Summary of Organics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-010-SB-7*	B5-010-SB-10*	B5-011-SB-1	B5-011-SB-5	B5-012-SB-1	B5-012-SB-5	B5-013-SB-1	B5-013-SB-4.5	B5-014-SB-1	B5-014-SB-4	B5-015-SB-1	B5-015-SB-5	B5-016-SB-1	B5-016-SB-8.5	B5-017-SB-1*	B5-018-SB-1*
Volatile Organic Compounds																		
1,1,1-Trichloroethane	mg/kg	36,000	0.0078 U	N/A	0.0068 U	0.0052 U	0.0056 U	0.005 U	0.0061 U	**0.042**	0.0064 U	0.0063 U	0.0047 U	0.0047 U	0.0054 U	0.0072 U	0.005 U	0.0058 U
1,1-Dichloroethane	mg/kg	16	0.0078 U	N/A	0.0068 U	0.0052 U	0.0056 U	0.005 U	0.0061 U	0.0077 U	0.0064 U	0.0063 U	0.0047 U	0.0047 U	0.0054 U	0.0072 U	0.005 U	0.0058 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0078 U	N/A	0.0068 U	0.0052 U	0.0056 U	0.005 U	0.0061 U	0.0077 U	0.0064 U	0.0063 U	0.0047 U	0.0047 U	0.0054 U	0.0072 U	0.005 U	0.0058 U
1,2,4-Trichlorobenzene	mg/kg	110	0.0078 U	N/A	0.0068 U	0.0052 U	0.0056 U	0.005 U	0.0061 U	0.0077 U	0.0064 U	0.0063 U	0.0047 U	0.0047 U	0.0054 U	0.0072 U	0.005 U	0.0058 U
2-Butanone (MEK)	mg/kg	190,000	0.016 U	N/A	0.014 U	0.01 U	0.011 U	0.01 U	0.012 U	0.015 U	0.013 U	0.013 U	0.0094 U	0.0094 U	0.011 U	0.014 U	**0.013**	**0.0083 J**
2-Hexanone	mg/kg	1,300	0.016 U	N/A	0.014 U	0.01 U	0.011 U	0.01 U	0.012 U	0.015 U	0.013 U	0.013 U	0.0094 U	0.0094 U	0.011 U	0.014 U	**0.0021 J**	0.012 U
Acetone	mg/kg	670,000	0.016 U	N/A	**0.058**	**0.04**	**0.1**	**0.032**	0.012 U	**0.047**	0.013 U	0.013 U	0.0094 R	0.0094 R	**0.063 J**	**0.044 J**	**0.079**	**0.051**
Benzene	mg/kg	5.1	**0.13**	N/A	0.0068 U	0.0052 U	0.0056 U	0.005 U	0.0061 U	0.0077 U	0.0064 U	**0.0084**	0.0047 U	0.0047 U	0.0054 U	0.0072 U	**0.0017 J**	0.0058 U
Carbon tetrachloride	mg/kg	2.9	0.0078 U	N/A	0.0068 U	0.0052 U	0.0056 U	0.005 U	0.0061 U	0.0077 U	0.0064 U	0.0063 U	0.0047 U	0.0047 U	0.0054 U	0.0072 U	0.005 U	0.0058 U
Chloroform	mg/kg	1.4	0.0078 U	N/A	0.0068 U	0.0052 U	0.0056 U	0.005 U	0.0061 U	0.0077 U	0.0064 U	0.0063 U	0.0047 U	0.0047 U	0.0054 U	0.0072 U	0.005 U	0.0058 U
Cyclohexane	mg/kg	27,000	0.016 U	N/A	0.014 U	0.01 U	**0.014**	0.01 U	0.012 U	0.015 U	0.013 U	0.013 U	0.0094 U	0.0094 U	0.011 U	0.014 U	0.01 U	0.012 U
Ethylbenzene	mg/kg	25	**0.024**	N/A	0.0068 U	0.0052 U	0.0056 U	0.005 U	0.0061 U	0.0077 U	0.0064 U	0.0063 U	0.0047 U	0.0047 U	0.0054 U	0.0072 U	0.005 U	0.0058 U
Isopropylbenzene	mg/kg	9,900	0.0078 U	N/A	0.0068 U	0.0052 U	0.0056 U	0.005 U	0.0061 U	0.0077 U	0.0064 U	0.0063 U	0.0047 U	0.0047 U	0.0054 U	0.0072 U	0.005 U	0.0058 U
Methyl Acetate	mg/kg	1,200,000	0.078 U	N/A	0.068 U	0.052 U	0.056 U	0.05 U	0.061 U	0.077 U	0.064 U	0.063 U	0.047 U	0.047 U	0.054 U	0.072 U	0.05 U	0.058 U
Methylene Chloride	mg/kg	1,000	0.0078 U	N/A	0.0068 U	0.0052 U	0.0056 U	0.005 U	0.0061 U	0.0077 U	0.0064 U	0.0063 U	0.0047 U	0.0047 U	0.0054 U	0.0072 U	0.005 U	0.0058 U
Styrene	mg/kg	35,000	**0.015**	N/A	0.0068 U	0.0052 U	0.0056 U	0.005 U	0.0061 U	0.0077 U	0.0064 U	0.0063 U	0.0047 U	0.0047 U	0.0054 U	0.0072 U	0.005 U	0.0058 U
Tetrachloroethene	mg/kg	100	0.0078 U	N/A	0.0068 U	0.0052 U	0.0056 U	0.005 U	0.0061 U	0.0077 U	0.0064 U	0.0063 U	0.0047 U	0.0047 U	0.0054 U	0.0072 U	0.005 U	0.0058 U
Toluene	mg/kg	47,000	**0.27**	N/A	0.0068 U	0.0052 U	**0.0031 J**	0.005 U	0.0061 U	**0.0042 J**	0.0064 U	**0.0044 J**	0.0047 U	0.0047 U	0.0054 U	0.0072 U	0.005 U	0.0058 U
Trichloroethene	mg/kg	6	0.0078 U	N/A	0.0068 U	0.0052 U	0.0056 U	0.005 U	0.0061 U	0.0077 U	0.0064 U	0.0063 U	0.0047 U	0.0047 U	0.0054 U	0.0072 U	0.005 U	0.0058 U
Xylenes	mg/kg	2,800	**0.6**	N/A	0.021 U	0.016 U	0.017 U	0.015 U	0.018 U	0.023 U	0.019 U	0.019 U	0.014 U	0.014 U	0.016 U	0.022 U	0.015 U	0.018 U
Semi-Volatile Organic Compounds^																		
1,1-Biphenyl	mg/kg	200	9.2 U	N/A	7.1 U	7.7 U	8 U	8.2 U	7.1 U	7.6 U	7.9 U	7.5 U	7.6 U	7.9 U	7.7 U	7.8 U	3.7 U	3.5 U
2,4-Dimethylphenol	mg/kg	16,000	9.2 U	N/A	7.1 U	7.7 U	8 U	8.2 U	7.1 U	7.6 U	7.9 U	7.5 U	7.6 U	7.9 U	7.7 U	7.8 U	3.7 U	3.5 U
2-Methylnaphthalene	mg/kg	3,000	**1.4**	N/A	**0.036 J**	0.15 U	**0.2**	**0.023**	0.14 U	**0.25**	**0.14 J**	**0.12**	**0.068**	**0.0035 J**	**0.2**	0.0078 U	**0.24**	**0.1**
2-Methylphenol	mg/kg	41,000	9.2 U	N/A	7.1 U	7.7 U	8 U	8.2 U	7.1 U	7.6 U	7.9 U	7.5 U	7.6 U	7.9 U	7.7 U	7.8 U	3.7 U	3.5 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	18.4 U	N/A	14.3 U	15.4 U	15.9 U	16.3 U	14.3 U	15.3 U	15.9 U	14.9 U	15.2 U	15.7 U	15.3 U	15.5 U	7.5 U	7 U
Acenaphthene	mg/kg	45,000	**0.078**	N/A	**0.03 J**	0.15 U	**0.53**	**0.16**	0.14 U	**0.0092**	0.16 U	**0.0075 J**	**0.052**	0.0078 U	**0.035**	0.0078 U	**0.037**	**0.016**
Acenaphthylene	mg/kg	45,000	**0.33**	N/A	**0.047 J**	**0.022 J**	**0.074 J**	**0.028**	**0.052 J**	**0.075**	**0.13 J**	**0.11**	**0.072**	**0.0018 J**	**0.1**	0.0078 U	**0.076**	**0.051**
Acetophenone	mg/kg	120,000	9.2 U	N/A	7.1 U	7.7 U	8 U	8.2 U	7.1 U	7.6 U	7.9 U	7.5 U	7.6 U	7.9 U	7.7 U	7.8 U	3.7 U	3.5 U
Anthracene	mg/kg	230,000	**0.3**	N/A	**0.067 J**	**0.023 J**	**1.3**	**0.41**	0.14 U	**0.11**	**0.12 J**	**0.032**	**0.27**	**0.003 J**	**0.27**	**0.00091 J**	**0.12**	**0.058**
Benz[a]anthracene	mg/kg	21.0	**0.26**	N/A	**0.34**	**0.087 J**	**2.6**	**1.5**	**0.1 J**	**0.37**	**0.76**	**0.13**	**0.85**	**0.0099**	**0.93**	**0.003 J**	**0.27**	**0.14**
Benzaldehyde	mg/kg	120,000	9.2 U	N/A	7.1 U	7.7 U	8 U	8.2 U	7.1 U	7.6 U	7.9 U	7.5 U	7.6 U	7.9 U	7.7 U	7.8 U	3.7 U	3.5 U
Benzo[a]pyrene	mg/kg	2.10	**0.13**	N/A	**0.26**	**0.057 J**	**1.8**	**1.1**	**0.031 J**	**0.29**	**0.56**	**0.12**	**1.3**	**0.0094 J**	**1.6**	**0.0012 J**	**0.31**	**0.12**
Benzo[b]fluoranthene	mg/kg	21.0	**0.29**	N/A	**0.65**	**0.14 J**	**3.8**	**1.6**	**0.14 J**	**0.59**	**1.5**	**0.27**	**2.1**	**0.019 J**	**3.6**	**0.0037 J**	**0.59**	**0.24**
Benzo[g,h,i]perylene	mg/kg		**0.044**	N/A	**0.13 J**	**0.049 J**	**0.85**	**0.48**	**0.05 J**	**0.08**	**0.29**	**0.053**	**0.73**	**0.0056 J**	**1.3**	0.0078 U	**0.18**	**0.078**
Benzo[k]fluoranthene	mg/kg	210	**0.093**	N/A	**0.64**	**0.14 J**	**3.8**	**0.64**	**0.13 J**	**0.24**	**1.5**	**0.093**	**0.82**	**0.0075 J**	**1.4**	**0.003 J**	**0.27**	**0.099**
bis(2-Ethylhexyl)phthalate	mg/kg	160	9.2 U	N/A	7.1 U	7.7 U	8 U	8.2 U	7.1 U	7.6 U	7.9 U	7.5 U	7.6 U	7.9 U	7.7 U	7.8 U	3.7 U	3.5 U
Carbazole	mg/kg		9.2 U	N/A	7.1 U	7.7 U	8 U	8.2 U	7.1 U	7.6 U	7.9 U	7.5 U	7.6 U	7.9 U	7.7 U	7.8 U	3.7 U	3.5 U
Chrysene	mg/kg	2,100	**0.29**	N/A	**0.44**	**0.082 J**	**2.6**	**1.4**	**0.061 J**	**0.6**	**0.82**	**0.24**	**0.86**	**0.014**	**1.1**	**0.0022 J**	**0.32**	**0.16**
Dibenz[a,h]anthracene	mg/kg	2.10	**0.021**	N/A	**0.051 J**	0.15 U	**0.4**	**0.22**	0.14 U	**0.058**	**0.11 J**	**0.03**	**0.38**	**0.0019 J**	**0.52**	0.0078 U	**0.056**	**0.026**
Di-n-butylphthalate	mg/kg	82,000	9.2 U	N/A	7.1 U	7.7 U	8 U	8.2 U	7.1 U	7.6 U	7.9 U	7.5 U	7.6 U	7.9 U	7.7 U	7.8 U	3.7 U	3.5 U
Di-n-ocytlphthalate	mg/kg	8,200	9.2 U	N/A	7.1 U	7.7 U	8 U	8.2 U	7.1 U	7.6 U	7.9 U	7.5 U	7.6 UJ	7.9 UJ	7.7 UJ	7.8 UJ	3.7 U	3.5 U
Fluoranthene	mg/kg	30,000	**0.65**	N/A	**0.61**	**0.1 J**	**5.6**	**5.8**	**0.03 J**	**0.65**	**1**	**0.23**	**2.9**	**0.018**	**3.3**	**0.0033 J**	**0.43**	**0.27**
Fluorene	mg/kg	30,000	**0.17**	N/A	**0.024 J**	0.15 U	**0.77**	**0.16**	0.14 U	**0.025**	**0.027 J**	**0.018**	**0.086**	**0.0019 J**	**0.053**	0.0078 U	**0.029**	**0.019**
Indeno[1,2,3-c,d]pyrene	mg/kg	21.0	**0.052**	N/A	**0.12 J**	**0.031 J**	**0.85**	**0.51**	0.14 U	**0.089**	**0.27**	**0.058**	**0.79**	**0.0051 J**	**1.3**	0.0078 U	**0.16**	**0.069**
Naphthalene	mg/kg	17.0	**72.9**	0.0086 B	**0.13 J**	0.15 U	**0.33**	**0.028**	**0.044 J**	**0.27**	**0.23**	**0.71**	**0.07**	0.0054 B	**0.25**	0.0018 B	**0.48**	**0.25**
Pentachlorophenol	mg/kg	4.00	0.23 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.19 UJ	0.2 UJ	0.19 UJ	0.19 UJ	0.19 U	0.18 U
Phenanthrene	mg/kg		**0.41**	N/A	**0.31**	**0.049 J**	**5.1**	**1.5**	**0.026 J**	**0.52**	**0.51**	**0.19**	**1.1**	**0.014**	**0.94**	**0.0023 J**	**0.46**	**0.22**
Phenol	mg/kg	250,000	9.2 U	N/A	7.1 U	7.7 U	8 U	8.2 U	7.1 U	7.6 U	7.9 U	7.5 U	7.6 U	7.9 U	7.7 U	7.8 U	3.7 U	3.5 U
Pyrene	mg/kg	23,000	**0.52**	N/A	**0.48**	**0.09 J**	**4.1**	**4.6**	**0.041 J**	**0.55**	**0.9**	**0.19**	**1.3**	**0.016**	**1.4**	**0.0034 J**	**0.4**	**0.25**
PCBs																		
Aroclor 1016	mg/kg	27	N/A	N/A	0.18 U	N/A	0.2 U	N/A	0.18 U	N/A	0.02 U	N/A	0.019 U	N/A	0.097 U	N/A	0.055 U	0.0538 U
Aroclor 1242	mg/kg	0.97	N/A	N/A	0.18 U	N/A	0.2 U	N/A	0.18 U	N/A	0.02 U	N/A	0.019 U	N/A	0.097 U	N/A	0.055 U	0.0538 U
Aroclor 1248	mg/kg	0.94	N/A	N/A	0.18 U	N/A	0.2 U	N/A	0.18 U	N/A	0.02 U	N/A	0.019 U	N/A	0.097 U	N/A	0.055 U	0.0538 U
Aroclor 1254	mg/kg	0.97	N/A	N/A	0.18 U	N/A	0.2 U	N/A	0.18 U	N/A	0.02 U	N/A	0.019 U	N/A	0.097 U	N/A	**0.0503 J**	**0.0712**
Aroclor 1260	mg/kg	0.99	N/A	N/A	0.18 U	N/A	0.2 U	N/A	0.18 U	N/A	0.02 U	N/A	0.019 U	N/A	0.097 U	N/A	0.055 U	0.0538 U
Aroclor 1262	mg/kg		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	0.055 U	0.0538 U
PCBs (total)	mg/kg	0.97	N/A	N/A	1.3 U	N/A	1.4 U	N/A	1.3 U	N/A	0.14 U	N/A	0.13 U	N/A	0.68 U	N/A	**0.0503 J**	**0.0712**
TPH																		
Diesel Range Organics	mg/kg	6,200	**198**	N/A	**359**	**69.6**	**253**	**15.4**	**227**	**52**	**70.5**	**67.6**	**65.2**	**5 J**	**318 J**	**11**	**276**	**110**
Gasoline Range Organics	mg/kg	6,200	16.8 U	N/A	12.1 U	10.9 U	11.2 U	9.8 U	14 U	**10.4 J**	14 U	17.3 U	10.8 U	9.5 U	**19.3**	**19.3**	10.3 U	9.6 U

Bold indicates detection
N/A: This parameter was not analyzed for this sample.
* Indicates non-validated
^ PAH compounds were analyzed for SIM
Red values indicate a detection exceedance of the Project Action Limit

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 5a
Summary of Organics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-019-SB-1*	B5-019-SB-4*	B5-020-SB-1*	B5-020-SB-3.5*	B5-021-SB-1*	B5-021-SB-5*	B5-022-SB-1*	B5-022-SB-5*	B5-023-SB-1*	B5-023-SB-5*	B5-024-SB-1	B5-025-SB-1	B5-025-SB-5	B5-026-SB-1	B5-027-SB-1
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	36,000	0.0045 U	0.0051 U	0.27 U	0.0051 U	0.0053 U	0.005 U	0.0057 U	0.0053 U	0.0074 U	0.0052 U	0.0061 U	0.0049 U	0.0048 U	0.0057 U	0.0051 U
1,1-Dichloroethane	mg/kg	16	0.0045 U	0.0051 U	0.27 U	0.0051 U	0.0053 U	0.005 U	0.0057 U	0.0053 U	0.0074 U	0.0052 U	0.0061 U	0.0049 U	0.0048 U	0.0057 U	0.0051 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0045 U	0.0051 U	0.27 U	0.0051 U	0.0053 U	0.005 U	0.0057 U	0.0053 U	0.0074 U	0.0052 U	0.0061 UJ	0.0049 UJ	0.0048 UJ	0.0057 UJ	0.0051 U
1,2,4-Trichlorobenzene	mg/kg	110	0.0045 U	0.0051 U	0.27 U	0.0051 U	0.0053 U	0.005 U	0.0057 U	0.0053 U	0.0074 U	0.0052 U	0.0061 UJ	0.0049 UJ	0.0048 UJ	0.0057 UJ	0.0051 U
2-Butanone (MEK)	mg/kg	190,000	**0.0055 J**	**0.0057 J**	0.55 U	0.01 U	0.011 U	0.01 U	**0.016**	0.011 U	0.015 U	0.01 U	0.012 U	0.0098 U	0.0096 U	0.011 U	0.01 U
2-Hexanone	mg/kg	1,300	0.009 U	0.01 U	0.55 U	0.01 U	0.011 U	0.01 U	0.011 U	0.011 U	0.015 U	0.01 U	0.012 U	0.0098 U	0.0096 U	0.011 U	0.01 UJ
Acetone	mg/kg	670,000	**0.064**	**0.033**	0.55 U	**0.02**	0.011 U	0.01 U	**0.084**	0.011 U	0.015 U	0.01 U	0.012 U	**0.04**	0.0096 U	0.011 U	0.01 U
Benzene	mg/kg	5.1	0.0045 U	0.0051 U	0.27 U	0.0051 U	0.0053 U	0.005 U	0.0057 U	0.0053 U	0.0074 U	0.0052 U	0.0061 U	0.0049 U	0.0048 U	0.0057 U	0.0051 U
Carbon tetrachloride	mg/kg	2.9	0.0045 U	0.0051 U	0.27 U	0.0051 U	0.0053 U	0.005 U	0.0057 U	0.0053 U	0.0074 U	0.0052 U	0.0061 U	0.0049 U	0.0048 U	0.0057 U	0.0051 U
Chloroform	mg/kg	1.4	0.0045 U	0.0051 U	0.27 U	0.0051 U	0.0053 U	0.005 U	0.0057 U	0.0053 U	0.0074 U	0.0052 U	0.0061 U	0.0049 U	0.0048 U	0.0057 U	0.0051 U
Cyclohexane	mg/kg	27,000	0.009 U	0.01 U	0.55 U	0.01 U	0.011 U	0.01 U	0.011 U	0.011 U	0.015 U	0.01 U	0.012 U	0.0098 U	0.0096 U	0.011 U	0.01 U
Ethylbenzene	mg/kg	25	0.0045 U	0.0051 U	**0.08 J**	0.0051 U	0.0053 U	0.005 U	0.0057 U	0.0053 U	0.0074 U	0.0052 U	0.0061 U	0.0049 U	0.0048 U	0.0057 U	0.0051 U
Isopropylbenzene	mg/kg	9,900	0.0045 U	0.0051 U	0.27 U	0.0051 U	0.0053 U	0.005 U	0.0057 U	0.0053 U	0.0074 U	0.0052 U	0.0061 U	0.0049 U	0.0048 U	0.0057 U	0.0051 U
Methyl Acetate	mg/kg	1,200,000	0.045 U	0.051 U	2.7 U	0.051 U	0.053 U	0.05 U	0.057 U	0.053 U	0.074 U	0.052 U	0.061 R	0.049 R	0.048 R	0.057 R	0.051 R
Methylene Chloride	mg/kg	1,000	0.0045 U	0.0051 U	0.27 U	0.0051 U	0.0053 U	0.005 U	0.0057 U	0.0053 U	0.0074 U	0.0052 U	0.0061 U	0.0049 U	0.0048 U	0.0057 U	0.0051 UJ
Styrene	mg/kg	35,000	0.0045 U	0.0051 U	0.27 U	0.0051 U	0.0053 U	0.005 U	0.0057 U	0.0053 U	0.0074 U	0.0052 U	0.0061 U	0.0049 U	0.0048 U	0.0057 U	0.0051 U
Tetrachloroethene	mg/kg	100	0.0045 U	0.0051 U	0.27 U	0.0051 U	0.0053 U	0.005 U	0.0057 U	0.0053 U	0.0074 U	0.0052 U	0.0061 U	0.0049 U	0.0048 U	0.0057 U	0.0051 U
Toluene	mg/kg	47,000	0.0045 U	0.0051 U	0.27 U	0.0051 U	0.0053 U	0.005 U	0.0057 U	0.0053 U	0.0074 U	0.0052 U	0.0061 U	0.0049 U	0.0048 U	0.0057 U	0.0051 U
Trichloroethene	mg/kg	6	0.0045 U	0.0051 U	0.27 U	0.0051 U	0.0053 U	0.005 U	0.0057 U	0.0053 U	0.0074 U	0.0052 U	0.0061 U	0.0049 U	0.0048 U	0.0057 U	0.0051 U
Xylenes	mg/kg	2,800	0.013 U	0.015 U	**0.52 J**	0.015 U	0.016 U	0.015 U	0.017 U	0.016 U	0.022 U	0.016 U	0.018 U	0.015 U	0.014 U	0.017 U	0.015 U
Semi-Volatile Organic Compounds^																	
1,1-Biphenyl	mg/kg	200	3.5 U	3.9 U	7.3 U	3.9 U	3.6 U	4 U	3.6 U	3.7 U	4.5 U	4 U	**0.64**	0.39 U	0.4 U	0.39 U	3.8 U
2,4-Dimethylphenol	mg/kg	16,000	3.5 U	3.9 U	7.3 U	3.9 U	3.6 U	4 U	3.6 U	3.7 U	4.5 U	4 U	**0.24 J**	0.39 U	0.4 U	0.39 U	3.8 U
2-Methylnaphthalene	mg/kg	3,000	**0.17**	**0.025**	**12.2**	**0.015**	**0.11 J**	**0.017**	**0.022**	**0.014**	**2.7**	**0.0035 J**	**7**	**0.085**	0.008 U	**0.11**	**0.15**
2-Methylphenol	mg/kg	41,000	3.5 U	3.9 U	7.3 U	3.9 U	3.6 U	4 U	3.6 U	3.7 U	4.5 U	4 U	**0.092 J**	0.39 U	0.4 U	0.39 U	3.8 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	7 U	7.9 U	14.5 U	7.8 U	7.1 U	8 U	7.1 U	7.3 U	8.9 U	8 U	**0.1 J**	0.78 U	0.8 U	0.78 U	7.5 U
Acenaphthene	mg/kg	45,000	**0.027**	**0.0037 J**	**0.72**	**0.0025 J**	**0.02 J**	**0.0048 J**	**0.0015 J**	**0.0011 J**	**0.085**	**0.00078 J**	**0.14 J**	**0.042**	0.008 U	**0.02**	**0.0087**
Acenaphthylene	mg/kg	45,000	**0.02**	**0.022**	**0.15**	**0.019**	**0.066 J**	**0.0048 J**	**0.023**	**0.0033 J**	**0.019**	**0.0063 J**	**0.081 J**	**0.022**	0.008 U	**0.057**	**0.011**
Acetophenone	mg/kg	120,000	3.5 U	3.9 U	7.3 U	3.9 U	3.6 U	4 U	3.6 U	3.7 U	4.5 U	4 U	**0.68**	**0.03 J**	0.4 U	**0.045 J**	3.8 U
Anthracene	mg/kg	230,000	**0.13**	**0.027**	**0.7**	**0.022**	**0.1 J**	**0.02**	**0.02**	**0.0084**	**0.12**	**0.0057 J**	**0.27**	**0.073**	**0.00079 J**	**0.054**	**0.032**
Benz[a]anthracene	mg/kg	21.0	**0.25**	**0.23**	**0.4**	**0.05**	**1**	**0.058**	**0.041**	**0.024**	**0.12**	**0.017**	**0.33**	**0.32**	**0.004 J**	**0.18**	**0.058**
Benzaldehyde	mg/kg	120,000	3.5 U	3.9 U	7.3 U	3.9 U	3.6 U	4 U	3.6 U	3.7 U	4.5 U	4 U	0.42 U	0.39 U	0.4 U	0.39 U	3.8 U
Benzo[a]pyrene	mg/kg	2.10	**0.38**	**0.25**	**0.41**	**0.059**	**2.4**	**0.064**	**0.056**	**0.023**	**0.11**	**0.027**	**0.19**	**0.32**	**0.0025 J**	**0.19**	**0.059 J**
Benzo[b]fluoranthene	mg/kg	21.0	**0.67**	**0.45**	**1**	**0.13**	**4**	**0.17**	**0.13**	**0.049**	**0.38**	**0.051**	**0.48**	**0.81**	**0.0071 J**	**0.57**	**0.19 J**
Benzo[g,h,i]perylene	mg/kg		**0.22**	**0.11**	**0.14 J**	**0.027**	**1.3**	**0.028**	**0.039**	**0.0091**	**0.056**	**0.011**	**0.17**	**0.15**	**0.0017 J**	**0.076**	**0.036 J**
Benzo[k]fluoranthene	mg/kg	210	**0.17**	**0.17**	**0.32**	**0.046**	**3.1**	**0.13**	**0.1**	**0.018**	**0.3**	**0.021**	**0.34**	**0.59**	**0.0021 J**	**0.4**	**0.19 J**
bis(2-Ethylhexyl)phthalate	mg/kg	160	3.5 U	3.9 U	7.3 U	3.9 U	3.6 U	4 U	3.6 U	3.7 U	4.5 U	4 U	0.42 U	0.39 U	0.4 U	0.39 U	3.8 U
Carbazole	mg/kg		3.5 U	3.9 U	7.3 U	3.9 U	3.6 U	4 U	3.6 U	3.7 U	4.5 U	4 U	**0.2 J**	0.39 U	0.4 U	0.39 U	3.8 U
Chrysene	mg/kg	2,100	**0.31**	**0.25**	**0.76**	**0.056**	**1**	**0.072**	**0.053**	**0.029**	**0.34**	**0.026**	**0.52**	**0.27**	**0.0033 J**	**0.19**	**0.11**
Dibenz[a,h]anthracene	mg/kg	2.10	**0.078**	**0.043**	0.15 U	**0.0064 J**	**0.5**	**0.011**	**0.012**	**0.0042 J**	**0.029**	**0.0037 J**	**0.051 J**	**0.063**	0.008 U	**0.034**	**0.012 J**
Di-n-butylphthalate	mg/kg	82,000	3.5 U	3.9 U	7.3 U	3.9 U	3.6 U	4 U	3.6 U	3.7 U	4.5 U	4 U	0.42 U	0.39 U	0.4 U	0.39 U	3.8 U
Di-n-ocytlphthalate	mg/kg	8,200	3.5 U	3.9 U	7.3 U	3.9 U	3.6 U	4 U	3.6 U	3.7 U	4.5 U	4 U	0.42 U	0.39 U	0.4 U	0.39 U	3.8 U
Fluoranthene	mg/kg	30,000	**0.39**	**0.29**	**1.2**	**0.081**	**1**	**0.13**	**0.054**	**0.047**	**0.26**	**0.023**	**0.48**	**0.42**	**0.0041 J**	**0.21**	**0.097**
Fluorene	mg/kg	30,000	**0.049**	**0.0068 J**	**1.2**	**0.007 J**	**0.021 J**	**0.0078 J**	**0.0028 J**	**0.0014 J**	**0.26**	0.0079 U	**0.29**	**0.026**	0.008 U	**0.015**	**0.013**
Indeno[1,2,3-c,d]pyrene	mg/kg	21.0	**0.19**	**0.11**	**0.089 J**	**0.025**	**1.2**	**0.029**	**0.036**	**0.009**	**0.03**	**0.01**	**0.07 J**	**0.14**	**0.0013 J**	**0.078**	**0.028 J**
Naphthalene	mg/kg	17.0	**0.19**	0.024 B	**4.2**	**0.039**	**0.11 J**	**0.035**	**0.027**	**0.017**	**1.5**	**0.0047 J**	**4.3**	**0.094**	0.0031 B	**0.57**	**0.093**
Pentachlorophenol	mg/kg	4.00	0.18 U	0.2 U	0.18 U	0.19 U	0.18 U	0.2 U	0.18 U	0.18 U	0.22 U	0.2 U	0.21 U	0.2 U	0.2 U	0.2 U	0.19 U*
Phenanthrene	mg/kg		**0.37**	**0.09**	**3.8**	**0.053**	**0.24**	**0.086**	**0.033**	**0.034**	**1.6**	**0.0092**	**2.9**	**0.35**	**0.0036 J**	**0.23**	**0.16**
Phenol	mg/kg	250,000	3.5 U	3.9 U	7.3 U	3.9 U	3.6 U	4 U	3.6 U	3.7 U	4.5 U	4 U	0.42 U	0.39 U	0.4 U	0.39 U	3.8 U
Pyrene	mg/kg	23,000	**0.39**	**0.32**	**1.1**	**0.081**	**1.1**	**0.1**	**0.052**	**0.039**	**0.22**	**0.022**	**0.47**	**0.35**	**0.003 J**	**0.17**	**0.084**
PCBs																	
Aroclor 1016	mg/kg	27	0.0523 U	N/A	0.0509 U	N/A	0.0524 U	N/A	0.0548 U	N/A	0.0671 U	N/A	0.0608 U	0.0588 U	N/A	0.0586 U	0.019 U
Aroclor 1242	mg/kg	0.97	0.0523 U	N/A	0.0509 U	N/A	0.0524 U	N/A	0.0548 U	N/A	0.0671 U	N/A	0.0608 U	0.0588 U	N/A	0.0586 U	0.019 U
Aroclor 1248	mg/kg	0.94	0.0523 U	N/A	0.0509 U	N/A	0.0524 U	N/A	0.0548 U	N/A	0.0671 U	N/A	0.0608 U	0.0588 U	N/A	0.0586 U	0.019 U
Aroclor 1254	mg/kg	0.97	**0.112**	N/A	0.0509 U	N/A	0.0524 U	N/A	0.0548 U	N/A	0.0671 U	N/A	0.0608 U	0.0588 U	N/A	0.0586 U	0.019 U
Aroclor 1260	mg/kg	0.99	0.0523 U	N/A	0.0509 U	N/A	**0.0303 J**	N/A	0.0548 U	N/A	0.0671 U	N/A	0.0608 U	**0.0304 J**	N/A	0.0586 U	0.019 U
Aroclor 1262	mg/kg		0.0523 U	N/A	0.0509 U	N/A	0.0524 U	N/A	0.0548 U	N/A	0.0671 U	N/A	0.0608 U	0.0588 U	N/A	0.0586 U	N/A
PCBs (total)	mg/kg	0.97	**0.112**	N/A	0.0509 U	N/A	**0.0303 J**	N/A	0.0548 U	N/A	0.0671 U	N/A	0.0608 U	**0.0304 J**	N/A	0.0586 U	0.13 U
TPH																	
Diesel Range Organics	mg/kg	6,200	**330**	**24.5**	**2,990**	**62.9**	**475**	**29.1**	**151**	**15.4**	**263**	7.7 U	**593**	**93.3**	8 U	**55.8**	**52.5**
Gasoline Range Organics	mg/kg	6,200	9.8 U	11.6 U	**32.6**	14.1 U	10.1 U	9.3 U	12.5 U	12.2 U	**15.2 J**	10.9 U	**29.1**	12.5 U	9.6 U	11.3 U	9.9 U

Bold indicates detection
N/A: This parameter was not analyzed for this sample.
* Indicates non-validated
^ PAH compounds were analyzed for SIM
Red values indicate a detection exceedance of the Project Action Limit

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 5a
Summary of Organics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-027-SB-5	B5-028-SB-1	B5-028-SB-4.5	B5-029-SB-1	B5-029-SB-5	B5-030-SB-1	B5-030-SB-4	B5-031-SB-1*	B5-032-SB-1*	B5-032-SB-5*	B5-033-SB-1*	B5-033-SB-8*	B5-034-SB-1*	B5-037-SB-1*	B5-037-SB-5*	B5-038-SB-1*
Volatile Organic Compounds																		
1,1,1-Trichloroethane	mg/kg	36,000	0.0053 U	0.0059 U	0.006 U	0.0055 U	0.0048 U	0.0057 U	0.0074 U	0.005 U	0.005 U	0.0057 U	0.25 U	0.29 U	0.004 U	0.0046 U	0.0047 U	0.0062 U
1,1-Dichloroethane	mg/kg	16	0.0053 U	0.0059 U	0.006 U	0.0055 U	0.0048 U	0.0057 U	0.0074 U	0.005 U	0.005 U	0.0057 U	0.25 U	0.29 U	0.004 U	0.0046 U	0.0047 U	0.0062 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0053 U	0.0059 U	0.006 U	0.0055 UJ	0.0048 UJ	0.0057 U	0.0074 UJ	0.005 U	0.005 U	0.0057 U	**0.24 J**	0.29 U	0.004 U	0.0046 U	0.0047 U	0.0062 U
1,2,4-Trichlorobenzene	mg/kg	110	0.0053 U	0.0059 U	0.006 U	0.0055 UJ	0.0048 UJ	0.0057 U	0.0074 UJ	0.005 U	0.005 U	0.0057 U	**0.22 J**	0.29 U	0.004 U	0.0046 U	0.0047 U	0.0062 U
2-Butanone (MEK)	mg/kg	190,000	0.011 U	0.012 U	0.012 U	0.011 U	0.0097 U	0.011 UJ	**0.026**	0.01 U	0.0099 U	0.011 U	0.5 U	0.59 U	0.0081 U	0.0092 U	0.0094 U	0.012 U
2-Hexanone	mg/kg	1,300	0.011 UJ	0.012 UJ	0.012 UJ	0.011 U	0.0097 U	0.011 U	0.015 U	0.01 U	0.0099 U	0.011 U	0.5 U	0.59 U	0.0081 U	0.0092 U	0.0094 U	0.012 U
Acetone	mg/kg	670,000	0.011 U	0.012 U	**0.075**	0.011 U	**0.03**	0.011 U	**0.032**	**0.093**	**0.089**	**0.078**	0.5 U	0.59 U	**0.086**	**0.05**	0.0094 U	0.012 U
Benzene	mg/kg	5.1	0.0053 U	0.0059 U	0.006 U	0.0055 U	0.0048 U	0.0057 U	0.0074 U	0.005 U	0.005 U	0.0057 U	0.25 U	0.29 U	**0.004 J**	0.0046 U	0.0047 U	0.0062 U
Carbon tetrachloride	mg/kg	2.9	0.0053 U	0.0059 U	0.006 U	0.0055 U	0.0048 U	0.0057 U	0.0074 U	0.005 U	0.005 U	0.0057 U	0.25 U	0.29 U	0.004 U	0.0046 U	0.0047 U	0.0062 U
Chloroform	mg/kg	1.4	**0.016**	0.0059 U	0.006 U	0.0055 U	0.0048 U	0.0057 U	0.0074 U	0.005 U	0.005 U	0.0057 U	0.25 U	0.29 U	0.004 U	0.0046 U	0.0047 U	0.0062 U
Cyclohexane	mg/kg	27,000	0.011 U	0.012 U	**0.0069 J**	0.011 U	0.0097 U	0.011 U	**0.012 J**	0.01 U	0.0099 U	0.011 U	0.5 U	0.59 U	0.0081 U	0.0092 U	0.0094 U	0.012 U
Ethylbenzene	mg/kg	25	0.0053 U	0.0059 U	0.006 U	0.0055 U	0.0048 U	0.0057 U	0.0074 U	0.005 U	0.005 U	0.0057 U	0.25 U	0.29 U	0.004 U	0.0046 U	0.0047 U	0.0062 U
Isopropylbenzene	mg/kg	9,900	0.0053 U	0.0059 U	0.006 U	0.0055 U	0.0048 U	0.0057 U	0.0074 U	0.005 U	0.005 U	0.0057 U	0.25 U	0.29 U	0.004 U	0.0046 U	0.0047 U	0.0062 U
Methyl Acetate	mg/kg	1,200,000	0.053 R	0.059 R	0.06 R	0.055 R	0.048 R	0.057 R	0.074 R	0.05 U	0.05 U	0.057 U	2.5 U	2.9 U	0.04 U	0.046 U	0.047 U	0.062 U
Methylene Chloride	mg/kg	1,000	0.0053 UJ	0.0059 UJ	0.006 UJ	0.0055 U	0.0048 U	0.0057 UJ	0.0074 U	0.005 U	0.005 U	0.0057 U	0.25 U	0.29 U	0.004 U	0.0046 U	0.0047 U	**0.017**
Styrene	mg/kg	35,000	0.0053 U	0.0059 U	0.006 U	0.0055 U	0.0048 U	0.0057 U	0.0074 U	0.005 U	0.005 U	0.0057 U	0.25 U	0.29 U	0.004 U	0.0046 U	0.0047 U	0.0062 U
Tetrachloroethene	mg/kg	100	**0.024**	0.0059 U	**0.033**	0.0055 U	0.0048 U	0.0057 U	0.0074 U	0.005 U	0.005 U	0.0057 U	0.25 U	0.29 U	0.004 U	0.0046 U	0.0047 U	0.0062 U
Toluene	mg/kg	47,000	0.0053 U	0.0059 U	0.006 U	0.0055 U	0.0048 U	0.0057 U	0.0074 U	0.005 U	0.005 U	0.0057 U	0.25 U	0.29 U	**0.0018 J**	0.0046 U	0.0047 U	0.0062 U
Trichloroethene	mg/kg	6	0.0053 U	0.0059 U	0.006 U	0.0055 U	0.0048 U	0.0057 U	0.0074 U	0.005 U	0.005 U	0.0057 U	0.25 U	0.29 U	0.004 U	0.0046 U	0.0047 U	0.0062 U
Xylenes	mg/kg	2,800	0.016 U	0.018 U	0.018 U	0.016 U	0.014 U	0.017 U	0.022 U	0.015 U	0.015 U	0.017 U	0.75 U	0.88 U	0.012 U	0.014 U	0.014 U	0.018 U
Semi-Volatile Organic Compounds^																		
1,1-Biphenyl	mg/kg	200	3.9 U	3.6 U	3.7 U	**0.066 J**	0.39 U	0.34 U	0.4 U	7.5 U	7.6 U	7.2 U	7.1 U	7.4 U	7.4 U	7 U	7.8 U	7.5 U
2,4-Dimethylphenol	mg/kg	16,000	3.9 U	3.6 U	3.7 U	0.4 U	0.39 U	0.34 U	0.4 U	7.5 U	7.6 U	7.2 U	7.1 U	7.4 U	7.4 U	7 U	7.8 U	7.5 U
2-Methylnaphthalene	mg/kg	3,000	**0.15**	**0.0014 J**	**0.089**	**0.2**	0.0079 U	**0.011**	**0.093**	**0.03**	**0.11**	**0.054**	3.6 U	0.37 U	**0.21**	0.14 U	**0.011**	0.15 U
2-Methylphenol	mg/kg	41,000	3.9 U	3.6 U	3.7 U	0.4 U	0.39 U	0.34 U	0.4 U	7.5 U	7.6 U	7.2 U	7.1 U	7.4 U	7.4 U	7 U	7.8 U	7.5 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	7.7 U	7.2 U	7.4 U	0.79 U	0.78 U	0.67 U	0.81 U	15.1 U	15.1 U	**2.4 J**	14.2 U	14.8 U	14.8 U	14 U	15.6 U	15 U
Acenaphthene	mg/kg	45,000	**0.025**	0.0073 U	**0.0095**	**0.015**	0.0079 U	0.0069 U	**0.024**	**0.021**	**0.077**	**0.0023 J**	3.6 U	0.37 U	**1**	0.14 U	0.008 U	**0.038 J**
Acenaphthylene	mg/kg	45,000	**0.14**	0.0073 U	**0.045**	**0.0088**	0.0079 U	0.0069 U	**0.049**	**0.0018 J**	**0.0096**	**0.0057 J**	**0.45 J**	**0.053 J**	**0.024 J**	**0.061 J**	**0.002 J**	**0.22**
Acetophenone	mg/kg	120,000	3.9 U	3.6 U	3.7 U	**0.05 J**	0.39 U	0.34 U	0.4 U	7.5 U	7.6 U	7.2 U	7.1 U	7.4 U	7.4 U	7 U	7.8 U	7.5 U
Anthracene	mg/kg	230,000	**0.13**	**0.0025 J**	**0.065**	**0.037**	0.0079 U	**0.0021 J**	**0.069**	**0.06**	**0.16**	**0.0084**	**0.099**	0.37 U	**0.8**	**0.19**	**0.0048 J**	**0.068 J**
Benz[a]anthracene	mg/kg	21.0	**0.39**	**0.0045 J**	**0.25**	**0.082 J**	**0.0037 J**	0.0069 UJ	**0.23**	**0.14**	**0.62**	**0.026**	**0.29**	**0.099**	**2.9**	**0.54**	**0.026**	**0.61**
Benzaldehyde	mg/kg	120,000	3.9 U	3.6 U	3.7 U	0.4 U	0.39 U	0.34 U	0.4 U	7.5 U	7.6 U	7.2 U	7.1 U	7.4 U	7.4 U	7 U	7.8 U	7.5 U
Benzo[a]pyrene	mg/kg	2.10	**0.45 J**	**0.0023 J**	**0.22 J**	**0.069 J**	**0.0024 J**	**0.016 J**	**0.2 J**	**0.12**	**0.76**	**0.05**	**0.46**	**0.22**	**1.4**	**0.47**	**0.025**	**1.1**
Benzo[b]fluoranthene	mg/kg	21.0	**1.3 J**	**0.0083**	**0.67 J**	**0.18 J**	**0.0076 J**	**0.031 J**	**0.64 J**	**0.38**	**2.7**	**0.24**	**1.1**	**0.42**	**4.1**	**1.2**	**0.054**	**1.3**
Benzo[g,h,i]perylene	mg/kg		**0.23 J**	**0.0023 J**	**0.11 J**	**0.056 J**	**0.0014 J**	**0.027 J**	**0.095 J**	**0.035**	**0.25**	**0.019**	**0.22**	**0.083**	**0.57**	**0.37**	**0.023**	**1.2**
Benzo[k]fluoranthene	mg/kg	210	**1.3 J**	**0.008**	**0.67 J**	**0.12 J**	**0.0023 J**	**0.018 J**	**0.45 J**	**0.37**	**2.7**	**0.24**	**1.1**	**0.42**	**2**	**1.1**	**0.052**	**0.6**
bis(2-Ethylhexyl)phthalate	mg/kg	160	3.9 U	3.6 U	3.7 U	0.4 UJ	0.39 U	0.34 UJ	0.4 U	7.5 U	7.6 U	7.2 U	7.1 U	7.4 U	7.4 U	7 U	7.8 U	7.5 U
Carbazole	mg/kg		3.9 U	3.6 U	3.7 U	0.4 U	0.39 U	0.34 U	0.4 U	7.5 U	7.6 U	7.2 U	7.1 U	7.4 U	7.4 U	7 U	7.8 U	7.5 U
Chrysene	mg/kg	2,100	**0.52**	**0.0043 J**	**0.33**	**0.14 J**	**0.003 J**	**0.07 J**	**0.19**	**0.2**	**0.87**	**0.064**	**0.42**	**0.13**	**4.6**	**0.69**	**0.029**	**0.64**
Dibenz[a,h]anthracene	mg/kg	2.10	**0.084 J**	0.0073 U	**0.048 J**	**0.022 J**	0.0079 U	**0.01 J**	**0.038 J**	**0.012**	**0.1**	0.0073 U	**0.079**	**0.032**	**0.22**	**0.091 J**	**0.0059 J**	**0.23**
Di-n-butylphthalate	mg/kg	82,000	3.9 U	3.6 U	3.7 U	0.4 U	0.39 U	0.34 U	0.4 U	7.5 U	7.6 U	7.2 U	7.1 U	7.4 U	7.4 U	7 U	7.8 U	7.5 U
Di-n-ocytlphthalate	mg/kg	8,200	3.9 U	3.6 U	3.7 U	0.4 UJ	0.39 U	0.34 UJ	0.4 U	7.5 U	7.6 U	7.2 U	7.1 U	7.4 U	7.4 U	7 U	7.8 U	7.5 U
Fluoranthene	mg/kg	30,000	**0.55**	**0.0068 J**	**0.44**	**0.13**	**0.0048 J**	**0.0079**	**0.37**	**0.43**	**1.5**	**0.04**	**0.61**	**0.097 J**	**6.2**	**0.73**	**0.037**	**0.51**
Fluorene	mg/kg	30,000	**0.024**	0.0073 U	**0.015**	**0.018**	0.0079 U	**0.0017 J**	**0.024**	**0.022**	**0.064**	**0.0018 J**	**0.49 J**	0.37 U	**0.46**	0.14 U	0.008 U	**0.014 J**
Indeno[1,2,3-c,d]pyrene	mg/kg	21.0	**0.21 J**	**0.0014 J**	**0.11 J**	**0.024 J**	**0.001 J**	0.0069 UJ	**0.089 J**	**0.026**	**0.23**	**0.015**	**0.2**	**0.078**	**0.57**	**0.27**	**0.016**	**0.76**
Naphthalene	mg/kg	17.0	**0.13**	0.0027 B	**0.08**	**0.24**	0.0079 U	0.0027 B	**0.12**	**0.026**	**0.32**	**0.044**	**41.2**	**2.8**	**0.23**	**0.12 J**	**0.1**	**0.33**
Pentachlorophenol	mg/kg	4.00	0.19 U*	0.18 U*	0.19 U*	0.2 U	0.2 U	0.17 U	0.2 U	0.19 U	0.19 U	0.18 U	0.18 U	0.19 U	0.19 U	0.18 U	0.2 U	0.19 U
Phenanthrene	mg/kg		**0.33**	**0.0064 J**	**0.29**	**0.24**	**0.0037 J**	**0.007**	**0.25**	**0.26**	**0.82**	**0.064**	**0.47**	**0.038 J**	**2.5**	**0.083 J**	**0.024**	**0.17**
Phenol	mg/kg	250,000	3.9 U	3.6 U	3.7 U	0.4 U	0.39 U	0.34 U	0.4 U	7.5 U	7.6 U	**8.9**	7.1 U	7.4 U	7.4 U	7 U	7.8 U	7.5 U
Pyrene	mg/kg	23,000	**0.57**	**0.0051 J**	**0.35**	**0.1**	**0.0035 J**	**0.025**	**0.28**	**0.37**	**1.2**	**0.035**	**0.54**	**0.11 J**	**5.4**	**0.96**	**0.034**	**0.54**
PCBs																		
Aroclor 1016	mg/kg	27	N/A	0.019 U	N/A	0.0531 U	N/A	0.0529 U	N/A	0.019 U	0.019 U	N/A	0.091 U	N/A	0.092 U	0.18 U	N/A	0.19 U
Aroclor 1242	mg/kg	0.97	N/A	0.019 U	N/A	0.0531 U	N/A	0.0529 U	N/A	0.019 U	0.019 U	N/A	0.091 U	N/A	0.092 U	0.18 U	N/A	0.19 U
Aroclor 1248	mg/kg	0.94	N/A	0.019 U	N/A	0.0531 U	N/A	0.0529 U	N/A	0.019 U	0.019 U	N/A	0.091 U	N/A	0.092 U	0.18 U	N/A	0.19 U
Aroclor 1254	mg/kg	0.97	N/A	0.019 U	N/A	0.0531 U	N/A	0.0529 U	N/A	0.019 U	0.019 U	N/A	0.091 U	N/A	0.092 U	0.18 U	N/A	0.19 U
Aroclor 1260	mg/kg	0.99	N/A	0.019 U	N/A	0.0531 U	N/A	0.0529 U	N/A	0.019 U	0.019 U	N/A	0.091 U	N/A	0.092 U	0.18 U	N/A	0.19 U
Aroclor 1262	mg/kg		N/A	N/A	N/A	0.0531 U	N/A	0.0529 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCBs (total)	mg/kg	0.97	N/A	0.13 U	N/A	0.0531 U	N/A	0.0529 U	N/A	0.13 U	0.13 U	N/A	0.64 U	N/A	0.64 U	1.2 U	N/A	1.3 U
TPH																		
Diesel Range Organics	mg/kg	6,200	**76.9**	**22.9**	**57.2**	**252**	7.9 U	**300**	**54.8**	**76.5**	**300**	**133**	**222**	**8.9**	**559**	**158**	**22.5**	**153**
Gasoline Range Organics	mg/kg	6,200	20.3 U	11.9 U	17.3 U	12.2 U	9.4 U	13.6 U	18.2 U	10 U	10.3 U	11.4 U	10.4 U	12 U	10.5 U	11.9 U	12.1 U	5 U

Bold indicates detection
N/A: This parameter was not analyzed for this sample.
* Indicates non-validated
^ PAH compounds were analyzed for SIM
Red values indicate a detection exceedance of the Project Action Limit

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 5a
Summary of Organics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-038-SB-5*	B5-039-SB-1	B5-039-SB-5	B5-040-SB-1	B5-040-SB-5	B5-041-SB-1	B5-042-SB-1	B5-043-SB-1	B5-043-SB-5	B5-044-SB-1	B5-044-SB-5	B5-045-SB-1	B5-045-SB-5	B5-046-SB-1	B5-046-SB-5	B5-047-SB-1
Volatile Organic Compounds																		
1,1,1-Trichloroethane	mg/kg	36,000	0.0052 U	0.0045 U	0.0049 U	0.0043 U	0.0058 U	0.0067 U	0.0056 U	0.0046 U	0.0041 U	0.006 U	0.005 U	0.0049 U	**0.048**	0.0052 U	0.0045 U	0.0049 U
1,1-Dichloroethane	mg/kg	16	0.0052 U	0.0045 U	0.0049 U	0.0043 U	0.0058 U	0.0067 U	0.0056 U	0.0046 U	0.0041 U	0.006 U	0.005 U	0.0049 U	**0.0033 J**	0.0052 U	0.0045 U	0.0049 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0052 U	0.0045 U	0.0049 U	0.0043 U	0.0058 U	0.0067 U	0.0056 U	0.0046 U	0.0041 U	0.006 U	0.005 U	0.0049 U	0.0054 U	0.0052 U	0.0045 U	0.0049 U
1,2,4-Trichlorobenzene	mg/kg	110	0.0052 U	0.0045 U	0.0049 U	0.0043 U	0.0058 U	0.0067 U	0.0056 U	0.0046 U	0.0041 U	0.006 U	0.005 U	0.0049 U	0.0054 U	0.0052 U	0.0045 U	0.0049 U
2-Butanone (MEK)	mg/kg	190,000	0.01 U	0.0091 U	0.0098 U	0.0086 U	0.012 U	0.013 U	0.011 U	0.0092 U	0.0082 U	0.012 U	0.01 U	0.0098 U	0.011 U	0.01 U	0.009 U	0.0098 U
2-Hexanone	mg/kg	1,300	0.01 U	0.0091 U	0.0098 U	0.0086 U	0.012 U	0.013 U	0.011 U	0.0092 U	0.0082 U	0.012 U	0.01 U	0.0098 U	0.011 U	0.01 U	0.009 U	0.0098 U
Acetone	mg/kg	670,000	0.01 U	**0.05**	0.0098 U	**0.031**	**0.046**	0.013 U	**0.037**	**0.04**	**0.028**	**0.043**	0.01 U	0.0098 U	**0.043**	0.01 UJ	0.009 UJ	**0.073 J**
Benzene	mg/kg	5.1	**0.0071**	0.0045 U	0.0049 U	0.0043 U	0.0058 U	0.0067 U	0.0056 U	0.0046 U	0.0041 U	0.006 U	0.005 U	0.0049 U	0.0054 U	0.0052 U	0.0045 U	0.0049 U
Carbon tetrachloride	mg/kg	2.9	0.0052 U	0.0045 U	0.0049 U	0.0043 U	0.0058 U	0.0067 U	0.0056 U	0.0046 U	0.0041 U	0.006 U	0.005 U	0.0049 U	**0.0075**	0.0052 U	0.0045 U	0.0049 U
Chloroform	mg/kg	1.4	0.0052 U	0.0045 U	0.0049 U	0.0043 U	0.0058 U	0.0067 U	0.0056 U	0.0046 U	0.0041 U	0.006 U	0.005 U	0.0049 U	0.0054 U	0.0052 U	0.0045 U	0.0049 U
Cyclohexane	mg/kg	27,000	0.01 U	0.0091 U	0.0098 U	0.0086 U	0.012 U	0.013 U	0.011 U	0.0092 U	0.0082 U	0.012 U	0.01 U	0.0098 U	**0.007 J**	0.01 U	0.009 U	0.0098 U
Ethylbenzene	mg/kg	25	0.0052 U	0.0045 U	0.0049 U	0.0043 U	0.0058 U	0.0067 U	0.0056 U	0.0046 U	0.0041 U	0.006 U	0.005 U	0.0049 U	0.0054 U	0.0052 U	0.0045 U	0.0049 U
Isopropylbenzene	mg/kg	9,900	0.0052 U	0.0045 U	0.0049 U	0.0043 U	0.0058 U	0.0067 U	0.0056 U	0.0046 U	0.0041 U	0.006 U	0.005 U	0.0049 U	0.0054 U	0.0052 U	0.0045 U	0.0049 U
Methyl Acetate	mg/kg	1,200,000	0.052 U	0.045 U	0.049 U	0.043 U	0.058 U	0.067 R	0.056 R	0.046 R	0.041 R	0.06 R	0.05 R	0.049 R	0.054 R	0.052 U	0.045 U	0.049 U
Methylene Chloride	mg/kg	1,000	0.0052 U	0.0045 U	0.0049 U	0.0043 U	0.0058 U	0.0067 U	0.0056 U	0.0046 U	0.0041 U	0.006 U	0.005 U	0.0049 U	0.0054 U	0.0052 U	0.0045 U	0.0049 U
Styrene	mg/kg	35,000	0.0052 U	0.0045 U	0.0049 U	0.0043 U	0.0058 U	0.0067 U	0.0056 U	0.0046 U	0.0041 U	0.006 U	0.005 U	0.0049 U	0.0054 U	0.0052 U	0.0045 U	0.0049 U
Tetrachloroethene	mg/kg	100	0.0052 U	0.0045 U	0.0049 U	**0.0042 J**	**0.0038 J**	0.0067 U	0.0056 U	0.0046 U	0.0041 U	**0.014**	0.005 U	0.0049 U	**0.0047 J**	0.0052 U	0.0045 U	0.0049 U
Toluene	mg/kg	47,000	**0.0076**	0.0045 U	0.0049 U	0.0043 U	0.0058 U	0.0067 U	0.0056 U	0.0046 U	0.0041 U	0.006 U	0.005 U	0.0049 U	0.0054 U	0.0052 U	0.0045 U	0.0049 U
Trichloroethene	mg/kg	6	0.0052 U	0.0045 U	0.0049 U	0.0043 U	0.0058 U	0.0067 U	0.0056 U	**0.0021 J**	0.0041 U	0.006 U	0.005 U	0.0049 U	0.0054 U	0.0052 U	0.0045 U	0.0049 U
Xylenes	mg/kg	2,800	0.016 U	0.014 U	0.015 U	0.013 U	0.018 U	0.02 U	0.017 U	0.014 U	0.012 U	0.018 U	0.015 U	0.015 U	0.016 U	0.016 U	0.013 U	0.015 U
Semi-Volatile Organic Compounds^																		
1,1-Biphenyl	mg/kg	200	7.9 U	7.3 U	7.3 U	7.3 U	8.6 U	7.3 U	7.4 U	7.5 U	8 U	7.5 U	7.7 U	7.5 U	7.2 U	7.3 U	7.9 U	7.4 U
2,4-Dimethylphenol	mg/kg	16,000	7.9 U	7.3 U	7.3 U	7.3 U	8.6 U	7.3 U	7.4 U	7.5 U	8 U	7.5 U	7.7 U	7.5 U	7.2 U	7.3 U	7.9 U	7.4 U
2-Methylnaphthalene	mg/kg	3,000	**0.88**	0.0074 U	**0.075**	**0.0097**	**0.13**	0.15 U	**0.022 J**	**0.35**	**0.07**	**0.091 J**	0.0077 U	**0.073 J**	**0.036**	**0.014**	0.0078 U	**0.095**
2-Methylphenol	mg/kg	41,000	7.9 U	7.3 U	7.3 U	7.3 U	8.6 U	7.3 U	7.4 U	7.5 U	8 U	7.5 U	7.7 U	7.5 U	7.2 U	7.3 U	7.9 U	7.4 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	15.8 U	14.6 U	14.6 U	14.6 U	17.2 U	14.5 U	14.8 U	15 U	16.1 U	15.1 U	15.4 U	15 U	14.4 U	14.6 U	15.7 U	14.8 U
Acenaphthene	mg/kg	45,000	**0.041 J**	0.0074 U	**0.0065 J**	0.0073 U	**0.0073 J**	0.15 U	0.15 U	0.15 U	**0.58**	**0.021 J**	0.0077 U	**0.019 J**	**0.0036 J**	**0.0015 J**	**0.0027 J**	**0.028**
Acenaphthylene	mg/kg	45,000	**0.25**	**0.00074 J**	**0.0074 J**	0.0073 U	**0.014**	0.15 U	0.15 U	**0.09 J**	**0.023**	**0.15**	0.0077 U	**0.087 J**	**0.024**	**0.0014 J**	0.0078 U	**0.0015 J**
Acetophenone	mg/kg	120,000	7.9 U	7.3 U	7.3 U	7.3 U	8.6 U	7.3 U	7.4 U	7.5 U	8 U	7.5 U	7.7 U	7.5 U	7.2 U	7.3 U	7.9 U	7.4 U
Anthracene	mg/kg	230,000	**0.11 J**	0.0074 U	**0.052**	**0.0047 J**	**0.043**	**0.022 J**	0.15 U	**0.1 J**	**1.2**	**0.14 J**	0.0077 U	**0.099 J**	**0.037**	**0.0045 J**	0.0078 U	**0.0092**
Benz[a]anthracene	mg/kg	21.0	**0.18**	**0.002 J**	**0.37**	**0.024**	**0.12**	**0.061 J**	**0.04 J**	**0.34**	**1.6**	**0.74**	0.0077 U	**0.48**	**0.11**	**0.013**	0.0078 U	**0.0039 J**
Benzaldehyde	mg/kg	120,000	7.9 U	7.3 U	7.3 U	7.3 U	8.6 U	7.3 U	7.4 U	7.5 U	8 U	7.5 U	7.7 U	7.5 U	7.2 U	7.3 U	7.9 U	7.4 U
Benzo[a]pyrene	mg/kg	2.10	**0.19**	**0.0011 J**	**0.38**	**0.026**	**0.096**	**0.037 J**	**0.032 J**	**0.31**	**1.5**	**0.59**	**0.0017 J**	**0.38**	**0.097**	**0.011**	0.0078 U	**0.011 J**
Benzo[b]fluoranthene	mg/kg	21.0	**0.4**	**0.003 J**	**1.4**	**0.04**	**0.19**	**0.2**	**0.12 J**	**0.79**	**2.9**	**1.5**	**0.003 J**	**1.3**	**0.18**	**0.026**	0.0078 U	**0.026 J**
Benzo[g,h,i]perylene	mg/kg		**0.21**	**0.0018 J**	**0.45**	**0.026**	**0.081**	**0.069 J**	**0.032 J**	**0.23**	**0.7**	**0.27**	0.0077 U	**0.27**	**0.032**	**0.0091**	0.0078 U	0.074 U
Benzo[k]fluoranthene	mg/kg	210	**0.4**	**0.001 J**	**1.4**	**0.026**	**0.068**	**0.2**	**0.12 J**	**0.78**	**0.88**	**0.53**	**0.0012 J**	**1.3**	**0.066**	**0.011**	0.0078 U	**0.021 J**
bis(2-Ethylhexyl)phthalate	mg/kg	160	7.9 U	7.3 U	7.3 U	7.3 U	8.6 U	7.3 U	7.4 U	7.5 U	8 U	7.5 U	7.7 U	7.5 U	7.2 U	7.3 U	7.9 U	7.4 U
Carbazole	mg/kg		7.9 U	7.3 UJ	7.3 UJ	7.3 UJ	8.6 UJ	7.3 U	7.4 U	7.5 U	8 U	7.5 U	7.7 U	7.5 U	7.2 U	7.3 U	7.9 U	7.4 U
Chrysene	mg/kg	2,100	**0.18**	**0.0025 J**	**0.75**	**0.032**	**0.32**	**0.14 J**	**0.08 J**	**0.37**	**1.6**	**0.98**	**0.0012 J**	**0.79**	**0.12**	**0.02**	0.0078 U	**0.0061 J**
Dibenz[a,h]anthracene	mg/kg	2.10	0.16 U	0.0074 U	**0.21**	**0.0091**	**0.045**	0.15 U	0.15 U	**0.072 J**	**0.22**	**0.11 J**	0.0077 U	**0.097 J**	**0.014**	**0.0025 J**	0.0078 U	0.074 U
Di-n-butylphthalate	mg/kg	82,000	7.9 U	7.3 U	7.3 U	7.3 U	8.6 U	7.3 U	7.4 U	7.5 U	8 U	7.5 U	7.7 U	7.5 U	7.2 U	7.3 U	7.9 U	7.4 U
Di-n-octylphthalate	mg/kg	8,200	7.9 U	7.3 UJ	7.3 UJ	7.3 UJ	8.6 UJ	7.3 U	7.4 U	7.5 U	8 U	7.5 U	7.7 U	7.5 U	7.2 U	7.3 U	7.9 U	7.4 U
Fluoranthene	mg/kg	30,000	**0.18**	**0.0027 J**	**0.42**	**0.027**	**0.2**	**0.26**	**0.1 J**	**0.65**	**6.6**	**1.9**	**0.002 J**	**1.5**	**0.29**	**0.034**	**0.0064 J**	**0.024**
Fluorene	mg/kg	30,000	**0.17**	0.0074 U	**0.0064 J**	**0.00067 J**	**0.011**	**0.02 J**	0.15 U	**0.021 J**	**0.59**	**0.046 J**	0.0077 U	**0.024 J**	**0.016**	**0.0016 J**	**0.0015 J**	**0.0021 J**
Indeno[1,2,3-c,d]pyrene	mg/kg	21.0	**0.17**	**0.0012 J**	**0.39**	**0.022**	**0.063**	**0.03 J**	**0.019 J**	**0.22**	**0.72**	**0.28**	0.0077 U	**0.23**	**0.037**	**0.0074**	0.0078 U	0.074 U
Naphthalene	mg/kg	17.0	**13.1**	0.0032 B	**0.055**	0.0067 B	**0.095**	**0.2**	**0.2**	**0.62**	**0.033**	**0.23**	0.0067 B	**0.2**	**3.7**	**0.011**	0.0078 U	**0.17**
Pentachlorophenol	mg/kg	4.00	0.2 U	N/A	N/A	N/A	N/A	0.18 R	0.19 R	0.19 R	0.2 R	0.19 R	0.19 R	0.19 R	0.18 R	0.18 UJ	0.2 UJ	0.19 UJ
Phenanthrene	mg/kg		**0.36**	**0.0021 J**	**0.22**	**0.025**	**0.22**	**0.096 J**	**0.066 J**	**0.46**	**7.5**	**0.49**	**0.0014 J**	**0.54**	**0.19**	**0.036**	**0.012**	**0.052**
Phenol	mg/kg	250,000	7.9 U	7.3 U	7.3 U	7.3 U	8.6 U	7.3 U	7.4 U	7.5 U	8 U	7.5 U	7.7 U	7.5 U	7.2 U	7.3 U	7.9 U	7.4 U
Pyrene	mg/kg	23,000	**0.17**	**0.0019 J**	**0.32**	**0.023**	**0.15**	**0.21**	**0.093 J**	**0.49**	**5.2**	**1.9**	**0.0019 J**	**1.3**	**0.21**	**0.03**	**0.0067 J**	**0.015**
PCBs																		
Aroclor 1016	mg/kg	27	N/A	0.018 U	N/A	0.018 U	N/A	0.36 U	0.37 U	0.19 U	N/A	0.19 U	N/A	0.19 U	N/A	0.018 U	N/A	0.018 U
Aroclor 1242	mg/kg	0.97	N/A	0.018 U	N/A	0.018 U	N/A	0.36 U	0.37 U	0.19 U	N/A	0.19 U	N/A	0.19 U	N/A	0.018 U	N/A	0.018 U
Aroclor 1248	mg/kg	0.94	N/A	0.018 U	N/A	0.018 U	N/A	0.36 U	0.37 U	0.19 U	N/A	0.19 U	N/A	0.19 U	N/A	0.018 U	N/A	0.018 U
Aroclor 1254	mg/kg	0.97	N/A	0.018 U	N/A	0.018 U	N/A	0.36 U	0.37 U	0.19 U	N/A	0.19 U	N/A	0.19 U	N/A	0.018 U	N/A	0.018 U
Aroclor 1260	mg/kg	0.99	N/A	**0.012 J**	N/A	0.018 U	N/A	**0.08 J**	**0.065 J**	**0.029 J**	N/A	**0.13 J**	N/A	**0.066 J**	N/A	0.018 U	N/A	0.018 U
Aroclor 1262	mg/kg		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
PCBs (total)	mg/kg	0.97	N/A	0.13 U	N/A	0.13 U	N/A	2.5 U	2.6 U	1.3 U	N/A	1.3 U	N/A	1.3 U	N/A	0.13 U	N/A	0.13 U
TPH																		
Diesel Range Organics	mg/kg	6,200	**222**	**8.3**	**78.5**	**75**	**109**	**177**	**349**	**38.3**	**5.4 J**	**262**	**5.4 J**	**305**	**30**	**49.2**	**13.7**	**12.8**
Gasoline Range Organics	mg/kg	6,200	12.2 U	9.4 U	10.5 U	12.7 U	12.1 U	10.6 U	11.1 U	10.4 U	10.3 U	11.2 U	10.2 U	9.3 U	**7.2 J**	9.5 U	9.5 U	10.9 U

Bold indicates detection
N/A: This parameter was not analyzed for this sample.
* Indicates non-validated
^ PAH compounds were analyzed for SIM
Red values indicate a detection exceedance of the Project Action Limit

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 5a
Summary of Organics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-047-SB-4	B5-048-SB-1	B5-049-SB-1	B5-050-SB-1	B5-050-SB-5	B5-051-SB-1	B5-051-SB-5	B5-052-SB-1	B5-053-SB-1	B5-053-SB-9	B5-054-SB-1*	B5-054-SB-4*	B5-055-SB-1*	B5-056-SB-1	B5-056-SB-5	B5-057-SB-1
Volatile Organic Compounds																		
1,1,1-Trichloroethane	mg/kg	36,000	0.29 U	0.0056 U	0.0054 U	0.0049 U	0.33 U	0.0051 U	0.23 U	0.21 U	0.0045 U	0.0049 U	0.0059 U	0.0048 U	0.005 U	0.0052 U	0.0047 U	0.0047 U
1,1-Dichloroethane	mg/kg	16	0.29 U	0.0056 U	0.0054 U	0.0049 U	0.33 U	0.0051 U	0.23 U	0.21 U	0.0045 U	0.0049 U	0.0059 U	0.0048 U	0.005 U	0.0052 U	0.0047 U	0.0047 U
1,2,3-Trichlorobenzene	mg/kg	930	0.29 U	0.0056 UJ	0.0054 UJ	0.0049 U	0.33 U	0.0051 U	0.23 U	0.21 U	0.0045 U	0.0049 UJ	0.0059 U	0.0048 U	0.005 U	0.0052 U	0.0047 U	0.0047 U
1,2,4-Trichlorobenzene	mg/kg	110	0.29 U	0.0056 UJ	0.0054 UJ	0.0049 U	0.33 U	0.0051 U	0.23 U	0.21 U	0.0045 U	0.0049 UJ	0.0059 U	0.0048 U	0.005 U	0.0052 U	0.0047 U	0.0047 U
2-Butanone (MEK)	mg/kg	190,000	0.59 U	0.011 U	0.011 U	0.0098 U	0.66 U	0.01 U	0.46 U	0.42 U	0.009 U	0.0098 U	**0.027**	0.0095 U	0.01 U	0.01 U	0.0094 U	0.0094 U
2-Hexanone	mg/kg	1,300	0.59 U	0.011 U	0.011 U	0.0098 U	0.66 U	0.01 U	0.46 U	0.42 U	0.009 U	0.0098 U	0.012 U	0.0095 U	0.01 U	0.01 U	0.0094 U	0.0094 U
Acetone	mg/kg	670,000	0.59 UJ	0.011 U	0.011 U	**0.055**	0.66 UJ	0.01 UJ	0.46 UJ	0.42 U	**0.027**	**0.034**	**0.54**	**0.01**	**0.14**	**0.055 J**	**0.028 J**	**0.031 J**
Benzene	mg/kg	5.1	0.29 U	0.0056 U	0.0054 U	0.0049 U	0.33 U	0.0051 U	0.23 U	0.21 U	0.0045 U	0.0049 U	0.0059 U	0.0048 U	0.005 U	0.0052 U	0.0047 U	0.0047 U
Carbon tetrachloride	mg/kg	2.9	0.29 U	0.0056 U	0.0054 U	0.0049 U	0.33 U	0.0051 U	0.23 U	0.21 U	0.0045 U	0.0049 U	0.0059 U	0.0048 U	0.005 U	0.0052 U	0.0047 U	0.0047 U
Chloroform	mg/kg	1.4	0.29 U	0.0056 U	0.0054 U	0.0049 U	0.33 U	0.0051 U	0.23 U	0.21 U	0.0045 U	0.0049 U	0.0059 U	0.0048 U	0.005 U	0.0052 U	0.0047 U	0.0047 U
Cyclohexane	mg/kg	27,000	0.59 U	0.011 U	0.011 U	0.0098 U	0.66 U	0.01 U	0.46 U	**0.21 J**	0.009 U	0.0098 U	0.012 U	0.0095 U	0.01 U	0.01 U	0.0094 U	0.0094 U
Ethylbenzene	mg/kg	25	0.29 U	0.0056 U	0.0054 U	0.0049 U	0.33 U	0.0051 U	**0.58**	0.21 U	0.0045 U	0.0049 U	0.0059 U	0.0048 U	0.005 U	0.0052 U	0.0047 U	0.0047 U
Isopropylbenzene	mg/kg	9,900	0.29 U	0.0056 U	0.0054 U	0.0049 U	0.33 U	0.0051 U	**0.71**	0.21 U	0.0045 U	0.0049 UJ	0.0059 U	0.0048 U	0.005 U	0.0052 U	0.0047 U	0.0047 U
Methyl Acetate	mg/kg	1,200,000	2.9 U	0.056 R	0.054 R	0.049 U	3.3 U	0.051 U	2.3 U	2.1 U	0.045 U	0.049 U	0.059 U	0.048 U	0.05 U	0.052 U	0.047 U	0.047 U
Methylene Chloride	mg/kg	1,000	0.29 U	0.0056 U	0.0054 U	0.0049 U	0.33 U	0.0051 U	0.23 U	0.21 U	0.0045 U	0.0049 U	0.0059 U	0.0048 U	0.005 U	0.0052 U	0.0047 U	0.0047 U
Styrene	mg/kg	35,000	0.29 U	0.0056 U	0.0054 U	0.0049 U	0.33 U	0.0051 U	0.23 U	0.21 U	0.0045 U	0.0049 U	0.0059 U	0.0048 U	0.005 U	0.0052 U	0.0047 U	0.0047 U
Tetrachloroethene	mg/kg	100	0.29 U	0.0056 U	0.0054 U	0.0049 U	0.33 U	0.0051 U	0.23 U	0.21 U	0.0045 U	0.0049 U	0.0059 U	0.0048 U	0.005 U	0.0052 U	0.0047 U	0.0047 U
Toluene	mg/kg	47,000	0.29 U	0.0056 U	0.0054 U	0.0049 U	0.33 U	0.0051 U	0.23 U	**0.45**	0.0045 U	0.0049 U	0.0059 U	0.0048 U	0.005 U	0.0052 U	0.0047 U	0.0047 U
Trichloroethene	mg/kg	6	0.29 U	0.0056 U	0.0054 U	0.0049 U	0.33 U	0.0051 U	0.23 U	0.21 U	0.0045 U	0.0049 U	0.0059 U	0.0048 U	0.005 U	0.0052 U	0.0047 U	0.0047 U
Xylenes	mg/kg	2,800	0.88 U	0.017 U	0.016 U	0.015 U	0.99 U	0.015 U	**1.7**	**0.88**	0.013 U	0.015 U	0.018 U	0.014 U	0.015 U	0.016 U	0.014 U	0.014 U
Semi-Volatile Organic Compounds^																		
1,1-Biphenyl	mg/kg	200	8.3 U	**0.11 J**	0.4 U	7.4 U	7.9 U	7.4 U	7.9 U	7.1 U	7.8 U	8 U	3.7 U	**0.77 J**	3.7 U	6.8 U	7.2 U	7.3 U
2,4-Dimethylphenol	mg/kg	16,000	8.3 U	0.37 U	0.4 U	7.4 U	7.9 U	7.4 U	7.9 U	7.1 U	7.8 U	8 U	3.7 U	3.6 U	3.7 U	6.8 U	7.2 U	7.3 U
2-Methylnaphthalene	mg/kg	3,000	**0.08**	**0.55**	**0.043 J**	**0.11**	**0.0065 J**	**0.051**	**3.2**	**1.2**	**0.22**	**0.34**	**1.3**	**0.64**	**0.49**	0.007 U	0.0072 U	**0.0018 J**
2-Methylphenol	mg/kg	41,000	8.3 U	0.37 U	0.4 U	7.4 U	7.9 U	7.4 U	7.9 U	7.1 U	7.8 U	8 U	3.7 U	3.6 U	3.7 U	6.8 U	7.2 U	7.3 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	16.6 U	0.75 U	0.81 U	14.8 U	15.7 U	14.7 U	15.9 U	14.1 U	15.7 U	16.1 U	7.3 U	7.2 U	7.5 U	13.7 U	14.3 U	14.5 U
Acenaphthene	mg/kg	45,000	**0.048**	**0.11 J**	**0.085 J**	**0.024**	**0.65**	**0.0051 J**	**3.3**	**0.017**	**0.13**	**0.0049 J**	**0.096**	**0.1**	**0.071**	0.007 U	0.0072 U	0.0073 U
Acenaphthylene	mg/kg	45,000	**0.02**	**0.11 J**	**0.063 J**	**0.095**	**0.15**	**0.0083**	**0.78**	**0.016**	**0.012**	**0.036**	**0.11**	**0.072**	**0.0045 J**	0.007 U	0.0072 U	0.0073 U
Acetophenone	mg/kg	120,000	8.3 U	0.37 U	0.4 U	7.4 U	7.9 U	7.4 U	7.9 U	7.1 U	7.8 U	8 U	3.7 U	3.6 U	3.7 U	6.8 U	7.2 U	7.3 U
Anthracene	mg/kg	230,000	**0.051**	**0.29**	**0.34**	**0.18**	**0.52**	**0.019**	**0.6**	**0.047**	**0.066**	**0.033**	**0.14**	**0.2**	**0.07**	0.007 U	0.0072 U	**0.00082 J**
Benz[a]anthracene	mg/kg	21.0	**0.13**	**0.5**	**1.1**	**0.44**	**0.0068 J**	**0.058**	0.4 U	**0.085**	**0.065**	**0.1**	**0.13**	**0.42**	**0.088**	0.007 U	**0.0042 J**	**0.0035 J**
Benzaldehyde	mg/kg	120,000	8.3 U	0.37 U	0.4 U	7.4 U	7.9 U	7.4 U	7.9 U	7.1 UJ	7.8 UJ	8 UJ	3.7 U	3.6 U	3.7 U	6.8 U	7.2 U	7.3 U
Benzo[a]pyrene	mg/kg	2.10	**0.095**	**0.39**	**0.91**	**0.46**	**0.005 J**	**0.053**	0.4 U	**0.075**	**0.05**	**0.11**	**0.13 J**	**0.38**	**0.089**	**0.0024 J**	**0.0039 J**	**0.0047 J**
Benzo[b]fluoranthene	mg/kg	21.0	**0.15**	**0.98**	**1.6**	**0.77**	**0.008**	**0.15**	0.4 U	**0.16**	**0.14**	**0.28**	**0.52**	**0.99**	**0.28**	**0.0056 J**	**0.0072 J**	**0.0095**
Benzo[g,h,i]perylene	mg/kg		**0.052 J**	**0.25**	**0.58**	**0.16**	**0.002 J**	**0.029**	0.4 U	**0.064**	**0.038**	**0.092**	**0.16**	**0.21**	**0.07**	**0.0021 J**	**0.003 J**	**0.0033 J**
Benzo[k]fluoranthene	mg/kg	210	**0.064 J**	**0.7**	**0.59**	**0.3**	**0.0035 J**	**0.12**	0.4 U	**0.14**	**0.12**	**0.22**	**0.42**	**0.39**	**0.087**	**0.0046 J**	**0.0059 J**	**0.0079**
bis(2-Ethylhexyl)phthalate	mg/kg	160	8.3 U	0.37 U	0.4 U	7.4 U	7.9 U	7.4 U	7.9 U	7.1 U	7.8 U	8 U	3.7 U	3.6 U	3.7 U	6.8 U	7.2 U	7.3 U
Carbazole	mg/kg		8.3 U	0.37 U	**0.16 J**	7.4 U	7.9 U	7.4 U	7.9 U	7.1 U	7.8 U	8 U	3.7 U	3.6 U	3.7 U	6.8 U	7.2 U	7.3 U
Chrysene	mg/kg	2,100	**0.095**	**0.94**	**0.85**	**0.43**	**0.016**	**0.086**	0.4 U	**0.13**	**0.08**	**0.14**	**0.3**	**0.68**	**0.25**	0.007 U	**0.0037 J**	**0.0054 J**
Dibenz[a,h]anthracene	mg/kg	2.10	**0.014 J**	**0.08 J**	**0.16 J**	**0.065**	0.0079 U	**0.01**	0.4 U	**0.014**	**0.0099**	**0.033**	**0.058 J**	**0.1**	**0.04**	0.007 U	0.0072 U	**0.0011 J**
Di-n-butylphthalate	mg/kg	82,000	8.3 U	0.37 U	0.4 U	7.4 U	7.9 U	7.4 U	7.9 U	7.1 U	7.8 U	8 U	3.7 U	3.6 U	3.7 U	6.8 U	7.2 U	7.3 U
Di-n-ocytlphthalate	mg/kg	8,200	8.3 U	**0.14 J**	0.4 U	7.4 U	7.9 U	7.4 U	7.9 U	7.1 U	7.8 U	8 U	3.7 U	3.6 U	3.7 U	6.8 U	7.2 U	7.3 U
Fluoranthene	mg/kg	30,000	**0.19**	**1.2**	**2**	**1.4**	**0.059**	**0.15**	**0.15 J**	**0.19**	**0.2**	**0.17**	**0.27**	**0.53**	**0.25**	**0.0049 J**	**0.0028 J**	**0.0051 J**
Fluorene	mg/kg	30,000	**0.061**	**0.18**	**0.11 J**	**0.059**	**0.42**	**0.0069 J**	**3.3**	**0.038**	**0.065**	**0.012**	**0.12**	**0.25**	**0.16**	0.007 U	0.0072 U	0.0073 U
Indeno[1,2,3-c,d]pyrene	mg/kg	21.0	**0.044 J**	**0.18**	**0.49**	**0.17**	**0.0015 J**	**0.025**	0.4 U	**0.032**	**0.023**	**0.078**	**0.079 J**	**0.21**	**0.053**	**0.0014 J**	**0.0021 J**	**0.0024 J**
Naphthalene	mg/kg	17.0	**0.075**	**0.23**	0.088 B	**0.23**	**0.094**	**0.046**	**1.2**	**0.87**	**0.14**	**0.18**	**0.54**	**0.15**	**0.17**	0.007 U	0.0072 U	0.0073 U
Pentachlorophenol	mg/kg	4.00	0.21 UJ	0.19 U	0.2 U	0.19 UJ	0.2 UJ	0.18 UJ	0.2 UJ	17.6 U	19.6 U	20.1 U	0.18 U	0.18 U	0.19 U	0.17 UJ	0.18 UJ	0.18 UJ
Phenanthrene	mg/kg		**0.12**	**1.7**	**1.1**	**1**	**0.68**	**0.13**	**5**	**0.62**	**0.29**	**0.26**	**2.3**	**1**	**0.83**	**0.0045 J**	**0.00094 J**	**0.0057 J**
Phenol	mg/kg	250,000	8.3 U	0.37 U	0.4 U	7.4 U	7.9 U	7.4 U	7.9 U	7.1 U	7.8 U	8 U	3.7 U	3.6 U	3.7 U	6.8 U	7.2 U	7.3 U
Pyrene	mg/kg	23,000	**0.18**	**1.4**	**1.7**	**1**	**0.24**	**0.12**	**0.83**	**0.19**	**0.18**	**0.16**	**0.24**	**0.59**	**0.22**	**0.0038 J**	**0.005 J**	**0.0062 J**
PCBs																		
Aroclor 1016	mg/kg	27	N/A	0.0562 U	0.0614 U	0.018 U	N/A	0.019 U	N/A	0.018 U	0.02 U	N/A	0.0563 U	N/A	0.054 U	0.017 U	N/A	0.018 U
Aroclor 1242	mg/kg	0.97	N/A	0.0562 U	0.0614 U	0.018 U	N/A	0.019 U	N/A	0.018 U	0.02 U	N/A	0.0563 U	N/A	**0.0346 J**	0.017 U	N/A	0.018 U
Aroclor 1248	mg/kg	0.94	N/A	0.0562 U	0.0614 U	0.018 U	N/A	0.019 U	N/A	0.018 U	0.02 U	N/A	0.0563 U	N/A	0.054 U	0.017 U	N/A	0.018 U
Aroclor 1254	mg/kg	0.97	N/A	0.0562 U	0.0614 U	0.018 U	N/A	0.019 U	N/A	**0.072**	0.02 U	N/A	0.0563 U	N/A	**0.0298 J**	0.017 U	N/A	0.018 U
Aroclor 1260	mg/kg	0.99	N/A	0.0562 U	0.0614 U	0.018 U	N/A	0.019 U	N/A	0.018 U	0.02 U	N/A	0.0563 U	N/A	0.054 U	0.017 U	N/A	0.018 U
Aroclor 1262	mg/kg		N/A	0.0562 U	0.0614 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0563 U	N/A	**0.0322 J**	N/A	N/A	N/A
PCBs (total)	mg/kg	0.97	N/A	0.0562 U	0.0614 U	0.13 U	N/A	0.13 U	N/A	**0.072 J**	0.14 U	N/A	0.0563 U	N/A	**0.0966**	0.12 U	N/A	0.13 U
TPH																		
Diesel Range Organics	mg/kg	6,200	**791**	**2,660**	**44.6**	**47.8**	**2,060**	**38.1**	**4,060**	**80.4**	**48.9**	**24.3**	**160**	**56.5**	**49.5**	**6 J**	**11.9**	**17.8**
Gasoline Range Organics	mg/kg	6,200	12.3 U	12.8 U	12.1 U	10 U	13.6 U	9.4 U	**74.6**	**8.7**	12.4 U	10.9 U	**9.2 J**	10.3 U	18.3 U	12 U	16.6 U	10.8 U

Bold indicates detection
N/A: This parameter was not analyzed for this sample.
* Indicates non-validated
^ PAH compounds were analyzed for SIM
Red values indicate a detection exceedance of the Project Action Limit

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 5a
Summary of Organics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-057-SB-6	B5-058-SB-1	B5-058-SB-5	B5-059-SB-1	B5-060-SB-1	B5-060-SB-5	B5-061-SB-1	B5-062-SB-1*	B5-063-SB-1*	B5-063-SB-4*	B5-064-SB-1	B5-064-SB-7	B5-065-SB-1	B5-065-SB-6	B5-066-SB-1	B5-067-SB-1
Volatile Organic Compounds																		
1,1,1-Trichloroethane	mg/kg	36,000	0.0081 U	0.0045 U	0.0045 U	0.0053 U	0.0064 U	0.0066 U	0.0044 U	0.0051 U	0.0064 U	0.0044 U	0.2 U	0.0069 U	0.0034 U	0.0057 U	0.008 U	0.0059 U
1,1-Dichloroethane	mg/kg	16	0.0081 U	0.0045 U	0.0045 U	0.0053 U	0.0064 U	0.0066 U	0.0044 U	0.0051 U	0.0064 U	0.0044 U	0.2 U	0.0069 U	0.0034 U	0.0057 U	0.008 U	0.0059 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0081 U	0.0045 U	0.0045 U	0.0053 U	0.0064 U	0.0066 U	0.0044 U	0.0051 U	0.0064 U	0.0044 U	0.2 U	0.0069 U	0.0034 UJ	0.0057 U	0.008 U	0.0059 U
1,2,4-Trichlorobenzene	mg/kg	110	0.0081 U	0.0045 U	0.0045 U	0.0053 U	0.0064 U	0.0066 U	0.0044 U	0.0051 U	0.0064 U	0.0044 U	0.2 U	0.0069 U	0.0034 UJ	0.0057 U	0.008 U	0.0059 U
2-Butanone (MEK)	mg/kg	190,000	0.016 U	0.0089 U	0.009 U	0.011 U	0.013 U	0.013 U	0.0088 U	0.01 U	0.013 U	0.0087 U	0.4 U	0.014 U	0.0067 U	0.011 U	0.016 U	0.012 U
2-Hexanone	mg/kg	1,300	0.016 U	0.0089 U	0.009 U	0.011 U	0.013 U	0.013 U	0.0088 U	0.01 U	0.013 U	0.0087 U	0.4 U	0.014 U	0.0067 U	0.011 U	0.016 UJ	0.012 UJ
Acetone	mg/kg	670,000	**0.037**	0.0089 R	0.009 R	**0.051 J**	0.013 U	**0.048**	**0.041**	**0.14**	0.013 U	0.0087 U	0.4 U	**0.038**	**0.021**	**0.04**	0.016 U	**0.094**
Benzene	mg/kg	5.1	0.0081 U	**0.0039 J**	0.0045 U	**0.0071**	0.0064 U	0.0066 U	0.0044 U	0.0051 U	0.0064 U	0.0044 U	0.2 U	0.0069 U	0.0034 U	0.0057 U	0.008 U	0.0059 U
Carbon tetrachloride	mg/kg	2.9	0.0081 U	0.0045 U	0.0045 U	0.0053 U	0.0064 U	0.0066 U	0.0044 U	0.0051 U	0.0064 U	0.0044 U	0.2 U	0.0069 U	0.0034 U	0.0057 U	0.008 U	0.0059 U
Chloroform	mg/kg	1.4	0.0081 U	0.0045 U	0.0045 U	0.0053 U	0.0064 U	0.0066 U	0.0044 U	0.0051 U	0.0064 U	0.0044 U	0.2 U	0.0069 U	0.0034 U	0.0057 U	0.008 U	0.0059 U
Cyclohexane	mg/kg	27,000	0.016 U	0.0089 U	0.009 U	0.011 U	0.013 U	**0.0051 J**	0.0088 U	0.01 U	0.013 U	0.0087 U	0.4 U	0.014 U	0.0067 U	0.011 U	0.016 U	0.012 U
Ethylbenzene	mg/kg	25	0.0081 U	0.0045 U	0.0045 U	**0.012**	0.0064 U	0.0066 U	0.0044 U	0.0051 U	0.0064 U	0.0044 U	0.2 U	0.0069 U	0.0034 U	0.0057 U	0.008 U	0.0059 U
Isopropylbenzene	mg/kg	9,900	0.0081 U	0.0045 U	0.0045 U	0.0053 U	0.0064 U	0.0066 U	0.0044 U	0.0051 U	0.0064 U	0.0044 U	0.2 U	0.0069 U	0.0034 UJ	0.0057 U	0.008 U	0.0059 U
Methyl Acetate	mg/kg	1,200,000	0.081 U	0.045 U	0.045 U	0.053 U	0.064 U	0.066 U	0.044 U	0.051 U	0.064 U	0.044 U	**0.13 J**	0.069 U	0.034 U	0.057 U	0.08 R	0.059 R
Methylene Chloride	mg/kg	1,000	0.0081 U	0.0045 U	0.0045 U	0.0053 U	0.0064 U	0.0066 U	0.0044 U	0.0051 U	0.0064 U	0.0044 U	0.2 U	0.0069 U	0.0034 U	0.0057 U	0.008 UJ	0.0059 UJ
Styrene	mg/kg	35,000	0.0081 U	0.0045 U	0.0045 U	0.0053 U	0.0064 U	0.0066 U	0.0044 U	0.0051 U	0.0064 U	0.0044 U	0.2 U	0.0069 U	0.0034 U	0.0057 U	0.008 U	0.0059 U
Tetrachloroethene	mg/kg	100	0.0081 U	0.0045 U	0.0045 U	0.0053 U	0.0064 U	0.0066 U	0.0044 U	0.0051 U	0.0064 U	0.0044 U	0.2 U	0.0069 U	0.0034 U	0.0057 U	0.008 U	0.0059 U
Toluene	mg/kg	47,000	0.0081 U	**0.0032 J**	0.0045 U	**0.0087**	0.0064 U	**0.0042 J**	0.0044 U	0.0051 U	0.0064 U	0.0044 U	**0.09 J**	0.0069 U	0.0034 U	0.0057 U	0.008 U	**0.0028 J**
Trichloroethene	mg/kg	6	0.0081 U	0.0045 U	0.0045 U	0.0053 U	0.0064 U	0.0066 U	0.0044 U	0.0051 U	0.0064 U	0.0044 U	0.2 U	0.0069 U	0.0034 U	0.0057 U	0.008 U	0.0059 U
Xylenes	mg/kg	2,800	0.024 U	0.013 U	0.014 U	**0.014 J**	0.019 U	0.02 U	0.013 U	0.015 U	0.019 U	0.013 U	**0.24 J**	0.021 U	0.01 U	0.017 U	0.024 U	0.018 U
Semi-Volatile Organic Compounds^																		
1,1-Biphenyl	mg/kg	200	9.1 U	7.4 U	8.1 U	7.3 U	7.2 U	7.6 U	7.2 U	0.36 U	**0.13 J**	0.37 U	7 U	7.2 U	6.9 U	7.4 U	3.8 U	3.9 U
2,4-Dimethylphenol	mg/kg	16,000	9.1 U	7.4 U	8.1 U	7.3 U	7.2 U	7.6 U	7.2 U	0.36 U	0.37 U	0.37 U	7 U	7.2 U	6.9 U	7.4 U	3.8 U	3.9 U
2-Methylnaphthalene	mg/kg	3,000	**0.034**	**0.15**	0.0081 U	**0.63 J**	**0.015**	**0.13 J**	**0.013**	**0.093**	**0.67**	**0.053**	**0.33 J**	**0.029**	**0.53**	**0.062**	**0.069**	**0.17**
2-Methylphenol	mg/kg	41,000	9.1 U	7.4 U	8.1 U	7.3 U	7.2 U	7.6 U	7.2 U	0.36 U	0.37 U	0.37 U	7 U	7.2 U	6.9 U	7.4 U	3.8 U	3.9 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	18.2 U	14.9 U	16.2 U	14.5 U	14.4 U	15.1 U	14.3 U	0.73 U	**0.069 J**	0.74 U	14.1 U	14.5 U	13.9 U	14.8 U	7.7 U	7.9 U
Acenaphthene	mg/kg	45,000	**0.014**	**0.0022 J**	0.0081 U	**0.016**	**0.0025 J**	**0.067 J**	**0.0016 J**	**0.0086**	**0.045**	**0.012**	**0.0079**	0.0073 U	**0.011**	**0.0054 J**	**0.54**	**0.12**
Acenaphthylene	mg/kg	45,000	**0.0056 J**	**0.0024 J**	0.0081 U	**0.0077**	**0.0034 J**	**3.4**	**0.0038 J**	**0.0093**	**0.024**	**0.066**	**0.013**	**0.017**	**0.0065 J**	**0.015**	**0.024**	**0.019**
Acetophenone	mg/kg	120,000	9.1 U	7.4 U	8.1 U	7.3 U	7.2 U	7.6 U	7.2 U	0.36 U	0.37 U	0.37 U	7 U	7.2 U	6.9 U	7.4 U	3.8 U	3.9 U
Anthracene	mg/kg	230,000	0.009 U	**0.0088**	0.0081 U	**0.043**	**0.0085**	**2.2**	**0.0073**	**0.051**	**0.14**	**0.069**	**0.04**	**0.0092**	**0.045**	**0.0081**	**0.23**	**0.26**
Benz[a]anthracene	mg/kg	21.0	0.009 U	**0.065**	0.0081 U	**0.14 J**	**0.051**	**14.7**	**0.049**	**0.13**	**0.17**	**0.26**	**0.061 J**	**0.052**	**0.054**	**0.03**	**4.2**	**1**
Benzaldehyde	mg/kg	120,000	9.1 U	7.4 U	8.1 U	7.3 U	7.2 UJ	7.6 UJ	7.2 UJ	0.36 U	0.37 U	0.37 U	7 UJ	7.2 UJ	6.9 UJ	7.4 UJ	3.8 U	3.9 U
Benzo[a]pyrene	mg/kg	2.10	0.009 U	**0.087 J**	**0.001 J**	**0.11 J**	**0.067**	15.6	**0.056**	**0.13**	**0.16**	**0.34**	**0.045 J**	**0.059**	**0.047**	**0.049**	9.6	**1**
Benzo[b]fluoranthene	mg/kg	21.0	0.009 U	**0.35 J**	**0.0028 J**	**0.42 J**	**0.12**	23.6	**0.096**	**0.4**	**0.47**	**0.78**	**0.13 J**	**0.24**	**0.14**	**0.14**	**11.8**	**2.3**
Benzo[g,h,i]perylene	mg/kg		0.009 U	**0.048 J**	0.0081 U	**0.06 J**	**0.026**	**5**	**0.018**	**0.051**	**0.053**	**0.095**	**0.035 J**	**0.042**	**0.032**	**0.026**	**11.1**	**0.37**
Benzo[k]fluoranthene	mg/kg	210	0.009 U	**0.29 J**	**0.0023 J**	**0.18 J**	**0.041**	**7.7**	**0.037**	**0.32**	**0.37**	**0.62**	**0.11 J**	**0.2**	**0.12**	**0.12**	**4.9**	**0.68**
bis(2-Ethylhexyl)phthalate	mg/kg	160	9.1 U	7.4 U	8.1 U	7.3 U	7.2 U	7.6 U	7.2 U	0.36 U	0.37 U	0.37 U	7 U	7.2 U	6.9 U	7.4 U	3.8 U	3.9 U
Carbazole	mg/kg		9.1 U	7.4 U	8.1 U	7.3 U	7.2 U	7.6 U	7.2 U	0.36 U	0.37 U	0.37 U	7 U	7.2 U	6.9 U	7.4 U	3.8 U	3.9 U
Chrysene	mg/kg	2,100	0.009 U	**0.11**	**0.00097 J**	**0.24 J**	**0.064**	**13.9**	**0.052**	**0.16**	**0.23**	**0.26**	**0.085 J**	**0.092**	**0.11**	**0.039**	**5.8**	**1.3**
Dibenz[a,h]anthracene	mg/kg	2.10	0.009 U	**0.02 J**	0.0081 U	**0.026 J**	**0.0095**	2.2	**0.0071 J**	**0.022**	**0.034**	**0.047**	**0.011 J**	**0.016**	**0.01**	**0.0091**	**0.95**	**0.18**
Di-n-butylphthalate	mg/kg	82,000	9.1 U	7.4 U	8.1 U	7.3 U	7.2 U	7.6 U	7.2 U	0.36 U	0.37 U	0.37 U	7 U	7.2 U	6.9 U	7.4 U	3.8 U	3.9 U
Di-n-ocytlphthalate	mg/kg	8,200	9.1 U	7.4 UJ	8.1 UJ	7.3 UJ	7.2 U	7.6 U	7.2 U	0.36 U	0.37 U	0.37 U	7 U	7.2 U	6.9 U	7.4 U	3.8 U	3.9 U
Fluoranthene	mg/kg	30,000	0.009 U	**0.089**	**0.0021 J**	**0.2 J**	**0.078**	**60.5**	**0.072**	**0.32**	**0.45**	**0.39**	**0.19 J**	**0.088**	**0.14**	**0.041**	**5.4**	**2.7**
Fluorene	mg/kg	30,000	**0.019**	**0.0018 J**	**0.0011 J**	**0.028**	**0.0023 J**	**0.28**	**0.0011 J**	**0.017**	**0.092**	**0.038**	**0.019**	**0.0019 J**	**0.034**	**0.0016 J**	**0.11**	**0.093**
Indeno[1,2,3-c,d]pyrene	mg/kg	21.0	0.009 U	**0.041 J**	0.0081 U	**0.045 J**	**0.025**	**6.1**	**0.02**	**0.054**	**0.051**	**0.11**	**0.02 J**	**0.045**	**0.017**	**0.028**	**8.9**	**0.38**
Naphthalene	mg/kg	17.0	0.0037 B	**0.15**	0.0081 U	**0.45 J**	**0.017**	**0.25**	**0.015**	**0.13**	**0.58**	**0.059**	**0.22 J**	**0.021**	**0.26**	**0.028**	**0.072**	**0.15**
Pentachlorophenol	mg/kg	4.00	0.23 UJ	0.19 UJ	0.2 UJ	0.18 UJ	0.18 U*	0.19 U*	0.18 U*	0.18 U	0.19 U	**0.031 J**	17.6 U	18.1 U	17.4 U	18.5 U	0.19 U	0.2 U
Phenanthrene	mg/kg		**0.047**	**0.11**	**0.0018 J**	**0.38**	**0.04**	**4.9**	**0.036**	**0.23**	**0.84**	**0.16**	**0.29**	**0.083**	**0.41**	**0.035**	**1**	**1.4**
Phenol	mg/kg	250,000	9.1 U	7.4 U	8.1 U	7.3 U	7.2 U	7.6 U	7.2 U	0.36 U	0.37 U	0.37 U	7 U	7.2 U	6.9 U	7.4 U	3.8 U	3.9 U
Pyrene	mg/kg	23,000	**0.054**	**0.072**	**0.0017 J**	**0.25 J**	**0.075**	**26.1**	**0.066**	**0.28**	**0.37**	**0.34**	**0.17**	**0.067**	**0.13**	**0.037**	**5.5**	**2.5**
PCBs																		
Aroclor 1016	mg/kg	27	N/A	0.019 U	N/A	0.93 U	0.018 U	N/A	0.018 U	0.0544 U	0.0547 U	N/A	0.018 U	N/A	0.018 U	N/A	0.19 U	0.02 U
Aroclor 1242	mg/kg	0.97	N/A	0.019 U	N/A	0.93 U	0.018 U	N/A	0.018 U	0.0544 U	0.0547 U	N/A	0.018 U	N/A	0.018 U	N/A	0.19 U	0.02 U
Aroclor 1248	mg/kg	0.94	N/A	0.019 U	N/A	0.93 U	0.018 U	N/A	0.018 U	0.0544 U	0.0547 U	N/A	0.018 U	N/A	0.018 U	N/A	0.19 U	0.02 U
Aroclor 1254	mg/kg	0.97	N/A	0.019 U	N/A	0.93 U	**0.012 J**	N/A	0.018 U	0.0544 U	0.0547 U	N/A	0.018 U	N/A	0.018 U	N/A	0.19 U	0.02 U
Aroclor 1260	mg/kg	0.99	N/A	0.019 U	N/A	0.93 U	**0.013 J**	N/A	**0.014 J**	0.0544 U	0.0547 U	N/A	0.018 U	N/A	0.018 U	N/A	0.19 U	0.02 U
Aroclor 1262	mg/kg		N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0544 U	0.0547 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCBs (total)	mg/kg	0.97	N/A	0.13 U	N/A	6.5 U	0.13 U	N/A	0.13 U	0.0544 U	0.0547 U	N/A	0.13 U	N/A	0.12 U	N/A	1.4 U	0.14 U
TPH																		
Diesel Range Organics	mg/kg	6,200	**548**	**53.1**	8.1 U	**178**	**18.5**	**236**	**23.5**	**39.1**	**113**	**18.9**	**50.8**	**30.6**	**107**	**156**	**546**	**61.9**
Gasoline Range Organics	mg/kg	6,200	21.7 U	**11.7**	9.6 U	55.5 U	11.7 U	11.2 U	11.3 U	10.2 U	12.9 U	8.8 U	8.7 U	13.4 U	7.5 U	10.4 U	18.4 U	12.3 U

Bold indicates detection
N/A: This parameter was not analyzed for this sample.
* Indicates non-validated
^ PAH compounds were analyzed for SIM
Red values indicate a detection exceedance of the Project Action Limit

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 5a
Summary of Organics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-068-SB-1*	B5-069-SB-1*	B5-069-SB-4*	B5-070-SB-1*	B5-071-SB-1*	B5-072-SB-1	B5-072-SB-6	B5-073-SB-1	B5-073-SB-5	B5-073-SB-10	B5-074-SB-1*	B5-074-SB-5*	B5-075-SB-1*	B5-075-SB-5*	B5-076-SB-1*
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	36,000	0.0063 U	0.0063 U	0.0048 U	0.0059 U	0.0065 U	0.0044 U	0.0047 U	0.0041 U	0.005 U	N/A	0.005 U	0.004 U	0.0046 U	0.0044 U	0.0048 U
1,1-Dichloroethane	mg/kg	16	0.0063 U	0.0063 U	0.0048 U	0.0059 U	0.0065 U	0.0044 U	0.0047 U	0.0041 U	0.005 U	N/A	0.005 U	0.004 U	0.0046 U	0.0044 U	0.0048 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0063 U	0.0063 U	0.0048 U	0.0059 U	0.0065 U	0.0044 U	0.0047 U	0.0041 U	0.005 U	N/A	0.005 U	0.004 U	0.0046 U	0.0044 U	0.0048 U
1,2,4-Trichlorobenzene	mg/kg	110	0.0063 U	0.0063 U	0.0048 U	0.0059 U	0.0065 U	0.0044 U	0.0047 U	0.0041 U	0.005 U	N/A	0.005 U	0.004 U	0.0046 U	0.0044 U	0.0048 U
2-Butanone (MEK)	mg/kg	190,000	0.013 U	0.013 U	0.0097 U	0.012 U	0.013 U	0.0087 U	0.0094 U	**0.0085**	0.01 U	N/A	0.01 U	0.008 U	0.0092 U	0.0087 U	0.0096 U
2-Hexanone	mg/kg	1,300	0.013 U	0.013 U	0.0097 U	0.012 U	0.013 U	0.0087 U	0.0094 U	0.0082 U	0.01 U	N/A	0.01 U	0.008 U	0.0092 U	0.0087 U	0.0096 U
Acetone	mg/kg	670,000	0.013 U	**0.062**	0.0097 U	**0.064**	0.013 U	**0.017**	0.0094 U	**0.048**	**0.023**	N/A	**0.082**	0.008 U	0.0092 U	0.0087 U	**0.099**
Benzene	mg/kg	5.1	0.0063 U	0.0063 U	0.0048 U	0.0059 U	0.0065 U	0.0044 U	0.0047 U	0.0041 U	0.005 U	N/A	0.005 U	0.004 U	0.0046 U	0.0044 U	0.0048 U
Carbon tetrachloride	mg/kg	2.9	0.0063 U	0.0063 U	0.0048 U	0.0059 U	0.0065 U	0.0044 U	0.0047 U	0.0041 U	0.005 U	N/A	0.005 U	0.004 U	0.0046 U	0.0044 U	0.0048 U
Chloroform	mg/kg	1.4	0.0063 U	0.0063 U	0.0048 U	0.0059 U	0.0065 U	0.0044 U	0.0047 U	0.0041 U	0.005 U	N/A	0.005 U	0.004 U	0.0046 U	0.0044 U	0.0048 U
Cyclohexane	mg/kg	27,000	0.013 U	0.013 U	0.0097 U	0.012 U	0.013 U	0.0087 U	0.0094 U	0.0082 U	0.01 U	N/A	0.01 U	0.008 U	0.0092 U	0.0087 U	0.0096 U
Ethylbenzene	mg/kg	25	0.0063 U	0.0063 U	0.0048 U	0.0059 U	0.0065 U	0.0044 U	0.0047 U	0.0041 U	0.005 U	N/A	0.005 U	0.004 U	0.0046 U	0.0044 U	0.0048 U
Isopropylbenzene	mg/kg	9,900	0.0063 U	0.0063 U	0.0048 U	0.0059 U	0.0065 U	0.0044 U	0.0047 U	0.0041 U	0.005 U	N/A	0.005 U	0.004 U	0.0046 U	0.0044 U	0.0048 U
Methyl Acetate	mg/kg	1,200,000	0.063 U	0.063 U	0.048 U	0.059 U	0.065 U	0.044 UJ	0.047 R	0.041 R	0.05 UJ	N/A	0.05 U	0.04 U	0.046 U	0.044 U	0.048 U
Methylene Chloride	mg/kg	1,000	0.0063 U	0.0063 U	0.0048 U	0.0059 U	0.0065 U	0.0044 U	0.0047 U	0.0041 U	0.005 U	N/A	0.005 U	0.004 U	0.0046 U	0.0044 U	0.0048 U
Styrene	mg/kg	35,000	0.0063 U	0.0063 U	0.0048 U	0.0059 U	0.0065 U	0.0044 U	0.0047 U	0.0041 U	0.005 U	N/A	0.005 U	0.004 U	0.0046 U	0.0044 U	0.0048 U
Tetrachloroethene	mg/kg	100	0.0063 U	0.0063 U	0.0048 U	0.0059 U	**0.13**	0.0044 U	0.0047 U	0.0041 U	0.005 U	N/A	0.005 U	0.004 U	**0.0089**	0.0044 U	0.0048 U
Toluene	mg/kg	47,000	0.0063 U	**0.0023 J**	0.0048 U	0.0059 U	**0.0041 J**	0.0044 U	0.0047 U	0.0041 U	0.005 U	N/A	0.005 U	0.004 U	0.0046 U	0.0044 U	0.0048 U
Trichloroethene	mg/kg	6	0.0063 U	0.0063 U	0.0048 U	0.0059 U	0.0065 U	0.0044 U	0.0047 U	0.0041 U	0.005 U	N/A	0.005 U	0.004 U	0.0046 U	0.0044 U	0.0048 U
Xylenes	mg/kg	2,800	0.019 U	0.019 U	0.015 U	0.018 U	0.019 U	0.013 U	0.014 U	0.012 U	0.015 U	N/A	0.015 U	0.012 U	0.014 U	0.013 U	0.014 U
Semi-Volatile Organic Compounds^																	
1,1-Biphenyl	mg/kg	200	**0.085 J**	**0.071 J**	**0.18 J**	0.4 U	**0.18 J**	7.3 U	8.1 U	7.2 U	8 U	N/A	7.3 U	7.3 U	7.1 U	7.3 U	7.2 U
2,4-Dimethylphenol	mg/kg	16,000	0.39 U	0.36 U	0.38 U	0.4 U	0.36 U	7.3 U	8.1 U	7.2 U	8 U	N/A	7.3 U	7.3 U	7.1 U	7.3 U	7.2 U
2-Methylnaphthalene	mg/kg	3,000	**0.28**	**0.46**	**0.77**	**0.41**	**0.71**	**0.51**	0.0081 U	**0.17**	**0.041**	**0.0011 J**	**0.0084**	**0.0012 J**	0.0071 U	0.0073 U	**0.11**
2-Methylphenol	mg/kg	41,000	0.39 U	0.36 U	0.38 U	0.4 U	0.36 U	7.3 U	8.1 U	7.2 U	8 U	N/A	7.3 U	7.3 U	7.1 U	7.3 U	7.2 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	0.78 U	0.73 U	0.76 U	**0.063 J**	0.72 U	14.6 U	16.2 U	14.4 U	16 U	N/A	14.6 U	14.7 U	14.1 U	14.6 U	14.4 U
Acenaphthene	mg/kg	45,000	**1**	**0.046**	**0.032**	**0.043 J**	**0.047**	**0.48**	0.0081 U	0.14 U	**0.022**	0.0082 U	0.15 U	0.0074 U	0.0071 U	0.0073 U	**0.033**
Acenaphthylene	mg/kg	45,000	**0.11 J**	**0.17**	**0.063**	**0.078 J**	**0.017**	**0.4**	0.0081 U	**0.018 J**	**0.22**	0.0082 U	**0.022 J**	0.0074 U	0.0071 U	0.0073 U	**0.37**
Acetophenone	mg/kg	120,000	**0.06 J**	**0.066 J**	**0.087 J**	**0.034 J**	**0.054 J**	7.3 U	8.1 U	7.2 U	8 U	N/A	7.3 U	7.3 U	7.1 U	7.3 U	7.2 U
Anthracene	mg/kg	230,000	**3**	**0.27**	**0.2**	**0.33**	**0.11**	**1.8**	0.0081 U	**0.041 J**	**0.11**	0.0082 U	**0.012**	**0.001 J**	**0.00084 J**	0.0073 U	**0.46**
Benz[a]anthracene	mg/kg	21.0	**7.1**	**0.92**	**0.37**	**0.41**	**0.13**	**5.4**	0.0081 U	**0.11 J**	**0.62**	0.0082 U	**0.038**	**0.0027 J**	**0.0026 J**	0.0073 U	**1.1**
Benzaldehyde	mg/kg	120,000	0.39 U	0.36 U	0.38 U	0.4 U	0.36 U	7.3 U	8.1 U	7.2 U	8 U	N/A	7.3 U	7.3 U	7.1 U	7.3 U	7.2 U
Benzo[a]pyrene	mg/kg	2.10	**5.6**	**1.1**	**0.37**	**0.44**	**0.11**	**8.5**	0.0081 U	**0.12 J**	**0.66**	0.0082 UJ	**0.042**	**0.0016 J**	**0.0023 J**	0.0073 U	**1.8**
Benzo[b]fluoranthene	mg/kg	21.0	**14.9**	**2.5**	**1.2**	**1.2**	**0.34**	**12.1**	0.0081 U	**0.39**	**1.2**	**0.0029 J**	**0.071**	**0.0041 J**	**0.0057 J**	**0.0013 J**	**2.5**
Benzo[g,h,i]perylene	mg/kg		**1.6**	**0.27**	**0.13**	**0.19**	**0.05**	**2.5**	**0.0023 J**	**0.08 J**	**0.18**	0.0082 UJ	**0.039**	**0.0021 J**	**0.0026 J**	0.0073 U	**1.3**
Benzo[k]fluoranthene	mg/kg	210	**11.7**	**1.9**	**0.91**	**0.97**	**0.27**	**5**	0.0081 U	**0.14 J**	**0.45**	**0.0011 J**	**0.034**	**0.0034 J**	**0.0026 J**	0.0073 U	**1.2**
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.39 U	0.36 U	0.38 U	0.4 U	0.36 U	7.3 U	8.1 U	7.2 U	8 U	N/A	7.3 U	7.3 U	7.1 U	7.3 U	7.2 U
Carbazole	mg/kg		**2.4**	**0.17 J**	**0.11 J**	0.4 U	0.36 U	7.3 U	8.1 U	7.2 U	8 U	N/A	7.3 U	7.3 U	7.1 U	7.3 U	7.2 U
Chrysene	mg/kg	2,100	**6.8**	**0.91**	**0.57**	**0.55**	**0.24**	**5.5**	0.0081 U	**0.25**	**0.79**	**0.0013 J**	**0.048**	**0.0019 J**	**0.0043 J**	**0.00079 J**	**1**
Dibenz[a,h]anthracene	mg/kg	2.10	**0.99**	**0.13**	**0.084**	**0.08 J**	**0.033**	**1.4**	0.0081 UJ	0.14 U	**0.073**	0.0082 UJ	**0.011**	0.0074 U	0.0071 U	0.0073 U	**0.4**
Di-n-butylphthalate	mg/kg	82,000	0.39 U	0.36 U	0.38 U	0.4 U	0.36 U	7.3 U	8.1 U	7.2 U	8 U	N/A	7.3 U	7.3 U	7.1 U	7.3 U	7.2 U
Di-n-ocytlphthalate	mg/kg	8,200	0.39 U	0.36 U	0.38 U	0.4 U	0.36 U	7.3 U	8.1 U	7.2 U	8 U	N/A	7.3 U	7.3 U	7.1 U	7.3 U	7.2 U
Fluoranthene	mg/kg	30,000	**16.2**	**1.7**	**0.68**	**0.86**	**0.39**	**5.1**	**0.00096 J**	**0.24**	**1.3**	**0.0019 J**	**0.07**	**0.0051 J**	**0.0065 J**	**0.0018 J**	**4.3**
Fluorene	mg/kg	30,000	**1.2**	**0.073**	**0.061**	**0.054 J**	**0.096**	**0.34**	0.0081 U	**0.037 J**	**0.051**	0.0082 U	**0.013 J**	0.0074 U	0.0071 U	**0.00074 J**	**0.2**
Indeno[1,2,3-c,d]pyrene	mg/kg	21.0	**1.8**	**0.34**	**0.16**	**0.18**	**0.037**	**2.8**	**0.0013 J**	**0.058 J**	**0.19**	0.0082 UJ	**0.034**	**0.0014 J**	**0.0021 J**	0.0073 U	**1.1**
Naphthalene	mg/kg	17.0	**0.34**	**0.43**	**0.59**	**0.4**	**0.39**	**0.78**	0.0021 B	**0.24**	**0.27**	0.0024 B	**0.028**	0.0029 B	**0.0021 J**	**0.0014 J**	**0.3**
Pentachlorophenol	mg/kg	4.00	0.2 U	0.18 U	0.19 U	0.2 U	0.18 U	0.18 R	0.2 R	0.18 R	0.2 R	N/A	0.18 U	0.18 U	0.18 U	0.18 U	0.18 U
Phenanthrene	mg/kg		**12.5**	**0.88**	**1**	**1.1**	**0.83**	**4.4**	**0.0013 J**	**0.28**	**0.55**	**0.0027 J**	**0.029**	**0.0059 J**	**0.0048 J**	**0.0036 J**	**3**
Phenol	mg/kg	250,000	0.39 U	0.36 U	0.38 U	0.4 U	0.36 U	7.3 U	8.1 U	7.2 U	8 U	N/A	7.3 U	7.3 U	7.1 U	7.3 U	7.2 U
Pyrene	mg/kg	23,000	**11.5**	**1.4**	**0.56**	**0.78**	**0.32**	**4.6**	**0.0009 J**	**0.25**	**1.2**	**0.0022 J**	**0.065**	**0.0044 J**	**0.0056 J**	**0.0016 J**	**3.5**
PCBs																	
Aroclor 1016	mg/kg	27	0.0572 U	0.0554 U	N/A	0.062 U	0.0552 U	0.18 U	N/A	0.18 U	N/A	N/A	0.018 U	N/A	0.018 U	N/A	1.8 U
Aroclor 1242	mg/kg	0.97	0.0572 U	0.0554 U	N/A	0.062 U	0.0552 U	0.18 U	N/A	0.18 U	N/A	N/A	0.018 U	N/A	0.018 U	N/A	1.8 U
Aroclor 1248	mg/kg	0.94	0.0572 U	0.0554 U	N/A	0.062 U	0.0552 U	0.18 U	N/A	0.18 U	N/A	N/A	0.018 U	N/A	0.018 U	N/A	1.8 U
Aroclor 1254	mg/kg	0.97	0.0572 U	0.0554 U	N/A	0.062 U	0.0552 U	0.18 U	N/A	0.18 U	N/A	N/A	**0.051**	N/A	0.018 U	N/A	1.8 U
Aroclor 1260	mg/kg	0.99	0.0572 U	0.0554 U	N/A	0.062 U	0.0552 U	**0.11 J**	N/A	**0.97**	N/A	N/A	**0.058**	N/A	0.018 U	N/A	**11.3**
Aroclor 1262	mg/kg		0.0572 U	**0.0754**	N/A	0.062 U	0.0552 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCBs (total)	mg/kg	0.97	0.0572 U	**0.0754**	N/A	0.062 U	0.0552 U	1.3 U	N/A	**0.97 J**	N/A	N/A	**0.11 J**	N/A	0.12 U	N/A	**11.3 J**
TPH																	
Diesel Range Organics	mg/kg	6,200	**455**	**141**	**360**	**145**	**117**	**55.4**	8.2 U	**302**	**60.4**	N/A	**12.6**	**7.6**	**43.8**	**13**	**140**
Gasoline Range Organics	mg/kg	6,200	14.2 U	16.5 U	10 U	13.2 U	**9.2 J**	9 U	10.5 U	8.3 U	36.5 U	N/A	11.6 U	9 U	9.2 U	10.1 U	11.2 U

Bold indicates detection
N/A: This parameter was not analyzed for this sample.
* Indicates non-validated
^ PAH compounds were analyzed for SIM
Red values indicate a detection exceedance of the Project Action Limit

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 5a
Summary of Organics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-076-SB-6*	B5-077-SB-1*	B5-077-SB-5*	B5-078-SB-1*	B5-078-SB-4*	B5-079-SB-1*	B5-079-SB-4*	B5-080-SB-1*	B5-080-SB-5*	B5-081-SB-1*	B5-081-SB-5*	B5-082-SB-1*	B5-082-SB-5*	B5-083-SB-1*	B5-083-SB-5*
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	36,000	0.0048 U	0.0047 U	0.0046 U	0.0052 U	0.0071 U	0.0053 U	0.0061 U	0.008 U	0.0051 U	0.0056 U	0.0052 U	0.0062 U	0.0046 U	0.0049 U	0.0038 U
1,1-Dichloroethane	mg/kg	16	0.0048 U	0.0047 U	0.0046 U	0.0052 U	0.0071 U	0.0053 U	0.0061 U	0.008 U	0.0051 U	0.0056 U	0.0052 U	0.0062 U	0.0046 U	0.0049 U	0.0038 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0048 U	0.0047 U	0.0046 U	0.0052 U	0.0071 U	0.0053 U	0.0061 U	0.008 U	0.0051 U	0.0056 U	0.0052 U	0.0062 U	0.0046 U	0.0049 U	0.0038 U
1,2,4-Trichlorobenzene	mg/kg	110	0.0048 U	0.0047 U	0.0046 U	0.0052 U	0.0071 U	0.0053 U	0.0061 U	0.008 U	0.0051 U	0.0056 U	0.0052 U	0.0062 U	0.0046 U	0.0049 U	0.0038 U
2-Butanone (MEK)	mg/kg	190,000	0.0095 U	0.0093 U	0.0091 U	0.01 U	0.014 U	0.011 U	0.012 U	0.016 U	0.01 U	0.011 U	0.01 U	0.012 U	0.0092 U	0.0098 U	0.0076 U
2-Hexanone	mg/kg	1,300	0.0095 U	0.0093 U	0.0091 U	0.01 U	0.014 U	0.011 U	0.012 U	0.016 U	0.01 U	0.011 U	0.01 U	0.012 U	0.0092 U	0.0098 U	0.0076 U
Acetone	mg/kg	670,000	**0.044**	**0.14**	**0.074**	0.01 U	0.014 U	**0.19**	**0.061**	0.016 U	**0.041**	0.011 U	**0.046**	**0.098**	0.0092 U	**0.049**	0.0076 U
Benzene	mg/kg	5.1	0.0048 U	0.0047 U	0.0046 U	0.0052 U	0.0071 U	0.0053 U	0.0061 U	0.008 U	0.0051 U	0.0056 U	0.0052 U	0.0062 U	0.0046 U	0.0049 U	0.0038 U
Carbon tetrachloride	mg/kg	2.9	0.0048 U	0.0047 U	0.0046 U	0.0052 U	0.0071 U	0.0053 U	0.0061 U	0.008 U	0.0051 U	0.0056 U	0.0052 U	0.0062 U	0.0046 U	0.0049 U	0.0038 U
Chloroform	mg/kg	1.4	0.0048 U	0.0047 U	0.0046 U	0.0052 U	0.0071 U	0.0053 U	0.0061 U	0.008 U	0.0051 U	0.0056 U	0.0052 U	0.0062 U	0.0046 U	0.0049 U	0.0038 U
Cyclohexane	mg/kg	27,000	0.0095 U	0.0093 U	0.0091 U	0.01 U	0.014 U	0.011 U	**0.011 J**	0.016 U	0.01 U	0.011 U	0.01 U	0.012 U	0.0092 U	0.0098 U	0.0076 U
Ethylbenzene	mg/kg	25	0.0048 U	0.0047 U	0.0046 U	0.0052 U	0.0071 U	0.0053 U	0.0061 U	0.008 U	0.0051 U	0.0056 U	0.0052 U	0.0062 U	0.0046 U	0.0049 U	0.0038 U
Isopropylbenzene	mg/kg	9,900	0.0048 U	0.0047 U	0.0046 U	0.0052 U	0.0071 U	0.0053 U	0.0061 U	0.008 U	0.0051 U	0.0056 U	0.0052 U	0.0062 U	0.0046 U	0.0049 U	0.0038 U
Methyl Acetate	mg/kg	1,200,000	0.048 U	0.047 U	0.046 U	0.052 U	0.071 U	0.053 U	0.061 U	0.08 U	0.051 U	0.056 U	0.052 U	0.062 U	0.046 U	0.049 U	0.038 U
Methylene Chloride	mg/kg	1,000	0.0048 U	0.0047 U	0.0046 U	0.0052 U	0.0071 U	0.0053 U	0.0061 U	0.008 U	0.0051 U	0.0056 U	0.0052 U	0.0062 U	0.0046 U	0.0049 U	0.0038 U
Styrene	mg/kg	35,000	0.0048 U	0.0047 U	0.0046 U	0.0052 U	0.0071 U	0.0053 U	0.0061 U	0.008 U	0.0051 U	0.0056 U	0.0052 U	0.0062 U	0.0046 U	0.0049 U	0.0038 U
Tetrachloroethene	mg/kg	100	0.0048 U	0.0047 U	0.0046 U	0.0052 U	0.0071 U	0.0053 U	0.0061 U	0.008 U	0.0051 U	0.0056 U	0.0052 U	0.0062 U	0.0046 U	0.0049 U	0.0038 U
Toluene	mg/kg	47,000	0.0048 U	0.0047 U	0.0046 U	0.0052 U	0.0071 U	0.0053 U	0.0061 U	0.008 U	0.0051 U	0.0056 U	0.0052 U	0.0062 U	0.0046 U	0.0049 U	0.0038 U
Trichloroethene	mg/kg	6	0.0048 U	0.0047 U	0.0046 U	0.0052 U	0.0071 U	0.0053 U	0.0061 U	0.008 U	0.0051 U	0.0056 U	0.0052 U	0.0062 U	0.0046 U	0.0049 U	0.0038 U
Xylenes	mg/kg	2,800	0.014 U	0.014 U	0.014 U	0.016 U	0.021 U	0.016 U	0.018 U	0.024 U	0.015 U	0.017 U	0.016 U	0.019 U	0.014 U	0.015 U	0.011 U
Semi-Volatile Organic Compounds^																	
1,1-Biphenyl	mg/kg	200	7.4 U	7.5 U	7.4 U	7.4 U	7.7 U	7.5 U	7.2 U	7.5 U	7.7 U	7.2 U	8.2 U	7.4 U	7.9 U	7.7 U	7.9 U
2,4-Dimethylphenol	mg/kg	16,000	7.4 U	7.5 U	7.4 U	7.4 U	7.7 U	7.5 U	7.2 U	7.5 U	7.7 U	7.2 U	8.2 U	7.4 U	7.9 U	7.7 U	7.9 U
2-Methylnaphthalene	mg/kg	3,000	**0.012**	**0.089**	**0.017**	**0.015**	**0.028**	**0.0026 J**	**0.012**	**5.4**	**0.013**	**0.023 J**	**0.0016 J**	0.15 U	0.0079 U	**0.068 J**	**0.0011 J**
2-Methylphenol	mg/kg	41,000	7.4 U	7.5 U	7.4 U	7.4 U	7.7 U	7.5 U	7.2 U	7.5 U	7.7 U	7.2 U	8.2 U	7.4 U	7.9 U	7.7 U	7.9 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	14.7 U	15 U	14.7 U	14.9 U	15.5 U	15.1 U	14.5 U	14.9 U	15.4 U	14.5 U	16.4 U	14.9 U	15.7 U	15.5 U	15.7 U
Acenaphthene	mg/kg	45,000	**0.0023 J**	**0.28**	**0.02**	**0.0012 J**	**0.0026 J**	0.0075 U	**0.0055 J**	**1.4**	**0.0015 J**	0.15 U	0.0082 U	0.15 U	0.0079 U	0.15 U	0.008 U
Acenaphthylene	mg/kg	45,000	**0.021**	**0.79**	**0.19**	**0.002 J**	**0.023**	**0.00066 J**	**0.0013 J**	**5.6**	**0.0016 J**	0.15 U	0.0082 U	0.15 U	0.0079 U	**0.02 J**	0.008 U
Acetophenone	mg/kg	120,000	7.4 U	7.5 U	7.4 U	7.4 U	7.7 U	7.5 U	7.2 U	7.5 U	7.7 U	7.2 U	8.2 U	7.4 U	7.9 U	7.7 U	7.9 U
Anthracene	mg/kg	230,000	**0.022**	**1.7**	**0.19**	**0.0071 J**	**0.027**	**0.0027 J**	**0.0064 J**	**18.7**	**0.0087**	0.15 U	**0.0013 J**	0.15 U	0.0079 U	**0.071 J**	**0.0011 J**
Benz[a]anthracene	mg/kg	21.0	**0.095**	**4.8**	**0.65**	**0.027**	**0.15**	**0.012**	**0.009**	**36.1**	**0.0091**	**0.057 J**	**0.0044 J**	**0.055 J**	0.0079 U	**0.36**	**0.0022 J**
Benzaldehyde	mg/kg	120,000	7.4 U	7.5 U	7.4 U	7.4 U	7.7 U	7.5 U	7.2 U	7.5 U	7.7 U	7.2 U	8.2 U	7.4 U	7.9 U	7.7 U	7.9 U
Benzo[a]pyrene	mg/kg	2.10	**0.097**	**4.8**	**0.69**	**0.036**	**0.16**	**0.012**	**0.0093**	**33.7**	**0.0085**	0.15 U	**0.0031 J**	**0.022 J**	0.0079 U	**0.34 J**	**0.0043 J**
Benzo[b]fluoranthene	mg/kg	21.0	**0.16**	**6.2**	**1.1**	**0.08**	**0.37**	**0.017**	**0.045**	**40.1**	**0.034**	**0.069 J**	**0.0094**	**0.056 J**	**0.00071 J**	**0.49**	**0.01**
Benzo[g,h,i]perylene	mg/kg		**0.071**	**3.1**	**0.31**	**0.027**	**0.062**	**0.0092**	**0.0081**	**9.2**	**0.0049 J**	0.15 U	**0.0026 J**	**0.026 J**	0.0079 U	**0.31 J**	**0.0045 J**
Benzo[k]fluoranthene	mg/kg	210	**0.069**	**2.3**	**0.42**	**0.081**	**0.37**	**0.011**	**0.045**	**21.4**	**0.034**	**0.057 J**	**0.0077 J**	**0.021 J**	0.0079 U	**0.22 J**	**0.0086**
bis(2-Ethylhexyl)phthalate	mg/kg	160	7.4 U	7.5 U	7.4 U	7.4 U	7.7 U	7.5 U	7.2 U	7.5 U	7.7 U	7.2 U	8.2 U	7.4 U	7.9 U	7.7 U	7.9 U
Carbazole	mg/kg		7.4 U	7.5 U	7.4 U	7.4 U	7.7 U	7.5 U	7.2 U	**6.7 J**	7.7 U	7.2 U	8.2 U	7.4 U	7.9 U	7.7 U	7.9 U
Chrysene	mg/kg	2,100	**0.097**	**5.1**	**0.62**	**0.041**	**0.19**	**0.014**	**0.03**	**32**	**0.025**	**0.024 J**	**0.0037 J**	**0.027 J**	0.0079 U	**0.47**	**0.0092**
Dibenz[a,h]anthracene	mg/kg	2.10	**0.026**	**0.87**	**0.13**	**0.0087**	**0.027**	**0.0027 J**	**0.0037 J**	**6.6**	**0.0026 J**	0.15 U	0.0082 U	0.15 U	0.0079 U	**0.11 J**	**0.0022 J**
Di-n-butylphthalate	mg/kg	82,000	7.4 U	7.5 U	7.4 U	7.4 U	7.7 U	7.5 U	7.2 U	7.5 U	7.7 U	7.2 U	8.2 U	7.4 U	7.9 U	7.7 U	7.9 U
Di-n-ocytlphthalate	mg/kg	8,200	7.4 U	7.5 U	7.4 U	7.4 U	7.7 U	7.5 U	7.2 U	7.5 U	7.7 U	7.2 U	8.2 U	7.4 U	7.9 U	7.7 U	7.9 U
Fluoranthene	mg/kg	30,000	**0.17**	**11.9**	**1.2**	**0.056**	**0.29**	**0.017**	**0.037**	**48**	**0.024**	**0.028 J**	**0.0078 J**	**0.042 J**	**0.00057 J**	**0.47**	**0.0029 J**
Fluorene	mg/kg	30,000	**0.0046 J**	**0.37**	**0.032**	**0.0016 J**	**0.0057 J**	0.0075 U	**0.0047 J**	**11.9**	**0.0025 J**	**0.016 J**	**0.00072 J**	0.15 U	0.0079 U	**0.019 J**	0.008 U
Indeno[1,2,3-c,d]pyrene	mg/kg	21.0	**0.069**	**2.7**	**0.36**	**0.021**	**0.063**	**0.0072 J**	**0.0062 J**	**12.1**	**0.0043 J**	0.15 U	**0.0025 J**	0.15 U	0.0079 U	**0.25 J**	**0.002 J**
Naphthalene	mg/kg	17.0	**0.028**	**0.23**	**0.048**	**0.013**	**0.038**	**0.003 J**	**0.022**	**21.3**	**0.042**	0.061 B	0.004 B	0.063 B	0.002 B	0.093 B	0.0021 B
Pentachlorophenol	mg/kg	4.00	0.18 U	0.19 U	0.18 U	0.19 U	0.19 U	0.19 U	0.18 U	0.19 U	0.19 U	0.18 U	0.21 U	0.19 U	0.2 U	0.19 U	0.2 U
Phenanthrene	mg/kg		**0.06**	**5.4**	**0.5**	**0.031**	**0.13**	**0.0067 J**	**0.042**	**40.1**	**0.04**	**0.068 J**	**0.0052 J**	**0.038 J**	**0.00079 J**	**0.39**	**0.0065 J**
Phenol	mg/kg	250,000	7.4 U	7.5 U	7.4 U	7.4 U	7.7 U	7.5 U	7.2 U	7.5 U	7.7 U	7.2 U	8.2 U	7.4 U	7.9 U	7.7 U	7.9 U
Pyrene	mg/kg	23,000	**0.16**	**11.3**	**1**	**0.05**	**0.25**	**0.015**	**0.023**	**34.8**	**0.018**	**0.045 J**	**0.0066 J**	**0.053 J**	0.0079 U	**0.45**	**0.0057 J**
PCBs																	
Aroclor 1016	mg/kg	27	N/A	1.9 U	N/A	0.019 U	N/A	0.019 U	N/A	0.19 U	N/A	0.18 U	N/A	0.19 U	N/A	0.19 U	N/A
Aroclor 1242	mg/kg	0.97	N/A	1.9 U	N/A	0.019 U	N/A	0.019 U	N/A	0.19 U	N/A	0.18 U	N/A	0.19 U	N/A	0.19 U	N/A
Aroclor 1248	mg/kg	0.94	N/A	1.9 U	N/A	0.019 U	N/A	0.019 U	N/A	0.19 U	N/A	0.18 U	N/A	0.19 U	N/A	0.19 U	N/A
Aroclor 1254	mg/kg	0.97	N/A	1.9 U	N/A	0.019 U	N/A	0.019 U	N/A	0.19 U	N/A	0.18 U	N/A	0.19 U	N/A	0.19 U	N/A
Aroclor 1260	mg/kg	0.99	N/A	**13.6**	N/A	0.019 U	N/A	0.019 U	N/A	0.19 U	N/A	0.18 U	N/A	0.19 U	N/A	0.19 U	N/A
Aroclor 1262	mg/kg		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
PCBs (total)	mg/kg	0.97	N/A	**13.6**	N/A	0.13 U	N/A	0.13 U	N/A	1.3 U	N/A	1.3 U	N/A	1.3 U	N/A	1.4 U	N/A
TPH																	
Diesel Range Organics	mg/kg	6,200	**34.2**	**192**	**131**	**14**	**42.2**	**10.3**	**28.4**	**1,840**	**16**	**401**	8.3 U	**259**	7.9 U	**285**	**37.2**
Gasoline Range Organics	mg/kg	6,200	9.7 U	10.3 U	9.9 U	**15.8**	14.7 U	10.6 U	11.9 U	14.4 U	10.1 U	11.8 U	10.9 U	12.7 U	8.6 U	10.4 U	9.1 U

Bold indicates detection
N/A: This parameter was not analyzed for this sample.
* Indicates non-validated
^ PAH compounds were analyzed for SIM
Red values indicate a detection exceedance of the Project Action Limit

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 5a
Summary of Organics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-084-SB-1*	B5-085-SB-1	B5-086-SB-1*	B5-087-SB-1*	B5-087-SB-5*	B5-088-SB-1*	B5-088-SB-5*	B5-089-SB-1*	B5-090-SB-1	B5-090-SB-4.75	B5-091-SB-1*	B5-091-SB-7*	B5-092-SB-1*	B5-092-SB-5*	B5-093-SB-1*
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	36,000	0.0044 U	0.0048 U	0.0055 U	0.0042 U	0.0056 U	0.0049 U	0.0062 U	0.0051 U	0.0053 U	0.0045 U	0.0039 U	0.0042 U	0.0052 U	0.0055 U	0.0052 U
1,1-Dichloroethane	mg/kg	16	0.0044 U	0.0048 U	0.0055 U	0.0042 U	0.0056 U	0.0049 U	0.0062 U	0.0051 U	0.0053 U	0.0045 U	0.0039 U	0.0042 U	0.0052 U	0.0055 U	0.0052 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0044 U	0.0048 U	0.0055 U	0.0042 U	0.0056 U	0.0049 U	0.0062 U	0.0051 U	0.0053 U	0.0045 U	0.0039 U	0.0042 U	0.0052 U	0.0055 U	0.0052 U
1,2,4-Trichlorobenzene	mg/kg	110	0.0044 U	0.0048 U	0.0055 U	0.0042 U	0.0056 U	0.0049 U	0.0062 U	0.0051 U	0.0053 U	0.0045 U	0.0039 U	0.0042 U	0.0052 U	0.0055 U	0.0052 U
2-Butanone (MEK)	mg/kg	190,000	0.0087 U	0.0097 U	0.011 U	0.0085 U	0.011 U	0.0097 U	0.012 U	0.01 U	0.011 U	**0.0031 J**	0.0078 U	0.0084 U	0.01 U	0.011 U	0.01 U
2-Hexanone	mg/kg	1,300	0.0087 U	0.0097 U	0.011 U	0.0085 U	0.011 U	0.0097 U	0.012 U	0.01 U	0.011 U	0.009 U	0.0078 U	0.0084 U	0.01 U	0.011 U	0.01 U
Acetone	mg/kg	670,000	**0.073**	**0.07**	0.011 U	0.0085 U	0.011 U	**0.056**	**0.12**	0.01 U	0.011 U	0.035 B	**0.096**	0.0084 U	**0.058**	0.011 U	**0.1**
Benzene	mg/kg	5.1	**0.0083**	**0.0064**	**0.0047 J**	**0.0073**	**0.011**	0.0049 U	**0.0046 J**	0.0051 U	0.0053 U	0.0045 U	0.0039 U	0.0042 U	0.0052 U	0.0055 U	0.0052 U
Carbon tetrachloride	mg/kg	2.9	0.0044 U	0.0048 U	0.0055 U	0.0042 U	0.0056 U	0.0049 U	0.0062 U	0.0051 U	0.0053 U	0.0045 U	0.0039 U	0.0042 U	0.0052 U	0.0055 U	0.0052 U
Chloroform	mg/kg	1.4	0.0044 U	0.0048 U	0.0055 U	0.0042 U	0.0056 U	0.0049 U	0.0062 U	0.0051 U	0.0053 U	0.0045 U	0.0039 U	0.0042 U	0.0052 U	0.0055 U	0.0052 U
Cyclohexane	mg/kg	27,000	0.0087 U	0.0097 U	0.011 U	0.0085 U	0.011 U	0.0097 U	0.012 U	0.01 U	0.011 U	0.009 U	0.0078 U	0.0084 U	0.01 U	0.011 U	0.01 U
Ethylbenzene	mg/kg	25	0.0044 U	0.0048 U	0.0055 U	0.0042 U	0.0056 U	0.0049 U	0.0062 U	0.0051 U	0.0053 U	**0.003 J**	0.0039 U	0.0042 U	0.0052 U	0.0055 U	0.0052 U
Isopropylbenzene	mg/kg	9,900	0.0044 U	0.0048 U	0.0055 U	0.0042 U	0.0056 U	0.0049 U	0.0062 U	0.0051 U	0.0053 U	0.0045 U	0.0039 U	0.0042 U	0.0052 U	0.0055 U	0.0052 U
Methyl Acetate	mg/kg	1,200,000	0.044 U	0.048 U	0.055 U	0.042 U	0.056 U	0.049 U	0.062 U	0.051 U	0.053 U	0.045 U	0.039 U	0.042 U	0.052 U	0.055 U	0.052 U
Methylene Chloride	mg/kg	1,000	0.0044 U	0.0048 U	0.0055 U	0.0042 U	0.0056 U	0.0049 U	0.0062 U	0.0051 U	0.0053 U	0.0045 U	0.0039 U	0.0042 U	0.0052 U	0.0055 U	0.0052 U
Styrene	mg/kg	35,000	0.0044 U	0.0048 U	0.0055 U	0.0042 U	0.0056 U	0.0049 U	0.0062 U	0.0051 U	0.0053 U	0.0045 U	0.0039 U	0.0042 U	0.0052 U	0.0055 U	0.0052 U
Tetrachloroethene	mg/kg	100	0.0044 U	0.0048 U	0.0055 U	0.0042 U	0.0056 U	0.0049 U	0.0062 U	0.0051 U	0.0053 U	0.0045 U	0.0039 U	0.0042 U	0.0052 U	0.0055 U	0.0052 U
Toluene	mg/kg	47,000	**0.0021 J**	**0.0043 J**	**0.0022 J**	**0.0046**	0.0056 U	0.0049 U	**0.0032 J**	0.0051 U	0.0053 U	0.0045 U	0.0039 U	0.0042 U	0.0052 U	0.0055 U	**0.0024 J**
Trichloroethene	mg/kg	6	0.0044 U	0.0048 U	0.0055 U	0.0042 U	0.0056 U	0.0049 U	0.0062 U	0.0051 U	0.0053 U	0.0045 U	0.0039 U	0.0042 U	0.0052 U	0.0055 U	0.0052 U
Xylenes	mg/kg	2,800	0.013 U	0.015 U	0.017 U	0.013 U	0.017 U	0.015 U	0.018 U	0.015 U	0.016 U	**0.0068 J**	0.012 U	0.013 U	0.016 U	0.016 U	0.016 U
Semi-Volatile Organic Compounds^																	
1,1-Biphenyl	mg/kg	200	7.1 U	7.4 U	7.3 U	7.1 U	7.4 U	7.5 U	7.4 U	7.4 U	0.073 U	0.08 U	7.2 U	7.6 U	7.6 U	7.6 U	7.5 U
2,4-Dimethylphenol	mg/kg	16,000	7.1 U	7.4 U	7.3 U	7.1 U	7.4 U	7.5 U	7.4 U	7.4 U	0.073 U	0.08 U	7.2 U	7.6 U	7.6 U	7.6 U	7.5 U
2-Methylnaphthalene	mg/kg	3,000	**0.013**	**0.037**	**0.0039 J**	**0.0097**	0.0074 U	**0.034 J**	**0.0026 J**	0.0075 U	**0.025 J**	**0.0063 J**	**0.059**	**0.034**	**0.044**	**0.0048 J**	**0.014**
2-Methylphenol	mg/kg	41,000	7.1 U	7.4 U	7.3 U	7.1 U	7.4 U	7.5 U	7.4 U	7.4 U	0.073 U	0.08 U	7.2 U	7.6 U	7.6 U	7.6 U	7.5 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	14.2 U	14.7 U	14.7 U	14.2 U	14.7 U	15 U	14.7 U	14.8 U	0.15 U	0.16 U	14.4 U	15.2 U	15.1 U	15.2 U	15 U
Acenaphthene	mg/kg	45,000	**0.019**	**0.032**	**0.0031 J**	**0.0029 J**	0.0074 U	**0.029 J**	**0.0015 J**	0.0075 U	**0.0026 J**	**0.035**	**0.054**	**0.054**	**0.063**	0.0078 U	**0.014**
Acenaphthylene	mg/kg	45,000	**0.0024 J**	**0.0063 J**	**0.00082 J**	**0.00098 J**	0.0074 U	0.15 U	**0.0013 J**	0.0075 U	**0.0027 J**	0.008 U	**0.019**	**0.0026 J**	**0.0052 J**	**0.00086 J**	**0.0021 J**
Acetophenone	mg/kg	120,000	7.1 U	7.4 U	7.3 U	7.1 U	7.4 U	7.5 U	7.4 U	7.4 U	0.073 U	0.08 U	7.2 U	7.6 U	7.6 U	7.6 U	7.5 U
Anthracene	mg/kg	230,000	**0.029**	**0.1**	**0.0083**	**0.006 J**	0.0074 U	**0.063 J**	**0.0043 J**	**0.00093 J**	**0.019**	**0.023**	**0.25**	**0.038**	**0.11**	**0.0028 J**	**0.017**
Benz[a]anthracene	mg/kg	21.0	**0.23**	**0.82**	**0.15**	**0.059**	0.0074 U	**0.51**	**0.037**	**0.0034 J**	**0.24 J**	**0.0071 J**	**0.75**	**0.086**	**1.7**	**0.0075 J**	**0.11**
Benzaldehyde	mg/kg	120,000	7.1 U	7.4 U	7.3 U	7.1 U	7.4 U	7.5 U	7.4 U	7.4 U	0.073 UJ	0.08 UJ	7.2 U	7.6 U	7.6 U	7.6 U	7.5 U
Benzo[a]pyrene	mg/kg	2.10	**0.34**	**1.1**	**0.24**	**0.098**	0.0074 U	**0.8**	**0.1**	**0.0024 J**	**0.22 J**	**0.0064 J**	**0.95**	**0.11**	3.7	**0.0049 J**	**0.18**
Benzo[b]fluoranthene	mg/kg	21.0	**0.78**	**3.5**	**0.64**	**0.27**	0.0074 U	**1.7**	**0.29**	**0.005 J**	**0.63 J**	**0.02**	**3.1**	**0.29**	**6.1**	**0.011**	**0.52**
Benzo[g,h,i]perylene	mg/kg		**0.14**	**0.36**	**0.13**	**0.056**	0.0074 U	**0.48**	**0.062**	**0.0017 J**	**0.19 J**	**0.0066 J**	**0.44**	**0.035**	**2.9**	**0.0028 J**	**0.09**
Benzo[k]fluoranthene	mg/kg	210	**0.77**	**3.4**	**0.53**	**0.27**	0.0074 U	**1.4**	**0.24**	**0.0027 J**	**0.62 J**	**0.02**	**3.1**	**0.29**	**6**	**0.0074 J**	**0.51**
bis(2-Ethylhexyl)phthalate	mg/kg	160	7.1 U	7.4 U	7.3 U	7.1 U	7.4 U	7.5 U	7.4 U	7.4 U	0.073 U	0.08 U	7.2 U	7.6 U	7.6 U	7.6 U	7.5 U
Carbazole	mg/kg		7.1 U	7.4 UJ	7.3 U	7.1 U	7.4 U	7.5 U	7.4 U	7.4 U	0.073 U	0.08 U	7.2 U	7.6 U	7.6 U	7.6 U	7.5 U
Chrysene	mg/kg	2,100	**0.33**	**0.99**	**0.24**	**0.11**	0.0074 U	**0.7**	**0.055**	**0.0031 J**	**0.37 J**	**0.014**	**0.86**	**0.12**	**2.3**	**0.0068 J**	**0.16**
Dibenz[a,h]anthracene	mg/kg	2.10	**0.047**	**0.14**	**0.055**	**0.015**	0.0074 U	**0.12 J**	**0.025**	0.0075 U	**0.072 J**	**0.0018 J**	**0.14**	**0.012**	**0.55**	0.0078 U	**0.03**
Di-n-butylphthalate	mg/kg	82,000	7.1 U	7.4 U	7.3 U	7.1 U	7.4 U	7.5 U	7.4 U	7.4 U	0.073 U	0.08 U	7.2 U	7.6 U	7.6 U	7.6 U	7.5 U
Di-n-ocytlphthalate	mg/kg	8,200	7.1 U	7.4 UJ	7.3 U	7.1 U	7.4 U	7.5 U	7.4 U	7.4 U	0.073 U	0.08 U	7.2 U	7.6 U	7.6 U	7.6 U	7.5 U
Fluoranthene	mg/kg	30,000	**0.29**	**1.1**	**0.24**	**0.097**	0.0074 U	**0.76**	**0.059**	**0.0054 J**	**0.37 J**	**0.025**	**2.6**	**0.23**	**1.8**	**0.027**	**0.2**
Fluorene	mg/kg	30,000	**0.012**	**0.025**	**0.002 J**	**0.0024 J**	0.0074 U	**0.015 J**	**0.00078 J**	0.0075 U	**0.0025 J**	**0.025**	**0.055**	**0.042**	**0.023**	**0.00073 J**	**0.011**
Indeno[1,2,3-c,d]pyrene	mg/kg	21.0	**0.12**	**0.33**	**0.13**	**0.035**	0.0074 U	**0.39**	**0.069**	0.0075 U	**0.17 J**	**0.0051 J**	**0.39**	**0.031**	**1.4**	**0.0022 J**	**0.071**
Naphthalene	mg/kg	17.0	**0.013**	**0.028**	**0.014**	**0.016**	0.0074 U	**0.039 J**	**0.0082**	**0.0025 J**	**0.03 J**	**0.024**	**0.046**	**0.037**	**0.038**	**0.0096**	**0.027**
Pentachlorophenol	mg/kg	4.00	0.18 U	N/A	0.18 U	0.18 U	0.18 U	**0.07 J**	0.18 U	0.19 U	0.18 U	0.2 U	0.18 U	0.19 U	0.19 U	0.19 U	0.19 U
Phenanthrene	mg/kg		**0.11**	**0.32**	**0.056**	**0.038**	0.0074 U	**0.23**	**0.022**	**0.0057 J**	**0.14 J**	**0.12**	**1.1**	**0.18**	**0.4**	**0.019**	**0.084**
Phenol	mg/kg	250,000	7.1 U	7.4 U	7.3 U	7.1 U	7.4 U	7.5 U	7.4 U	7.4 U	0.073 U	0.08 U	7.2 U	7.6 U	7.6 U	7.6 U	7.5 U
Pyrene	mg/kg	23,000	**0.28**	**1.4**	**0.26**	**0.098**	0.0074 U	**0.89**	**0.063**	**0.0056 J**	**0.32 J**	**0.016**	**2.1**	**0.18**	**2.1**	**0.018**	**0.17**
PCBs																	
Aroclor 1016	mg/kg	27	0.018 U	**0.14**	0.018 U	0.018 U	N/A	0.19 U	N/A	0.019 U	0.0541 U	N/A	0.018 U	N/A	0.19 U	N/A	0.019 U
Aroclor 1242	mg/kg	0.97	0.018 U	0.093 U	0.018 U	0.018 U	N/A	0.19 U	N/A	0.019 U	0.0541 U	N/A	0.018 U	N/A	0.19 U	N/A	0.019 U
Aroclor 1248	mg/kg	0.94	0.018 U	0.093 U	0.018 U	0.018 U	N/A	0.19 U	N/A	0.019 U	0.0541 U	N/A	0.018 U	N/A	0.19 U	N/A	0.019 U
Aroclor 1254	mg/kg	0.97	0.018 U	0.093 U	0.018 U	0.018 U	N/A	0.19 U	N/A	0.019 U	0.0541 U	N/A	0.018 U	N/A	0.19 U	N/A	0.019 U
Aroclor 1260	mg/kg	0.99	0.018 U	0.093 U	0.018 U	0.018 U	N/A	0.19 U	N/A	0.019 U	0.0541 U	N/A	0.018 U	N/A	0.19 U	N/A	0.019 U
Aroclor 1262	mg/kg		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0541 U	N/A	N/A	N/A	N/A	N/A	N/A
PCBs (total)	mg/kg	0.97	0.13 U	0.65 U	0.13 U	0.12 U	N/A	1.3 U	N/A	0.13 U	0.0541 U	N/A	0.13 U	N/A	1.3 U	N/A	0.13 U
TPH																	
Diesel Range Organics	mg/kg	6,200	**20.9**	**88.9**	**29.8**	**35.6**	7.3 U	**149**	**15.7**	7.4 U	**28.6**	**9.3**	**205**	**24.5**	**82.3**	**8.7**	**121**
Gasoline Range Organics	mg/kg	6,200	11.6 U	11.5 U	**9.6 J**	9.5 U	11 U	10.7 U	12.4 U	18.1 U	10.8 U	12 U	8.2 U	8.8 U	11.7 U	11.8 U	8.6 U

Bold indicates detection
N/A: This parameter was not analyzed for this sample.
* Indicates non-validated
^ PAH compounds were analyzed for SIM
Red values indicate a detection exceedance of the Project Action Limit

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 5a
Summary of Organics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-093-SB-4*	B5-094-SB-1	B5-094-SB-5	B5-095-SB-1	B5-095-SB-5	B5-096-SB-1*	B5-096-SB-5*	B5-097-SB-1*	B5-097-SB-4*	B5-098-SB-1	B5-098-SB-4	B5-099-SB-1	B5-099-SB-4.5	B5-100-SB-1	B5-100-SB-5	B5-101-SB-1
Volatile Organic Compounds																		
1,1,1-Trichloroethane	mg/kg	36,000	0.0057 U	0.0051 U	0.0091 U	0.005 U	0.0074 U	0.0048 U	0.0081 U	0.0046 U	0.0075 U	0.25 U	0.72 U	0.27 U	0.25 U	0.0056 U	0.007 U	0.0065 U
1,1-Dichloroethane	mg/kg	16	0.0057 U	0.0051 U	0.0091 U	0.005 U	0.0074 U	0.0048 U	0.0081 U	0.0046 U	0.0075 U	0.25 U	0.72 U	0.27 U	0.25 U	0.0056 U	0.007 U	0.0065 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0057 U	0.0051 U	0.0091 U	0.005 U	0.0074 U	0.0048 U	0.0081 U	0.0046 U	0.0075 U	0.25 U	0.72 U	0.27 U	0.25 U	0.0056 U	0.007 UJ	0.0065 U
1,2,4-Trichlorobenzene	mg/kg	110	0.0057 U	0.0051 U	0.0091 U	0.005 U	0.0074 U	0.0048 U	0.0081 U	0.0046 U	0.0075 U	0.25 U	0.72 U	0.27 U	0.25 U	0.0056 U	0.007 UJ	0.0065 U
2-Butanone (MEK)	mg/kg	190,000	0.011 U	0.01 U	0.018 U	0.01 U	0.015 U	0.0096 U	0.016 U	0.0091 U	0.015 U	0.51 U	1.4 U	0.53 U	0.49 U	0.011 U	0.014 U	0.013 U
2-Hexanone	mg/kg	1,300	0.011 U	0.01 U	0.018 U	0.01 U	0.015 U	0.0096 U	0.016 U	0.0091 U	0.015 U	0.51 U	1.4 U	0.53 U	0.49 U	0.011 U	0.014 U	0.013 U
Acetone	mg/kg	670,000	**0.076**	**0.067**	**0.028 J**	**0.0051 J**	**0.029 J**	0.0096 U	**0.15**	**0.092**	0.015 U	0.51 U	1.4 U	0.53 U	0.49 U	**0.1**	**0.036**	0.013 R
Benzene	mg/kg	5.1	0.0057 U	0.0051 U	0.0091 U	0.005 U	0.0074 U	0.0048 U	0.0081 U	**0.0028 J**	0.0075 U	0.25 U	**0.52 J**	0.27 U	0.25 U	**0.0035 J**	0.007 U	0.0065 U
Carbon tetrachloride	mg/kg	2.9	0.0057 U	0.0051 U	0.0091 U	0.005 U	0.0074 U	0.0048 U	0.0081 U	0.0046 U	0.0075 U	0.25 U	0.72 U	0.27 U	0.25 U	0.0056 U	0.007 U	0.0065 U
Chloroform	mg/kg	1.4	0.0057 U	0.0051 U	0.0091 U	0.005 U	0.0074 U	0.0048 U	0.0081 U	0.0046 U	0.0075 U	0.25 U	0.72 U	0.27 U	0.25 U	0.0056 U	0.007 U	0.0065 U
Cyclohexane	mg/kg	27,000	0.011 U	0.01 U	0.018 U	0.01 U	0.015 U	0.0096 U	0.016 U	0.0091 U	0.015 U	0.51 U	1.4 U	0.53 U	0.49 U	0.011 U	0.014 U	0.013 U
Ethylbenzene	mg/kg	25	0.0057 U	0.0051 U	**0.023**	0.005 U	0.0074 U	0.0048 U	0.0081 U	0.0046 U	0.0075 U	0.25 U	**1.4**	0.27 U	**0.16 J**	0.0056 U	0.007 U	0.0065 U
Isopropylbenzene	mg/kg	9,900	0.0057 U	0.0051 U	**0.0035 J**	0.005 U	0.0074 U	0.0048 U	0.0081 U	0.0046 U	0.0075 U	0.25 U	**0.41 J**	0.27 U	**0.78**	0.0056 U	0.007 U	0.0065 U
Methyl Acetate	mg/kg	1,200,000	0.057 U	0.051 U	0.091 U	0.05 U	0.074 U	**0.02 J**	0.081 U	0.046 U	0.075 U	2.5 U	7.2 U	2.7 U	2.5 U	0.056 U	0.07 U	0.065 U
Methylene Chloride	mg/kg	1,000	0.0057 U	0.0051 U	0.0091 U	0.005 U	0.0074 U	0.0048 U	0.0081 U	0.0046 U	0.0075 U	0.25 U	0.72 U	0.27 U	0.25 U	0.0056 U	0.007 U	0.0065 U
Styrene	mg/kg	35,000	0.0057 U	0.0051 U	0.0091 U	0.005 U	0.0074 U	0.0048 U	0.0081 U	0.0046 U	0.0075 U	0.25 U	0.72 U	0.27 U	0.25 U	0.0056 U	0.007 U	0.0065 U
Tetrachloroethene	mg/kg	100	0.0057 U	0.0051 U	0.0091 U	0.005 U	0.0074 U	0.0048 U	0.0081 U	0.0046 U	0.0075 U	0.25 U	0.72 U	0.27 U	0.25 U	0.0056 U	0.007 U	0.0065 U
Toluene	mg/kg	47,000	0.0057 U	0.0051 U	**0.023**	0.005 U	0.0074 U	0.0048 U	0.0081 U	**0.0026 J**	0.0075 U	**0.08 J**	**1.1**	**0.1 J**	0.25 U	0.0056 U	0.007 U	**0.0031 J**
Trichloroethene	mg/kg	6	0.0057 U	0.0051 U	0.0091 U	0.005 U	0.0074 U	0.0048 U	0.0081 U	0.0046 U	0.0075 U	0.25 U	0.72 U	0.27 U	0.25 U	0.0056 U	0.007 U	0.0065 U
Xylenes	mg/kg	2,800	0.017 U	0.015 U	**0.023 J**	0.015 U	0.022 U	0.014 U	0.024 U	0.014 U	0.022 U	0.76 U	**3.5**	**0.28 J**	**0.25 J**	0.017 U	0.021 U	0.019 U
Semi-Volatile Organic Compounds^																		
1,1-Biphenyl	mg/kg	200	8 U	7.3 U	8.4 U	7.4 U	7.3 U	7.4 U	7.3 U	7.3 U	7.5 U	7.5 U	8 U	7.2 U	8.1 U	7.5 U	8.1 U	7.8 U
2,4-Dimethylphenol	mg/kg	16,000	8 U	7.3 U	8.4 U	7.4 U	7.3 U	7.4 U	7.3 U	7.3 U	7.5 U	7.5 U	**2.6 J**	7.2 U	8.1 U	7.5 U	8.1 U	7.8 U
2-Methylnaphthalene	mg/kg	3,000	**0.02**	**0.0053 J**	**0.072**	**0.011**	**0.069**	**0.024**	0.14 U	**0.14 J**	**0.17**	**0.58**	**5.3**	**0.94**	**4.9**	**0.14 J**	**0.55**	**0.089**
2-Methylphenol	mg/kg	41,000	8 U	7.3 U	8.4 U	7.4 U	7.3 U	7.4 U	7.3 U	7.3 U	7.5 U	7.5 U	8 U	7.2 U	8.1 U	7.5 U	8.1 U	7.8 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	15.9 U	14.6 U	16.7 U	14.8 U	14.6 U	14.8 U	14.7 U	14.5 U	15 U	15 U	16 U	14.3 U	16.2 U	15 U	16.2 U	15.7 U
Acenaphthene	mg/kg	45,000	**0.0042 J**	0.0074 U	0.0083 U	0.0075 U	**0.0069 J**	**0.0064 J**	0.14 U	0.14 U	0.15 U	**0.02**	**0.96**	**0.015**	**4**	**0.24 J**	**0.12**	**0.051**
Acenaphthylene	mg/kg	45,000	**0.016**	0.0074 U	**0.0054 J**	0.0075 U	**0.018**	**0.014**	0.14 U	**0.026 J**	**0.028 J**	**0.033**	**0.48**	**0.075**	**1.5**	**0.18 J**	**0.11**	**0.024**
Acetophenone	mg/kg	120,000	8 U	7.3 U	8.4 U	7.4 U	7.3 U	7.4 U	7.3 U	7.3 U	7.5 U	7.5 U	8 U	7.2 U	8.1 U	7.5 U	8.1 U	7.8 U
Anthracene	mg/kg	230,000	**0.03**	**0.0039 J**	**0.008 J**	**0.0082**	**0.11**	**0.034**	0.14 U	**0.041 J**	**0.028 J**	**0.069**	**3.5**	**0.091**	**4.6**	**1.1**	**0.6**	**0.33**
Benz[a]anthracene	mg/kg	21.0	**0.11**	**0.0057 J**	**0.027**	**0.0078**	**0.024**	**0.1**	0.36 U	**0.11 J**	0.15 U	**0.23**	**6.5**	**0.12**	**4.2**	**8.3**	**1.3**	**1.5**
Benzaldehyde	mg/kg	120,000	8 U	7.3 U	8.4 U	7.4 R	7.3 R	7.4 U	7.3 U	7.3 U	7.5 U	7.5 UJ	8 UJ	7.2 UJ	8.1 UJ	7.5 UJ	8.1 UJ	7.8 U
Benzo[a]pyrene	mg/kg	2.10	**0.12**	**0.0044 J**	**0.035**	**0.0066 J**	**0.014**	**0.073**	**0.037 J**	**0.29**	**0.21**	**0.25**	**9.4**	**0.14**	**3.6 J**	**6.8**	**1.1**	**1.1 J**
Benzo[b]fluoranthene	mg/kg	21.0	**0.32**	**0.017**	**0.058**	**0.029**	**0.049**	**0.18**	**0.095 J**	**0.28**	**0.18**	**0.72**	**13.2**	**0.51**	**7.6 J**	**14.2**	**2.2 J**	**4.4 J**
Benzo[g,h,i]perylene	mg/kg		**0.043**	**0.0033 J**	**0.021**	**0.005 J**	**0.0045 J**	**0.038**	**0.19 J**	**0.7**	**0.92**	**0.17**	**4.1**	**0.078**	**1.3 J**	**1.7**	**0.19**	**0.41 J**
Benzo[k]fluoranthene	mg/kg	210	**0.32**	**0.014**	**0.02**	**0.024**	**0.04**	**0.074**	0.36 U	**0.1 J**	**0.076 J**	**0.6**	**5**	**0.42**	**2.6 J**	**4.6**	**0.97 J**	**1 J**
bis(2-Ethylhexyl)phthalate	mg/kg	160	8 U	7.3 U	8.4 U	7.4 U	7.3 U	7.4 U	7.3 U	7.3 U	7.5 U	7.5 U	8 U	7.2 U	8.1 U	7.5 U	8.1 U	7.8 U
Carbazole	mg/kg		8 U	7.3 U	8.4 U	7.4 U	7.3 U	7.4 U	7.3 U	7.3 U	7.5 U	7.5 U	8 U	7.2 U	8.1 U	7.5 U	8.1 U	7.8 U
Chrysene	mg/kg	2,100	**0.14**	**0.0081**	**0.049**	**0.013**	**0.057**	**0.13**	**0.69**	**0.24**	**1.5**	**0.28**	**6.5**	**0.15**	**4**	**8.4**	**1.3**	**3**
Dibenz[a,h]anthracene	mg/kg	2.10	**0.014**	0.0074 U	**0.0083 J**	0.0075 U	**0.0035 J**	**0.016**	0.36 U	**0.077 J**	**0.15 J**	**0.054**	**2.3**	**0.031**	**0.67 J**	**0.85**	**0.13**	**0.23 J**
Di-n-butylphthalate	mg/kg	82,000	8 U	7.3 U	8.4 U	7.4 U	7.3 U	7.4 U	7.3 U	7.3 U	7.5 U	7.5 U	8 U	7.2 U	8.1 U	7.5 U	8.1 U	7.8 U
Di-n-ocytlphthalate	mg/kg	8,200	8 U	7.3 U	8.4 U	7.4 U	7.3 U	7.4 U	7.3 U	7.3 U	7.5 U	7.5 U	8 U	7.2 U	8.1 U	7.5 U	8.1 U	7.8 UJ
Fluoranthene	mg/kg	30,000	**0.28**	**0.0096**	**0.039**	**0.019**	**0.08**	**0.18**	**0.035 J**	**0.14 J**	**0.055 J**	**0.41**	**9.1**	**0.21**	**8.3**	**12**	**2.6**	**4.1**
Fluorene	mg/kg	30,000	**0.0027 J**	0.0074 U	**0.0025 J**	0.0075 U	**0.0027 J**	**0.0076**	**0.019 J**	**0.022 J**	**0.02 J**	**0.033**	**2.2**	**0.051**	**6**	**0.29 J**	**0.22**	**0.05**
Indeno[1,2,3-c,d]pyrene	mg/kg	21.0	**0.037**	**0.0026 J**	**0.02**	**0.0049 J**	**0.0038 J**	**0.039**	0.36 U	**0.11 J**	**0.034 J**	**0.16**	**4.5**	**0.084**	**1.6 J**	**1.9**	**0.27**	**0.47 J**
Naphthalene	mg/kg	17.0	**0.05**	0.0032 B	**0.036**	0.0064 B	**0.036**	**0.034**	0.072 B	0.12 B	0.13 B	**0.22**	**1.9**	**0.43**	**3.1**	0.13 B	**0.36**	**0.092**
Pentachlorophenol	mg/kg	4.00	0.2 U	0.18 UJ	0.21 UJ	0.19 UJ	0.18 UJ	0.19 U	0.18 U	0.18 U	0.19 U	0.19 U*	0.2 U*	0.18 U*	0.2 U*	0.19 U*	0.2 U*	0.2 UJ
Phenanthrene	mg/kg		**0.11**	**0.014**	**0.13**	**0.02**	**0.93**	**0.077**	**0.037 J**	**0.12 J**	**0.068 J**	**0.24**	**7.8**	**0.27**	**15.6**	**3.9**	**2.5**	**1.2**
Phenol	mg/kg	250,000	8 U	7.3 U	8.4 U	7.4 U	7.3 U	7.4 U	7.3 U	7.3 U	7.5 U	7.5 U	8 U	7.2 U	8.1 U	7.5 U	8.1 U	7.8 U
Pyrene	mg/kg	23,000	**0.24**	**0.0078**	**0.027**	**0.019**	**0.062**	**0.28**	**0.12 J**	**0.18**	**0.15 J**	**0.36**	**6.7**	**0.19**	**6.7**	**9.9**	**1.9**	**3.5**
PCBs																		
Aroclor 1016	mg/kg	27	N/A	0.018 U	N/A	0.018 U	N/A	0.018 U	N/A	0.36 U	N/A	0.092 U	N/A	0.09 U	N/A	0.93 U	N/A	9.7 U
Aroclor 1242	mg/kg	0.97	N/A	0.018 U	N/A	0.018 U	N/A	0.018 U	N/A	0.36 U	N/A	0.092 U	N/A	0.09 U	N/A	0.93 U	N/A	9.7 U
Aroclor 1248	mg/kg	0.94	N/A	0.018 U	N/A	0.018 U	N/A	0.018 U	N/A	0.36 U	N/A	0.092 U	N/A	0.09 U	N/A	0.93 U	N/A	9.7 U
Aroclor 1254	mg/kg	0.97	N/A	0.018 U	N/A	0.018 U	N/A	0.018 U	N/A	0.36 U	N/A	**0.26**	N/A	**0.11**	N/A	0.93 U	N/A	**54.2**
Aroclor 1260	mg/kg	0.99	N/A	0.018 U	N/A	**0.029**	N/A	**0.2**	N/A	**0.046 J**	N/A	0.092 U	N/A	0.09 U	N/A	0.93 U	N/A	9.7 U
Aroclor 1262	mg/kg		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
PCBs (total)	mg/kg	0.97	N/A	0.13 U	N/A	0.13 U	N/A	**0.2**	N/A	2.5 U	N/A	**0.26 J**	N/A	0.63 U	N/A	6.5 U	N/A	**54.2 J**
TPH																		
Diesel Range Organics	mg/kg	6,200	**83.6**	**89.6**	**49.4**	**35.1**	**65.3**	**58.5**	**2,100**	**172**	**1,540**	**371**	**4,760**	**1,140**	**7,780**	**519**	**179**	**280 J**
Gasoline Range Organics	mg/kg	6,200	12.1 U	11.6 U	22.5 U	10 U	17.3 U	9.8 U	21.3 U	12.1 U	16.4 U	51.6 U	304 U	54.2 U	**165 J**	10.3 U	18.5 U	62.2 U

Bold indicates detection
N/A: This parameter was not analyzed for this sample.
* Indicates non-validated
^ PAH compounds were analyzed for SIM
Red values indicate a detection exceedance of the Project Action Limit

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 5a
Summary of Organics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-101-SB-5	B5-102-SB-1	B5-103-SB-1	B5-103-SB-4.5	B5-104-SB-1*	B5-104-SB-5*	B5-105-SB-1*	B5-105-SB-5*	B5-106-SB-1*	B5-106-SB-5*	B5-107-SB-1*	B5-107-SB-6*	B5-108-SB-1	B5-108-SB-5	B5-109-SB-1*
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	36,000	0.0053 U	0.0043 U	0.0043 U	0.0071 U	0.0049 U	0.0055 U	0.0033 U	0.0046 U	0.0055 U	0.0053 U	0.0063 U	0.005 U	0.0051 U	0.0061 U	0.0058 U
1,1-Dichloroethane	mg/kg	16	0.0053 U	0.0043 U	0.0043 U	0.0071 U	0.0049 U	0.0055 U	0.0033 U	0.0046 U	0.0055 U	0.0053 U	0.0063 U	0.005 U	0.0051 U	0.0061 U	0.0058 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0053 U	0.0043 U	0.0043 U	0.0071 UJ	0.0049 U	0.0055 U	0.0033 U	0.0046 U	0.0055 U	0.0053 U	0.0063 U	0.005 U	0.0051 U	0.0061 U	0.0058 U
1,2,4-Trichlorobenzene	mg/kg	110	0.0053 U	0.0043 U	0.0043 U	0.0071 UJ	0.0049 U	0.0055 U	0.0033 U	0.0046 U	0.0055 U	0.0053 U	0.0063 U	0.005 U	0.0051 U	0.0061 U	0.0058 U
2-Butanone (MEK)	mg/kg	190,000	0.011 U	0.0086 U	0.0087 U	0.014 U	0.0097 U	0.011 U	0.0066 U	0.0092 U	0.011 U	0.011 U	0.013 U	0.01 U	0.01 U	0.012 U	0.012 U
2-Hexanone	mg/kg	1,300	0.011 U	0.0086 U	0.0087 U	0.014 U	0.0097 U	0.011 U	0.0066 U	0.0092 U	0.011 U	0.011 U	0.013 U	0.01 U	0.01 U	0.012 U	0.012 U
Acetone	mg/kg	670,000	0.011 R	**0.047**	**0.039**	0.014 U	0.0097 U	0.011 U	**0.052**	**0.035**	0.011 U	**0.028**	0.013 U	**0.031**	**0.044 J**	**0.057 J**	0.012 U
Benzene	mg/kg	5.1	0.0053 U	0.0043 U	0.0043 U	0.0071 U	0.0049 U	0.0055 U	0.0033 U	**0.0024 J**	0.0055 U	0.0053 U	0.0063 U	0.005 U	0.0051 U	0.0061 U	0.0058 U
Carbon tetrachloride	mg/kg	2.9	0.0053 U	0.0043 U	0.0043 U	0.0071 U	0.0049 U	0.0055 U	0.0033 U	0.0046 U	0.0055 U	0.0053 U	0.0063 U	0.005 U	0.0051 U	0.0061 U	0.0058 U
Chloroform	mg/kg	1.4	0.0053 U	0.0043 U	0.0043 U	0.0071 U	0.0049 U	0.0055 U	0.0033 U	0.0046 U	0.0055 U	0.0053 U	0.0063 U	0.005 U	0.0051 U	0.0061 U	0.0058 U
Cyclohexane	mg/kg	27,000	0.011 U	0.0086 U	0.0087 U	0.014 U	0.0097 U	0.011 U	0.0066 U	**0.0059 J**	0.011 U	0.011 U	0.013 U	0.01 U	0.01 U	0.012 U	0.012 U
Ethylbenzene	mg/kg	25	0.0053 U	0.0043 U	0.0043 U	0.0071 U	0.0049 U	0.0055 U	0.0033 U	0.0046 U	0.0055 U	0.0053 U	0.0063 U	0.005 U	0.0051 U	0.0061 U	0.0058 U
Isopropylbenzene	mg/kg	9,900	0.0053 U	0.0043 U	0.0043 U	0.0071 U	0.0049 U	0.0055 U	0.0033 U	0.0046 U	0.0055 U	0.0053 U	0.0063 U	0.005 U	0.0051 U	0.0061 U	0.0058 U
Methyl Acetate	mg/kg	1,200,000	0.053 U	0.043 U	0.043 U	0.071 U	0.049 U	0.055 U	0.033 U	0.046 U	0.055 U	0.053 U	0.063 U	0.05 U	0.051 U	0.061 U	0.058 U
Methylene Chloride	mg/kg	1,000	0.0053 U	0.0043 U	0.0043 U	0.0071 U	0.0049 U	0.0055 U	0.0033 U	0.0046 U	0.0055 U	0.0053 U	0.0063 U	0.005 U	0.0051 U	0.0061 U	0.0058 U
Styrene	mg/kg	35,000	0.0053 U	0.0043 U	0.0043 U	0.0071 U	0.0049 U	0.0055 U	0.0033 U	0.0046 U	0.0055 U	0.0053 U	0.0063 U	0.005 U	0.0051 U	0.0061 U	0.0058 U
Tetrachloroethene	mg/kg	100	0.0053 U	0.0043 U	0.0043 U	0.0071 U	0.0049 U	0.0055 U	0.0033 U	0.0046 U	0.0055 U	0.0053 U	**0.0041 J**	**0.014**	0.0051 U	0.0061 U	0.0058 U
Toluene	mg/kg	47,000	0.0053 U	0.0043 U	0.0043 U	0.0071 U	0.0049 U	0.0055 U	0.0033 U	**0.0019 J**	0.0055 U	0.0053 U	0.0063 U	0.005 U	0.0051 U	0.0061 U	0.0058 U
Trichloroethene	mg/kg	6	0.0053 U	0.0043 U	0.0043 U	0.0071 U	0.0049 U	0.0055 U	0.0033 U	0.0046 U	0.0055 U	0.0053 U	0.0063 U	0.005 U	0.0051 U	0.0061 U	0.0058 U
Xylenes	mg/kg	2,800	0.016 U	0.013 U	0.013 U	0.021 U	0.015 U	0.016 U	0.0099 U	0.014 U	0.017 U	0.016 U	0.019 U	0.015 U	0.015 U	0.018 U	0.017 U
Semi-Volatile Organic Compounds^																	
1,1-Biphenyl	mg/kg	200	8 U	7.5 U	7.3 U	8.4 U	7.1 U	8.3 U	7.6 U	7.2 U	7.3 U	7 U	7.6 U	7.4 U	7.4 U	7.5 U	7.6 U
2,4-Dimethylphenol	mg/kg	16,000	8 U	7.5 U	7.3 U	8.4 U	7.1 U	8.3 U	7.6 U	7.2 U	7.3 U	7 U	7.6 U	7.4 U	7.4 U	7.5 U	7.6 U
2-Methylnaphthalene	mg/kg	3,000	**0.0074 J**	**0.49**	**0.27**	**0.35**	**0.047**	0.0082 U	**0.015**	0.0072 U	**0.006 J**	**0.0017 J**	**0.0063 J**	**0.02 J**	**0.15**	**0.024 J**	**0.0034 J**
2-Methylphenol	mg/kg	41,000	8 U	7.5 U	7.3 U	8.4 U	7.1 U	8.3 U	7.6 U	7.2 U	7.3 U	7 U	7.6 U	7.4 U	7.4 U	7.5 U	7.6 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	16 U	14.9 U	14.5 U	16.8 U	14.2 U	16.6 U	15.1 U	14.4 U	14.6 U	14.1 U	15.1 U	14.9 U	14.9 U	15 U	15.1 U
Acenaphthene	mg/kg	45,000	**0.0007 J**	**2.8**	**1.1**	**0.28**	**0.0042 J**	0.0082 U	**0.0029 J**	0.0072 U	**0.0012 J**	0.0071 U	0.0077 U	0.15 U	**0.027**	0.15 U	**0.00073 J**
Acenaphthylene	mg/kg	45,000	**0.0018 J**	**0.14 J**	**0.11 J**	**0.067**	**0.005 J**	0.0082 U	**0.015**	**0.0009 J**	**0.0012 J**	**0.013**	**0.002 J**	**0.017 J**	**0.13**	0.15 U	**0.00095 J**
Acetophenone	mg/kg	120,000	8 U	7.5 U	7.3 U	8.4 U	7.1 U	8.3 U	7.6 U	7.2 U	7.3 U	7 U	7.6 U	7.4 U	7.4 U	7.5 U	7.6 U
Anthracene	mg/kg	230,000	**0.0062 J**	**5.3**	**2.9**	**0.36**	**0.022**	0.0082 U	**0.019**	**0.0016 J**	**0.0034 J**	**0.0071**	**0.0028 J**	0.15 U	**0.21**	**0.015 J**	**0.0022 J**
Benz[a]anthracene	mg/kg	21.0	**0.027**	**10.1**	**9.1**	**0.55**	**0.049**	0.0082 U	**0.046**	**0.0033 J**	**0.014**	**0.021**	**0.011**	**0.07 J**	**1.4**	**0.13 J**	**0.0062 J**
Benzaldehyde	mg/kg	120,000	8 U	7.5 UJ	7.3 UJ	8.4 UJ	7.1 U	8.3 U	7.6 U	7.2 U	7.3 U	7 U	7.6 U	7.4 U	7.4 U	7.5 U	7.6 U
Benzo[a]pyrene	mg/kg	2.10	**0.029 J**	**9.3**	**9.2**	**0.49**	**0.034**	0.0082 U	**0.039**	**0.002 J**	**0.013**	**0.031**	**0.0083**	**0.051 J**	**1.1**	**0.096 J**	**0.0059 J**
Benzo[b]fluoranthene	mg/kg	21.0	**0.063 J**	**13.6**	**14.6**	**1.2**	**0.11**	**0.0015 J**	**0.1**	**0.0051 J**	**0.027**	**0.05**	**0.022**	**0.11 J**	**4.5 J**	**0.19**	**0.011**
Benzo[g,h,i]perylene	mg/kg		**0.011 J**	**2.9**	**3.7**	**0.13**	**0.018**	0.0082 U	**0.021**	0.0072 U	**0.0099**	**0.02**	**0.0081**	**0.035 J**	**0.53**	**0.07 J**	**0.0057 J**
Benzo[k]fluoranthene	mg/kg	210	**0.024 J**	**4.6**	**4.8**	**1**	**0.036**	**0.00082 J**	**0.034**	**0.0042 J**	**0.008**	**0.023**	**0.0081**	**0.037 J**	**0.8**	**0.061 J**	**0.005 J**
bis(2-Ethylhexyl)phthalate	mg/kg	160	8 U	7.5 U	7.3 U	8.4 U	7.1 U	8.3 U	7.6 U	7.2 U	7.3 U	7 U	7.6 U	7.4 U	7.4 U	7.5 U	7.6 U
Carbazole	mg/kg		8 U	7.5 U	7.3 U	8.4 U	7.1 U	8.3 U	7.6 U	7.2 U	7.3 U	7 U	7.6 U	7.4 U	7.4 U	7.5 U	7.6 U
Chrysene	mg/kg	2,100	**0.032**	**9.3**	**8.5**	**0.63**	**0.11**	**0.001 J**	**0.062**	**0.0024 J**	**0.017**	**0.024**	**0.025**	**0.053 J**	**1.4**	**0.14 J**	**0.0086**
Dibenz[a,h]anthracene	mg/kg	2.10	**0.0044 J**	**1.4**	**1.8**	**0.085**	**0.0077**	0.0082 U	**0.0061 J**	0.0072 U	**0.0029 J**	**0.008**	**0.0039 J**	0.15 U	**0.27**	**0.023 J**	**0.0019 J**
Di-n-butylphthalate	mg/kg	82,000	8 U	7.5 U	7.3 U	8.4 U	7.1 U	8.3 U	7.6 U	7.2 U	7.3 U	7 U	7.6 U	7.4 U	7.4 U	7.5 U	7.6 U
Di-n-ocytlphthalate	mg/kg	8,200	8 UJ	7.5 U	7.3 U	8.4 U	7.1 U	8.3 U	7.6 U	7.2 U	7.3 U	7 U	7.6 U	7.4 U	7.4 UJ	7.5 UJ	7.6 U
Fluoranthene	mg/kg	30,000	**0.038**	**27.3**	**19.3**	**1.6**	**0.17**	**0.0015 J**	**0.12**	**0.0054 J**	**0.031**	**0.018**	**0.035**	**0.088 J**	**3.1**	**0.15 J**	**0.014**
Fluorene	mg/kg	30,000	**0.0013 J**	**2.6**	**1.2**	**0.2**	**0.0038 J**	0.0082 U	**0.0086**	**0.0011 J**	**0.0023 J**	**0.0012 J**	**0.0012 J**	0.15 U	**0.033**	0.15 U	**0.0019 J**
Indeno[1,2,3-c,d]pyrene	mg/kg	21.0	**0.012 J**	**3.4**	**4**	**0.16**	**0.017**	0.0082 U	**0.019**	0.0072 U	**0.0084**	**0.02**	**0.0048 J**	**0.03 J**	**0.61**	**0.059 J**	**0.0048 J**
Naphthalene	mg/kg	17.0	0.0073 B	**0.81**	**0.27**	**0.85**	**0.061**	0.002 B	**0.062**	0.0029 B	0.01 B	0.0035 B	**0.019**	0.26 B	**0.46**	0.15 U	0.0063 B
Pentachlorophenol	mg/kg	4.00	0.2 UJ	0.19 U*	0.18 U*	0.21 U*	0.18 U	0.21 U	0.19 U	0.18 U	0.18 U	0.18 U	0.19 U	0.19 U	0.19 UJ	0.19 UJ	0.19 U
Phenanthrene	mg/kg		**0.023**	**20.1**	**10.5**	**0.77**	**0.13**	**0.0013 J**	**0.074**	**0.0043 J**	**0.021**	**0.0065 J**	**0.016**	**0.053 J**	**0.68**	**0.052 J**	**0.011**
Phenol	mg/kg	250,000	8 U	7.5 U	7.3 U	8.4 U	7.1 U	8.3 U	7.6 U	7.2 U	7.3 U	7 U	7.6 U	7.4 U	7.4 U	7.5 U	7.6 U
Pyrene	mg/kg	23,000	**0.032**	**21.1**	**15.8**	**1.2**	**0.13**	**0.0012 J**	**0.11**	**0.0042 J**	**0.026**	**0.019**	**0.031**	**0.073 J**	**3**	**0.17**	**0.012**
PCBs																	
Aroclor 1016	mg/kg	27	N/A	0.92 U	0.91 U	N/A	0.018 U	N/A	0.019 U	N/A	0.018 U	N/A	**0.16**	N/A	0.093 U	N/A	0.019 U
Aroclor 1242	mg/kg	0.97	N/A	0.92 U	0.91 U	N/A	0.018 U	N/A	0.019 U	N/A	0.018 U	N/A	0.096 U	N/A	**0.78**	N/A	0.019 U
Aroclor 1248	mg/kg	0.94	N/A	0.92 U	0.91 U	N/A	0.018 U	N/A	0.019 U	N/A	0.018 U	N/A	0.096 U	N/A	0.093 U	N/A	0.019 U
Aroclor 1254	mg/kg	0.97	N/A	0.92 U	0.91 U	N/A	**0.15**	N/A	0.019 U	N/A	0.018 U	N/A	0.096 U	N/A	0.093 U	N/A	0.019 U
Aroclor 1260	mg/kg	0.99	N/A	0.92 U	0.91 U	N/A	0.018 U	N/A	**0.042**	N/A	0.018 U	N/A	0.096 U	N/A	0.093 U	N/A	0.019 U
Aroclor 1262	mg/kg		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
PCBs (total)	mg/kg	0.97	N/A	6.4 U	6.4 U	N/A	**0.15**	N/A	**0.042 J**	N/A	0.13 U	N/A	0.67 U	N/A	**0.78**	N/A	0.13 U
TPH																	
Diesel Range Organics	mg/kg	6,200	**5.7 J**	**265**	**921**	**251**	**166**	**4.6 J**	**91.8**	**6.4 J**	**12.1**	**7 J**	**24.9**	**41.6**	**201**	**330**	**14.4**
Gasoline Range Organics	mg/kg	6,200	10.9 U	9.1 U	195 U	65.8 U	10.5 U	10.1 U	**24.5**	6.1 U	11.1 U	11.1 U	10 U	10.8 U	48.8 U	69.4 U	14.2 U

Bold indicates detection
N/A: This parameter was not analyzed for this sample.
* Indicates non-validated
^ PAH compounds were analyzed for SIM
Red values indicate a detection exceedance of the Project Action Limit

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 5a
Summary of Organics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-110-SB-1*	B5-110-SB-4*	B5-111-SB-1*	B5-111-SB-4*	B5-112-SB-1	B5-112-SB-5	B5-113-SB-1	B5-113-SB-5	B5-114-SB-1	B5-115-SB-1	B5-116-SB-1	B5-116-SB-4	B5-117-SB-1	B5-118-SB-1	B5-119-SB-1	B5-119-SB-5
Volatile Organic Compounds																		
1,1,1-Trichloroethane	mg/kg	36,000	0.0059 U	0.0051 U	0.0067 U	0.0052 U	0.005 U	0.0073 U	0.34 U	0.0057 U	0.0058 U	0.0081 U	0.0058 U	0.0046 U	0.0043 U	0.005 U	0.0056 U	0.0053 U
1,1-Dichloroethane	mg/kg	16	0.0059 U	0.0051 U	0.0067 U	0.0052 U	0.005 U	0.0073 U	0.34 U	0.0057 U	0.0058 U	0.0081 U	0.0058 U	0.0046 U	0.0043 U	0.005 U	0.0056 U	0.0053 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0059 U	0.0051 U	0.0067 U	0.0052 U	0.005 U	0.0073 U	0.34 U	0.0057 U	0.0058 U	0.0081 U	0.0058 U	0.0046 U	0.0043 U	0.005 U	0.0056 U	0.0053 U
1,2,4-Trichlorobenzene	mg/kg	110	0.0059 U	0.0051 U	0.0067 U	0.0052 U	0.005 U	0.0073 U	0.34 U	0.0057 U	0.0058 U	0.0081 U	0.0058 U	0.0046 U	0.0043 U	0.005 U	0.0056 U	0.0053 U
2-Butanone (MEK)	mg/kg	190,000	**0.0035 J**	**0.0066 J**	**0.0058 J**	**0.0025 J**	**0.0054 J**	0.015 U	0.67 U	0.011 U	0.012 U	0.016 U	0.012 U	0.0092 U	0.0086 U	0.01 U	0.011 U	0.011 U
2-Hexanone	mg/kg	1,300	0.012 U	0.01 U	0.013 U	0.01 U	0.0099 U	0.015 U	0.67 U	0.011 U	0.012 UJ	0.016 UJ	0.012 UJ	0.0092 UJ	0.0086 UJ	0.01 UJ	0.011 UJ	0.011 UJ
Acetone	mg/kg	670,000	**0.043**	**0.034**	**0.05**	**0.022**	**0.041**	0.015 U	0.67 U	0.011 U	0.012 U	0.016 R	0.012 U	0.0092 U	0.0086 U	**0.061**	0.011 U	0.011 U
Benzene	mg/kg	5.1	0.0059 U	**0.0094**	0.0067 U	**0.0023 J**	0.005 U	0.0073 U	0.34 U	0.0057 U	0.0058 U	0.0081 U	0.0058 U	0.0046 U	0.0043 U	0.005 U	0.0056 U	0.0053 U
Carbon tetrachloride	mg/kg	2.9	0.0059 U	0.0051 U	0.0067 U	0.0052 U	0.005 U	0.0073 U	0.34 U	0.0057 U	0.0058 U	0.0081 UJ	0.0058 U	0.0046 U	0.0043 U	0.005 U	0.0056 U	0.0053 U
Chloroform	mg/kg	1.4	0.0059 U	0.0051 U	0.0067 U	0.0052 U	0.005 U	0.0073 U	0.34 U	0.0057 U	0.0058 U	0.0081 U	0.0058 U	0.0046 U	0.0043 U	0.005 U	0.0056 U	0.0053 U
Cyclohexane	mg/kg	27,000	0.012 U	0.01 U	0.013 U	0.01 U	0.0099 U	0.015 U	**1**	0.011 U	0.012 U	0.016 U	0.012 U	0.0092 U	0.0086 U	0.01 U	0.011 U	0.011 U
Ethylbenzene	mg/kg	25	0.0059 U	0.0051 U	0.0067 U	0.0052 U	0.005 U	0.0073 U	0.34 U	0.0057 U	0.0058 U	0.0081 U	0.0058 U	0.0046 U	0.0043 U	0.005 U	0.0056 U	0.0053 U
Isopropylbenzene	mg/kg	9,900	0.0059 U	0.0051 U	0.0067 U	0.0052 U	0.005 U	0.0073 U	0.34 U	0.0057 U	0.0058 U	0.0081 U	0.0058 U	0.0046 U	0.0043 U	0.005 U	0.0056 U	0.0053 U
Methyl Acetate	mg/kg	1,200,000	0.059 U	0.051 U	0.067 U	0.052 U	0.05 U	0.073 U	**0.31 J**	0.057 U	0.058 R	0.081 R	0.058 R	0.046 R	0.043 R	0.05 R	0.056 R	0.053 R
Methylene Chloride	mg/kg	1,000	0.0059 U	0.0051 U	0.0067 U	0.0052 U	0.005 U	0.0073 U	0.34 U	0.0057 U	0.0058 UJ	0.0081 U	0.0058 UJ	0.0046 UJ	0.0043 UJ	0.005 UJ	0.0056 UJ	0.0053 UJ
Styrene	mg/kg	35,000	0.0059 U	0.0051 U	0.0067 U	0.0052 U	0.005 U	0.0073 U	0.34 R	0.0057 U	0.0058 U	0.0081 U	0.0058 U	0.0046 U	0.0043 U	0.005 U	0.0056 U	0.0053 U
Tetrachloroethene	mg/kg	100	0.0059 U	0.0051 U	0.0067 U	0.0052 U	0.005 U	0.0073 U	0.34 U	0.0057 U	0.0058 U	0.0081 U	0.0058 U	0.0046 U	0.0043 U	0.005 U	0.0056 U	0.0053 U
Toluene	mg/kg	47,000	0.0059 U	**0.0036 J**	0.0067 U	0.0052 U	0.005 U	0.0073 U	**0.89 J**	0.0057 U	0.0058 U	0.0081 U	0.0058 U	0.0046 U	0.0043 U	0.005 U	0.0056 U	0.0053 U
Trichloroethene	mg/kg	6	0.0059 U	0.0051 U	0.0067 U	0.0052 U	0.005 U	0.0073 U	0.34 U	0.0057 U	0.0058 U	0.0081 U	0.0058 U	0.0046 U	0.0043 U	0.005 U	0.0056 U	0.0053 U
Xylenes	mg/kg	2,800	0.018 U	**0.0065 J**	0.02 U	0.016 U	0.015 U	0.022 U	**2.1**	0.017 U	0.017 U	0.024 U	0.017 U	0.014 U	0.013 U	0.015 U	0.017 U	0.016 U
Semi-Volatile Organic Compounds^																		
1,1-Biphenyl	mg/kg	200	3.7 U	4 U	3.8 U	3.5 U	7.2 U	7.2 U	7.4 U	7.5 U	3.7 U	3.6 U	3.7 U	4.1 U	3.6 U	3.6 U	3.6 U	4.1 U
2,4-Dimethylphenol	mg/kg	16,000	3.7 U	4 U	3.8 U	3.5 U	7.2 U	7.2 U	7.4 U	7.5 U	3.7 U	3.6 U	3.7 U	4.1 U	3.6 U	3.6 U	3.6 U	4.1 U
2-Methylnaphthalene	mg/kg	3,000	**0.072**	**5.5**	**0.017**	0.01 B	**0.0028 J**	0.0074 U	**6.8**	**0.0062 J**	**0.0066 J**	**1**	**0.037**	**0.07**	0.0071 U	**0.051**	0.0072 U	0.0083 U
2-Methylphenol	mg/kg	41,000	3.7 U	4 U	3.8 U	3.5 U	7.2 U	7.2 U	7.4 U	7.5 U	3.7 U	3.6 U	3.7 U	4.1 U	3.6 U	3.6 U	3.6 U	4.1 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	7.3 U	8 U	7.6 U	7 U	14.4 U	14.5 U	14.9 U	15 U	7.5 U	7.3 U	7.3 U	8.1 U	7.2 U	7.1 U	7.3 U	8.1 U
Acenaphthene	mg/kg	45,000	**0.0076**	**0.058**	**0.0012 J**	**0.001 J**	0.0074 U	0.0074 U	0.38 U	0.0076 U	0.0075 U	**0.013**	**0.018**	**0.0085**	0.0071 U	**0.049**	0.0072 U	0.0083 U
Acenaphthylene	mg/kg	45,000	**0.0033 J**	**0.16**	**0.0077**	**0.0011 J**	0.0074 U	0.0074 U	0.38 U	0.0076 U	0.0075 U	**0.011**	**0.0068 J**	**0.093**	0.0071 U	**0.035**	**0.00072 J**	0.0083 U
Acetophenone	mg/kg	120,000	3.7 U	4 U	3.8 U	3.5 U	7.2 U	7.2 U	7.4 U	7.5 U	3.7 U	3.6 U	3.7 U	4.1 U	3.6 U	3.6 U	3.6 U	4.1 U
Anthracene	mg/kg	230,000	**0.026**	**0.55**	**0.015**	**0.0094**	0.0074 U	0.0074 U	**0.31 J**	0.0076 U	**0.0016 J**	**0.038**	**0.069**	**0.12**	**0.0034 J**	**0.097**	**0.0022 J**	0.0083 U
Benz[a]anthracene	mg/kg	21.0	**0.038**	**0.79**	**0.066**	**0.038**	**0.0022 J**	0.0074 U	**0.5**	0.0076 U	**0.0037 J**	**0.072**	**0.36**	**0.63**	**0.02**	**0.44**	**0.011**	0.0083 U
Benzaldehyde	mg/kg	120,000	3.7 U	4 U	3.8 U	3.5 U	7.2 U	7.2 U	7.4 U	7.5 U	3.7 U	3.6 U	3.7 U	4.1 U	3.6 U	3.6 U	3.6 U	4.1 U
Benzo[a]pyrene	mg/kg	2.10	**0.035**	**0.93**	**0.058**	**0.032**	**0.0016 J**	**0.00079 J**	**0.24 J**	0.0076 U	0.0075 UJ	**0.06**	**0.31**	**0.75**	**0.018**	**0.55**	**0.012**	0.0083 U
Benzo[b]fluoranthene	mg/kg	21.0	**0.079**	**1.4**	**0.11**	**0.085**	**0.0045 J**	**0.0021 J**	**0.51**	0.0076 U	**0.0067 J**	**0.16**	**0.61**	**1.1**	**0.049**	**1.2**	**0.026**	0.0083 U
Benzo[g,h,i]perylene	mg/kg		**0.019**	**0.43**	**0.047**	**0.032**	**0.002 J**	0.0074 U	**0.27 J**	0.0076 U	**0.0017 J**	**0.042**	**0.13**	**0.27**	**0.014**	**0.19**	**0.0033 J**	0.0083 U
Benzo[k]fluoranthene	mg/kg	210	**0.028**	**0.59**	**0.089**	**0.068**	**0.0045 J**	**0.0021 J**	**0.12 J**	0.0076 U	**0.0067 J**	**0.16**	**0.26**	**0.51**	**0.049**	**1.2**	**0.026**	0.0083 U
bis(2-Ethylhexyl)phthalate	mg/kg	160	3.7 U	4 U	3.8 U	3.5 U	7.2 U	7.2 U	7.4 U	7.5 U	3.7 U	3.6 U	3.7 U	4.1 U	3.6 U	3.6 U	3.6 U	4.1 U
Carbazole	mg/kg		3.7 U	4 U	3.8 U	3.5 U	7.2 U	7.2 U	7.4 U	7.5 U	3.7 U	3.6 U	3.7 U	4.1 U	3.6 U	3.6 U	3.6 U	4.1 U
Chrysene	mg/kg	2,100	**0.059**	**0.82**	**0.072**	**0.047**	**0.0022 J**	**0.0012 J**	**0.73**	0.0076 U	**0.0045 J**	**0.14**	**0.49**	**0.66**	**0.021**	**0.55**	**0.011**	**0.00071 J**
Dibenz[a,h]anthracene	mg/kg	2.10	**0.0048 J**	**0.16**	**0.013**	**0.0089**	0.0074 U	0.0074 U	0.38 U	0.0076 U	0.0075 UJ	**0.0096**	**0.055**	**0.089**	**0.0033 J**	**0.083**	0.0072 U	0.0083 U
Di-n-butylphthalate	mg/kg	82,000	3.7 U	4 U	3.8 U	3.5 U	7.2 U	7.2 U	7.4 U	7.5 U	3.7 U	3.6 U	3.7 U	4.1 U	3.6 U	3.6 U	3.6 U	4.1 U
Di-n-ocytlphthalate	mg/kg	8,200	3.7 U	4 U	3.8 U	3.5 U	7.2 U	7.2 U	7.4 U	7.5 U	3.7 U	3.6 U	3.7 U	4.1 U	3.6 U	3.6 U	3.6 U	4.1 U
Fluoranthene	mg/kg	30,000	**0.11**	**1.9**	**0.1**	**0.087**	**0.0043 J**	**0.0033 J**	**0.47**	**0.0011 J**	**0.0056 J**	**0.11**	**0.68**	**1.1**	**0.027**	**0.96**	**0.018**	**0.00074 J**
Fluorene	mg/kg	30,000	**0.015**	**0.23**	**0.0033 J**	**0.0014 J**	0.0074 U	0.0074 U	**0.45**	0.0076 U	0.0075 U	**0.045**	**0.015**	**0.021**	0.0071 U	**0.053**	0.0072 U	0.0083 U
Indeno[1,2,3-c,d]pyrene	mg/kg	21.0	**0.015**	**0.4**	**0.039**	**0.025**	**0.0013 J**	0.0074 U	0.38 U	0.0076 U	0.0075 UJ	**0.018**	**0.13**	**0.26**	**0.011**	**0.19**	**0.0028 J**	0.0083 U
Naphthalene	mg/kg	17.0	**0.063**	**14.5**	**0.044**	0.025 B	0.0021 B	0.0018 B	**4.2**	0.0044 B	0.0059 B	**0.6**	**0.031**	**0.25**	0.0071 U	**0.063**	0.0024 B	0.0083 U
Pentachlorophenol	mg/kg	4.00	0.18 U	0.2 U	0.19 U	0.17 U	18 U	18.1 U	18.6 U	18.7 U	0.19 U*	0.18 U*	0.18 U	0.2 U	0.18 U	0.18 U	0.18 U*	0.2 U
Phenanthrene	mg/kg		**0.16**	**1.6**	**0.067**	**0.047**	**0.0055 J**	**0.0028 J**	**2.9**	**0.0035 J**	**0.0077**	**0.43**	**0.3**	**0.4**	**0.014**	**0.51**	**0.0046 J**	**0.0012 J**
Phenol	mg/kg	250,000	3.7 U	4 U	3.8 U	3.5 U	7.2 U	7.2 U	7.4 U	7.5 U	3.7 U	3.6 U	3.7 U	4.1 U	3.6 U	3.6 U	3.6 U	4.1 U
Pyrene	mg/kg	23,000	**0.098**	**1.4**	**0.086**	**0.072**	**0.0033 J**	**0.0027 J**	**0.49**	**0.0011 J**	**0.005 J**	**0.11**	**0.6**	**1**	**0.024**	**0.86**	**0.018**	**0.0011 J**
PCBs																		
Aroclor 1016	mg/kg	27	0.0562 U	N/A	0.0545 U	N/A	0.018 U	N/A	0.019 U	N/A	0.019 U	0.018 U	0.019 U	N/A	0.018 U	0.018 U	0.018 U	N/A
Aroclor 1242	mg/kg	0.97	0.0562 U	N/A	0.0545 U	N/A	0.018 U	N/A	0.019 U	N/A	0.019 U	0.018 U	0.019 U	N/A	0.018 U	0.018 U	0.018 U	N/A
Aroclor 1248	mg/kg	0.94	0.0562 U	N/A	0.0545 U	N/A	0.018 U	N/A	0.019 U	N/A	0.019 U	0.018 U	0.019 U	N/A	0.018 U	0.018 U	0.018 U	N/A
Aroclor 1254	mg/kg	0.97	0.0562 U	N/A	0.0545 U	N/A	0.018 U	N/A	0.019 U	N/A	0.019 U	0.018 U	0.019 U	N/A	0.018 U	0.018 U	0.018 U	N/A
Aroclor 1260	mg/kg	0.99	0.0562 U	N/A	0.0545 U	N/A	0.018 U	N/A	0.019 U	N/A	0.019 U	0.018 U	0.019 U	N/A	0.018 U	0.018 U	0.018 U	N/A
Aroclor 1262	mg/kg		0.0562 U	N/A	0.0545 U	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
PCBs (total)	mg/kg	0.97	0.0562 U	N/A	0.0545 U	N/A	0.13 U	N/A	0.13 U	N/A	0.13 U	0.13 U	0.13 U	N/A	0.13 U	0.13 U	0.13 U	N/A
TPH																		
Diesel Range Organics	mg/kg	6,200	**79.7**	**338**	**29.7**	**10.6**	7.2 U	4.5 B	**416**	4.4 B	**12.2**	**75.2**	**237**	**79.4**	**10.8**	**35.5**	**37**	8.2 U
Gasoline Range Organics	mg/kg	6,200	10.5 U	8 U	12.7 U	10.4 U	10.9 U	16.3 U	**11.8 J**	13 U	12.6 U	10.4 U	10.7 U	**8.3 J**	10.3 U	9.4 U	12.5 U	10.7 U

Bold indicates detection
N/A: This parameter was not analyzed for this sample.
* Indicates non-validated
^ PAH compounds were analyzed for SIM
Red values indicate a detection exceedance of the Project Action Limit

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 5a
Summary of Organics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-120-SB-1	B5-120-SB-4.5	B5-121-SB-1	B5-121-SB-5	B5-122-SB-1*	B5-122-SB-9*	B5-123-SB-1*	B5-123-SB-8*	B5-124-SB-1	B5-124-SB-9	B5-125-SB-1*	B5-125-SB-8*	B5-132-SB-1	B5-132-SB-4	B5-133-SB-1	B5-133-SB-5
Volatile Organic Compounds																		
1,1,1-Trichloroethane	mg/kg	36,000	0.0052 U	0.0061 U	0.0055 U	0.0052 U	0.0048 U	0.0053 U	0.0047 U	0.0059 U	0.0057 U	0.0077 U	0.0085 U	0.005 U	0.0054 U	0.0065 U	0.0043 U	0.0048 U
1,1-Dichloroethane	mg/kg	16	0.0052 U	0.0061 U	0.0055 U	0.0052 U	0.0048 U	0.0053 U	0.0047 U	0.0059 U	0.0057 U	0.0077 U	0.0085 U	0.005 U	0.0054 U	0.0065 U	0.0043 U	0.0048 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0052 R	0.0061 U	0.0055 U	0.0052 U	0.0048 U	0.0053 U	0.0047 U	0.0059 U	0.0057 U	0.0077 U	0.0085 U	0.005 U	**0.0029 J**	**0.0048 J**	0.0043 U	0.0048 U
1,2,4-Trichlorobenzene	mg/kg	110	0.0052 R	0.0061 U	0.0055 U	0.0052 U	0.0048 U	0.0053 U	0.0047 U	0.0059 U	0.0057 U	0.0077 U	0.0085 U	0.005 U	**0.0054 J**	**0.0048 J**	0.0043 U	0.0048 U
2-Butanone (MEK)	mg/kg	190,000	0.01 U	0.012 U	0.011 U	0.01 U	0.0095 U	0.011 U	0.0093 U	0.012 U	0.011 U	0.015 U	0.017 U	**0.0088 J**	**0.0076 J**	0.013 U	0.0087 U	0.0096 U
2-Hexanone	mg/kg	1,300	0.01 UJ	0.012 UJ	0.011 UJ	0.01 UJ	0.0095 U	0.011 U	0.0093 U	0.012 U	0.011 U	0.015 U	0.017 U	**0.0029 J**	0.011 U	0.013 U	0.0087 U	0.0096 U
Acetone	mg/kg	670,000	0.01 U	**0.084**	0.011 U	**0.049**	**0.046**	**0.16**	**0.024**	**0.017**	**0.029**	**0.018**	**0.051**	**0.033**	**0.056**	**0.026**	0.0087 U	0.0096 U
Benzene	mg/kg	5.1	0.0052 U	0.0061 U	0.0055 U	0.0052 U	0.0048 U	**0.041**	0.0047 U	0.0059 U	0.0057 U	**0.0084**	0.0085 U	**0.0077**	0.0054 U	0.0065 U	0.0043 U	**0.0048 J**
Carbon tetrachloride	mg/kg	2.9	0.0052 U	0.0061 U	0.0055 U	0.0052 U	0.0048 U	0.0053 U	0.0047 U	0.0059 U	0.0057 U	0.0077 U	0.0085 U	0.005 U	0.0054 U	0.0065 U	0.0043 U	0.0048 U
Chloroform	mg/kg	1.4	0.0052 U	0.0061 U	0.0055 U	0.0052 U	0.0048 U	0.0053 U	0.0047 U	0.0059 U	0.0057 U	0.0077 U	0.0085 U	0.005 U	0.0054 U	0.0065 U	0.0043 U	0.0048 U
Cyclohexane	mg/kg	27,000	0.01 UJ	0.012 U	0.011 U	0.01 U	0.0095 U	0.011 U	0.0093 U	0.012 U	0.011 U	0.015 U	0.017 U	0.01 U	0.011 U	0.013 U	0.0087 U	0.0096 U
Ethylbenzene	mg/kg	25	0.0052 U	0.0061 U	0.0055 U	0.0052 U	0.0048 U	**0.025**	0.0047 U	0.0059 U	0.0057 U	**0.02**	0.0085 U	0.005 U	0.0054 U	0.0065 U	0.0043 U	0.0048 U
Isopropylbenzene	mg/kg	9,900	0.0052 R	0.0061 U	0.0055 U	0.0052 U	0.0048 U	**0.0053 J**	0.0047 U	0.0059 U	0.0057 U	**0.0037 J**	0.0085 U	0.005 U	0.0054 U	0.0065 U	0.0043 U	0.0048 U
Methyl Acetate	mg/kg	1,200,000	0.052 R	0.061 R	0.055 R	0.052 R	0.048 U	0.053 U	0.047 U	0.059 U	0.057 U	0.077 U	0.085 U	0.05 U	0.054 UJ	0.065 UJ	0.043 U	0.048 U
Methylene Chloride	mg/kg	1,000	0.0052 UJ	0.0061 UJ	0.0055 UJ	0.0052 UJ	0.0048 U	0.0053 U	0.0047 U	0.0059 U	0.0057 U	0.0077 U	0.0085 U	0.005 U	0.0054 U	0.0065 U	0.0043 U	0.0048 U
Styrene	mg/kg	35,000	0.0052 R	0.0061 U	0.0055 U	0.0052 U	0.0048 U	0.0053 U	0.0047 U	0.0059 U	0.0057 U	0.0077 U	0.0085 U	0.005 U	0.0054 U	0.0065 U	0.0043 U	0.0048 U
Tetrachloroethene	mg/kg	100	0.0052 U	0.0061 U	0.0055 U	0.0052 U	0.0048 U	0.0053 U	0.0047 U	0.0059 U	0.0057 U	0.0077 U	0.0085 U	0.005 U	0.0054 U	0.0065 U	0.0043 U	0.0048 U
Toluene	mg/kg	47,000	0.0052 U	0.0061 U	0.0055 U	0.0052 U	0.0048 U	**0.039**	0.0047 U	0.0059 U	0.0057 U	**0.03**	0.0085 U	**0.0097**	0.0054 U	0.0065 U	0.0043 U	0.0048 U
Trichloroethene	mg/kg	6	0.0052 U	0.0061 U	0.0055 U	0.0052 U	0.0048 U	0.0053 U	0.0047 U	0.0059 U	0.0057 U	0.0077 U	0.0085 U	0.005 U	0.0054 U	0.0065 U	0.0043 U	0.0048 U
Xylenes	mg/kg	2,800	0.016 U	0.018 U	0.017 U	0.016 U	0.014 U	**0.019**	0.014 U	0.018 U	0.017 U	**0.0086 J**	0.026 U	0.015 U	0.016 U	0.02 U	0.013 U	0.014 U
Semi-Volatile Organic Compounds^																		
1,1-Biphenyl	mg/kg	200	3.5 U	3.7 U	3.5 U	3.8 U	7.4 U	7.6 U	7.5 U	7.5 U	7.3 U	8.8 U	9.5 U	7.3 U	7.2 U	7.7 U	7.4 U	8.1 U
2,4-Dimethylphenol	mg/kg	16,000	3.5 U	3.7 U	3.5 U	3.8 U	7.4 U	7.6 U	7.5 U	7.5 U	7.3 U	8.8 U	9.5 U	7.3 U	7.2 U	7.7 U	7.4 U	8.1 U
2-Methylnaphthalene	mg/kg	3,000	**0.066**	0.0075 U	**0.0073**	0.0076 U	**0.033**	**0.011**	**0.12**	**0.0053 J**	**0.024**	**0.044**	**0.012**	**0.013**	**0.066 J**	**0.17**	**0.087**	**0.033**
2-Methylphenol	mg/kg	41,000	3.5 U	3.7 U	3.5 U	3.8 U	7.4 U	7.6 U	7.5 U	7.5 U	7.3 U	8.8 U	9.5 U	7.3 U	7.2 U	7.7 U	7.4 U	8.1 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	7.1 U	7.4 U	7.1 U	7.6 U	14.9 U	15.3 U	15 U	15.1 U	14.6 U	17.5 U	19 U	14.6 U	14.5 U	15.3 U	14.8 U	16.1 U
Acenaphthene	mg/kg	45,000	**0.15 J**	0.0075 U	**0.011**	0.0076 U	**0.0025 J**	**0.0023 J**	**0.017**	0.0075 U	**0.0024 J**	**0.0015 J**	0.0094 U	**0.011**	0.15 U	**0.048 J**	**0.047**	**0.023**
Acenaphthylene	mg/kg	45,000	**0.012**	0.0075 U	**0.0025 J**	0.0076 U	**0.0028 J**	**0.0027 J**	**0.04**	0.0075 U	**0.002 J**	**0.021**	0.0094 U	**0.0045 J**	**0.021 J**	**0.45**	**0.0048 J**	**0.023**
Acetophenone	mg/kg	120,000	3.5 U	3.7 U	3.5 U	3.8 U	7.4 U	7.6 U	7.5 U	7.5 U	7.3 U	8.8 U	9.5 U	7.3 U	7.2 U	7.7 U	7.4 U	8.1 U
Anthracene	mg/kg	230,000	**0.13 J**	**0.001 J**	**0.018**	**0.0014 J**	**0.0097**	**0.0058 J**	**0.084**	**0.0046 J**	**0.013**	**0.027**	**0.0061 J**	**0.025**	**0.027 J**	**0.49**	**0.015**	**0.047**
Benz[a]anthracene	mg/kg	21.0	**0.55 J**	**0.0027 J**	**0.12**	**0.012**	**0.031**	**0.022**	**0.27**	**0.0064 J**	**0.022**	**0.18**	**0.018**	**0.19**	**0.1 J**	**2.5**	**0.021**	**0.15**
Benzaldehyde	mg/kg	120,000	3.5 U	3.7 U	3.5 U	3.8 U	7.4 U	7.6 U	7.5 U	7.5 U	7.3 UJ	8.8 UJ	9.5 U	7.3 U	7.2 U	7.7 U	7.4 U	8.1 U
Benzo[a]pyrene	mg/kg	2.10	**0.69 J**	**0.0017 J**	**0.15**	**0.01**	**0.025**	**0.026**	**0.27**	**0.0096**	**0.021**	**0.14**	**0.013**	**0.17**	**0.1 J**	2.8	**0.006 J**	**0.13**
Benzo[b]fluoranthene	mg/kg	21.0	**1.1**	**0.0047 J**	**0.35**	**0.014**	**0.069**	**0.064**	**0.74**	**0.024**	**0.059**	**0.62**	**0.033**	**0.28**	**0.22**	**4.7**	**0.026**	**0.21**
Benzo[g,h,i]perylene	mg/kg		**0.49**	**0.0019 J**	**0.069**	**0.0078**	**0.024**	**0.024**	**0.12**	**0.0052 J**	**0.0099**	**0.14**	**0.0069 J**	**0.074**	**0.069 J**	**1**	**0.007 J**	**0.073**
Benzo[k]fluoranthene	mg/kg	210	**0.46 J**	**0.0044 J**	**0.35**	**0.0053 J**	**0.058**	**0.052**	**0.62**	**0.019**	**0.049**	**0.52**	**0.012**	**0.1**	**0.077 J**	**1.9**	**0.026**	**0.081**
bis(2-Ethylhexyl)phthalate	mg/kg	160	3.5 U	3.7 U	3.5 U	3.8 U	7.4 U	7.6 U	7.5 U	7.5 U	7.3 U	8.8 U	9.5 U	7.3 U	7.2 U	7.7 U	7.4 U	8.1 U
Carbazole	mg/kg		3.5 U	3.7 U	3.5 U	3.8 U	7.4 U	7.6 U	7.5 U	7.5 U	7.3 U	8.8 U	9.5 U	7.3 U	7.2 U	7.7 U	7.4 U	8.1 U
Chrysene	mg/kg	2,100	**0.65 J**	**0.002 J**	**0.24**	**0.011**	**0.043**	**0.033**	**0.32**	**0.011**	**0.03**	**0.25**	**0.031**	**0.19**	**0.12 J**	**2.8**	**0.023**	**0.19**
Dibenz[a,h]anthracene	mg/kg	2.10	**0.16**	0.0075 U	**0.024**	**0.0023 J**	**0.0053 J**	**0.007 J**	**0.045**	0.0075 U	**0.003 J**	**0.048**	0.0094 U	**0.022**	**0.027 J**	**0.41**	0.0075 U	**0.027**
Di-n-butylphthalate	mg/kg	82,000	3.5 U	3.7 U	3.5 U	3.8 U	7.4 U	7.6 U	7.5 U	7.5 U	7.3 U	8.8 U	9.5 U	7.3 U	7.2 U	7.7 U	7.4 U	8.1 U
Di-n-octylphthalate	mg/kg	8,200	3.5 U	3.7 U	3.5 U	3.8 U	7.4 U	7.6 U	7.5 U	7.5 U	7.3 U	8.8 U	9.5 U	7.3 U	7.2 U	7.7 U	7.4 U	8.1 U
Fluoranthene	mg/kg	30,000	**0.88**	**0.0035 J**	**0.35**	**0.015**	**0.087**	**0.03**	**0.92**	**0.017**	**0.081**	**0.74**	**0.045**	**0.39**	**0.17**	**4.3**	**0.12**	**0.28**
Fluorene	mg/kg	30,000	**0.044**	0.0075 U	**0.011**	0.0076 U	**0.0021 J**	**0.0033 J**	**0.024**	0.0075 U	**0.003 J**	**0.0024 J**	0.0094 U	**0.0082**	**0.021 J**	**0.1 J**	**0.031**	**0.039**
Indeno[1,2,3-c,d]pyrene	mg/kg	21.0	**0.53 J**	**0.0015 J**	**0.068**	**0.0065 J**	**0.017**	**0.02**	**0.15**	**0.0039 J**	**0.0087**	**0.15**	**0.0052 J**	**0.082**	**0.06 J**	**1**	**0.0046 J**	**0.067**
Naphthalene	mg/kg	17.0	**0.056 J**	0.0075 U	**0.0073**	0.0021 B	**0.067**	**0.011**	**0.51**	**0.0039 J**	**0.038**	**0.036**	**0.012**	**0.015**	**0.22**	**0.46**	**0.064**	**0.048**
Pentachlorophenol	mg/kg	4.00	0.18 U	0.19 U	0.18 U*	0.19 U*	18.6 U	19.1 U	18.7 U	18.9 U	18.3 U	21.9 U	23.8 U	18.2 U	0.18 R	0.19 R	N/A	N/A
Phenanthrene	mg/kg		**0.49 J**	**0.0027 J**	**0.21**	**0.0046 J**	**0.081**	**0.033**	**0.7**	**0.03**	**0.087**	**0.32**	**0.04**	**0.14**	**0.098 J**	**1.6**	**0.2**	**0.17**
Phenol	mg/kg	250,000	3.5 U	3.7 U	3.5 U	3.8 U	7.4 U	7.6 U	7.5 U	7.5 U	7.3 U	8.8 U	9.5 U	7.3 U	7.2 U	7.7 U	7.4 U	8.1 U
Pyrene	mg/kg	23,000	**0.78**	**0.0034**	**0.31**	**0.015**	**0.069**	**0.025**	**0.72**	**0.019**	**0.062**	**0.5**	**0.039**	**0.31**	**0.15**	**3.5**	**0.071**	**0.24**
PCBs																		
Aroclor 1016	mg/kg	27	0.018 U	N/A	0.018 U	N/A	0.19 U	N/A	0.019 U	N/A	0.019 U	N/A	0.023 U	N/A	9.1 U	N/A	0.018 U	N/A
Aroclor 1242	mg/kg	0.97	0.018 U	N/A	0.018 U	N/A	**0.53**	N/A	0.019 U	N/A	0.019 U	N/A	**0.069**	N/A	9.1 U	N/A	0.018 U	N/A
Aroclor 1248	mg/kg	0.94	0.018 U	N/A	0.018 U	N/A	0.19 U	N/A	0.019 U	N/A	0.019 U	N/A	0.023 U	N/A	9.1 U	N/A	0.018 U	N/A
Aroclor 1254	mg/kg	0.97	0.018 U	N/A	0.018 U	N/A	0.19 U	N/A	0.019 U	N/A	0.019 U	N/A	0.023 U	N/A	9.1 U	N/A	0.018 U	N/A
Aroclor 1260	mg/kg	0.99	0.018 U	N/A	0.018 U	N/A	0.19 U	N/A	**0.012 J**	N/A	0.019 U	N/A	0.023 U	N/A	23.7	N/A	**0.057 J**	N/A
Aroclor 1262	mg/kg		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
PCBs (total)	mg/kg	0.97	0.13 U	N/A	0.12 U	N/A	**0.53 J**	N/A	0.13 U	N/A	0.13 U	N/A	**0.069 J**	N/A	23.7 J	N/A	**0.057 J**	N/A
TPH																		
Diesel Range Organics	mg/kg	6,200	**11.4 J**	7.5 U	**33.1**	7.6 U	**49.8**	**27**	**38.7**	**5.7 J**	**34.9**	**38.1**	**261**	**38.6**	**44.3**	**104**	**19.2**	**58.8**
Gasoline Range Organics	mg/kg	6,200	13.1 U	10.7 U	10.9 U	11.2 U	9.1 U	**50.7**	9.6 U	13.6 U	11.3 U	13.3 U	20.1 U	11.8 U	11.1 U	11.6 U	9.4 U	9.5 U

Bold indicates detection
N/A: This parameter was not analyzed for this sample.
* Indicates non-validated
^ PAH compounds were analyzed for SIM
Red values indicate a detection exceedance of the Project Action Limit

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 5a
Summary of Organics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-134-SB-1	B5-135-SB-1	B5-135-SB-5	B5-136-SB-1	B5-136-SB-8	B5-137-SB-1	B5-137-SB-5	B5-137-SB-9.5	B5-138-SB-1	B5-138-SB-5	B5-138-SB-10	B5-139-SB-1*	B5-139-SB-7*	B5-140-SB-1*	B5-140-SB-5*	B5-141-SB-1*
Volatile Organic Compounds																		
1,1,1-Trichloroethane	mg/kg	36,000	0.0076 U	0.0059 U	0.0042 U	0.0055 U	0.0049 U	0.0051 U	0.0047 U	N/A	0.0045 U	0.0057 U	N/A	0.0049 U	0.005 U	0.0073 U	0.0092 U	0.0049 U
1,1-Dichloroethane	mg/kg	16	0.0076 U	0.0059 U	0.0042 U	0.0055 U	0.0049 U	0.0051 U	0.0047 U	N/A	0.0045 U	0.0057 U	N/A	0.0049 U	0.005 U	0.0073 U	0.0092 U	0.0049 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0076 U	0.0059 U	0.0042 U	0.0055 U	0.0049 U	0.0051 U	0.0047 U	N/A	0.0045 U	0.0057 UJ	N/A	0.0049 U	0.005 U	0.0073 U	0.0092 U	0.0049 U
1,2,4-Trichlorobenzene	mg/kg	110	0.0076 U	0.0059 U	0.0042 U	0.0055 U	0.0049 U	0.0051 U	0.0047 U	N/A	0.0045 U	0.0057 UJ	N/A	0.0049 U	0.005 U	0.0073 U	0.0092 U	0.0049 U
2-Butanone (MEK)	mg/kg	190,000	0.015 U	0.012 U	0.0084 U	0.011 U	0.0099 U	0.01 U	0.0094 U	N/A	0.009 U	0.011 UJ	N/A	0.0098 U	0.0099 U	0.015 U	0.018 U	0.0097 U
2-Hexanone	mg/kg	1,300	0.015 U	0.012 U	0.0084 U	0.011 U	0.0099 U	0.01 U	0.0094 U	N/A	0.009 U	0.011 UJ	N/A	0.0098 U	0.0099 U	0.015 U	0.018 U	0.0097 U
Acetone	mg/kg	670,000	**0.1**	0.012 U	0.0084 U	**0.047**	0.0099 U	**0.25 J**	**0.12 J**	N/A	**0.035 J**	**0.051 J**	N/A	**0.096**	0.0099 U	0.015 U	0.018 U	0.0097 U
Benzene	mg/kg	5.1	0.0076 U	0.0059 U	0.0042 U	0.0055 U	0.0049 U	0.0051 U	0.0047 U	N/A	0.0045 U	**0.0076**	N/A	0.0049 U	0.005 U	0.0073 U	0.0092 U	0.0049 U
Carbon tetrachloride	mg/kg	2.9	0.0076 U	0.0059 U	0.0042 U	0.0055 U	0.0049 U	0.0051 U	0.0047 U	N/A	0.0045 U	0.0057 U	N/A	0.0049 U	0.005 U	0.0073 U	0.0092 U	0.0049 U
Chloroform	mg/kg	1.4	0.0076 U	0.0059 U	0.0042 U	0.0055 U	0.0049 U	0.0051 U	0.0047 U	N/A	0.0045 U	0.0057 U	N/A	0.0049 U	0.005 U	0.0073 U	0.0092 U	0.0049 U
Cyclohexane	mg/kg	27,000	0.015 U	0.012 U	0.0084 U	0.011 U	0.0099 U	0.01 U	0.0094 U	N/A	0.009 U	0.011 U	N/A	0.0098 U	0.0099 U	0.015 U	0.018 U	0.0097 U
Ethylbenzene	mg/kg	25	0.0076 U	0.0059 U	0.0042 U	0.0055 U	0.0049 U	0.0051 U	0.0047 U	N/A	0.0045 U	0.0057 UJ	N/A	0.0049 U	0.005 U	0.0073 U	0.0092 U	0.0049 U
Isopropylbenzene	mg/kg	9,900	0.0076 U	0.0059 U	0.0042 U	0.0055 U	0.0049 U	0.0051 U	0.0047 U	N/A	0.0045 U	0.0057 UJ	N/A	0.0049 U	0.005 U	0.0073 U	0.0092 U	0.0049 U
Methyl Acetate	mg/kg	1,200,000	0.076 U	0.059 U	0.042 U	0.055 U	0.049 U	0.051 U	0.047 U	N/A	0.045 U	0.057 U	N/A	0.049 U	0.05 U	0.073 U	0.092 U	0.049 U
Methylene Chloride	mg/kg	1,000	0.0076 U	0.0059 U	0.0042 U	0.0055 U	0.0049 U	0.0051 U	0.0047 U	N/A	0.0045 U	0.0057 U	N/A	0.0049 U	0.005 U	0.0073 U	0.0092 U	0.0049 U
Styrene	mg/kg	35,000	0.0076 U	0.0059 U	0.0042 U	0.0055 U	0.0049 U	0.0051 U	0.0047 U	N/A	0.0045 U	0.0057 UJ	N/A	0.0049 U	0.005 U	0.0073 U	0.0092 U	0.0049 U
Tetrachloroethene	mg/kg	100	0.0076 U	0.0059 U	0.0042 U	0.0055 U	0.0049 U	0.0051 U	0.0047 U	N/A	0.0045 U	0.0057 UJ	N/A	0.0049 U	0.005 U	0.0073 U	0.0092 U	0.0049 U
Toluene	mg/kg	47,000	0.0076 U	0.0059 U	0.0042 U	0.0055 U	0.0049 U	0.0051 U	0.0047 U	N/A	0.0045 U	**0.0022 J**	N/A	0.0049 U	0.005 U	0.0073 U	0.0092 U	0.0049 U
Trichloroethene	mg/kg	6	0.0076 U	0.0059 U	0.0042 U	0.0055 U	0.0049 U	0.0051 U	0.0047 U	N/A	0.0045 U	0.0057 U	N/A	0.0049 U	0.005 U	0.0073 U	0.0092 U	0.0049 U
Xylenes	mg/kg	2,800	0.023 U	0.018 U	0.013 U	0.017 U	0.015 U	0.015 U	0.014 U	N/A	0.013 U	0.017 UJ	N/A	0.015 U	0.015 U	0.022 U	0.028 U	0.015 U
Semi-Volatile Organic Compounds^																		
1,1-Biphenyl	mg/kg	200	9.3 U	7.5 U	7.8 U	7.4 U	7.9 U	7.3 U	7.3 U	N/A	7 U	7.7 U	N/A	7.8 U	8 U	7.4 U	7.9 U	7.4 U
2,4-Dimethylphenol	mg/kg	16,000	9.3 U	7.5 U	7.8 U	7.4 U	7.9 U	7.3 U	7.3 U	N/A	7 U	7.7 U	N/A	7.8 U	8 U	7.4 U	7.9 U	7.4 U
2-Methylnaphthalene	mg/kg	3,000	**0.41**	0.15 U	0.0079 U	0.15 U	0.008 U	**0.21**	**0.077**	N/A	**0.047**	**0.17**	N/A	**0.0024 J**	0.0082 U	**0.15**	**0.3**	**0.073**
2-Methylphenol	mg/kg	41,000	9.3 U	7.5 U	7.8 U	7.4 U	7.9 U	7.3 U	7.3 U	N/A	7 U	7.7 U	N/A	7.8 U	8 U	7.4 U	7.9 U	7.4 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	18.6 U	14.9 U	15.6 U	14.9 U	15.9 U	14.5 U	14.6 U	N/A	14.1 U	15.3 U	N/A	15.6 U	16 U	14.8 U	15.7 U	14.8 U
Acenaphthene	mg/kg	45,000	**0.018 J**	0.15 U	0.0079 U	0.15 U	0.008 U	**0.035**	**0.0077**	N/A	**0.003 J**	**0.057 J**	N/A	0.0079 U	0.0082 U	**0.024**	**0.022 J**	**0.027**
Acenaphthylene	mg/kg	45,000	**0.037 J**	0.15 U	0.0079 U	0.15 U	0.008 U	**0.071**	**0.02**	N/A	**0.0063 J**	**0.045 J**	N/A	**0.0012 J**	0.0082 U	**0.028**	**0.048 J**	**0.022**
Acetophenone	mg/kg	120,000	9.3 U	7.5 U	7.8 U	7.4 U	7.9 U	7.3 U	7.3 U	N/A	7 U	7.7 U	N/A	7.8 U	8 U	7.4 U	7.9 U	7.4 U
Anthracene	mg/kg	230,000	**0.14 J**	**0.015 J**	0.0079 U	0.15 U	0.008 U	**0.13**	**0.033**	N/A	**0.012**	**0.14 J**	N/A	**0.0025 J**	0.0082 U	**0.092**	**0.21**	**0.077**
Benz[a]anthracene	mg/kg	21.0	**0.29**	0.15 U	0.0079 U	**0.065 J**	0.008 U	**0.47 J**	**0.24**	N/A	**0.079**	**0.66**	N/A	**0.0072 J**	0.0082 U	**0.32**	**0.54**	**0.22**
Benzaldehyde	mg/kg	120,000	9.3 U	7.5 U	7.8 U	7.4 U	7.9 U	7.3 R	7.3 R	N/A	7 R	7.7 R	N/A	7.8 U	8 U	7.4 U	7.9 U	7.4 U
Benzo[a]pyrene	mg/kg	2.10	**0.31**	**0.05 J**	0.0079 U	**0.028 J**	0.008 U	**0.44 J**	**0.33 J**	**0.0063 J**	**0.09**	**0.53**	**0.011**	**0.0072 J**	0.0082 U	**0.37**	**0.37**	**0.18**
Benzo[b]fluoranthene	mg/kg	21.0	**0.67**	**0.1 J**	0.0079 U	**0.095 J**	0.008 U	**0.78**	**0.88 J**	N/A	**0.23**	**1.1**	N/A	**0.014**	0.0082 U	**0.9**	**1**	**0.69**
Benzo[g,h,i]perylene	mg/kg		**0.28**	**0.029 J**	0.0079 U	**0.041 J**	0.008 U	**0.25 J**	**0.2 J**	N/A	**0.082**	**0.32**	N/A	**0.0069 J**	0.0082 U	**0.14**	**0.16**	**0.12**
Benzo[k]fluoranthene	mg/kg	210	**0.27**	**0.028 J**	0.0079 U	**0.09 J**	0.008 U	**0.24 J**	**0.72 J**	N/A	**0.19**	**0.9**	N/A	**0.0067 J**	0.0082 U	**0.89**	**1**	**0.68**
bis(2-Ethylhexyl)phthalate	mg/kg	160	9.3 U	7.5 U	7.8 U	7.4 U	7.9 U	7.3 U	7.3 U	N/A	7 U	7.7 U	N/A	7.8 U	8 U	7.4 U	7.9 U	7.4 U
Carbazole	mg/kg		9.3 UJ	7.5 UJ	7.8 UJ	7.4 UJ	7.9 UJ	7.3 U	7.3 U	N/A	7 U	7.7 U	N/A	7.8 U	8 U	7.4 U	7.9 U	7.4 U
Chrysene	mg/kg	2,100	**0.49**	**0.095 J**	0.0079 U	**0.046 J**	0.008 U	**0.53 J**	**0.29**	N/A	**0.1**	**0.73**	N/A	**0.0097**	0.0082 U	**0.42**	**0.54**	**0.5**
Dibenz[a,h]anthracene	mg/kg	2.10	**0.1 J**	0.15 U	0.0079 U	0.15 U	0.008 U	**0.098 J**	**0.067 J**	N/A	**0.024**	**0.11 J**	N/A	0.0079 U	0.0082 U	**0.072**	**0.082 J**	**0.043**
Di-n-butylphthalate	mg/kg	82,000	9.3 U	7.5 U	7.8 U	7.4 U	7.9 U	7.3 U	7.3 U	N/A	7 U	7.7 U	N/A	7.8 U	8 U	7.4 U	7.9 U	7.4 U
Di-n-octylphthalate	mg/kg	8,200	9.3 UJ	7.5 UJ	7.8 UJ	7.4 UJ	7.9 UJ	7.3 U	7.3 U	N/A	7 U	7.7 U	N/A	7.8 U	8 U	7.4 U	7.9 U	7.4 U
Fluoranthene	mg/kg	30,000	**0.63**	**0.054 J**	0.0079 U	**0.057 J**	0.008 U	**1.5**	**0.53**	N/A	**0.22**	**1.3**	N/A	**0.014**	**0.0006 J**	**0.72**	**1.1**	**0.64**
Fluorene	mg/kg	30,000	**0.036 J**	0.15 U	0.0079 U	0.15 U	0.008 U	**0.025**	**0.0089**	N/A	**0.0033 J**	**0.06 J**	N/A	0.0079 U	0.0082 U	**0.026**	**0.059 J**	**0.014**
Indeno[1,2,3-c,d]pyrene	mg/kg	21.0	**0.19 J**	**0.02 J**	0.0079 U	**0.026 J**	0.008 U	**0.26 J**	**0.19 J**	N/A	**0.071**	**0.29**	N/A	**0.0063 J**	0.0082 U	**0.15**	**0.14 J**	**0.11**
Naphthalene	mg/kg	17.0	0.29 B	0.031 B	0.0021 B	0.05 B	0.008 U	**0.55 J**	**0.24**	N/A	**0.11**	**0.38**	N/A	0.0051 B	0.0023 B	**0.1**	**0.22**	**0.15**
Pentachlorophenol	mg/kg	4.00	N/A	N/A	N/A	N/A	N/A	0.18 UJ	0.18 UJ	N/A	0.18 UJ	0.19 UJ	N/A	0.2 U	0.2 U	0.19 U	0.2 U	0.19 U
Phenanthrene	mg/kg		**0.96**	**0.099 J**	0.0079 U	**0.056 J**	**0.0024 J**	**1.2**	**0.31**	N/A	**0.15**	**0.94**	N/A	**0.0069 J**	**0.001 J**	**0.43**	**1**	**0.23**
Phenol	mg/kg	250,000	9.3 U	7.5 U	7.8 U	7.4 U	7.9 U	7.3 U	7.3 U	N/A	7 U	7.7 U	N/A	7.8 U	8 U	7.4 U	7.9 U	7.4 U
Pyrene	mg/kg	23,000	**0.54**	**0.078 J**	0.0079 U	**0.049 J**	0.008 U	**1.1**	**0.46**	N/A	**0.18**	**1.5**	N/A	**0.013**	0.0082 U	**0.62**	**0.88**	**0.53**
PCBs																		
Aroclor 1016	mg/kg	27	0.23 U	0.19 U	N/A	0.19 U	N/A	0.018 U	N/A	N/A	0.018 U	N/A	N/A	0.02 U	N/A	0.018 U	N/A	0.094 U
Aroclor 1242	mg/kg	0.97	0.23 U	0.19 U	N/A	0.19 U	N/A	0.018 U	N/A	N/A	0.018 U	N/A	N/A	0.02 U	N/A	0.018 U	N/A	0.094 U
Aroclor 1248	mg/kg	0.94	0.23 U	0.19 U	N/A	0.19 U	N/A	0.018 U	N/A	N/A	0.018 U	N/A	N/A	0.02 U	N/A	0.018 U	N/A	0.094 U
Aroclor 1254	mg/kg	0.97	0.23 U	0.19 U	N/A	0.19 U	N/A	0.018 U	N/A	N/A	0.018 U	N/A	N/A	0.02 U	N/A	0.018 U	N/A	0.094 U
Aroclor 1260	mg/kg	0.99	**0.12 J**	0.19 U	N/A	0.19 U	N/A	0.018 U	N/A	N/A	0.018 U	N/A	N/A	0.02 U	N/A	0.018 U	N/A	0.094 U
Aroclor 1262	mg/kg		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
PCBs (total)	mg/kg	0.97	1.6 U	1.3 U	N/A	1.3 U	N/A	0.13 U	N/A	N/A	0.12 U	N/A	N/A	0.14 U	N/A	0.13 U	N/A	0.66 U
TPH																		
Diesel Range Organics	mg/kg	6,200	**300**	**367**	7.8 U	**150**	**14.3**	**96.6 J**	**41.3**	N/A	**42.3**	**343**	N/A	**8.4**	**4.9 J**	**84.3**	**186**	**78.2**
Gasoline Range Organics	mg/kg	6,200	15.5 U	12.5 U	9.6 U	9.5 U	9.6 U	11.5 U	9.4 U	N/A	10 U	14.8 U	N/A	11.3 U	11.5 U	12.5 U	19.9 U	9.1 U

Bold indicates detection
N/A: This parameter was not analyzed for this sample.
* Indicates non-validated
^ PAH compounds were analyzed for SIM
Red values indicate a detection exceedance of the Project Action Limit

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 5a
Summary of Organics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-142-SB-1	B5-142-SB-5	B5-143-SB-1	B5-143-SB-4.5	B5-144-SB-1	B5-144-SB-4	B5-145-SB-1	B5-145-SB-5	B5-146-SB-1	B5-146-SB-5	B5-147-SB-1	B5-147-SB-5	B5-148-SB-1	B5-148-SB-5	B5-149-SB-1*	B5-149-SB-5*
Volatile Organic Compounds																		
1,1,1-Trichloroethane	mg/kg	36,000	0.0059 U	0.0064 U	0.008 U	0.0055 U	0.0044 U	0.24 U	0.005 U	0.0052 U	0.0048 U	0.0042 U	0.0066 U	0.0056 U	0.0068 U	0.0049 U	0.0058 U	0.0058 U
1,1-Dichloroethane	mg/kg	16	0.0059 U	0.0064 U	0.008 U	0.0055 U	0.0044 U	0.24 U	0.005 U	0.0052 U	0.0048 U	0.0042 U	0.0066 U	0.0056 U	0.0068 U	0.0049 U	0.0058 U	0.0058 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0059 U	0.0064 U	0.008 U	0.0055 U	0.0044 U	0.24 U	0.005 U	0.0052 U	0.0048 U	0.0042 U	0.0066 U	0.0056 U	0.0068 U	0.0049 U	0.0058 U	0.0058 U
1,2,4-Trichlorobenzene	mg/kg	110	0.0059 U	0.0064 U	0.008 U	0.0055 U	0.0044 U	0.24 U	0.005 U	0.0052 U	0.0048 U	0.0042 U	0.0066 U	0.0056 U	0.0068 U	0.0049 U	0.0058 U	0.0058 U
2-Butanone (MEK)	mg/kg	190,000	0.012 U	0.013 U	0.016 U	0.011 U	0.0088 U	0.49 U	0.0099 U	0.01 U	0.0096 U	0.0084 U	0.013 U	0.011 U	**0.023**	0.0099 U	0.012 U	0.012 U
2-Hexanone	mg/kg	1,300	0.012 U	0.013 U	0.016 U	0.011 U	0.0088 U	0.49 U	0.0099 U	0.01 U	0.0096 U	0.0084 U	0.013 U	0.011 U	0.014 U	0.0099 U	0.012 U	0.012 U
Acetone	mg/kg	670,000	**0.023 J**	**0.014 J**	**0.05 J**	0.011 UJ	**0.094 J**	0.49 U	**0.074 J**	**0.044 J**	**0.11 J**	0.0084 UJ	**0.068 J**	**0.075 J**	**0.33 J**	**0.074 J**	0.012 U	0.012 U
Benzene	mg/kg	5.1	0.0059 U	0.0064 U	0.008 U	0.0055 U	0.0044 U	0.24 U	0.005 U	0.0052 U	**0.0042 J**	0.0042 U	0.0066 U	0.0056 U	0.0068 U	0.0049 U	0.0058 U	0.0058 U
Carbon tetrachloride	mg/kg	2.9	0.0059 U	0.0064 U	0.008 U	0.0055 U	0.0044 U	0.24 U	0.005 U	0.0052 U	0.0048 U	0.0042 U	0.0066 U	0.0056 U	0.0068 U	0.0049 U	0.0058 U	0.0058 U
Chloroform	mg/kg	1.4	0.0059 U	0.0064 U	0.008 U	0.0055 U	0.0044 U	0.24 U	0.005 U	0.0052 U	0.0048 U	0.0042 U	0.0066 U	0.0056 U	0.0068 U	0.0049 U	0.0058 U	**0.0054 J**
Cyclohexane	mg/kg	27,000	0.012 U	0.013 U	0.016 U	0.011 U	0.0088 U	0.49 U	0.0099 U	0.01 U	0.0096 U	0.0084 U	0.013 U	0.011 U	0.014 U	0.0099 U	0.012 U	0.012 U
Ethylbenzene	mg/kg	25	0.0059 U	0.0064 U	0.008 U	0.0055 U	0.0044 U	0.24 U	0.005 U	0.0052 U	0.0048 U	0.0042 U	0.0066 U	0.0056 U	0.0068 U	0.0049 U	0.0058 U	0.0058 U
Isopropylbenzene	mg/kg	9,900	0.0059 U	0.0064 U	0.008 U	0.0055 U	0.0044 U	0.24 U	0.005 U	0.0052 U	0.0048 U	0.0042 U	0.0066 U	0.0056 U	0.0068 U	0.0049 U	0.0058 U	0.0058 U
Methyl Acetate	mg/kg	1,200,000	0.059 U	0.064 U	0.08 U	0.055 U	0.044 R	2.4 R	0.05 R	0.052 R	0.048 R	0.042 R	0.066 R	0.056 R	0.068 R	0.049 R	0.058 U	0.058 U
Methylene Chloride	mg/kg	1,000	0.0059 U	0.0064 U	0.008 U	0.0055 U	0.0044 U	0.24 U	0.005 U	0.0052 U	0.0048 U	0.0042 U	0.0066 U	0.0056 U	0.0068 U	0.0049 U	0.0058 U	0.0058 U
Styrene	mg/kg	35,000	0.0059 U	0.0064 U	0.008 U	0.0055 U	0.0044 U	0.24 U	0.005 U	0.0052 U	0.0048 U	0.0042 U	0.0066 U	0.0056 U	0.0068 U	0.0049 U	0.0058 U	0.0058 U
Tetrachloroethene	mg/kg	100	0.0059 U	0.0064 U	0.008 U	0.0055 U	0.0044 U	0.24 U	0.005 U	0.0052 U	0.0048 U	0.0042 U	0.0066 U	0.0056 U	0.0068 U	0.0049 U	0.0058 U	0.0058 U
Toluene	mg/kg	47,000	0.0059 U	0.0064 U	0.008 U	0.0055 U	0.0044 U	0.24 U	0.005 U	0.0052 U	0.0048 U	0.0042 U	0.0066 U	0.0056 U	**0.0022 J**	0.0049 U	0.0058 U	0.0058 U
Trichloroethene	mg/kg	6	0.0059 U	0.0064 U	0.008 U	0.0055 U	0.0044 U	0.24 U	0.005 U	0.0052 U	0.0048 U	0.0042 U	0.0066 U	0.0056 U	0.0068 U	0.0049 U	0.0058 U	0.0058 U
Xylenes	mg/kg	2,800	0.018 U	0.019 U	0.024 U	0.017 U	0.013 U	0.73 U	0.015 U	0.016 U	0.014 U	0.013 U	0.02 U	0.017 U	0.02 U	0.015 U	0.017 U	0.017 U
Semi-Volatile Organic Compounds^																		
1,1-Biphenyl	mg/kg	200	7.4 U	7.5 U	7.5 U	7.2 U	6.8 U	8.1 U	7.9 U	8.3 U	7.3 U	7.7 U	6.9 U	7.3 U	7.6 U	8.2 U	7.7 U	7.7 U
2,4-Dimethylphenol	mg/kg	16,000	7.4 U	7.5 U	7.5 U	7.2 U	6.8 U	8.1 U	7.9 U	8.3 U	7.3 U	7.7 U	6.9 U	7.3 U	7.6 U	8.2 U	7.7 U	7.7 U
2-Methylnaphthalene	mg/kg	3,000	**0.0034 J**	**0.03**	**0.014**	**0.003 J**	**0.072 J**	**0.24**	**0.013**	0.0083 U	**0.032**	0.0077 U	**0.03**	**0.53**	**0.072 J**	0.0083 U	**0.43**	**0.017**
2-Methylphenol	mg/kg	41,000	7.4 U	7.5 U	7.5 U	7.2 U	6.8 U	8.1 U	7.9 U	8.3 U	7.3 U	7.7 U	6.9 U	7.3 U	7.6 U	8.2 U	7.7 U	7.7 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	14.8 U	14.9 U	15 U	14.4 U	13.6 U	16.2 U	15.7 U	16.6 U	14.5 U	15.4 U	13.9 U	14.6 U	15.3 U	16.4 U	15.4 U	15.4 U
Acenaphthene	mg/kg	45,000	0.0074 U	**0.0036 J**	**0.0022 J**	0.0072 U	0.14 U	**0.036 J**	**0.0035 J**	0.0083 U	**0.15**	0.0077 U	**0.12**	**0.028**	0.15 U	0.0083 U	**0.15 J**	**0.0011 J**
Acenaphthylene	mg/kg	45,000	0.0074 U	**0.023**	**0.0072 J**	**0.002 J**	**0.021 J**	**0.014 J**	**0.005 J**	0.0083 U	**0.0075**	0.0077 U	**0.014**	**0.22**	**0.12 J**	0.0083 U	**0.067 J**	**0.0062 J**
Acetophenone	mg/kg	120,000	7.4 U	7.5 U	7.5 U	7.2 U	6.8 U	8.1 U	7.9 U	8.3 U	7.3 U	7.7 U	6.9 U	7.3 U	7.6 U	8.2 U	7.7 U	7.7 U
Anthracene	mg/kg	230,000	**0.0015 J**	**0.018**	**0.0099**	**0.0025 J**	**0.047 J**	**0.066 J**	**0.0098 J**	0.0083 U	**0.027**	0.0077 U	**0.043**	**0.27**	**0.11 J**	0.0083 U	**0.35**	**0.014**
Benz[a]anthracene	mg/kg	21.0	**0.0063 J**	**0.11**	**0.037**	**0.013**	**0.17**	**0.043 J**	**0.071 J**	0.0083 U	**0.17**	0.0077 U	**0.3**	**1.2**	**0.42**	**0.022 J**	**0.45**	**0.054**
Benzaldehyde	mg/kg	120,000	7.4 R	7.5 R	7.5 U	7.2 U	6.8 U	8.1 U	7.9 U	8.3 U	7.3 U	7.7 U	6.9 U	7.3 U	7.6 U	8.2 U	7.7 U	7.7 U
Benzo[a]pyrene	mg/kg	2.10	**0.0067 J**	**0.15**	**0.041**	**0.019 J**	**0.19**	**0.071 J**	**0.064**	0.0083 U	**0.44**	0.0077 U	**0.7**	**1.4**	**0.51**	0.0083 U	**0.29**	**0.061**
Benzo[b]fluoranthene	mg/kg	21.0	**0.018**	**0.46**	**0.11**	**0.052 J**	**0.29**	**0.25**	**0.12**	0.0083 U	**0.72**	0.0077 U	**1.2**	**1.8**	**1.1**	0.0083 U	**0.62**	**0.17**
Benzo[g,h,i]perylene	mg/kg		**0.0039 J**	**0.032**	**0.025**	0.072 U	**0.084 J**	**0.023 J**	**0.021**	0.0083 U	**0.24**	0.0077 U	**0.47**	**0.49**	**0.2**	0.0083 U	**0.13 J**	**0.051**
Benzo[k]fluoranthene	mg/kg	210	**0.0066 J**	**0.37**	**0.041**	**0.042 J**	**0.1 J**	**0.21**	**0.049**	0.0083 U	**0.6**	0.0077 U	**0.98**	**0.65**	**0.35**	0.0083 U	**0.61**	**0.17**
bis(2-Ethylhexyl)phthalate	mg/kg	160	7.4 U	7.5 U	7.5 U	7.2 U	6.8 U	8.1 U	7.9 U	8.3 U	7.3 U	7.7 U	6.9 U	7.3 U	7.6 U	8.2 U	7.7 U	7.7 U
Carbazole	mg/kg		7.4 U	7.5 U	7.5 U	7.2 U	6.8 U	8.1 U	7.9 U	8.3 U	7.3 U	7.7 U	6.9 U	7.3 U	7.6 U	8.2 U	7.7 U	7.7 U
Chrysene	mg/kg	2,100	**0.015**	**0.13**	**0.072**	**0.019**	**0.29**	**0.13**	**0.077 J**	0.0083 U	**0.18**	0.0077 U	**0.34**	**1.2**	**0.58**	**0.012 J**	**0.55**	**0.1**
Dibenz[a,h]anthracene	mg/kg	2.10	**0.0016 J**	**0.018**	**0.009**	0.072 U	**0.029 J**	0.081 U	**0.0087**	0.0083 U	**0.087**	0.0077 U	**0.18**	**0.26**	**0.082 J**	0.0083 U	**0.049 J**	**0.014**
Di-n-butylphthalate	mg/kg	82,000	7.4 U	7.5 U	7.5 U	7.2 U	6.8 U	8.1 U	7.9 U	8.3 U	7.3 U	7.7 U	6.9 U	7.3 U	7.6 U	8.2 U	7.7 U	7.7 U
Di-n-ocytlphthalate	mg/kg	8,200	7.4 U	7.5 U	7.5 U	7.2 U	6.8 U	8.1 U	7.9 U	8.3 U	7.3 U	7.7 U	6.9 U	7.3 U	7.6 U	8.2 U	7.7 U	7.7 U
Fluoranthene	mg/kg	30,000	**0.014**	**0.16**	**0.077**	**0.034**	**0.37**	**0.12**	**0.1**	0.0083 U	**0.19**	0.0077 U	**0.37**	**1.6**	**0.69**	0.0083 U	**0.81**	**0.14**
Fluorene	mg/kg	30,000	0.0074 U	**0.0049 J**	**0.0019 J**	0.0072 U	0.14 U	**0.061 J**	**0.0024 J**	**0.0011 J**	**0.016**	0.0077 U	**0.019**	**0.039**	**0.026 J**	0.0083 U	**0.14 J**	**0.0011 J**
Indeno[1,2,3-c,d]pyrene	mg/kg	21.0	**0.004 J**	**0.038**	**0.024**	0.072 U	**0.057 J**	**0.019 J**	**0.02**	0.0083 U	**0.25**	0.0077 U	**0.47**	**0.65**	**0.23**	0.0083 U	**0.11 J**	**0.042**
Naphthalene	mg/kg	17.0	0.0033 B	**0.04**	**0.017**	0.0038 B	**0.16**	**0.11**	**0.016**	**0.0023 J**	**0.041**	0.0077 U	**0.032**	**4.3**	**0.066 J**	0.0083 U	**0.52**	**0.027**
Pentachlorophenol	mg/kg	4.00	0.19 UJ	0.19 UJ	0.19 UJ	0.18 UJ	0.17 UJ	0.2 UJ	0.2 UJ	0.21 UJ	0.18 UJ	0.19 UJ	0.17 UJ	0.18 UJ	0.19 UJ	0.21 UJ	0.19 U	0.19 U
Phenanthrene	mg/kg		**0.008**	**0.087**	**0.04**	**0.012**	**0.32**	**0.14**	**0.075 J**	**0.0011 J**	**0.1**	0.0077 U	**0.15**	**0.71**	**0.39**	0.0083 U	**1.1**	**0.043**
Phenol	mg/kg	250,000	7.4 U	7.5 U	7.5 U	7.2 U	6.8 U	8.1 U	7.9 U	8.3 U	7.3 U	7.7 U	6.9 U	7.3 U	7.6 U	8.2 U	7.7 U	7.7 U
Pyrene	mg/kg	23,000	**0.011**	**0.13**	**0.068**	**0.024**	**0.34**	**0.18**	**0.097**	0.0083 U	**0.18**	0.0077 U	**0.35**	**1.8**	**0.67**	0.0083 U	**0.77**	**0.12**
PCBs																		
Aroclor 1016	mg/kg	27	0.019 U	N/A	0.018 U	N/A	0.17 U	N/A	0.097 U	N/A	0.018 U	N/A	0.017 U	N/A	0.096 U	N/A	0.019 U	N/A
Aroclor 1242	mg/kg	0.97	0.019 U	N/A	0.018 U	N/A	0.17 U	N/A	0.097 U	N/A	0.018 U	N/A	0.017 U	N/A	0.096 U	N/A	0.019 U	N/A
Aroclor 1248	mg/kg	0.94	0.019 U	N/A	0.018 U	N/A	0.17 U	N/A	0.097 U	N/A	0.018 U	N/A	0.017 U	N/A	0.096 U	N/A	0.019 U	N/A
Aroclor 1254	mg/kg	0.97	0.019 U	N/A	0.018 U	N/A	0.17 U	N/A	0.097 U	N/A	**0.02**	N/A	**0.018**	N/A	**0.16**	N/A	0.019 U	N/A
Aroclor 1260	mg/kg	0.99	0.019 U	N/A	0.018 U	N/A	**0.21**	N/A	0.097 U	N/A	**0.022**	N/A	0.017 U	N/A	**0.2**	N/A	0.019 U	N/A
Aroclor 1262	mg/kg		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
PCBs (total)	mg/kg	0.97	0.13 U	N/A	0.13 U	N/A	1.2 U	N/A	0.68 U	N/A	**0.042 J**	N/A	0.12 U	N/A	**0.37 J**	N/A	0.13 U	N/A
TPH																		
Diesel Range Organics	mg/kg	6,200	**58.8**	**15.9**	**24.9**	**10.3**	**155 J**	**8,430**	**62.8**	**6.2 J**	**40.6**	7.8 U	**38.5**	**292**	**103**	**5.8 J**	**108**	**42**
Gasoline Range Organics	mg/kg	6,200	13.3 U	20.3 U	18.2 U	11.4 U	8.9 U	9.9 U	9.8 U	10.2 U	9.6 U	9.5 U	11.1 U	53 U	13.4 U	10.3 U	12.1 U	12.4 U

Bold indicates detection
N/A: This parameter was not analyzed for this sample.
* Indicates non-validated
^ PAH compounds were analyzed for SIM
Red values indicate a detection exceedance of the Project Action Limit

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 5a
Summary of Organics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-150-SB-1	B5-150-SB-5	B5-151-SB-1	B5-151-SB-5	B5-152-SB-1	B5-152-SB-5	B5-153-SB-1	B5-154-SB-1	B5-154-SB-4	B5-155-SB-1	B5-155-SB-5	B5-156-SB-1*	B5-156-SB-6*	B5-157-SB-1*	B5-157-SB-5*	B5-158-SB-1*
Volatile Organic Compounds																		
1,1,1-Trichloroethane	mg/kg	36,000	0.0063 U	0.0053 U	0.0045 U	0.0046 U	0.31 U	0.0062 U	0.0035 U	0.0048 U	0.0044 U	0.0041 U	0.0043 U	0.0056 U	0.0061 U	0.006 U	0.007 U	0.0056 U
1,1-Dichloroethane	mg/kg	16	0.0063 U	0.0053 U	0.0045 U	0.0046 U	0.31 U	0.0062 U	0.0035 U	0.0048 U	0.0044 U	0.0041 U	0.0043 U	0.0056 U	0.0061 U	0.006 U	0.007 U	0.0056 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0063 U	0.0053 U	0.0045 U	0.0046 U	0.31 U	0.0062 U	0.0035 U	0.0048 U	0.0044 UJ	0.0041 U	0.0043 U	0.0056 U	0.0061 U	0.006 U	0.007 U	0.0056 U
1,2,4-Trichlorobenzene	mg/kg	110	0.0063 U	0.0053 U	0.0045 U	0.0046 U	0.31 U	0.0062 U	0.0035 U	0.0048 U	0.0044 UJ	0.0041 U	0.0043 U	0.0056 U	0.0061 U	0.006 U	0.007 U	0.0056 U
2-Butanone (MEK)	mg/kg	190,000	0.013 U	0.011 U	0.0089 U	0.0091 U	0.61 U	0.012 U	0.0071 U	0.0095 U	**0.02**	**0.01**	0.0087 U	0.011 U	0.012 U	**0.018**	**0.012 J**	**0.0074 J**
2-Hexanone	mg/kg	1,300	0.013 U	0.011 U	0.0089 U	0.0091 U	0.61 U	0.012 U	0.0071 U	0.0095 U	**0.0066 J**	0.0082 U	0.0087 U	0.011 U	0.012 U	0.012 U	0.014 U	0.011 U
Acetone	mg/kg	670,000	**0.016**	0.011 U	**0.015**	**0.038**	0.61 U	**0.024**	**0.013**	**0.038**	**0.092**	**0.062**	**0.0044 J**	**0.094**	**0.057**	**0.11**	**0.083**	**0.052**
Benzene	mg/kg	5.1	0.0063 U	0.0053 U	0.0045 U	0.0046 U	0.31 U	0.0062 U	0.0035 U	0.0048 U	**0.0041 J**	0.0041 U	0.0043 U	0.0056 U	0.0061 U	**0.0037 J**	**0.0021 J**	**0.0032 J**
Carbon tetrachloride	mg/kg	2.9	0.0063 U	0.0053 U	0.0045 U	0.0046 U	0.31 U	0.0062 U	0.0035 U	0.0048 U	0.0044 U	0.0041 U	0.0043 U	0.0056 U	0.0061 U	0.006 U	0.007 U	0.0056 U
Chloroform	mg/kg	1.4	0.0063 U	0.0053 U	0.0045 U	0.0046 U	0.31 U	0.0062 U	0.0035 U	0.0048 U	0.0044 U	0.0041 U	0.0043 U	0.0056 U	0.0061 U	0.006 U	0.007 U	0.0056 U
Cyclohexane	mg/kg	27,000	0.013 U	0.011 U	0.0089 U	0.0091 U	0.61 U	**0.012 J**	0.0071 U	0.0095 U	0.0089 U	0.0082 U	0.0087 U	0.011 U	0.012 U	**0.0095 J**	0.014 U	0.011 U
Ethylbenzene	mg/kg	25	0.0063 U	0.0053 U	0.0045 U	0.0046 U	0.31 U	0.0062 U	0.0035 U	0.0048 U	0.0044 U	0.0041 U	0.0043 U	0.0056 U	0.0061 U	0.006 U	0.007 U	0.0056 U
Isopropylbenzene	mg/kg	9,900	0.0063 U	0.0053 U	0.0045 U	0.0046 U	0.31 U	0.0062 U	0.0035 U	0.0048 U	0.0044 U	0.0041 U	0.0043 U	0.0056 U	0.0061 U	0.006 U	0.007 U	0.0056 U
Methyl Acetate	mg/kg	1,200,000	0.063 U	0.053 U	0.045 U	0.046 U	3.1 U	0.062 U	0.035 U	0.048 UJ	0.044 UJ	0.041 UJ	0.043 UJ	0.056 U	0.061 U	0.06 U	0.07 U	0.056 U
Methylene Chloride	mg/kg	1,000	0.0063 U	0.0053 U	0.0045 U	0.0046 U	0.31 U	0.0062 U	0.0035 U	0.0048 U	0.0044 U	0.0041 U	0.0043 U	0.0056 U	0.0061 U	0.006 U	0.007 U	0.0056 U
Styrene	mg/kg	35,000	0.0063 U	0.0053 U	0.0045 U	0.0046 U	0.31 U	0.0062 U	0.0035 U	0.0048 U	0.0044 U	0.0041 U	0.0043 U	0.0056 U	0.0061 U	0.006 U	0.007 U	0.0056 U
Tetrachloroethene	mg/kg	100	0.0063 U	0.0053 U	0.0045 U	0.0046 U	0.31 U	0.0062 U	0.0035 U	0.0048 U	0.0044 U	0.0041 U	0.0043 U	0.0056 U	0.0061 U	0.006 U	0.007 U	0.0056 U
Toluene	mg/kg	47,000	**0.0093**	**0.0017 J**	0.0045 U	0.0046 U	**0.098 J**	**0.0021 J**	0.0035 U	**0.0018 J**	**0.0026 J**	0.0041 U	0.0043 U	0.0056 U	0.0061 U	**0.0031 J**	0.007 U	**0.0026 J**
Trichloroethene	mg/kg	6	0.0063 U	0.0053 U	0.0045 U	0.0046 U	0.31 U	0.0062 U	0.0035 U	0.0048 U	0.0044 U	0.0041 U	0.0043 U	0.0056 U	0.0061 U	0.006 U	0.007 U	0.0056 U
Xylenes	mg/kg	2,800	0.019 U	0.016 U	0.013 U	0.014 U	0.92 U	0.019 U	0.011 U	0.014 U	0.013 U	0.012 U	0.013 U	0.017 U	0.018 U	0.018 U	0.021 U	0.017 U
Semi-Volatile Organic Compounds^																		
1,1-Biphenyl	mg/kg	200	7.8 U	7.6 U	7.3 U	7.1 U	7.4 U	7.4 U	7 U	7.5 U	7.6 U	7.4 U	7.7 U	7.3 U	7.4 U	3.6 U	3.7 U	3.6 U
2,4-Dimethylphenol	mg/kg	16,000	7.8 U	7.6 U	7.3 U	7.1 U	7.4 U	7.4 U	7 U	7.5 U	7.6 U	7.4 U	7.7 U	7.3 U	7.4 U	3.6 U	3.7 U	3.6 U
2-Methylnaphthalene	mg/kg	3,000	**0.46**	0.15 U	**0.076 J**	0.14 U	**0.93**	0.0073 U	**0.035**	**0.05 J**	**0.011**	**0.08**	0.0079 U	**0.046**	**0.0077**	**0.34**	**0.28**	**0.031**
2-Methylphenol	mg/kg	41,000	7.8 U	7.6 U	7.3 U	7.1 U	7.4 U	7.4 U	7 U	7.5 U	7.6 U	7.4 U	7.7 U	7.3 U	7.4 U	3.6 U	3.7 U	3.6 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	15.6 U	15.2 U	14.7 U	14.2 U	14.8 U	14.8 U	13.9 U	14.9 U	15.1 U	14.9 U	15.4 U	14.6 U	14.8 U	7.2 U	7.5 U	7.3 U
Acenaphthene	mg/kg	45,000	**0.014**	0.15 U	0.15 U	0.14 U	**0.038**	0.0073 U	**0.0019 J**	**0.02 J**	0.0076 U	**0.021**	0.0079 U	**0.0058 J**	**0.002 J**	**0.084**	**0.1**	**0.0061 J**
Acenaphthylene	mg/kg	45,000	**0.0051 J**	0.15 U	0.15 U	0.14 U	**0.024 J**	0.0073 U	**0.0019 J**	**0.095 J**	**0.19**	**0.11**	0.0079 U	**0.061**	**0.0096**	**0.022**	**0.041**	**0.0065 J**
Acetophenone	mg/kg	120,000	7.8 U	7.6 U	7.3 U	7.1 U	7.4 U	7.4 U	7 U	7.5 U	7.6 U	7.4 U	7.7 U	7.3 U	7.4 U	3.6 U	3.7 U	3.6 U
Anthracene	mg/kg	230,000	**0.034**	0.15 U	0.15 U	0.14 U	**0.22**	0.0073 U	**0.0062 J**	**0.21**	**0.1**	**0.12**	0.0079 U	**0.05**	**0.015**	**0.2**	**0.23**	**0.042**
Benz[a]anthracene	mg/kg	21.0	**0.11 J**	0.15 U	**0.16**	**0.14**	**0.26**	**0.0027 J**	**0.015**	**0.81**	**0.98**	**0.5**	0.0079 U	**0.39**	**0.079**	**0.44**	**0.4**	**0.13**
Benzaldehyde	mg/kg	120,000	7.8 U	7.6 U	7.3 U	7.1 U	7.4 U	7.4 U	7 UJ	7.5 U	7.6 U	7.4 U	7.7 U	7.3 U	7.4 U	3.6 U	3.7 U	3.6 U
Benzo[a]pyrene	mg/kg	2.10	**0.075**	0.15 U	0.15 U	0.14 U	**0.25**	**0.0019 J**	**0.012**	**0.77**	**0.87**	**0.57 J**	**0.0011 J**	**0.36**	**0.077**	**0.29**	**0.27**	**0.21**
Benzo[b]fluoranthene	mg/kg	21.0	**0.16**	0.15 U	**0.21**	0.14 U	**0.4**	**0.0059 J**	**0.04**	**1.4**	**2.7**	**1.3 J**	**0.0061 J**	**0.86**	**0.16**	**0.59**	**0.51**	**0.42**
Benzo[g,h,i]perylene	mg/kg		**0.039**	0.15 U	**0.14 J**	**0.12 J**	**0.26**	0.0073 U	**0.0091**	**0.23**	**0.95**	**0.18 J**	**0.0016 J**	**0.19**	**0.045**	**0.081**	**0.091**	**0.2**
Benzo[k]fluoranthene	mg/kg	210	**0.16**	0.15 U	**0.12 J**	0.14 U	**0.17**	**0.0059 J**	**0.033**	**0.56**	**0.9**	**0.41 J**	**0.0062 J**	**0.27**	**0.057**	**0.29**	**0.24**	**0.13**
bis(2-Ethylhexyl)phthalate	mg/kg	160	7.8 U	7.6 U	7.3 UJ	7.1 U	7.4 U	7.4 U	7 U	7.5 U	7.6 U	7.4 U	7.7 U	7.3 U	7.4 U	3.6 U	3.7 U	3.6 U
Carbazole	mg/kg		7.8 U	7.6 U	7.3 U	7.1 U	7.4 U	7.4 U	7 U	7.5 U	7.6 U	7.4 U	7.7 U	7.3 U	7.4 U	3.6 U	3.7 U	3.6 U
Chrysene	mg/kg	2,100	**0.1 J**	0.15 U	**0.15**	**0.15**	**0.37**	**0.0028 J**	**0.027**	**0.91**	**1.2**	**0.6**	**0.0019 J**	**0.41**	**0.085**	**0.4**	**0.38**	**0.2**
Dibenz[a,h]anthracene	mg/kg	2.10	**0.011**	0.15 U	0.15 U	0.14 U	**0.082**	0.0073 U	**0.0037 J**	**0.083 J**	**0.33**	**0.067 J**	0.0079 U	**0.084**	**0.021**	**0.045**	**0.045**	**0.057**
Di-n-butylphthalate	mg/kg	82,000	7.8 U	7.6 U	7.3 U	7.1 U	7.4 U	7.4 U	7 U	7.5 U	7.6 U	7.4 U	7.7 U	7.3 U	7.4 U	3.6 U	3.7 U	3.6 U
Di-n-ocytlphthalate	mg/kg	8,200	7.8 U	7.6 U	7.3 UJ	7.1 U	7.4 U	7.4 U	7 U	7.5 U	7.6 U	7.4 U	7.7 U	7.3 U	7.4 U	3.6 U	3.7 U	3.6 U
Fluoranthene	mg/kg	30,000	**0.16**	0.15 U	**0.4**	**0.32**	**0.57**	**0.0062 J**	**0.037**	**1.8**	**0.61**	**1**	**0.01**	**0.48**	**0.098**	**1.1**	**0.52**	**0.26**
Fluorene	mg/kg	30,000	**0.029**	0.15 UJ	0.15 UJ	0.14 UJ	**0.045 J**	0.0073 U	**0.0025 J**	**0.054 J**	**0.014**	**0.035**	0.0079 U	**0.0084**	**0.0025 J**	**0.09**	**0.098**	**0.0053 J**
Indeno[1,2,3-c,d]pyrene	mg/kg	21.0	**0.029**	0.15 U	0.15 U	0.14 U	**0.17**	0.0073 U	**0.0069 J**	**0.24**	**0.98**	**0.17 J**	**0.0013 J**	**0.21**	**0.05**	**0.083**	**0.1**	**0.15**
Naphthalene	mg/kg	17.0	**0.28**	0.15 U	**0.15**	0.14 U	**0.53**	0.0037 B	**0.036**	**0.29**	**0.041**	**0.19**	0.0018 B	**0.24**	**0.029**	**1.4**	**0.16**	0.029 B
Pentachlorophenol	mg/kg	4.00	19.5 U	19 U	18.3 U	17.8 U	18.6 U	18.6 U	17.4 U	0.19 R	0.19 R	0.19 R	0.19 R	0.18 U	0.19 U	0.18 U	0.19 U	0.18 U
Phenanthrene	mg/kg		**0.28**	0.15 U	0.15 U	0.14 U	**1.2**	**0.0041 J**	**0.046**	**0.76**	**0.15**	**0.55**	**0.024**	**0.12**	**0.044**	**1**	**0.86**	**0.12**
Phenol	mg/kg	250,000	7.8 U	7.6 U	7.3 U	7.1 U	7.4 U	7.4 U	7 U	7.5 U	7.6 U	7.4 U	7.7 U	7.3 U	7.4 U	3.6 U	3.7 U	3.6 U
Pyrene	mg/kg	23,000	**0.13**	0.15 U	**0.37**	**0.3**	**0.49**	**0.0051 J**	**0.03**	**1.5**	**3.8**	**0.88**	**0.0022 J**	**0.47**	**0.086**	**0.92**	**0.45**	**0.27**
PCBs																		
Aroclor 1016	mg/kg	27	0.019 U	N/A	0.018 U	N/A	0.018 U	N/A	0.018 U	1.9 U	N/A	9.2 U	N/A	0.37 U	N/A	0.0537 U	N/A	0.0539 U
Aroclor 1242	mg/kg	0.97	0.019 U	N/A	0.018 U	N/A	0.018 U	N/A	**0.31**	1.9 U	N/A	9.2 U	N/A	0.37 U	N/A	**0.137**	N/A	0.0539 U
Aroclor 1248	mg/kg	0.94	0.019 U	N/A	0.018 U	N/A	0.018 U	N/A	0.018 U	1.9 U	N/A	9.2 U	N/A	0.37 U	N/A	0.0537 U	N/A	0.0539 U
Aroclor 1254	mg/kg	0.97	0.019 U	N/A	0.018 U	N/A	0.018 U	N/A	0.018 U	1.9 U	N/A	9.2 U	N/A	0.37 U	N/A	**0.098**	N/A	0.0539 U
Aroclor 1260	mg/kg	0.99	0.019 U	N/A	**0.014 J**	N/A	0.018 U	N/A	0.018 U	**15.4**	N/A	**43.3**	N/A	**3**	N/A	0.0537 U	N/A	0.0539 U
Aroclor 1262	mg/kg		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	**0.116**	N/A	0.0539 U
PCBs (total)	mg/kg	0.97	0.13 U	N/A	0.13 U	N/A	0.13 U	N/A	**0.31**	**15.4**	N/A	**43.3 J**	N/A	**3**	N/A	**0.351**	N/A	0.0539 U
TPH																		
Diesel Range Organics	mg/kg	6,200	**49.9**	5.6 B	**43.7**	**21.2**	**192**	5.4 B	**31.3**	**158**	**749**	**197**	**8.6**	**50.5**	**24.3**	**196**	**133**	**469**
Gasoline Range Organics	mg/kg	6,200	14.8 U	11.6 U	9.8 U	7.9 U	11.7 U	12.7 U	6.4 U	11.4 U	11.6 U	11.4 U	11.8 U	13.2 U	12.2 U	14.2 U	18.6 U	12.9 U

Bold indicates detection
N/A: This parameter was not analyzed for this sample.
* Indicates non-validated
^ PAH compounds were analyzed for SIM
Red values indicate a detection exceedance of the Project Action Limit

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 5a
Summary of Organics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-158-SB-5*	B5-159-SB-1*	B5-159-SB-5*	B5-160-SB-1*	B5-160-SB-4*	B5-161-SB-1	B5-161-SB-4	B5-161-SB-10*	B5-162-SB-1	B5-163-SB-1	B5-164-SB-1	B5-164-SB-5	B5-165-SB-1	B5-165-SB-5	B5-166-SB-1	B5-166-SB-5
Volatile Organic Compounds																		
1,1,1-Trichloroethane	mg/kg	36,000	0.0061 U	0.005 U	0.004 U	0.0056 U	0.0066 U	0.0049 U	0.35 U	N/A	0.0057 U	0.0072 U	0.0045 U	0.0047 U	0.0041 U	0.0057 U	0.0051 U	0.0074 U
1,1-Dichloroethane	mg/kg	16	0.0061 U	0.005 U	0.004 U	0.0056 U	0.0066 U	0.0049 U	0.35 U	N/A	0.0057 U	0.0072 U	0.0045 U	0.0047 U	0.0041 U	0.0057 U	0.0051 U	0.0074 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0061 U	0.005 U	0.004 U	0.0056 U	0.0066 U	0.0049 UJ	0.35 U	N/A	0.0057 U	0.0072 U	0.0045 U	0.0047 U	0.0041 U	0.0057 U	0.0051 U	0.0074 U
1,2,4-Trichlorobenzene	mg/kg	110	0.0061 U	0.005 U	0.004 U	0.0056 U	0.0066 U	0.0049 UJ	0.35 U	N/A	0.0057 U	0.0072 U	0.0045 U	0.0047 U	0.0041 U	0.0057 U	0.0051 U	0.0074 U
2-Butanone (MEK)	mg/kg	190,000	**0.0078 J**	0.01 U	0.008 U	0.011 U	0.013 U	0.0098 U	0.71 U	N/A	0.011 U	0.014 U	0.009 U	0.0095 U	0.0082 U	**0.015**	0.01 U	0.015 U
2-Hexanone	mg/kg	1,300	0.012 U	0.01 U	0.008 U	0.011 U	0.013 U	0.0098 U	0.71 U	N/A	0.011 U	0.014 U	0.009 U	0.0095 U	0.0082 U	0.011 U	0.01 U	0.015 U
Acetone	mg/kg	670,000	**0.055**	**0.094**	0.008 U	0.011 U	**0.088**	**0.069**	0.71 U	N/A	**0.047 J**	**0.063 J**	**0.048 J**	**0.02 J**	**0.039 J**	**0.08 J**	**0.025 J**	**0.053 J**
Benzene	mg/kg	5.1	0.0061 U	**0.0033 J**	**0.0067**	0.0056 U	0.0066 U	**0.004 J**	**0.26 J**	N/A	0.0057 U	0.0072 U	0.0045 U	0.0047 U	**0.0096**	0.0057 U	**0.003 J**	0.0074 U
Carbon tetrachloride	mg/kg	2.9	0.0061 U	0.005 U	0.004 U	0.0056 U	0.0066 U	0.0049 U	0.35 U	N/A	0.0057 U	0.0072 U	0.0045 U	0.0047 U	0.0041 U	0.0057 U	0.0051 U	0.0074 U
Chloroform	mg/kg	1.4	0.0061 U	0.005 U	0.004 U	0.0056 U	0.0066 U	0.0049 U	0.35 U	N/A	0.0057 U	0.0072 U	0.0045 U	0.0047 U	0.0041 U	0.0057 U	0.0051 U	0.0074 U
Cyclohexane	mg/kg	27,000	0.012 U	0.01 U	0.008 U	0.011 U	0.013 U	0.0098 U	0.71 U	N/A	0.011 U	0.014 U	0.009 U	0.0095 U	0.0082 U	0.011 U	0.01 U	0.015 U
Ethylbenzene	mg/kg	25	0.0061 U	0.005 U	0.004 U	0.0056 U	0.0066 U	0.0049 U	0.35 U	N/A	0.0057 U	0.0072 U	0.0045 U	0.0047 U	0.0041 U	0.0057 U	0.0051 U	0.0074 U
Isopropylbenzene	mg/kg	9,900	0.0061 U	0.005 U	0.004 U	0.0056 U	0.0066 U	0.0049 U	0.35 U	N/A	0.0057 U	0.0072 U	0.0045 U	0.0047 U	0.0041 U	0.0057 U	0.0051 U	0.0074 U
Methyl Acetate	mg/kg	1,200,000	0.061 U	0.05 U	0.04 U	0.056 U	0.066 U	0.049 U	3.5 U	N/A	0.057 U	0.072 U	0.045 U	0.047 U	0.041 U	0.057 U	0.051 U	0.074 U
Methylene Chloride	mg/kg	1,000	0.0061 U	0.005 U	0.004 U	0.0056 U	0.0066 U	0.0049 U	0.35 U	N/A	0.0057 U	0.0072 U	0.0045 U	0.0047 U	0.0041 U	0.0057 U	0.0051 U	0.0074 U
Styrene	mg/kg	35,000	0.0061 U	0.005 U	0.004 U	0.0056 U	0.0066 U	0.0049 U	**0.19 J**	N/A	0.0057 U	0.0072 U	0.0045 U	0.0047 U	0.0041 U	0.0057 U	0.0051 U	0.0074 U
Tetrachloroethene	mg/kg	100	0.0061 U	0.005 U	0.004 U	0.0056 U	0.0066 U	0.0049 U	0.35 U	N/A	0.0057 U	0.0072 U	0.0045 U	0.0047 U	0.0041 U	0.0057 U	0.0051 U	0.0074 U
Toluene	mg/kg	47,000	0.0061 U	**0.0023 J**	0.004 U	0.0056 U	0.0066 U	**0.0021 J**	**0.28 J**	N/A	0.0057 U	0.0072 U	0.0045 U	0.0047 U	**0.0056**	0.0057 U	0.0051 U	0.0074 U
Trichloroethene	mg/kg	6	0.0061 U	0.005 U	0.004 U	0.0056 U	0.0066 U	0.0049 U	0.35 U	N/A	0.0057 U	0.0072 U	0.0045 U	0.0047 U	0.0041 U	0.0057 U	0.0051 U	0.0074 U
Xylenes	mg/kg	2,800	0.018 U	0.015 U	0.012 U	0.017 U	0.02 U	0.015 U	**0.26 J**	N/A	0.017 U	0.022 U	0.013 U	0.014 U	0.012 U	0.017 U	0.015 U	0.022 U
Semi-Volatile Organic Compounds^																		
1,1-Biphenyl	mg/kg	200	4.2 U	7.4 U	7.1 U	3.7 U	3.8 U	7.1 U	**26.8**	N/A	7.5 U	7.5 U	7.5 U	7.3 U	7 U	7.6 U	7.2 U	8.6 U
2,4-Dimethylphenol	mg/kg	16,000	4.2 U	7.4 U	7.1 U	3.7 U	3.8 U	7.1 U	**2.4 J**	N/A	7.5 U	7.5 U	7.5 U	7.3 U	7 U	7.6 U	7.2 U	8.6 U
2-Methylnaphthalene	mg/kg	3,000	**0.097**	**0.067**	0.0071 U	**0.0059 J**	**0.12**	**0.35**	**25.4**	**0.051**	**0.17**	**0.013**	**0.11**	**0.017**	**0.011**	**0.49**	**0.0079**	**0.0073 J**
2-Methylphenol	mg/kg	41,000	4.2 U	7.4 U	7.1 U	3.7 U	3.8 U	7.1 U	7.7 U	N/A	7.5 U	7.5 U	7.5 U	7.3 U	7 U	7.6 U	7.2 U	8.6 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	8.3 U	14.7 U	14.1 U	7.5 U	7.7 U	14.2 U	**2.2 J**	N/A	14.9 U	15 U	15 U	14.7 U	13.9 U	15.2 U	14.3 U	17.2 U
Acenaphthene	mg/kg	45,000	**0.013**	**0.015**	0.0071 U	0.0075 U	**0.26**	**0.2**	**28.9**	**0.044**	**0.035**	**0.0013 J**	**0.017**	0.0073 U	**0.0011 J**	**1.5**	0.0072 U	0.0086 U
Acenaphthylene	mg/kg	45,000	**0.036**	**0.12**	0.0071 U	0.0075 U	**0.021**	**1.2**	**29.5**	**0.039**	**0.035**	**0.0079**	**0.038**	0.0073 U	0.0069 U	**0.36**	0.0072 U	**0.003 J**
Acetophenone	mg/kg	120,000	4.2 U	7.4 U	7.1 U	3.7 U	3.8 U	7.1 U	7.7 U	N/A	7.5 U	7.5 U	7.5 U	7.3 U	7 U	7.6 U	7.2 U	8.6 U
Anthracene	mg/kg	230,000	**0.13**	**0.18**	0.0071 U	**0.0028 J**	**0.2**	**26**	**192**	**0.28**	**0.14**	**0.013**	**0.068**	**0.012**	**0.0021 J**	**3.5**	**0.0082**	**0.0084 J**
Benz[a]anthracene	mg/kg	21.0	**0.47**	**0.8**	0.0071 U	**0.003 J**	**4.8**	**279**	**290**	**0.34**	**0.84**	**0.034**	**0.23**	**0.071**	**0.0055 J**	**7.3**	**0.012**	**0.045**
Benzaldehyde	mg/kg	120,000	4.2 U	7.4 U	7.1 U	3.7 U	3.8 U	7.1 UJ	7.7 UJ	N/A	7.5 U	7.5 U	7.5 R	7.3 R	7 R	7.6 R	7.2 R	8.6 R
Benzo[a]pyrene	mg/kg	2.10	**0.18**	**1.2**	**0.00069 J**	**0.0012 J**	**18.5**	**158**	**215**	**0.35**	**0.81 J**	**0.039 J**	**0.23**	**0.08**	**0.0071**	**7**	**0.0065 J**	**0.0064 J**
Benzo[b]fluoranthene	mg/kg	21.0	**0.53**	**2.5**	**0.0018 J**	**0.0054 J**	**25.8**	**521**	**307**	**0.54**	**2.1 J**	**0.1 J**	**0.67**	**0.15**	**0.021**	**14**	**0.073 J**	**0.15**
Benzo[g,h,i]perylene	mg/kg		**0.053**	**0.97**	0.0071 U	**0.0015 J**	**12.6**	**53.2**	**105**	**0.073**	**0.25 J**	**0.022 J**	**0.083**	**0.059**	**0.0038 J**	**2.2**	**0.0056 J**	**0.0064 J**
Benzo[k]fluoranthene	mg/kg	210	**0.53**	**0.85**	0.0071 U	**0.0043 J**	**8.2**	**270**	**136**	**0.28**	**0.59 J**	**0.032 J**	**0.55**	**0.05**	**0.017**	**11.5**	**0.06 J**	**0.12**
bis(2-Ethylhexyl)phthalate	mg/kg	160	4.2 U	7.4 U	7.1 U	3.7 U	3.8 U	7.1 U	7.7 U	N/A	7.5 U	7.5 U	7.5 U	7.3 U	7 U	7.6 U	7.2 U	8.6 U
Carbazole	mg/kg		4.2 U	7.4 U	7.1 U	3.7 U	3.8 U	**8.6**	**233**	N/A	7.5 U	7.5 U	7.5 U	7.3 U	7 U	7.6 U	7.2 U	8.6 U
Chrysene	mg/kg	2,100	**0.47**	**0.93**	**0.00076 J**	**0.0032 J**	**5.1**	**292**	**248**	**0.33**	**0.84**	**0.051**	**0.28**	**0.094**	**0.0081**	**6.7**	**0.05**	**0.23**
Dibenz[a,h]anthracene	mg/kg	2.10	**0.022**	**0.33**	0.0071 U	0.0075 U	**3.5**	**25.2**	**44.6**	**0.035**	**0.1 J**	**0.008 J**	**0.055**	**0.021**	**0.0012 J**	**1.1**	**0.0023 J**	**0.0042 J**
Di-n-butylphthalate	mg/kg	82,000	4.2 U	7.4 U	7.1 U	3.7 U	3.8 U	7.1 U	7.7 U	N/A	7.5 U	7.5 U	7.5 U	7.3 U	7 U	7.6 U	7.2 U	8.6 U
Di-n-ocytlphthalate	mg/kg	8,200	4.2 U	7.4 U	7.1 U	3.7 U	3.8 U	7.1 U	7.7 U	N/A	7.5 UJ	7.5 UJ	7.5 U	7.3 U	7 U	7.6 U	7.2 U	8.6 U
Fluoranthene	mg/kg	30,000	**0.72**	**1.2**	**0.0011 J**	**0.0076**	**4.4**	**508**	**745**	**1**	**1.3**	**0.049**	**0.88**	**0.16**	**0.011**	**17.7**	**0.075**	**0.37**
Fluorene	mg/kg	30,000	**0.034**	**0.027**	0.0071 U	**0.00065 J**	**0.078**	**1.2**	**194**	**0.27**	**0.027**	**0.0028 J**	**0.019**	**0.002 J**	**0.0016 J**	**1.8**	**0.00086 J**	0.0086 U
Indeno[1,2,3-c,d]pyrene	mg/kg	21.0	**0.044**	**0.85**	0.0071 U	0.0075 U	**11.9**	**75.3**	**122**	**0.077**	**0.28 J**	**0.021 J**	**0.15**	**0.056**	**0.0029 J**	**2.7**	**0.0067 J**	**0.0065 J**
Naphthalene	mg/kg	17.0	**0.081**	**0.65**	**0.011**	**0.0047 J**	**0.18**	**1.5**	**54.4**	**0.14**	**0.2**	**0.012**	**0.44**	**0.036**	**0.0083**	**0.95**	0.0041 B	**0.011**
Pentachlorophenol	mg/kg	4.00	0.21 U	0.18 U	0.18 U	0.19 U	0.19 U	0.18 U*	1.9 U*	N/A	0.19 UJ	0.19 UJ	0.19 UJ	0.18 UJ	0.17 UJ	0.19 UJ	0.18 UJ	0.22 UJ
Phenanthrene	mg/kg		**0.3**	**0.51**	**0.0022 J**	**0.011**	**0.79**	**240**	**809**	**1**	**0.72**	**0.032**	**0.63**	**0.078**	**0.016**	**14.2**	**0.021**	**0.3**
Phenol	mg/kg	250,000	4.2 U	7.4 U	7.1 U	3.7 U	3.8 U	7.1 U	7.7 U	N/A	7.5 U	7.5 U	7.5 U	7.3 U	7 U	7.6 U	7.2 U	8.6 U
Pyrene	mg/kg	23,000	**0.72**	**1**	**0.00093 J**	**0.006 J**	**5.3**	**407**	**518**	**0.71**	**1.1**	**0.044**	**0.67**	**0.13**	**0.0088**	**13.5**	**0.092 J**	**0.22**
PCBs																		
Aroclor 1016	mg/kg	27	N/A	9.1 U	N/A	0.0564 U	N/A	0.9 U	N/A	N/A	0.093 U	0.019 U	0.019 U	N/A	0.017 U	N/A	0.35 U	N/A
Aroclor 1242	mg/kg	0.97	N/A	9.1 U	N/A	0.0564 U	N/A	0.9 U	N/A	N/A	0.093 U	0.019 U	0.019 U	N/A	0.017 U	N/A	0.35 U	N/A
Aroclor 1248	mg/kg	0.94	N/A	9.1 U	N/A	0.0564 U	N/A	0.9 U	N/A	N/A	**0.7**	0.019 U	0.019 U	N/A	0.017 U	N/A	0.35 U	N/A
Aroclor 1254	mg/kg	0.97	N/A	9.1 U	N/A	0.0564 U	N/A	0.9 U	N/A	N/A	**1**	**0.18**	0.019 U	N/A	0.017 U	N/A	0.35 U	N/A
Aroclor 1260	mg/kg	0.99	N/A	**36.1**	N/A	0.0564 U	N/A	0.9 U	N/A	N/A	0.093 U	0.019 U	0.019 U	N/A	0.017 U	N/A	0.35 U	N/A
Aroclor 1262	mg/kg		N/A	N/A	N/A	0.0564 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCBs (total)	mg/kg	0.97	N/A	**36.1 J**	N/A	0.0564 U	N/A	6.3 U	N/A	N/A	**1.7**	**0.18**	0.13 U	N/A	0.12 U	N/A	2.5 U	N/A
TPH																		
Diesel Range Organics	mg/kg	6,200	**2,090**	**215**	7.1 U	**20.9**	**130**	**3,370**	**17,900**	N/A[¥]	**65.2**	**20.7**	**82.1**	**27.9**	**32.4**	**56.9**	**179 J**	**2,290**
Gasoline Range Organics	mg/kg	6,200	12.4 U	12.4 U	9 U	11.7 U	16.1 U	11.2 U	297 UJ	N/A	13.4 U	12.5 U	9.8 U	10.9 U	8.3 U	10.4 U	12.6 U	15.8 U

Bold indicates detection
N/A: This parameter was not analyzed for this sample.
* Indicates non-validated
^ PAH compounds were analyzed for SIM
Red values indicate a detection exceedance of the Project Action Limit

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

[¥]DRO should have been released for analysis in sample B6-161-SB-10 but was not.

Table 5a
Summary of Organics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-166-SB-10	B5-167-SB-1*	B5-167-SB-7*	B5-167-SB-10*	B5-168-SB-1*	B5-168-SB-5*	B5-169-SB-1	B5-169-SB-5	B5-170-SB-1*	B5-171-SB-1*	B5-172-SB-1*	B5-172-SB-5*	B5-173-SB-1*	B5-173-SB-5*	B5-174-SB-1*
Volatile Organic Compounds																	
1,1,1-Trichloroethane	mg/kg	36,000	N/A	0.006 U	0.0054 U	N/A	0.0045 U	0.0052 U	0.0048 U	0.0063 U	0.0059 U	0.0045 U	0.0046 U	0.0079 U	0.0047 U	0.0067 U	0.0051 U
1,1-Dichloroethane	mg/kg	16	N/A	0.006 U	0.0054 U	N/A	0.0045 U	0.0052 U	0.0048 U	0.0063 U	0.0059 U	0.0045 U	0.0046 U	0.0079 U	0.0047 U	0.0067 U	0.0051 U
1,2,3-Trichlorobenzene	mg/kg	930	N/A	0.006 U	0.0054 U	N/A	0.0045 U	0.0052 U	0.0048 U	0.0063 U	0.0059 U	0.0045 U	0.0046 U	0.0079 U	0.0047 U	0.0067 U	0.0051 U
1,2,4-Trichlorobenzene	mg/kg	110	N/A	0.006 U	0.0054 U	N/A	0.0045 U	0.0052 U	0.0048 U	0.0063 U	0.0059 U	0.0045 U	0.0046 U	0.0079 U	0.0047 U	0.0067 U	0.0051 U
2-Butanone (MEK)	mg/kg	190,000	N/A	0.012 U	0.011 U	N/A	0.009 U	0.01 U	0.0097 U	0.013 U	**0.0086 J**	**0.0067 J**	**0.0066 J**	0.016 U	0.0093 U	0.013 U	0.01 U
2-Hexanone	mg/kg	1,300	N/A	0.012 U	0.011 U	N/A	0.009 U	0.01 U	0.0097 U	0.013 U	0.012 U	0.0089 U	0.0092 U	0.016 U	0.0093 U	0.013 U	0.01 U
Acetone	mg/kg	670,000	N/A	**0.015**	**0.026**	N/A	**0.01**	**0.036**	**0.019 J**	**0.042 J**	**0.095**	**0.051**	**0.048**	**0.036**	0.0093 U	0.013 U	0.01 U
Benzene	mg/kg	5.1	N/A	0.006 U	0.0054 U	N/A	**0.0051**	0.0052 U	0.0048 U	0.0063 U	**0.0018 J**	0.0045 U	0.0046 U	0.0079 U	0.0047 U	0.0067 U	0.0051 U
Carbon tetrachloride	mg/kg	2.9	N/A	0.006 U	0.0054 U	N/A	0.0045 U	0.0052 U	0.0048 U	0.0063 U	0.0059 U	0.0045 U	0.0046 U	0.0079 U	0.0047 U	0.0067 U	0.0051 U
Chloroform	mg/kg	1.4	N/A	0.006 U	0.0054 U	N/A	0.0045 U	0.0052 U	0.0048 U	0.0063 U	0.0059 U	**0.0092**	0.0046 U	0.0079 U	0.0047 U	0.0067 U	0.0051 U
Cyclohexane	mg/kg	27,000	N/A	0.012 U	0.011 U	N/A	0.009 U	0.01 U	0.0097 U	0.013 U	0.012 U	0.0089 U	0.0092 U	0.016 U	0.0093 U	0.013 U	0.01 U
Ethylbenzene	mg/kg	25	N/A	0.006 U	0.0054 U	N/A	0.0045 U	0.0052 U	0.0048 U	0.0063 U	0.0059 U	0.0045 U	0.0046 U	0.0079 U	0.0047 U	0.0067 U	0.0051 U
Isopropylbenzene	mg/kg	9,900	N/A	0.006 U	0.0054 U	N/A	0.0045 U	0.0052 U	0.0048 U	0.0063 U	0.0059 U	0.0045 U	0.0046 U	0.0079 U	0.0047 U	0.0067 U	0.0051 U
Methyl Acetate	mg/kg	1,200,000	N/A	0.06 U	0.054 U	N/A	0.045 U	0.052 U	0.048 U	0.063 U	0.059 U	0.045 U	0.046 U	0.079 U	0.047 U	0.067 U	0.051 U
Methylene Chloride	mg/kg	1,000	N/A	0.006 U	**0.011**	N/A	0.0045 U	0.0052 U	0.0048 U	0.0063 U	0.0059 U	0.0045 U	0.0046 U	0.0079 U	0.0047 U	0.0067 U	0.0051 U
Styrene	mg/kg	35,000	N/A	0.006 U	0.0054 U	N/A	0.0045 U	0.0052 U	0.0048 U	0.0063 U	0.0059 U	0.0045 U	0.0046 U	0.0079 U	0.0047 U	0.0067 U	0.0051 U
Tetrachloroethene	mg/kg	100	N/A	0.006 U	0.0054 U	N/A	0.0045 U	0.0052 U	0.0048 U	0.0063 U	0.0059 U	0.0045 U	0.0046 U	0.0079 U	0.0047 U	0.0067 U	0.0051 U
Toluene	mg/kg	47,000	N/A	0.006 U	0.0054 U	N/A	**0.0028 J**	0.0052 U	0.0048 U	0.0063 U	0.0059 U	0.0045 U	0.0046 U	0.0079 U	0.0047 U	0.0067 U	0.0051 U
Trichloroethene	mg/kg	6	N/A	0.006 U	0.0054 U	N/A	0.0045 U	0.0052 U	0.0048 U	0.0063 U	0.0059 U	0.0045 U	0.0046 U	0.0079 U	0.0047 U	0.0067 U	0.0051 U
Xylenes	mg/kg	2,800	N/A	0.018 U	0.016 U	N/A	0.014 U	0.016 U	0.014 U	0.019 U	0.018 U	0.013 U	0.014 U	0.024 U	0.014 U	0.02 U	0.015 U
Semi-Volatile Organic Compounds^																	
1,1-Biphenyl	mg/kg	200	N/A	7.2 U	7.9 U	N/A	7.4 U	7.1 U	7.6 U	7.3 U	3.7 U	3.7 U	3.7 U	3.9 U	3.7 U	3.9 U	7.3 U
2,4-Dimethylphenol	mg/kg	16,000	N/A	7.2 U	7.9 U	N/A	7.4 U	7.1 U	7.6 U	7.3 U	3.7 U	3.7 U	3.7 U	3.9 U	3.7 U	3.9 U	7.3 U
2-Methylnaphthalene	mg/kg	3,000	N/A	**0.014**	**0.12**	N/A	**0.034**	**0.0085**	**0.037**	**0.026**	**0.093**	**0.11**	**0.32**	0.0078 U	**0.09**	**0.0072 J**	**0.11**
2-Methylphenol	mg/kg	41,000	N/A	7.2 U	7.9 U	N/A	7.4 U	7.1 U	7.6 U	7.3 U	3.7 U	3.7 U	3.7 U	3.9 U	3.7 U	3.9 U	7.3 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	N/A	14.3 U	15.7 U	N/A	14.8 U	14.3 U	15.2 U	14.6 U	7.4 U	7.4 U	7.3 U	7.8 U	7.5 U	7.8 U	14.5 U
Acenaphthene	mg/kg	45,000	N/A	**0.0014 J**	**0.055**	N/A	**0.0018 J**	0.0072 U	**0.0043 J**	**0.0046 J**	**0.042**	**0.051**	**0.068**	0.0078 U	**0.0096**	**0.0022 J**	**0.017**
Acenaphthylene	mg/kg	45,000	N/A	**0.0017 J**	**0.12**	N/A	**0.0038 J**	0.0072 U	**0.0028 J**	**0.0056 J**	**0.052**	**0.054**	**0.45**	**0.0043 J**	**0.062**	**0.0069 J**	**0.044**
Acetophenone	mg/kg	120,000	N/A	7.2 U	7.9 U	N/A	7.4 U	7.1 U	7.6 U	7.3 U	3.7 U	3.7 U	3.7 U	3.9 U	3.7 U	3.9 U	7.3 U
Anthracene	mg/kg	230,000	N/A	**0.0088**	**0.15**	N/A	**0.015**	**0.0046 J**	**0.015**	**0.015**	**0.16**	**0.21**	**0.84**	**0.0037 J**	**0.072**	**0.016**	**0.086**
Benz[a]anthracene	mg/kg	21.0	N/A	**0.015**	**0.32**	N/A	**0.098**	**0.032**	**0.026**	**0.06**	**0.39**	**0.48**	**0.59**	**0.0025 J**	**0.13**	**0.041**	**0.27**
Benzaldehyde	mg/kg	120,000	N/A	7.2 U	7.9 U	N/A	7.4 U	7.1 U	7.6 R	7.3 R	3.7 U	3.7 U	3.7 U	3.9 U	3.7 U	3.9 U	7.3 U
Benzo[a]pyrene	mg/kg	2.10	N/A	**0.014**	**0.5**	**0.0027 J**	**0.049**	**0.033**	**0.03**	**0.09**	**0.37**	**0.77**	**1.2**	**0.0014 J**	**0.15**	**0.038**	**0.38**
Benzo[b]fluoranthene	mg/kg	21.0	N/A	**0.052**	**1.2**	N/A	**0.21**	**0.098**	**0.077**	**0.19**	**0.86**	**2.4**	**5.2**	**0.0051 J**	**0.37**	**0.075**	**0.85**
Benzo[g,h,i]perylene	mg/kg		N/A	**0.028**	**0.28**	N/A	**0.03**	**0.033**	**0.018**	**0.033**	**0.28**	**0.55**	**0.7**	**0.0015 J**	**0.12**	**0.023**	**0.18**
Benzo[k]fluoranthene	mg/kg	210	N/A	**0.043**	**0.96**	N/A	**0.17**	**0.081**	**0.064**	**0.15**	**0.27**	**1.9**	**4.2**	**0.004 J**	**0.12**	**0.06**	**0.84**
bis(2-Ethylhexyl)phthalate	mg/kg	160	N/A	7.2 U	7.9 U	N/A	7.4 U	7.1 U	7.6 U	7.3 U	3.7 U	3.7 U	3.7 U	3.9 U	3.7 U	3.9 U	7.3 U
Carbazole	mg/kg		N/A	7.2 U	7.9 U	N/A	7.4 U	7.1 U	7.6 U	7.3 U	3.7 U	3.7 U	3.7 U	3.9 U	3.7 U	3.9 U	7.3 U
Chrysene	mg/kg	2,100	N/A	**0.025**	**0.42**	N/A	**0.18**	**0.049**	**0.036**	**0.072**	**0.49**	**0.6**	**1.1**	**0.002 J**	**0.16**	**0.03**	**0.32**
Dibenz[a,h]anthracene	mg/kg	2.10	N/A	**0.0048 J**	**0.11**	N/A	**0.009**	**0.0081**	**0.0069 J**	**0.013**	**0.1**	**0.17**	**0.27**	0.0078 U	**0.048**	**0.0077 J**	**0.082**
Di-n-butylphthalate	mg/kg	82,000	N/A	7.2 U	7.9 U	N/A	7.4 U	7.1 U	7.6 U	7.3 U	3.7 U	3.7 U	3.7 U	3.9 U	3.7 U	3.9 U	7.3 U
Di-n-octylphthalate	mg/kg	8,200	N/A	7.2 U	7.9 U	N/A	7.4 U	7.1 U	7.6 U	7.3 U	3.7 U	3.7 U	3.7 U	3.9 U	3.7 U	3.9 U	7.3 U
Fluoranthene	mg/kg	30,000	N/A	**0.039**	**0.61**	N/A	**0.45**	**0.061**	**0.064**	**0.11**	**1.4**	**0.67**	**1.3**	**0.003 J**	**0.19**	**0.093**	**0.39**
Fluorene	mg/kg	30,000	N/A	**0.0048 J**	**0.043**	N/A	**0.0022 J**	0.0072 U	**0.0056 J**	**0.0034 J**	**0.013**	**0.055**	**0.061**	**0.0011 J**	**0.019**	**0.013**	**0.014**
Indeno[1,2,3-c,d]pyrene	mg/kg	21.0	N/A	**0.021**	**0.28**	N/A	**0.025**	**0.029**	**0.014**	**0.037**	**0.29**	**0.5**	**0.8**	**0.0012 J**	**0.13**	**0.02**	**0.2**
Naphthalene	mg/kg	17.0	N/A	**0.02**	**0.13**	N/A	**0.055**	**0.029**	**0.038**	**0.038**	**0.11**	**0.12**	**0.19**	0.0078 U	**0.1**	**0.015**	**0.089**
Pentachlorophenol	mg/kg	4.00	N/A	17.9 U	19.7 U	N/A	18.5 U	17.8 U	0.19 UJ	0.18 UJ	0.19 U	0.19 U	0.18 U	0.2 U	0.19 U	0.2 U	0.18 U
Phenanthrene	mg/kg		N/A	**0.05**	**0.27**	N/A	**0.16**	**0.03**	**0.075**	**0.065**	**0.43**	**0.36**	**0.55**	**0.0023 J**	**0.16**	**0.036**	**0.34**
Phenol	mg/kg	250,000	N/A	7.2 U	7.9 U	N/A	7.4 U	7.1 U	7.6 U	7.3 U	3.7 U	3.7 U	3.7 U	3.9 U	3.7 U	3.9 U	7.3 U
Pyrene	mg/kg	23,000	N/A	**0.024**	**0.63**	N/A	**0.27**	**0.05**	**0.059**	**0.099**	**1.4**	**1.5**	**1.4**	**0.0031 J**	**0.19**	**0.071**	**0.36**
PCBs																	
Aroclor 1016	mg/kg	27	N/A	0.018 U	N/A	N/A	0.019 U	N/A	0.019 U	N/A	0.0557 U	0.0601 U	0.0557 U	N/A	0.0544 U	N/A	0.37 U
Aroclor 1242	mg/kg	0.97	N/A	0.018 U	N/A	N/A	0.019 U	N/A	0.019 U	N/A	0.0557 U	0.0601 U	0.0557 U	N/A	0.0544 U	N/A	0.37 U
Aroclor 1248	mg/kg	0.94	N/A	0.018 U	N/A	N/A	0.019 U	N/A	0.019 U	N/A	0.0557 U	0.0601 U	0.0557 U	N/A	0.0544 U	N/A	0.37 U
Aroclor 1254	mg/kg	0.97	N/A	0.018 U	N/A	N/A	0.019 U	N/A	0.019 U	N/A	0.0557 U	0.0601 U	0.0557 U	N/A	0.0544 U	N/A	0.37 U
Aroclor 1260	mg/kg	0.99	N/A	0.018 U	N/A	N/A	0.019 U	N/A	0.019 U	N/A	0.0557 U	0.0601 U	0.0557 U	N/A	0.0544 U	N/A	**2.1**
Aroclor 1262	mg/kg		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.0557 U	0.0601 U	0.0557 U	N/A	**0.0317 J**	N/A	N/A
PCBs (total)	mg/kg	0.97	N/A	0.13 U	N/A	N/A	0.13 U	N/A	0.13 U	N/A	0.0557 U	0.0601 U	0.0557 U	N/A	**0.0317 J**	N/A	**2.1 J**
TPH																	
Diesel Range Organics	mg/kg	6,200	**42.5 J**	**12.6**	**87.2**	N/A	**43.2**	**7.5**	**109**	**44.1**	**92.4**	**67.4**	**95.9**	7.8 U	**49.4**	**19.7**	**135**
Gasoline Range Organics	mg/kg	6,200	N/A	**13.6**	11.9 U	N/A	8.3 U	10.5 U	10.9 U	13.5 U	13.4 U	8.8 U	12 U	10.9 U	11 U	10.2 U	10.3 U

Bold indicates detection
N/A: This parameter was not analyzed for this sample.
* Indicates non-validated
^ PAH compounds were analyzed for SIM
Red values indicate a detection exceedance of the Project Action Limit

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 5a
Summary of Organics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-175-SB-1*	B5-175-SB-5*	B5-176-SB-1	B5-176-SB-5	B5-177-SB-1	B5-177-SB-3.5	B5-178-SB-1	B5-178-SB-5	B5-179-SB-1	B5-179-SB-9	B5-180-SB-1	B5-180-SB-5
Volatile Organic Compounds														
1,1,1-Trichloroethane	mg/kg	36,000	0.0045 U	0.0054 U	0.0056 U	0.0094 U	0.0041 U	0.0066 U	0.0047 U	0.0046 U	0.0043 U	0.0044 U	0.0055 U	0.0058 U
1,1-Dichloroethane	mg/kg	16	0.0045 U	0.0054 U	0.0056 U	0.0094 U	0.0041 U	0.0066 U	0.0047 U	0.0046 U	0.0043 U	0.0044 U	0.0055 U	0.0058 U
1,2,3-Trichlorobenzene	mg/kg	930	0.0045 U	0.0054 U	0.0056 U	0.0094 U	0.0041 UJ	0.0066 UJ	0.0047 U	0.0046 U	0.0043 U	0.0044 U	0.0055 U	0.0058 U
1,2,4-Trichlorobenzene	mg/kg	110	0.0045 U	0.0054 U	0.0056 U	0.0094 U	0.0041 UJ	0.0066 UJ	0.0047 U	0.0046 U	0.0043 U	0.0044 U	0.0055 U	0.0058 U
2-Butanone (MEK)	mg/kg	190,000	0.0091 U	0.011 U	0.011 U	0.019 U	0.0083 U	0.013 U	0.0095 U	0.0092 U	0.0085 U	0.0087 U	0.011 U	0.012 U
2-Hexanone	mg/kg	1,300	0.0091 U	0.011 U	0.011 U	0.019 U	0.0083 U	0.013 U	0.0095 U	0.0092 U	0.0085 U	0.0087 U	0.011 U	0.012 U
Acetone	mg/kg	670,000	**0.043**	0.011 U	**0.09**	0.019 U	0.0083 U	**0.041**	**0.062**	**0.025**	0.0085 R	**0.044 J**	**0.072 J**	**0.034 J**
Benzene	mg/kg	5.1	0.0045 U	0.0054 U	0.0056 U	0.0094 U	0.0041 U	0.0066 U	0.0047 U	0.0046 U	0.0043 U	0.0044 U	0.0055 U	0.0058 U
Carbon tetrachloride	mg/kg	2.9	0.0045 U	0.0054 U	0.0056 U	0.0094 U	0.0041 U	0.0066 U	0.0047 U	0.0046 U	0.0043 U	0.0044 U	0.0055 U	0.0058 U
Chloroform	mg/kg	1.4	0.0045 U	0.0054 U	0.0056 U	0.0094 U	0.0041 U	0.0066 U	0.0047 U	0.0046 U	0.0043 U	0.0044 U	0.0055 U	0.0058 U
Cyclohexane	mg/kg	27,000	0.0091 U	0.011 U	0.011 U	0.019 U	0.0083 U	0.013 U	0.0095 U	0.0092 U	0.0085 U	0.0087 U	0.011 U	0.012 U
Ethylbenzene	mg/kg	25	0.0045 U	0.0054 U	0.0056 U	0.0094 U	0.0041 U	0.0066 U	0.0047 U	0.0046 U	0.0043 U	0.0044 U	0.0055 U	0.0058 U
Isopropylbenzene	mg/kg	9,900	0.0045 U	0.0054 U	0.0056 U	0.0094 U	0.0041 U	0.0066 U	0.0047 U	0.0046 U	0.0043 U	0.0044 U	0.0055 U	0.0058 U
Methyl Acetate	mg/kg	1,200,000	0.045 U	0.054 U	0.056 U	0.094 U	0.041 R	0.066 R	0.047 U	0.046 U	0.043 R	0.044 R	0.055 R	0.058 R
Methylene Chloride	mg/kg	1,000	0.0045 U	0.0054 U	0.0056 U	0.0094 U	0.0041 U	0.0066 U	0.0047 U	0.0046 U	0.0043 U	0.0044 U	0.0055 U	0.0058 U
Styrene	mg/kg	35,000	0.0045 U	0.0054 U	0.0056 U	0.0094 U	0.0041 U	0.0066 U	0.0047 U	0.0046 U	0.0043 U	0.0044 U	0.0055 U	0.0058 U
Tetrachloroethene	mg/kg	100	0.0045 U	0.0054 U	0.0056 U	0.0094 U	0.0041 U	0.0066 U	0.0047 U	0.0046 U	0.0043 U	0.0044 U	0.0055 U	0.0058 U
Toluene	mg/kg	47,000	**0.0018 J**	0.0054 U	0.0056 U	0.0094 U	0.0041 U	0.0066 U	0.0047 U	0.0046 U	0.0043 U	0.0044 U	0.0055 U	0.0058 U
Trichloroethene	mg/kg	6	0.0045 U	0.0054 U	0.0056 U	0.0094 U	0.0041 U	0.0066 U	0.0047 U	0.0046 U	0.0043 U	0.0044 U	0.0055 U	0.0058 U
Xylenes	mg/kg	2,800	0.014 U	0.016 U	0.017 U	0.028 U	0.012 U	0.02 U	0.014 U	0.014 U	0.013 U	0.013 U	0.017 U	0.017 U
Semi-Volatile Organic Compounds^														
1,1-Biphenyl	mg/kg	200	7.4 U	7.9 U	7.5 U	7.9 U	0.37 U	**0.12 J**	7.4 U	8.1 U	3.5 U	3.9 U	3.6 U	4.3 U
2,4-Dimethylphenol	mg/kg	16,000	7.4 U	7.9 U	7.5 U	7.9 U	0.37 U	**0.12 J**	7.4 U	8.1 U	3.5 U	3.9 U	3.6 U	4.3 U
2-Methylnaphthalene	mg/kg	3,000	**0.011**	0.008 U	**0.074**	**0.12 J**	**0.0058 J**	**0.33**	**0.45**	0.16 U	**0.65**	**0.029**	**0.24**	**0.02**
2-Methylphenol	mg/kg	41,000	7.4 U	7.9 U	7.5 U	7.9 U	0.37 U	**0.1 J**	7.4 U	8.1 U	3.5 U	3.9 U	3.6 U	4.3 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	14.9 U	15.8 U	15 U	15.9 U	**0.28 J**	**0.23 J**	14.9 U	16.3 U	6.9 U	7.8 U	7.3 U	8.5 U
Acenaphthene	mg/kg	45,000	**0.013**	0.008 U	**0.0056 J**	0.16 U	**0.01**	**0.26**	**4.8**	**0.059 J**	**0.9**	**0.057**	**0.67**	**0.0022 J**
Acenaphthylene	mg/kg	45,000	**0.02**	0.008 U	**0.018**	0.16 U	**0.0014 J**	**0.13 J**	**0.33**	0.16 U	**0.4**	**0.0069 J**	**0.84**	**0.0096**
Acetophenone	mg/kg	120,000	7.4 U	7.9 U	7.5 U	7.9 U	0.37 U	**0.07 J**	7.4 U	8.1 U	3.5 U	3.9 U	3.6 U	4.3 U
Anthracene	mg/kg	230,000	**0.067**	**0.00084 J**	**0.046**	**0.065 J**	**0.013**	**2**	**12**	**0.17**	**1.2**	**0.032**	**1.1**	**0.012**
Benz[a]anthracene	mg/kg	21.0	**0.22**	0.008 U	**0.11**	**0.15 J**	**0.039**	**12.5 J**	**29.9**	**0.25**	**7.7**	**0.13**	**8.4**	**0.17**
Benzaldehyde	mg/kg	120,000	7.4 U	7.9 U	7.5 U	7.9 U	0.37 U	**0.18 J**	7.4 UJ	8.1 UJ	3.5 U	3.9 U	3.6 U	4.3 U
Benzo[a]pyrene	mg/kg	2.10	**0.18**	0.008 U	**0.11**	**0.17**	**0.038**	**10.4**	**27.4**	**0.21**	**0.66 J**	**0.26 J**	**1.2 J**	**0.25**
Benzo[b]fluoranthene	mg/kg	21.0	**0.33**	0.008 U	**0.34**	**0.41**	**0.12**	**21.5**	**40.8**	**0.31**	**3.6**	**0.53 J**	**5.9**	**0.32**
Benzo[g,h,i]perylene	mg/kg		**0.085**	0.008 U	**0.04**	**0.12 J**	**0.037**	**7.5**	**9.9**	**0.066 J**	**0.25 J**	**0.14 J**	**0.38 J**	**0.24**
Benzo[k]fluoranthene	mg/kg	210	**0.17**	0.008 U	**0.34**	**0.33**	**0.086**	**6.4**	**16.2**	**0.12 J**	**3.6**	**0.53 J**	**5.9**	**0.14**
bis(2-Ethylhexyl)phthalate	mg/kg	160	7.4 U	7.9 U	7.5 U	7.9 U	0.37 U	**0.38 J**	7.4 U	8.1 U	3.5 U	3.9 U	3.6 U	4.3 U
Carbazole	mg/kg		7.4 U	7.9 U	7.5 UJ	7.9 UJ	0.37 U	**1**	**5.5 J**	8.1 U	3.5 U	3.9 U	3.6 U	4.3 U
Chrysene	mg/kg	2,100	**0.41**	0.008 U	**0.18**	**0.27**	**0.052**	**13.4 J**	**27.6**	**0.21**	**8.9**	**0.14**	**6.7**	**0.18**
Dibenz[a,h]anthracene	mg/kg	2.10	**0.033**	0.008 U	**0.019**	**0.048 J**	**0.01**	**2.4**	**5.3**	0.16 U	**0.11 J**	**0.044 J**	**0.18 J**	**0.063**
Di-n-butylphthalate	mg/kg	82,000	7.4 U	7.9 U	7.5 U	7.9 U	0.37 U	0.42 U	7.4 U	8.1 U	3.5 U	3.9 U	3.6 U	4.3 U
Di-n-ocytlphthalate	mg/kg	8,200	7.4 U	7.9 U	7.5 UJ	7.9 UJ	0.37 U	0.42 UJ	7.4 U	8.1 U	3.5 U	3.9 U	3.6 U	4.3 U
Fluoranthene	mg/kg	30,000	**0.6**	**0.001 J**	**0.19**	**0.28**	**0.11**	**17.7**	**58.3**	**0.49**	**38.8**	**0.21**	**22**	**0.16**
Fluorene	mg/kg	30,000	**0.013**	0.008 U	**0.0067 J**	0.16 U	**0.0043 J**	**0.31**	**4.1**	**0.091 J**	**0.87**	**0.01**	**0.54**	**0.0021 J**
Indeno[1,2,3-c,d]pyrene	mg/kg	21.0	**0.086**	0.008 U	**0.038**	**0.11 J**	**0.03**	**7**	**12.1**	**0.056 J**	**0.27 J**	**0.12 J**	**0.41 J**	**0.2**
Naphthalene	mg/kg	17.0	**0.032**	0.008 U	**0.043**	0.068 B	0.0063 B	**0.43**	**0.73**	0.063 B	**0.53**	**0.041**	**0.18**	**0.03**
Pentachlorophenol	mg/kg	4.00	0.19 U	0.2 U	N/A	N/A	0.19 U	0.21 U	0.19 U*	0.2 U*	0.17 U*	0.19 U*	0.18 U*	0.21 U*
Phenanthrene	mg/kg		**0.076**	**0.0014 J**	**0.28**	**0.48**	**0.091**	**7.3**	**30.2**	**0.39**	**38.3**	**0.15**	**3.8**	**0.058**
Phenol	mg/kg	250,000	7.4 U	7.9 U	7.5 U	7.9 U	0.37 U	**0.13 J**	7.4 U	8.1 U	3.5 U	3.9 U	3.6 U	4.3 U
Pyrene	mg/kg	23,000	**0.58**	**0.00074 J**	**0.18**	**0.26**	**0.093**	**15.5**	**46.7**	**0.4**	**31**	**0.18**	**23.4**	**0.16**
PCBs														
Aroclor 1016	mg/kg	27	0.019 U	N/A	0.019 U	N/A	0.0561 U	N/A	0.93 U	N/A	0.018 U	N/A	0.018 U	N/A
Aroclor 1242	mg/kg	0.97	0.019 U	N/A	0.019 U	N/A	0.0561 U	N/A	0.93 U	N/A	0.018 U	N/A	0.018 U	N/A
Aroclor 1248	mg/kg	0.94	0.019 U	N/A	0.019 U	N/A	0.0561 U	N/A	0.93 U	N/A	0.018 U	N/A	0.018 U	N/A
Aroclor 1254	mg/kg	0.97	0.019 U	N/A	0.019 U	N/A	**0.0298 J**	N/A	0.93 U	N/A	0.018 U	N/A	0.018 U	N/A
Aroclor 1260	mg/kg	0.99	0.019 U	N/A	0.019 U	N/A	0.0561 U	N/A	0.93 U	N/A	0.018 U	N/A	0.018 U	N/A
Aroclor 1262	mg/kg		N/A	N/A	N/A	N/A	0.0561 U	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCBs (total)	mg/kg	0.97	0.13 U	N/A	0.13 U	N/A	**0.0298 J**	N/A	6.5 U	N/A	0.12 U	N/A	0.13 U	N/A
TPH														
Diesel Range Organics	mg/kg	6,200	**23.9**	8 U	**53.8**	**85.3**	**163**	**546**	**1,530**	**11.1**	**267**	**96**	**218**	**33.1**
Gasoline Range Organics	mg/kg	6,200	16.3 U	10.9 U	14 U	17 U	10 U	13.6 U	212 U	11 U	9.3 U	9.3 U	14.8 U	16.4 U

Bold indicates detection
N/A: This parameter was not analyzed for this sample.
* Indicates non-validated
^ PAH compounds were analyzed for SIM
Red values indicate a detection exceedance of the Project Action Limit

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 5b
Summary of Dioxins/Furans Detected in Sinter Plant Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	WHO 2005	PAL (mg/kg)	Duplicate (B1-188-SB-1)			B5-181-SB-1			B5-182-SB-1		
	TEF		mg/kg	Flag	WHO TEFs	mg/kg	Flag	WHO TEFs	mg/kg	Flag	WHO TEFs
chlorinated dibenzo-p-dioxins											
2,3,7,8-TCDD	1		1.60E-06		1.60E-06	1.00E-06	U	1.00E-06	1.00E-06	U	1.00E-06
1,2,3,7,8-PeCDD	1		6.80E-06		6.80E-06	5.00E-06	U	5.00E-06	1.00E-06	U	1.00E-06
1,2,3,4,7,8-HxCDD	0.1		5.80E-06		5.80E-07	5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07
1,2,3,6,7,8-HxCDD	0.1		9.10E-06		9.10E-07	5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07
1,2,3,7,8,9-HxCDD	0.1		7.10E-06		7.10E-07	5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07
1,2,3,4,6,7,8-HpCDD	0.01		3.90E-05		3.90E-07	7.20E-06		7.20E-08	5.60E-06		5.60E-08
OCDD	0.0003		7.10E-05		2.13E-08	5.50E-05		1.65E-08	4.20E-05		1.26E-08
chlorinated dibenzofurans											
2,3,7,8-TCDF	0.1		4.60E-05		4.60E-06	1.00E-06	U	1.00E-07	1.10E-06		1.10E-07
1,2,3,7,8-PeCDF	0.03		4.30E-05	I	1.29E-06	5.00E-06	U	1.50E-07	5.00E-06	U	1.50E-07
2,3,4,7,8-PeCDF	0.3		8.70E-05	I	2.61E-05	5.00E-06	U	1.50E-06	5.00E-06	U	1.50E-06
1,2,3,4,7,8-HxCDF	0.1		5.90E-05	I	5.90E-06	5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07
1,2,3,6,7,8-HxCDF	0.1		5.30E-05	I	5.30E-06	5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07
1,2,3,7,8,9-HxCDF	0.1		2.30E-05	I	2.30E-06	5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07
2,3,4,6,7,8-HxCDF	0.1		6.60E-05	I	6.60E-06	5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07
1,2,3,4,6,7,8-HpCDF	0.01		1.30E-04		1.30E-06	5.00E-06	U	5.00E-08	5.00E-06	U	5.00E-08
1,2,3,4,7,8,9-HpCDF	0.01		1.50E-05		1.50E-07	5.00E-06	U	5.00E-08	5.00E-06	U	5.00E-08
OCDF	0.0003		2.50E-05		7.50E-09	1.00E-05	U	3.00E-09	1.00E-05	U	3.00E-09
Total Equivalents											
2,3,7,8 TCDD		2.20E-05			6.46E-05			1.14E-05			7.43E-06

WHO: World Health Organization

TEF: Toxicity Equivalency Factor

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.

I: This analyte may be biased high due to polychlorinated diphenyl ether (PCDPE) interferences.

Value in red indicates an exceedance of the Project Action Limit (PAL)

Table 5b
Summary of Dioxins/Furans Detected in Sinter Plant Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	WHO 2005	PAL (mg/kg)	B5-183-SB-1			B5-184-SB-1			B5-185-SB-1		
	TEF		mg/kg	Flag	WHO TEFs	mg/kg	Flag	WHO TEFs	mg/kg	Flag	WHO TEFs
chlorinated dibenzo-p-dioxins											
2,3,7,8-TCDD	1		1.00E-06	U	1.00E-06	1.00E-06	U	1.00E-06	1.00E-06	U	1.00E-06
1,2,3,7,8-PeCDD	1		5.00E-06	U	5.00E-06	5.00E-06	U	5.00E-06	5.00E-06	U	5.00E-06
1,2,3,4,7,8-HxCDD	0.1		5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07
1,2,3,6,7,8-HxCDD	0.1		5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07
1,2,3,7,8,9-HxCDD	0.1		5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07
1,2,3,4,6,7,8-HpCDD	0.01		9.80E-06		9.80E-08	1.30E-05		1.30E-07	3.10E-05		3.10E-07
OCDD	0.0003		6.30E-05		1.89E-08	1.40E-04		4.20E-08	1.60E-04		4.80E-08
chlorinated dibenzofurans											
2,3,7,8-TCDF	0.1		2.60E-06		2.60E-07	1.00E-06	U	1.00E-07	5.40E-06		5.40E-07
1,2,3,7,8-PeCDF	0.03		5.00E-06	U	1.50E-07	5.00E-06	U	1.50E-07	5.00E-06	U	1.50E-07
2,3,4,7,8-PeCDF	0.3		6.50E-06		1.95E-06	5.00E-06	U	1.50E-06	8.20E-06	I	2.46E-06
1,2,3,4,7,8-HxCDF	0.1		5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07	6.00E-06	I	6.00E-07
1,2,3,6,7,8-HxCDF	0.1		5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07	5.30E-06	I	5.30E-07
1,2,3,7,8,9-HxCDF	0.1		5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07
2,3,4,6,7,8-HxCDF	0.1		5.60E-06		5.60E-07	5.00E-06	U	5.00E-07	5.70E-06	I	5.70E-07
1,2,3,4,6,7,8-HpCDF	0.01		1.00E-05		1.00E-07	5.00E-06	U	5.00E-08	1.50E-05		1.50E-07
1,2,3,4,7,8,9-HpCDF	0.01		5.00E-06	U	5.00E-08	5.00E-06	U	5.00E-08	5.00E-06	U	5.00E-08
OCDF	0.0003		5.00E-06	U	1.50E-09	1.00E-05	U	3.00E-09	1.00E-05	U	3.00E-09
Total Equivalents											
2,3,7,8 TCDD		2.20E-05			1.22E-05			1.15E-05			1.34E-05

WHO: World Health Organization

TEF: Toxicity Equivalency Factor

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.

I: This analyte may be biased high due to polychlorinated diphenyl ether (PCDPE) interferences.

Value in red indicates an exceedance of the Project Action Limit (PAL)

Table 5b
Summary of Dioxins/Furans Detected in Sinter Plant Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	WHO 2005	PAL (mg/kg)	B5-186-SB-1			B5-187-SB-1			B5-188-SB-1		
	TEF		mg/kg	Flag	WHO TEFs	mg/kg	Flag	WHO TEFs	mg/kg	Flag	WHO TEFs
chlorinated dibenzo-p-dioxins											
2,3,7,8-TCDD	1		1.00E-06	U	1.00E-06	1.00E-06	U	1.00E-06	1.00E-06	U	1.00E-06
1,2,3,7,8-PeCDD	1		5.00E-06	U	5.00E-06	5.00E-06	U	5.00E-06	5.00E-06	U	5.00E-06
1,2,3,4,7,8-HxCDD	0.1		5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07
1,2,3,6,7,8-HxCDD	0.1		5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07
1,2,3,7,8,9-HxCDD	0.1		5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07
1,2,3,4,6,7,8-HpCDD	0.01		1.80E-05		1.80E-07	5.20E-06		5.20E-08	1.50E-05		1.50E-07
OCDD	0.0003		1.60E-04		4.80E-08	5.80E-05		1.74E-08	7.10E-05		2.13E-08
chlorinated dibenzofurans											
2,3,7,8-TCDF	0.1		2.50E-06		2.50E-07	1.00E-06	U	1.00E-07	1.10E-05		1.10E-06
1,2,3,7,8-PeCDF	0.03		5.00E-06	U	1.50E-07	5.00E-06	U	1.50E-07	1.10E-05		3.30E-07
2,3,4,7,8-PeCDF	0.3		5.00E-06	U	1.50E-06	5.00E-06	U	1.50E-06	2.00E-05		6.00E-06
1,2,3,4,7,8-HxCDF	0.1		5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07	1.50E-05		1.50E-06
1,2,3,6,7,8-HxCDF	0.1		5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07	1.50E-05		1.50E-06
1,2,3,7,8,9-HxCDF	0.1		5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07	6.30E-06		6.30E-07
2,3,4,6,7,8-HxCDF	0.1		5.00E-06	U	5.00E-07	5.00E-06	U	5.00E-07	1.80E-05		1.80E-06
1,2,3,4,6,7,8-HpCDF	0.01		1.10E-05		1.10E-07	5.00E-06	U	5.00E-08	3.90E-05		3.90E-07
1,2,3,4,7,8,9-HpCDF	0.01		5.00E-06	U	5.00E-08	5.00E-06	U	5.00E-08	5.00E-06	U	5.00E-08
OCDF	0.0003		1.10E-05		3.30E-09	1.00E-05	U	3.00E-09	1.20E-05		3.60E-09
Total Equivalents											
2,3,7,8 TCDD		2.20E-05			1.18E-05			1.14E-05			2.10E-05

WHO: World Health Organization

TEF: Toxicity Equivalency Factor

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.

I: This analyte may be biased high due to polychlorinated diphenyl ether (PCDPE) interferences.

Value in red indicates an exceedance of the Project Action Limit (PAL)

Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-001-SB-1	B5-001-SB-5	B5-002-SB-1	B5-002-SB-5	B5-003-SB-1	B5-003-SB-5	B5-004-SB-1	B5-005-SB-1	B5-005-SB-4.5	B5-006-SB-1	B5-006-SB-5
Metals													
Aluminum	mg/kg	1,100,000	**5,490**	**43,000**	**8,030**	**37,400**	**16,200**	**15,400**	**21,200**	**23,100**	**26,700**	**40,100**	**24,200**
Antimony	mg/kg	470	3.3 UJ	2.8 UJ	2.6 UJ	3 UJ	2.4 UJ	3.2 UJ	2.1 UJ	2.8 UJ	1.8 UJ	2.8 UJ	2.9 UJ
Arsenic	mg/kg	3	**3.6**	2.3 U	**4.5**	2.5 U	**11**	**9.2**	**3.4**	**19.6 J**	**4.6 J**	2.3 U	**4.2 J**
Barium	mg/kg	220,000	**64.7 J**	**529 J**	**74.9 J**	**504 J**	**190 J**	**69.8 J**	**257 J**	**313 J**	**654 J**	**652 J**	**435 J**
Beryllium	mg/kg	2,300	0.47 B	**7**	0.85 B	**6.3**	**2.3**	0.88 B	**3.4**	**2.8**	**3.7**	**5.5**	**3.4**
Cadmium	mg/kg	980	0.49 B	**0.36 J**	0.75 B	0.28 B	**4.8**	0.34 B	**1.9**	**9.5**	2.3 B	0.71 B	0.68 B
Chromium	mg/kg	120,000	**205 J**	**7.4 J**	**350 J**	**29.5 J**	**301**	**26.4**	**166**	**250**	**352**	**206**	**589**
Chromium VI	mg/kg	6.3	**0.19 J-**	1.1 UJ	1.1 UJ	1.1 UJ	**0.23 J-**	**0.34 J-**	1.3 UJ	1.1 UJ	1.1 UJ	1.2 UJ	1.1 UJ
Cobalt	mg/kg	350	**4.6 J**	**0.44 J**	**4.8**	5 U	**13.2**	**6**	**4.1**	**16 J**	**2.1 J**	**1.4 J**	**2.5 J**
Copper	mg/kg	47,000	**25.7 J**	2.5 B	**27.1 J**	5 U	**120 J**	**18.6 J**	**70.3 J**	**179 J**	**41.9 J**	**18.5 J**	**61.9 J**
Iron	mg/kg	820,000	**59,900**	**6,950**	**71,600**	**14,600**	**138,000**	**36,100**	**74,900**	**124,000**	**58,100**	**27,100**	**110,000**
Lead	mg/kg	800	**54.3 J**	2.3 U	**69.1 J**	2.5 U	**494 J**	**70.4 J**	**176 J**	**463**	**20.4 J**	**12.9**	**14.8**
Manganese	mg/kg	26,000	**4,370**	**2,480**	**7,240**	**2,240**	**7,590**	**226**	**5,710**	**10,300**	**38,900**	**24,700**	**49,200**
Mercury	mg/kg	350	**0.076 J-**	0.11 UJ	**0.042 J-**	0.11 UJ	**0.43 J-**	**0.027 J-**	**0.38 J-**	0.1 UJ	0.11 UJ	**0.0032 J-**	0.11 UJ
Nickel	mg/kg	22,000	**55.1**	1.1 B	**79.9**	10 U	**42.1 J**	**15.3 J**	**20 J**	**44.2 J**	**16.5 J**	**5.4 J**	**25.3 J**
Selenium	mg/kg	5,800	4.5 U	**5.3**	2.3 B	**4.3**	3.3 U	4.3 U	2.9 U	3.8 U	2.4 U	3.7 U	3.8 U
Silver	mg/kg	5,800	3.3 U	2.8 U	2.6 U	3 U	2.4 U	3.2 U	2.1 U	2.8 U	0.49 B	2.8 U	1.8 B
Thallium	mg/kg	12	11.1 UJ	9.2 UJ	8.8 UJ	10 UJ	8.1 UJ	10.7 UJ	7.2 UJ	9.4 U	6 U	9.3 U	9.6 U
Vanadium	mg/kg	5,800	**96 J**	**23.5 J**	**159 J**	**32.4 J**	**381**	**37.8**	**169**	**359**	**1,030**	**491**	**873**
Zinc	mg/kg	350,000	**207 J**	**1.9 J**	**246 J**	1.3 B	**1,420 J**	**113 J**	**883 J**	**4,360**	**23.7**	**59.2**	**23.9**
Other													
Cyanide	mg/kg	150	**1.5 J-**	**0.26 J-**	**2.1 J-**	**0.41 J-**	**45.2 J-**	**3.6 J-**	**67.1 J-**	**5.1 J-**	**49.7 J-**	**3.4 J-**	**5.4 J-**

Bold indicates detection
N/A: This parameter was not analyzed for this sample
* Indicates nonvalidated
Red values indicate a detection exceedance of the Project Action Limit

U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
J+: The positive result reported for this analyte is a quantitative estimate but may be biased high.
J-: The positive result reported for this analyte is a quantitative estimate but may be biased low.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-007-SB-1	B5-008-SB-1	B5-009-SB-1*	B5-009-SB-5*	B5-010-SB-1*	B5-010-SB-7*	B5-010-SB-10*	B5-011-SB-1	B5-011-SB-5	B5-012-SB-1	B5-012-SB-5
Metals													
Aluminum	mg/kg	1,100,000	**13,700**	**39,000**	**25,500**	**20,400**	**7,150**	**44,600**	N/A	**34,400**	**21,100**	**14,200**	**14,000**
Antimony	mg/kg	470	3.4 UJ	2.4 UJ	3.3 U	3.2 U	3.1 U	3.4 U	N/A	3.1 UJ	2.5 UJ	2.7 UJ	2.8 UJ
Arsenic	mg/kg	3	**3.1**	**2 J**	**7.2**	**3.7**	**26.7**	**3.4**	**5**	**4.8**	**4**	**5.3**	**6.9**
Barium	mg/kg	220,000	**118**	**860**	**193**	**192**	**55.6**	**322**	N/A	**478 J**	**289 J**	**313 J**	**103 J**
Beryllium	mg/kg	2,300	**1.6**	**5.5**	**3.8**	**2.1**	**0.49 J**	**3.5**	N/A	**3.2**	**2.2**	0.58 B	0.95 U
Cadmium	mg/kg	980	0.79 B	0.59 B	**3.3**	0.51 B	**11.5**	0.26 B	N/A	1.1 B	0.61 B	1.2 B	0.46 B
Chromium	mg/kg	120,000	**360 J**	**25.2 J**	**150**	**29.1**	**329**	5 B	N/A	**343 J**	**62.9 J**	**740 J**	**481 J**
Chromium VI	mg/kg	6.3	0.18 B	1.1 UJ	1.1 U	1.1 U	0.18 B	1.4 U	N/A	**0.43 J**	**0.18 J**	**0.48 J**	**1.1 J**
Cobalt	mg/kg	350	2.3 B	1.5 B	**4.3 J**	**4.9 J**	**14.1**	**0.92 J**	N/A	**7.2**	3.7 B	**21.8**	**6.1**
Copper	mg/kg	47,000	**31.2**	**19.3**	**67.3**	**19.5**	**234**	**36.5**	N/A	**54.1**	**11.7**	**143**	**25.5**
Iron	mg/kg	820,000	**63,600 J**	**24,100 J**	**148,000**	**19,200**	**302,000**	**6,640**	N/A	**49,700**	**38,000**	**79,300**	**34,900**
Lead	mg/kg	800	**59.9**	**16.5**	**282**	**28.6**	**822**	**7.2**	N/A	**81.9**	**25.8**	**110**	**40.3**
Manganese	mg/kg	26,000	**8,330**	**8,180**	**5,160**	**3,500**	**6,780**	**1,780**	N/A	**12,800**	**5,880**	**34,500**	**12,600**
Mercury	mg/kg	350	**0.014 J**	0.11 U	0.11 U	**0.025 J**	**0.21**	0.14 U	N/A	0.1 UJ	0.11 UJ	**0.035 J-**	**0.042 J-**
Nickel	mg/kg	22,000	**14 J**	**5 J**	**39.5**	**10.7 J**	**113**	**1.8 J**	N/A	**26**	7.7 B	**121**	**25.6**
Selenium	mg/kg	5,800	4.5 U	**3.9**	4.3 U	4.3 U	4.1 U	**7.2**	N/A	3 B	3 B	3.6 U	3.8 U
Silver	mg/kg	5,800	3.4 U	2.4 U	**2.1 J**	3.2 U	**6.9**	3.4 U	N/A	3.1 U	2.5 U	2.7 U	2.8 U
Thallium	mg/kg	12	11.3 U	8 U	10.9 U	10.8 U	10.2 U	11.2 U	N/A	5.4 B	8.2 UJ	**12.9 J**	**14.4 J**
Vanadium	mg/kg	5,800	**204**	**80.9**	**66.2**	**93.1**	**145**	**15.3**	N/A	**1,540 J**	**137 J**	**4,710 J**	**3,540 J**
Zinc	mg/kg	350,000	**363 J**	**125 J**	**2,140**	**75.1**	**15,600**	**24.7**	N/A	**389**	**68.7**	**373**	**78.8**
Other													
Cyanide	mg/kg	150	**0.88**	**0.12 J**	**0.5 J**	**1.7**	**6.8**	**7.5**	N/A	**2.3 J-**	**0.27 J**	**3.8 J-**	**0.13 J-**

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B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-013-SB-1	B5-013-SB-4.5	B5-014-SB-1	B5-014-SB-4	B5-015-SB-1	B5-015-SB-5	B5-015-SB-10*	B5-016-SB-1	B5-016-SB-8.5	B5-017-SB-1*	B5-018-SB-1*
Metals													
Aluminum	mg/kg	1,100,000	**35,800**	**27,600**	**17,700**	**17,000**	**16,300**	**16,200**	N/A	**21,800**	**49,200**	**9,370**	**14,000**
Antimony	mg/kg	470	2.6 UJ	2.7 UJ	2.8 UJ	3.3 UJ	2.6 UJ	3 UJ	N/A	2.5 UJ	3.5 UJ	3 U	2.1 U
Arsenic	mg/kg	3	**3.4**	2.2 U	**7.8**	2.8 U	**8.6**	**3.8**	**5.6**	**7.2**	2.9 U	**10.5**	**4.4**
Barium	mg/kg	220,000	**733 J**	**205 J**	**86.4 J**	**152 J**	**265**	**55.1**	N/A	**237**	**353**	**88.3**	**100**
Beryllium	mg/kg	2,300	**4**	**1.3**	0.89 B	0.84 B	**1.1**	**0.36 J**	N/A	**2.2**	**7.2**	**0.94 J**	**0.99**
Cadmium	mg/kg	980	0.58 B	0.41 B	0.83 B	0.49 B	**5.5**	1.5 U	N/A	**2.6**	0.27 B	**3.7**	**1.4**
Chromium	mg/kg	120,000	**37.7 J**	**5,180 J**	**280 J**	**3,980 J**	**103 J**	**21.8 J**	N/A	**360 J**	**5.6 J**	**145**	**894**
Chromium VI	mg/kg	6.3	**0.39 J**	**0.6 J**	**0.81 J**	**0.44 J**	1.1 UJ	0.28 B	N/A	1.1 UJ	1.2 UJ	**0.31 J**	**0.21 J**
Cobalt	mg/kg	350	**8.7**	**23.4**	**5.3**	**98.8**	**11.4**	4.3 B	N/A	**7**	5.8 U	**17.8**	**3.6**
Copper	mg/kg	47,000	**24.3**	**68.8**	**63.3**	**270**	**110**	**13.5**	N/A	**71.2**	**3.8 J**	**132**	**39.3**
Iron	mg/kg	820,000	**34,000**	**38,100**	**40,500**	**144,000**	**40,800 J**	**13,200 J**	N/A	**114,000 J**	**5,880 J**	**113,000**	**151,000**
Lead	mg/kg	800	**15.3**	**27.2**	**56.1**	**59.1**	**4,910**	**11.6**	N/A	**412**	2.9 U	**404**	**178**
Manganese	mg/kg	26,000	**8,040**	**15,200**	**6,070**	**12,900**	**2,210**	**63.9**	N/A	**8,770**	**1,830**	**3,420**	**20,100**
Mercury	mg/kg	350	**0.029 J-**	**0.0097 J-**	**0.093 J-**	**0.047 J-**	**0.21**	**0.022 J**	N/A	**4.1**	0.11 U	**0.66**	**0.77**
Nickel	mg/kg	22,000	**13.1**	**171**	**17.3**	**738**	**39.3 J**	**13.9 J**	N/A	**36.5 J**	11.5 U	**37**	**19.5**
Selenium	mg/kg	5,800	**4.5**	3.5 U	3.7 U	3.9 B	2.8 B	4 U	N/A	2.2 B	4.6 U	4 U	2.8 U
Silver	mg/kg	5,800	2.6 U	2.7 U	2.8 U	1.7 B	2.6 U	3 U	N/A	1.6 B	3.5 U	**1 J**	**1.3 J**
Thallium	mg/kg	12	8.7 UJ	8.9 UJ	9.3 UJ	11.2 UJ	8.7 U	10 U	N/A	8.3 U	11.5 U	10.1 U	7.1 U
Vanadium	mg/kg	5,800	**335 J**	**241 J**	**607 J**	**197 J**	**91.4**	**25.1**	N/A	**208**	**8.3**	**169**	**519**
Zinc	mg/kg	350,000	**87.7**	**264**	**232**	**239**	**7,290 J**	**30 J**	N/A	**2,060 J**	3.1 B	**1,540**	**627**
Other													
Cyanide	mg/kg	150	**5.7 J+**	**1.4 J+**	**14.2 J-**	**29.3 J+**	**1 J-**	0.59 UJ	N/A	**6.7 J-**	**1.5 J-**	**23.1**	**16.3**

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Red values indicate a detection exceedance of the Project Action Limit

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Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-019-SB-1*	B5-019-SB-4*	B5-020-SB-1*	B5-020-SB-3.5*	B5-021-SB-1*	B5-021-SB-5*	B5-022-SB-1*	B5-022-SB-5*	B5-023-SB-1*	B5-023-SB-5*
Metals												
Aluminum	mg/kg	1,100,000	**14,400**	**24,600**	**34,200**	**13,000**	**40,000**	**9,920**	**44,600**	**22,500**	**6,670**	**16,900**
Antimony	mg/kg	470	2.4 U	**1.5 J**	2.5 U	3.1 U	2.1 U	3.4 U	2.5 U	2.1 U	3.2 U	3 U
Arsenic	mg/kg	3	**5.1**	**2.9**	2.1 U	**3**	**2.6**	**5.8**	**2 J**	**8.6**	**3**	**5.6**
Barium	mg/kg	220,000	**176**	**508**	**446**	**59.8**	**902**	**85**	**1,100**	**333**	**99.8**	**55**
Beryllium	mg/kg	2,300	**2.2**	**1.6**	**5**	**0.57 J**	**4.8**	**0.61 J**	**5.2**	**1.9**	**0.96 J**	**0.58 J**
Cadmium	mg/kg	980	**2**	1.2 B	0.48 B	**0.38 J**	1 B	0.7 B	**0.4 J**	0.39 B	**0.86 J**	1.5 U
Chromium	mg/kg	120,000	**260**	**20.2**	**17.7**	**20.6**	**293**	**32.3**	**42.4**	**72.3**	**280**	**28.9**
Chromium VI	mg/kg	6.3	1.1 U	1.2 U	1.1 U	1.2 U	**0.17 J**	1.2 U	1.1 U	1.1 U	1.3 U	**0.48 J**
Cobalt	mg/kg	350	**3.5 J**	**4**	**1.5 J**	**4.5 J**	**4.4**	**13.1**	**3.4 J**	**10.1**	**8.1**	**5.5**
Copper	mg/kg	47,000	**39.3**	**52.6**	**7.6**	**14.1**	**26.5**	**40.6**	**15.8**	**15.2**	**30.1**	**10.8**
Iron	mg/kg	820,000	**106,000**	**25,900**	**12,300**	**32,500**	**49,800**	**19,200**	**24,700**	**91,100**	**57,500**	**14,200**
Lead	mg/kg	800	**510**	**208**	**68.9**	**151**	**51.5**	**130**	**2.1**	**36.1**	**55.2**	**12.3**
Manganese	mg/kg	26,000	**6,730**	**4,530**	**3,110**	**237**	**13,600**	**665**	**9,930**	**5,940**	**6,570**	**136**
Mercury	mg/kg	350	**7.8**	0.11 U	0.11 U	**0.0056 J**	**0.0033 J**	**0.04 J**	0.1 U	0.11 U	**0.18**	**0.014 J**
Nickel	mg/kg	22,000	**16.6**	**8.3**	**14.9**	**11.7**	**14.1**	**25.6**	**12.2**	**12.6**	**20.7**	**13.1**
Selenium	mg/kg	5,800	3.3 U	3.2 U	**3.2 J**	4.1 U	**3.6**	4.5 U	**5.4**	2.8 U	4.2 U	4 U
Silver	mg/kg	5,800	**1.5 J**	2.4 U	2.5 U	3.1 U	2.1 U	3.4 U	2.5 U	2.1 U	3.2 U	3 U
Thallium	mg/kg	12	8.2 U	7.9 U	8.3 U	10.2 U	6.9 U	11.3 U	8.3 U	6.9 U	10.5 U	10 U
Vanadium	mg/kg	5,800	**145**	**133**	**156**	**32.9**	**233**	**63.1**	**150**	**212**	**157**	**40.7**
Zinc	mg/kg	350,000	**1,300**	**279**	**173**	**138**	**146**	**238**	**4.6**	**56.5**	**439**	**49.5**
Other												
Cyanide	mg/kg	150	**13.8**	**0.64**	**0.19 J**	**0.33 J**	**1.5**	0.59 U	**10.8**	**1.1**	**1**	0.63 U

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B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-024-SB-1	B5-025-SB-1	B5-025-SB-5	B5-026-SB-1	B5-027-SB-1	B5-027-SB-5	B5-028-SB-1	B5-028-SB-4.5	B5-029-SB-1	B5-029-SB-5	B5-030-SB-1
Metals													
Aluminum	mg/kg	1,100,000	**2,920**	**36,800**	**14,400**	**18,400**	**11,700**	**19,400**	**7,180**	**27,800**	**6,340**	**14,200**	**2,580**
Antimony	mg/kg	470	2.4 UJ	2.2 UJ	2.9 UJ	3.2 UJ	3.2 UJ	3.2 UJ	2.8 UJ	3.3 UJ	2.3 UJ	2.1 UJ	2 UJ
Arsenic	mg/kg	3	**4.5**	**4.8**	**2.6**	**7**	**9.4**	**8.9**	**5**	**10.2**	**1.9 J**	**2.9**	1.6 U
Barium	mg/kg	220,000	**66.8 J**	**329 J**	**55.5 J**	**172 J**	**165**	**375**	**99.6**	**677**	**56.4 J**	**55.1 J**	**13 J**
Beryllium	mg/kg	2,300	**1.2**	**4.9**	**0.35 J**	**2.6**	**1.5**	**1.8**	0.93 U	**2.4**	**0.34 J**	**0.42 J**	0.65 U
Cadmium	mg/kg	980	**0.42 J**	**0.75 J**	1.5 U	**0.91 J**	**2**	0.59 B	0.46 B	1.1 B	**0.28 J**	1.1 U	**0.2 J**
Chromium	mg/kg	120,000	**64.4 J**	**105 J**	**17.7 J**	**169 J**	**200 J**	**61.1 J**	**1,710 J**	**97.1 J**	**121 J**	**19.2 J**	**13.4 J**
Chromium VI	mg/kg	6.3	**0.2 J-**	1.2 UJ	**0.28 J-**	1.2 UJ	1.1 UJ	1.1 UJ	**6.7 J-**	**0.18 J-**	1.2 UJ	1.2 UJ	1 UJ
Cobalt	mg/kg	350	**4.2**	**4.7**	**2.5 J**	**4.6 J**	**9.8**	**10.3**	0.51 B	**9.9**	**2.9 J**	**3.6**	**1.1 J**
Copper	mg/kg	47,000	**21.2**	**27.2**	**9.5**	**40.9**	**54.2 J**	**96.3 J**	**26.4 J**	**57.3 J**	**15.2**	**11.3**	**6.9**
Iron	mg/kg	820,000	**30,400**	**63,400**	**14,100**	**105,000**	**143,000 J**	**34,700 J**	**214,000 J**	**33,500 J**	**31,500**	**13,000**	**5,040**
Lead	mg/kg	800	**95.8 J**	**102 J**	**10.2 J**	**206 J**	**159 J**	**131 J**	2.3 UJ	**88.2 J**	**12.4 J**	**9.1 J**	**2.9 J**
Manganese	mg/kg	26,000	**1,780**	**3,790**	**48.7**	**4,650**	**5,730**	**7,940**	**34,800**	**21,500**	**2,900**	**57.1**	**301**
Mercury	mg/kg	350	**0.23 J-**	**0.24 J-**	**0.012 J-**	**0.0093 J-**	**0.093 J-**	0.12 R	0.11 R	**0.026 J-**	**0.041 J-**	**0.011 J-**	**0.0049 J-**
Nickel	mg/kg	22,000	**16.7**	**15.8**	**7.4 J**	**31.6**	**64.9**	**36.4**	**17.7**	**54.6**	**13.1**	**8**	**8.1**
Selenium	mg/kg	5,800	3.3 U	**2.1 J**	3.9 U	4.3 U	4.2 U	4.2 U	3.7 U	4.4 U	3.1 U	2.8 U	2.6 U
Silver	mg/kg	5,800	2.4 U	2.2 U	2.9 U	3.2 U	1.6 B	3.2 U	**4.8**	0.92 B	2.3 U	2.1 U	2 U
Thallium	mg/kg	12	8.1 U	7.3 U	9.8 U	10.7 U	10.6 U	10.5 U	9.3 U	11 U	7.7 U	7 U	6.5 U
Vanadium	mg/kg	5,800	**37.2 J**	**81.2 J**	**19.5 J**	**97.6 J**	**140 J**	**123 J**	**619 J**	**280 J**	**103 J**	**27.5 J**	**60.6 J**
Zinc	mg/kg	350,000	**162 J**	**261 J**	**23.1 J**	**377 J**	**881 J**	**132 J**	**43 J**	**175 J**	**212 J**	**36.8 J**	**22.8 J**
Other													
Cyanide	mg/kg	150	**1.5**	**5.3**	0.66 U	**7.2**	**0.91 J+**	**1.5 J+**	0.56 U	**0.46 J+**	**0.37 J**	0.6 U	0.56 U

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Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-030-SB-4	B5-031-SB-1*	B5-032-SB-1*	B5-032-SB-5*	B5-033-SB-1*	B5-033-SB-8*	B5-033-SB-10*	B5-034-SB-1*	B5-037-SB-1*	B5-037-SB-5*
Metals												
Aluminum	mg/kg	1,100,000	**38,600**	**22,200**	**9,830**	**30,800**	**6,880**	**20,200**	N/A	**5,990**	**22,900**	**4,020**
Antimony	mg/kg	470	2.4 UJ	2.7 U	3.1 U	2.2 U	3 U	3.2 U	N/A	3.2 U	2.5 U	2.4 U
Arsenic	mg/kg	3	**3.9**	**17.5**	**11.7**	**4.4**	2.5 U	**4**	**3.4**	2.6 U	2.1 U	2 U
Barium	mg/kg	220,000	**573 J**	**299**	**118**	**227**	**37.7**	**89.2**	N/A	**40.9**	**605**	**92.7**
Beryllium	mg/kg	2,300	**3.9**	**1.7**	**0.9 J**	**5.1**	**0.38 J**	**0.51 J**	N/A	**0.45 J**	**3.4**	0.79 U
Cadmium	mg/kg	980	**0.67 J**	**4.4**	**1.9**	**1.3**	0.42 B	1.6 U	N/A	0.43 B	**0.31 J**	**0.46 J**
Chromium	mg/kg	120,000	**38.1 J**	**327**	**204**	**98.4**	**122**	**25.3**	N/A	**104**	**38.5**	**1,100**
Chromium VI	mg/kg	6.3	1.2 UJ	**0.45 J**	1.1 U	**0.27 J**	1.1 U	1.1 U	N/A	1.1 U	**0.17 J**	**0.19 J**
Cobalt	mg/kg	350	**3.3 J**	**17.4**	**15.4**	**2.9 J**	**2.1 J**	**4.2 J**	N/A	**3.6 J**	**1.2 J**	4 U
Copper	mg/kg	47,000	**37.6**	**173**	**88.5**	**19.6**	**36.8**	**9.2**	N/A	**181**	**6.7**	**15.9**
Iron	mg/kg	820,000	**21,000**	**319,000**	**232,000**	**23,500**	**49,300**	**15,700**	N/A	**115,000**	**26,300**	**208,000**
Lead	mg/kg	800	**58.5 J**	**307**	**189**	**95.6**	**59.9**	**9.3**	N/A	**60.7**	**5.9**	2 U
Manganese	mg/kg	26,000	**5,430**	**7,600**	**2,730**	**4,350**	**1,750**	**69.7**	N/A	**1,680**	**2,130**	**35,300**
Mercury	mg/kg	350	0.12 R	**0.05 J**	**0.074 J**	0.11 U	**0.13**	**0.0036 J**	N/A	**0.067 J**	0.11 U	0.12 U
Nickel	mg/kg	22,000	**8.7**	**124**	**162**	**17.8**	**29.4**	**12**	N/A	**38.5**	**5.5 J**	**9.6**
Selenium	mg/kg	5,800	**2.6 J**	3.6 U	4.2 U	**2.3 J**	4 U	4.3 U	N/A	4.2 U	3.4 U	3.2 U
Silver	mg/kg	5,800	2.4 U	**2.9**	**2.6 J**	2.2 U	3 U	3.2 U	N/A	**1 J**	2.5 U	**1.4 J**
Thallium	mg/kg	12	8 U	8.9 U	10.5 U	7.3 U	10 U	10.7 U	N/A	10.5 U	8.5 U	7.9 U
Vanadium	mg/kg	5,800	**61.6 J**	**173**	**54.6**	**77.2**	**59.5**	**28**	N/A	**47.8**	**31**	**1,870**
Zinc	mg/kg	350,000	**96 J**	**4,080**	**1,100**	**941**	**314**	**33.2**	N/A	**650**	**32.9**	**164**
Other												
Cyanide	mg/kg	150	**3**	**24.6**	**43.3**	**9.1**	**13.6**	**0.51 J**	N/A	**2.4**	**1.5 J**	**71.3**

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Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-038-SB-1*	B5-038-SB-5*	B5-038-SB-10*	B5-039-SB-1	B5-039-SB-5	B5-040-SB-1	B5-040-SB-5	B5-041-SB-1	B5-042-SB-1	B5-043-SB-1	B5-043-SB-5
Metals													
Aluminum	mg/kg	1,100,000	**39,000**	**8,560**	N/A	**4,510**	**11,700**	**7,200**	**14,500**	**38,700**	**49,300**	**11,400**	**24,100**
Antimony	mg/kg	470	2.5 U	2.4 U	N/A	2.7 UJ	3 UJ	2.5 UJ	2.6 UJ	2.4 UJ	2.5 UJ	2.6 UJ	3.3 UJ
Arsenic	mg/kg	3	2 U	2 U	N/A	**3.9**	**4.7**	2.1 U	**4.7**	**2.9**	2.1 U	2.2 U	**4.2**
Barium	mg/kg	220,000	**404**	**114**	N/A	**50.6 J**	**36.7**	**72 J**	**58.1 J**	**632 J**	**1,110 J**	**169 J**	**71 J**
Beryllium	mg/kg	2,300	**6.2**	**0.71 J**	N/A	0.9 U	0.51 B	**0.34 J**	**1.1**	**5.4**	**6.8**	**1.2**	**0.53 J**
Cadmium	mg/kg	980	**0.36 J**	0.47 B	N/A	0.67 B	0.4 B	0.63 B	0.21 B	**1.9**	0.8 B	0.8 B	1.6 U
Chromium	mg/kg	120,000	**93.6**	**1,300**	N/A	**2,200 J**	**514 J**	**1,040 J**	**55.1 J**	**21.3**	**11.5**	**185**	**37.2**
Chromium VI	mg/kg	6.3	**0.22 J**	**0.28 J**	N/A	**0.18 J-**	1.1 UJ	**0.18 J-**	**0.21 J-**	1.1 UJ	1.1 UJ	**0.27 J-**	**0.45 J-**
Cobalt	mg/kg	350	**2 J**	**0.88 J**	N/A	3.3 B	**12.7**	1.1 B	**16.2**	3.3 B	1.4 B	1.8 B	**5.1 J**
Copper	mg/kg	47,000	**6.1**	**35.4**	N/A	**68**	**113**	**31**	**29.6**	**53.1**	**11.6**	**22.6**	**13**
Iron	mg/kg	820,000	**21,000**	**175,000**	N/A	**267,000**	**40,900**	**158,000**	**21,500**	**18,500 J**	**11,700 J**	**19,300 J**	**18,800 J**
Lead	mg/kg	800	**12.6**	**25.1**	N/A	**13.8**	**25.6**	**12.3**	**15.6**	**107**	**22.3**	**40.4**	**11.3**
Manganese	mg/kg	26,000	**2,930**	**21,600**	N/A	**24,900**	**2,030**	**27,700**	**328**	**5,300**	**7,280**	**5,940**	**567**
Mercury	mg/kg	350	0.1 U	**0.42**	N/A	**0.017 J-**	**0.022 J**	**0.0031 J-**	**0.029 J-**	**0.0049 J**	0.1 U	**0.017 J**	**0.046 J**
Nickel	mg/kg	22,000	**4.3 J**	**20.2**	N/A	**28.2**	**77.1**	**13.7**	**64.3**	**11.2**	**3.3 J**	**5.2 J**	**12.8**
Selenium	mg/kg	5,800	**2.7 J**	3.2 U	N/A	3.6 U	4 U	3.3 U	3.5 U	**1.9 J**	**4.4**	3.5 U	4.3 U
Silver	mg/kg	5,800	2.5 U	2.4 U	N/A	**3.7**	3 U	1.7 B	2.6 U	2.4 U	2.5 U	2.6 U	3.3 U
Thallium	mg/kg	12	8.2 U	8 U	N/A	9 UJ	9.9 UJ	8.4 UJ	8.8 UJ	8 U	8.4 U	8.8 U	10.9 U
Vanadium	mg/kg	5,800	**59.8**	**1,470**	N/A	**768 J**	**42.8 J**	**958 J**	**27 J**	**110**	**54.5**	**913**	**122**
Zinc	mg/kg	350,000	**90**	**136**	N/A	**246**	**118 J**	**169**	**89.8**	**561**	**125**	**189**	**36.5**
Other													
Cyanide	mg/kg	150	**12.9**	**296**	**4.8**	**0.068 J+**	**2.3 J+**	**0.17 J+**	**3 J+**	**4.1 J-**	**0.88 J-**	**0.48 J-**	0.74 UJ

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Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-044-SB-1	B5-044-SB-5	B5-045-SB-1	B5-045-SB-5	B5-046-SB-1	B5-046-SB-5	B5-047-SB-1	B5-047-SB-4	B5-048-SB-1	B5-049-SB-1	B5-050-SB-1
Metals													
Aluminum	mg/kg	1,100,000	**20,000**	**9,710**	**41,600**	**18,700**	**14,200**	**16,300**	**16,500**	**20,700**	**42,800**	**29,000**	**16,200**
Antimony	mg/kg	470	3.1 UJ	3.4 UJ	2.7 UJ	2.4 UJ	2.9 UJ	3.2 UJ	2.9 UJ	3.5 UJ	2.8 UJ	2.2 UJ	2.4 UJ
Arsenic	mg/kg	3	**10.2**	2.9 U	**2.5**	**6.7**	**4.5**	**4.3**	**3.4**	**5.4**	2.3 U	**4.9**	**3.9**
Barium	mg/kg	220,000	**291 J**	**78.6 J**	**499 J**	**370 J**	**75.5**	**31.6**	**74**	**79.6**	**327 J**	**214 J**	**157**
Beryllium	mg/kg	2,300	**2.3**	**0.37 J**	**4.2**	**1.3**	**0.42 J**	**0.62 J**	0.98 U	**1.2**	**6.8**	**4.1**	**1.6**
Cadmium	mg/kg	980	**3.5**	1.7 U	**1.4**	0.32 B	0.6 B	1.6 U	0.46 B	0.2 B	**0.34 J**	**0.65 J**	0.63 B
Chromium	mg/kg	120,000	**260**	**15.7**	**91.9**	**2,020**	**1,040 J**	**19.9 J**	**1,220 J**	**39.7 J**	**50.9 J**	**50 J**	**661 J**
Chromium VI	mg/kg	6.3	**0.23 J-**	1.1 UJ	1.1 UJ	**0.47 J-**	**3.8 J-**	**0.71 J-**	**4.3 J-**	**0.25 J-**	1.1 UJ	1.2 UJ	**0.18 J-**
Cobalt	mg/kg	350	**4.8 J**	**3.8 J**	**3.6 J**	**2 J**	**1.3 J**	**5.7**	**2.6 J**	**7.8**	**0.31 J**	**4.2**	3.2 B
Copper	mg/kg	47,000	**161**	2.4 B	**52.3**	**32.3**	**41.1**	**6.5**	**42.9**	**12.1**	**4.7**	**24.3**	**52.4**
Iron	mg/kg	820,000	**53,300 J**	**4,780 J**	**25,700 J**	**102,000 J**	**182,000**	**20,800**	**184,000**	**27,100**	**10,200**	**17,800**	**127,000**
Lead	mg/kg	800	**446**	**7.3**	**73.3**	**15.1**	**8.6 J**	**7.3 J**	**15.8 J**	**16.2 J**	**9.8 J**	**80 J**	**55.6 J**
Manganese	mg/kg	26,000	**7,920**	**307**	**9,130**	**44,400**	**24,100**	**96.4**	**26,200**	**637**	**4,620**	**2,900**	**16,800**
Mercury	mg/kg	350	0.11 U	**0.023 J**	0.11 U	**0.014 J**	**0.015 J**	**0.0028 J**	0.11 U	**0.0044 J**	0.11 R	0.11 R	**0.027 J**
Nickel	mg/kg	22,000	8.9 B	5.1 B	7.6 B	**9.9**	**20.6**	**13**	**22.4**	**17.1**	**2.2 J**	**9.3**	**28.5**
Selenium	mg/kg	5,800	2.7 B	4.6 U	2.8 B	3.2 U	3.9 U	4.3 U	3.9 U	4.7 U	3.7 U	3 U	3.2 U
Silver	mg/kg	5,800	3.1 U	3.4 U	2.7 U	2.4 U	**1.2 J**	3.2 U	2.9 U	3.5 U	2.8 U	2.2 U	**0.77 J**
Thallium	mg/kg	12	10.4 U	11.4 U	9.2 U	8.1 U	9.7 U	10.6 U	9.8 U	11.8 U	9.3 U	7.5 U	8 U
Vanadium	mg/kg	5,800	**512**	**49**	**397**	**11,600**	**586 J**	**25.6 J**	**746 J**	**55.9 J**	**42.5 J**	**65 J**	**415 J**
Zinc	mg/kg	350,000	**1,680**	**19.2**	**352**	**38.3**	**135**	**34.1**	**85.5**	**54.2**	**36.5 J**	**145 J**	**213**
Other													
Cyanide	mg/kg	150	**0.3 J-**	**0.12 J-**	**0.26 J-**	**0.17 J-**	**0.23 J**	0.72 U	**0.16 J**	**0.089 J**	**0.62 J**	**0.25 J**	**0.77**

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R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-050-SB-5	B5-051-SB-1	B5-051-SB-5	B5-052-SB-1	B5-053-SB-1	B5-053-SB-9	B5-053-SB-10	B5-054-SB-1*	B5-054-SB-4*	B5-055-SB-1*	B5-056-SB-1
Metals													
Aluminum	mg/kg	1,100,000	**14,600**	**16,000**	**18,000**	**7,830**	**11,900**	**19,400**	N/A	**10,600**	**3,640**	**9,200**	**10,700**
Antimony	mg/kg	470	3.2 UJ	3 UJ	2.2 UJ	2.3 UJ	3.4 UJ	3.2 UJ	N/A	2.7 U	2.7 U	3.1 U	2.6 UJ
Arsenic	mg/kg	3	**3.1**	**2.9**	**5.6**	**2.7**	**9.3**	**10.9**	**6.4**	**4.2**	**6.2**	2.6 U	2.1 U
Barium	mg/kg	220,000	**45.5**	**158**	**68**	**101**	**101**	**310**	N/A	**197**	**332**	**71.6**	**71.6**
Beryllium	mg/kg	2,300	**0.54 J**	**1**	**0.92**	**1.1**	**1.2**	**1.3**	N/A	**1.1**	**0.29 J**	**0.28 J**	**0.65 J**
Cadmium	mg/kg	980	1.6 U	0.68 B	0.21 B	0.48 B	0.45 B	1.8 B	N/A	**0.44 J**	0.27 B	**0.41 J**	0.25 B
Chromium	mg/kg	120,000	**16.4 J**	**697 J**	**119 J**	**247 J**	**546 J**	**345 J**	N/A	**424**	**135**	**611**	**26.1 J**
Chromium VI	mg/kg	6.3	1.2 U	**0.32 J-**	1.2 UJ	1.1 UJ	**0.19 J-**	**0.29 J-**	N/A	1.1 U	**0.17 J**	1.1 U	**0.17 J-**
Cobalt	mg/kg	350	**7.2**	**3.1 J**	**10.5**	**3.2 J**	**8.7**	**21.4**	N/A	**4.5 J**	**5.5**	**3.7 J**	**3.4 J**
Copper	mg/kg	47,000	**8**	**41.3**	**11.2**	**15.9**	**38.9**	**98.5**	N/A	**46.3**	**57.7**	**35.6**	**15.9**
Iron	mg/kg	820,000	**18,100**	**128,000**	**36,200**	**121,000**	**160,000**	**59,800**	N/A	**114,000**	**28,100**	**126,000**	**11,300**
Lead	mg/kg	800	**7.2 J**	**48.9 J**	**16.9 J**	**8.3**	**30.4**	**420**	N/A	**67.6**	**133**	**20.4**	**4.5 J**
Manganese	mg/kg	26,000	**108**	**16,000**	**2,450**	**6,040**	**14,600**	**6,550**	N/A	**12,200**	**12,700**	**17,600**	**415**
Mercury	mg/kg	350	**0.013 J**	**0.025 J**	**0.003 J**	**0.0098 J**	**0.013 J**	**0.15**	N/A	0.11 U	**0.016 J**	**0.0053 J**	**0.0055 J**
Nickel	mg/kg	22,000	**13.1**	**27.4**	**16.1**	**14.9**	**80.9**	**51.5**	N/A	**29.3**	**10.7**	**21**	**10**
Selenium	mg/kg	5,800	4.3 U	4 U	3 U	3.1 U	4.5 U	4.2 U	N/A	3.6 U	3.6 U	4.1 U	2.8 B
Silver	mg/kg	5,800	3.2 U	3 U	2.2 U	**1.6 J**	**1.9 J**	3.2 U	N/A	**0.9 J**	**0.89 J**	3.1 U	2.6 U
Thallium	mg/kg	12	10.7 U	9.9 U	7.4 U	7.8 U	11.2 U	10.5 U	N/A	9.1 U	8.9 U	10.3 U	8.5 U
Vanadium	mg/kg	5,800	**21.9 J**	**403 J**	**81.9 J**	**139 J**	**387 J**	**189 J**	N/A	**229**	**84.9**	**389**	**15.7 J**
Zinc	mg/kg	350,000	**31.9**	**157**	**50.1**	**104**	**88.9**	**839**	N/A	**180**	**44.8**	**95.6**	**41.9**
Other													
Cyanide	mg/kg	150	0.65 U	**1.3**	0.58 U	**0.8 J-**	**0.59 J-**	**0.29 J-**	N/A	**1**	**0.21 J**	**0.3 J**	**0.5 J**

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Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-056-SB-5	B5-057-SB-1	B5-057-SB-6	B5-058-SB-1	B5-058-SB-5	B5-059-SB-1	B5-060-SB-1	B5-060-SB-5	B5-061-SB-1	B5-062-SB-1*	B5-063-SB-1*
Metals													
Aluminum	mg/kg	1,100,000	**1,440**	**6,440**	**35,300**	**9,940**	**18,500**	**22,200**	**31,100**	**22,100**	**9,420**	**32,800**	**11,100**
Antimony	mg/kg	470	2.7 UJ	2.6 UJ	3.7 UJ	**3.8 J**	2.5 UJ	**6.5 J**	3.1 UJ	3.3 UJ	2.6 UJ	1.8 U	2.1 U
Arsenic	mg/kg	3	2.3 U	2.2 U	**6.6**	**6**	**3.6**	**4**	2.5 U	**21.8 J**	2.2 U	**7.5**	**4**
Barium	mg/kg	220,000	**15**	**50.1**	**351**	**29.7**	**71.7**	**206**	**374 J**	**335 J**	**41 J**	**368**	**132**
Beryllium	mg/kg	2,300	0.91 U	0.48 B	**1.4**	**0.45 J**	**0.49 J**	**3.9**	**5.1**	**1.1**	0.87 U	**4.9**	**1.3**
Cadmium	mg/kg	980	1.4 U	1.3 U	0.67 B	**3.6**	1.2 U	0.97 B	0.61 B	**16.8**	0.55 B	**1.8**	0.85 B
Chromium	mg/kg	120,000	**9.4 J**	**35.2 J**	**486 J**	**20.3 J**	**24.1 J**	**32.2 J**	**344**	**918**	**1,190**	**324**	**463**
Chromium VI	mg/kg	6.3	1.1 UJ	1.1 UJ	1.4 UJ	1.1 UJ	**0.24 J-**	0.26 B	1.1 UJ	1.1 UJ	**2.2 J**	**0.18 J**	**0.22 J**
Cobalt	mg/kg	350	0.66 B	2.3 B	**42.9**	4.2 B	3.9 B	**10.8**	**0.43 J**	**41.5 J**	4.3 U	**11.3**	**3.4 J**
Copper	mg/kg	47,000	1.9 B	**9.8**	**150**	**999**	**8.5**	**704**	**14.3 J**	**382 J**	**22.7 J**	**48.8**	**29**
Iron	mg/kg	820,000	**2,720**	**7,890**	**76,000**	**15,400 J**	**21,600 J**	**24,600 J**	**86,300**	**121,000**	**167,000**	**117,000**	**108,000**
Lead	mg/kg	800	2.3 U	**14.6 J**	**9.2 J**	**204**	**9.1**	**199**	**12**	**2,320**	**7.1**	**85.2**	**67.3**
Manganese	mg/kg	26,000	**91.6**	**335**	**1,470**	**123**	**76**	**971**	**8,530**	**8,520**	**22,900**	**9,050**	**13,200**
Mercury	mg/kg	350	**0.03 J**	**0.039 J**	**0.0045 J**	**0.0052 J**	**0.012 J**	**0.019 J**	0.1 UJ	**0.19 J-**	0.11 UJ	0.1 U	**0.037 J**
Nickel	mg/kg	22,000	1.2 B	**9.6**	**292**	**12.6 J**	**9.9 J**	**53 J**	**4.7 J**	**229 J**	**11.8 J**	**28.6**	**19.2**
Selenium	mg/kg	5,800	3.6 U	3.5 U	**5.6**	2.5 B	3.3 U	3 U	4.1 U	4.4 U	3.5 U	**1.4 J**	2.8 U
Silver	mg/kg	5,800	2.7 U	2.6 U	3.7 U	2.8 U	2.5 U	2.2 U	3.1 U	**6.1**	1.5 B	**0.54 J**	**1.8 J**
Thallium	mg/kg	12	9.1 U	8.8 U	9.8 U	9.5 U	8.3 U	7.4 U	10.2 U	11 U	8.7 U	5.9 U	6.9 U
Vanadium	mg/kg	5,800	**5.4 J**	**15.9 J**	**24.2 J**	**20.6**	**33.8**	**10.7**	**214**	**181**	**729**	**373**	**224**
Zinc	mg/kg	350,000	**5**	**33.1**	**18.4**	**767 J**	**23.8 J**	**139 J**	**55.1**	**7,450**	**156**	**196**	**661**
Other													
Cyanide	mg/kg	150	0.57 U	**0.3 J**	**2.3**	0.63 U	0.73 U	0.63 U	**0.89 J-**	**15.3 J-**	**0.077 J-**	**0.26 J**	**0.95**

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Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-063-SB-4*	B5-064-SB-1	B5-064-SB-7	B5-065-SB-1	B5-065-SB-6	B5-065-SB-10	B5-066-SB-1	B5-067-SB-1	B5-068-SB-1*	B5-069-SB-1*	B5-069-SB-4*
Metals													
Aluminum	mg/kg	1,100,000	**13,200**	**6,670**	**28,200**	**5,880**	**32,000**	N/A	**36,600**	**15,400**	**10,600**	**20,800**	**3,820**
Antimony	mg/kg	470	**1.1 J**	3.2 UJ	2.7 UJ	2.1 UJ	2.6 UJ	N/A	3.4 UJ	2.6 UJ	**1,680**	**4.4**	**5.2**
Arsenic	mg/kg	3	**6.3**	**9.7**	**5.4**	**9.1**	**3.6**	2.3 U	**3.7**	**12.2**	**25.8**	**14.4**	**28**
Barium	mg/kg	220,000	**162**	**75**	**488**	**121**	**638**	N/A	**451**	**193**	**229**	**450**	**96.1**
Beryllium	mg/kg	2,300	**0.66**	**1.2**	**2.8**	**1**	**3.5**	N/A	**6.7**	**2.5**	**1.5**	**2.6**	**0.37 J**
Cadmium	mg/kg	980	0.5 B	0.79 B	0.85 B	0.51 B	0.42 B	N/A	**1.2 J**	**1.6**	**1.2 J**	**5.4**	1.3 B
Chromium	mg/kg	120,000	**218**	**165 J**	**69 J**	**114 J**	**208 J**	N/A	**67.7 J**	**172 J**	**35.7**	**47.6**	**250**
Chromium VI	mg/kg	6.3	1.1 U	**0.17 J-**	1.1 UJ	1.1 UJ	**0.31 J-**	N/A	1.2 UJ	**0.19 J-**	1.2 U	1.1 U	1.1 U
Cobalt	mg/kg	350	**24.8**	**9.2**	**7.2**	**7.4**	**4.9**	N/A	3.1 B	**10.5**	**15.7**	**6.2**	**78.3**
Copper	mg/kg	47,000	**67.8**	**31.6**	**23.7**	**33.7**	**31.6**	N/A	**29.4 J**	**40.9 J**	**1,420**	**202**	**4,220**
Iron	mg/kg	820,000	**41,300**	**217,000**	**40,200**	**203,000**	**46,300**	N/A	**56,400 J**	**155,000 J**	**64,100**	**33,000**	**163,000**
Lead	mg/kg	800	**57.5**	**30.5**	**44.7**	**30.6**	**18.5**	N/A	**105 J**	**379 J**	**1,400**	**655**	**521**
Manganese	mg/kg	26,000	**1,310**	**5,060**	**6,640**	**4,100**	**6,260**	N/A	**3,470**	**6,530**	**762**	**2,990**	**1,040**
Mercury	mg/kg	350	**0.042 J**	**0.031 J**	0.1 U	**0.021 J**	0.11 U	N/A	**0.033 J-**	**0.064 J-**	**0.088 J**	**0.0023 J**	**0.092 J**
Nickel	mg/kg	22,000	**184**	**79.7**	**24.2**	**75.9**	**9.7**	N/A	**18.5**	**63.1**	**77.9**	**23.7**	**649**
Selenium	mg/kg	5,800	2.3 U	4.2 U	3.5 U	2.9 U	3.4 U	N/A	4.5 U	3.5 U	4.4 U	3.5 U	3.8 U
Silver	mg/kg	5,800	1.8 U	**2.8 J**	2.7 U	**2.6**	2.6 U	N/A	3.4 U	1.9 B	3.3 U	2.6 U	**2.9**
Thallium	mg/kg	12	5.9 U	10.6 U	8.8 U	7.1 U	8.5 U	N/A	11.3 U	8.8 U	11.1 U	8.6 U	9.5 U
Vanadium	mg/kg	5,800	**28.6**	**118 J**	**423 J**	**88.2 J**	**867 J**	N/A	**44.1 J**	**113 J**	**26.6**	**71.5**	**23.8**
Zinc	mg/kg	350,000	**237**	**213**	**106**	**199**	**35.5**	N/A	**7,330 J**	**25,700 J**	**308**	**944**	**604**
Other													
Cyanide	mg/kg	150	**1.6**	**0.67 J-**	**0.52 J-**	**0.34 J-**	**0.23 J-**	N/A	**1.2 J+**	**3.5 J+**	**0.17 J**	**0.69**	**0.65**

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Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-070-SB-1*	B5-071-SB-1*	B5-072-SB-1	B5-072-SB-6	B5-072-SB-10	B5-073-SB-1	B5-073-SB-5	B5-073-SB-10	B5-074-SB-1*	B5-074-SB-5*	B5-075-SB-1*
Metals													
Aluminum	mg/kg	1,100,000	**9,880**	**11,500**	**10,100**	**21,400**	N/A	**13,300**	**13,800**	N/A	**8,850**	**11,400**	**36,100**
Antimony	mg/kg	470	**6.4**	2.7 U	3 UJ	3.7 UJ	N/A	2.3 UJ	3.2 UJ	N/A	2.4 U	2.5 U	2.3 U
Arsenic	mg/kg	3	**10**	**6.6**	**7.7**	**7.5**	**8.1**	**21.1**	**3.3**	**4.5**	**5.4**	2.1 U	1.9 U
Barium	mg/kg	220,000	**216**	**176**	**121 J**	**16.8 J**	N/A	**123 J**	**148 J**	N/A	**72.1**	**45.8**	**66.3**
Beryllium	mg/kg	2,300	**0.96 J**	**1.3**	**1.2**	**1 J**	N/A	**2**	**1.7**	N/A	**0.57 J**	0.84 U	**0.17 J**
Cadmium	mg/kg	980	**2.3**	1.4 B	0.63 B	1.9 U	N/A	**7.4**	0.37 B	N/A	1.4 B	0.27 B	0.4 B
Chromium	mg/kg	120,000	**152**	**439**	**15.1**	**23**	N/A	**271**	**35.6**	N/A	**3,960**	**1,330**	**1,340**
Chromium VI	mg/kg	6.3	1.2 U	1.1 U	1.1 UJ	**1.1 J-**	N/A	1.1 UJ	1.2 UJ	N/A	**0.22 J**	**5.3**	**8.1**
Cobalt	mg/kg	350	**11.2**	**7.2**	**22.6**	**3.2 J**	N/A	**7.2**	**9.5**	N/A	**11.4**	4.2 U	3.8 U
Copper	mg/kg	47,000	**100**	**46.8**	**17.9**	**6.7**	N/A	**144**	**36.5**	N/A	**323**	**25.6**	**14.7**
Iron	mg/kg	820,000	**64,500**	**103,000**	**13,700 J**	**47,300 J**	N/A	**140,000 J**	**21,200 J**	N/A	**331,000**	**216,000**	**173,000**
Lead	mg/kg	800	**305**	**104**	**9.9**	**10.3**	N/A	**471**	**11.2**	N/A	**105**	2.1 U	1.9 U
Manganese	mg/kg	26,000	**3,620**	**15,000**	**6,850**	**40.3**	N/A	**6,100**	**447**	N/A	**18,500**	**26,600**	**29,400**
Mercury	mg/kg	350	**0.11 J**	**0.052 J**	**0.019 J**	**0.0025 J**	N/A	**0.13**	**0.022 J**	N/A	**0.021 J**	0.11 U	0.1 U
Nickel	mg/kg	22,000	**43.8**	**32.3**	**50.3**	8.8 B	N/A	**36.9**	**18.1**	N/A	**75.5**	**14.2**	**8.5**
Selenium	mg/kg	5,800	4.7 U	3.6 U	4.1 U	5 U	N/A	3.1 U	4.2 U	N/A	3.2 U	3.3 U	3 U
Silver	mg/kg	5,800	3.5 U	**1.9 J**	3 U	3.7 U	N/A	**2.1 J**	3.2 U	N/A	**4.9**	**2.3 J**	**2 J**
Thallium	mg/kg	12	11.7 U	8.9 U	10.1 U	9.9 U	N/A	7.7 U	10.6 U	N/A	8.1 U	8.4 U	7.5 U
Vanadium	mg/kg	5,800	**292**	**254**	**28**	**35.3**	N/A	**200**	**65.8**	N/A	**585**	**1,000**	**897**
Zinc	mg/kg	350,000	**744**	**1,250**	**80.2**	**27.6**	N/A	**3,200**	**60**	N/A	**351**	**88.2**	**61.5**
Other													
Cyanide	mg/kg	150	**1.7**	**2.3**	**0.17 J-**	0.74 UJ	N/A	**0.43 J-**	**0.38 J-**	N/A	**0.96**	0.54 U	**0.22 J**

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R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-075-SB-5*	B5-076-SB-1*	B5-076-SB-6*	B5-077-SB-1*	B5-077-SB-5*	B5-078-SB-1*	B5-078-SB-4*	B5-079-SB-1*	B5-079-SB-4*	B5-080-SB-1*
Metals												
Aluminum	mg/kg	1,100,000	**10,600**	**10,800**	**16,100**	**9,560**	**17,500**	**31,000**	**6,890**	**13,400**	**5,870**	**16,000**
Antimony	mg/kg	470	2.1 U	2.9 U	3.2 U	3.1 U	2.8 U	3.3 U	3 U	3.4 U	2.9 U	2.8 U
Arsenic	mg/kg	3	1.8 U	**6.5**	2.7 U	**12.9**	2.3 U	**3.4**	**28.4**	**3.8**	**24.5**	**18.7**
Barium	mg/kg	220,000	**43**	**135**	**151**	**177**	**69.8**	**328**	**125**	**72.6**	**227**	**120**
Beryllium	mg/kg	2,300	0.71 U	**0.53 J**	**1.5**	**0.67 J**	0.93 U	**5.1**	**0.89 J**	**0.82 J**	**0.71 J**	**1.3**
Cadmium	mg/kg	980	0.46 B	**4.5**	**0.46 J**	**6.2**	0.6 B	0.52 B	**2.6**	0.25 B	1.7 B	0.97 B
Chromium	mg/kg	120,000	**1,330**	**668**	**289**	**394**	**1,490**	**217**	**5**	**191**	**3.6**	**259**
Chromium VI	mg/kg	6.3	**5.9**	**0.18 J**	1.1 U	**0.27 J**	**0.27 J**	1.1 U	1.2 U	1.1 U	1.1 U	1.1 U
Cobalt	mg/kg	350	3.6 U	**9.8**	**3.3 J**	**13.9**	4.6 U	**1.3 J**	**12.1**	**8.3**	**27.8**	**27.5**
Copper	mg/kg	47,000	**17.3**	**289**	**19.3**	**216**	**22.2**	**19.3**	**225**	**13.5**	**519**	**81.9**
Iron	mg/kg	820,000	**197,000**	**156,000**	**52,400**	**180,000**	**193,000**	**62,900**	**238,000**	**44,700**	**307,000**	**44,100**
Lead	mg/kg	800	1.8 U	**383**	**26.6**	**725**	**25.8**	**30.2**	**708**	**20.3**	**693**	**155**
Manganese	mg/kg	26,000	**27,800**	**6,740**	**6,710**	**6,350**	**30,500**	**8,970**	**4,480**	**4,370**	**3,400**	**5,120**
Mercury	mg/kg	350	0.1 U	**0.71**	**0.092 J**	**2.4**	**0.059 J**	**0.021 J**	**0.011 J**	**0.037 J**	**0.005 J**	**0.073 J**
Nickel	mg/kg	22,000	**11.6**	**144**	**9.9 J**	**85.5**	**11.3**	**11.8**	**11.5**	**94.7**	**14**	**97**
Selenium	mg/kg	5,800	2.9 U	3.9 U	4.3 U	4.2 U	3.7 U	4.4 U	4 U	4.5 U	3.9 U	3.8 U
Silver	mg/kg	5,800	**2.6**	**2.2 J**	3.2 U	**4**	**2.4 J**	3.3 U	**4.8**	3.4 U	**5.4**	2.8 U
Thallium	mg/kg	12	7.1 U	9.8 U	10.8 U	10.5 U	9.3 U	11 U	10 U	11.2 U	9.8 U	9.4 U
Vanadium	mg/kg	5,800	**959**	**175**	**203**	**155**	**998**	**348**	**19.3**	**146**	**25.7**	**70.5**
Zinc	mg/kg	350,000	**65.2**	**1,310**	**81**	**1,180**	**60.7**	**121**	**1,260**	**56.9**	**801**	**326**
Other												
Cyanide	mg/kg	150	0.53 U	**3.3**	**1.2**	**4.9**	**1.9**	**6.5**	**0.64 J**	0.57 U	0.57 U	**3.6**

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Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-080-SB-5*	B5-081-SB-1*	B5-081-SB-5*	B5-082-SB-1*	B5-082-SB-5*	B5-083-SB-1*	B5-083-SB-5*	B5-084-SB-1*	B5-085-SB-1	B5-086-SB-1*	B5-087-SB-1*
Metals													
Aluminum	mg/kg	1,100,000	**8,220**	**45,100**	**22,800**	**42,300**	**19,000**	**13,200**	**20,300**	**35,500**	**18,800**	**29,900**	**31,800**
Antimony	mg/kg	470	2.4 U	2.5 U	3.6 U	2.2 U	3.4 U	3.1 U	3 U	2.3 U	2.4 UJ	3.1 U	2.2 U
Arsenic	mg/kg	3	**21.6**	**1.9 J**	**6.3**	1.9 U	**3.8**	**6.4**	**6.3**	**2.2**	**12.8**	**3.6**	**2.4**
Barium	mg/kg	220,000	**141**	**401**	**54**	**428**	**63.4**	**93**	**27.1**	**364**	**204 J**	**242**	**336**
Beryllium	mg/kg	2,300	**0.64 J**	**8**	**0.74 J**	**7.6**	**0.74 J**	**0.78 J**	**1.2**	**5.6**	**2.8**	**3.7**	**5.5**
Cadmium	mg/kg	980	1.3 B	0.4 B	1.8 U	0.36 B	1.7 U	**1.6**	1.5 U	**0.28 J**	0.52 B	**0.34 J**	**0.31 J**
Chromium	mg/kg	120,000	**10.2**	**8.4**	**31.4**	**9.3**	**25.2**	**86.6**	**21.9**	**44.2**	**161**	**74**	**36.4**
Chromium VI	mg/kg	6.3	1.2 U	**0.52 J**	**0.5 J**	**0.59 J**	**1 J**	**0.51 J**	**1.3**	1.1 U	**0.27 J**	1.1 U	1.1 U
Cobalt	mg/kg	350	**29.8**	**1.2 J**	**5.7 J**	**0.84 J**	**4.3 J**	**8.8**	**4.6 J**	**1.6 J**	**11.1**	**4.7 J**	**1.4 J**
Copper	mg/kg	47,000	**600**	**2.2 J**	**12.6**	**5.3**	**9.7**	**34.8**	**9.1**	**7.2**	**137**	**44.9**	**13.7**
Iron	mg/kg	820,000	**305,000**	**10,100**	**26,700**	**8,920**	**16,400**	**61,900**	**19,800**	**88,900**	**344,000**	**99,900**	**49,900**
Lead	mg/kg	800	**816**	**2.5**	**11.1**	**18.5**	**8.7**	**114**	**8.5**	**9.6**	**153 J**	2.6 U	**5**
Manganese	mg/kg	26,000	**3,840**	**2,910**	**93.1**	**2,750**	**73.5**	**2,070**	**46.6**	**3,250**	**4,620**	**2,260**	**2,870**
Mercury	mg/kg	350	**0.0068 J**	0.11 U	**0.12 J**	0.11 U	0.11 U	**0.024 J**	**0.0053 J**	**0.0026 J**	**0.03 J**	**0.003 J**	0.1 U
Nickel	mg/kg	22,000	**16.1**	**2.7 J**	**14.6**	**2.6 J**	**12.2**	**22.3**	**11.9**	**9.5**	**69.7**	**38.7**	**11.7**
Selenium	mg/kg	5,800	3.2 U	**4.2**	4.8 U	**3.1**	4.5 U	4.2 U	4.1 U	**2.7 J**	3.2 U	4.1 U	3 U
Silver	mg/kg	5,800	**4.6**	2.5 U	3.6 U	2.2 U	3.4 U	3.1 U	3 U	2.3 U	**4.1**	3.1 U	2.2 U
Thallium	mg/kg	12	7.9 U	8.4 U	11.9 U	7.4 U	11.2 U	10.4 U	10.2 U	7.6 U	7.9 U	10.2 U	7.4 U
Vanadium	mg/kg	5,800	**29.2**	**47**	**39**	**32**	**31.4**	**87.6**	**34.4**	**30.9**	**101**	**29.9**	**22.8**
Zinc	mg/kg	350,000	**403**	**7.4**	**44.9**	**28.4**	**32.7**	**477**	**31**	**38.6**	**339 J**	**112**	**78.4**
Other													
Cyanide	mg/kg	150	**0.33 J**	0.67 U	0.6 U	**0.071 J**	0.58 U	**0.21 J**	0.72 U	**6**	**3.3 J+**	**34.3**	**17.3**

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Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-087-SB-5*	B5-088-SB-1*	B5-088-SB-5*	B5-089-SB-1*	B5-090-SB-1	B5-090-SB-4.75	B5-091-SB-1*	B5-091-SB-7*	B5-092-SB-1*	B5-092-SB-5*
Metals												
Aluminum	mg/kg	1,100,000	**38,500**	**38,100**	**30,100**	**48,900**	**25,200**	**16,300**	**14,300**	**16,000**	**15,100**	**49,500**
Antimony	mg/kg	470	2.3 U	3.4 U	2.5 U	2.5 U	3.1 UJ	3.1 UJ	2.5 U	2.5 U	3 U	3.3 U
Arsenic	mg/kg	3	**1.8 J**	**3.1**	2.1 U	**2 J**	**6.4**	**3.1**	**4**	**4.3**	2.5 U	2.8 U
Barium	mg/kg	220,000	**354**	**381**	**595**	**546**	**223 J**	**51.4 J**	**142**	**66.6**	**152**	**384**
Beryllium	mg/kg	2,300	**6.1**	**6.2**	**5.3**	**7.1**	**3**	**0.3 J**	**1.5**	**0.54 J**	**2.1**	**8.3**
Cadmium	mg/kg	980	**0.2 J**	**0.5 J**	**0.31 J**	**0.25 J**	0.61 B	1.6 U	**0.96 J**	1.2 U	**0.63 J**	**0.28 J**
Chromium	mg/kg	120,000	**32**	**125**	**38.2**	**23.5**	**87.1 J**	**24.2 J**	**41.5**	**36.5**	**335**	**83.1**
Chromium VI	mg/kg	6.3	**0.4 J**	1.1 U	1.1 U	1.1 U	0.4 B	0.42 B	1.1 U	1.1 U	1.1 U	1.2 U
Cobalt	mg/kg	350	**1.6 J**	**2.6 J**	**0.63 J**	**1.1 J**	**6.5**	3.6 B	**3.2 J**	**4.3**	**3.6 J**	**0.63 J**
Copper	mg/kg	47,000	**8.4**	**16.5**	**3.5 J**	**2 J**	**33**	**7.8**	**29**	**17.3**	**33**	5.5 U
Iron	mg/kg	820,000	**45,900**	**87,000**	**28,900**	**17,900**	**40,500 J**	**18,400 J**	**54,100**	**15,800**	**135,000**	**6,030**
Lead	mg/kg	800	1.9 U	**212**	**3.2**	2.1 U	**157 J**	**10.2 J**	**151**	**26.1**	**35.4**	**4.7**
Manganese	mg/kg	26,000	**3,500**	**3,820**	**5,470**	**3,910**	**4,400**	**152**	**1,170**	**690**	**9,080**	**3,890**
Mercury	mg/kg	350	0.1 U	0.11 U	0.11 U	0.11 U	0.11 R	**0.052 J-**	**0.063 J**	**0.015 J**	**0.024 J**	0.11 U
Nickel	mg/kg	22,000	**13.6**	**17**	**2.1 J**	**3.4 J**	**16.7**	**7.7 J**	**17.1**	**8 J**	**23.7**	11.1 U
Selenium	mg/kg	5,800	**1.8 J**	**2.8 J**	**4.9**	**4.1**	4.2 U	4.2 U	3.4 U	3.3 U	3.9 U	**4.5**
Silver	mg/kg	5,800	2.3 U	3.4 U	2.5 U	2.5 U	3.1 U	3.1 U	2.5 U	2.5 U	3 U	3.3 U
Thallium	mg/kg	12	7.7 U	11.3 U	8.3 U	8.4 U	10.4 U	10.4 U	8.4 U	8.3 U	9.8 U	11.1 U
Vanadium	mg/kg	5,800	**13.8**	**54**	**67.6**	**20.2**	**56.8 J**	**29.7 J**	**22.9**	**55.7**	**190**	**225**
Zinc	mg/kg	350,000	2.7 B	**324**	**22.5**	**25.4**	**211 J**	**31.6 J**	**293**	**57.4**	**1,090**	**3.8 J**
Other												
Cyanide	mg/kg	150	**24.5**	**49.9**	**42.5**	**3.7 J**	**2.2 J-**	0.69 UJ	**3.5**	4.8 U	**9.3**	**1 J**

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Table 6
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Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-093-SB-1*	B5-093-SB-4*	B5-094-SB-1	B5-094-SB-5	B5-094-SB-10	B5-095-SB-1	B5-095-SB-5	B5-096-SB-1*	B5-096-SB-5*	B5-097-SB-1*	B5-097-SB-4*
Metals													
Aluminum	mg/kg	1,100,000	**6,840**	**11,400**	**22,200**	**33,700**	N/A	**29,900**	**34,000**	**15,800**	**18,200**	**28,400**	**27,700**
Antimony	mg/kg	470	2.8 U	2.9 U	3 UJ	2.9 UJ	N/A	3.2 UJ	2.6 UJ	2.8 U	2.4 U	2.5 U	2.5 U
Arsenic	mg/kg	3	**2.5**	2.4 U	**6.5**	**3.4**	**6.2 J**	2.6 U	**2.3**	**5.3**	**13.4**	**11.2**	**7**
Barium	mg/kg	220,000	**78**	**85.2**	**200**	**710**	N/A	**93.9**	**576**	**133**	**422**	**259**	**620**
Beryllium	mg/kg	2,300	**0.63 J**	**0.55 J**	**3**	**2.1**	N/A	**0.78 J**	**2.2**	**0.85 J**	**2.6**	**4.3**	**3.9**
Cadmium	mg/kg	980	**0.4 J**	**0.86 J**	0.51 B	0.42 B	N/A	0.48 B	0.49 B	**4.7**	**9.2**	**4.1**	**2.6**
Chromium	mg/kg	120,000	**38.8**	**1,340**	**608 J**	**194 J**	N/A	**694 J**	**28.3 J**	**217**	**124**	**112**	**32.4**
Chromium VI	mg/kg	6.3	**0.23 J**	**0.33 J**	**0.27 J-**	1.2 UJ	N/A	**0.84 J-**	**0.18 J-**	**0.45 J**	**2.1**	**0.17 J**	**2.5**
Cobalt	mg/kg	350	**2.2 J**	**6.2**	**3.5 J**	**7.4**	N/A	**2 J**	**2.5 J**	**7**	**11.4**	**9.4**	**4.8**
Copper	mg/kg	47,000	**18.3**	**31.4**	**57.9**	**47.1**	N/A	**27.4 J**	**12.7 J**	**85.8**	**109**	**64.8**	**55.4**
Iron	mg/kg	820,000	**32,400**	**186,000**	**155,000**	**22,200**	N/A	**119,000**	**8,220**	**82,200**	**86,900**	**73,000**	**31,000**
Lead	mg/kg	800	**78.1**	**60.8**	**28 J**	**88.4 J**	N/A	**8**	**10.9**	**176**	**475**	**256**	**128**
Manganese	mg/kg	26,000	**741**	**19,500**	**16,800**	**3,690**	N/A	**28,100**	**5,700**	**6,070**	**4,220**	**4,010**	**3,510**
Mercury	mg/kg	350	**0.012 J**	**0.053 J**	0.1 U	0.12 U	N/A	**0.037 J-**	0.1 R	**0.064 J**	**0.0036 J**	**0.022 J**	0.11 U
Nickel	mg/kg	22,000	**16.1**	**36.8**	**28.1**	**36.6**	N/A	**13.9**	5.2 B	**54.2**	**36.8**	**23.7**	**7.7 J**
Selenium	mg/kg	5,800	3.7 U	3.8 U	3 B	3.7 B	N/A	4.2 UJ	3.5 UJ	3.8 U	3.2 U	**2 J**	**2.4 J**
Silver	mg/kg	5,800	2.8 U	**1.5 J**	3 U	2.9 U	N/A	**3.3**	2.6 U	**1.9 J**	**1.8 J**	**0.66 J**	2.5 U
Thallium	mg/kg	12	9.2 U	9.6 U	9.9 U	9.7 U	N/A	10.6 U	8.7 U	9.4 U	8 U	8.3 U	8.3 U
Vanadium	mg/kg	5,800	**20.2**	**628**	**373 J**	**167 J**	N/A	**546 J**	**119 J**	**93.6**	**118**	**120**	**52.9**
Zinc	mg/kg	350,000	**278**	**208**	**82.3**	**170**	N/A	**77.9**	**16.6**	**3,500**	**2,880**	**1,520**	**801**
Other													
Cyanide	mg/kg	150	**7.8**	**7.3**	**0.41 J**	**1.6**	N/A	**0.2 J**	**0.67**	**0.46 J**	**0.057 J**	**1.2**	**0.077 J**

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Table 6
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Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-098-SB-1	B5-098-SB-4	B5-099-SB-1	B5-099-SB-4.5	B5-100-SB-1	B5-100-SB-5	B5-101-SB-1	B5-101-SB-5	B5-102-SB-1	B5-103-SB-1	B5-103-SB-4.5
Metals													
Aluminum	mg/kg	1,100,000	**12,600**	**12,600**	**16,900**	**11,000**	**14,800**	**19,100**	**5,330**	**15,100**	**14,800**	**9,000**	**8,870**
Antimony	mg/kg	470	3.3 UJ	2.7 UJ	2.9 UJ	2.8 UJ	**2.5 J**	2.9 UJ	2.5 UJ	2.3 UJ	3.1 UJ	2.6 UJ	**2.7 J**
Arsenic	mg/kg	3	**14 J**	**12.3 J**	**11.7 J**	**15 J**	**7.4 J**	**22.6 J**	**27.2**	**4.3**	**6.4 J**	**6.7 J**	**28.4 J**
Barium	mg/kg	220,000	**230 J**	**245 J**	**313 J**	**128 J**	**163 J**	**273 J**	**84.5**	**82.7**	**157 J**	**93.1 J**	**150 J**
Beryllium	mg/kg	2,300	**1.3**	**0.66 J**	**1.6**	**0.59 J**	**2.2**	**1.1**	**0.4 J**	**0.49 J**	**1.8**	**0.73 J**	**0.82 J**
Cadmium	mg/kg	980	**13.9**	**4.2**	**7.4**	**3.5**	**7.6**	**3.9**	**20.3**	1.5 B	**4**	**4.1**	0.67 B
Chromium	mg/kg	120,000	**255**	**478**	**226**	**317**	**125**	**1,340**	**424 J**	**531 J**	**381**	**363**	**92.9 J**
Chromium VI	mg/kg	6.3	1.1 UJ	**0.43 J-**	**0.26 J-**	**0.24 J-**	**0.18 J-**	1.2 UJ	1.2 UJ	1.2 UJ	1.1 UJ	1.1 UJ	1.3 UJ
Cobalt	mg/kg	350	**19.4 J**	**20.4 J**	**13.2 J**	**16.2 J**	**11.7 J**	**46.3 J**	**21.1**	**8.8**	**7.4 J**	**6 J**	**27.5 J**
Copper	mg/kg	47,000	**241 J**	**202 J**	**154 J**	**187 J**	**180 J**	**417 J**	**282**	**46.7**	**220 J**	**183 J**	**256 J**
Iron	mg/kg	820,000	**141,000**	**100,000**	**98,000**	**71,100**	**75,900**	**99,600**	**154,000 J**	**21,000 J**	**116,000**	**98,300**	**71,800**
Lead	mg/kg	800	**682**	**569**	**490**	**873**	**441**	**449**	**913**	**54.1**	**290**	**301**	**164**
Manganese	mg/kg	26,000	**7,080**	**16,100**	**7,230**	**7,830**	**2,850**	**6,650**	**5,960**	**2,610**	**9,380**	**8,110**	**3,200**
Mercury	mg/kg	350	**0.044 J-**	**0.052 J-**	**0.059 J-**	**0.15 J-**	**0.078 J-**	**0.24 J-**	**0.057 J**	**0.028 J**	**0.092 J-**	**0.045 J-**	**0.089 J-**
Nickel	mg/kg	22,000	**44.6 J**	**53.9 J**	**47 J**	**61.6 J**	**25.3 J**	**200 J**	**59.9 J**	**28.4 J**	**34.1 J**	**65.1 J**	**103 J**
Selenium	mg/kg	5,800	4.5 U	3.6 U	3.8 U	3.7 U	3.7 U	3.9 U	3.3 U	3.1 U	4.2 U	3.5 U	3.6 U
Silver	mg/kg	5,800	2.2 B	2.7 U	0.7 B	2.8 U	0.84 B	1.7 B	**3.3**	2.3 U	1 B	0.87 B	0.81 B
Thallium	mg/kg	12	11.1 U	9.1 U	9.5 U	9.4 U	9.3 U	9.7 U	8.2 U	7.7 U	10.4 U	8.7 U	9 U
Vanadium	mg/kg	5,800	**396**	**2,530**	**439**	**1,970**	**296**	**123**	**257**	**42.1**	**270**	**283**	**26.9**
Zinc	mg/kg	350,000	**3,080**	**1,330**	**1,330**	**1,170**	**1,220**	**1,040**	**7,400 J**	**195 J**	**1,240**	**979**	**214**
Other													
Cyanide	mg/kg	150	**0.3 J-**	**0.46 J-**	**0.12 J-**	**0.51 J-**	**0.3 J-**	**2**	**0.19 J**	**1.2**	**4 J-**	**0.13 J-**	0.76 UJ

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R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-104-SB-1*	B5-104-SB-5*	B5-105-SB-1*	B5-105-SB-5*	B5-106-SB-1*	B5-106-SB-5*	B5-107-SB-1*	B5-107-SB-6*	B5-108-SB-1	B5-108-SB-5	B5-109-SB-1*
Metals													
Aluminum	mg/kg	1,100,000	**8,870**	**18,100**	**10,100**	**43,600**	**29,400**	**42,500**	**26,200**	**44,400**	**29,400**	**41,000**	**31,600**
Antimony	mg/kg	470	2.5 U	2.8 U	2.3 U	2.7 U	2.8 U	2.4 U	2.4 U	3.2 U	3.3 UJ	2.4 UJ	2.9 U
Arsenic	mg/kg	3	**15.9**	**9**	**32.8**	2.2 U	2.3 U	**2.4**	**4.5**	2.6 U	**6.6**	**4.3**	**3.8**
Barium	mg/kg	220,000	**120**	**84.9**	**73.5**	**393**	**228**	**315**	**164**	**196**	**246**	**514**	**273**
Beryllium	mg/kg	2,300	**0.38 J**	**0.77 J**	**2**	**6.9**	**4.6**	**7**	**3.3**	**2.1**	**4.9**	**4.7**	**5.2**
Cadmium	mg/kg	980	**4**	1.4 U	**6.6**	0.46 B	0.29 B	0.65 B	1.3 B	0.5 B	1.2 B	**1.2**	1.2 B
Chromium	mg/kg	120,000	**846**	**30.2**	**250**	3.9 B	**9.8**	**19**	**46.5**	**93.1**	**150 J**	**84.8 J**	**38.3**
Chromium VI	mg/kg	6.3	**0.43 J**	**0.3 J**	1.1 U	1.1 U	1.1 U	1.1 U	1.2 U	1.1 U	1.1 UJ	1.1 UJ	1.1 U
Cobalt	mg/kg	350	**14.3**	**5.6**	**14.2**	**0.43 J**	**0.3 J**	**0.43 J**	**2.3 J**	**2.7 J**	4.3 B	**7**	**2 J**
Copper	mg/kg	47,000	**133**	**13.4**	**144**	4.5 U	**3.1 J**	**6.9**	**24.5**	**19.3**	**37.8**	**35.8**	**16.8**
Iron	mg/kg	820,000	**205,000**	**31,000**	**281,000**	**3,890**	**4,430**	**9,920**	**57,300**	**5,000**	**117,000 J**	**38,800 J**	**33,000**
Lead	mg/kg	800	**342**	**12.7**	**322**	**2.3**	**5.9**	**23.6**	**105**	**17.7**	**134**	**123**	**59.5**
Manganese	mg/kg	26,000	**29,200**	**118**	**2,080**	**1,730**	**2,110**	**3,320**	**2,270**	**1,450**	**4,690**	**3,560**	**2,270**
Mercury	mg/kg	350	**0.0046 J**	**0.003 J**	**1.2**	0.1 U	0.1 U	0.11 U	0.12 U	0.1 U	0.11 U	0.11 U	0.11 U
Nickel	mg/kg	22,000	**56.2**	**14.5**	**78.9**	9 U	9.2 U	**4.2 J**	**14.7**	**21.2**	**27.7 J**	**35.8 J**	**10**
Selenium	mg/kg	5,800	3.3 U	3.7 U	3 U	**4.2**	3.7 U	**4.9**	3.1 U	**5.9**	**4.9**	2.3 B	**3.1 J**
Silver	mg/kg	5,800	2.5 U	2.8 U	**5.4**	2.7 U	2.8 U	2.4 U	2.4 U	3.2 U	0.85 B	2.4 U	2.9 U
Thallium	mg/kg	12	8.3 U	9.2 U	7.6 U	9 U	9.2 U	7.9 U	7.9 U	10.6 U	11.1 U	8.1 U	9.8 U
Vanadium	mg/kg	5,800	**2,550**	**47.6**	**47.9**	**5.5**	**25**	**18.9**	**39.4**	**24.7**	**99.4**	**52**	**33.7**
Zinc	mg/kg	350,000	**639**	**38**	**8,350**	**44.5**	**19.7**	**189**	**829**	**29.1**	**439 J**	**494 J**	**371**
Other													
Cyanide	mg/kg	150	**0.54 J**	0.75 U	**5.2**	**0.18 J**	**0.37 J**	**0.59 J**	**0.32 J**	**1**	**2.2 J-**	**0.94 J-**	**0.31 J**

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Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-110-SB-1*	B5-110-SB-4*	B5-111-SB-1*	B5-111-SB-4*	B5-112-SB-1	B5-112-SB-5	B5-113-SB-1	B5-113-SB-5	B5-114-SB-1	B5-115-SB-1	B5-116-SB-1
Metals													
Aluminum	mg/kg	1,100,000	**14,900**	**3,320**	**22,900**	**7,830**	**25,900**	**49,800**	**14,100**	**48,200**	**11,800**	**9,290**	**36,200**
Antimony	mg/kg	470	2.3 U	2.2 U	3.4 U	2.5 U	3 UJ	3.3 UJ	3 UJ	2.6 UJ	3.2 UJ	2.8 UJ	3.2 UJ
Arsenic	mg/kg	3	**4.1**	**24.7**	**6.1**	2 U	**2.7**	2.7 U	**4.6**	2.1 U	**3.5**	**3.1**	**9.8**
Barium	mg/kg	220,000	**218**	**38.8**	**427**	**26.8**	**277 J**	**506 J**	**180 J**	**515 J**	**39.4**	**43.5**	**367**
Beryllium	mg/kg	2,300	**1.6**	**0.6 J**	**2.7**	**0.16 J**	**3.4**	**6.4**	**2.4**	**5.1**	1.1 U	0.94 U	**5.4**
Cadmium	mg/kg	980	0.44 B	**12.4**	**0.78 J**	0.35 B	**0.33 J**	**0.32 J**	0.3 B	**0.29 J**	0.41 B	0.41 B	**2.3**
Chromium	mg/kg	120,000	**968**	**322**	**1,020**	**14.3**	**537 J**	**7.8 J**	**119 J**	**6.6 J**	**1,360 J**	**1,280 J**	**90.9 J**
Chromium VI	mg/kg	6.3	1.1 U	1.2 U	1.1 U	1.1 U	**0.18 J-**	1.1 UJ	1.1 UJ	1.1 UJ	**5.1 J-**	**0.22 J-**	1.1 UJ
Cobalt	mg/kg	350	**2.4 J**	**13**	**5.1 J**	**0.85 J**	**1.4 J**	5.4 U	**3.9 J**	4.3 U	1.5 B	1.1 B	**9**
Copper	mg/kg	47,000	**26.9**	**177**	**64**	**12.2**	**11.9 J**	2.5 B	**23.3 J**	4.3 U	**16.7 J**	**20.5 J**	**52.7 J**
Iron	mg/kg	820,000	**138,000**	**391,000**	**113,000**	**11,000**	**85,000**	**10,700**	**48,600**	**5,490**	**182,000 J**	**194,000 J**	**121,000 J**
Lead	mg/kg	800	**102**	**1,100**	**29.2**	**39.3**	**6.3 J**	2.7 U	**20.6 J**	2.1 U	2.7 UJ	**10.9 J**	**355 J**
Manganese	mg/kg	26,000	**22,900**	**9,960**	**39,200**	**565**	**12,800**	**2,020**	**4,130**	**2,190**	**29,400**	**26,800**	**3,520**
Mercury	mg/kg	350	**0.074 J**	**0.19**	0.11 U	**0.12**	0.11 UJ	0.11 UJ	0.11 UJ	0.11 UJ	0.11 R	**0.019 J-**	0.11 R
Nickel	mg/kg	22,000	**17.8**	**105**	**25.8**	**5.9 J**	**6.7 J**	10.9 U	**20.1**	8.6 U	**16.2**	**17**	**59.8**
Selenium	mg/kg	5,800	3.1 U	2.9 U	**3.8 J**	3.3 U	4 U	**9**	4 U	**6.5**	4.3 U	3.7 U	**2.6 J**
Silver	mg/kg	5,800	**0.93 J**	**11.1**	3.4 U	2.5 U	3 U	3.3 U	3 U	2.6 U	3.1 B	**3**	3.2 U
Thallium	mg/kg	12	7.8 U	7.3 U	11.5 U	8.2 U	9.9 UJ	10.9 UJ	9.9 UJ	8.6 UJ	10.7 U	9.4 U	10.7 U
Vanadium	mg/kg	5,800	**563**	**42.1**	**1,240**	**21.5**	**306 J**	**13.7 J**	**58.7 J**	**11.1 J**	**913 J**	**844 J**	**40.7 J**
Zinc	mg/kg	350,000	**104**	**16,600**	**76.5**	**320**	**50.7 J**	**1.2 J**	**62.7 J**	**1.3 J**	**39.3 J**	**50 J**	**3,040 J**
Other													
Cyanide	mg/kg	150	**0.12 J**	**7.6**	**2.8**	**3**	**4.1 J-**	**0.9 J-**	**3.4 J-**	**0.5 J-**	0.59 U	**0.5 J+**	**4.1 J+**

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Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-116-SB-4	B5-117-SB-1	B5-118-SB-1	B5-119-SB-1	B5-119-SB-5	B5-120-SB-1	B5-120-SB-4.5	B5-121-SB-1	B5-121-SB-5	B5-122-SB-1*	B5-122-SB-9*
Metals													
Aluminum	mg/kg	1,100,000	**25,600**	**6,790**	**29,000**	**45,000**	**24,500**	**31,000**	**45,500**	**47,100**	**9,080**	**9,800**	**26,200**
Antimony	mg/kg	470	3.2 UJ	2.6 UJ	2.5 UJ	2.7 UJ	3.5 UJ	3.1 UJ	**1.9 J**	2.7 UJ	2.9 UJ	2.3 U	2.6 U
Arsenic	mg/kg	3	**6.8**	**4.8**	**4.4**	2.2 U	**4.6**	**5.2**	**1.9**	**2.3**	**3.1**	**7**	**17.8**
Barium	mg/kg	220,000	**206**	**36**	**299**	**445**	**97**	**272**	**327**	**392**	**53.1**	**269**	**352**
Beryllium	mg/kg	2,300	**1.6**	0.87 U	**4.8**	**7.8**	**1 J**	**4.6**	**7.1**	**7.7**	**0.67 J**	**0.67 J**	**1.5**
Cadmium	mg/kg	980	1.1 B	0.38 B	0.8 B	0.54 B	0.23 B	**9.8**	0.26 B	0.44 B	1.4 U	**0.9 J**	**1.1 J**
Chromium	mg/kg	120,000	**138 J**	**1,320 J**	**472 J**	**40.6 J**	**29.8 J**	**116 J**	**24.2 J**	**21.8 J**	**58.8 J**	**563**	**1,950**
Chromium VI	mg/kg	6.3	1.2 UJ	**5.3 J-**	1.1 UJ	1.1 UJ	1.2 UJ	1.1 UJ	1.1 UJ	1.1 UJ	1.2 UJ	**0.81 J**	1.2 U
Cobalt	mg/kg	350	**8.5**	4.3 U	**2 J**	1.4 B	**3.7 J**	2.4 B	**0.84 J**	0.64 B	1.6 B	**5.1**	**66.6**
Copper	mg/kg	47,000	**63.4 J**	**16 J**	**25.8 J**	**8.2 J**	**8.9 J**	**37.7 J**	**2.1 J**	**3.8 J**	**6.4 J**	**38.2**	**188**
Iron	mg/kg	820,000	**32,100 J**	**184,000 J**	**90,900 J**	**21,500 J**	**13,000 J**	**54,500 J**	**7,220 J**	**9,920 J**	**18,800 J**	**198,000**	**107,000**
Lead	mg/kg	800	**113 J**	2.2 UJ	**40.2 J**	**25.2 J**	**10.9 J**	**124 J**	**2.4 J**	**13.9 J**	**6.2 J**	**526**	**75.4**
Manganese	mg/kg	26,000	**2,220**	**27,700**	**9,870**	**3,300**	**27.9**	**4,400**	**2,910**	**3,900**	**940**	**15,000**	**13,500**
Mercury	mg/kg	350	**0.11 J-**	0.11 R	0.11 R	0.1 R	**0.046 J-**	0.1 R	0.11 R	0.1 R	**0.0089 J-**	**0.038 J**	**0.0061 J**
Nickel	mg/kg	22,000	**22.5**	**15.7**	**12.3**	**6.3 J**	**9.7 J**	**16.7**	**1.3 J**	**3.3 J**	**4.4 J**	**41.3**	**398**
Selenium	mg/kg	5,800	4.2 U	3.5 U	3.3 U	**2.3 J**	4.7 U	4.1 U	**3.6**	**5.1**	3.8 U	3 U	3.5 U
Silver	mg/kg	5,800	3.2 U	2.1 B	2.5 U	2.7 U	3.5 U	3.1 U	2.2 U	2.7 U	2.9 U	**2.9**	**1.6 J**
Thallium	mg/kg	12	10.5 U	8.7 U	8.2 U	8.9 U	11.7 U	10.3 U	7.4 U	9.1 U	9.5 U	7.6 U	8.7 U
Vanadium	mg/kg	5,800	**81.5 J**	**949 J**	**546 J**	**31.4 J**	**26.3 J**	**92.2 J**	**21.8 J**	**21.9 J**	**46.1 J**	**327**	**99.2**
Zinc	mg/kg	350,000	**306 J**	**72.7 J**	**197 J**	**368 J**	**53.7 J**	**1,570 J**	**7 J**	**93.8 J**	**22.2 J**	**429**	**271**
Other													
Cyanide	mg/kg	150	**2.1 J+**	0.61 U	**0.9 J+**	**1.4 J-**	**1.5 J-**	**0.22 J-**	**0.81 J+**	**0.59 J-**	0.66 UJ	**1.3**	**2.1**

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Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-122-SB-10*	B5-123-SB-1*	B5-123-SB-8*	B5-123-SB-10*	B5-124-SB-1	B5-124-SB-9	B5-125-SB-1*	B5-125-SB-8*	B5-125-SB-10*	B5-132-SB-1	B5-132-SB-4
Metals													
Aluminum	mg/kg	1,100,000	N/A	**12,500**	**33,900**	N/A	**17,800**	**14,400**	**7,470**	**12,600**	N/A	**36,300**	**8,720**
Antimony	mg/kg	470	N/A	2.7 U	3.2 U	N/A	3.1 UJ	3.7 UJ	3.4 U	3.1 U	N/A	2.6 UJ	2.2 UJ
Arsenic	mg/kg	3	2.1 U	**5.9**	**6.4**	**4**	2.6 U	3.1 U	**3.5**	**23.2**	1.8 U	**4.6**	**17.3**
Barium	mg/kg	220,000	N/A	**71.9**	**343**	N/A	**80.1**	**778**	**43.3**	**934**	N/A	**403 J**	**179 J**
Beryllium	mg/kg	2,300	N/A	**0.19 J**	**4**	N/A	**0.26 J**	**0.67 J**	**0.26 J**	**0.74 J**	N/A	**5.9**	**0.7 J**
Cadmium	mg/kg	980	N/A	**0.51 J**	**0.6 J**	N/A	0.64 B	0.73 B	**1.4 J**	**1.4 J**	N/A	0.91 B	**7.4**
Chromium	mg/kg	120,000	N/A	**1,210**	**315**	N/A	**693 J**	**6,590 J**	**177**	**2,740**	N/A	**83.1**	**303**
Chromium VI	mg/kg	6.3	N/A	1.1 U	1.1 U	N/A	1.1 UJ	1.3 UJ	**0.85 J**	1.1 U	N/A	**0.17 J-**	**0.18 J-**
Cobalt	mg/kg	350	N/A	**1.6 J**	**29.8**	N/A	2.4 B	**42.4**	**2.2 J**	**154**	N/A	**3.8 J**	**20.6**
Copper	mg/kg	47,000	N/A	**29.5**	**47.2**	N/A	**56.4**	**222**	**18.5**	**510**	N/A	**39.3**	**294**
Iron	mg/kg	820,000	N/A	**193,000**	**34,700**	N/A	**128,000**	**137,000**	**59,200**	**214,000**	N/A	**45,800 J**	**198,000 J**
Lead	mg/kg	800	N/A	**14**	**9.1**	N/A	**36.8**	**47.1**	**165**	**57.1**	N/A	**223**	**647**
Manganese	mg/kg	26,000	N/A	**26,200**	**91,800**	**21,500**	**15,400**	**10,900**	**3,780**	**12,600**	N/A	**3,890**	**8,300**
Mercury	mg/kg	350	N/A	**0.021 J**	0.11 U	N/A	**0.033 J**	0.13 U	**0.054 J**	**0.011 J**	N/A	0.11 U	**0.21**
Nickel	mg/kg	22,000	N/A	**19.5**	**167**	N/A	**51.5**	**292**	**15.6**	**896**	N/A	**15.3**	**65.2**
Selenium	mg/kg	5,800	N/A	3.7 U	4.3 U	N/A	4.2 U	4.9 U	4.5 U	**3.3 J**	N/A	3.4 U	3 U
Silver	mg/kg	5,800	N/A	**2.4 J**	**8.4**	N/A	**1.7 J**	**1.3 J**	3.4 U	**3.2**	N/A	2.6 U	**1 J**
Thallium	mg/kg	12	N/A	9.1 U	10.8 U	N/A	10.4 U	12.3 U	11.3 U	10.2 U	N/A	8.5 U	7.4 U
Vanadium	mg/kg	5,800	N/A	**787**	**92.9**	N/A	**343 J**	**258 J**	**81.9**	**266**	N/A	**136**	**863**
Zinc	mg/kg	350,000	N/A	**161**	**27.4**	N/A	**282**	**49.1**	**548**	**224**	N/A	**226**	**1,340**
Other													
Cyanide	mg/kg	150	N/A	0.68 U	**0.42 J**	N/A	**0.64 J-**	**1.2 J-**	**0.93**	**0.9 J**	N/A	**7 J-**	**1.6 J-**

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J-: The positive result reported for this analyte is a quantitative estimate but may be biased low.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-133-SB-1	B5-133-SB-5	B5-134-SB-1	B5-135-SB-1	B5-135-SB-5	B5-136-SB-1	B5-136-SB-8	B5-137-SB-1	B5-137-SB-5	B5-138-SB-1	B5-138-SB-5
Metals													
Aluminum	mg/kg	1,100,000	**14,400**	**17,900**	**18,100**	**27,500**	**15,600**	**15,600**	**9,180**	**14,200**	**21,000**	**15,600**	**14,800**
Antimony	mg/kg	470	**21.1 J**	3.7 UJ	3.6 UJ	2.5 UJ	2.7 UJ	2.6 UJ	2.7 UJ	2.3 UJ	2.8 UJ	2.2 UJ	3.2 UJ
Arsenic	mg/kg	3	**33.8**	**2.2 J**	**4.8**	**3.1**	**3.8**	2.1 U	2.2 U	**5**	2.3 U	1.8 U	**5.6**
Barium	mg/kg	220,000	**129 J**	**60 J**	**229 J**	**294 J**	**32.5 J**	**167 J**	**17.2 J**	**69.6 J**	**86 J**	**59.3 J**	**147 J**
Beryllium	mg/kg	2,300	1 B	0.8 B	**2.3**	**3.2**	0.69 B	**1.7**	0.46 B	0.31 B	0.54 B	0.72 U	**1.3**
Cadmium	mg/kg	980	**10.5**	0.24 B	**2.1**	0.43 B	1.3 U	0.61 B	1.3 U	**1.8**	0.6 B	0.64 B	1.5 B
Chromium	mg/kg	120,000	**445 J**	**60.8 J**	**298 J**	**526 J**	**16.9 J**	**764**	**13.4**	**899**	**1,050**	**1,070**	**275**
Chromium VI	mg/kg	6.3	**0.4 J**	**0.34 J**	1.4 UJ	1.1 UJ	**0.6 J-**	**0.27 J-**	**0.34 J-**	**0.18 J-**	**0.18 J-**	**1.3 J-**	**0.23 J-**
Cobalt	mg/kg	350	**10.5**	5.1 B	**8**	3.4 B	2.7 B	**1.7 J**	**1.7 J**	3.8 B	**1.1 J**	0.77 B	**9.8**
Copper	mg/kg	47,000	**414**	**15.5**	**85.7**	**22.6**	**8.7**	**24.9**	**3.1 J**	**50.7**	**27.2**	**28.5**	**60.7**
Iron	mg/kg	820,000	**245,000**	**18,700**	**142,000**	**88,700**	**9,540**	**161,000**	**14,000**	**276,000**	**177,000**	**185,000**	**68,100**
Lead	mg/kg	800	**201**	**25.9**	**112**	**13.7**	**10.1**	**44.1 J**	**5.1 J**	**24.3 J**	**18.7 J**	**12.9 J**	**146 J**
Manganese	mg/kg	26,000	**14,200**	**345**	**8,690**	**11,400**	**39**	**19,200**	**134**	**23,700**	**25,600**	**25,500**	**5,440**
Mercury	mg/kg	350	**0.75 J-**	**0.053 J-**	**0.06 J-**	0.11 UJ	**0.0041 J-**	0.11 UJ	0.12 UJ	**0.024 J-**	**0.0078 J-**	**0.0059 J-**	**0.31 J-**
Nickel	mg/kg	22,000	**115**	**12.6**	**69.8**	**11.9**	**8.9**	**10.8**	5.9 B	**31.9**	**16.1**	**12.3**	**58**
Selenium	mg/kg	5,800	**2.5 J**	4.9 U	4.8 U	**5.3**	3.5 U	3.4 U	3.6 U	3.1 UJ	3.7 UJ	2.9 UJ	4.3 UJ
Silver	mg/kg	5,800	**7.1**	3.7 U	2.6 B	2.5 U	2.7 U	2.6 U	2.7 U	**5.2**	**3.9**	**4**	3.2 U
Thallium	mg/kg	12	10.9 UJ	9.9 UJ	9.7 UJ	8.3 UJ	8.9 UJ	**7.3 J**	9 U	7.7 UJ	9.3 UJ	7.2 UJ	10.7 UJ
Vanadium	mg/kg	5,800	**95.7 J**	**46.9 J**	**167 J**	**681 J**	**26.6 J**	**2,670**	**21.2**	**579**	**589**	**693**	**210**
Zinc	mg/kg	350,000	**2,430**	**71.8**	**1,010**	**52.3**	**18.5**	**104 J**	**14.7 J**	**1,330 J**	**252 J**	**170 J**	**791 J**
Other													
Cyanide	mg/kg	150	**0.061 J-**	0.74 UJ	**1 J+**	0.55 U	0.57 U	**0.29 J+**	0.7 U	**0.94**	**0.66**	**0.47 J**	**4.2**

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Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-138-SB-10	B5-139-SB-1*	B5-139-SB-7*	B5-140-SB-1*	B5-140-SB-5*	B5-141-SB-1*	B5-142-SB-1	B5-142-SB-5	B5-143-SB-1	B5-143-SB-4.5	B5-144-SB-1
Metals													
Aluminum	mg/kg	1,100,000	N/A	**16,500**	**17,100**	**16,400**	**6,640**	**6,220**	**16,500**	**8,300**	**7,340**	**11,000**	**12,600**
Antimony	mg/kg	470	N/A	3.4 U	3.5 U	3.3 U	3.5 U	3 U	3.2 UJ	3 UJ	3.3 UJ	2.2 UJ	2.6 UJ
Arsenic	mg/kg	3	**6.6**	**3.9**	**5.9**	**6.5**	**16.3**	**7.7**	**4.6**	**4**	2.8 U	**4.8**	**3.1**
Barium	mg/kg	220,000	N/A	**58.7**	**91.7**	**156**	**81.9**	**62.5**	**173**	**116**	**87.6**	**208**	**68.8 J**
Beryllium	mg/kg	2,300	N/A	**0.4 J**	**1.1 J**	**1.6**	**0.69 J**	**0.55 J**	**1.6**	**0.36 J**	**1 J**	**1.3**	**0.56 J**
Cadmium	mg/kg	980	N/A	1.7 U	1.8 U	1.1 B	0.88 B	0.55 B	0.34 B	0.28 B	1.7 U	0.43 B	0.76 B
Chromium	mg/kg	120,000	N/A	**24.4**	**26.3**	**240**	**21.5**	**299**	**191 J**	**146 J**	**14.8 J**	**1,160 J**	**680**
Chromium VI	mg/kg	6.3	N/A	**0.19 J**	**0.82 J**	1.1 U	1.2 U	**1.2**	1.1 UJ	**0.32 J-**	1.1 UJ	**0.3 J-**	**0.24 J-**
Cobalt	mg/kg	350	N/A	**5.4 J**	**6.6**	**8.6**	**10.5**	**6.3**	**6.1**	**14.9**	4.7 B	1.5 B	4 B
Copper	mg/kg	47,000	N/A	**8.3**	**14.3**	**130**	**427**	**36.2**	**11.2 J**	**127 J**	**16.7**	**67.8**	**51.8 J**
Iron	mg/kg	820,000	N/A	**18,100**	**23,500**	**66,900**	**37,600**	**200,000**	**31,400**	**108,000**	**16,900**	**137,000**	**185,000**
Lead	mg/kg	800	N/A	**9.4**	**11.8**	**127**	**121**	**61.2**	**10**	**14**	**3.8 J**	**7.2 J**	**33.1 J**
Manganese	mg/kg	26,000	N/A	**101**	**92**	**13,300**	**945**	**7,390**	**2,550**	**1,670**	**164**	**58,500**	**17,200**
Mercury	mg/kg	350	N/A	**0.009 J**	0.12 U	**0.026 J**	**0.062 J**	**0.013 J**	**0.0074 J-**	**0.018 J-**	**0.013 J**	0.11 U	**0.21 J-**
Nickel	mg/kg	22,000	N/A	**9.9 J**	**15.1**	**35.4**	**36.3**	**47.3**	**28.4**	**32.1**	**12.2**	**13.8**	**34.3 J**
Selenium	mg/kg	5,800	N/A	4.5 U	4.7 U	4.4 U	4.7 U	4 U	**3.4 J**	4.1 UJ	4.4 U	2.9 U	3.5 U
Silver	mg/kg	5,800	N/A	3.4 U	3.5 U	3.3 U	3.5 U	**2.4 J**	3.2 U	1.3 B	3.3 U	**4.5**	**0.8 J**
Thallium	mg/kg	12	N/A	11.3 U	11.7 U	11 U	11.7 U	10.1 U	10.6 U	10.2 U	11 U	7.2 U	8.8 UJ
Vanadium	mg/kg	5,800	N/A	**34**	**43.1**	**299**	**22.5**	**165**	**158 J**	**79.3 J**	**25 J**	**1,370 J**	**964**
Zinc	mg/kg	350,000	N/A	**34.8**	**44.7**	**467**	**637**	**143**	**20.9**	**41.4**	**17.9**	**28.6**	**358 J**
Other													
Cyanide	mg/kg	150	N/A	0.58 U	0.59 U	**0.63**	**0.21 J**	**0.32 J**	**0.27 J**	**2.4**	0.68 U	0.63 U	**0.74**

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Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-144-SB-4	B5-145-SB-1	B5-145-SB-5	B5-146-SB-1	B5-146-SB-5	B5-147-SB-1	B5-147-SB-5	B5-148-SB-1	B5-148-SB-5	B5-149-SB-1*	B5-149-SB-5*
Metals													
Aluminum	mg/kg	1,100,000	**18,100**	**7,930**	**25,800**	**10,500**	**14,000**	**25,800**	**8,820**	**16,100**	**18,800**	**16,600**	**35,600**
Antimony	mg/kg	470	3.4 UJ	3.5 UJ	2.4 UJ	2.5 UJ	3.2 UJ	2.5 UJ	2.4 UJ	**16.4 J**	2.6 UJ	3.1 U	3.1 U
Arsenic	mg/kg	3	**3.4**	**6.2**	**12.2**	**6.3**	**4.1**	**4.9**	**13.1**	**30.1**	**5.3**	**4.9**	**8.4**
Barium	mg/kg	220,000	**147 J**	**220 J**	**127 J**	**125 J**	**36.8 J**	**354 J**	**106 J**	**333 J**	**60.9 J**	**228**	**895**
Beryllium	mg/kg	2,300	0.9 B	1.2 U	0.6 B	0.43 B	0.39 B	**3.6**	0.43 B	0.95 B	0.62 B	**1.8**	**4.3**
Cadmium	mg/kg	980	0.28 B	1.6 B	1.2 U	1.2 B	1.6 U	0.67 B	**2.8**	**6.6**	1.3 U	0.77 B	0.76 B
Chromium	mg/kg	120,000	**49.3**	**1,450**	**37.1**	**1,380**	**13.4**	**428**	**249**	**298**	**33.5**	**472**	**262**
Chromium VI	mg/kg	6.3	**0.29 J-**	**2 J-**	**0.34 J-**	1.1 UJ	**0.23 J-**	**0.17 J-**	1.1 UJ	1.2 UJ	**0.25 J-**	0.51 B	1.1 U
Cobalt	mg/kg	350	4.6 B	**7.5**	**4.7**	**9**	**4.3 J**	**5**	**12.4**	**27.1**	**6.1**	**5.1**	**25.8**
Copper	mg/kg	47,000	**10.8 J**	**127 J**	**33.1 J**	**67.4 J**	**5.4 J**	**57.6 J**	**167 J**	**243 J**	**10.5 J**	**48**	**40**
Iron	mg/kg	820,000	**12,800**	**153,000**	**33,400**	**185,000**	**16,200**	**104,000**	**97,600**	**132,000**	**21,700**	**123,000**	**57,700**
Lead	mg/kg	800	**27.9 J**	**378 J**	**16.9 J**	**64.5 J**	**8.5 J**	**31 J**	**932 J**	**865 J**	**10.9 J**	**49**	**78.3**
Manganese	mg/kg	26,000	**1,440**	**29,600**	**115**	**51,400**	**68.5**	**33,300**	**8,550**	**5,940**	**224**	**12,800**	**20,400**
Mercury	mg/kg	350	**0.059 J-**	**0.046 J-**	**0.0086 J-**	**0.043 J-**	0.11 UJ	0.1 UJ	**0.32 J-**	**1.2 J-**	**0.015 J-**	**0.024 J**	0.11 U
Nickel	mg/kg	22,000	**24.9 J**	**33.3 J**	**14.5 J**	**33.5 J**	**9.3 J**	**19.5 J**	**27.1 J**	**170 J**	**14.3 J**	**42.3**	**150**
Selenium	mg/kg	5,800	4.5 U	4.7 U	**2.3 J**	3.3 U	4.2 U	3.4 U	3.2 U	4.4 U	3.5 U	4.1 U	4.1 U
Silver	mg/kg	5,800	3.4 U	3.5 U	2.4 U	2.5 U	3.2 U	2.5 U	2.4 U	**1 J**	2.6 U	**0.98 J**	3.1 U
Thallium	mg/kg	12	11.2 UJ	9.3 B	8.1 UJ	8.3 UJ	10.5 UJ	8.4 UJ	7.9 UJ	11.1 UJ	8.7 UJ	10.2 U	10.2 U
Vanadium	mg/kg	5,800	**68.3**	**4,400**	**40.1**	**3,830**	**27.6**	**1,710**	**554**	**464**	**45.8**	**268**	**254**
Zinc	mg/kg	350,000	**47.8 J**	**257 J**	**40.5 J**	**312 J**	**23.4 J**	**147 J**	**1,950 J**	**5,620 J**	**38.2 J**	**358**	**295**
Other													
Cyanide	mg/kg	150	**0.1 J**	**0.38 J**	0.76 UJ	**0.62 J-**	0.59 UJ	**0.24 J-**	**1.1 J-**	**2**	0.63 U	**1.9**	**0.44 J**

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Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-150-SB-1	B5-150-SB-5	B5-151-SB-1	B5-151-SB-5	B5-151-SB-10*	B5-152-SB-1	B5-152-SB-5	B5-153-SB-1	B5-154-SB-1	B5-154-SB-4	B5-155-SB-1
Metals													
Aluminum	mg/kg	1,100,000	**31,200**	**30,400**	**21,500**	**5,750**	N/A	**5,060**	**45,600**	**4,930**	**8,860**	**7,430**	**8,410**
Antimony	mg/kg	470	3.2 UJ	3.2 UJ	2.5 UJ	2.4 UJ	N/A	2.4 UJ	2.3 UJ	3.1 UJ	2.6 UJ	2.4 UJ	2.6 UJ
Arsenic	mg/kg	3	2.7 U	2.7 U	2.1 U	**7.4**	**4.8**	**5**	**2.2**	**15.2**	**15.1**	**20.1**	**13.6**
Barium	mg/kg	220,000	**421 J**	**477 J**	**181 J**	**85.5 J**	N/A	**67.4 J**	**292 J**	**66.9**	**112 J**	**96.1 J**	**137 J**
Beryllium	mg/kg	2,300	**4.4**	**3.7**	**1.7**	**0.52 J**	N/A	**0.74 J**	**6.9**	**0.78 J**	**0.67 J**	**0.51 J**	**0.7 J**
Cadmium	mg/kg	980	**0.53 J**	**0.46 J**	0.6 B	0.38 B	N/A	**0.44 J**	**0.21 J**	0.52 B	**4.3**	**5.5**	**20.3**
Chromium	mg/kg	120,000	**163 J**	**268 J**	**791 J**	**554 J**	N/A	**81.4 J**	**7.1 J**	**147 J**	**279**	**201**	**287**
Chromium VI	mg/kg	6.3	1.2 UJ	1.1 UJ	1.1 UJ	**0.47 J-**	N/A	1.1 UJ	1.1 UJ	**0.29 J-**	**0.5 J-**	**0.18 J**	1.1 U
Cobalt	mg/kg	350	**4.9 J**	**0.41 J**	**2.3 J**	**4**	N/A	**4.7**	**0.25 J**	**11.3**	**17.2**	**14.8**	**15.5**
Copper	mg/kg	47,000	**14.4 J**	**11.3 J**	**24.2 J**	**24.6 J**	N/A	**33 J**	**2.2 J**	**35.7**	**298**	**311**	**252**
Iron	mg/kg	820,000	**70,100**	**73,400**	**141,000**	**186,000**	N/A	**67,500**	**4,050**	**217,000**	**183,000 J**	**204,000 J**	**179,000 J**
Lead	mg/kg	800	**28.7 J**	**13.4 J**	**13.4 J**	**16.2 J**	N/A	**80.4 J**	1.9 U	**89.8**	**666**	**517**	**539**
Manganese	mg/kg	26,000	**5,120**	**12,900**	**20,900**	**16,300**	N/A	**1,750**	**2,210**	**4,930**	**7,780**	**2,820**	**5,520**
Mercury	mg/kg	350	**0.022 J-**	0.12 UJ	**0.0099 J-**	**0.0046 J-**	N/A	**0.035 J-**	0.11 UJ	**1.4**	**1.1**	**0.19**	**0.54**
Nickel	mg/kg	22,000	**63.3**	**6.9 J**	**10.5**	**17.1**	N/A	**45.1**	7.8 U	**84.9**	**77.3**	**69.4**	**88.8**
Selenium	mg/kg	5,800	2.7 B	4.3 U	3.4 U	3.2 U	N/A	3.2 U	**7.6**	4.2 U	3.4 U	3.2 U	3.5 U
Silver	mg/kg	5,800	3.2 U	3.2 U	1.5 B	2.4 U	N/A	2.4 U	2.3 U	**2.8 J**	**2.1 J**	**2.3 J**	**3.7**
Thallium	mg/kg	12	10.8 UJ	10.8 UJ	8.5 UJ	8 UJ	N/A	7.9 UJ	7.8 UJ	10.5 U	8.6 U	8 U	8.7 U
Vanadium	mg/kg	5,800	**143 J**	**209 J**	**413 J**	**1,410 J**	N/A	**36.5 J**	**15.6 J**	**98.3 J**	**125**	**81.9**	**113**
Zinc	mg/kg	350,000	**349 J**	**43.8 J**	**212 J**	**132 J**	N/A	**114 J**	**1.7 J**	**84.8**	**1,270**	**3,780**	**2,670**
Other													
Cyanide	mg/kg	150	**1.1 J-**	**1.2 J-**	**3.4 J-**	**4.1 J-**	N/A	**0.88 J-**	**0.37 J-**	**0.28 J-**	**7.3 J-**	**1.6 J-**	**3 J-**

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B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-155-SB-5	B5-155-SB-10	B5-156-SB-1*	B5-156-SB-6*	B5-156-SB-10	B5-157-SB-1*	B5-157-SB-5*	B5-158-SB-1*	B5-158-SB-5*	B5-159-SB-1*	B5-159-SB-5*
Metals													
Aluminum	mg/kg	1,100,000	**10,400**	N/A	**14,100**	**31,000**	N/A	**8,960**	**14,400**	**13,400**	**11,400**	**9,640**	**9,300**
Antimony	mg/kg	470	2.4 UJ	N/A	2.7 U	3 U	N/A	3.1 U	2.2 U	2.6 U	3.5 U	2.7 U	2.2 U
Arsenic	mg/kg	3	**6**	**5.4**	**11.1**	**5.2**	**3.5**	**16.2**	**6.6**	**5.3**	**8**	**12.4**	**1.6 J**
Barium	mg/kg	220,000	**26.6 J**	N/A	**141**	**363**	N/A	**57.4**	**170**	**132**	**164**	**119**	**69.5**
Beryllium	mg/kg	2,300	**0.48 J**	N/A	**1.5**	**3.8**	N/A	**0.38 J**	**2.1**	**0.76 J**	**0.46 J**	**0.62 J**	**0.17 J**
Cadmium	mg/kg	980	0.14 B	N/A	**2.9**	**0.78 J**	N/A	**3.6**	1.1 B	**5.6**	**38.3**	**4.9**	0.96 B
Chromium	mg/kg	120,000	**16.9**	N/A	**170**	**142**	N/A	**221**	**236**	**110**	**88.1**	**597**	**1,850**
Chromium VI	mg/kg	6.3	**0.23 J**	N/A	1.1 U	1.1 U	N/A	**0.17 J**	**0.18 J**	**0.18 J**	1.2 U	**0.17 J**	**0.76 J**
Cobalt	mg/kg	350	**2.2 J**	N/A	**7.3**	**11.8**	N/A	**15.7**	**7.2**	**6.4**	**23.7**	**16.2**	**0.47 J**
Copper	mg/kg	47,000	**8.7**	N/A	**74.6**	**39.1**	N/A	**183**	**84**	**66.4**	**427**	**204**	**41.6**
Iron	mg/kg	820,000	**20,300 J**	N/A	**92,100**	**53,400**	N/A	**240,000**	**107,000**	**39,500**	**50,600**	**192,000**	**220,000**
Lead	mg/kg	800	**14.6**	N/A	**404**	**49**	N/A	**334**	**76.7**	**1,040**	**3,180**	**1,720**	**8.8**
Manganese	mg/kg	26,000	**196**	N/A	**3,150**	**6,590**	N/A	**5,300**	**5,220**	**2,630**	**1,780**	**9,040**	**31,800**
Mercury	mg/kg	350	**0.1 J**	N/A	**5.7**	0.1 U	N/A	**0.14**	**0.15**	**2.1**	**3.2**	**5.6**	0.11 U
Nickel	mg/kg	22,000	4.9 B	N/A	**39**	**18.5**	N/A	**111**	**42.3**	**17.5**	**123**	**77.5**	**21.5**
Selenium	mg/kg	5,800	3.2 U	N/A	3.6 U	**3.3 J**	N/A	4.2 U	3 U	3.5 U	4.6 U	3.6 U	2.9 U
Silver	mg/kg	5,800	2.4 U	N/A	**2 J**	3 U	N/A	**4.9**	**0.6 J**	2.6 U	**2.9 J**	**2.9**	**3.4**
Thallium	mg/kg	12	8 U	N/A	9.1 U	10 U	N/A	10.4 U	7.4 U	8.7 U	11.5 U	9 U	7.2 U
Vanadium	mg/kg	5,800	**28**	N/A	**78.7**	**645**	N/A	**65**	**167**	**90.3**	**47.2**	**231**	**595**
Zinc	mg/kg	350,000	**26.3**	N/A	**1,360**	**147**	N/A	**5,580**	**187**	**3,680**	**17,600**	**980**	**96.9**
Other													
Cyanide	mg/kg	150	0.71 UJ	N/A	**1.5**	**3.7**	N/A	**1.6**	**2.6**	**9.8**	**43**	**7.8**	0.52 U

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Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-160-SB-1*	B5-160-SB-4*	B5-161-SB-1	B5-161-SB-4	B5-161-SB-10*	B5-162-SB-1	B5-163-SB-1	B5-164-SB-1	B5-164-SB-5	B5-164-SB-10	B5-165-SB-1
Metals													
Aluminum	mg/kg	1,100,000	**11,900**	**28,400**	**7,900**	**8,610**	N/A	**14,700**	**21,400**	**10,400**	**7,310**	N/A	**5,970**
Antimony	mg/kg	470	2.4 U	2.9 U	3.3 UJ	2.7 UJ	N/A	2.6 UJ	2.6 UJ	2.6 UJ	2.9 UJ	N/A	2.8 UJ
Arsenic	mg/kg	3	**3**	**5.5**	**13.8 J**	**14.5 J**	**4.2**	**2.5**	2.2 U	**2 J**	2.2 B	N/A	**15.8**
Barium	mg/kg	220,000	**64.5**	**272**	**80.8 J**	**53.3 J**	N/A	**83.7**	**409**	**64.6 J**	**156 J**	N/A	**101**
Beryllium	mg/kg	2,300	0.8 U	**4**	**0.69 J**	**0.39 J**	N/A	**0.41 J**	**1.4**	0.87 U	0.96 U	N/A	0.77 B
Cadmium	mg/kg	980	**0.59 J**	**1.3 J**	1.6 B	1.9 B	N/A	**3.1**	1.1 B	0.81 B	**1.8**	N/A	0.54 B
Chromium	mg/kg	120,000	**1,310**	**59.7**	**146**	**122**	N/A	**982 J**	**555 J**	**1,030**	**1,270**	N/A	**145 J**
Chromium VI	mg/kg	6.3	**3.3**	1.2 U	**0.22 J-**	1.1 UJ	N/A	**8.9 J-**	0.23 B	**0.32 J-**	**0.22 J-**	N/A	**0.16 J-**
Cobalt	mg/kg	350	**1.3 J**	**6.2**	**13.1 J**	**16.8 J**	N/A	4 B	1.7 B	**1.6 J**	**2.2 J**	N/A	**15.9**
Copper	mg/kg	47,000	**50.9**	**2,560**	**167 J**	**130 J**	N/A	**92**	**23**	**35.3**	**33.3**	N/A	**73.8 J**
Iron	mg/kg	820,000	**217,000**	**97,100**	**134,000**	**105,000**	N/A	**152,000 J**	**119,000 J**	**210,000**	**219,000**	N/A	**235,000**
Lead	mg/kg	800	2 U	**107**	**91.3**	**247 J**	N/A	**505**	**41.2**	**20 J**	**69.2 J**	N/A	**38.5**
Manganese	mg/kg	26,000	**25,800**	**3,140**	**4,460**	**2,010**	N/A	**24,000**	**15,600**	**25,600**	**32,100**	**10,800**	**4,100**
Mercury	mg/kg	350	0.11 U	**0.092 J**	**0.013 J-**	**0.042 J-**	N/A	**0.092 J**	0.11 U	**0.021 J-**	**0.0054 J-**	N/A	**0.0037 J-**
Nickel	mg/kg	22,000	**23.1**	**31.2**	**51.4 J**	**45.7 J**	N/A	**26.5 J**	**16.7 J**	**19.7**	**14.9**	N/A	**48.2**
Selenium	mg/kg	5,800	3.2 U	**3.3 J**	4.4 U	3.6 U	N/A	3.5 U	3.3 B	3.5 UJ	3.9 UJ	N/A	3.7 UJ
Silver	mg/kg	5,800	**2.1 J**	2.9 U	1.4 B	1.2 B	N/A	**3.3**	1.4 B	**4.8**	2.9 U	N/A	**3.6**
Thallium	mg/kg	12	8 U	9.5 U	11 U	8.9 U	N/A	8.8 U	8.7 U	8.7 UJ	9.6 UJ	N/A	9.2 U
Vanadium	mg/kg	5,800	**637**	**98.5**	**192**	**285**	N/A	**553**	**381**	**634**	**2,220**	N/A	**107 J**
Zinc	mg/kg	350,000	**108**	**377**	**222**	**365**	N/A	**383 J**	**279 J**	**193 J**	**386 J**	N/A	**162**
Other													
Cyanide	mg/kg	150	**0.1 J**	**0.98**	**0.1 J-**	**0.2 J-**	N/A	**1.1**	**0.13 J**	**0.17 J**	**0.45 J**	N/A	**0.21 J**

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Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-165-SB-5	B5-166-SB-1	B5-166-SB-5	B5-166-SB-10	B5-167-SB-1*	B5-167-SB-7*	B5-167-SB-10*	B5-168-SB-1*	B5-168-SB-5*	B5-168-SB-10*	B5-169-SB-1
Metals													
Aluminum	mg/kg	1,100,000	**4,390**	**42,200**	**38,100**	N/A	**9,410**	**30,300**	N/A	**6,980**	**7,480**	N/A	**5,320**
Antimony	mg/kg	470	**10.1 J**	2.8 UJ	3.3 UJ	N/A	**13.5**	2.6 U	N/A	2.7 U	3.2 U	N/A	3 UJ
Arsenic	mg/kg	3	**6.5**	**2.7**	**13.4**	**2 J**	**5.2**	**8.9**	3.1 U	**5.5**	**6**	**7.7**	**9.6**
Barium	mg/kg	220,000	**86.8**	**332**	**1,070**	N/A	**112**	**394**	N/A	**53.7**	**91.3**	N/A	**63.3 J**
Beryllium	mg/kg	2,300	**0.22 J**	**7.7**	**2.1**	N/A	**0.74 J**	**5.4**	N/A	**0.29 J**	1.1 U	N/A	0.69 B
Cadmium	mg/kg	980	1.4 B	0.52 B	**17.7**	N/A	**2**	**1.9**	N/A	**0.8 J**	**0.54 J**	N/A	0.58 B
Chromium	mg/kg	120,000	**50.7 J**	**49 J**	**149 J**	N/A	**117**	**119**	N/A	**578**	**1,370**	N/A	**144**
Chromium VI	mg/kg	6.3	**0.32 J-**	**0.26 J-**	**0.21 J-**	N/A	1.1 U	1.2 U	N/A	1.1 U	**1.9**	N/A	1.1 UJ
Cobalt	mg/kg	350	**4.9**	**0.9 J**	**24.8**	N/A	**5.2**	**13.5**	N/A	**3 J**	**1.1 J**	N/A	**12.1**
Copper	mg/kg	47,000	**147 J**	**8.1 J**	**295 J**	N/A	**59.8**	**45.8**	N/A	**32.4**	**23.1**	N/A	**36.6**
Iron	mg/kg	820,000	**33,700**	**21,700**	**62,400**	N/A	**78,000**	**68,600**	N/A	**198,000**	**211,000**	N/A	**212,000**
Lead	mg/kg	800	**351**	**6**	**3,360**	**17.8**	**493**	**99.5**	N/A	**43.7**	**21.6**	N/A	**21.9 J**
Manganese	mg/kg	26,000	**775**	**4,870**	**1,970**	N/A	**1,940**	**4,700**	N/A	**14,800**	**33,900**	**2,090**	**3,620**
Mercury	mg/kg	350	**0.054 J-**	0.11 R	**0.14 J-**	N/A	**0.42**	**0.025 J**	N/A	**0.23**	0.1 U	N/A	**0.016 J-**
Nickel	mg/kg	22,000	**20**	4.5 B	**151**	N/A	**35.8**	**22.9**	N/A	**22.6**	**10.8**	N/A	**55**
Selenium	mg/kg	5,800	3.3 UJ	3.7 UJ	**8.4**	N/A	**9**	3.4 U	N/A	3.7 U	4.2 U	N/A	4 UJ
Silver	mg/kg	5,800	2.5 U	2.8 U	**5.3**	N/A	**12.9**	2.6 U	N/A	**2.8**	3.2 U	N/A	**3.1**
Thallium	mg/kg	12	8.3 U	9.4 U	11 U	N/A	7.4 U	8.6 U	N/A	9.1 U	10.5 U	N/A	10.1 UJ
Vanadium	mg/kg	5,800	**215 J**	**36.8 J**	**16.6 J**	N/A	**58.9**	**270**	N/A	**329**	**3,660**	N/A	**158**
Zinc	mg/kg	350,000	**296**	**24.2**	**10,100**	N/A	**504**	**380**	N/A	**188**	**63.8**	N/A	**113 J**
Other													
Cyanide	mg/kg	150	**0.11 J**	**0.31 J**	**5.1**	N/A	**1.2**	**1.1**	N/A	**0.096 J**	**0.15 J**	N/A	**0.54 J**

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Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-169-SB-5	B5-170-SB-1*	B5-171-SB-1*	B5-172-SB-1*	B5-172-SB-5*	B5-173-SB-1*	B5-173-SB-5*	B5-174-SB-1*	B5-175-SB-1*	B5-175-SB-5*	B5-176-SB-1
Metals													
Aluminum	mg/kg	1,100,000	**12,300**	**12,800**	**13,200**	**18,400**	**14,100**	**15,500**	**19,200**	**6,040**	**18,200**	**19,400**	**29,900**
Antimony	mg/kg	470	2.7 UJ	2.6 U	2.8 U	2.9 U	2.9 U	2.3 U	**1.3 J**	**2.6**	2.8 U	2.4 U	2.8 UJ
Arsenic	mg/kg	3	**3.4**	**6**	**6**	**6**	**7.8**	**3.4**	**2.1**	**13.2**	**9.9**	**3.1**	**6.9**
Barium	mg/kg	220,000	**143**	**78.9**	**126**	**239**	**50.4**	**139**	**69.1**	**117**	**372**	**80.3**	**226 J**
Beryllium	mg/kg	2,300	**1.2**	**0.9**	**1.3**	**2.5**	**0.68 J**	**0.74 J**	**0.65 J**	**0.66 J**	0.92 U	**0.81 J**	**3**
Cadmium	mg/kg	980	0.93 B	1.2 B	**0.88 J**	**0.89 J**	1.5 U	**0.84 J**	0.17 B	**2.1**	0.48 B	1.2 U	1 B
Chromium	mg/kg	120,000	**588 J**	**784**	**758**	**253**	**17.6**	**102**	**27.8**	**119**	**3,190**	**17.1**	**125 J**
Chromium VI	mg/kg	6.3	1.1 UJ	1.1 U	1.1 U	1.1 U	1.1 U	**0.18 J**	1.2 U	1.1 U	1.2 B	0.58 B	1.1 UJ
Cobalt	mg/kg	350	**8**	**5.2**	**4.6 J**	**8.2**	**4.2 J**	**7.3**	**6.1**	**19.7**	**1.7 J**	**2.9 J**	**10.6**
Copper	mg/kg	47,000	**42.3 J**	**52.6**	**60.8**	**56.2**	**7.2**	**35.4**	**12.8**	**191**	**31.1**	**6.9**	**265**
Iron	mg/kg	820,000	**134,000**	**138,000**	**155,000**	**126,000**	**24,800**	**38,000**	**14,200**	**167,000**	**112,000**	**13,800**	**89,400**
Lead	mg/kg	800	**50.1**	**89.1**	**107**	**66.2**	**11.5**	**55**	**27.6**	**219**	**12**	**12.4**	**91.4**
Manganese	mg/kg	26,000	**12,900**	**16,600**	**17,600**	**8,100**	**56.3**	**1,600**	**174**	**4,740**	**43,800**	**43.8**	**16,100**
Mercury	mg/kg	350	**0.012 J-**	**0.11**	**0.0048 J**	**0.029 J**	0.11 U	**0.032 J**	**0.62**	**0.054 J**	**0.0033 J**	0.11 U	**0.01 J-**
Nickel	mg/kg	22,000	**45.9**	**19.3**	**22.8**	**38.4**	**9.3 J**	**18**	**14.1**	**58.9**	**11.9**	8.2 B	**12.5**
Selenium	mg/kg	5,800	3.6 UJ	3.4 U	3.8 U	3.9 U	3.9 U	3 U	3 U	3.1 U	3.7 U	3.3 U	3.8 U
Silver	mg/kg	5,800	2.7 U	**0.85 J**	**0.91 J**	**0.95 J**	2.9 U	2.3 U	2.2 U	**2 J**	2.8 U	2.4 U	2.7 B
Thallium	mg/kg	12	9.1 U	8.5 U	9.4 U	9.7 U	9.8 U	7.6 U	7.4 U	7.6 U	**20.5**	8.1 U	9.4 UJ
Vanadium	mg/kg	5,800	**951 J**	**473**	**333**	**163**	**35.3**	**67.2**	**31.9**	**207**	**10,500**	**30.2**	**90.4 J**
Zinc	mg/kg	350,000	**259**	**362**	**286**	**346**	**28.9**	**183**	**70.3**	**682**	**25.9**	**23.2**	**462**
Other													
Cyanide	mg/kg	150	**0.12 J**	**2.2**	**1.5**	**0.77**	0.61 U	**0.24 J**	0.62 U	**0.71**	**0.17 J**	0.7 U	**1.2 J+**

Bold indicates detection
N/A: This parameter was not analyzed for this sample
* Indicates nonvalidated
Red values indicate a detection exceedance of the Project Action Limit

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UJ: This analyte was not detected in the sample. The actual quantitation/detection limit may be higher than reported.
J: The positive result reported for this analyte is a quantitative estimate.
J+: The positive result reported for this analyte is a quantitative estimate but may be biased high.
J-: The positive result reported for this analyte is a quantitative estimate but may be biased low.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 6
Summary of Inorganics Detected in Soil
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	PAL	B5-176-SB-5	B5-177-SB-1	B5-177-SB-3.5	B5-178-SB-1	B5-178-SB-5	B5-179-SB-1	B5-179-SB-9	B5-180-SB-1	B5-180-SB-5
Metals											
Aluminum	mg/kg	1,100,000	**27,400**	**8,120**	**10,900**	**13,200**	**16,900**	**15,300**	**8,170**	**13,800**	**19,400**
Antimony	mg/kg	470	3.4 UJ	2.4 UJ	2.9 UJ	2.6 UJ	3 UJ	2.8 UJ	2.3 UJ	2.6 UJ	2.2 UJ
Arsenic	mg/kg	3	**10**	**2 J**	**6.6**	**7.8 J**	**5.5 J**	**5.8**	**9.4**	**3.5**	**12.9**
Barium	mg/kg	220,000	**241 J**	**69.1 J**	**241 J**	**122 J**	**51.5 J**	**67.7**	**69.3 J**	**52.6 J**	**264 J**
Beryllium	mg/kg	2,300	**2.4**	0.79 U	**0.89 J**	**1.3**	**0.47 J**	**0.31 J**	0.75 U	0.85 U	**1.6**
Cadmium	mg/kg	980	1.3 B	**0.55 J**	**3**	**4.2**	1.5 U	0.4 B	0.41 B	0.34 B	**3.1**
Chromium	mg/kg	120,000	**52.5 J**	**1,160 J**	**295 J**	**523**	**23.8**	**1,170 J**	**1,820 J**	**1,290 J**	**361 J**
Chromium VI	mg/kg	6.3	**0.19 J-**	1.1 UJ	**0.3 J-**	1.1 UJ	1.2 UJ	1 UJ	**1.1 J-**	1.1 UJ	1.3 UJ
Cobalt	mg/kg	350	**20.5**	**3.8 J**	**6.4**	**8.2 J**	**4.1 J**	2.9 B	**7**	**1 J**	**16.7**
Copper	mg/kg	47,000	**311**	**48.7**	**183**	**166 J**	**10.6 J**	**44.9 J**	**106**	**31.4**	**122**
Iron	mg/kg	820,000	**133,000**	**261,000**	**89,600**	**134,000**	**23,100**	**174,000 J**	**240,000**	**160,000**	**122,000**
Lead	mg/kg	800	**80.8**	**26.8 J**	**460 J**	**212**	**9.9**	**31.2 J**	**31**	**22.6**	**604**
Manganese	mg/kg	26,000	**37,500**	**29,200**	**7,580**	**11,200**	**130**	**25,000**	**30,400 J**	**26,400 J**	**6,440 J**
Mercury	mg/kg	350	**0.018 J-**	**1.4 J-**	**0.93 J-**	**0.027 J-**	**0.011 J-**	**0.18 J+**	**0.0046 J+**	**0.11 J+**	**0.17 J+**
Nickel	mg/kg	22,000	**16.5**	**34.9**	**39.1**	**29.9 J**	**10.7 J**	**29**	**42.4**	**14.3**	**60.3**
Selenium	mg/kg	5,800	4.5 U	3.2 U	3.9 U	3.4 U	4 U	3.7 U	3 U	3.4 U	2.9 U
Silver	mg/kg	5,800	**6.9**	2.4 U	2.9 U	2.6 U	3 U	2.8 U	2.3 U	**1.9 J**	**2.8**
Thallium	mg/kg	12	11.3 UJ	7.9 U	9.7 U	8.5 U	10.1 U	9.3 U	7.5 U	8.5 U	7.3 U
Vanadium	mg/kg	5,800	**120 J**	**671 J**	**188 J**	**605**	**39.2**	**1,360 J**	**2,850 J**	**905 J**	**199 J**
Zinc	mg/kg	350,000	**596**	**431 J**	**978 J**	**768**	**29.5**	**103 J**	**228 J**	**58.2 J**	**1,070 J**
Other											
Cyanide	mg/kg	150	**4.4 J+**	**3.5**	**1.3**	**0.091 J-**	0.7 UJ	**1 J+**	**0.11 J**	**0.18 J+**	**1.1 J+**

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U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit.
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J-: The positive result reported for this analyte is a quantitative estimate but may be biased low.
B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.
R: The result for this analyte is unreliable. Additional data is needed to confirm or disprove the presence of this compound/analyte in the sample.

Table 7 SUMMARY OF SOIL PAL EXCEEDANCES						
Parameter	**CAS #**	**Frequency of Detections (%)**	**Sample ID of Max Result**	**Unit**	**PAL Solid**	**Max Result**
Antimony	7440-36-0	6	B5-068-SB-1	mg/kg	470	1,680
Aroclor 1254	11097-69-1	15	B5-101-SB-1	mg/kg	0.97	54.2
Aroclor 1260	11096-82-5	20	B5-155-SB-1	mg/kg	0.99	43.3
Arsenic	7440-38-2	82	B5-133-SB-1	mg/kg	3	33.8
Benz[a]anthracene	56-55-3	90	B5-161-SB-4	mg/kg	21	290
Benzo[a]pyrene	50-32-8	92	B5-161-SB-4	mg/kg	2.1	215
Benzo[b]fluoranthene	205-99-2	94	B5-161-SB-1	mg/kg	21	521
Benzo[k]fluoranthene	207-08-9	93	B5-161-SB-1	mg/kg	210	270
Chromium VI	18540-29-9	44	B5-162-SB-1	mg/kg	6.3	8.9
Cyanide	57-12-5	84	B5-038-SB-5	mg/kg	150	296
Dibenz[a,h]anthracene	53-70-3	75	B5-161-SB-4	mg/kg	2.1	44.6
Diesel Range Organics	DRO	92	B5-161-SB-4	mg/kg	6,200	17,900
Indeno[1,2,3-c,d]pyrene	193-39-5	87	B5-161-SB-4	mg/kg	21	122
Lead	7439-92-1	94	B5-015-SB-1	mg/kg	800	4,910
Manganese	7439-96-5	100	B5-123-SB-8	mg/kg	26,000	91,800
Naphthalene	91-20-3	74	B5-010-SB-7	mg/kg	17	72.9
PCBs (total)	1336-36-3	23	B5-101-SB-1	mg/kg	0.97	54.2
Thallium	7440-28-0	1	B5-175-SB-1	mg/kg	12	20.5
Vanadium	7440-62-2	100	B5-045-SB-5	mg/kg	5,800	11,600

Table 8
Soil PAL Exceedances for Specific Targets

Target Feature	Boring ID	Sample Depth	Parameter	PAL (mg/kg)	Result (mg/kg)	Final Flag
Dispersant Tank/ Acid Storage Tank	B5-001-SB	1	Arsenic	3	3.6	
	B5-002-SB	1	Arsenic	3	4.5	
Drip Legs (20)	B5-003-SB	1	Arsenic	3	11	
		5	Arsenic	3	9.2	
	B5-004-SB	1	Arsenic	3	3.4	
	B5-005-SB	1	Arsenic	3	19.6	J
		4.5	Arsenic	3	4.6	J
		4.5	Manganese	26,000	38,900	
	B5-006-SB	5	Arsenic	3	4.2	J
		5	Manganese	26,000	49,200	
	B5-007-SB	1	Arsenic	3	3.1	
	B5-009-SB	1	Arsenic	3	7.2	
		5	Arsenic	3	3.7	
	B5-010-SB	1	Arsenic	3	26.7	
		1	Benz[a]anthracene	21	38.1	
		1	Benzo[a]pyrene	2.1	31.4	
		1	Benzo[b]fluoranthene	21	52.6	
		1	Dibenz[a,h]anthracene	2.1	26.8	
		1	Lead	800	822	
		7	Arsenic	3	3.4	
		7	Naphthalene	17	72.9	
		10	Arsenic	3	5	
	B5-011-SB	1	Arsenic	3	4.8	
		5	Arsenic	3	4	
	B5-012-SB	1	Arsenic	3	5.3	
		1	Manganese	26,000	34,500	
		1	Thallium	12	12.9	J
		5	Arsenic	3	6.9	
		5	Thallium	12	14.4	J
	B5-013-SB	1	Arsenic	3	3.4	
	B5-014-SB	1	Arsenic	3	7.8	
	B5-015-SB	1	Arsenic	3	8.6	
		1	Lead	800	4,910	
		5	Arsenic	3	4	
		10	Arsenic	3	5.6	
	B5-016-SB	1	Arsenic	3	7.2	
	B5-017-SB	1	Arsenic	3	10.5	
	B5-018-SB	1	Arsenic	3	4.4	
	B5-019-SB	1	Arsenic	3	5.1	
	B5-020-SB	3.5	Arsenic	3	3	
	B5-021-SB	1	Benzo[a]pyrene	2.1	2.4	
		5	Arsenic	3	5.8	
	B5-022-SB	5	Arsenic	3	8.6	
	B5-023-SB	1	Arsenic	3	3	
		5	Arsenic	3	5.6	
	B5-024-SB	1	Arsenic	3	4.5	
	B5-025-SB	1	Arsenic	3	4.8	
	B5-026-SB	1	Arsenic	3	7	
	B5-027-SB	1	Arsenic	3	9.4	
		5	Arsenic	3	8.9	
	B5-028-SB	1	Arsenic	3	5	
		1	Chromium VI	6.3	6.7	J-
		1	Manganese	26,000	34,800	
		4.5	Arsenic	3	10.2	

Table 8 Soil PAL Exceedances for Specific Targets						
Target Feature	**Boring ID**	**Sample Depth**	**Parameter**	**PAL (mg/kg)**	**Result (mg/kg)**	**Final Flag**
Drip Legs (20)	B5-030-SB	4	Arsenic	3	3.9	
	B5-031-SB	1	Arsenic	3	17.5	
	B5-032-SB	1	Arsenic	3	11.7	
		5	Arsenic	3	4.4	
	B5-033-SB	1	Naphthalene	17	41.2	
		8	Arsenic	3	4	
		10	Arsenic	3	3.4	
	B5-037-SB	5	Manganese	26,000	35,300	
	B5-038-SB	5	Cyanide	150	296	
	B5-039-SB	1	Arsenic	3	3.9	
		5	Arsenic	3	4.7	
	B5-040-SB	1	Manganese	26,000	27,700	
		5	Arsenic	3	4.7	
Former ERS Oily Wastewater Tank (3)	B5-043-SB	5	Arsenic	3	4.2	
	B5-044-SB	1	Arsenic	3	10.2	
	B5-045-SB	5	Arsenic	3	6.7	
		5	Manganese	26,000	44,400	
		5	Vanadium	5,800	11,600	
Fuel/Oil Loading and Unloading Stations (2)	B5-046-SB	1	Arsenic	3	4.5	
		5	Arsenic	3	4.3	
	B5-047-SB	1	Arsenic	3	3.4	
		1	Manganese	26,000	26,200	
		4	Arsenic	3	5.4	
	B5-053-SB	1	Arsenic	3	9.3	
		9	Arsenic	3	10.9	
		10	Arsenic	3	6.4	
Fuel Oil Tank (3)	B5-049-SB	1	Arsenic	3	4.9	
	B5-050-SB	1	Arsenic	3	3.9	
		5	Arsenic	3	3.1	
	B5-051-SB	5	Arsenic	3	5.6	
	B5-066-SB	1	Arsenic	3	3.7	
		1	Benzo[a]pyrene	2.1	9.6	
	B5-067-SB	1	Arsenic	3	12.2	
Fuel Shop	B5-054-SB	1	Arsenic	3	4.2	
		4	Arsenic	3	6.2	
Fuel Storage Area	B5-057-SB	6	Arsenic	3	6.6	
Iron and Brass Foundry	B5-058-SB	1	Arsenic	3	6	
		5	Arsenic	3	3.6	
	B5-059-SB	1	Arsenic	3	4	
Iron Bleaching Pit	B5-060-SB	5	Arsenic	3	21.8	J
		5	Benzo[a]pyrene	2.1	15.6	
		5	Benzo[b]fluoranthene	21	23.6	
		5	Dibenz[a,h]anthracene	2.1	2.2	
		5	Lead	800	2,320	
Oil House (2)	B5-062-SB	1	Arsenic	3	7.5	
	B5-063-SB	1	Arsenic	3	4	
		4	Arsenic	3	6.3	
	B5-064-SB	1	Arsenic	3	9.7	
		7	Arsenic	3	5.4	
	B5-065-SB	1	Arsenic	3	9.1	
		6	Arsenic	3	3.6	

Table 8 Soil PAL Exceedances for Specific Targets						
Target Feature	**Boring ID**	**Sample Depth**	**Parameter**	**PAL (mg/kg)**	**Result (mg/kg)**	**Final Flag**
Paint Shop (2)	B5-068-SB	1	Antimony	470	1,680	
		1	Arsenic	3	25.8	
		1	Benzo[a]pyrene	2.1	5.6	
		1	Lead	800	1,400	
	B5-069-SB	1	Arsenic	3	14.4	
		4	Arsenic	3	28	
	B5-070-SB	1	Arsenic	3	10	
	B5-071-SB	1	Arsenic	3	6.6	
PCB-Contaminated Oil Spill	B5-072-SB	1	Arsenic	3	7.7	
		1	Benzo[a]pyrene	2.1	8.5	
		6	Arsenic	3	7.5	
		10	Arsenic	3	8.1	
	B5-073-SB	1	Arsenic	3	21.1	
		1	PCBs (total)	0.97	0.97	J
		5	Arsenic	3	3.3	
		10	Arsenic	3	4.5	
"Trans" Pit (2)	B5-074-SB	1	Arsenic	3	5.4	
		5	Manganese	26,000	26,600	
	B5-075-SB	1	Chromium VI	6.3	8.1	
		1	Manganese	26,000	29,400	
		5	Manganese	26,000	27,800	
	B5-076-SB	1	Aroclor 1260	0.99	11.3	
		1	Arsenic	3	6.5	
		1	PCBs (total)	0.97	11.3	J
	B5-077-SB	1	Aroclor 1260	0.99	13.6	
		1	Arsenic	3	12.9	
		1	Benzo[a]pyrene	2.1	4.8	
		1	PCBs (total)	0.97	13.6	
		5	Manganese	26,000	30,500	
Residential Town Tank (2)	B5-078-SB	1	Arsenic	3	3.4	
		4	Arsenic	3	28.4	
	B5-079-SB	1	Arsenic	3	3.8	
		4	Arsenic	3	24.5	
	B5-080-SB	1	Arsenic	3	18.7	
		1	Benz[a]anthracene	21	36.1	
		1	Benzo[a]pyrene	2.1	33.7	
		1	Benzo[b]fluoranthene	21	40.1	
		1	Dibenz[a,h]anthracene	2.1	6.6	
		1	Naphthalene	17	21.3	
		5	Arsenic	3	21.6	
		5	Lead	800	816	
	B5-081-SB	5	Arsenic	3	6.3	
	B5-082-SB	5	Arsenic	3	3.8	
	B5-083-SB	1	Arsenic	3	6.4	
		5	Arsenic	3	6.3	
Slag/Pit Piles (4)	B5-085-SB	1	Arsenic	3	12.8	
	B5-086-SB	1	Arsenic	3	3.6	
	B5-088-SB	1	Arsenic	3	3.1	
	B5-090-SB	1	Arsenic	3	6.4	
		4.75	Arsenic	3	3.1	
	B5-091-SB	1	Arsenic	3	4	
		7	Arsenic	3	4.3	

Table 8
Soil PAL Exceedances for Specific Targets

Target Feature	Boring ID	Sample Depth	Parameter	PAL (mg/kg)	Result (mg/kg)	Final Flag
Settling Tank	B5-092-SB	1	Benzo[a]pyrene	2.1	3.7	
Tank- Unknown Contents (4)	B5-094-SB	1	Arsenic	3	6.5	
		5	Arsenic	3	3.4	
		10	Arsenic	3	6.2	J
	B5-095-SB	1	Manganese	26,000	28,100	
	B5-096-SB	1	Arsenic	3	5.3	
		5	Arsenic	3	13.4	
	B5-097-SB	1	Arsenic	3	11.2	
		4	Arsenic	3	7	
	B5-098-SB	1	Arsenic	3	14	J
		4	Arsenic	3	12.3	J
		4	Benzo[a]pyrene	2.1	9.4	
		4	Dibenz[a,h]anthracene	2.1	2.3	
	B5-099-SB	1	Arsenic	3	11.7	J
		4.5	Arsenic	3	15	J
		4.5	Benzo[a]pyrene	2.1	3.6	J
		4.5	Diesel Range Organics	6,200	7,780	
		4.5	Lead	800	873	
	B5-100-SB	1	Arsenic	3	7.4	J
		1	Benzo[a]pyrene	2.1	6.8	
		5	Arsenic	3	22.6	J
	B5-101-SB	1	Aroclor 1254	0.97	54.2	
		1	Arsenic	3	27.2	
		1	Lead	800	913	
		1	PCBs (total)	0.97	54.2	J
		5	Arsenic	3	4.3	
Tar Storage Area	B5-102-SB	1	Arsenic	3	6.4	J
		1	Benzo[a]pyrene	2.1	9.3	
	B5-103-SB	1	Arsenic	3	6.7	J
		1	Benzo[a]pyrene	2.1	9.2	
		4.5	Arsenic	3	28.4	J
Thickener Tank (10)	B5-104-SB	1	Arsenic	3	15.9	
		1	Manganese	26,000	29,200	
		5	Arsenic	3	9	
	B5-105-SB	1	Arsenic	3	32.8	
	B5-107-SB	1	Arsenic	3	4.5	
	B5-108-SB	1	Arsenic	3	6.6	
		5	Arsenic	3	4.3	
	B5-109-SB	1	Arsenic	3	3.8	
	B5-110-SB	1	Arsenic	3	4.1	
		4	Arsenic	3	24.7	
		4	Lead	800	1,100	
	B5-111-SB	1	Arsenic	3	6.1	
		1	Manganese	26,000	39,200	
	B5-113-SB	1	Arsenic	3	4.6	
	B5-114-SB	1	Arsenic	3	3.5	
		1	Manganese	26,000	29,400	
	B5-115-SB	1	Arsenic	3	3.1	
		1	Manganese	26,000	26,800	
	B5-116-SB	1	Arsenic	3	9.8	
		4	Arsenic	3	6.8	

Table 8 Soil PAL Exceedances for Specific Targets						
Target Feature	**Boring ID**	**Sample Depth**	**Parameter**	**PAL (mg/kg)**	**Result (mg/kg)**	**Final Flag**
Thickener Tank (10)	B5-117-SB	1	Arsenic	3	4.8	
		1	Manganese	26,000	27,700	
	B5-118-SB	1	Arsenic	3	4.4	
	B5-119-SB	5	Arsenic	3	4.6	
	B5-120-SB	1	Arsenic	3	5.2	
	B5-121-SB	5	Arsenic	3	3.1	
	B5-122-SB	1	Arsenic	3	7	
		9	Arsenic	3	17.8	
	B5-123-SB	1	Arsenic	3	5.9	
		1	Manganese	26,000	26,200	
		8	Arsenic	3	6	
		8	Manganese	26,000	91,800	
		10	Arsenic	3	4	
Wastewater Treatment	B5-125-SB	1	Arsenic	3	3.5	
		8	Arsenic	3	23.2	
Pennwood Canal Sediment Samples	B5-126-SD	1	Arsenic	3	7.2	
	B5-127-SD	1	Arsenic	3	21.2	
	B5-128-SD	1	Arsenic	3	18.4	
	B5-129-SD	1	Arsenic	3	19.7	
	B5-130-SD	1	Arsenic	3	16.5	
	B5-131-SD	1	Arsenic	3	18.9	
Sinter Area	B5-142-SB	1	Arsenic	3	4.6	
		5	Arsenic	3	4	
	B5-164-SB	5	Manganese	26,000	32,100	
	B5-165-SB	1	Arsenic	3	15.8	
		5	Arsenic	3	6.5	
		5	Benzo[a]pyrene	2.1	7	
	B5-166-SB	5	Arsenic	3	13.4	
		5	Lead	800	3,360	
	B5-167-SB	1	Arsenic	3	5.2	
		7	Arsenic	3	8.9	
	B5-168-SB	1	Arsenic	3	5.5	
		5	Arsenic	3	6	
		5	Manganese	26,000	33,900	
		10	Arsenic	3	7.7	
	B5-169-SB	1	Arsenic	3	9.6	
		5	Arsenic	3	3.4	
Open Hearth Furnace Area	B5-151-SB	5	Arsenic	3	7.4	
		10	Arsenic	3	4.8	
	B5-152-SB	1	Arsenic	3	5	
	B5-153-SB	1	Arsenic	3	15.2	
	B5-154-SB	1	Aroclor 1260	0.99	15.4	
		1	Arsenic	3	15.1	
		1	PCBs (total)	0.97	15.4	
		4	Arsenic	3	20.1	
	B5-155-SB	1	Aroclor 1260	0.99	43.3	
		1	Arsenic	3	13.6	
		1	PCBs (total)	0.97	43.3	J
		5	Arsenic	3	6	
		10	Arsenic	3	5.4	

Table 8 Soil PAL Exceedances for Specific Targets						
Target Feature	**Boring ID**	**Sample Depth**	**Parameter**	**PAL (mg/kg)**	**Result (mg/kg)**	**Final Flag**
Open Hearth Furnace Area	B5-156-SB	1	Aroclor 1260	0.99	3	
		1	Arsenic	3	11.1	
		1	PCBs (total)	0.97	3	
		6	Arsenic	3	5.2	
		10	Arsenic	3	3.5	
	B5-157-SB	1	Arsenic	3	16.2	
		5	Arsenic	3	6.6	
	B5-158-SB	1	Arsenic	3	5.3	
		1	Lead	800	1,040	
		5	Arsenic	3	8	
		5	Lead	800	3,180	
No. 4 Mould Yard and Stripper	B5-159-SB	1	Aroclor 1260	0.99	36.1	
		1	Arsenic	3	12.4	
		1	Lead	800	1720	
		1	PCBs (total)	0.97	36.1	J
		5	Manganese	26,000	31,800	
Old H Furnace Area	B5-160-SB	1	Arsenic	3	3	
		4	Arsenic	3	5.5	
		4	Benzo[a]pyrene	2.1	18.5	
		4	Benzo[b]fluoranthene	21	25.8	
		4	Dibenz[a,h]anthracene	2.1	3.5	
No. 3 Mould Yard	B5-161-SB	1	Arsenic	3	13.8	J
		1	Benz[a]anthracene	21	279	
		1	Benzo[a]pyrene	2.1	158	
		1	Benzo[b]fluoranthene	21	521	
		1	Benzo[k]fluoranthene	210	270	
		1	Dibenz[a,h]anthracene	2.1	25.2	
		1	Indeno[1,2,3-c,d]pyrene	21	75.3	
		4	Arsenic	3	14.5	J
		4	Benz[a]anthracene	21	290	
		4	Benzo[a]pyrene	2.1	215	
		4	Benzo[b]fluoranthene	21	307	
		4	Dibenz[a,h]anthracene	2.1	44.6	
		4	Diesel Range Organics	6,200	17,900	
		4	Indeno[1,2,3-c,d]pyrene	21	122	
		4	Naphthalene	17	54.4	
		10	Arsenic	3	4.2	
Storage Area	B5-162-SB	1	Aroclor 1254	0.97	1	
		1	Chromium VI	6.3	8.9	J-
		1	PCBs (total)	0.97	1.7	
Railroad Tracks	B5-170-SB	1	Arsenic	3	6	
	B5-171-SB	1	Arsenic	3	6	
	B5-172-SB	1	Arsenic	3	6	
		5	Arsenic	3	7.8	
	B5-173-SB	1	Arsenic	3	3.4	
	B5-174-SB	1	Aroclor 1260	0.99	2.1	
		1	Arsenic	3	13.2	
		1	PCBs (total)	0.97	2.1	J
	B5-175-SB	1	Arsenic	3	9.9	
		1	Manganese	26,000	43,800	
		1	Thallium	12	20.5	
		1	Vanadium	5,800	10,500	
		5	Arsenic	3	3.1	

Table 8 Soil PAL Exceedances for Specific Targets						
Target Feature	**Boring ID**	**Sample Depth**	**Parameter**	**PAL (mg/kg)**	**Result (mg/kg)**	**Final Flag**
Tar/ Underground Conduit/ Transformer	B5-176-SB	1	Arsenic	3	6.9	
		5	Arsenic	3	10	
		5	Manganese	26,000	37,500	
Various Industrial Buildings (proximal boring)	B5-177-SB	1	Manganese	26,000	29,200	
		3.5	Arsenic	3	6.6	
		3.5	Benzo[a]pyrene	2.1	10.4	
		3.5	Benzo[b]fluoranthene	21	21.5	
		3.5	Dibenz[a,h]anthracene	2.1	2.4	
Tar Storage Area	B5-178-SB	1	Arsenic	3	7.8	J
		1	Benz[a]anthracene	21	29.9	
		1	Benzo[a]pyrene	2.1	27.4	
		1	Benzo[b]fluoranthene	21	40.8	
		1	Dibenz[a,h]anthracene	2.1	5.3	
		5	Arsenic	3	5.5	J
Ladle Repair Shop	B5-179-SB	1	Arsenic	3	5.8	
		9	Arsenic	3	9.4	
		9	Manganese	26,000	30,400	J
	B5-180-SB	1	Arsenic	3	3.5	
		1	Manganese	26,000	26,400	J
		5	Arsenic	3	12.9	

J = The positive result reported for this analyte is a quantitative estimate.
J- = The positive result reported for this analyte is a quantitative estimate, but may be biased high.

Table 9
Summary of Organics Detected in Sediment
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	Soil PALs	BTAG Marine Sediments	B5-126-SD*	B5-127-SD*	B5-128-SD*	B5-129-SD*	B5-130-SD*	B5-131-SD*
Volatile Organic Compounds									
2-Butanone (MEK)	mg/kg	190,000		**0.044**	**0.17**	**0.11**	**0.042 J**	**0.063 J**	**0.063**
Acetone	mg/kg	670,000		**0.18**	**0.65**	**0.52**	**0.22**	**0.28**	**0.25**
Semi-Volatile Organic Compounds									
2-Methylnaphthalene	mg/kg	3,000	0.0202	**0.014 J**	**0.026 J**	**0.044**	**0.019 J**	**0.15**	**0.2**
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000		**0.36**	0.85 U	0.66 U	0.68 U	**0.24 J**	0.61 U
Acenaphthene	mg/kg	45,000	0.00671	**0.0031 J**	0.043 U	**0.011 J**	**0.0048 J**	**0.043**	**0.038**
Acenaphthylene	mg/kg	45,000	0.00587	**0.0016 J**	0.043 U	**0.015 J**	**0.0072 J**	**0.024 J**	**0.029 J**
Anthracene	mg/kg	230,000	0.0469	**0.0074 J**	**0.012 J**	**0.048**	**0.014 J**	**0.12**	**0.098**
Benzaldehyde	mg/kg	120,000		0.17 U	0.43 U	0.33 U	0.34 U	**0.081 J**	**0.1 J**
Benz[a]anthracene	mg/kg	21.0	0.0748	**0.021**	**0.019 J**	**0.1**	**0.027 J**	**0.18**	**0.093**
Benzo[a]pyrene	mg/kg	2.10	0.0888	**0.014 J**	**0.0089 J**	**0.1**	**0.024 J**	**0.18**	**0.084**
Benzo[b]fluoranthene	mg/kg	21.0	0.0272	**0.03**	**0.028 J**	**0.18**	**0.048**	**0.38**	**0.19**
Benzo[g,h,i]perylene	mg/kg			**0.0081 J**	**0.0083 J**	**0.054**	**0.018 J**	**0.091**	**0.062**
Benzo[k]fluoranthene	mg/kg	210		**0.026**	**0.025 J**	**0.16**	**0.042**	**0.33**	**0.17**
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.182	**0.12 J**	**0.11 J**	0.33 U	0.34 U	0.3 U	0.31 U
Chrysene	mg/kg	2,100	0.108	**0.017**	**0.012 J**	**0.1**	**0.018 J**	**0.23**	**0.12**
Dibenz[a,h]anthracene	mg/kg	2.10	0.00622	0.017 U	0.043 U	**0.011 J**	**0.0057 J**	**0.025 J**	**0.011 J**
Fluoranthene	mg/kg	30,000	0.113	**0.04**	**0.029 J**	**0.29**	**0.049**	**0.4**	**0.32**
Fluorene	mg/kg	30,000	0.0212	**0.0062 J**	**0.0065 J**	**0.024 J**	**0.011 J**	**0.07**	**0.07**
Indeno[1,2,3-c,d]pyrene	mg/kg	21.0	0.017	**0.006 J**	**0.0061 J**	**0.043**	**0.015 J**	**0.088**	**0.042**
Naphthalene	mg/kg	17.0	0.0346	**0.022**	**0.05**	**0.079**	**0.059**	**0.3**	**0.47**
Phenanthrene	mg/kg		0.0867	**0.038**	**0.033 J**	**0.22**	**0.039**	**0.27**	**0.26**
Phenol	mg/kg	250,000		**0.049 J**	0.43 U	0.33 U	0.34 U	0.3 U	0.31 U
Pyrene	mg/kg	23,000	0.153	**0.036**	**0.027 J**	**0.25**	**0.043**	**0.35**	**0.26**
PCBs									
Aroclor 1254	mg/kg	0.97	0.0633	**0.245**	**0.26 J**	**0.324**	0.271 U	0.218 U	0.231 U
Aroclor 1260	mg/kg	0.99		**0.173**	**0.231 J**	**0.202 J**	**0.2 J**	0.218 U	0.231 U
PCBs (total)	mg/kg	0.97	0.04	**0.418**	**0.491**	**0.526**	**0.2 J**	0.218 U	0.231 U
TPH									
Diesel Range Organics	mg/kg	6,200		**71.3**	**77.2**	**150**	**53.3**	**134**	**120**

Bold indicates detection
U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit
J: The positive result reported for this analyte is a quantitative estimate
*Indicates nonvalidated
Highlighted values indicate a detection exceedance of the Project Action Limit (PAL)
Values in red indicate a detection exceedance of the Biological Technical Assistance Group (BTAG) Marine Sediment Screening Benchmark values

Table 10
Summary of Inorganics Detected in Sediment
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Parameter	Units	Soil PALs	BTAG Marine Sediments	B5-126-SD*	B5-127-SD*	B5-128-SD*	B5-129-SD*	B5-130-SD*	B5-131-SD*
Metals									
Aluminum	mg/kg	1,100,000		**8,450**	**20,300**	**26,100**	**18,900**	**21,200**	**24,700**
Arsenic	mg/kg	3	7.24	**7.2**	**21.2**	**18.4**	**19.7**	**16.5**	**18.9**
Barium	mg/kg	220,000		**141**	**128**	**208**	**84.2**	**85.6**	**82.4**
Beryllium	mg/kg	2,300		**0.86 J**	**1.9 J**	**3.1 J**	**1.5 J**	**1.8 J**	**2.1 J**
Cadmium	mg/kg	980	0.68	**3.3 J**	**3.4 J**	**3 J**	**1.9 J**	**1.7 J**	**1.7 J**
Chromium	mg/kg	120,000	52.3	**191**	**240**	**210**	**140**	**182**	**144**
Chromium VI	mg/kg	6.3		**0.93 J**	**3.9 J**	**2.6 J**	**1.6 J**	**1.5 J**	**2.7 J**
Cobalt	mg/kg	350		**13.5**	**26.1 J**	**21.6**	**23.7 J**	**27.2**	**35.7**
Copper	mg/kg	47,000	18.7	**140**	**191**	**186**	**117**	**145**	**111**
Iron	mg/kg	820,000		**96,100**	**103,000**	**72,600**	**58,300**	**78,000**	**66,400**
Lead	mg/kg	800	30.2	**199**	**256**	**260**	**207**	**275**	**252**
Manganese	mg/kg	26,000		**2,700**	**2,120**	**1,970**	**1,570**	**1,220**	**2,540**
Mercury	mg/kg	350	0.13	**1**	**0.75**	**1**	**0.42 J**	**0.64**	**0.42 J**
Nickel	mg/kg	22,000	15.9	**40.4**	**65.6**	**46.8**	**49.2**	**56.2**	**65.6**
Silver	mg/kg	5,800	0.73	**5.5 J**	**5.9 J**	**5.7 J**	14.4 U	**3.5 J**	13.3 U
Vanadium	mg/kg	5,800		**82.6**	**100**	**81.9**	**70.2**	**95.7**	**83.5**
Zinc	mg/kg	350,000	124	**1,560**	**1,170**	**1,270**	**835**	**1,200**	**1,060**
Other									
Cyanide	mg/kg	150		**1.3**	**0.5 J**	**0.86 J**	**0.19 J**	**0.42 J**	2.7 U

Bold indicates detection
U: This analyte was not detected in the sample. The numeric value represents the sample quantitation/detection limit
J: The positive result reported for this analyte is a quantitative estimate
*Indicates nonvalidated
Highlighted values indicate a detection exceedance of the Project Action Limit (PAL)
Values in red indicate a detection exceedance of the Biological Technical Assistance Group (BTAG) Marine Sediment Screening Benchmark values

EnviroAnalytics Group

Parcel B5 - Table 11

Rejected Results for Soil

Parameter	Result	Units	PAL	Exceeds PAL?	Flag
Sample: *B5-003-SB-1*					
Methyl Acetate	0.049	mg/kg	1,200,000	no	R
Sample: *B5-003-SB-5*					
Methyl Acetate	0.047	mg/kg	1,200,000	no	R
Sample: *B5-004-SB-1*					
Methyl Acetate	0.073	mg/kg	1,200,000	no	R
Sample: *B5-005-SB-1*					
1,4-Dioxane	0.14	mg/kg	24	no	R
Sample: *B5-005-SB-4.5*					
1,4-Dioxane	0.14	mg/kg	24	no	R
Sample: *B5-006-SB-1*					
1,4-Dioxane	0.1	mg/kg	24	no	R
Sample: *B5-006-SB-5*					
1,4-Dioxane	0.15	mg/kg	24	no	R
Sample: *B5-011-SB-1*					
1,4-Dioxane	0.14	mg/kg	24	no	R
Sample: *B5-011-SB-5*					
1,4-Dioxane	0.1	mg/kg	24	no	R
Sample: *B5-012-SB-1*					
1,4-Dioxane	0.11	mg/kg	24	no	R

Parameter	Result	Units	PAL	Exceeds PAL?	Flag
Sample: ***B5-012-SB-5***					
1,4-Dioxane	0.1	mg/kg	24	no	R
Sample: ***B5-013-SB-1***					
1,4-Dioxane	0.12	mg/kg	24	no	R
Sample: ***B5-013-SB-4.5***					
1,4-Dioxane	0.15	mg/kg	24	no	R
Sample: ***B5-014-SB-1***					
1,4-Dioxane	0.13	mg/kg	24	no	R
Sample: ***B5-014-SB-4***					
1,4-Dioxane	0.13	mg/kg	24	no	R
Sample: ***B5-015-SB-1***					
Acetone	0.0094	mg/kg	670,000	no	R
Sample: ***B5-015-SB-5***					
Acetone	0.0094	mg/kg	670,000	no	R
Sample: ***B5-024-SB-1***					
1,4-Dioxane	0.12	mg/kg	24	no	R
Methyl Acetate	0.061	mg/kg	1,200,000	no	R
Sample: ***B5-025-SB-1***					
1,4-Dioxane	0.098	mg/kg	24	no	R
Methyl Acetate	0.049	mg/kg	1,200,000	no	R
Sample: ***B5-025-SB-5***					
1,4-Dioxane	0.096	mg/kg	24	no	R
Methyl Acetate	0.048	mg/kg	1,200,000	no	R
Sample: ***B5-026-SB-1***					
1,4-Dioxane	0.11	mg/kg	24	no	R

Parameter	Result	Units	PAL	Exceeds PAL?	Flag
Sample: ***B5-026-SB-1***					
Methyl Acetate	0.057	mg/kg	1,200,000	no	R
Sample: ***B5-027-SB-1***					
1,4-Dioxane	0.1	mg/kg	24	no	R
Methyl Acetate	0.051	mg/kg	1,200,000	no	R
Sample: ***B5-027-SB-5***					
1,4-Dioxane	0.11	mg/kg	24	no	R
Mercury	0.12	mg/kg	350	no	R
Methyl Acetate	0.053	mg/kg	1,200,000	no	R
Sample: ***B5-028-SB-1***					
1,4-Dioxane	0.12	mg/kg	24	no	R
Mercury	0.11	mg/kg	350	no	R
Methyl Acetate	0.059	mg/kg	1,200,000	no	R
Sample: ***B5-028-SB-4.5***					
1,4-Dioxane	0.12	mg/kg	24	no	R
Methyl Acetate	0.06	mg/kg	1,200,000	no	R
Sample: ***B5-029-SB-1***					
1,4-Dioxane	0.11	mg/kg	24	no	R
Methyl Acetate	0.055	mg/kg	1,200,000	no	R
Sample: ***B5-029-SB-5***					
1,4-Dioxane	0.097	mg/kg	24	no	R
Methyl Acetate	0.048	mg/kg	1,200,000	no	R
Sample: ***B5-030-SB-1***					
1,4-Dioxane	0.11	mg/kg	24	no	R
Methyl Acetate	0.057	mg/kg	1,200,000	no	R
Sample: ***B5-030-SB-4***					
1,4-Dioxane	0.15	mg/kg	24	no	R

Parameter	Result	Units	PAL	Exceeds PAL?	Flag
Sample: ***B5-030-SB-4***					
Mercury	0.12	mg/kg	350	no	R
Methyl Acetate	0.074	mg/kg	1,200,000	no	R
Sample: ***B5-039-SB-1***					
1,4-Dioxane	0.091	mg/kg	24	no	R
Sample: ***B5-039-SB-5***					
1,4-Dioxane	0.098	mg/kg	24	no	R
Sample: ***B5-040-SB-1***					
1,4-Dioxane	0.086	mg/kg	24	no	R
Sample: ***B5-040-SB-5***					
1,4-Dioxane	0.12	mg/kg	24	no	R
Sample: ***B5-041-SB-1***					
1,4-Dioxane	0.13	mg/kg	24	no	R
3,3'-Dichlorobenzidine	0.18	mg/kg	5.1	no	R
Bromomethane	0.0067	mg/kg	30	no	R
Methyl Acetate	0.067	mg/kg	1,200,000	no	R
N-Nitroso-di-n-propylamine	0.073	mg/kg	0.33	no	R
Pentachlorophenol	0.18	mg/kg	4	no	R
Sample: ***B5-042-SB-1***					
1,4-Dioxane	0.11	mg/kg	24	no	R
3,3'-Dichlorobenzidine	0.19	mg/kg	5.1	no	R
Bromomethane	0.0056	mg/kg	30	no	R
Methyl Acetate	0.056	mg/kg	1,200,000	no	R
N-Nitroso-di-n-propylamine	0.074	mg/kg	0.33	no	R
Pentachlorophenol	0.19	mg/kg	4	no	R
Sample: ***B5-043-SB-1***					
1,4-Dioxane	0.092	mg/kg	24	no	R
3,3'-Dichlorobenzidine	0.19	mg/kg	5.1	no	R

Rejected Results for Soil

Parameter	Result	Units	PAL	Exceeds PAL?	Flag
Sample:	***B5-043-SB-1***				
Bromomethane	0.0046	mg/kg	30	no	R
Methyl Acetate	0.046	mg/kg	1,200,000	no	R
N-Nitroso-di-n-propylamine	0.075	mg/kg	0.33	no	R
Pentachlorophenol	0.19	mg/kg	4	no	R
Sample:	***B5-043-SB-5***				
1,4-Dioxane	0.082	mg/kg	24	no	R
3,3'-Dichlorobenzidine	0.2	mg/kg	5.1	no	R
Bromomethane	0.0041	mg/kg	30	no	R
Methyl Acetate	0.041	mg/kg	1,200,000	no	R
N-Nitroso-di-n-propylamine	0.081	mg/kg	0.33	no	R
Pentachlorophenol	0.2	mg/kg	4	no	R
Sample:	***B5-044-SB-1***				
1,4-Dioxane	0.12	mg/kg	24	no	R
3,3'-Dichlorobenzidine	0.19	mg/kg	5.1	no	R
Bromomethane	0.006	mg/kg	30	no	R
Methyl Acetate	0.06	mg/kg	1,200,000	no	R
N-Nitroso-di-n-propylamine	0.075	mg/kg	0.33	no	R
Pentachlorophenol	0.19	mg/kg	4	no	R
Sample:	***B5-044-SB-5***				
1,4-Dioxane	0.1	mg/kg	24	no	R
3,3'-Dichlorobenzidine	0.19	mg/kg	5.1	no	R
Bromomethane	0.005	mg/kg	30	no	R
Methyl Acetate	0.05	mg/kg	1,200,000	no	R
N-Nitroso-di-n-propylamine	0.077	mg/kg	0.33	no	R
Pentachlorophenol	0.19	mg/kg	4	no	R
Sample:	***B5-045-SB-1***				
1,4-Dioxane	0.098	mg/kg	24	no	R
3,3'-Dichlorobenzidine	0.19	mg/kg	5.1	no	R
Bromomethane	0.0049	mg/kg	30	no	R
Methyl Acetate	0.049	mg/kg	1,200,000	no	R

Rejected Results for Soil

Parameter	Result	Units	PAL	Exceeds PAL?	Flag
Sample: ***B5-045-SB-1***					
N-Nitroso-di-n-propylamine	0.075	mg/kg	0.33	no	R
Pentachlorophenol	0.19	mg/kg	4	no	R
Sample: ***B5-045-SB-5***					
1,4-Dioxane	0.11	mg/kg	24	no	R
3,3'-Dichlorobenzidine	0.18	mg/kg	5.1	no	R
Bromomethane	0.0054	mg/kg	30	no	R
Methyl Acetate	0.054	mg/kg	1,200,000	no	R
N-Nitroso-di-n-propylamine	0.072	mg/kg	0.33	no	R
Pentachlorophenol	0.18	mg/kg	4	no	R
Sample: ***B5-046-SB-1***					
1,4-Dioxane	0.1	mg/kg	24	no	R
Sample: ***B5-046-SB-5***					
1,4-Dioxane	0.09	mg/kg	24	no	R
Sample: ***B5-047-SB-1***					
1,4-Dioxane	0.098	mg/kg	24	no	R
Sample: ***B5-047-SB-4***					
1,4-Dioxane	5.9	mg/kg	24	no	R
Sample: ***B5-048-SB-1***					
1,4-Dioxane	0.11	mg/kg	24	no	R
Mercury	0.11	mg/kg	350	no	R
Methyl Acetate	0.056	mg/kg	1,200,000	no	R
Sample: ***B5-049-SB-1***					
1,4-Dioxane	0.11	mg/kg	24	no	R
2,4-Dinitrophenol	1	mg/kg	1,600	no	R
Mercury	0.11	mg/kg	350	no	R
Methyl Acetate	0.054	mg/kg	1,200,000	no	R

Rejected Results for Soil

Parameter	Result	Units	PAL	Exceeds PAL?	Flag
Sample: ***B5-050-SB-1***					
1,4-Dioxane	0.098	mg/kg	24	no	R
Sample: ***B5-050-SB-5***					
1,4-Dioxane	6.6	mg/kg	24	no	R
Sample: ***B5-051-SB-1***					
1,4-Dioxane	0.1	mg/kg	24	no	R
Sample: ***B5-051-SB-5***					
1,4-Dioxane	4.6	mg/kg	24	no	R
Sample: ***B5-052-SB-1***					
1,4-Dioxane	4.2	mg/kg	24	no	R
Sample: ***B5-053-SB-1***					
1,4-Dioxane	0.09	mg/kg	24	no	R
Bromomethane	0.0045	mg/kg	30	no	R
Sample: ***B5-053-SB-9***					
1,4-Dioxane	0.098	mg/kg	24	no	R
Bromomethane	0.0049	mg/kg	30	no	R
Sample: ***B5-056-SB-1***					
1,4-Dioxane	0.1	mg/kg	24	no	R
Sample: ***B5-056-SB-5***					
1,4-Dioxane	0.094	mg/kg	24	no	R
Sample: ***B5-057-SB-1***					
1,4-Dioxane	0.094	mg/kg	24	no	R
Sample: ***B5-057-SB-6***					
1,4-Dioxane	0.16	mg/kg	24	no	R

Parameter	Result	Units	PAL	Exceeds PAL?	Flag
Sample: ***B5-058-SB-1***					
Acetone	0.0089	mg/kg	670,000	no	R
Sample: ***B5-058-SB-5***					
Acetone	0.009	mg/kg	670,000	no	R
Sample: ***B5-060-SB-1***					
1,4-Dioxane	0.13	mg/kg	24	no	R
Sample: ***B5-060-SB-5***					
1,4-Dioxane	0.13	mg/kg	24	no	R
Sample: ***B5-061-SB-1***					
1,4-Dioxane	0.088	mg/kg	24	no	R
Sample: ***B5-064-SB-1***					
1,4-Dioxane	4	mg/kg	24	no	R
Chloroethane	0.2	mg/kg	57,000	no	R
Dichlorodifluoromethane	0.2	mg/kg	370	no	R
Vinyl chloride	0.2	mg/kg	1.7	no	R
Sample: ***B5-064-SB-7***					
1,4-Dioxane	0.14	mg/kg	24	no	R
Bromomethane	0.0069	mg/kg	30	no	R
Sample: ***B5-065-SB-1***					
1,4-Dioxane	0.067	mg/kg	24	no	R
Bromomethane	0.0034	mg/kg	30	no	R
Sample: ***B5-065-SB-6***					
1,4-Dioxane	0.11	mg/kg	24	no	R
Bromomethane	0.0057	mg/kg	30	no	R
Sample: ***B5-066-SB-1***					
1,4-Dioxane	0.16	mg/kg	24	no	R

Rejected Results for Soil

Parameter	Result	Units	PAL	Exceeds PAL?	Flag
Sample: ***B5-066-SB-1***					
Methyl Acetate	0.08	mg/kg	1,200,000	no	R
Sample: ***B5-067-SB-1***					
1,4-Dioxane	0.12	mg/kg	24	no	R
Methyl Acetate	0.059	mg/kg	1,200,000	no	R
Sample: ***B5-072-SB-1***					
1,4-Dioxane	0.087	mg/kg	24	no	R
3,3'-Dichlorobenzidine	0.18	mg/kg	5.1	no	R
N-Nitroso-di-n-propylamine	0.073	mg/kg	0.33	no	R
Pentachlorophenol	0.18	mg/kg	4	no	R
Sample: ***B5-072-SB-6***					
1,4-Dioxane	0.094	mg/kg	24	no	R
3,3'-Dichlorobenzidine	0.2	mg/kg	5.1	no	R
Bromomethane	0.0047	mg/kg	30	no	R
Methyl Acetate	0.047	mg/kg	1,200,000	no	R
N-Nitroso-di-n-propylamine	0.081	mg/kg	0.33	no	R
Pentachlorophenol	0.2	mg/kg	4	no	R
Sample: ***B5-073-SB-1***					
1,4-Dioxane	0.082	mg/kg	24	no	R
3,3'-Dichlorobenzidine	0.18	mg/kg	5.1	no	R
Bromomethane	0.0041	mg/kg	30	no	R
Methyl Acetate	0.041	mg/kg	1,200,000	no	R
N-Nitroso-di-n-propylamine	0.072	mg/kg	0.33	no	R
Pentachlorophenol	0.18	mg/kg	4	no	R
Sample: ***B5-073-SB-5***					
1,4-Dioxane	0.1	mg/kg	24	no	R
3,3'-Dichlorobenzidine	0.2	mg/kg	5.1	no	R
N-Nitroso-di-n-propylamine	0.08	mg/kg	0.33	no	R
Pentachlorophenol	0.2	mg/kg	4	no	R

Rejected Results for Soil

Parameter	Result	Units	PAL	Exceeds PAL?	Flag
Sample: ***B5-085-SB-1***					
1,4-Dioxane	0.097	mg/kg	24	no	R
Sample: ***B5-090-SB-1***					
1,4-Dioxane	0.11	mg/kg	24	no	R
Bromomethane	0.0053	mg/kg	30	no	R
Mercury	0.11	mg/kg	350	no	R
Sample: ***B5-090-SB-4.75***					
1,4-Dioxane	0.09	mg/kg	24	no	R
Bromomethane	0.0045	mg/kg	30	no	R
Sample: ***B5-094-SB-1***					
1,4-Dioxane	0.1	mg/kg	24	no	R
Sample: ***B5-094-SB-5***					
1,4-Dioxane	0.18	mg/kg	24	no	R
Sample: ***B5-095-SB-1***					
1,4-Dioxane	0.1	mg/kg	24	no	R
Benzaldehyde	7.4	mg/kg	120,000	no	R
Bromomethane	0.005	mg/kg	30	no	R
Chloroethane	0.005	mg/kg	57,000	no	R
Sample: ***B5-095-SB-5***					
1,4-Dioxane	0.15	mg/kg	24	no	R
Benzaldehyde	7.3	mg/kg	120,000	no	R
Bromomethane	0.0074	mg/kg	30	no	R
Chloroethane	0.0074	mg/kg	57,000	no	R
Mercury	0.1	mg/kg	350	no	R
Sample: ***B5-098-SB-1***					
1,4-Dioxane	5.1	mg/kg	24	no	R

Parameter	Result	Units	PAL	Exceeds PAL?	Flag
Sample: ***B5-098-SB-4***					
1,4-Dioxane	14.5	mg/kg	24	no	R
Sample: ***B5-099-SB-1***					
1,4-Dioxane	5.3	mg/kg	24	no	R
Sample: ***B5-099-SB-4.5***					
1,4-Dioxane	4.9	mg/kg	24	no	R
Sample: ***B5-100-SB-1***					
1,4-Dioxane	0.11	mg/kg	24	no	R
Sample: ***B5-100-SB-5***					
1,4-Dioxane	0.14	mg/kg	24	no	R
Sample: ***B5-101-SB-1***					
Acetone	0.013	mg/kg	670,000	no	R
Sample: ***B5-101-SB-5***					
Acetone	0.011	mg/kg	670,000	no	R
Sample: ***B5-102-SB-1***					
1,4-Dioxane	0.086	mg/kg	24	no	R
Sample: ***B5-103-SB-1***					
1,4-Dioxane	0.087	mg/kg	24	no	R
Sample: ***B5-103-SB-4.5***					
1,4-Dioxane	0.14	mg/kg	24	no	R
Sample: ***B5-113-SB-1***					
Carbon disulfide	0.34	mg/kg	3,500	no	R
cis-1,3-Dichloropropene	0.34	mg/kg		no	R
Styrene	0.34	mg/kg	35,000	no	R
trans-1,3-Dichloropropene	0.34	mg/kg		no	R

Rejected Results for Soil

Parameter	Result	Units	PAL	Exceeds PAL?	Flag
Sample:	***B5-114-SB-1***				
1,4-Dioxane	0.12	mg/kg	24	no	R
Mercury	0.11	mg/kg	350	no	R
Methyl Acetate	0.058	mg/kg	1,200,000	no	R
Sample:	***B5-115-SB-1***				
1,4-Dioxane	0.16	mg/kg	24	no	R
Acetone	0.016	mg/kg	670,000	no	R
Methyl Acetate	0.081	mg/kg	1,200,000	no	R
Sample:	***B5-116-SB-1***				
1,4-Dioxane	0.12	mg/kg	24	no	R
Mercury	0.11	mg/kg	350	no	R
Methyl Acetate	0.058	mg/kg	1,200,000	no	R
Sample:	***B5-116-SB-4***				
1,4-Dioxane	0.092	mg/kg	24	no	R
Methyl Acetate	0.046	mg/kg	1,200,000	no	R
Sample:	***B5-117-SB-1***				
1,4-Dioxane	0.086	mg/kg	24	no	R
Mercury	0.11	mg/kg	350	no	R
Methyl Acetate	0.043	mg/kg	1,200,000	no	R
Sample:	***B5-118-SB-1***				
1,4-Dioxane	0.1	mg/kg	24	no	R
Mercury	0.11	mg/kg	350	no	R
Methyl Acetate	0.05	mg/kg	1,200,000	no	R
Sample:	***B5-119-SB-1***				
1,4-Dioxane	0.11	mg/kg	24	no	R
Mercury	0.1	mg/kg	350	no	R
Methyl Acetate	0.056	mg/kg	1,200,000	no	R

Parameter	Result	Units	PAL	Exceeds PAL?	Flag
Sample:	***B5-119-SB-5***				
1,4-Dioxane	0.11	mg/kg	24	no	R
Methyl Acetate	0.053	mg/kg	1,200,000	no	R
Sample:	***B5-120-SB-1***				
1,1,2-Trichloro-1,2,2-Trifluoroetha	0.052	mg/kg	170,000	no	R
1,2,3-Trichlorobenzene	0.0052	mg/kg	930	no	R
1,2,4-Trichlorobenzene	0.0052	mg/kg	110	no	R
1,2-Dibromo-3-chloropropane	0.0052	mg/kg	0.064	no	R
1,3-Dichlorobenzene	0.0052	mg/kg		no	R
1,4-Dichlorobenzene	0.0052	mg/kg	11	no	R
1,4-Dioxane	0.1	mg/kg	24	no	R
Chloromethane	0.0052	mg/kg	460	no	R
Dibromochloromethane	0.0052	mg/kg	3.3	no	R
Dichlorodifluoromethane	0.0052	mg/kg	370	no	R
Isopropylbenzene	0.0052	mg/kg	9,900	no	R
Mercury	0.1	mg/kg	350	no	R
Methyl Acetate	0.052	mg/kg	1,200,000	no	R
Styrene	0.0052	mg/kg	35,000	no	R
Sample:	***B5-120-SB-4.5***				
1,4-Dioxane	0.12	mg/kg	24	no	R
Mercury	0.11	mg/kg	350	no	R
Methyl Acetate	0.061	mg/kg	1,200,000	no	R
Sample:	***B5-121-SB-1***				
1,4-Dioxane	0.11	mg/kg	24	no	R
Mercury	0.1	mg/kg	350	no	R
Methyl Acetate	0.055	mg/kg	1,200,000	no	R
Sample:	***B5-121-SB-5***				
1,4-Dioxane	0.1	mg/kg	24	no	R
Methyl Acetate	0.052	mg/kg	1,200,000	no	R

Rejected Results for Soil

Parameter	Result	Units	PAL	Exceeds PAL?	Flag
Sample: ***B5-124-SB-1***					
1,4-Dioxane	0.11	mg/kg	24	no	R
Bromomethane	0.0057	mg/kg	30	no	R
Sample: ***B5-124-SB-9***					
1,4-Dioxane	0.15	mg/kg	24	no	R
Bromomethane	0.0077	mg/kg	30	no	R
Sample: ***B5-132-SB-1***					
1,4-Dioxane	0.11	mg/kg	24	no	R
3,3'-Dichlorobenzidine	0.18	mg/kg	5.1	no	R
N-Nitroso-di-n-propylamine	0.072	mg/kg	0.33	no	R
Pentachlorophenol	0.18	mg/kg	4	no	R
Sample: ***B5-132-SB-4***					
1,4-Dioxane	0.13	mg/kg	24	no	R
3,3'-Dichlorobenzidine	0.19	mg/kg	5.1	no	R
N-Nitroso-di-n-propylamine	0.077	mg/kg	0.33	no	R
Pentachlorophenol	0.19	mg/kg	4	no	R
Sample: ***B5-133-SB-1***					
1,4-Dioxane	0.087	mg/kg	24	no	R
Sample: ***B5-133-SB-5***					
1,4-Dioxane	0.096	mg/kg	24	no	R
Sample: ***B5-134-SB-1***					
1,4-Dioxane	0.15	mg/kg	24	no	R
Sample: ***B5-135-SB-1***					
1,4-Dioxane	0.12	mg/kg	24	no	R
Sample: ***B5-135-SB-5***					
1,4-Dioxane	0.084	mg/kg	24	no	R

Parameter	Result	Units	PAL	Exceeds PAL?	Flag
Sample: *B5-136-SB-1*					
1,4-Dioxane	0.11	mg/kg	24	no	R
Sample: *B5-136-SB-8*					
1,4-Dioxane	0.099	mg/kg	24	no	R
Sample: *B5-137-SB-1*					
1,4-Dioxane	0.1	mg/kg	24	no	R
Benzaldehyde	7.3	mg/kg	120,000	no	R
Bromomethane	0.0051	mg/kg	30	no	R
Chloroethane	0.0051	mg/kg	57,000	no	R
Sample: *B5-137-SB-5*					
1,4-Dioxane	0.094	mg/kg	24	no	R
Benzaldehyde	7.3	mg/kg	120,000	no	R
Bromomethane	0.0047	mg/kg	30	no	R
Chloroethane	0.0047	mg/kg	57,000	no	R
Sample: *B5-138-SB-1*					
1,4-Dioxane	0.09	mg/kg	24	no	R
Benzaldehyde	7	mg/kg	120,000	no	R
Bromomethane	0.0045	mg/kg	30	no	R
Chloroethane	0.0045	mg/kg	57,000	no	R
Sample: *B5-138-SB-5*					
1,4-Dioxane	0.11	mg/kg	24	no	R
Benzaldehyde	7.7	mg/kg	120,000	no	R
Bromomethane	0.0057	mg/kg	30	no	R
Chloroethane	0.0057	mg/kg	57,000	no	R
Sample: *B5-142-SB-1*					
1,4-Dioxane	0.12	mg/kg	24	no	R
Benzaldehyde	7.4	mg/kg	120,000	no	R
Bromomethane	0.0059	mg/kg	30	no	R
Chloroethane	0.0059	mg/kg	57,000	no	R

Rejected Results for Soil

Parameter	Result	Units	PAL	Exceeds PAL?	Flag
Sample: ***B5-142-SB-5***					
1,4-Dioxane	0.13	mg/kg	24	no	R
Benzaldehyde	7.5	mg/kg	120,000	no	R
Bromomethane	0.0064	mg/kg	30	no	R
Chloroethane	0.0064	mg/kg	57,000	no	R
Sample: ***B5-143-SB-1***					
1,4-Dioxane	0.16	mg/kg	24	no	R
Sample: ***B5-143-SB-4.5***					
1,4-Dioxane	0.11	mg/kg	24	no	R
Sample: ***B5-144-SB-1***					
Methyl Acetate	0.044	mg/kg	1,200,000	no	R
Sample: ***B5-144-SB-4***					
Methyl Acetate	2.4	mg/kg	1,200,000	no	R
Sample: ***B5-145-SB-1***					
Methyl Acetate	0.05	mg/kg	1,200,000	no	R
Sample: ***B5-145-SB-5***					
Methyl Acetate	0.052	mg/kg	1,200,000	no	R
Sample: ***B5-146-SB-1***					
Methyl Acetate	0.048	mg/kg	1,200,000	no	R
Sample: ***B5-146-SB-5***					
Methyl Acetate	0.042	mg/kg	1,200,000	no	R
Sample: ***B5-147-SB-1***					
Methyl Acetate	0.066	mg/kg	1,200,000	no	R
Sample: ***B5-147-SB-5***					
Methyl Acetate	0.056	mg/kg	1,200,000	no	R

Rejected Results for Soil

Parameter	Result	Units	PAL	Exceeds PAL?	Flag
Sample: ***B5-148-SB-1***					
Methyl Acetate	0.068	mg/kg	1,200,000	no	R
Sample: ***B5-148-SB-5***					
Methyl Acetate	0.049	mg/kg	1,200,000	no	R
Sample: ***B5-153-SB-1***					
1,4-Dioxane	0.071	mg/kg	24	no	R
Bromomethane	0.0035	mg/kg	30	no	R
Sample: ***B5-154-SB-1***					
1,4-Dioxane	0.095	mg/kg	24	no	R
3,3'-Dichlorobenzidine	0.19	mg/kg	5.1	no	R
N-Nitroso-di-n-propylamine	0.075	mg/kg	0.33	no	R
Pentachlorophenol	0.19	mg/kg	4	no	R
Sample: ***B5-154-SB-4***					
1,4-Dioxane	0.089	mg/kg	24	no	R
3,3'-Dichlorobenzidine	0.19	mg/kg	5.1	no	R
N-Nitroso-di-n-propylamine	0.076	mg/kg	0.33	no	R
Pentachlorophenol	0.19	mg/kg	4	no	R
Sample: ***B5-155-SB-1***					
1,4-Dioxane	0.082	mg/kg	24	no	R
3,3'-Dichlorobenzidine	0.19	mg/kg	5.1	no	R
N-Nitroso-di-n-propylamine	0.075	mg/kg	0.33	no	R
Pentachlorophenol	0.19	mg/kg	4	no	R
Sample: ***B5-155-SB-5***					
1,4-Dioxane	0.087	mg/kg	24	no	R
3,3'-Dichlorobenzidine	0.19	mg/kg	5.1	no	R
N-Nitroso-di-n-propylamine	0.077	mg/kg	0.33	no	R
Pentachlorophenol	0.19	mg/kg	4	no	R

Parameter	Result	Units	PAL	Exceeds PAL?	Flag
Sample: *B5-161-SB-1*					
1,4-Dioxane	0.098	mg/kg	24	no	R
Sample: *B5-161-SB-4*					
1,4-Dioxane	7.1	mg/kg	24	no	R
Sample: *B5-164-SB-1*					
1,4-Dioxane	0.09	mg/kg	24	no	R
Benzaldehyde	7.5	mg/kg	120,000	no	R
Bromomethane	0.0045	mg/kg	30	no	R
Chloroethane	0.0045	mg/kg	57,000	no	R
Sample: *B5-164-SB-5*					
1,4-Dioxane	0.095	mg/kg	24	no	R
Benzaldehyde	7.3	mg/kg	120,000	no	R
Bromomethane	0.0047	mg/kg	30	no	R
Chloroethane	0.0047	mg/kg	57,000	no	R
Sample: *B5-165-SB-1*					
1,4-Dioxane	0.082	mg/kg	24	no	R
Benzaldehyde	7	mg/kg	120,000	no	R
Bromomethane	0.0041	mg/kg	30	no	R
Chloroethane	0.0041	mg/kg	57,000	no	R
Sample: *B5-165-SB-5*					
1,4-Dioxane	0.11	mg/kg	24	no	R
Benzaldehyde	7.6	mg/kg	120,000	no	R
Bromomethane	0.0057	mg/kg	30	no	R
Chloroethane	0.0057	mg/kg	57,000	no	R
Sample: *B5-166-SB-1*					
1,4-Dioxane	0.1	mg/kg	24	no	R
Benzaldehyde	7.2	mg/kg	120,000	no	R
Bromomethane	0.0051	mg/kg	30	no	R
Chloroethane	0.0051	mg/kg	57,000	no	R

Rejected Results for Soil

Parameter	Result	Units	PAL	Exceeds PAL?	Flag
Sample: ***B5-166-SB-1***					
Mercury	0.11	mg/kg	350	no	R
Sample: ***B5-166-SB-5***					
1,4-Dioxane	0.15	mg/kg	24	no	R
Benzaldehyde	8.6	mg/kg	120,000	no	R
Bromomethane	0.0074	mg/kg	30	no	R
Chloroethane	0.0074	mg/kg	57,000	no	R
Sample: ***B5-169-SB-1***					
1,4-Dioxane	0.097	mg/kg	24	no	R
Benzaldehyde	7.6	mg/kg	120,000	no	R
Bromomethane	0.0048	mg/kg	30	no	R
Chloroethane	0.0048	mg/kg	57,000	no	R
Sample: ***B5-169-SB-5***					
1,4-Dioxane	0.13	mg/kg	24	no	R
Benzaldehyde	7.3	mg/kg	120,000	no	R
Bromomethane	0.0063	mg/kg	30	no	R
Chloroethane	0.0063	mg/kg	57,000	no	R
Sample: ***B5-176-SB-1***					
1,4-Dioxane	0.11	mg/kg	24	no	R
Sample: ***B5-176-SB-5***					
1,4-Dioxane	0.19	mg/kg	24	no	R
Sample: ***B5-177-SB-1***					
1,4-Dioxane	0.083	mg/kg	24	no	R
Methyl Acetate	0.041	mg/kg	1,200,000	no	R
Sample: ***B5-177-SB-3.5***					
1,4-Dioxane	0.13	mg/kg	24	no	R
Methyl Acetate	0.066	mg/kg	1,200,000	no	R

Rejected Results for Soil

Parameter	Result	Units	PAL	Exceeds PAL?	Flag
Sample: ***B5-178-SB-1***					
1,4-Dioxane	0.095	mg/kg	24	no	R
Sample: ***B5-178-SB-5***					
1,4-Dioxane	0.092	mg/kg	24	no	R
Sample: ***B5-179-SB-1***					
1,4-Dioxane	0.085	mg/kg	24	no	R
Acetone	0.0085	mg/kg	670,000	no	R
Methyl Acetate	0.043	mg/kg	1,200,000	no	R
Sample: ***B5-179-SB-9***					
1,4-Dioxane	0.087	mg/kg	24	no	R
Methyl Acetate	0.044	mg/kg	1,200,000	no	R
Sample: ***B5-180-SB-1***					
1,4-Dioxane	0.11	mg/kg	24	no	R
Methyl Acetate	0.055	mg/kg	1,200,000	no	R
Sample: ***B5-180-SB-5***					
1,4-Dioxane	0.12	mg/kg	24	no	R
Methyl Acetate	0.058	mg/kg	1,200,000	no	R

APPENDIX A

Parcel B5 Sampling Plan Summary
Former Sparrows Point Steel Mill
Sparrows Point, Maryland

Source Area Description	REC & Finding/ SWMU/AOC	Figure or Drawing of Reference	RATIONALE	Number of Locations	Sample Locations	Boring Depth	Sample Depth	Analytical Parameters†
								Soil Samples
Dispersant Tank/Acid Storage Tank		Drawing 5016	Investigate potential impacts related to dispersant/acid storage tanks (potential leaks or releases).	2	B5-001 and B5-002	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs Asbestos (B5-002)
Drip Legs (20)		Drip Legs Drawings 5885 and 5886	Coke oven gas condensate was removed from the gas pipelines at drip legs located throughout the distribution system. The condensate was typically discharged to drums, although it is possible some spilled out of the drums and on to the ground.	40	B5-003 through B5-042	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs Asbestos (B5-006, B5-012, B5-018, B5-023, B5-028, and B5-034)
Former ERS Oily Wastewater Tank	REC 8A, Finding 199/ SWMU 195	REC Location Map/ DCC Figure	The unit consisted of a steel aboveground tank of unknown capacity located to the north of the Electrical Repair Shop (ERS) in the Open Hearth Furnace Facility Area. Electrical motors were occasionally steam cleaned, and the wash waters were sent to the tank. Oil was separated out and sent to PORI (SWMUs 71-73). The tank was removed sometime during the late 1980's or early 1990's. No analytical data are available for this area.	3	B5-043 through B5-045	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs
Fuel/Oil Tank (3)		Drawings 5015, 5017, and 5522	Investigate potential impacts related to fuel/oil storage tanks (potential leaks or releases).	6	B5-048 through B5-051; B5-066 and B5-067	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs
Fuel/Oil Loading and Unloading Stations (2)		Drawings 5017 and 5116	Investigate potential impacts related to fuel/oil loading and unloading stations (potential leaks or releases).	4	B5-046 and B5-47; B5-052 and B5-053	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs

Parcel B5 Sampling Plan Summary
Former Sparrows Point Steel Mill
Sparrows Point, Maryland

Source Area Description	REC & Finding/ SWMU/AOC	Figure or Drawing of Reference	RATIONALE	Number of Locations	Sample Locations	Boring Depth	Sample Depth	Analytical Parameters†
								Soil Samples
Fuel Shop		Drawing 5015	Investigate potential impacts related to the fuel shop (potential leaks or releases).	2	B5-054 and B5-055	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs
Fuel Storage Area		Drawing 5018	Investigate potential impacts related to the fuel/oil storage area (potential leaks or releases).	2	B5-056 and B5-057	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs
Iron and Brass Foundry		Drawing 5021	Investigate potential impacts related to activities in the iron and brass foundry.	2	B5-058 and B5-059	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs
Iron Beaching Pit		Drawing 5121	Investigate potential impacts related to the iron beaching pit (potential leaks or releases).	2	B5-060 and B5-061	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs
Oil House (2)		Drawings 5015 and 5016	Investigate potential impacts related to oil houses (potential leaks or releases).	4	B5-062 through B5-065	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs
Paint Shop (2)		Drawings 5015 and 5027	Investigate potential impacts related to paint shops (potential leaks or releases).	4	B5-068 through B5-071	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs
PCB-Contaminated Oil Spill	AOC C	DCC Figure	As documented in a January 28, 1991 spill report letter from BSC to MDE, approximately 20 gallons of PCB contaminated oil was released to a soil area of approximately 15 feet by 20 feet in dimension when a PCB-containing transformer was struck by a vehicle and ruptured. After soil removal, 19 soil samples were collected from the spill area. Analytical results ranged from 0.2 to 13.3 ppm PCB concentrations. Clean soil was used to backfill the excavation and not slag as indicated in the RFA report.	2	B5-072 and B5-073	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs

Parcel B5 Sampling Plan Summary
Former Sparrows Point Steel Mill
Sparrows Point, Maryland

Source Area Description	REC & Finding/ SWMU/AOC	Figure or Drawing of Reference	RATIONALE	Number of Locations	Sample Locations	Boring Depth	Sample Depth	Analytical Parameters†
								Soil Samples
"Trans" Pit (2)		Drawing 5021	Investigate potential impacts related to activities in the "trans" pits (potential leaks or releases).	4	B5-074 through B5-077	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs
Residential Town Tank (2)	REC 21, Finding 271	REC Location Map	Fire insurance maps depict buildings with boiler rooms and up to 9 tanks in the former Town area. It is unclear if these tanks are USTs or ASTs. No obviously apparent USTs or ASTs were observed during the site visit. Based on our review of historical source information and experience, tanks may have contained potentially hazardous substances and/or petroleum products which could have resulted in a release to the environment.	6	B5-078 through B5-083	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs Asbestos (B5-079)
Slag Pit/Piles (4)	SWMU 165	DCC Figure/ Drawing 5022	The furnace slag piles collected the slag generated as a by-product of the iron making process. The piles are designated as units managing non-hazardous waste. The slag was crushed and then evaluated for reuse. No specific details on the nature or condition of the wastes are given in the RFA Report.	8	B5-084 through B5-091	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs
Settling Tank		Drawing 5022	Investigate potential impacts related to the settling tank (potential leaks or releases).	2	B5-092 and B5-093	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs
Tank - Unknown Contents (4)		Drawings 5021, 5517, and 5521	Investigate potential impacts related to several storage tanks with unknown contents (potential leaks or releases).	8	B5-094 through B5-101	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs
Tar Storage Area		Drawing 5021	Investigate potential impacts related to the tar storage area (potential leaks or releases).	3	B5-102 and B5-103; B5-178	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs

Parcel B5 Sampling Plan Summary
Former Sparrows Point Steel Mill
Sparrows Point, Maryland

Source Area Description	REC & Finding/ SWMU/AOC	Figure or Drawing of Reference	RATIONALE	Number of Locations	Sample Locations	Boring Depth	Sample Depth	Analytical Parameters†
								Soil Samples
Thickener Tank (10)		Drawings 5015, 5016, 5021, and 5022	Investigate potential impacts related to thickener tanks (potential leaks or releases).	20	B5-104 through B5-123	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs Asbestos (B5-120)
Wastewater Treatment		Drawing 5516	Investigate potential impacts related to the wastewater treatment building (potential leaks or releases).	2	B5-124 and B5-125	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs
Pennwood Canal Sediment Samples	Finding 267 (Non-REC)	REC Location Map	During the site visit, the Pennwood Powerhouse contained large equipment out of use. Some surface staining was observed on and below the equipment. Occasional flooding (at least one previous incident) caused water to pool on the equipment room floor and drain to the adjacent Pennwood Canal. It is unlikely that the flooding of the Pennwood Powerhouse resulted in a significant release of hazardous substances or petroleum products, and the Pennwood sediments were not classified as a REC.	6	B5-126 through B5-131	Total depth of 12 inches	Top 12 inches of sediment at each location.	VOC, SVOC, Metals, DRO/GRO, PCBs
Parcel B5 Coverage			Investigate potential impacts related to unknown historical activities, and characterize soil and groundwater in areas not previously sampled.	17	B5-132 through B5-141; B5-143 through B5-149	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs Asbestos (B5-136)
Open Hearth Furnace Area			MDE Request. Investigate potential impacts in the open hearth furnace areas not previously evaluated.	9	B5-150 through B5-158	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs
No. 4 Mould Yard and Stripper		Drawing 5121	MDE Request. Investigate potential impacts related to the No. 4 mould yard and stripper (potential leaks or releases).	1	B5-159	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs

Parcel B5 Sampling Plan Summary
Former Sparrows Point Steel Mill
Sparrows Point, Maryland

Source Area Description	REC & Finding/ SWMU/AOC	Figure or Drawing of Reference	RATIONALE	Number of Locations	Sample Locations	Boring Depth	Sample Depth	Analytical Parameters†
								Soil Samples
Old H Furnace Area		Drawing 5115	MDE Request. Investigate potential impacts related to the old H furnace area (potential leaks or releases).	1	B5-160	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs
No. 3 Mould Yard		Drawing 5021	MDE Request. Investigate potential impacts related to the No. 3 mould yard (potential leaks or releases).	1	B5-161	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs
Storage Area		Drawing 5021	MDE Request. Investigate potential impacts related to the exterior storage area (potential leaks or releases).	1	B5-162	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs
Electric Substation		Drawing 5021	MDE Request. Investigate potential impacts related to the electric substation (potential leaks or releases).	1	B5-163	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs
Sinter Area		Drawings 5016 and 5017	MDE Request. Investigate potential impacts related to the sinter machine building (potential leaks or releases).	7	B5-142; B5-164 through B5-169	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs Asbestos (B5-168)
Railroad Tracks		Drawings 5015, 5016, and 5017	MDE Request. Investigate potential impacts related to the railroad tracks (potential leaks or releases).	6	B5-170 through B5-175	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs Asbestos (B5-171)

Parcel B5 Sampling Plan Summary
Former Sparrows Point Steel Mill
Sparrows Point, Maryland

Source Area Description	REC & Finding/ SWMU/AOC	Figure or Drawing of Reference	RATIONALE	Number of Locations	Sample Locations	Boring Depth	Sample Depth	Analytical Parameters†
								Soil Samples
Tar/ Underground Conduit/ Transformer		Drawing 5122	MDE Request. Investigate potential impacts related to the tar/ underground conduit/ transformers (potential leaks or releases).	1	B5-176	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs
Various Industrial Buildings (proximal boring)		Drawing 5015	MDE Request. Investigate potential impacts related to the old gas drive engines, power house, and service building (potential leaks or releases).	1	B5-177	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs
Ladle Repair Shop			Investigate potential impacts related to ladle repair shop, particulalry for the presence of asbestos.	2	B5-179 and B5-180	Total depth of 20 feet or groundwater.	0-1', 4-5', 9-10' bgs. 4-5' interval may be adjusted in the field based on observations or field screening.	VOC, SVOC, Metals, DRO/GRO, PCBs Asbestos (B5-179 and B5-180)
Sinter Plant			MDE Request. Investigate potential impacts related to the Sinter Plant stacks for the presence of dioxin and furan.	8*	B5-181 through B5-188	Total depth of 1 foot.	0-1'	Dioxins/Furans
			Total:	180				

Soil Borings Sampling Density Requirements (from **Worksheet 17 - Sampling Design and Rationale**)
No Engineered Barrier (>100 acres): 1 boring per 3 acres with no less than 40.
Engineered Barrier (>100 acres): 1 boring per 6 acres with no less than 20.
No Engineered Barrier (191.0 acres) = **64 Borings Required, 109 Proposed**
Engineered Barrier (114.2 acres) = **20 Borings Required, 71 Proposed**
Parking/Roads (65.6 acres)
Buildings (48.7 acres)

*Sinter Plant samples (dioxins/furans) are not included in the total boring counts

VOCs - Volatile Organic Compounds (Target Compound List)
SVOCs - Semivolatile Organic Compounds (Target Compound List)
Metals - (Target Analyte List plus Hexavalent Chromium and Cyanide)
DRO/GRO - Diesel Range Organics/Gasoline Range Organics
PCBs - Polychlorinated Biphenyls (0-1' interval only)
Asbestos - Asbestos (0-1' interval only), individual locations identified
bgs - Below Ground Surface
† Groundwater Samples are addressed by the Area B Groundwater Work Plan

APPENDIX B

ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-001-SB

(page 1 of 1)

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 12/21/2015
Weather	: 40s, cloudy
Northing (US ft)	: 563,662.1770
Easting (US ft)	: 1,460,361.3160

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		0.2	B5-001-SB-1	(0-1') SAND, fine to medium grained, loose, dark black with silver flakes, cohesive	SW	
		2.2		(1-3.5') SAND, medium to coarse grained with GRAVEL SLAG, loose, dense, brown, dry	SW	
	95	1.7				
		1.3		(3.5-5') SLAG, loose, gray to blue, no plasticity, no cohesion, dry; with SAND, coarse, loose, beige, dry	GW-SW	
		2.0	B5-001-SB-5			
5		-		(5-8') SAND, medium to coarse grained, loose, soft, dark beige, dry	SW	
		0.3				
	88	0.5				
		0.6		(8-11') SILTY SAND, coarse grained, soft, rusty red, cohesive	SM	
		0.6				
10		-				
		-		(11-13') CLAYEY SAND, soft, rusty red with silver metal/rocks/flecks up to 1", dry, cohesive	SC	
	60	-				
		-		(13-15') SLAG and SAND, coarse grained, loose, beige, wet	GW-SW	Wet at 13' bgs
		-				
15						Boring terminated at 15' bgs due to encountering groundwater

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-002-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 12/21/2015
Weather	: 40s, cloudy
Northing (US ft)	: 563,635.7082
Easting (US ft)	: 1,460,323.8350

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-002-SB-1	(0-3') SAND, fine to medium grained, some SLAG GRAVEL, loose, dark black, dry, no plasticity, no cohesion	SW	
		1.3				
	80	8.4				
		0.0		(3-4') SAND, medium grained, loose, brown to tan, dry, no plasticity, no cohesion	SP	
		0.0	B5-002-SB-5	(4-5.5') SLAG, up to 3" pieces, loose, light gray, dry, no plasticity, no cohesion	SW-GW	
5		-		(5.5-10') SLAG with coarse SAND, loose, light gray, with coarse sand, dry, no plasticity, no cohesion		
		-				
	80	0.9			SW-GW	
		1.6				
		5.5				
10		-		(10-15') SLAG and SAND, coarse grained, slightly firm, light gray, wet		Water in hole at 11' bgs
		-				
	93	-			SW-GW	Wet at 12.5' bgs in sleeve
		-				
		-				Boring terminated at 15' bgs due to encountering groundwater
15						

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-003-SB

(page 1 of 1)

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/6/2016
Weather	: 30s, sunny
Northing (US ft)	: 564,187.1679
Easting (US ft)	: 1,458,232.4460

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-003-SB-1	(0-4') SAND, with SLAG at 3' bgs, fine grading to coarse grained, loose, dark brown, dry, moist at 3' bgs, no plasticity	SW	
	80	0.1				
		0.4				
		3.4				
		3.1	B5-003-SB-5	(4-5') SILTY SAND, firm, tan, moist, no plasticity, cohesive	SM	Slightly wet at bottom of sleeve
5		-		(5-7.5') SLAG, gravel sized, loose, light gray, wet, no plasticity, no cohesion	GP	Wet at 5' bgs
		-				
	80	-		(7.5-10') SLAG gravel sized with coarse SAND, loose, wet, no plasticity, no cohesion	GW/SW	
		-				
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-004-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/6/2016
Weather	: 30s, sunny
Northing (US ft)	: 564,193.1982
Easting (US ft)	: 1,458,222.3270

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0				(0-0.4') TOPSOIL, loose, soft, dark brown, dry	ML	
		-	B5-004-SB-1	(0.4-4') SLAG with coarse SAND, loose, light gray, dry, no platicity, no cohesion		
		-				
	60	-			GW-SW	
		0.8				
				(4-5') SLAG with coarse SAND, loose, light gray, wet, no plasticity, no cohesion		Wet at 4' bgs
		1.7			GW-SW	
5						Boring terminated at 5' bgs due to encountering groundwater

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-005-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/7/2016
Weather	: 30s, cloudy
Northing (US ft)	: 564,331.5102
Easting (US ft)	: 1,458,307.6860

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0				(0-0.4') TOPSOIL, brown, grading to SAND and GRAVEL SLAG, loose, firm, dry, some ORGANICS	ML/ SW-GW	
	60	-	B5-005-SB-1	(0.4-4.5') SLAG, GRAVEL sized, loose, gray, dry, no plasticity, no cohesion	GP-GW	
		-				
		-				
		50.3				
		-	B5-005-SB-4.5			Wet at 4.5' bgs
		0.8		(4.5-5') SLAG, GRAVEL sized, loose, gray, wet, no plasticity, no cohesion	GP-GW	
5						Boring terminated at 5' bgs due to encountering groundwater

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-006-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/7/2016
Weather	: 30s, cloudy
Northing (US ft)	: 564,336.0751
Easting (US ft)	: 1,458,305.9800

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-006-SB-1	(0-0.8') TOPSOIL and SAND, fine grained, loose, soft, brown, dry	SM	
		-		(0.8-4') SAND and GRAVEL SLAG, medium to coarse grained, loose, soft, brownish gray, dry		
	50	-			SW-GW	
		16.7				
		7.0	B5-006-SB-5	(4-4.7') SLAG GRAVEL sized up to 2" with coarse SAND, loose, brown, dry, no plasticity, no cohesion	GW-SW	Wet at 4.5' bgs
5		-		(4.7-8') SLAG, GRAVEL sized up to 2", with coarse SAND, loose, brown, wet, no plasticity, no cohesion		
	60	-			GW-SW	
		-				Boring terminated at 8' bgs due to encountering groundwater
				End of Boring		
10						

Total Borehole Depth: 8' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-007-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/8/2016
Weather	: 30s, rainy
Northing (US ft)	: 564,461.8541
Easting (US ft)	: 1,458,491.4350

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-007-SB-1	(0-0.5') SLAG, GRAVEL sized, loose, light gray, dry, no plasticity, no cohesion	GW	
				(0.5-1.58') SAND, fine to medium grained, with chunks of GLASS, loose, brown, dry	SW	Glass pieces 0.5-1.58' bgs
		0.0		(1.58-3') SLAG with coarse SAND, gray, no plasticity	GW-SW	
	96	0.6				
		9.0		(3-4') SAND, coarse to very coarse, loose, beige to brown, wet	SW	Wet at 3.5' bgs
		7.6		(4-5') SLAG, gravel sized with coarse SAND, gray, wet, no plasticity	GW-SW	
5						Boring terminated at 5' bgs due to encountering groundwater

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-008-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/8/2016
Weather	: 30s, rainy
Northing (US ft)	: 564,463.7328
Easting (US ft)	: 1,458,499.6560

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No:	DESCRIPTION	USCS	REMARKS
0		-	B5-008-SB-1	(0-0.7') SANDY TOPSOIL with ROOTS, loose, soft, brown, moist	SM	
	70	2.7		(0.7-4.5') SLAG and CONCRETE, loose, light gray, very moist, no plasticity	N/A	
		62.3				Wet at 4.5' bgs
		58.3				
5		-		(4.5-9') SLAG and CONCRETE, fine grained fragments, loose, light gray, very moist, no plasticity	N/A	
	80	-				
		-				Boring terminated at 10' bgs due to encountering groundwater
		-				
		-		(9-10') CLAY, soft to firm, tan, wet, high plasticity, cohesive	CH	
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-009-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT
Date	: 1/11/2016
Weather	: 30s, sunny
Northing (US ft)	: 564,499.8209
Easting (US ft)	: 1,458,903.5100

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	90	-	B5-009-SB-1	(0-5.5') SAND, fine to medium grained, and GRAVEL SLAG, loose, dark reddish grading to brown, dry, no plasticity, no cohesion	SW-GW	
		6.0				
		9.8				
		14.0				
		3.6	B5-009-SB-5			Wet at 4.5' bgs
5	80	-		(5.5-8.5') SANDY CLAY with SLAG GRAVEL, firm, tan, dry, low plasticity, cohesive	SC	
		-				
		5.0				
		8.8		(8.5-10') SAND, medium grained, loose, light beige, wet, no plasticity, no cohesion	SP	
10		-				Boring terminated at 10' bgs due to encountering groundwater

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-010-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/11/2016
Weather	: 30s, windy
Northing (US ft)	: 564,501.4284
Easting (US ft)	: 1,458,912.4230

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-010-SB-1	(0-3') SLAG, GRAVEL sized, light gray, with SAND, medium grained, dark red; loose, dry, no plasticity, no cohesion	GW-SW	
		5.7				
	80	18.2				
		20.2		(3-5') SAND, medium grained, and GRAVEL SLAG, loose, firm, tan to brown, dry	SW-GW	
		0.4				
5		64.3		(5-6') SAND, medium grained, loose, tan, moist	SP	
		216.8	B5-010-SB-7	(6-7') SLAG with medium to coarse grained SAND, loose, light gray, dry, no plasticity, no cohesion	SW	
		115.3		(7-7.5') CLAY, hard, tan, dry, high plasticity, cohesive	CH	
	100			(7.5-9') CLAY, soft, tan, wet, high plasticity, cohesive	CH	
		2.4				
		1.6	B5-010-SB-10	(9-10.5') SANDY CLAY, hard, tan, dry, medium plasticity, cohesive	CL	
10		-		(10.5-12.5') SAND, medium grained, loose, maroon to black, moist, no plasticity, no cohesion	SP	
		-				
	90	-		(12.5-14') SAND, loose, black, wet, no plasticity	SP	Wet at 12.5' bgs Strong noxious odor
		-				
		-		(14-15') SAND, medium grained, loose, tan, moist, no plasticity, no cohesion	SP	Boring terminated at 15' bgs due to encountering groundwater
15						

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-011-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/14/2016
Weather	: 30s, sunny
Northing (US ft)	: 565,726.0057
Easting (US ft)	: 1,459,351.3950

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0				(0-0.3') TOPSOIL, loose, soft, dark brown, dry	ML	
		-	B5-011-SB-1	(0.3-4') SLAG coarse grained to GRAVEL sized, loose, light gray, dry, no plasticity, no cohesion		
		-				
	60	12.1			SW-GW	
		49.1				
		5.3	B5-011-SB-5	(4-5') SANDY CLAY with SLAG GRAVEL, soft, gray, low plasticity, cohesive	CL	
5				(5-8') SLAG, coarse grained to GRAVEL sized, loose, hard, black, wet, no cohesion		Wet at 5' bgs
		-				
		-			SW-GW	
	100	-				
		-		(8-9') CLAY, soft, beige, wet, high plasticity, cohesive	CH	
		38.5		(9-10') CLAY, firm, tan, dry, high plasticity, cohesive	CH	Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-012-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/14/2016
Weather	: 30s, sunny
Northing (US ft)	: 565,701.9434
Easting (US ft)	: 1,459,363.9710

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-012-SB-1	(0-6') SILTY CLAY with GRAVEL SLAG, firm, brown, dry to moist		
		0.3				
	86	0.5			CL	
		0.3				
		0.4	B5-012-SB-5			
5		-				
		-		(6-10') SLAG with SAND, loose, black, wet, no plasticity, no cohesion		
	30	-			GW-SW	
		-				Wet at 8.5' bgs
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-013-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/14/2016
Weather	: 30s, sunny
Northing (US ft)	: 565,794.3377
Easting (US ft)	: 1,460,009.7050

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-013-SB-1	(0-2') SLAG coarse grained to GRAVEL sized, loose, brown, dry, no plasticity, no cohesion	SW-GW	
		-				
				(2-2.8') SLAG, GRAVEL sized, loose, gray, dry, no plasticity, no cohesion	GW	
	70	1.1				
				(2.8-5') SLAG, SAND to GRAVEL sized, loose, brown to black, dry, wet at 4.5' bgs, no plasticity, no cohesion		
		2.1				
		-	B5-013-SB-4.5		SW-GW	
		13.0				Wet at 4.5' bgs
5						Boring terminated at 5' bgs due to encountering groundwater

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-014-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/14/2016
Weather	: 30s, sunny
Northing (US ft)	: 565,768.5997
Easting (US ft)	: 1,459,990.6920

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-014-SB-1	(0-1') CLAY, very soft, gray, very moist, high plasticity, cohesive	CH	
		-		(1-4') SLAG with coarse grained SAND, loose, brown and black, moist, wet at 4' bgs, no plasticity, no cohesion		
	90	0.2			GW-SW	
		0.2	B5-014-SB-4			Wet at 4' bgs
				(4-9.5') SLAG with coarse grained SAND, loose, brown and black, wet; grading to finer SLAG with depth, no cohesion		
		0.3				
5		-				
		-			GW-SW	
	70	-				
		-				
		-				
				(9.5-10') CLAY, very soft, gray, wet, high plasticity, high cohesion	CH	Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-015-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/8/2016
Weather	: 30s, cloudy
Northing (US ft)	: 564,397.32
Easting (US ft)	: 1,458,807.40

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-015-SB-1	(0-2') SLAG, GRAVEL sized with medium grained SAND, hard, loose, dark reddish, moist	GW	
		6.5				
	80	7.0		(2-3') SAND medium grained, hard, loose, brown, dry	SP	
		6.2		(3-4') SAND, medium to coarse grained, and GRAVEL SLAG, loose, brown, dry	SW-GW	
		2.6	B5-015-SB-5	(4-4.16') SAND, medium grained, loose, teal, moist	SP	
5				(4.16-5') SAND, fine to coarse grained, loose, firm, tan, moist	SW	
		-		(5-6.5') SANDY CLAY, soft, tan, moist, medium plasticity, cohesive	CL	
		0.2		(6.5-9') CLAY, trace SAND, very soft, tan to dark gray, very moist, high plasticity, cohesive	CH	
	90	-				
		-				
		0.0	B5-015-SB-10	(9-10') SANDY CLAY, firm, tan, moist, low plasticity, cohesive	CL	
10		-		(10-14') SANDY CLAY, soft, light gray with orange mottling, low plasticity, cohesive	CL	Wet at 12.5' bgs Strong noxious odor
		0.0				
	100	-				
		-				
		0.0		(14-15') CLAY, soft, light gray, moist, medium plasticity, cohesive	CL	
15		-		(15-16') CLAYEY SAND, soft, tan, moist, cohesive	SC	
		-		(16-17') SAND, medium grained, loose, tan, moist, no plasticity, no cohesion	SP	
	100	-		(17-20') CLAY, soft, light gray, high plasticity, cohesive	CL	
		-				
		-				Boring terminated at 20' bgs due to encountering groundwater
20						

Total Borehole Depth: 20' bgs.

ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-016-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: B. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/8/2016
Weather	: 30s, cloudy
Northing (US ft)	: 564,357.24
Easting (US ft)	: 1,458,852.88

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-016-SB-1	(0.0-1') SAND, fine to medium grained, loose, soft, brown, dry	SW	
	70	-		(1-4') SAND and GRAVEL SLAG, fine to medium grained, loose, light brown, dry	SW/GW	
		1.5				
		29.5				
		4.8		(4-5.5') SLAG, GRAVEL sized with fine grained SAND, hard, loose, dark brownish-red, dry	GW	
5		-		(5.5-8.5') SAND, medium to coarse grained, soft, loose, light brown, dry	SW	
	80	1.4				
		18.4				
		-	B5-016-SB-8.5			
		463.9		(8.5-8.9') SAND, fine to medium grained, loose, bluish-green, moist	SW	Wet at 8.9' bgs
		83.2		(8.9-10') SAND, coarse grained, loose, beige, no plasticity, no cohesion; grades to SANDY CLAY, olive green, high plasticity, cohesive	SP to CH/CL	Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-017-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: B. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/21/2016
Weather	: 20s, sunny
Northing (US ft)	: 563,995.9631
Easting (US ft)	: 1,458,863.4360

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		0.4	B5-017-SB-1	(0-2.5') SAND with SLAG GRAVEL at top 2" of boring, fine to medium grained, loose, brown, dry	SW	
		0.6				
	100	7.3		(2.5-4.5') SILTY SAND, tan, wet, no plasticity, cohesive	SM	Wet at 2.5' bgs
		5.9				
		-		(4.5-5') CONCRETE and SLAG, GRAVEL sized, hard, loose, gray, wet	N/A	Boring terminated at 5' bgs due to encountering groundwater
5						

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-018-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: B. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/21/2016
Weather	: 20s, sunny
Northing (US ft)	: 563,995.2082
Easting (US ft)	: 1,458,853.7270

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-018-SB-1	(0.0-2.0') SAND and GRAVEL SLAG, fine to medium grained sand, loose, brown	SW/GW	
		0.4				
	90	4.5		(2-3') SILTY SAND, firm, tan, dry, no plasticity, cohesive	SM	
				(3-4') SAND, fine to medium grained, and GRAVEL SLAG, loose, brown	SW/GW	Wet at 3' bgs Sulfur odor 3-5' bgs
		0.8				
				(4-5') CONCRETE, GRAVEL sized, hard, loose, gray; grades to coarse SAND at depth	N/A	
		1.8				Boring terminated at 5' bgs due to encountering groundwater
5						

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-019-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: B. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/21/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,084.7598
Easting (US ft)	: 1,459,835.8080

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
	80	-	B5-019-SB-1	(0.0-4') SAND, fine to medium grained with <15% SLAG GRAVEL (0-3'), <50% SLAG GRAVEL (3-4'), loose, brown, dry	SW	
		-				
		2.1				
		2.3	B5-019-SB-4			
				(4-5') SLAG, SANDY GRAVEL sized, loose, hard, dark brown, wet	SW/GW	Wet at 4' bgs
		1.2				Boring terminated at 5' bgs due to encountering groundwater
5						

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-020-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: B. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/21/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,076.3040
Easting (US ft)	: 1,459,836.4330

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		4.5	B5-020-SB-1	(0-1') CONCRETE, GRAVEL sized, hard, loose, gray, dry; with firm black unknown substance with low plasticity and cohesion	N/A	Unknown substance
		184.4		(1-2.5') SAND, loose, brown, dry	SW	
	100	205.7	B5-020-SB-3.5	(2.5-3.5') SAND, trace CLAY, firm, tan, dry, cohesive	SW	
		55.0		(3.5-4') SANDY GRAVEL, loose, hard, black, wet	GW	Wet at 3.5' bgs
		-		(4-5') CLAY, trace SAND, soft, black, wet, high plasticity, cohesive	CH	
5						Boring terminated at 5' bgs due to encountering groundwater

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-021-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: B. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/22/2016
Weather	: 30s, cloudy
Northing (US ft)	: 564,095.4427
Easting (US ft)	: 1,460,085.9300

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No:	DESCRIPTION	USCS	REMARKS
0						
		-	B5-021-SB-1	(0.0-2.5') SAND, medium grained with <50% SLAG GRAVEL, brown	SW	
		1.4				
	90	1.1		(2.5-4') Sandy GRAVEL, loose, hard, black grading to dark brownish-red, moist	GW	
		9.7				
		1.5	B5-021-SB-5	(4-5') SANDY SILT grading to beige CLAYEY SAND, black, no plasticity, cohesive	ML/SC	
5						
	100	0.2		(5-6') SAND, tannish orange, moist, wet at bottom of boring, no plasticity, no cohesion	SW	Wet at 6' bgs Boring terminated at 6' bgs due to encountering groundwater
				End of Boring		
10						

Total Borehole Depth: 6' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-022-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: B. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/22/2016
Weather	: 30s, cloudy
Northing (US ft)	: 564,098.8291
Easting (US ft)	: 1,460,093.6110

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	80	-	B5-022-SB-1	(0-4') SAND, medium grained with <15% SLAG GRAVEL, soft, loose, brown, dry, moist at 2' bgs	SP	
		0.3				
		0.6				
		1.8				
		72.8	B5-022-SB-5	(4-5.5') SANDY GRAVEL, <1" size, hard, loose, brown with dark reddish oxidation, moist	GW	
5		-		(5.5-6') CLAY, very firm, tan, moist, low plasticity, cohesive	CL	Wet at 6' bgs
		-		(6-10') SAND, loose, orange, wet, no plasticity	SW	
	90	-				
		-				
		-				
10						Boring terminated at 10' bgs due to encountering groundwater

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-023-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: B. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/22/2016
Weather	: 20s, cloudy
Northing (US ft)	: 564,169.6391
Easting (US ft)	: 1,460,541.7560

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		0.1	B5-023-SB-1	(0-1') CLAYEY SAND, black, moist, no plasticity, cohesive	SC	
		0.2		(1-5') CLAYEY SAND and GRAVEL SLAG, tan, moist, no plasticity		
	100	0.7			SC/GW	
		3.6				
		0.3	B5-023-SB-5			
5		-		(5-7') GRAVELLY SAND, loose, gray, wet	GW	Wet at 5' bgs
		-				
				(7-10') SAND, beige and gray, wet, no plasticity, cohesive		
	100	-			SW	
		-				
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-024-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 2/1/2016
Weather	: 40s, cloudy
Northing (US ft)	: 564,161.6405
Easting (US ft)	: 1,460,479.209

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
	60	-	B5-024-SB-1	(0-2.5') GRAVEL, with trace SAND-sized pieces, COAL-like fragments, hard, loose, black, moist	GW	Wood chunks
		-				
		5.2		(2.5-3') SAND, medium to fine grained, loose, reddish brown and black, moist, no plasticity	SW	
				(3-3.5') SLAG, gravel sized, loose, hard, brown, wet	GP	Wet at 3' bgs
		46.0		(3.5-4') SAND, beige, wet, cohesive	SW	
				(4-5') SANDY CLAY with GRAVEL SLAG, very soft, beige, wet, medium plasticity, cohesive	CL	
		1.4				Boring terminated at 5' bgs due to encountering groundwater
5						

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-025-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 2/1/2016
Weather	: 40s, cloudy
Northing (US ft)	: 564,202.7399
Easting (US ft)	: 1,460,961.569

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
	70	-	B5-025-SB-1	(0-3') SANDY GRAVEL and SLAG, loose, hard, black, very moist	GP	
		-				
		8.9				
		15.6		(3-5') SAND, firm, brown, dry, no plasticity; grades to CLAY, brown, dry, high plasticity, cohesive	SW-CH	
		21.1	B5-025-SB-5			
5				(5-10') CLAY, tan, very wet, high plasticity, cohesive		Wet at 6.5' bgs Standing water in sleeve throughout
	70	-			CH	
		-				
		-				
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-026-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 2/1/2016
Weather	: 40s, cloudy
Northing (US ft)	: 564,202.3317
Easting (US ft)	: 1,460,948.673

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-026-SB-1	(0-2.5') GRAVELLY SAND with ORGANICS, soft, loose, dark brown, very moist	SW	
		0.7				
	93	7.1		(2.5-4') SLAG, GRAVEL sized with trace fines, loose, brown, wet, no plasticity	GP	Wet at 2.5' bgs
		2.7				
		0.5		(4-6') CLAY, very soft, tan, very wet, high plasticity, cohesive	CH	
5		-				
		-		(6-10') CLAY, firm, tan, high plasticity, cohesive; grades to SILTY SAND, moist, no plasticity, cohesive	CH to SM	
	100	-				
		-				
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-027-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: B. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/20/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,053.5837
Easting (US ft)	: 1,461,275.2660

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-027-SB-1	(0-3') SAND, very fine to fine grained grading to coarse, loose, dark brown to black, dry	SP	
		-				
	80	0.2				
		0.4		(3-5') SANDY GRAVEL with CLAY, moist, loose, tan and brown, clay is firm with medium plasticity, cohesive	GP-GC	
		0.2	B5-027-SB-5			
5				(5-6') SANDY GRAVEL with CLAY, hard, loose, dark brown, wet	GW	Wet at 5' bgs
	100	-				Boring terminated at 6' bgs due to refusal
				End of Boring		
10						

Total Borehole Depth: 6' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-028-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: B. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/20/2016
Weather	: 20s, cloudy
Northing (US ft)	: 564,045.1719
Easting (US ft)	: 1,461,276.1770

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-028-SB-1	(0.0-0.5') TOPSOIL, platy, soft, brown, dry, no cohesion	CL	
		0.4		(0.5-4.6') SAND, medium to coarse grained, and GRAVEL SLAG up to 2", dark brown, wet at 4.5' bgs	SW/GW	
	90	1.3				
		1.7	B5-028-SB-4.5			Wet at 4.5' bgs
		0.5		(4.6-5') CLAY, firm, gray and tan, wet, high plasticity, cohesive	CH	Boring terminated at 5' bgs due to encountering groundwater
5						

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-029-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 2/1/2016
Weather	: 40s, cloudy
Northing (US ft)	: 564,275.54
Easting (US ft)	: 1,460,893.2

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-029-SB-1	(0-2') SAND, little SLAG and GRAVEL, loose, black, moist, no plasticity	SW	
		4.4				
				(2-2.5') SLAG, GRAVEL sized, trace SAND, hard, loose, black, wet	GW	
	90	6.4		(2.5-4.5') SAND, little SLAG and GRAVEL, loose, black, moist, no plasticity	SW	
		5.9				
		38.7	B5-029-SB-5	(4.5-5') CLAY, trace SAND, firm, light gray, moist, medium plasticity, cohesive	CL	
5				(5-9.5') CLAY, trace SAND, very firm, gray with tan mottling, dry, medium plasticity, cohesive	CL	
		0.1				
		-				
	100	-				
		-				
		-				Wet at 9.5' bgs
				(9.5-10') SILTY SAND, very loose, orange, wet, cohesive	SM	Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-030-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 2/1/2016
Weather	: 40s, cloudy
Northing (US ft)	: 564,274.75
Easting (US ft)	: 1,460,878.13

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		0.1	B5-030-SB-1	(0-1') SANDY GRAVEL SLAG, hard, dark brown, wet, no plasticity, cohesive	GP	
		1.5		(1-2') SAND, little GRAVEL, loose, dark brown, dry	SW	
	95	12.3		(2-2.5') SANDY GRAVEL SLAG, hard, loose, brown, wet	GP	
		85.6	B5-030-SB-4	(2.5-4.6') SANDY GRAVEL SLAG, hard, loose, brown, moist	GP	
		16.0		(4.6-5.6') CLAY, trace SAND, gray, moist, medium plasticity, cohesive	CL	
5		3.2		(5.6-9') SANDY CLAY, firm, tan and gray, moist, low plasticity, cohesive	CL	
		3.5				
	100	5.8				
		8.9				
		4.3		(9-10') SAND, orange, wet, no plasticity, cohesive	SW	Wet at 9' bgs Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-031-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: B. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/15/2016
Weather	: 40s, sunny
Northing (US ft)	: 564,798.6901
Easting (US ft)	: 1,460,846.5090

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	80	-	B5-031-SB-1	(0-3.7') SAND, fine grained, loose, dark brown, dry	SW	
		-				
		-				
		-				
		-		(3.7-5') SAND, coarse to very coarse grained, loose, soft, beige, wet	SW	Wet at 3.66' bgs
5						Boring terminated at 5' bgs due to encountering groundwater

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-032-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: B. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/15/2016
Weather	: 40s, sunny
Northing (US ft)	: 564,792.8373
Easting (US ft)	: 1,460,840.3250

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-032-SB-1	(0.0-1.5') SAND, fine to medium grained, trace SLAG GRAVEL, loose, soft, black grading to brown, dry	SW	
		-				
	70	0.9		(1.5-5') SAND, medium to coarse grained, some SLAG GRAVEL, loose, soft, brown, dry	SW	
		4.5				
		3.6	B5-032-SB-5			
5						Wet at 5' bgs
		0.1		(5-7.5') CLAY, firm, light gray with orange streaks, wet, moist at 7.5-10' bgs, high plasticity, cohesive		
		0.0				
	100	-			CH	
		-				
		-				
10						Boring terminated at 10' bgs due to encountering groundwater

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-033-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: B. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/19/2016
Weather	: 10s, sunny
Northing (US ft)	: 565,025.4654
Easting (US ft)	: 1,460,644.4050

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		2.8	B5-033-SB-1	(0-1') SLAG with CONCRETE, fine grained SAND to GRAVEL sized, hard, loose, dry	N/A	
	100	-		(1-3') CONCRETE	N/A	
		-		(3-4') SANDY CLAY, soft, dark brown, dry, low plasticity, cohesive	CL	
		-		(4-7') SANDY CLAY, soft, tan, dry, low plasticity, cohesive	CL	
5		-				
		-				
	100	52.5	B5-033-SB-8	(7-8') CONCRETE	N/A	
		9.1		(8-10') CLAY, firm, tan, moist, high plasticity, cohesive	CH	
		1.9	B5-033-SB-10			
10	100	1.5		(10-11') CLAY, soft, tan, wet, high plasticity, cohesive	CH	Wet at 10' bgs
		1.7		(11-12') SAND, loose, soft, light tan grading to orange, wet	SW	Boring terminated at 12' bgs due to encountering groundwater
				End of Boring		
15						

Total Borehole Depth: 12' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-034-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: B. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/19/2016
Weather	: 10s, sunny
Northing (US ft)	: 565,014.1062
Easting (US ft)	: 1,460,641.0260

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	100	1.9	B5-034-SB-1	(0-1.5') SAND, brown to black, and GRAVEL SLAG, metallic, fine grained, loose, soft, dry	SW/GW	
		2.5		(1.5-2') SLAG, dark reddish, with SAND, dark reddish and gray, hard, loose, dry	N/A	Boring terminated at 2' bgs due to refusal
				End of Boring		
5						

Total Borehole Depth: 2' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-035-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	:
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/15/2016
Weather	: 30s, sunny
Northing (US ft)	: 565,082.905
Easting (US ft)	: 1,460,771.765

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0				NO SAMPLES/LOG COLLECTED - SHALLOW REFUSAL ENCOUNTERED AT ABOUT 1' bgs, Minimal recovery consisted of very coarse slag fragments. Dense slag is likely cause of refusal.		
5						

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-036-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	:
Drilling Equipment	: Geoprobe 7822DT

Date	:
Weather	:
Northing (US ft)	: 565,092.2643
Easting (US ft)	: 1,460,761.695

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0				NO SAMPLES/LOG COLLECTED - SHALLOW REFUSAL ENCOUNTERED AT ABOUT 1' bgs. Minimal recovery consisted of very coarse slag fragments. Dense slag is likely cause of refusal.		
5						

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-037-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: B. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/15/2016
Weather	: 40s, cloudy
Northing (US ft)	: 565,277.4561
Easting (US ft)	: 1,460,699.5560

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-037-SB-1	(0.0-4.5') SAND, medium grained with <25% SLAG GRAVEL, loose, soft, gray to dark brown, moist		
		1.0				
	80	5.2			SW	
		7.3				
		5.0	B5-037-SB-5			
				(4.5-5') SAND with WOOD debris at bottom, hard, tan, dry, no plasticity, no cohesion	SW	
5		-		(5-9.5') WOOD debris, large chunks, moist		
		-				
	30	-			N/A	
		-				
		5.3				Wet at 9.5' bgs
				(9.5-10') CLAY, very soft, light gray, wet, very high plasticity, cohesive	CH	
10		-		(10-20') CLAY, light gray with orange streaks, moist, high plasticity, cohesive		
		0.2				
	100	-				
		0.3				
		-				
15		-			CH	
		-				
		-				
	100	-				
		-				
		-				Boring terminated at 20' bgs due to encountering groundwater
20						

Total Borehole Depth: 20' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-038-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: B. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/15/2016
Weather	: 40s, cloudy
Northing (US ft)	: 565,271.0077
Easting (US ft)	: 1,460,711.2090

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-038-SB-1	(0.0-0.5') TOPSOIL, soft, dark brown, wet, no plasticity, cohesive	ML	
				(0.5-4') SLAG, GRAVEL sized with coarse SAND, hard, loose, gray, moist		
		-				
	70	1.4			GW	
		11.2				
			B5-038-SB-5	(4-5') SLAG and CONCRETE, GRAVEL sized, hard, loose, brown to beige, moist	N/A	
5		2.4				
				(5-9') FILL, BRICK GRAVEL and coarse tan SAND, hard, loose, moist		
		-				
		-			N/A	
	30	-				
		-				
				(9-10') SAND, medium grained, loose, soft, dark brown, moist but wet at bottom		
		2.9	B5-038-SB-10		SP	Wet at 10' bgs Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-039-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: B. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/14/2016
Weather	: 30s, sunny
Northing (US ft)	: 565,774.6776
Easting (US ft)	: 1,460,227.2830

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-039-SB-1	(0-5.5') SAND, little SLAG GRAVEL, fine to medium grained, loose, soft, dark brown to black		
		1.3				
	90	1.9			SW	
		22.7				
		49.3	B5-039-SB-5			
5		-		(5.5-10') SLAG, coarse grained to GRAVEL sized, hard, loose, black, dry, wet at 6.5' bgs		
		-				
	80	-			GW/SW	
		-				
		-				
10						Boring terminated at 10' bgs due to encountering groundwater

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-040-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: B. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/14/2016
Weather	: 30s, sunny
Northing (US ft)	: 565,747.3118
Easting (US ft)	: 1,460,241.6500

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-040-SB-1	(0.0-1.5') SLAG, GRAVEL sized, hard, loose, gray, dry	GW	
		0.5		(1.5-2') SANDY CLAY, hard, brown, very dry, low plasticity, cohesive	CL	
	90	1.8		(2-4.5') SAND, fine to coarse grained with small GRAVEL SLAG, loose, brown, dry, no plasticity	SW	
		0.4				
		0.5	B5-040-SB-5	(4.5-5') SANDY CLAY, hard, brown, very dry, low plasticity, cohesive	CL	
5		-		(5-9') SLAG, GRAVEL sized, hard, loose, black, wet	GP	Wet at 5' bgs
		-				
	100	-				
		-				
		-		(9-10') CLAY, soft, gray, wet, high plasticity, cohesive	CH	Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-041-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/2/2016
Weather	: 30s, cloudy
Northing (US ft)	: 564,727.455
Easting (US ft)	: 1,458,794.675

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-041-SB-1	(0-2') SAND with SLAG GRAVEL, loose, light gray, dry, no plasticity, no cohesion	SW	
		-				
	70	0.2		(2-5') SLAG, GRAVEL sized, loose, light gray, dry then wet at 4' bgs	GP	Wet at 4' bgs
		0.9				
		6.4				
5		-		(5-10') SAND, loose, light gray and orange, wet, no plasticity, cohesive	SW	
		-				
	100	-				
		-				
		-				
10						Boring terminated at 10' bgs due to encountering groundwater

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-042-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/12/2016
Weather	: 30s, sunny
Northing (US ft)	: 564,717.8797
Easting (US ft)	: 1,458,795.174

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
	70	-	B5-042-SB-1	(0-2') SAND, fine to medium grained, loose, light gray, dry, no plasticity	SW	
		-				
		34.8		(2-4.5') SLAG, GRAVEL sized, hard, loose, light gray, moist, no plasticity, no cohesion	GP	
		55.6				Wet at 4' bgs
		20.9		(4.5-5') CLAYEY SAND, loose, tan, wet, no plasticity, cohesive	SC	Boring terminated at 5' bgs due to encountering groundwater
5						

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-043-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: B. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/12/2016
Weather	: 30s, sunny
Northing (US ft)	: 564,970.4867
Easting (US ft)	: 1,458,692.4320

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-043-SB-1	(0-1') CONCRETE, SANDY, loose, dry, no plasticity, no cohesion	N/A	
		1.1		(1-3') SAND, fine to medium grained, loose, beige grading to black, dry, no plasticity	SW	
	90	0.2				
		0.3		(3-5') CLAY, soft, light gray with black streaks, moist, high plasticity, cohesive	CH	
		0.1	B5-043-SB-5			
5		2.6		(5-10') SANDY CLAY, firm, light gray with orange mottling, moist, wet at 7.5' bgs, high plasticity, cohesive		
		1.4				
	100	0.5			CH	Wet at 7.5' bgs
		0.0				
		0.1				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-044-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/12/2016
Weather	: 30s, windy
Northing (US ft)	: 565,015.5383
Easting (US ft)	: 1,458,733.687

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0				(0-0.5') CONCRETE, GRAVEL sized, hard, loose, dry	N/A	
		-	B5-044-SB-1	(0.5-2.5') SLAG, gravel sized, hard, loose, light gray, dry, wet at 2.1'	GP	
		0.0				
	100	0.0		(2.5-4') SAND, fine grained, loose, light gray, dry, no plasticity	SP	
		0.0				
		0.0	B5-044-SB-5	(4-8') CLAY, firm, light gray, tan at 5', moist, high plasticity, cohesive	CH	
5		-				
		-				
	100	-				
		-		(8-10') SAND, loose, tan grading to gray, wet, no plasticity	SW	Wet at 8' bgs
		-				
10						Boring terminated at 10' bgs due to encountering groundwater

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-045-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/12/2016
Weather	: 30s, windy
Northing (US ft)	: 565,026.996
Easting (US ft)	: 1,458,687.846

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	N/A	-	B5-045-SB-1	(0-5') SAND and GRAVEL SLAG, loose, gray, dry, no plasticity, no cohesion	SP	Liner melted and was stuck Unsure of recovery
		4.1				
		-				
		-				
		1.4	B5-045-SB-5			
5	100	-		(5-8.5') CLAY, firm, light gray, wet, high plasticity, cohesive	CH	Wet at 5' bgs
		-				
		-				
		-		(8.5-10') SAND, loose, dark tan, wet, no plasticity, no cohesion	SW	
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-046-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/5/2016
Weather	: 30s, windy
Northing (US ft)	: 564,526.4629
Easting (US ft)	: 1,462,680.5960

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		3.2	B5-046-SB-1	(0-2') SAND and GRAVEL SLAG, medium grained, loose, soft, brown, dry	SW/GW	
		9.1				
				(2-2.5') SLAG and SAND, medium grained, loose, hard, dark brown, wet	GP/SP	
	100	32.8		(2.5-5.5') CLAY with trace SAND, firm, brown, moist, low plasticity, cohesive		
		14.7			CL	
		2.6	B5-046-SB-5			
5		-		(5.5-6.7') SANDY CLAY, soft, brown, wet, medium plasticity, cohesive	CL	Wet at 6' bgs
		-		(6.7-7.5') CLAYEY SAND, medium grained, loose, gray, wet, medium plasticity, cohesive	SC	
	80	-		(7.5-10') CLAYEY SAND, medium to coarse grained sand, loose, dark tan, wet, medium plasticity, cohesive		
		-			SC	
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-047-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: B. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/5/2016
Weather	: 30s, windy
Northing (US ft)	: 564,538.0556
Easting (US ft)	: 1,462,684.9740

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		6.4	B5-047-SB-1	(0-2.5') SAND and GRAVEL SLAG, medium grained sand, loose, brown, dry	SW/GW	
		11.0				
	100	260.7		(2.5-3.3') SLAG, GRAVEL sized with coarse SAND, loose, hard, black, moist	GW	
		23.9	B5-046-SB-4	(3.3-3.5') CLAY, soft, brown, moist, high plasticity, cohesive	CH	
				(3.5-5') CLAY, hard, brown, high plasticity, cohesive	CH	
		44.6				
5				(5-7') CLAYEY SAND, firm, orange, dry, no plasticity, cohesive	SC	
		12.9				
		41.8				
				(7-9.4') SAND, medium to coarse grained, loose, orange, wet, no plasticity, no cohesion	SW	Wet at 7' bgs
	100	-				
		-				
		-		(9.4-9.8') SAND, medium to coarse grained, loose, gray, wet, no plasticity, no cohesion	SW	
10				(9.8-10') SAND, medium to coarse grained, loose, orange, wet, no plasticity, no cohesion	SW	Boring terminated at 10' bgs due to encountering groundwater

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-048-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT
Date	: 2/1/2016
Weather	: 40s, cloudy
Northing (US ft)	: 563,683.6181
Easting (US ft)	: 1,458,476.168

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		2.8	B5-048-SB-1	(0-2.5') SAND, little GRAVEL SLAG, loose, dark gray to beige to brown (alternating), moist, no plasticity, no cohesion	SW	
		96.3				
	93	166.4		(2.5-3') SAND, fine to medium grained, loose, black, moist, no plasticity, no cohesion	SW	Petroleum "oily" odor
		32.0		(3-4') SAND, medium grading to coarse grained, loose, beige, wet, no plasticity, no cohesion	SW	Wet at 3.5' bgs Green tinge throughout
		15.5		(4-4.5') GRAVEL, with coarse grained SAND, hard, loose, white and bluish gray, wet	GP	
				(4.5-5') CLAYEY SAND, loose, tan with green staining, wet, low plasticity, cohesive	SC	
5		-		(5-10') SAND, coarse grained interbedded with GRAVEL SLAG, loose, hard, beige to gray, wet		
		-				
	90	-			SW/GW	
		-				
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-049-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 2/1/2016
Weather	: 40s, cloudy
Northing (US ft)	: 563,658.086
Easting (US ft)	: 1,458,468.118

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-049-SB-1	(0-1') CLAYEY SAND with GRAVEL SLAG, beige, moist, no plasticity, cohesive	SC	
	100	44.6 157.7		(1-3') SAND, fine to medium grained, with SLAG GRAVEL, loose, dark brown to black, moist, no plasticity, no cohesion	SW	
		101.8		(3-4') CLAYEY SAND, firm, beige, wet, no plasticity	SC	Wet at 3' bgs Oily smell and shiny at 3' bgs
		174.4		(4-5') GRAVELLY SAND, medium to coarse grained, loose, beige, wet, low plasticity, cohesive	SW	
5						Boring terminated at 5' bgs due to encountering groundwater

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-050-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: B. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/5/2016
Weather	: 20s, windy
Northing (US ft)	: 564,500.6475
Easting (US ft)	: 1,462,629.5860

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		8.7	B5-050-SB-1	(0-0.66') SAND, medium to coarse grained with little SLAG GRAVEL, loose, dark brown, dry, no plasticity, no cohesion	SP	
				(0.66-0.83') CLAY, hard, tan, medium plasticity, cohesive	CL	
		60.1		(0.83-2') SAND, medium to coarse grained with little SLAG GRAVEL, loose, dark brown, dry, no plasticity, no cohesion	SW	
	100	87.0		(2-4') CLAY, hard, tan, medium plasticity, cohesive	CL	
		62.6				
		168.6	B5-050-SB-5	(4-5.5') Sandy CLAY, soft, brownish black, moist, low plasticity, cohesive	CL	
5		-		(5.5-8.5') SAND, loose, medium grained, brownish gray, wet, no plasticity	SW	Wet at 6' bgs
		-				
	80	-				
		-				
		-		(8.5-10') SAND, medium grained, loose, orange, wet, no plasticity	SW	
10						Boring terminated at 10' bgs due to encountering groundwater

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-051-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: E. Magdar
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/5/2016
Weather	: 30s, windy
Northing (US ft)	: 564,513.6446
Easting (US ft)	: 1,462,652.4420

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		5.8	B5-051-SB-1	(0-2') SAND and GRAVEL SLAG, fine to medium grained SLAG, loose, dark brown, dry, no plasticity, no cohesion	SW	
		8.7				
	100	153.3		(2-5') CLAY, hard, brown, dry, medium plasticity, cohesive	CL	
		248.2				
		289.1	B5-051-SB-5			Strong gas/petroleum odor at 4.5-5.5' bgs
5		-		(5-10') SAND, loose, brownish gray grading to orange, wet, no plasticity, cohesive	SW	
		-				
	100	-				
		-				
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-052-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 12/22/2015
Weather	: 50s, rainy
Northing (US ft)	: 563,392.6704
Easting (US ft)	: 1,460,735.7620

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	100	0.2 0.6	B5-052-SB-1	(0-2') SAND and GRAVEL SLAG, fine to coarse grained sand, loose, brown to dark black, dry, no cohesion	SW/GW	Boring terminated at 2' bgs due to refusal
				End of Borehole		
5						

Total Borehole Depth: 2' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-053-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 12/22/2015
Weather	: 50s, cloudy
Northing (US ft)	: 563,382.8961
Easting (US ft)	: 1,460,652.1560

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		0.5	B5-053-SB-1	(0-2') SAND and GRAVEL SLAG, medium grained sand, loose, dark brown, dry, no plasticity, no cohesion	SW	
		0.9				
	100	1.7		(2-4') SILTY SAND, fine to coarse grained, with metallic gravel SLAG, dark reddish, loose, dry, no plasticity, no cohesion	SM	
		3.8				
		4.4		(4-5.5') SILT, with GRAVEL SLAG, hard, brown dry, no plasticity	ML	
5		-				
		0.8		(5.5-8') Sandy SILT, hard, dark brown, dry, no plasticity	ML	
	80	2.7				
		10.7	B5-053-SB-9	(8-8.5') SILTY SAND, firm, orange, dry, no plasticity	SM	
				(8.5-10') SILT and GRAVEL SLAG, soft to firm, brown with black streaks at bottom, moist, no plasticity	ML	
		4.4	B5-053-SB-10			
10		0.0		(10-12') SILTY CLAY, soft but firm in spots, gray, medium plasticity, cohesive	CL	
		-				
	100	-		(12-15') SILTY CLAY, soft, gray, wet, medium plasticity, cohesive	CL	Wet at 12' bgs in sleeve
		-				
		-				Boring terminated at 15' bgs due to encountering groundwater
15						

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-054-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/21/2016
Weather	: 20s, sunny
Northing (US ft)	: 563,754.2276
Easting (US ft)	: 1,459,243.3560

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		0.5	B5-054-SB-1	(0-1.5') ASPHALT, GRAVEL and SAND sized pieces, loose, hard, gray to brown, dry	N/A	
		0.3		(1.5-4') SAND and GRAVEL SLAG, fine to medium grained SAND, with METAL, alternating 1' bands, black to light brown	SW/GW	
	80	0.5				
		0.3	B5-054-SB-4			Wet at 4' bgs
				End of Boring		Boring terminated at 4' bgs due to refusal
5						

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-055-SB

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Client	: EnviroAnalytics Group	Date	: 1/21/2016
ARM Project No.	: 150300M-3-3	Weather	: 20s, sunny
Project Description	: Sparrows Point - Parcel B5		
Site Location	: Sparrows Point, MD		
ARM Representative	: L. Perrin		
Checked by	: W. Mader, P.G., CPSS	Northing (US ft)	: 563,761.5239
Drilling Company	: Green Services, Inc	Easting (US ft)	: 1,459,289.0730
Driller	: Don Marchese		
Drilling Equipment	: Geoprobe 7822DT		

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No:	DESCRIPTION	USCS	REMARKS
0	100	-	B5-055-SB-1	(0-1') SAND, with SLAG GRAVEL, shiny, at top, loose, black, dry, no plasticity, no cohesion	SW	
		0.2		(1-2') SAND, light brown, with trace slag gravel, loose, dry, no plasticity, no cohesion	SW	Boring terminated at 2' bgs due to refusal
				End of Boring		
5						

Total Borehole Depth: 2' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-056-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/5/2016
Weather	: 10s, windy
Northing (US ft)	: 564,023.4483
Easting (US ft)	: 1,463,809.4450

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-056-SB-1	(0-4') GRAVEL with fine to coarse SAND, hard, loose, white, dry	GW	Possible quartz or quartzite
	50	-				
		1.0				
		0.7				
		2.4	B5-056-SB-5	(4-5') SAND, fine grading to coarse grained, and SLAG GRAVEL, loose, beige, moist, no plasticity, no cohesion	SW	
5		1.1		(5-6') GRAVEL and SAND, slough from above, loose, white, no plasticity, no cohesion	GW/SW	
		2.0		(6-11') SLAG, GRAVEL sized with medium to coarse grained SAND, hard, loose, tan to light gray, wet	GW/SW	Wet at 6' bgs
	100	3.4				
		140.5				
		2.7				
10		-				
		-				
	60	-		(11-15') SAND, medium grained, loose, white to light gray, wet, no plasticity, cohesive	SW	
		-				
		-				Boring terminated at 15' bgs due to encountering groundwater
15						

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-057-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date Started	: 1/5/2016
Weather	: 20s, windy
0 Hr Depth to Water	: 7' bgs
24 Hr Depth to Water	: NA
Northing (US ft)	: 564,014.4488
Easting (US ft)	: 1,463,810.4800

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No:	DESCRIPTION	USCS	REMARKS
0		-	B5-057-SB-1	(0-1.6') GRAVEL with medium grained SAND, white, dry, loose	GP	Possible quartz or quartzite
		6.4		(1.6-7') SLAG, GRAVEL sized with medium to coarse grained SAND, loose, tan to light gray, moist		
	80	38.8				
		34.3				
		10.9			GP	
5		-	B5-057-SB-6			Slight gas/petroleum odor
		128.5				
						Wet at 7' bgs
				(7-10') SLAG, GRAVEL sized, with medium to coarse grained SAND, loose, tan to light gray, wet, no plasticity, no cohesion		
	80	110.1				
		-			GP	
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-058-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/8/2016
Weather	: 30s, cloudy
Northing (US ft)	: 565,048.7003
Easting (US ft)	: 1,458,453.2870

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-058-SB-1	(0-1') SAND, medium grained, loose, light beige, dry, no plasticity, no cohesion	SW	
		5.5		(1-2.5') SAND, medium grained, firm, brown, dry, no plasticity, cohesive	SP	
	90	8.8		(2.5-3') SLAG, gravel sized, hard, loose, brown, moist, no plasticity, no cohesion	GW	
				(3-3.5') SANDY CLAY, firm, light gray, moist, medium plasticity, cohesive	CL	
		1.5		(3.5-7') SAND, firm, tan and light gray, moist, cohesive		
		0.9	B5-058-SB-5			
5		0.2			SW	
	100	-				
		-		(7-10') SAND, firm, tan and light gray, wet, no plasticity, cohesive		Wet at 7' bgs
		-			SW	
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-059-SB

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Clien	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/8/2016
Weather	: 30s, cloudy
Northing (US ft)	: 565,206.4594
Easting (US ft)	: 1,458,437.5160

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No:	DESCRIPTION	USCS	REMARKS
0						
	70	1.2	B5-059-SB-1	(0-2') SLAG with coarse SAND, loose, hard, brown, moist, no plasticity, no cohesion	GW/SW	
		1.0				
		1.2		(2-3.5') SAND, hard, loose, dark brown grading to black, dry, no plasticity, no cohesion	SW	Boring terminated at 3.5' bgs due to refusal
				End of Boring		
5						

Total Borehole Depth: 3.5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-060-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/7/2016
Weather	: 30s, cloudy
Northing (US ft)	: 564,482.2242
Easting (US ft)	: 1,458,224.3660

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	80	-	B5-060-SB-1	(0-2') SAND, medium to coarse grained, loose, soft, brown, dry	SP	
		0.7				
		1.3		(2-2.6') SANDY SILT, soft, brown with white streaks, no plasticity, cohesive	ML	
		1.2		(2.6-4') SAND and GRAVEL SLAG, medium to coarse grained SAND, loose, dark brown, dry, no plasticity, no cohesion	SW/GW	
		0.9	B5-060-SB-5	(4-4.5') SAND and GRAVEL SLAG, medium to coarse grained SAND, loose, dark brown, moist	SW/GW	
				(4.5-5') SLAG, hard, loose, light gray, wet	GW	Wet at 4.7' bgs
5		-		(5-6.5') SLAG, coarse grained to GRAVEL sized, loose, hard light gray, wet	SW/GW	Boring terminated at 6.5' bgs due to encountering groundwater
				End of Boring		
10						

Total Borehole Depth: 6.5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-061-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/7/2016
Weather	: 30s, cloudy
Northing (US ft)	: 564,722.0998
Easting (US ft)	: 1,458,197.7800

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	66	-	B5-061-SB-1	(0-3') SAND and GRAVEL SLAG, medium grained, loose, brown, moist, no plasticity, no cohesion	SW/GW	
		0.3				
		-				
		0.5		(3-4') CONCRETE, hard, loose, light gray, dry, no plasticity, no cohesion	N/A	
		0.9		(4-5') SAND, medium to very coarse grained, loose, beige, wet, no plasticity, no cohesion	SW	Wet at 4' bgs Boring terminated at 5' bgs due to encountering groundwater
5						

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-062-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 2/6/2016
Weather	: 40s, sunny
Northing (US ft)	: 563,553.8059
Easting (US ft)	: 1,458,279.964

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		1.6	B5-062-SB-1	(0-2') SAND, medium grained, loose, brown, dry, no plasticity, no cohesion	SP	
		3.7				
	100	5.5		(2-2.5') SAND, medium grained with trace fines, medium dense, brown, dry	SP	
				(2.5-3') SAND, fine grained, soft, loose, black, moist	SP	
				(3-3.5') SANDY GRAVEL, hard, loose, beige, wet	GP	Wet at 3' bgs
		0.6		(3.5-4') CONCRETE, cobble sized, hard, loose, gray, dry	N/A	
				(4-5') SAND, medium grained with trace GRAVEL, brown, wet, cohesive	SP	
		1.3				Boring terminated at 5' bgs due to encountering groundwater
5						

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-063-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 2/2/2016
Weather	: 40s, sunny
Northing (US ft)	: 563,526.691
Easting (US ft)	: 1,458,283.176

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-063-SB-1	(0-2.5') SAND, loose, brown, moist, no plasticity, no cohesion	SW	
		1.3				
	87	2.9		(2.5-4') SAND with trace CLAY, with SHELLS throughout, loose, firm, brown, dry	SW	
		2.0	B5-063-SB-4			
				(4-4.5') CONCRETE chunks, loose, gray, dry, no plasticity, no cohesion	N/A	
		0.3		(4.5-5') SANDY CLAY, very soft, brown, wet, medium plasticity, cohesive	CL	Wet at 4.5' bgs Boring terminated at 5' bgs due to encountering groundwater
5						

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-064-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 12/22/2015
Weather	: 50s, cloudy
Northing (US ft)	: 563,428.1258
Easting (US ft)	: 1,461,188.772

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-064-SB-1	(0-3') SAND, fine to medium grained with metallic SLAG GRAVEL, loose, dark brown to reddish brown, dry, no plasticity, no cohesion		
		0.4			SW	
	100	3.0				
		1.7		(3-5') CONCRETE, light gray, dry	N/A	
		-				
5						
		0.0		(5-7') SLAG, GRAVEL sized with coarse brown SAND, loose, light gray, dry, no plasticity, no cohesion	GP	
	100	-	B5-064-SB-7			Boring terminated at 7' bgs due to refusal
				End of Boring		
10						

Total Borehole Depth: 7' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-065-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 12/22/2015
Weather	: 50s, cloudy
Northing (US ft)	: 563,431.7805
Easting (US ft)	: 1,461,219.6140

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-065-SB-1	(0-3.5') SAND, fine grained with GRAVEL SLAG, soft, loose, dark brown, dry	SW	
		-				
	60	2.0				
		4.0		(3.5-5') SAND, medium to coarse grained with GRAVEL SLAG, loose, brown with some orange mottling, dry, no plasticity, no cohesion	SP	
		7.0				
5		59.9	B5-065-SB-6	(5-10') SLAG and SAND, GRAVEL sized with medium to coarse grained SAND, loose, white to gray, dry Slag is hard, olive green between 6-6.5' bgs	GW/SW	
		54.9				
	100	30.1				
		5.4				
		2.1	B5-065-SB-10			
10		-		(10-13.7') SLAG, hard, and SAND, GRAVEL sized with medium to coarse grained SAND, loose, gray, dry	GW/SW	
		-				
	100	-				Wet at 13' bgs
		-				
				(13.7-14.1') SAND, medium to coarse grained, loose, slightly firm, white, wet	SW	
		-		(14.1-15') SILTY SAND with ORGANICS, loose, dark brown, wet, no plasticity	SM	Boring terminated at 15' bgs due to encountering groundwater
15						

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-066-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/20/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,648.16
Easting (US ft)	: 1,461,018.73

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0				(0-0.5') CONCRETE, gravel sized, hard, loose, light gray, dry	N/A	
		-	B5-066-SB-1	(0.5-1') SAND, fine grained, loose, dark brown, dry, no plasticity, no cohesion	SP	
	70	- 1.0 1.9		(1-3.5') SAND, medium to coarse grained with <10% SLAG GRAVEL, beige, dry, loose, no plasticity, no cohesion	SW	
		0.2		(3.5-5') SANDY GRAVEL, loose, hard, beige, wet, no plasticity, no cohesion	GW	Wet at 4' bgs
5						Boring terminated at 5' bgs due to encountering groundwater

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-067-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/20/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,632.3175
Easting (US ft)	: 1,461,013.6050

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No:	DESCRIPTION	USCS	REMARKS
0		-	B5-067-SB-1	(0-2') TOPSOIL, colloidal, slight firm, dark brown, dry, cohesive	ML	
	80	0.7				
		0.5		(2-4') SAND with <25% medium to GRAVEL sized SLAG, beige, dry	SP	
		0.4				
				(4-5') SANDY GRAVEL, loose, hard, beige, wet	GW	Wet at 4' bgs
		0.1				Boring terminated at 5' bgs due to encountering groundwater
5						

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-068-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 2/2/2016
Weather	: 40s, sunny
Northing (US ft)	: 565,479.3272
Easting (US ft)	: 1,458,558.33

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-		(0-1.5') CONCRETE, SAND-sized, loose, white to gray, dry, no plasticity, no cohesion	N/A	
		-	B5-068-SB-1			Did not sample 3-4' bgs due to concrete
	50	3.2				
		2.0				
				(4-4.5') GRAVELLY SAND, loose, brown, wet, no plasticity, no cohesion	SW	Wet at 4' bgs
		2.1		(4.5-5') SANDY CLAY, very soft, dark brown, wet, high plasticity, cohesive	CH	
5						Boring terminated at 5' bgs due to encountering groundwater

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-069-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 2/2/2016
Weather	: 40s, sunny
Northing (US ft)	: 565,501.9693
Easting (US ft)	: 1,458,556.368

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-069-SB-1	(0-1') CONCRETE, fine grained SAND sized, loose, white-gray, dry, no plasticity, no cohesion	N/A	
		-		(1-4.7') GRAVELLY SAND, loose, soft, brown, moist; wet at 4.7' bgs, no plasticity	SW	
	60	8.8				
		3.4	B5-069-SB-4			
		1.4				Wet at 4.7' bgs
				(4.7-5') SANDY CLAY, hard, gray, moist, medium plasticity	CL	Boring terminated at 5' bgs due to encountering groundwater
5						

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-070-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 2/2/2016
Weather	: 40s, sunny
Northing (US ft)	: 563,557.9602
Easting (US ft)	: 1,458,426.975

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-070-SB-1	(0-3') SAND, with few SLAG GRAVEL, grass at very top, loose, dark brown, moist, loose, no plasticity, no cohesion	SW	
		3.1				
	87	0.8				
				(3-5') SANDY GRAVEL, loose, brown, wet at 3' bgs, standing water at 4' bgs, no plasticity, no cohesion	GW	Wet at 3' bgs
		0.1				
		-				Boring terminated at 5' bgs due to encountering groundwater
5						

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-071-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 2/2/2016
Weather	: 40s, sunny
Northing (US ft)	: 563,562.9072
Easting (US ft)	: 1,458,469.103

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	90	0.7	B5-071-SB-1	(0-2') SAND, with large SLAG GRAVEL, loose, dark brown, dry, no plasticity	SW	
		11.3				
		48.0		(2-2.5') CONCRETE, GRAVEL sized, loose, beige, dry, no plasticity, no cohesion	N/A	
				(2.5-3') SAND, loose, dark brown, dry, no plasticity	SW	
		-		(3-4') SLAG, GRAVEL sized, loose, brown, wet, no plasticity, no cohesion	GW	Wet at 3' bgs
		-		(4-5') CLAY, gray, wet, high plasticity, cohesive	CH	
5						Boring terminated at 5' bgs due to encountering groundwater

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-072-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/12/2016
Weather	: 30s, cloudy
Northing (US ft)	: 565,093.4543
Easting (US ft)	: 1,458,791.903

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-072-SB-1	(0-2.5') SANDY SILT, firm, dark reddish-brown, moist, no plasticity, cohesive	ML	
		-				
	60	0.9		(2.5-3') SLAG, GRAVEL sized, loose, gray, dry, no plasticity, no cohesion	GP	
		1.1		(3-4') SAND, coarse grained, loose, dense, black, moist, no plasticity	SP	
		1.0		(4-5') SILT, hard, gray, dry, no plasticity	ML	
5		7.9	B5-072-SB-6	(5-10') CLAY with trace sand, firm, light gray and tan, moist, high plasticity, cohesive	CH	
		0.7				
	100	3.8				
		1.6				
		0.2	B5-072-SB-10			
10		-		(10-13.5') CLAY, very firm, tan, dry, high plasticity, cohesive	CH	
		-				
	80	-				
		-		(13.5-15') SAND, wet, beige, loose, no plasticity, cohesive	SW	Wet at 13.5' bgs
		-				Boring terminated at 15' bgs due to encountering groundwater
15						

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-073-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/12/2016
Weather	: 30s, cloudy
Northing (US ft)	: 565,073.0869
Easting (US ft)	: 1,458,793.194

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-073-SB-1	(0-3.5') SLAG, GRAVEL sized with coarse SAND, loose, dark reddish-brown, dry, no plasticity, no cohesion	GP	
	60	0.3				
		0.5		(3.5-4.5') SAND, coarse grained, loose, dense, black, dry, no plasticity	SW	
		0.1	B5-073-SB-5	(4.5-5') SILT, very firm, gray, dry, no plasticity	ML	
5		0.2		(5-10') CLAY, firm to soft, tan, moist, high plasticity, cohesive	CH	
	100	0.3				
		0.2				
		0.3	B5-073-SB-10			
10		-		(10-13') SAND, loose, tan, moist, no plasticity, cohesive	SW	
		-				
	87	-				
		-		(13-15') SAND, soft, beige to tan, wet, no plasticity, cohesive	SW	Wet at 13' bgs
		-				
15		-				Boring terminated at 15' bgs due to encountering groundwater

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-074-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/13/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,353.5374
Easting (US ft)	: 1,459,082.704

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	80	-	B5-074-SB-1	(0-4.7') SAND, fine to medium grained with small GRAVEL SLAG, loose, dark brown, dry grading to moist, wet at 4.7', no plasticity, no cohesion	SW	
		0.3				
		0.4				
		0.5				
		0.4	B5-074-SB-5			Wet at 4.7' bgs
5						Boring terminated at 5' bgs due to encountering groundwater

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-075-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/13/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,352.9442
Easting (US ft)	: 1,459,076.09

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-075-SB-1	(0-10') SAND, fine to medium grained with small GRAVEL SLAG, loose, dark brown, dry; moist at 4.5' bgs; wet at 6' bgs		
		0.3				
	80	0.4				
		0.5				
		0.5	B5-075-SB-5			
5		-			SW	
		-				Wet at 6' bgs
	80	-				
		-				
		-				
10						Boring terminated at 10' bgs due to encountering groundwater

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-076-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/13/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,397.0224
Easting (US ft)	: 1,459,074.68

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-076-SB-1	(0-2.5') TOPSOIL, with ROOTS and slivers of METAL throughout, soft, loose, brown, dry	ML	
		-				
	70	0.2		(2.5-5') CONCRETE, large GRAVEL sized with fine to coarse SAND, light gray, loose, no plasticity, no cohesion	N/A	
		0.6				
		1.2				
5		0.6	B5-076-SB-6	(5-8') GRAVELLY SAND, loose, brown, dry, no plasticity, no cohesion	SP	
		-				
	90	-				
		-		(8-10') SLAG, coarse grained to GRAVEL sized, loose, brown, wet, no plasticity, no cohesion	SW/GW	Wet at 8' bgs
		1.1				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-077-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/13/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,396.184
Easting (US ft)	: 1,459,067.784

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-077-SB-1	(0-1') TOPSOIL, SANDY, firm, loose, dark brown, moist	ML	
		-		(1-5') SAND, fine to coarse grained with CONCRETE GRAVEL, loose, dark brown, dry, no plasticity, no cohesion	SW	
	80	0.5				
		1.1				
		0.8	B5-077-SB-5			
5				(5-10') SAND, fine to medium grained with some SLAG GRAVEL, loose, dark brown, dry, no plasticity, no cohesion; wet with more gravel at 8.5' bgs	SW	
		-				
		0.6				
	70	1.1				
		0.8				Wet at 8.5' bgs
		0.3				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-078-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/19/2016
Weather	: 10s, sunny
Northing (US ft)	: 565,653.99
Easting (US ft)	: 1,461,120.03

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0				(0-0.2') TOPSOIL, firm, loose, brown, dry	ML	
		-	B5-078-SB-1	(0.2-6') SAND, fine to coarse grained, intermittent GRAVEL SLAG throughout, loose, brown, dry		
		1.3				
	80	1.6				
					SW	
		44.9	B5-078-SB-4			
		19.5				
5						
		-				
				(6-10') SAND, fine to coarse grained, very small GRAVEL, all fine SAND in bottom 4", loose, brown grading to to black, wet		Wet at 6' bgs
	70	-				
		0.1				
					SW	
		-				
		-				
10						Boring terminated at 10' bgs due to encountering groundwater

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-079-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/19/2016
Weather	: 10s, sunny
Northing (US ft)	: 565,640.6293
Easting (US ft)	: 1,461,152.3920

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-079-SB-1	(0-1.5') Sandy SILT, very dry, firm, brown, no plasticity, cohesive	ML	
		5.6		(1.5-8') SAND, fine to coarse grained, loose, brown, dry, no plasticity, no cohesion		
	90	115.9				
		387.1	B5-079-SB-4			
		255.4			SW	
5		-				
	60	-				
		-				
		-		(8-10') SLAG, coarse grained to GRAVEL sized, loose, dark brown to black, wet, low plasticity, no cohesion		Wet at 8' bgs
		-			SW/GW	
10		-				Boring terminated at 10' bgs due to encountering groundwater

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-080-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/19/2016
Weather	: 10s, sunny
Northing (US ft)	: 565,647.9708
Easting (US ft)	: 1,461,129.0120

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-080-SB-1	(0-4.5') SAND, fine to coarse grained with small SLAG GRAVEL throughout, loose, brown to black, dry, no plasticity, no cohesion	SW	
	80	0.3				
		2.1				
		32.4				
		54.3	B5-080-SB-5			
5		-		(4.5-6') SAND, very fine grained, loose, black, moist, no plasticity, no cohesion	SP	Wet at 6' bgs
	70	-		(6-10') SAND, medium grained grading to GRAVEL SLAG, loose grading to dense, black, wet, no plasticity	SW	
		-				
		-				
		-				
10						Boring terminated at 10' bgs due to encountering groundwater

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-081-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/13/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,779.9672
Easting (US ft)	: 1,459,665.102

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	60	-	B5-081-SB-1	(0-3') SLAG, GRAVEL sized with coarse SAND, loose, gray, dry, no plasticity, no cohesion	GP	
		-				
		0.5				
		0.3		(3-6') CLAY, firm, gray and tan mottled, moist, wet at 5' bgs, high plasticity, cohesive	CH	
		0.3	B5-081-SB-5			
5		-				Wet at 5' bgs
		-		(6-10') SAND, loose, tan, wet, no plasticity, cohesive	SW	
	100	-				
		-				
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-082-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/13/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,795.7967
Easting (US ft)	: 1,459,680.06

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-082-SB-1	(0-3') SLAG, large GRAVEL sized, loose, gray, slightly moist, no plasticity, no cohesion	GP	
	80	0.6				
		0.5		(3-6') CLAY with trace SAND, very firm, gray with orange mottling, dry to moist, wet at 5' bgs, high plasticity, cohesive	CH	
		0.9	B5-082-SB-5			
5		-				Wet at 5' bgs
		-		(6-10') SAND, loose, light gray to beige with oxidation, wet, no plasticity, cohesive	SW	
	100	-				
		-				
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-083-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/13/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,801.5971
Easting (US ft)	: 1,459,656.736

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-083-SB-1	(0-5') CLAY, with trace SAND, hard, light beige, dry, medium plasticity, cohesive		
		0.3				
	87	0.5			CL	
		0.6				
		0.6	B5-083-SB-5			
5				(5-8') SANDY CLAY, very soft, light beige, wet, high plasticity, cohesive		
		-				
		-			CH	Wet at 7' bgs
	60	1.5				
				(8-10') SAND, loose, light beige to tan, wet, no plasticity, cohesive		
		0.3				
					SW	
		0.3				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-084-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/15/2016
Weather	: 40s, sunny
Northing (US ft)	: 564,821.9985
Easting (US ft)	: 1,460,565.6040

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	60	-	B5-084-SB-1	(0-3') SLAG, medium grained to GRAVEL sized, loose, gray, dry, no plasticity, no cohesion	GW	
		-				
		-				
		28.3		(3-5') SLAG, gravel sized with coarse sand, loose, gray, wet, no plasticity, no cohesion	GW	Wet at 3' bgs
		19.5				
5						Boring terminated at 5' bgs due to encountering groundwater

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-085-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/14/2016
Weather	: 30s, sunny
Northing (US ft)	: 564,798.0087
Easting (US ft)	: 1,460,524.4350

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	50	-	B5-085-SB-1	(0-3') SAND and GRAVEL SLAG, fine to coarse grained, loose to medium dense, gray, low plasticity	SW/GW	Wet at 3' bgs
		-				
		-		(3-4.5') SLAG, loose, gray, wet, no plasticity, no cohesion	GW	Boring terminated at 4.5' bgs due to refusal
		-				
5				End of Boring		

Total Borehole Depth: 4.5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-086-SB

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Client	: EnviroAnalytics Group	Date	: 1/15/2016
ARM Project No.	: 150300M-3-3	Weather	: 40s, cloudy
Project Description	: Sparrows Point - Parcel B5		
Site Location	: Sparrows Point, MD		
ARM Representative	: L. Perrin		
Checked by	: W. Mader, P.G., CPSS	Northing (US ft)	: 565,100.4058
Drilling Company	: Green Services, Inc	Easting (US ft)	: 1,460,789.1230
Driller	: Don Marchese		
Drilling Equipment	: Geoprobe 7822DT		

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No:	DESCRIPTION	USCS	REMARKS
0						
	100	0.5 1.6 23.6	B5-086-SB-1	(0-2') SAND and GRAVEL SLAG, loose, brown, dry, no plasticity, no cohesion	SW/GW	Boring terminated at 2' bgs due to refusal
				End of Boring		
5						

Total Borehole Depth: 2' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-087-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/16/2016
Weather	: 40s, cloudy
Northing (US ft)	: 565,076.2884
Easting (US ft)	: 1,460,759.7510

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-087-SB-1	(0-5.5') SAND and GRAVEL SLAG, fine to medium grained, loose, brown grading to gray at depth, dry, no plasticity, no cohesion		
		8.0				
	90	7.0			SW/GW	
		6.2				
		7.2	B5-087-SB-5			
5		-		(5.5-7.5') SAND, medium grained, slightly moist, and GRAVEL SLAG, loose, gray, dry, no plasticity, no cohesion		
		7.1			SW/GW	
	80	4.6		(7.5-10') SAND, loose, tan, moist, no plasticity, no cohesion		
		2.2			SW	
		2.6				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-088-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/15/2016
Weather	: 40s, cloudy
Northing (US ft)	: 565,023.3462
Easting (US ft)	: 1,460,936.2110

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
	60	-	B5-088-SB-1	(0-3') SAND, fine grained grading to coarse beige SAND, loose, dark brown, slightly moist, no plasticity, no cohesion	SP	
		0.2				
		1.1				
				(3-3.5') CONCRETE, GRAVEL pieces, loose, white, dry, no plasticity, no cohesion	N/A	
		4.6		(3.5-6') SAND, coarse grained grading to very coarse grained, loose, beige, moist, no plasticity, no cohesion	SW	
		4.8	B5-088-SB-5			
5		-				
		-				
	67			(6-9.5') SAND, medium grained, firm, dark gray, moist, no plasticity, no cohesion	SW	Slight odor
		0.2				
		3.6				
		0.4				Boring terminated at 9.5' bgs due to refusal
				End of Boring		
10						

Total Borehole Depth: 9.5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-089-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/15/2016
Weather	: 40s, sunny
Northing (US ft)	: 565,054.8601
Easting (US ft)	: 1,460,885.5280

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
	66	-	B5-089-SB-1	(0-3') SAND with GRAVEL SLAG, medium to coarse grained sand, dense, moist, no plasticity	SW/GW	Wet at 2' bgs
		-				Boring terminated at 3' bgs due to refusal
				End of Boring		
5						

Total Borehole Depth: 3' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-090-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: N. Kurtz
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 4/13/2016
Weather	: 50s, sunny
Northing (US ft)	: 564713.88
Easting (US ft)	: 1460702.99

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
	90	0.1	B5-090-SB-1	(0-4') SLAG, small to large GRAVEL and SAND-sized, loose, brown, gray, and black, dry, no plasticity, no cohesion	GP/SP	
		1.3				
		2.1				
		0.0				
		0.0	B5-090-SB-4.75	(4-4.75') CLAY, stiff, gray with iron-staining, dry then wet at 4.75', medium plasticity, cohesive	CL	Wet at 4.75' bgs Boring terminated at 4.75' bgs due to encountering groundwater
				End of Boring		
5						

Total Borehole Depth: 4.75' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-091-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/15/2016
Weather	: 40s, sunny
Northing (US ft)	: 564,751.2391
Easting (US ft)	: 1,460,672.3390

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
	70	-	B5-091-SB-1	(0-3') SAND and GRAVEL SLAG, medium to coarse grained, loose, dark brown grading to beige, moist, no plasticity, no cohesion	SW	
		-				
		0.8				
		2.2		(3-5.5') SAND and GRAVEL SLAG, medium to coarse grained, loose, black, wet, no plasticity, no cohesion	SW/GW	
5		-				
		-		(5.5-8') SILTY SAND, firm, moist, no plasticity, no cohesion	SM	
	90	0.2	B5-091-SB-7			
		0.1				
		-		(8-10') SAND, loose, gray grading to beige, wet, no plasticity, no cohesion	SW	Wet at 8' bgs
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-092-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/15/2016
Weather	: 30s, cloudy
Northing (US ft)	: 564,919.421
Easting (US ft)	: 1,460,933.505

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	80	-	B5-092-SB-1	(0-5') SAND, medium grained,<25% SLAG GRAVEL, WOOD debris at top, loose, dark brown grading to brown, no plasticity, no cohesion	SP	
		13.3				
		12.8				
		5.9				
		4.5	B5-092-SB-5			Wet at 5' bgs
5						Boring terminated at 5' bgs due to encountering groundwater

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-093-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/15/2016
Weather	: 40s, sunny
Northing (US ft)	: 564,942.0188
Easting (US ft)	: 1,460,958.1020

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	90	-	B5-093-SB-1	(0-3.5') CONCRETE, GRAVEL sized with fine SAND, loose, brown to beige, dry	N/A	
		1.0				
		2.2				
		2.1	B5-093-SB-4	(3.5-5') SILTY SAND, firm, tan, no plasticity, cohesive	SM	
		0.4				Wet at 5' bgs Boring terminated at 5' bgs due to encountering groundwater
5						

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-094-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/5/2016
Weather	: 10s, windy
Northing (US ft)	: 563,843.4599
Easting (US ft)	: 1,463,075.5840

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
	80	-	B5-094-SB-1	(0-4.5') SAND, medium grained, with SLAG and quartz GRAVEL, loose, tan to brown, dry, no plasticity, no cohesion	SW	
		0.1				
		0.3				
		2.0				
		2.5	B5-094-SB-5			
5		-		(4.5-6') SLAG, medium SAND to GRAVEL sized, black, dry, no plasticity, no cohesion	SW/GW	
		-				
	60	0.0		(6-9') CINDER BALLAST, coarse grained with SLAG GRAVEL, loose, black, dry, no plasticity	GW	
		0.3				
		1.8	B5-094-SB-10	(9-11') SLAG, GRAVEL sized with white coating and beige coarse SAND, loose, gray, moist, no plasticity, no cohesion	GW	
10		-				
		-				
	60	0.0		(11-14.5') CINDER BALLAST, coarse grained sized with SLAG GRAVEL, intermixed layer of white coated SLAG, loose, black, moist, no plasticity, no cohesion	GW	
		0.0				
		-		(14.5-15.5') SAND, loose, light gray, moist, no plasticity, no cohesion	SW	
15		-				
		-		(15.5-20') SAND, loose, light gray, moist, wet at 19' bgs, no plasticity, no cohesion	SW	
	60	-				Wet at 19' bgs
		-				
		-				
20						Boring terminated at 20' bgs

Total Borehole Depth: 20' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-095-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/4/2016
Weather	: 30s, windy
Northing (US ft)	: 563,835.9451
Easting (US ft)	: 1,463,077.7440

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-095-SB-1	(0-2') SAND, fine to medium grained, loose, brown, dry, no plasticity, no cohesion	SW	
		0.0				
	80	0.0		(2-2.8') SAND, with white quartz GRAVEL, loose, tan, dry, no plasticity, no cohesion	SP	
		0.0		(2.8-5.5') SAND, medium grained, and GRAVEL SLAG, loose, dark gray, dry, no plasticity, no cohesion	SP	
		0.0	B5-095-SB-5			
5		-		(5.5-9.5') CINDER BALLAST, loose, black, dry, no plasticity, no cohesion	N/A	
		0.0				
	70	0.0				
		0.0				
		0.0				
10		-		(9.5-11') SAND, , medium to coarse grained, loose, brown with orange mottling, dry, no plasticity, no cohesion	SW	
		-		(11-14') SILTY SAND, loose, brown, dry, no plasticity, cohesive	SM	
	40	-				
		0.0				
		-		(14-15') SAND, coarse grained, and GRAVEL SLAG, loose, beige, dry, no plasticity, no cohesion	SP	
15						Wet at 15.5' bgs
	100	-		(15-16.5') SAND, medium to coarse grained, and GRAVEL SLAG, loose, black, dry, wet at 15.5' bgs, no plasticity, no cohesion	SW	Boring terminated at 16.5' bgs due to refusal
				End of Boring - Refusal		
20						

Total Borehole Depth: 16.5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-096-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/13/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,822.4937
Easting (US ft)	: 1,459,378.366

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
	70	-	B5-096-SB-1	(0-4') SAND, fine grained, with trace SILT and PEBBLE sized white SLAG, loose, brown, dry moist with no SLAG at 2.5' bgs	SP	
		-				
		0.6				
		1.2				
				(4-5') SLAG, GRAVEL sized, loose, brown, moist, wet at 4.75' bgs, no plasticity, no cohesion		
		0.3	B5-096-SB-5		GW	Wet at 4.75' bgs Boring terminated at 5' bgs due to encountering groundwater
5						

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-097-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/13/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,799.5701
Easting (US ft)	: 1,459,395.964

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
	60	-	B5-097-SB-1	(0-4') SLAG, GRAVEL sized with medium SAND, loose, gray, dry, no plasticity, no cohesion	GP	
		-				
		2.7				
		3.3	B5-097-SB-4			
		-		(4-5') SLAG, GRAVEL sized, loose, dark brown, wet, sticky black substance with odor	GP	Wet at 4' bgs 1-2 inch thick tarry/sticky substance at 4.5' bgs
5		-		(5-6') SAND, light gray, wet, no plasticity, cohesive	SW	
		-		(6-7') SANDY CLAY, firm, tan, medium plasticity, cohesive	CL	
	100	-		(7-10') SANDY CLAY, with little GRAVEL, light gray, wet, high plasticity, cohesive	CH	
		-				
		-				
10						Boring terminated at 10' bgs due to encountering groundwater

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-098-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/7/2016
Weather	: 30s, cloudy
Northing (US ft)	: 565,447.7937
Easting (US ft)	: 1,458,171.9000

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-098-SB-1	(0-2.5') SAND, fine to medium grained, some SLAG GRAVEL, loose, brown, dry, no plasticity, no cohesion	SW	
		23.7				
	80	51.5		(2.5-4') SAND and GRAVEL SLAG, medium grained to GRAVEL sized, loose, dark brown to black, moist	SW/GW	
		103.5	B5-098-SB-4			
		181.8		(4-5') SAND and GRAVEL slag, dark brown to black, medium grained to gravel sized, loose, wet, slimy	SW/GW	Wet at 4' bgs Strong odor 4-5' bgs
5		-				
		-				
	50	-		(7.5-10') SAND and GRAVEL SLAG, medium grained to GRAVEL sized, loose, dark brown to black, wet, slimy, little visible product in sleeve	SW/GW	
		-				
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-099-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/7/2016
Weather	: 30s, cloudy
Northing (US ft)	: 565,446.5615
Easting (US ft)	: 1,458,162.2790

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-099-SB-1	(0-2') SAND, medium to coarse grained, and GRAVEL SLAG, loose, brown to black, dry	SW/GW	
		146.8				Propane-like strong odor from 2-10' bgs
	80	239.7		(2-6') SANDY CLAY with coarse SAND and black GRAVEL SLAG, soft, olive green, wet at 4.5' bgs, low plasticity, cohesive		
		371.0				
			B5-099-SB-4.5		CL	
		399.0				Wet at 4.5' bgs
5		-				
		-		(6-10') SANDY CLAY, with coarse SAND and black GRAVEL SLAG, soft, olive green, very sticky, slimy, low plasticity, cohesive		
	60	-			CL	Noticeable product from 7-10' bgs
		-				
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-100-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/7/2016
Weather	: 30s, cloudy
Northing (US ft)	: 564,853.6144
Easting (US ft)	: 1,458,243.138

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-100-SB-1	(0-3.5') SLAG, GRAVEL sized with SAND, loose, gray, dry	GP	
		-				
	50	2.1				
		2.7		(3.5-5') SAND, medium to coarse grained with GRAVEL SLAG, loose, dark brown, dry, wet at 4.75' bgs	SW	
		1.6	B5-100-SB-5			
5				(5-9.7') SANDY CLAY, soft, tan, wet, high plasticity, high cohesion		Wet at 5' bgs
		-				
		-				
	40	-			CH	
		-				
		-				
				(9.7-10') SAND, loose, tan, wet, no plasticity, cohesive	SW	Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-101-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/8/2016
Weather	: 30s, cloudy
Northing (US ft)	: 564,819.1199
Easting (US ft)	: 1,458,234.4830

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-101-SB-1	(0-1') TOPSOIL, loose, soft, brown, dry	ML	
		3.2		(1-2') SAND, medium to coarse, loose, brown to beige, dry	SW	
	80	26.5		(2-3.5') SLAG, GRAVEL sized, loose, brown to black, dry	GP	
		68.2		(3.5-5.5') SAND, loose, tan, moist, no plasticity, no cohesion	SW	
		29.1	B5-101-SB-5			
5		-		(5.5-8') SLAG, with coarse SAND, loose, light gray, wet, no plasticity, no cohesion	GP	Wet at 6' bgs
	40	-				
		-				Boring terminated at 8' bgs due to refusal
				End of Boring		
10						

Total Borehole Depth: 8' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-102-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/7/2016
Weather	: 30s, cloudy
Northing (US ft)	: 565,033.1849
Easting (US ft)	: 1,458,223.9380

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-102-SB-1	(0-1') SLAG, GRAVEL sized with medium grained SAND, brown, dry, loose	GP	
		2.6		(1-3') SAND and GRAVEL SLAG, loose, brown, dry, no plasticity, no cohesion	SW/GW	
	90	19.9				
		57.2		(3-6') SAND and GRAVEL SLAG, loose, black, wet, no plasticity, no cohesion	SW/GW	Wet at 3' bgs
		2.7				
5		-				
		-		(6-7') CLAY, firm, tan, moist, medium plasticity, cohesive	CL	
				(7-7.5') SAND, medium grained, tan, wet, no plasticity, cohesive	SP	Wet at 7' bgs
	100	-		(7.5-8') SANDY CLAY, firm, tan, moist, medium plasticity, cohesive	CL	
				(8-10') SAND, tan, wet, no plasticity, cohesive	SW	
		-				
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-103-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/7/2016
Weather	: 30s, cloudy
Northing (US ft)	: 565,070.2349
Easting (US ft)	: 1,458,220.1080

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0				(0-0.3') TOPSOIL, firm, brown, dry, cohesive	ML	
		-	B5-103-SB-1	(0.3-3') SAND, fine to coarse grained, and GRAVEL SLAG, loose, brown, dry	SW/GW	
		3.1				
	90	2.8				
				(3-4.5') SAND, medium to coarse grained, and GRAVEL SLAG, loose, black, wet, oily sheen throughout	SW/GW	Wet and oily sheen at 3-4.5' bgs
		5.1	B5-103-SB-4.5			
		14.8		(4.5-5') DREDGE MATERIAL with OYSTER SHELLS	-	
5				(5-9.5') SANDY CLAY, firm, tan, moist, medium plasticity, cohesive	CL	
		0.5				
		-				
	100	0.5				
		-				
		-				
				(9.5-10') CLAYEY SAND, loose, tan, wet, no plasticity, cohesive	SC	Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-104-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/11/2016
Weather	: 30s, sunny
Northing (US ft)	: 564,618.5942
Easting (US ft)	: 1,458,817.7420

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		3.6	B5-104-SB-1	(0-1.5') SAND, fine to medium grained, loose, dark brown, dry	SW	
		4.6		(1.5-2') SLAG, gravel sized, loose, light gray, dry	GW	
	100	4.9		(2-5') SANDY CLAY, soft, dark brown, dry, low plasticity, cohesive	CL	
		3.7				
		0.5	B5-104-SB-5			
5		6.3		(5-9') CLAYEY SAND, firm, tan, dry, no plasticity, cohesive	SC	
		8.1				
	100	7.6				
		2.8				
				(9-10') SAND, loose, orange to tan, wet, no plasticity	SW	Wet at 9' bgs
		0.2				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-105-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/11/2016
Weather	: 30s, windy
Northing (US ft)	: 564,557.296
Easting (US ft)	: 1,458,850.423

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-105-SB-1	(0-2.5') SANDY CLAY, soft, dark reddish, moist, high plasticity, cohesive	CH	
		0.0				
	80	1.3		(2.5-5') SAND, medium to coarse grained, and GRAVEL SLAG, loose, light brown, dry	SW/GW	
		7.1				
		1.7	B5-105-SB-5			
5		0.2		(5-10') CLAY, soft to firm, tan, moist, high plasticity, cohesive	CH	
		0.4				
	100	2.1				
		2.2				
		0.1				
10		-		(10-14') SAND, loose, gray to beige, wet, no plasticity, cohesive	SW	Wet at 10' bgs
		-				
		-				
		-				
		-		(14-15') CLAY, firm, light beige, wet, high plasticity, cohesive	CH	Boring terminated at 15' bgs due to encountering groundwater
15						

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-106-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/11/2016
Weather	: 30s, sunny
Northing (US ft)	: 564,453.3776
Easting (US ft)	: 1,458,861.178

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
	70	-	B5-106-SB-1	(0-3') SAND, medium grained with GRAVEL SLAG, loose, brown, dry	SP	
		-				
		0.4				
				(3-3.5') SLAG, GRAVEL sized with quartz and light beige medium grained SAND, loose, dry	GP	
		0.7		(3.5-5') SAND, medium grained with GRAVEL SLAG, loose, brown, dry	SP	
		1.3	B5-106-SB-5			
5				(5-7.5') SLAG, GRAVEL sized with dark reddish SAND, loose, gray, moist	GP	
		-				
		-				
	70	0.4		(7.5-9') SAND, medium grained with SLAG GRAVEL, loose, dark reddish brown, moist	SP	
		0.7				
				(9-10') SANDY SILT, with SLAG GRAVEL, dark reddish brown to black, wet, no plasticity, cohesive	ML	Wet at 9' bgs
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-107-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/11/2016
Weather	: 30s, sunny
Northing (US ft)	: 564,442.4907
Easting (US ft)	: 1,458,901.703

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-107-SB-1	(0-1.5') SLAG and CONCRETE GRAVEL, loose, light gray to light beige, dry	GP	
		0.0		(1.5-2') SAND, medium to coarse grained, medium dense, black and dark reddish brown, dry	SW	
	90	.2		(2-5') SLAG, GRAVEL sized, loose, gray, dry, no plasticity, no cohesion	GP	
		2.1				
		4.0				
5		0.0	B5-107-SB-6			
		0.5		(6-7') SLAG, GRAVEL sized with coarse SAND, loose, gray, moist	GP	
	100	3.2		(7-8.5') SANDY CLAY, hard, dark brown, dry, low plasticity, cohesive	CL-SW	
		0.2		(8.5-10') CLAY, very soft, brown, wet, dry at 9' bgs, high plasticity, cohesive	CH	
		0.5				
10		-		(10-13.5') SAND, hard, brown, dry, no plasticity, no cohesion	SW	
		-				
	80	0.0				
		0.0		(13.5-14') SAND, light gray, very wet, no plasticity, cohesive	SW	Wet at 13.5' bgs
		0.0		(14-15') SAND, firm, brown, moist, no plasticity, no cohesion	SW	Boring terminated at 15' bgs due to encountering groundwater
15						

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-108-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/8/2016
Weather	: 30s, cloudy
Northing (US ft)	: 564,366.2975
Easting (US ft)	: 1,458,885.6680

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-108-SB-1	(0-2.5') SAND, medium grained, loose, dark brown, dry	SP	
		-				
	60	0.9		(2.5-5') SAND and GRAVEL SLAG, medium grained SAND, loose, dark reddish, dry	SP	
		1.1				
		0.8	B5-108-SB-5			
5				(5-8') SAND, medium grained, and GRAVEL SLAG, loose, dark reddish brown, moist	SP	
		-				
		-				
	60	1.5				
				(8-8.5') SAND, coarse grained, firm, beige, moist, no plasticity, cohesive	SP	Wet at 8.5' bgs
		1.2		(8.5-10') CLAYEY SAND, with little SLAG GRAVEL, dark reddish brown to beige, wet, no plasticity, cohesive	SC	
		0.3				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-109-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/11/2016
Weather	: 30s, sunny
Northing (US ft)	: 564,402.1475
Easting (US ft)	: 1,458,881.4770

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-109-SB-1	(0.0.5') TOPSOIL, SANDY, soft, loose, brown, dry	ML	
				(0.5-3') SAND, medium grained, with SAND-sized CONCRETE and QUARTZ GRAVEL, loose, light beige, dry	SP	
	40	-				
		0.2		(3-6') CONCRETE and QUARTZ GRAVEL, light beige, wet, loose, no plasticity, no cohesion	NA	Wet at 3.5' bgs
		0.1				
5		-				
		-		(6-9') CONCRETE and QUARTZ GRAVEL, medium dense-loose, light beige, wet	NA	
	50	-				
		-				
		-		(9-10') SAND, with little SLAG GRAVEL, very loose, brown, wet, cohesive	SW	Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-110-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/21/2016
Weather	: 20s, sunny
Northing (US ft)	: 563,958.6695
Easting (US ft)	: 1,459,637.4450

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		2.6	B5-110-SB-1	(0-1.5') SAND, medium grained with <50% GRAVEL SLAG, loose, brown, dry	SP	
		13.0		(1.5-4') SILTY CLAY, soft, dark brown to black, moist, medium plasticity, cohesive	CL	
	70	64.0				
		3.8	B5-110-SB-4			Boring terminated at 4' bgs due to refusal
				End of Boring		
5						

Total Borehole Depth: 4' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-111-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/21/2016
Weather	: 20s, sunny
Northing (US ft)	: 563,911.194
Easting (US ft)	: 1,459,643.241

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	40	39.7	B5-111-SB-1 B5-111-SB-4	(0-4') SAND, with <25% GRAVEL SLAG, loose, brown, dry	SW	
5		10.1		(4-7') GRAVEL, up to 2" pieces, gray SLAG and off-white GRAVEL, loose, yellow to orange, dry	GW	
	20			(7-9.6') SAND, dry, brown, loose, no plasticity, no cohesion	SW	Wet at 9.7' bgs
10				(9.6-10') GRAVEL, up to 1/2" pieces, loose, brown, wet, no plasticity, no cohesion	GW	Boring terminated at 10' bgs due to encountering groundwater

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-112-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 12/21/2015
Weather	: 40s, cloudy
Northing (US ft)	: 563,615.3107
Easting (US ft)	: 1,460,233.3600

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-112-SB-1	(0-1.3') SAND, medium grained, very loose, dark black, dry	SW	
		0.0		(1.3-1.7') SAND, medium grained, loose, brown, dry	SW	
	78	0.0		(1.7-5.5') SLAG, coarse grained to gravel sized, loose, light gray, dry	SW/GW	
		0.5				
		1.6	B5-112-SB-5			
5		-		(5.5-9') SLAG, coarse grained to GRAVEL sized, loose, light gray, dry	SW/GW	
		1.3				
	80	2.7				
		32.2				
		5.0		(9-10.2') SAND, coarse grained, and SLAG, loose, rusty red to maroon, dry, moist in spots	SP	
10		-		(10.2-12.5') SLAG and SAND, coarse grained, hard slag, loose, light gray, dry	GW/SW	
		-				
	96	-		(12.5-13.8') SAND, fine to coarse grained, loose, rusty red, moist, no plasticity, cohesive	SW	
		-				
		-		(13.8-15') SLAG, loose, light gray, wet, no cohesion	GP	Wet at 14' bgs Boring terminated at 15' bgs due to encountering groundwater
15						

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-113-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 12/21/2015
Weather	: 40s, cloudy
Northing (US ft)	: 563,458.2142
Easting (US ft)	: 1,460,249.8790

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		0.4	B5-113-SB-1	(0-3.66') SLAG, fine grained to GRAVEL sized, METALLIC FLAKES, soft, loose, dark black, dry		
		0.8			GP	
	100	0.4				
		0.6				
		1.0	B5-113-SB-5	(3.66-8.5') SLAG, coarse grained SAND sized, loose, light gray to gray, dry		
5		-				
		0.8			GP	
	80	1.5				
		13.6				
				(8.5-9') SLAG, chunks up to 3", loose, white to olive green, dry	GP	
		48.9		(9-10.5') SLAG, coarse grained sand sized, loose, gray to beige, dry	GP	
10		-				Standing water at 10' bgs in borehole
		-		(10.5-12.3') SLAG, gray, and SAND, coarse grained, brown; hard, loose, slightly moist	GP	
	80	-		(12.3-14.5') SILTY SAND, loose, rusty red, dry, no cohesion	SM	
		-				Wet at 14.5' bgs
		-				Boring terminated at 15' bgs due to encountering groundwater
15				(14.5-15') SANDY SILT and GRAVEL SLAG, very soft, rusty red, wet, cohesive	ML/GP	

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-114-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/20/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,074.6001
Easting (US ft)	: 1,460,524.1820

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	100	0.3	B5-114-SB-1	(0-1') SAND, medium grained, and GRAVEL SLAG, 1" sized, loose, brown, dry	SW	Boring terminated at 1' bgs due to refusal
				End of Boring		
5						

Total Borehole Depth: 1' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-115-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/20/2016
Weather	: 20s, sunny
Northing (US ft)	: 563,995.75
Easting (US ft)	: 1,460,479.06

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	100	0.4 0.3	B5-115-SB-1	(0-0.5') SAND, fine grained with vitreous GRAVEL, loose, black, dry	SW	
				(0.5-1.5') SAND, brown, medium grained with <15% GRAVEL, loose, dry	SW	Boring terminated at 1.5' bgs due to refusal
				End of Boring		
5						

Total Borehole Depth: 1.5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-116-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/20/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,749.3945
Easting (US ft)	: 1,460,955.2150

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-116-SB-1	(0-1.5') SLAG, GRAVEL sized with fine grained SAND, loose, dark brown, dry	GP	
		3.1		(1.5-2') SAND, loose, black, dry, no plasticity, no cohesion	SW	
	90	18.9		(2-3') CLAY, firm, light gray with orange streaks, high cohesion, high plasticity	CL	
		18.7	B5-116-SB-4	(3-4') CLAYEY SAND, loose, beige, moist, cohesive	SC	Slight odor
		4.3		(4-5.3') CLAY, firm, light gray with orange streaks, high plasticity, cohesive	CL	
5		-		(5.3-6') CLAY, firm, light gray with orange streaks, high plasticity, cohesive	CL	
		0.4		(6-6.5') SLAG, GRAVEL sized, loose, gray, moist, no plasticity, no cohesion	GP	
	98	0.3		(6.5-9') CLAY, firm, light gray with orange streaks, high plasticity, cohesive	CL	
		0.3				
		0.3		(9-10') SAND, loose, light beige, wet, no plasticity	SW	Wet at 9' bgs
10						Boring terminated at 10' bgs due to encountering groundwater

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-117-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/20/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,656.4042
Easting (US ft)	: 1,460,975.7490

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
	70	-	B5-117-SB-1	(0-3.5') SAND, medium grained with little SLAG GRAVEL, loose, brown, dry, no plasticity, no cohesion	SP	
		-				
		2.9				
		1.0		(3.5-5') SANDY GRAVEL, loose, brown, wet, no plasticity, no cohesion	GW	Wet at 4' bgs
		0.5				
5						Boring terminated at 5' bgs due to encountering groundwater

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-118-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/20/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,706.29
Easting (US ft)	: 1,461,032.08

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-118-SB-1	(0-0.5') TOPSOIL, platy, firm, dark brown, no plasticity, no cohesion	OL	
		-		(0.5-3.5') SAND, medium to coarse grained with <15% GRAVEL SLAG, loose, beige, dry	SW	
	70	0.9				
		7.2		(3.5-5') SANDY GRAVEL, with bits of CLAY, loose, brown, wet	GW	Wet at 4' bgs
		17.8				
5						Boring terminated at 5' bgs due to encountering groundwater

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-119-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/20/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,608.6921
Easting (US ft)	: 1,461,071.6480

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-119-SB-1	(0-2') SAND, fine to medium grained with small SLAG GRAVEL, loose, brown, moist	SW	
		-				
				(2-2.5') CONCRETE, GRAVEL sized pieces, loose, light gray, dry	N/A	
	50	-		(2.5-7') CLAY, very soft, firm at 5' bgs, light gray, moist, high plasticity, cohesive		
		1.3				
		1.5	B5-119-SB-5		CL	
5		0.9				
		2.6				
				(7-10') SAND, beige, wet, no plasticity, cohesive		
	100	3.8				Wet at 7' bgs
		3.4			SW	
		0.1				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-120-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/20/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,584.5907
Easting (US ft)	: 1,461,099.3630

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
	90	-	B5-120-SB-1	(0-1.5') SAND with GRAVEL SLAG, loose, black to dark brown, dry	SW	
		2.0		(1.5-4') SAND, loose, beige, medium grained, dry	SP	
		5.8				
		5.5	B5-120-SB-4.5	(4-5') CLAY, soft, tan, wet, high plasticity, cohesive	CL	Wet at 4' bgs
		0.6				Boring terminated at 5' bgs due to encountering groundwater
5						

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-121-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/20/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,567.17
Easting (US ft)	: 1,461,062.27

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
	50	-	B5-121-SB-1	(0-1.5') SAND, fine to medium grained, loose, light beige to gray, dry	SW	
		-		(1.5-3.5') CLAYEY SAND, loose, light beige, dry, no plasticity	SC	
		3.7				
		6.0		(3.5-4.5') CLAY with trace SAND, firm, light beige, medium plasticity, cohesive	CL	
		0.1	B5-121-SB-5	(4.5-5.5') SAND, medium grained, pocket of gray CLAY, loose, orange, dry	SP	
5		-		(5.5-7') SANDY GRAVEL, loose, gray, wet, no plasticity, no cohesion	GW	Wet at 6' bgs
	80	-				
		-		(7-9') CLAY, light gray, hard, dry, medium plasticity, cohesive	CL	
		-				
		-		(9-10') SAND, with trace CLAY, light gray, wet, no plasticity, cohesive	SW	Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-122-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 12/23/2015
Weather	: 50s, rainy
Northing (US ft)	: 563,613.8422
Easting (US ft)	: 1,461,505.0800

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-122-SB-1	(0-1.5') SAND, medium grained, and GRAVEL SLAG, loose, dark brown, dry	SW	
		-		(1.5-3.7') SAND, fine grained, loose, brown, moist	SW	
	70	1.8				
		1.6		(3.7-6') SAND and GRAVEL SLAG, medium to coarse grained sand, loose, brown, some orange mottling, dry	SW	
5		37.9				
		-		(6-8') SAND, medium to coarse grained, and GRAVEL SLAG, loose, brown, some orange mottling, dry	SW	
		5.5				
	70	54.5				
		193.0	B5-122-SB-9	(8-11') SAND, medium to very coarse grained, loose, brown to black, dry	SW	
		56.9	B5-122-SB-10			
10		-				
		-		(11-13') SLAG, SILTY SAND, dark gray grading to light gray, dry, no plasticity, cohesive	GP	
	60	-				
		-		(13-15') SLAG, SILTY SAND, dark gray grading to light gray, wet, no plasticity, cohesive	GP	Wet at 13' bgs
		-				Boring terminated at 15' bgs due to encountering groundwater
15						

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-123-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 12/23/2015
Weather	: 50s, rainy
Northing (US ft)	: 563,601.2238
Easting (US ft)	: 1,461,641.1880

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-123-SB-1	(0-1.5') SAND, fine to medium grained with little SLAG, loose, brown, dry, grading to moist	SP	
		0.7		(1.5-3.5') SAND, fine to medium grained with little SLAG, loose, brown, dry	SP	
	80	0.9				
		2.7		(3.5-4.3') SLAG and SAND, coarse grained, white coated SLAG, loose, moist, no plasticity, no cohesion	GP	
		5.2		(4.3-5.5') SAND, loose, light brown, dry, no plasticity, no cohesion	SW	
5		-		(5.5-7.5') SAND with SLAG, loose, light brown, dry, no plasticity, no cohesion	SW	
		32.9				
	80	52.0	B5-123-SB-8	(7.5-8.5') SAND, coarse grained with GRAVEL, loose, dark brown to orange, dry, no plasticity, no cohesion	SP	
		38.2		(8.5-11') SANDY SILT and GRAVEL SLAG, soft, white, moist, cohesive	ML/GP	
		5.2	B5-123-SB-10			
10		-				
		-		(11-15') SILTY SAND and GRAVEL SLAG, loose, white to light beige, wet, cohesive	SM/GP	Wet at 12' bgs
	60	-				
		-				
		-				Boring terminated at 15' bgs due to encountering groundwater
15						

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-124-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 12/22/2015
Weather	: 50s, cloudy
Northing (US ft)	: 563,497.0607
Easting (US ft)	: 1,461,562.0210

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
	100	1.6	B5-124-SB-1	(0-3.6') SAND, coarse grained and GRAVEL SLAG, with some BRICK FILL, loose, brown, dry	SP	
		-				
		-				
		-				
		-		(3.6-4') SILTY SAND, black, with some white SILT, moist, cohesive	SM	
		-		(4-5.8') CONCRETE, reinforced, loose, dry, no plasticity, no cohesion	N/A	
5		-				
		-		(5.8-6.2') BRICK, GRAVEL-sized, hard, loose, orange, dry	GW	
		6.3		(6.2-8.5') SAND and GRAVEL SLAG, medium grained, loose, brown, dry, no plasticity, no cohesion	SP/GP	
	86	15.4				
		43.8	B5-124-SB-9	(8.5-9.5') SAND, coarse grained, loose, beige, moist, no plasticity, no cohesion	SP	
		4.3		(9.5-11') SAND and GRAVEL SLAG, loose, brown, dry, no plasticity, no cohesion	SW	
10		-				
		-		(11-14.9') SAND, medium to coarse grained, and GRAVEL SLAG, loose, brown, dry, no plasticity	SW	
	60	-				
		-				
		-				Wet at 14.9' bgs
15					SW	Boring terminated at 15' bgs due to encountering groundwater
				(14.9-15') SAND and GRAVEL SLAG, loose, gray, wet, no plasticity, no cohesion		

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-125-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 12/23/2015
Weather	: 50s, cloudy
Northing (US ft)	: 563,505.1555
Easting (US ft)	: 1,461,629.7870

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-125-SB-1	(0-1.4') SAND, medium to coarse grained, and GRAVEL SLAG, loose, brown, dry, no plasticity, no cohesion	SW	
		0.7		(1.4-1.8') SANDY SILT, white, moist, no plasticity, cohesive	ML	
				(1.8-2.5') CONCRETE, loose, light gray, no plasticity, no cohesion	N/A	
	80	0.9		(2.5-5') SAND, fine to coarse grained, and GRAVEL SLAG, loose, brown, dry, no plasticity, no cohesion	SW	
		4.1				
		4.3				
5						
		2.9		(5-7') SAND, coarse grained, and GRAVEL SLAG, loose, brown, dry, no plasticity, no cohesion	SP	
		17.4				
				(7-7.5') SLAG, GRAVEL sized with coarse grained SAND, loose, dark brown to black, no plasticity, no cohesion	GP	
	100	42.3	B5-125-SB-8	(7.5-12.5') SLAG, with coarse grained SAND, loose, dark brown to gray, dry, white powdered covered SLAG at top		
		9.3				
		7.2	B5-125-SB-10		GP	
10						
		-				
		-				
	30	-				
		-		(12.5-14.7') SLAG, GRAVEL sized with coarse SAND at depth, loose, brown to beige, dry, no plasticity, no cohesion	GP	Wet at 14.7' bgs
		-				Boring terminated at 15' bgs due to encountering groundwater
15				(14.7-15') SAND, medium grained, loose, white to gray, no plasticity, no cohesion	SP	

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-132-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/12/2016
Weather	: 30s, cloudy
Northing (US ft)	: 565,520.9047
Easting (US ft)	: 1,458,943.53

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
	80		B5-132-SB-1	(0-5') SLAG, GRAVEL sized with coarse SAND, loose, gray with dark reddish tinge, dry, no plasticity, no cohesion	GP	
			B5-132-SB-4			
5				(5-8') SLAG, GRAVEL sized with coarse SAND, loose, tan with dark reddish tinge, moist, no plasticity, no cohesion	GP	
	100			(8-10') SANDY CLAY, soft, gray, wet, high plasticity, cohesive	CH	Wet at 8' bgs
10						Boring terminated at 10' bgs due to encountering groundwater

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-133-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date Started	: 1/14/2016
Weather	: 30s, cloudy
Northing (US ft)	: 565,266.7532
Easting (US ft)	: 1,459,271.2540

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		0.2	B5-133-SB-1	(0-3') SAND, with little SLAG, dense, dark brown, moist to dry, no plasticity, no cohesion	SW	
		0.9				
	100	2.2				
		5.7		(3-5') CLAY, with trace SAND, hard, brown, dry, low plasticity, cohesive	CL	
		1.1	B5-133-SB-5			
5		-		(5-7.5') SANDY CLAY, brown, dry, low plasticity, cohesive	CL	
		0.3				
	100	0.5		(7.5-10') CLAY, soft to firm, light brown, medium plasticity, cohesive	CL	
		2.9				
		1.6				
10		-		(10-14') CLAY, firm, beige to tan, dry, high plasticity, cohesive	CL	
		0.0				
	100	0.0				
		0.0				
		0.0		(14-15') SAND, firm, tan, moist, no plasticity, no cohesion	SW	
15		-		(15-18') SAND, loose, beige to tan, wet, no plasticity, no cohesion	SW	
		-				
	100	-				
		-		(18-20') CLAY, very soft, light beige, wet, sticky, high plasticity, cohesive	CL	
		-				Boring terminated at 20' bgs due to maximum allowable depth
20						

Total Borehole Depth: 20' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-134-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/14/2016
Weather	: 30s, sunny
Northing (US ft)	: 565,392.2511
Easting (US ft)	: 1,459,845.2900

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0				(0-0.2') TOPSOIL, trace fines, small ROOTS, soft, brown, low cohesion	OL	
		-	B5-134-SB-1	(0.2-1.33') SLAG, GRAVEL sized, loose, gray, dry, no plasticity, no cohesion	GP	
		0.7		(1.33-2') SAND, fine grained, loose, brown, dry, no plasticity, cohesive	SP	
	80	-		(2-5') SLAG, GRAVEL sized, loose, dark brown, wet, no plasticity, no cohesion	GP	Wet at 3' bgs
		-				
5						Boring terminated at 5' bgs due to encountering groundwater

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-135-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/14/2016
Weather	: 30s, sunny
Northing (US ft)	: 565,048.1957
Easting (US ft)	: 1,460,152.8590

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-135-SB-1	(0-2') SLAG, coarse grained to GRAVEL sized, loose, gray, dry, no plasticity, no cohesion	GW	
		0.7				
	100	1.3		(2-5') CLAY with trace SAND, soft grading to firm, light gray with orange mottling, moist, high plasticity, cohesive	CL	
		1.5				
		2.9	B5-135-SB-5			
5		-		(5-6') SANDY CLAY, soft, brown, wet, high plasticity, cohesive	CH	Wet at 5' bgs
		-		(6-10') SAND, loose, beige to tan, wet, no plasticity, cohesive	SW	
	100	-				
		-				
		-				
10						Boring terminated at 10' bgs due to encountering groundwater

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-136-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/14/2016
Weather	: 30s, sunny
Northing (US ft)	: 564,486.0506
Easting (US ft)	: 1,460,141.1280

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		0.9	B5-136-SB-1	(0-2') SAND, medium to coarse grained, loose, dark brown, dry, no plasticity, no cohesion	SW	
		1.3				
	100	1.7		(2-5') CLAY with trace sand, firm, tan, dry, medium plasticity, cohesive	CL	
		1.4				
		0.7				
5		-		(5-8.5') CLAY with trace SAND, less firm than above, tan, dry, medium plasticity, cohesive	CL	
		-				
	100	1.6	B5-136-SB-8			
		2.1		(8.5-10') SAND, very loose, beige, wet, no plasticity, no cohesion	SW	Wet at 8.5' bgs
		3.0				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-137-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/4/2016
Weather	: 30s, windy
Northing (US ft)	: 563,332.5729
Easting (US ft)	: 1,458,850.6220

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		0.5	B5-137-SB-1	(0-5.5') SAND, fine to medium grained, loose, brown, dry, no plasticity, no cohesion		
		3.3				
	100	2.1			SW	
		2.7				
		1.8	B5-137-SB-5			
5		-		(5.5-7.5') SAND and GRAVEL SLAG, medium grained sand, loose, brown, dry, no plasticity, no cohesion		
		-			SP	
	77	0.6		(7.5-8') SLAG, GRAVEL sized with SAND, loose, black, no plasticity, no cohesion	GP	Wet at 7.5-8' bgs
		1.9	B5-137-SB-9.5	(8-9.5') SILTY SAND, loose, gray to reddish brown, moist, no plasticity	SM	
		0.6				Boring terminated at 9.5' bgs due to refusal
10				End of Boring		

Total Borehole Depth: 9.5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-138-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/4/2016
Weather	: 30s, windy
Northing (US ft)	: 563,414.7999
Easting (US ft)	: 1,459,650.2410

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-138-SB-1	(0-4.6') SAND with little SLAG GRAVEL increasing with depth, loose, brown, dry, no plasticity, no cohesion	SW	
	86	0.6				
		1.5				
		2.8				
		4.5	B5-138-SB-5			
5		-		(4.6-6') SLAG, GRAVEL sized, loose, light gray, dry, no plasticity, no cohesion	GP	
		-		(6-7.5') SAND, medium to coarse grained, loose, brown to gray, dry, no plasticity, no cohesion	SW	
	70	0.3		(7.5-9') SLAG, with fine SAND and SILT, gray to brown, no plasticity, cohesive	GP	Wet at 7-9' bgs Wet at 11' bgs
		0.2				
		0.2	B5-138-SB-10	(9-11') SAND, fine to medium grained, and GRAVEL SLAG with trace FINES, loose, rusty brown and gray, dry	SW/GP	
10		-				
		-		(11-15') SILTY SAND and GRAVEL SLAG, brown to black, no plasticity, cohesive	SM/GP	
	70	-				
		-				
		-				Boring terminated at 15' bgs due to encountering groundwater
15						

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-139-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/13/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,415.4626
Easting (US ft)	: 1,459,567.594

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-139-SB-1	(0-3') SLAG, GRAVEL sized, loose, brown to black, moist	GP	
		-				
	50	-				
		0.1		(3-5') CLAY, very firm, light gray to tan, dry, medium plasticity, cohesive	CL	
		0.3				
5		-		(5-8.5') CLAY grading to CLAYEY SAND, very firm, light gray to tan, dry, medium plasticity, cohesive	CL-SC	
		0.2	B5-139-SB-7			
	100	1.9				
		1.5		(8.5-10') SAND, loose, beige to orange, wet, no plasticity, no cohesion	SW	Wet at 8.5' bgs
		0.2				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-140-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/7/2016
Weather	: 30s, cloudy
Northing (US ft)	: 565,527.80
Easting (US ft)	: 1,461,421.63

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-140-SB-1	(0-0.5') SAND, coarse grained with some ROCKS, loose, beige, dry, no plasticity, no cohesion	SW	PID malfunctioning
				(0.5-1.5') CONCRETE, GRAVEL sized pieces with coarse beige SAND, loose, light gray, dry	N/A	
	100	-		(1.5-4.5') SAND, medium grained with <25% SLAG GRAVEL, loose, dark brown, dry, no plasticity, no cohesion	SP	
		-	B5-140-SB-5			
5		-		(4.5-7') SAND, black, fine to coarse grained with small GLASSY SLAG GRAVEL, loose, dry, no plasticity, no cohesion	SW	
		-				Wet at 7' bgs
	90	-		(7-10') CLAY, very soft, tan, wet, medium plasticity, cohesive	CL	
10		-				Boring terminated at 10' bgs due to encountering groundwater

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-141-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/18/2016
Weather	: 20s, sunny
Northing (US ft)	: 563,788.4488
Easting (US ft)	: 1,460,995.4420

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-141-SB-1	(0-2.5') SAND and GRAVEL SLAG, fine grained, loose, black, dry, no plasticity, no cohesion	SW/GW	
		0.3				
	75	2.3		(2.5-3.5') SAND and GRAVEL, loose, beige to reddish brown, moist, no plasticity, no cohesion	GW/SW	
		1.5		(3.5-4') CONCRETE, GRAVEL sized up to 2", loose, dry, no plasticity, no cohesion	N/A	Boring terminated at 4' bgs due to refusal
				End of Boring		
5						

Total Borehole Depth: 4' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-142-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/4/2016
Weather	: 30s, windy
Northing (US ft)	: 563,812.3806
Easting (US ft)	: 1,462,159.0850

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-142-SB-1	(0-0.4') SAND, fine to medium grained, loose, light beige, dry, no plasticity, no cohesion	SW	
				(0.4-1.2') SAND, medium grained with ORGANICS, loose, dark brown, dry, no plasticity, no cohesion	SP	
		0.5		(1.2-6') SAND, fine to coarse grained, loose, brown to black, dry, no plasticity, no cohesion		
	86	1.7				
		2.3			SW	
		0.9	B5-142-SB-5			
5		-				
		-		(6-10') SLAG, GRAVEL sized with medium grained SAND, loose, gray, wet		Wet at 7' bgs
	60	-				
		-			GP	
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-143-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/5/2016
Weather	: 20s, windy
Northing (US ft)	: 563,966.5738
Easting (US ft)	: 1,464,613.844

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
	60	-	B5-143-SB-1	(0-3') Medium to coarse grained SAND and CINDER BALLAST, loose, black, dry, no plasticity, no cohesion	SW	
		-				
		1.4				
		1.5		(3-6') SLAG, GRAVEL sized up to 2", loose, black, moist, no plasticity, no cohesion	GP	
			B5-143-SB-4.5			
		0.4				
5		-				
		2.5		(6-7') SAND, medium to coarse grained, and GRAVEL SLAG, loose, black, moist, no plasticity, no cohesion	SW	Wet at 7' bgs
	70	-		(7-10') SLAG, with coarse grained SAND, loose, black, wet	GP	
		-				
		-				
10						Boring terminated at 10' bgs due to encountering groundwater

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-144-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/6/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,899.9213
Easting (US ft)	: 1,463,173.715

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	80	-	B5-144-SB-1	(0-3') SAND and GRAVEL SLAG, medium grained, loose, dark brown, dry, no plasticity, no cohesion	SW/GW	
		0.8				
		6.2				
		6.4	B5-144-SB-4	(3-3.5') Sandy CLAY and GRAVEL SLAG, soft, black, moist, medium plasticity, cohesive, slight petroleum odor	CL/GP	
				(3.5-4') SLAG, GRAVEL sized, loose, light gray, dry, no plasticity, no cohesion	GP	
		16.2		(4-5') WOOD DEBRIS, petroleum product with strong odor at bottom, wet	N/A	Wet at 4.5' bgs Boring terminated at 5' bgs due to encountering groundwater
5						

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-145-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/6/2016
Weather	: 30s, sunny
Northing (US ft)	: 564,643.804
Easting (US ft)	: 1,463,782.809

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		2.8	B5-145-SB-1	(0-0.6') SAND, fine to medium grained, loose, brown, moist, no plasticity, no cohesion	SW	
		10.1		(0.6-2') SLAG, GRAVEL sized <1", loose, dark gray, moist, no plasticity, no cohesion	GP	
	100	25.6		(2-2.6') SLAG, GRAVEL sized, loose, tan to gray, wet, no plasticity, no cohesion	GP	Wet at 2' bgs
		0.0		(2.6-4') SANDY CLAY, very soft, dark gray, high plasticity, cohesive	CH	
		5.7	B5-145-SB-5	(4-5') CLAY, with trace SAND, hard, tan, medium plasticity, cohesive	CL	
5		-		(5-5.5') CLAY, with trace SAND, very soft, gray, wet, high plasticity, cohesive	CH	Wet at 5' bgs
		-		(5.5-8.5') SANDY CLAY, firm, beige grading to orange, wet, medium plasticity, cohesive	CL	
	100	-				
		-				
		-		(8.5-10') SAND, loose, gray, wet, no plasticity, cohesive	SW	
10						Boring terminated at 10' bgs due to encountering groundwater

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-146-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/6/2016
Weather	: 30s, sunny
Northing (US ft)	: 564,811.3989
Easting (US ft)	: 1,464,575.122

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		0.0	B5-146-SB-1	(0-1.4') SAND and GRAVEL SLAG, loose, brown, dry, no plasticity, no cohesion	SW	
		0.0		(1.4-5.5') CLAY, with trace SAND, firm, beige, dry, medium plasticity, cohesive	CL	
	90	0.0				
		0.0				
		0.0	B5-146-SB-5			
5		-		(5.5-8.5') CLAY, with trace SAND, firm, beige, dry, medium plasticity, cohesive	CL	
		-				
	90	9.8				
		13.3		(8.5-10') SAND, beige grading to orange, wet, no plasticity, cohesive	SW	Wet at 8.5' bgs
10		2.1				Boring terminated at 10' bgs due to encountering groundwater

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-147-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/6/2016
Weather	: 30s, sunny
Northing (US ft)	:
Easting (US ft)	:

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-147-SB-1	(0-2.5') SLAG, large GRAVEL and SAND-sized, loose, gray, dry, no plasticity, no cohesion	GP/SP	
		6.7				
	90	8.1		(2.5-8') SAND, well graded, fine to medium grained with SLAG GRAVEL, loose, dark brown, dry, wet below ~5-6 ft, no plasticity, no cohesion		
		2.9				
		2.7	B5-147-SB-5			
5		-			SW	Wet at 6' bgs
		-				
	40	-				
		-		(8-10') SLAG, GRAVEL-sized, loose, dark brown, wet, no plasticity, no cohesion	GP	
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-148-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/6/2016
Weather	: 20s, sunny
Northing (US ft)	: 565,105.3321
Easting (US ft)	: 1,463,893.597

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-148-SB-1	(0-1.8') SLAG, with medium grained SAND, loose, black to light gray, dry, no plasticity, no cohesion	GP	
		4.8		(1.8-2') SLAG, GRAVEL sized, loose, light gray, moist, no plasticity, no cohesion	GP	
	90	6.6		(2-2.6') SANDY CLAY, hard, low plasticity, low cohesion	CL	
				(2.6-3.6') SLAG, GRAVEL sized, loose, dark brown, moist, no plasticity, no cohesion	GP	
		1.6		(3.6-4.6') CLAY, hard, dark gray, medium plasticity, cohesive	CL	
		0.2	B5-148-SB-5	(4.6-5.5') CLAY, soft, dark gray, moist, high plasticity, cohesive	CH	
5		-		(5.5-7') CLAY and GRAVEL SLAG, very soft, brown, wet, high plasticity, cohesive	CH	Wet at 6' bgs
		-				
	80	-		(7-10') SANDY CLAY, tan with orange mottling, moist, medium plasticity, cohesive	CL	
		-				
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-149-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/19/2016
Weather	: 10s, sunny
Northing (US ft)	: 564,457.48
Easting (US ft)	: 1,461,725.38

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-149-SB-1	(0-0.9') TOPSOIL, loose, soft, brown, dry	OL	
		0.1		(0.9-5.5') SLAG, GRAVEL sized with coarse grained SAND, loose, brown, dry, no plasticity, no cohesion	GP/SP	
	90	0.1				
		0.2				
		0.3	B5-149-SB-5			
5		-		(5.5-10') SLAG, GRAVEL sized with coarse grained SAND, brown, wet at 8' bgs	GP/SP	Wet at 8' bgs
		-				
	70	0.2				
		0.6				
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-150-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 12/21/2015
Weather	: 40s, cloudy
Northing (US ft)	: 563586.5845
Easting (US ft)	: 1460551.973

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-150-SB-1	(0-5.5') SLAG, GRAVEL sized with medium to coarse grained SAND, loose, brown to light gray, dry, no plasticity, no cohesion	GP/SW	
		0.4				
	90	2.0				
		1.5				
		0.5	B5-150-SB-5			
5		-		(5.5-9.5') SLAG, GRAVEL sized with medium to coarse grained SAND, loose, brown to light gray, dry, no plasticity, no cohesion	GP/SW	
		0.8				
	80	1.6				
		1.8				
		1.8		(9.5-10.5') SAND, fine to medium grained, and GRAVEL SLAG, loose, dark reddish, dry	SW	
10		-		(10.5-14.5') SILTY SAND, with metallic gray SLAG/ROCK, loose, rusty red, moist, no plasticity, no cohesion	SM	Wet at 14.5' bgs
		-				
	80	-				
		-				
		-				
15				(14.5-15') SLAG, loose, light gray, wet, no plasticity, no cohesion	GP	Boring terminated at 15' bgs due to encountering groundwater

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-151-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 12/21/2015
Weather	: 40s, cloudy
Northing (US ft)	: 563,550.2389
Easting (US ft)	: 1,460,739.654

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		0.6	B5-151-SB-1	(0-3') SAND and GRAVEL SLAG, medium grained, loose, brown, dry, no cohesion		
		0.9			SP	
	100	1.3				
		0.8		(3-5.8') SAND, very fine to fine grained, and GRAVEL SLAG, loose, dark black, dry, moist at 3-3.3' bgs		
		0.8	B5-151-SB-5		SW/GP	
5		-				
		2.9		(5.8-14.8') SAND, very fine to fine grained, and GRAVEL SLAG, loose, brown, dry, moist at 6-6.4' bgs		
	86	1.8				
		0.5				
		0.6	B5-151-SB-10			
10		-			SW/GP	
		-				
						Poor recovery due to chunk of metal in sleeve
	30	-				Water in borehole at 12.5' bgs
		-				
		-				Boring terminated at 15' bgs due to encountering groundwater
15				(14.8-15') SAND, very fine grained, loose, light gray, dry	SP	

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-152-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 12/21/2015
Weather	: 40s, cloudy
Northing (US ft)	: 563,707.45
Easting (US ft)	: 1,460,663.08

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-152-SB-1	(0-1.5') SAND, fine grained, with SLAG GRAVEL, loose, dark black, dry, no plasticity, no cohesion	SP	
		0.7		(1.5-6') SLAG, fine to coarse grained, loose, light gray, dry, no plasticity, no cohesion	SW	
	90	9.2				
		2.0				
		2.4	B5-152-SB-5			
5		-				
		0.8		(6-8') SAND, medium to coarse grained, and GRAVEL SLAG, loose, dark reddish, dry, no plasticity, no cohesion	SW	
	100	-				
		14.2		(8-11') SLAG, medium grained to GRAVEL sized, loose, light gray, dry, no plasticity, no cohesion	SW/GP	
		18.6				
10		-				
		-		(11-12.5') SILTY SAND, dark black, wet, no plasticity, cohesive	SM	
	70	-		(12.5-15') SLAG,coarse grained to gravel sized, loose, light gray	SP/GP	Wet at 12' bgs
		-				
		-				Boring terminated at 15' bgs due to encountering groundwater
15						

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-153-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 12/22/2015
Weather	: 50s, cloudy
Northing (US ft)	: 563,565.8993
Easting (US ft)	: 1,461,117.846

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		0.3	B5-153-SB-1	(0-1') SAND, fine to coarse grained, and GRAVEL SLAG, dark black, dry, loose, no plasticity, no cohesion	SW	
	100	-		(1-3') SAND and GRAVEL SLAG, metallic slag, loose, dark reddish, dry, wet at 2.5' bgs	SP/GP	
		-				Wet at 2.5' bgs Boring terminated at 3' bgs due to refusal and encountering groundwater
				End of Boring		
5						

Total Borehole Depth: 3' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-154-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/12/2016
Weather	: 30s, cloudy
Northing (US ft)	: 565,255.5108
Easting (US ft)	: 1,458,984.711

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-154-SB-1	(0-0.5') TOPSOIL, SANDY, loose, soft, brown, dry	OL/SW	
				(0.5-1') CONCRETE, GRAVEL sized, loose, light gray, dry, no plasticity, no cohesion	GP	
		-		(1-4') SAND with GRAVEL SLAG, loose, dark reddish, dry, no plasticity, no cohesion	SP/GP	
	40	1.6				
		0.2	B5-154-SB-4			Boring terminated at 4' bgs due to refusal
				End of Boring		
5						

Total Borehole Depth: 4' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-155-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/12/2016
Weather	: 30s, cloudy
Northing (US ft)	: 564,877.1053
Easting (US ft)	: 1,459,028.037

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-155-SB-1	(0-0.8') CLAYEY TOPSOIL, soft, dark reddish, moist	OL-CL	
		-		(0.8-3.5') CONCRETE, GRAVEL sized, loose, white, dry, no plasticity, no cohesion	N/A	
	60	2.5				
		2.9		(3.5-5') SANDY CLAY, soft, tan, high plasticity, cohesive	CH	
		0.0	B5-155-SB-5			
5		-		(5-14.8') SAND with SLAG GRAVEL, loose, beige, moist; grades to dry with depth; CLAYEY at 12' bgs	SW	
		3.0				
	90	0.3				
		0.4				
		0.5	B5-155-SB-10			
10		-				
		-				
	60	-				
		-				
		-				Wet at 15' bgs
15				(14.8-15') SAND, light gray to tan, wet, no plasticity, cohesive	SW	Boring terminated at 15' bgs due to encountering groundwater

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-156-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/13/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,574.6056
Easting (US ft)	: 1,459,012.863

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-156-SB-1	(0-0.8') TOPSOIL, with CONCRETE GRAVEL, loose, soft, brown, dry	OL-GP	
		0.5		(0.8-1.5') CONCRETE GRAVEL, loose, white, dry, no plasticity, no cohesion	N/A	
	80	1.0		(1.5-4') CLAYEY SAND, dense, tan, dry, no plasticity, cohesive	SC	
		0.7				
		0.1		(4-6') SLAG, GRAVEL sized, loose, gray, dry, no plasticity, no cohesion	GP	
5		-	B5-156-SB-6			
		0.5		(6-9') CLAYEY SAND with SLAG GRAVEL, dense, tan, dry, no plasticity, cohesive	SC	
	90	1.0				
		0.7				
		2.3	B5-156-SB-10	(9-10') SAND, medium grained, with SLAG GRAVEL, tan, dry, loose, no plasticity, no cohesion	SP-GP	
10		-		(10-14.7') SANDY CLAY, firm to soft, tan, moist, medium plasticity, cohesive	CL	Wet at 14.7' bgs
		-				
	60	0.1				
		0.0				
		-				Boring terminated at 15' bgs due to encountering groundwater
15				(14.7-15') CLAYEY SAND, dense, dark reddish, wet, no plasticity, cohesive	SC	

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-157-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/21/2016
Weather	: 20s, sunny
Northing (US ft)	: 563,658.65
Easting (US ft)	: 1,459,482.18

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-157-SB-1	(0-3') SAND, fine grained with <15% GRAVEL SLAG, black, dry, loose, no plasticity, no cohesion	SP	
		0.6				
	86	0.4				
				(3-3.25') CONCRETE with SLAG and SAND, dry, no plasticity, no cohesion	N/A	
		0.6		(3.25-5') SAND, fine grained with <15% GRAVEL SLAG, loose, black, dry, no plasticity, no cohesion	SP	
		1.1	B5-157-SB-5			
5		-		(5-7') SAND, fine to medium grained with <25% GRAVEL SLAG, black, moist, wet at 6' bgs	SW	Wet at 6' bgs
	100	-				Boring terminated at 7' bgs due to refusal
				End of Boring		
10						

Total Borehole Depth: 7' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-158-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/21/2016
Weather	: 20s, sunny
Northing (US ft)	: 563,737.4192
Easting (US ft)	: 1,458,924.119

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-		(0-1') ASPHALT/PAVEMENT, GRAVEL sized, loose, gray, dry, no plasticity, no cohesion	N/A	
		7.4	B5-158-SB-1	(1-2.5') SAND, loose, light gray and beige, dry, no plasticity, no cohesion	SP	
	100	11.5		(2.5-5') SANDY SILT, soft, dark brown, dry, no plasticity, cohesive 4" CONCRETE GRAVEL and SAND layer at 4' bgs, loose, dry		
		7.0			ML	
		0.5	B5-158-SB-5			Wet at 5' bgs Boring terminated at 5' bgs due to encountering groundwater
5						

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-159-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/13/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,574.6056
Easting (US ft)	: 1,459,012.863

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		0.0	B5-159-SB-1	(0-5') SAND, medium to coarse grained, loose, black, dry, no plasticity, no cohesion		
		0.0				
	100	0.0			SW	
		0.0				
		0.0	B5-159-SB-5			
5		-		(5-10') SAND, coarse grained with SLAG GRAVEL, loose, gray, dry; with more GRAVEL and wet at 7.5' bgs		
		1.6				
	90	0.7			SP	Wet at 7.5' bgs
		0.1				
		0.0				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-160-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/22/2016
Weather	: 20s, cloudy
Northing (US ft)	: 563,822.39
Easting (US ft)	: 1,459,815.04

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-160-SB-1	(0-2') SAND, medium grained, loose, light brown, dry, no plasticity, no cohesion	SP	
		10.2				
	90	36.4		(2-5.5') GRAVELLY SAND, some BRICK GRAVEL near bottom, loose, dark brown and maroon, dry, no plasticity, no cohesion	SP	
		34.1	B5-160-SB-4			
		13.6				
5		-		(5.5-9') SLAG, GRAVEL sized up to 2", loose, wet, no plasticity, no cohesion	GP	Wet at 6' bgs
		-				
	80	-				
		-				
		-		(9-10') SAND, fine grained, loose, brown, moist, no plasticity, no cohesion	SP	Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-161-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/7/2016
Weather	: 30s, cloudy
Northing (US ft)	: 565,264.0142
Easting (US ft)	: 1,458,124.371

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-161-SB-1	(0-2.5') SAND, coarse grained and GRAVEL SLAG with FILL, loose, brown, dry	SP/GP	
		-				
	80	6.5		(2.5-3') FILL, METALLIC ROCKS/ METAL with coarse black SAND, loose, moist, no plasticity, no cohesion	N/A	
		400.2	B5-161-SB-4	(2-3.5') WOOD DEBRIS	N/A	
				(3.5-4') SAND, loose, dark black grading to orange, moist, no plasticity, cohesive	SW	Strong odor at 4' bgs, creosote?
		185.6		(4-10') CLAY, firm, beige grading to light gray, dry, medium plasticity, cohesive		
5		-				
		-			CL	
	100	0.7				
		0.7				
		0.8	B5-161-SB-10			
10		-		(10-11') CLAY, soft, light gray, wet, high plasticity, cohesive	CH	Wet at 10' bgs
		-		(11-11.5') SLAG, GRAVEL sized, loose, black, wet, no plasticity, no cohesion	GP	
				(11.5-15') CLAYEY SAND, firm, beige with orange tint, moist, wet at 13' bgs, no cohesion		
	100	-				
		-			SP	
		-				Boring terminated at 15' bgs due to encountering groundwater
15						

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-162-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/8/2016
Weather	: 30s, cloudy
Northing (US ft)	: 564,636.8673
Easting (US ft)	: 1,458,519.769

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	100	-	B5-162-SB-1	(0-3') SLAG, light gray, grades to red BRICK FILL, loose, dry, no plasticity, no cohesion	GP	
		0.1				
		0.0				
		0.2		(3-4') SAND, medium grained, firm, dark brown, moist, no plasticity, no cohesion	SP	Wet at 4' bgs
		1.8		(4-5') SLAG, loose, light gray and black, wet, no plasticity, no cohesion	GP	Boring terminated at 5' bgs due to encountering groundwater
5						

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-163-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/8/2016
Weather	: 30s, rainy
Northing (US ft)	: 564,284.4785
Easting (US ft)	: 1,458,537.131

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-163-SB-1	(0-1.5') SLAG, GRAVEL sized with coarse SAND, loose, brown, moist, no plasticity, no cohesion	GP/SP	
		0.2		(1.5-3') SAND, loose, orange, moist, no plasticity, no cohesion	SW	
	80	0.8				
		3.4		(3-5.5') SLAG, GRAVEL sized with coarse SAND, loose, gray, wet, no plasticity, no cohesion	GP/SP	Wet at 3.5' bgs
		9.2				
5		-		(5.5-10') SLAG, GRAVEL sized with coarse SAND, loose, light gray, wet, no plasticity, no cohesion	GP/SP	
		-				
	80	-				
		-				
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-164-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/4/2016
Weather	: 30s, windy
Northing (US ft)	: 563,616.626
Easting (US ft)	: 1,461,944.47

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		0.3	B5-164-SB-1	(0-3') SANDY SILT, loose, soft, brown, dry		
		0.6			ML	
	95	0.7				
		2.7		(3-6') SILTY SAND, with little SLAG GRAVEL, loose, brown, no plasticity, no cohesion		
		1.8	B5-164-SB-5		SM	
5		-				
		-		(6-8') SAND, medium grained, loose, brown, slightly moist, no plasticity, no cohesion	SP	
	60	0.3				
		1.3		(8-8.5') SILTY SAND, white, moist, no plasticity, cohesive	SM	
				(8.5-8.9') SAND, coarse grained, loose, beige, moist, no plasticity, no cohesion	SP	
		1.4	B5-164-SB-10	(8.9-11') SLAG, coarse grained to GRAVEL sized, loose, brown to gray, dry, no plasticity, no cohesion	GP/SP	
10		-				
		-		(11-14') SILTY SAND, soft, light gray to white, orange mottling at top, moist, cohesive		
	70	-			SM	
		-				
		-		(14-15') SILTY SAND, light gray to white, wet, no plasticity, cohesive	SM	Wet at 14' bgs Boring terminated at 15' bgs due to encountering groundwater
15						

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-165-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/4/2016
Weather	: 30s, windy
Northing (US ft)	: 563,912.45
Easting (US ft)	: 1,462,367.29

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-165-SB-1	(0-4') SAND, medium grained, loose, dark brown, dry, no plasticity, no cohesion	SP	
	60	7.0				
		14.6				
		34.8	B5-165-SB-5	(4-4.5') SAND, loose, tan, moist, no plasticity, no cohesion	SW	
5				(4.5-5.5') SAND, loose, dark brown, moist, no plasticity, no cohesion	SW	
		-		(5.5-7') SLAG, medium grained to GRAVEL sized, loose, dark brown, dry, no plasticity, no cohesion	SP/GP	
		5.4				Wet at 7' bgs
	80	9.7		(7-12') SLAG, medium grained to GRAVEL sized, loose, light gray, wet, no plasticity, no cohesion	SP/GP	
		7.8				
		1.4				
10		-				
		-				
	40	-		(12-15') SAND, coarse grained, and GRAVEL SLAG, loose, tan to light gray, wet, no plasticity, no cohesion	SP	
		-				
		-				Boring terminated at 15' bgs due to encountering groundwater
15						

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-166-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/4/2016
Weather	: 30s, windy
Northing (US ft)	: 563,624.8126
Easting (US ft)	: 1,462,738.949

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-166-SB-1	(0-4') SAND, fine to coarse grained, loose, gray, dry, no plasticity, no cohesion	SW	
		3.0				
	86	3.4				
		2.7				
		1.3	B5-166-SB-5	(4-6') SLAG with coarse grained SAND, loose, gray, dry, no plasticity, no cohesion	GP/SP	
5		-				
		-		(6-8.5') SILTY SAND, loose, light beige to light gray, dry, no plasticity, no cohesion	SM	
	60	0.0				
		0.1		(8.5-9') SLAG, light gray, with white SILT, loose, moist, no plasticity, no cohesion	GP/ML	
		4.6	B5-166-SB-10	(9-12') SLAG, GRAVEL sized, loose, light gray, dry, no plasticity, no cohesion	GP	
10		-				
		-				
	40	-		(12-14.5') SAND, medium to coarse grained, loose, brown, dry, no plasticity, no cohesion	SW	
		0.2				
		-		(14.5-16') SLAG, loose, white, dry, no plasticity, no cohesion	GP	
15		-				
		-		(16-19') SILTY SAND, tan to white, slightly moist, no plasticity, cohesive	SM	
	60	-				
		-				
		-		(19-20') SLAG, with coarse SAND, loose, light gray, wet, no plasticity, no cohesion	GP/SP	Wet at 19' bgs
20						Boring terminated at 20' bgs

Total Borehole Depth: 20' bgs.

ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-167-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 12/23/2015
Weather	: 50s, rainy
Northing (US ft)	: 563,778.6891
Easting (US ft)	: 1,461,490.727

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-167-SB-1	(0-1.6') SAND, medium grained, and GRAVEL SLAG, loose, brown to beige, dry	SP/GP	
		4.2		(1.6-3') SLAG, coarse grained to GRAVEL sized, loose, brown with white coating, moist, no plasticity, no cohesion	SP/GP	
	90	7.0				
		3.0		(3-6') SAND, medium to coarse grained and GRAVEL SLAG, loose, brown,, no plasticity, cohesive	SW	
		0.8				
5		-				
		-	B5-167-SB-7	(6-7.5') SLAG, loose, gray, wet, no plasticity, no cohesion	GP	
	70	9.7		(7.5-8.5') SLAG, gravel sized with medium to coarse grained sand, loose, brown and gray, dry, no plasticity, no cohesion	SW/GP	Wet at 7.5' bgs
		3.0		(8.5-9.5') SAND, coarse to very coarse grained, loose, beige, dry, no plasticity, no cohesion	SW	
		4.9	B5-167-SB-10	(9.5-11') SLAG, GRAVEL sized, loose, brown, moist, no plasticity, no cohesion	GP	
10		-				
		-		(11-14.6') SLAG, GRAVEL sized with little SAND, loose, light gray to beige, moist, no plasticity, no cohesion	GP	
	60	-				
		-				
		-				Wet at 14.6'
15				(14.6-15') SAND, coarse grained, light gray, wet, no plasticity, no cohesion	SP	Boring terminated at 15' bgs due to encountering groundwater

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-168-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 12/23/2015
Weather	: 50s, rainy
Northing (US ft)	: 563,806.2596
Easting (US ft)	: 1,461,825.675

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		0.8	B5-168-SB-1	(0-0.5') SAND, medium grained, and GRAVEL SLAG, loose, dark brown, dry, no plasticity, no cohesion	SP/GP	
				(0.5-1') SAND, very fine grained, and GRAVEL SLAG, loose, black, dry, no plasticity, no cohesion	SP/GP	
		3.2		(1-5.5') SAND, medium grained, and GRAVEL SLAG, loose, brown, dry, no plasticity, no cohesion		
	100	11.7				
		5.0			SP/GP	
		8.1	B5-168-SB-5			
5		-		(5.5-8') SAND, medium to coarse grained, and GRAVEL SLAG, loose, brown and beige, dry		
		2.4			SW	
	85	5.0				
		3.8		(8-8.5') SLAG, loose, light gray, dry, no plasticity, no cohesion	GP	
				(8.5-11') SAND, coarse to very coarse, loose, beige, dry, no plasticity, no cohesion		
		4.6	B5-168-SB-10		SW	
10		-				
		-		(11-13.5') SAND, medium to coarse grained, and GRAVEL SLAG, loose, dark brown, dry		
	60	-			SW	
		-		(13.5-15') SLAG, GRAVEL sized with medium to coarse grained SAND, loose, light gray, wet		Wet at 13.5
		-			GP/SW	Boring terminated at 15' bgs due to encountering groundwater
15						

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-169-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/4/2016
Weather	: 30s, windy
Northing (US ft)	: 563,715.2065
Easting (US ft)	: 1,462,331.073

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-169-SB-1	(0-6.5') SAND and GRAVEL SLAG, fine to medium grained, loose, brown, dry, no plasticity, no cohesion	SW/GP	
		1.5				
	86	2.0				
		1.0				
		4.7	B5-169-SB-5			
5		-				
		-				
	50	-		(6.5-8') SAND and GRAVEL SLAG, fine to medium grained, loose, brown, dry, no plasticity, no cohesion	SW	
		1.0		(8-8.3') SAND, coarse grained, moist, beige, loose, no plasticity, no cohesion	SP	Wet at 8' bgs
				(8.3-9.7') SLAG, GRAVEL sized with coarse SAND, loose, white, moist, no plasticity, no cohesion	GP/SP	
		1.8				
10		-		(9.7-12.5') SLAG, gravel sized with coarse sand, loose, black, moist, no plasticity, no cohesion	GP/SP	
		-				
	50	-		(12.5-14') SAND, medium to coarse grained, loose, gray, moist, no plasticity, no cohesion	SW	
		-				
		-		(14-14.8') SAND, medium grained, white orange at top and bottom limits, moist, cohesive	SP	Wet at 14.7' bgs
15				(14.8-15') SLAG, GRAVEL sized, loose, gray to white, wet, no plasticity, no cohesion	GP	Boring terminated at 15' bgs due to encountering groundwater

Total Borehole Depth: 15' bgs.

ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-170-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/21/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,051.351
Easting (US ft)	: 1,459,122.772

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	100	-	B5-170-SB-1	(0-3') SAND and GRAVEL SLAG, medium grained, loose, brown, dry grades to fine and medium grained SAND with less SLAG	SP	
		0.3				
		0.4				
		0.8		(3-4.5') SAND, grading to coarse SAND at depth, loose, dark brown, wet	SP	Wet at 3' bgs
		-		(4.5-5') CLAYEY SILT, firm, dark brown to gray, wet, firm, no plasticity, cohesive	ML	
5						Boring terminated at 5' bgs due to encountering groundwater

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-171-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/21/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,098.0837
Easting (US ft)	: 1,459,577.679

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	100	-	B5-171-SB-1	(0-4') SANDY GRAVEL, 1" firm brown TOPSOIL at very top, hard, loose, brown, moist, wet at 2' bgs	GW	Wet at 2' bgs
		2.6				
		-				
		-				
		-		(4-4.5') SAND, coarse to very coarse grained, loose, soft, beige, wet	SP	
5				(4.5-5') SAND, very coarse grained to GRAVEL sized, with SLAG, loose, orange brown, wet	SP	Boring terminated at 5' bgs due to encountering groundwater

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-172-SB

(page 1 of 1)

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/22/2016
Weather	: 30s, cloudy
Northing (US ft)	: 564,225.2557
Easting (US ft)	: 1,460,285.386

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	95	-	B5-172-SB-1	(0-4') SAND, medium grained with <25% SLAG GRAVEL, loose, brown to gray, dry to moist	SP	PID malfunctioning due to low temperature
5		-	B5-172-SB-5	(4-5.5') SANDY CLAY, firm, orange, dry, medium plasticity, cohesive	CL	
	86	-		(5.5-8') CLAYEY SAND, firm, orange, moist, no plasticity, no cohesion	SC	Wet at 8' bgs
10		-		(8-10') SAND, very loose, orange, wet, no plasticity, cohesive	SW	Boring terminated at 10' bgs due to encountering groundwater

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-173-SB

(page 1 of 1)

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/22/2016
Weather	: 30s, cloudy
Northing (US ft)	: 564,259.7224
Easting (US ft)	: 1,460,677.028

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-	B5-173-SB-1	(0-0.5') TOPSOIL with ~50% SLAG GRAVEL, platy, brown	OL	
		0.8		(0.5-4') SAND, medium grained, loose, soft, dark brown, moist	SP	
	90	1.0				
		5.4				
		0.9	B5-173-SB-5	(4-4.33') CONCRETE GRAVEL, loose, gray, moist, strong sulfur odor	N/A	Strong sulfur odor
5				(4.33-5.2') SANDY SILT, firm, gray to light gray, dry, no plasticity, cohesive	ML	
		0.3		(5.2-8') SANDY CLAY, light gray with orange mottling, medium plasticity, cohesive	CL	
		1.2				
	95	1.7				
		2.5		(8-10') SAND, with trace CLAY, loose, gray with orange mottling, very moist, no plasticity, no cohesion	SW	
		2.2				
10		-		(10-12') SAND, very loose, orange, wet, no plasticity, cohesive	SW	Wet at 10' bgs
		-				
	100	-		(12-15') CLAY, soft, gray, wet, high plasticity, cohesive	CL	
		-				
		-				Boring terminated at 15' bgs due to encountering groundwater
15						

Total Borehole Depth: 15' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-174-SB

(page 1 of 1)

Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/18/2016
Weather	: 20s, sunny
Northing (US ft)	: 564,325.0012
Easting (US ft)	: 1,461,371.277

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0	80	-	B5-174-SB-1	(0-3') SAND, fine to medium grained, loose, dark brown, dry	SW	
		0.3				
		2.2				
		21.1		(3-4') SAND and GRAVEL SLAG, coarse grained, loose, dark reddish brown, dry	SW/GW	
		0.8		(4-5') SLAG and CLAY, SLAG is GRAVEL sized, hard, loose, dry; CLAY is wet, high plasticity, cohesive; moist at 4.5' bgs	GC/CH	Wet at 4' bgs Boring terminated at 5' bgs due to encountering groundwater
5						

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-175-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/19/2016
Weather	: 10s, sunny
Northing (US ft)	: 564,457.88
Easting (US ft)	: 1,461,976.71

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		0.2	B5-175-SB-1	(0-2') SAND, fine to coarse grained, and GRAVEL SLAG, grayish brown, no plasticity, no cohesion	SW	
		1.7				
	100	0.1		(2-4.5') CLAY, with trace SAND, firm, tan, moist, medium plasticity, cohesive	CL	
		1.7				
		0.1	B5-175-SB-5			
5				(4.5-5.5') SAND, with trace CLAY, firm, orangish tan, no plasticity, no cohesion	SW	
		-		(5.5-6.5') CLAY, with little GRAVEL SLAG, tan, high plasticity, cohesive	CL	
		1.3		(6.5-10') SAND, loose, dark tan, wet, no plasticity		Wet at 6.5' bgs
	90	0.4			SW	
		-				
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-176-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/14/2016
Weather	: 30s, sunny
Northing (US ft)	: 565,537.2716
Easting (US ft)	: 1,460,134.717

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0				(0-0.2') TOPSOIL, lots of roots, soft, loose, brown, dry	OL	
		-	B5-176-SB-1	(0.2-4.7') SAND, fine to medium grained, loose, brown, dry, no plasticity, no cohesion		
		-				
	80	0.9			SW	
		1.3				
		3.2	B5-176-SB-5			Wet at 5' bgs
5				(4.7-5') SAND, coarse grained, loose, gray to black, wet	SP	Boring terminated at 5' bgs due to encountering groundwater

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-177-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 2/1/2016
Weather	: 40s, cloudy
Northing (US ft)	: 563,830.0692
Easting (US ft)	: 1,458,304.536

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0		-				
		-	B5-177-SB-1	(0-2') SAND, with SLAG GRAVEL, loose, soft, brown, moist	SW-GW	
		-				
	80	0.5		(2-3') SAND, brown, with gray GRAVEL sized CONCRETE, loose, soft, dry	SW	
			B5-177-SB-3.5	(3-3.5') SAND, very fine grained, loose, soft, black, dry	SP	
		12.4		(3.5-5') SLAG, with sand, loose, hard, brown, wet,	GP-SW	Wet at 3.5 bgs
		21.4				
5						Boring terminated at 5' bgs due to encountering groundwater

Total Borehole Depth: 5' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-178-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Kevin Pumphrey
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/7/2016
Weather	: 30s, cloudy
Northing (US ft)	: 565,048.9516
Easting (US ft)	: 1,458,222.301

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-178-SB-1	(0-0.6') TOPSOIL, brown	OL	
				(0.6-3') SAND, medium to coarse grained, and GRAVEL SLAG, loose, dark brown, dry	SP	
		21.6				
	90	17.6				
				(3-4') SLAG, with coarse grained SAND, loose, hard, dark brown, wet, oily	GP	Wet at 3-4' bgs
		0.6				
		4.9	B5-178-SB-5	(4-7') SANDY CLAY, firm, tan, moist to dry, low plasticity, cohesive	CL	
5		-				
		-				
				(7-9.5') SAND, coarse grained interbedded with CLAY, very loose, tan, wet, CLAY exhibits cohesion and high plasticity	SP	
	20	-				
		-				
		-				Wet at 9.5' bgs
				(9.5-10') Clayey SAND, firm, loose, tan, moist, no plasticity	SC	Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-179-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/20/2016
Weather	: 20s, sunny
Northing (US ft)	: 563,968.7046
Easting (US ft)	: 1,460,036.031

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
		-	B5-179-SB-1	(0-6') SAND, fine to coarse grained with some CONCRETE and METALLIC SLAG, loose, brown, dry, moist		
		-				
	60	17.1			SP	
		15.2				
		16.2				
5						
		-				
				(6-7.5') SLAG, loose, dry, rust covered		
		-			GP	
	60	16.5		(7.5-7.75') CONCRETE, GRAVEL sized, loose, dry, no plasticity, no cohesion	GP	
				(7.75-10') SLAG, loose, moist, wet at 9.5' bgs, rust covered		
		58.2	B5-179-SB-9		GP	Wet at 9.5' bgs
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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ARM Group Inc.
Earth Resource Engineers and Consultants

Boring ID: B5-180-SB

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Client	: EnviroAnalytics Group
ARM Project No.	: 150300M-3-3
Project Description	: Sparrows Point - Parcel B5
Site Location	: Sparrows Point, MD
ARM Representative	: L. Perrin
Checked by	: W. Mader, P.G., CPSS
Drilling Company	: Green Services, Inc
Driller	: Don Marchese
Drilling Equipment	: Geoprobe 7822DT

Date	: 1/20/2016
Weather	: 20s, sunny
Northing (US ft)	: 563,877.8484
Easting (US ft)	: 1,459,967.34

Depth (ft.)	% Recovery	PID Reading (PPM)	Sample No/Interval	DESCRIPTION	USCS	REMARKS
0						
	60	-	B5-180-SB-1	(0-2.5') SLAG, GRAVEL sized with medium grained SAND, gray	GP	
		-				
		0.7		(2.5-4') CLAY with trace GRAVEL, soft, beige with orange streaks, moist, high plasticity, cohesive	CL	
		6.4				
		10.0	B5-180-SB-5	(4-6') SLAG, GRAVEL sized with medium grained SAND, gray, moist, oxidation features	GP	
5		-				
		-		(6-7') SLAG, GRAVEL sized with medium grained SAND, gray, moist, oxidation features	GP	
				(7-7.5') CONCRETE, GRAVEL sized, loose, gray, dry	GP	
	70	-		(7.5-8') SLAG, GRAVEL sized with medium grained SAND, gray, moist, oxidation features	GP-SP	
		-		(8-10') SLAG, up to 2" pieces, loose, gray, wet	GP	Wet at 8' bgs
		-				Boring terminated at 10' bgs due to encountering groundwater
10						

Total Borehole Depth: 10' bgs.

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APPENDIX C

PID CALIBRATION LOG

PROJECT NAME: Area B, Parcel B5 Phase II	SAMPLER NAME: L. Perrin	
PROJECT NUMBER: 150300M-3	DATE: December 21, 2015	PAGE 1 of 1

DATE/TIME	PID SERIAL #	FRESH AIR CAL	STANDARD	STANDARD CONCENTRATION	METER READING	COMMENTS
12/21/2015 0745	592-913262	0.0	Isobutylene	100 ppm	100.0	-
12/22/2015 0900	592-913262	0.0	Isobutylene	100 ppm	100.0	-
12/23/2015 0800	592-913262	0.0	Isobutylene	100 ppm	100.0	-
1/4/2016 0800	592-913262	0.0	Isobutylene	100 ppm	100.0	-
1/5/2016 0800	592-913262	0.0	Isobutylene	100 ppm	100.0	-
1/6/2016 0815	592-913262	0.0	Isobutylene	100 ppm	100.0	-
1/7/2016 0815	592-913262	0.0	Isobutylene	100 ppm	100.0	-
1/8/2016 0725	592-913262	0.1	Isobutylene	100 ppm	100.1	-
1/11/2016 0730	592-913262	0.0	Isobutylene	100 ppm	100.2	-
1/12/2016 0800	592-913262	0.0	Isobutylene	100 ppm	100.5	-
1/13/2016 0805	592-913262	0.0	Isobutylene	100 ppm	100.0	-
1/14/2016 0800	592-913262	0.0	Isobutylene	100 ppm	100.0	-
1/15/2016 0800	592-913262	0.0	Isobutylene	100 ppm	99.9	-
1/18/2016 0800	592-913262	0.0	Isobutylene	100 ppm	100.0	-
1/19/2016 0800	592-913262	0.0	Isobutylene	100 ppm	99.9	-
1/20/2016 0800	592-913262	0.0	Isobutylene	100 ppm	100.0	-
1/21/2016 0810	592-913262	0.0	Isobutylene	100 ppm	100.0	-
1/22/2016 0955	592-913262	0.0	Isobutylene	100 ppm	100.0	-
2/1/2016 0815	592-913262	0.0	Isobutylene	100 ppm	100.0	-
2/2/2016 0730	592-913262	0.0	Isobutylene	100 ppm	99.8	-
4/13/2016 1000	592-913262	0.0	Isobutylene	100 ppm	100.0	-
			Isobutylene	100 ppm		

APPENDIX D

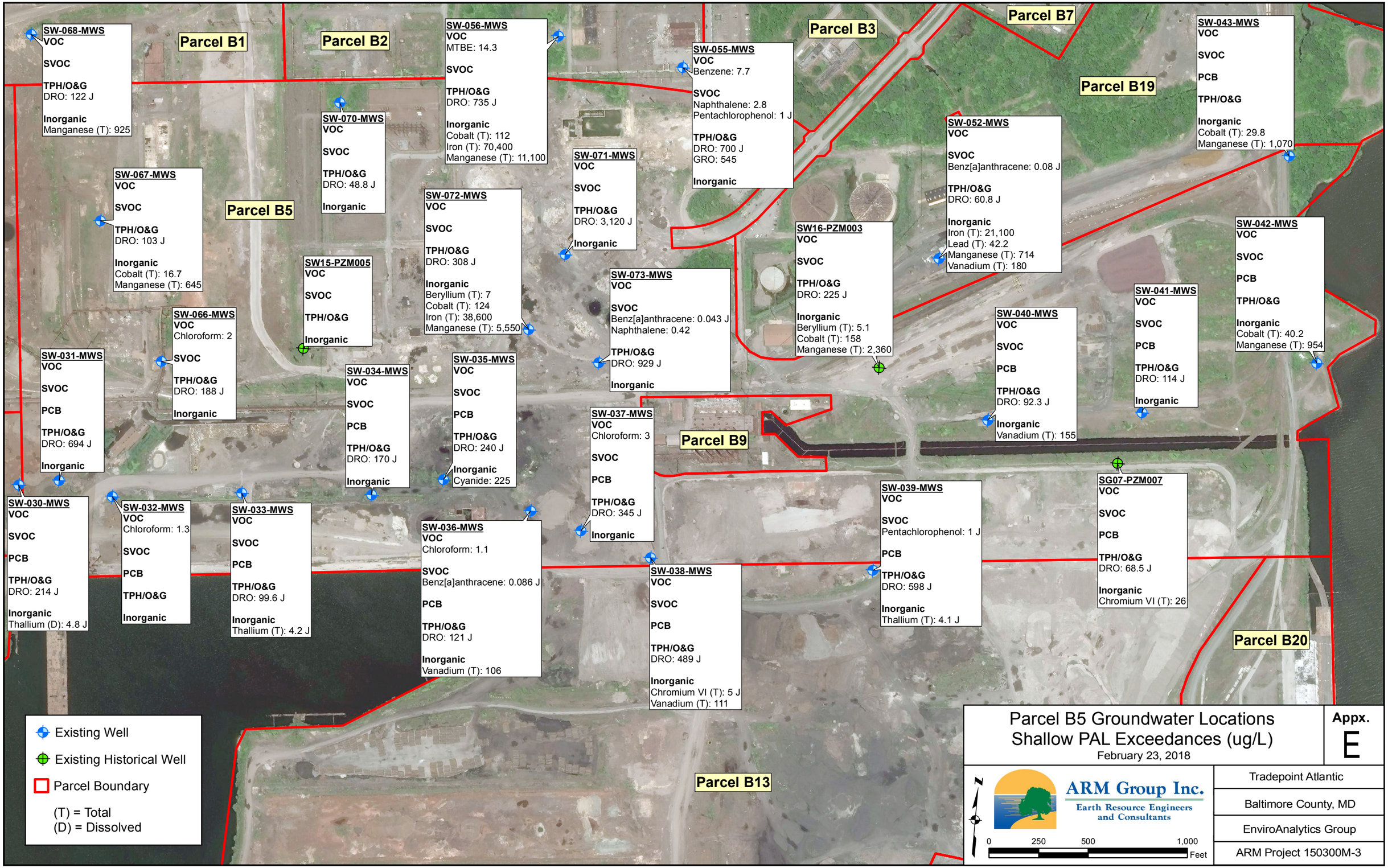
Parcel B5 - IDW Drum Log

Drum ID	Designation	Activity/Phase	Parcel	Contents	Open Date
79-Soil-11/11/15-B5	Non-haz.	Parcel B5	Parcel B5	Soil	11/11/2015
80-Soil-11/13/15-B5	Non-haz.	Parcel B5	Parcel B5	Soil	11/13/2015
81-Soil-11/13/15-B5	Non-haz.	Parcel B5	Parcel B5	Soil	11/13/2015
82-Soil-11/12/15-B5	Non-haz.	Parcel B5	Parcel B5	Soil	11/19/2015
83-GW-11/13/15-B5	Non-haz.	Parcel B5	Parcel B5	Ground water	11/18/2016
108-Decon water-11/20/15-B5	Non-haz.	Parcel B5	Parcel B5	Decon water	11/20/2015
136-S-11/30/15-B5	Non-haz.	Parcel B5	Parcel B5	Soil	11/30/2015
137-S-12/1/15-B5	Non-haz.	Parcel B5	Parcel B5	Soil	12/1/2015
138-S-12/2/15-B5	Non-haz.	Parcel B5	Parcel B5	Soil	12/2/2015
139-S-12/2/15-B5	Non-haz.	Parcel B5	Parcel B5	Soil	12/2/2015
140-S-12/3/15-B5	Non-haz.	Parcel B5	Parcel B5	Soil	12/3/2015
141-S-12/4/15-B5	Non-haz.	Parcel B5	Parcel B5	Soil	12/4/2015
142-S-12/7/15-B5	Non-haz.	Parcel B5	Parcel B5	Soil	12/7/2015
305-PPE-12/21/15-B5	Non-haz.	Area B5	Parcel B5	PPE	12/21/2015
306-Liners-12/21/15-B5	Non-haz.	Area B5	Parcel B5	Liners	12/21/2015
307-Soil-12/21/15-B5	Non-haz.	Area B5	Parcel B5	Soil	12/21/2015
308-Decon water-12/21/15-B5	Non-haz.	Area B5	Parcel B5	Decon water	12/21/2015
309-Nitric acid-12/21/15-B5	Non-haz.	Area B5	Parcel B5	Nitric Acid	12/21/2015
310-Soil-1/4/16-B5	Non-haz.	Area B5	Parcel B5	Soil	1/4/2016
311-PPE-1/4/16-B5	Non-haz.	Area B5	Parcel B5	PPE	1/4/2016
312-Liners-1/5/16-B5	Non-haz.	Area B5	Parcel B5	Liners	1/5/2016
313-PPE-1/5/16-B5	Non-haz.	Area B5	Parcel B5	PPE	1/5/2016
314-Soil-1/6/16-B5	Non-haz.	Area B5	Parcel B5	Soil	1/6/2016
315-Decon water-1/7/16-B5	Non-haz.	Area B5	Parcel B5	Decon water	1/7/2016
316-PPE-1/8/16-B5	Non-haz.	Area B5	Parcel B5	PPE	1/8/2016
317-PPE-1/12/16-B5	Non-haz.	Area B5	Parcel B5	PPE	1/12/2016
318-Soil-1/12/16-B5	Non-haz.	Area B5	Parcel B5	Soil	1/12/2016
318-Soil-1/12/16-B5	Non-haz.	Area B5	Parcel B5	Liners	1/12/2016
319-Liners-1/12/16-B5	Non-haz.	Area B5	Parcel B5	Soil	1/13/2016
321-Liners-1/14/16	Non-haz.	Area B5	Parcel B5	Liners	1/14/2016
322-PPE-1/15/16-B5	Non-haz.	Area B5	Parcel B5	PPE	1/15/2016
323-Soil-1/15/16-B5	Non-haz.	Area B5	Parcel B5	Soil	1/15/2016
324-Liners-1/19/16-B5	Non-haz.	Area B5	Parcel B5	Liners	1/19/2016
325-Decon water-1/19/16-B5	Non-haz.	Area B5	Parcel B5	Decon water	1/19/2016
326-PPE-1/20/16-B5	Non-haz.	Area B5	Parcel B5	PPE	1/20/2016
327-Soil-1/20/16-B5	Non-haz.	Area B5	Parcel B5	Soil	1/20/2016
331-Soil-2/1/16-B5	Non-haz.	Area B5	Parcel B5	Soil	2/2/2016
332-Liners-2/2/16-B5	Non-haz.	Area B5	Parcel B5	Liners	2/2/2016
354-GW-3/3/16-B5	Non-haz.	Parcel B5	Parcel B5	Purge water	3/3/2016
355-GW-3/3/16-B5	Non-haz.	Parcel B5	Parcel B5	Purge water	3/3/2016
356-GW-3/3/16-B5	Non-haz.	Parcel B5	Parcel B5	Purge water	3/3/2016
385-GW-3/3/16-B5	Non-haz.	Parcel B5	Parcel B5	Purge water	3/3/2016
386-GW-3/4/16-B5	Non-haz.	Parcel B5	Parcel B5	Purge water	3/4/2016
389-GW-3/2/16-B5	Non-haz.	Parcel B5	Parcel B5	Purge water	3/2/2016
195-S-12/17/15-B5	Non-haz.	Parcel B5	Parcel B5	Soil	12/17/2015
197-S-12/18/15-B5	Non-haz.	Parcel B5	Parcel B5	Soil	12/18/2015
198-S-12/21/15-B5	Non-haz.	Parcel B5	Parcel B5	Soil	12/21/2015
199-Decon water-12/17/15-B5	Non-haz.	Parcel B5	Parcel B5	Decon water	12/17/2015

Parcel B5 - IDW Drum Log

Drum ID	Designation	Activity/Phase	Parcel	Contents	Open Date
200-Decon water-12-17/15-B5	Non-haz.	Parcel B5	Parcel B5	Decon water	12/17/2015
203-Soil-12/22/15-B5	Non-haz.	Parcel B5	Parcel B5	Soil	12/22/2015
204-Soil-12/22/15-B5	Non-haz.	Parcel B5	Parcel B5	Soil	12/22/2015
205-Soil-12/23/15-B5	Non-haz.	Parcel B5	Parcel B5	Soil	12/23/2015
209-Decon water-12/23/15	Non-haz.	Parcel B5	Parcel B5	Decon water	12/23/2015
211-Decon water-12/23/15	Non-haz.	B5 drilling	Parcel B5	Decon water	12/23/2015
212-Decon water-12/23/15	Non-haz.	B5 drilling	Parcel B5	Decon water	12/23/2015
213-Decon water-12/23/15	Non-haz.	B5 drilling	Parcel B5	Decon water	12/23/2015
214-Decon water-12/23/15	Non-haz.	B5 drilling	Parcel B5	Decon water	12/23/2015
215-Decon water-12/23/15	Non-haz.	B5 drilling	Parcel B5	Decon water	12/23/2015
244-Soil-1/6/16-B5	Non-haz.	Parcel B5	Parcel B5	Soil	1/6/2016
245-Soil-1/4/16-B5	Non-haz.	Parcel B5	Parcel B5	Soil	1/4/2016
248-Soil-1/5/16-B5	Non-haz.	Parcel B5	Parcel B5	Soil	1/5/2016
249-Soil-1/7/16-B5	Non-haz.	Parcel B5	Parcel B5	Soil	1/7/2016
255-GW-1/7/16-B5	Non-haz.	Parcel B5	Parcel B5	Decon water	1/7/2016
258-S-1/8/16-B5	Non-haz.	Parcel B5	Parcel B5	Soil	1/8/2016
259-S-1/8/16-B5	Non-haz.	Parcel B5	Parcel B5	Soil	1/8/2016
260-S-1/11/16-B5	Non-haz.	Parcel B5	Parcel B5	Soil	1/11/2016
261-S-1/12/16-B5	Non-haz.	Parcel B5	Parcel B5	Soil	1/12/2016
266-S-1/14/16-B5	Non-haz.	Parcel B5	Parcel B5	Soil	1/14/2016
275-GW-1/15/16-B5	Non-haz.	Parcel B5	Parcel B5	Ground water	1/15/2016
277-GW-1/18/16-B5	Non-haz.	Parcel B5	Parcel B5	Ground water	1/18/2016
278-GW-1/18/16-B5	Non-haz.	Parcel B5	Parcel B5	Ground water	1/18/2016
279-GW-1/18/16-B5	Non-haz.	Parcel B5	Parcel B5	Ground water	1/18/2016
280-GW-1/18/16-B5	Non-haz.	Parcel B5	Parcel B5	Ground water	1/18/2016
285-GW-1/19/16-B5	Non-haz.	Parcel B5	Parcel B5	Decon water	1/19/2016
286-GW-1/19/16-B5	Non-haz.	Parcel B5	Parcel B5	Decon water	1/19/2016
287-GW-1/19/16-B5	Non-haz.	Parcel B5	Parcel B5	Decon water	1/19/2016
288-GW-1/19/16-B5	Non-haz.	Parcel B5	Parcel B5	Decon water	1/19/2016
289-GW-1/20/16-B5	Non-haz.	Parcel B5	Parcel B5	Decon water	1/20/2016
400-GW-2/28/16-B5	Non-haz.	Parcel B5	Parcel B5	Ground water	1/28/2016
423-GW-1/29/16-B5	Non-haz.	Parcel B5	Parcel B5	Ground water	1/28/2016
453-GW-2/9/16-B5	Non-haz.	Parcel B5	Parcel B5	Purge water	2/9/2016
469-S-2/25/16-B5	Non-haz.	Parcel B5	Parcel B5	Soil	2/25/2016
470-S-2/25/16-B5	Non-haz.	Parcel B5	Parcel B5	Soil	2/25/2016

APPENDIX E


Parcel B1
Parcel B2
Parcel B3
Parcel B5
Parcel B7
Parcel B9
Parcel B13
Parcel B19
Parcel B20
SW-068-MWS
VOC
SVOC
TPH/O&G
DRO: 122 J
Inorganic
Manganese (T): 925
SW-067-MWS
VOC
SVOC
TPH/O&G
DRO: 103 J
Inorganic
Cobalt (T): 16.7
Manganese (T): 645
SW-066-MWS
VOC
Chloroform: 2
SVOC
TPH/O&G
DRO: 188 J
Inorganic
SW-031-MWS
VOC
SVOC
PCB
TPH/O&G
DRO: 694 J
Inorganic
SW-030-MWS
VOC
SVOC
PCB
TPH/O&G
DRO: 214 J
Inorganic
Thallium (D): 4.8 J
SW-032-MWS
VOC
Chloroform: 1.3
SVOC
PCB
TPH/O&G
Inorganic
SW-033-MWS
VOC
SVOC
PCB
TPH/O&G
DRO: 99.6 J
Inorganic
Thallium (T): 4.2 J
SW-034-MWS
VOC
SVOC
PCB
TPH/O&G
DRO: 170 J
Inorganic
SW-035-MWS
VOC
SVOC
PCB
TPH/O&G
DRO: 240 J
Inorganic
Cyanide: 225
SW-036-MWS
VOC
Chloroform: 1.1
SVOC
Benz[a]anthracene: 0.086 J
PCB
TPH/O&G
DRO: 121 J
Inorganic
Vanadium (T): 106
SW-037-MWS
VOC
Chloroform: 3
SVOC
PCB
TPH/O&G
DRO: 345 J
Inorganic
SW-038-MWS
VOC
SVOC
PCB
TPH/O&G
DRO: 489 J
Inorganic
Chromium VI (T): 5 J
Vanadium (T): 111
SW-039-MWS
VOC
SVOC
Pentachlorophenol: 1 J
PCB
TPH/O&G
DRO: 598 J
Inorganic
Thallium (T): 4.1 J
SG07-PZM007
VOC
SVOC
PCB
TPH/O&G
DRO: 68.5 J
Inorganic
Chromium VI (T): 26
SW-040-MWS
VOC
SVOC
PCB
TPH/O&G
DRO: 92.3 J
Inorganic
Vanadium (T): 155
SW-041-MWS
VOC
SVOC
PCB
TPH/O&G
DRO: 114 J
Inorganic
SW-042-MWS
VOC
SVOC
PCB
TPH/O&G
Inorganic
Cobalt (T): 40.2
Manganese (T): 954
SW-043-MWS
VOC
SVOC
PCB
TPH/O&G
Inorganic
Cobalt (T): 29.8
Manganese (T): 1,070
SW-052-MWS
VOC
SVOC
Benz[a]anthracene: 0.08 J
TPH/O&G
DRO: 60.8 J
Inorganic
Iron (T): 21,100
Lead (T): 42.2
Manganese (T): 714
Vanadium (T): 180
SW16-PZM003
VOC
SVOC
TPH/O&G
DRO: 225 J
Inorganic
Beryllium (T): 5.1
Cobalt (T): 158
Manganese (T): 2,360
SW-055-MWS
VOC
Benzene: 7.7
SVOC
Naphthalene: 2.8
Pentachlorophenol: 1 J
TPH/O&G
DRO: 700 J
GRO: 545
Inorganic
SW-056-MWS
VOC
MTBE: 14.3
SVOC
TPH/O&G
DRO: 735 J
Inorganic
Cobalt (T): 112
Iron (T): 70,400
Manganese (T): 11,100
SW-070-MWS
VOC
SVOC
TPH/O&G
DRO: 48.8 J
Inorganic
SW-071-MWS
VOC
SVOC
TPH/O&G
DRO: 3,120 J
Inorganic
SW-072-MWS
VOC
SVOC
TPH/O&G
DRO: 308 J
Inorganic
Beryllium (T): 7
Cobalt (T): 124
Iron (T): 38,600
Manganese (T): 5,550
SW15-PZM005
VOC
SVOC
TPH/O&G
Inorganic
SW-073-MWS
VOC
SVOC
Benz[a]anthracene: 0.043 J
Naphthalene: 0.42
TPH/O&G
DRO: 929 J
Inorganic
Existing Well
Existing Historical Well
Parcel Boundary
(T) = Total
(D) = Dissolved
Parcel B5 Groundwater Locations
Shallow PAL Exceedances (ug/L)
February 23, 2018
Appx.
E
ARM Group Inc.
Earth Resource Engineers and Consultants
0
250
500
1,000
Feet
Tradepoint Atlantic
Baltimore County, MD
EnviroAnalytics Group
ARM Project 150300M-3

APPENDIX F

NAPL Gauging Activities
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Sample ID	Install Date	Well Total Depth (Feet bgs)	Screen Interval (Feet bgs)	Riser Stick-Up (Feet)	1/6/2016			1/7/2016			1/8/2016		
					Depth to NAPL (Feet TOC)	Depth to Water (Feet TOC)	NAPL Thickness (Feet)	Depth to NAPL (Feet TOC)	Depth to Water (Feet TOC)	NAPL Thickness (Feet)	Depth to NAPL (Feet TOC)	Depth to Water (Feet TOC)	NAPL Thickness (Feet)
B5-098-PZ	1/7/2016	12	2-12	2.75	NA	NA	NA	-	7.70	-	NM	NM	NM
B5-099-PZ	1/7/2016	12	2-12	2.56	NA	NA	NA	-	7.41	-	NM	NM	NM
B5-144-PZ	1/6/2016	10	2-10	3.50	-	6.43	-	NM	NM	NM	-	6.74	-
B5-097-PZ	4/27/2017	15	5-15	3.40	NA	NA	NA	NA	NA	NA	NA	NA	NA
B5-103-PZ	4/24/2017	21	4-17	3.70	NA	NA	NA	NA	NA	NA	NA	NA	NA
B5-161-PZ	4/26/2017	17	7-17	3.21	NA	NA	NA	NA	NA	NA	NA	NA	NA

Sample ID	Install Date	Well Total Depth (Feet bgs)	Screen Interval (Feet bgs)	Riser Stick-Up (Feet)	1/11/2016			2/8/2016			4/24/2017		
					Depth to NAPL (Feet TOC)	Depth to Water (Feet TOC)	NAPL Thickness (Feet)	Depth to NAPL (Feet TOC)	Depth to Water (Feet TOC)	NAPL Thickness (Feet)	Depth to NAPL (Feet TOC)	Depth to Water (Feet TOC)	NAPL Thickness (Feet)
B5-098-PZ	1/7/2016	12	2-12	2.75	-	7.59	-	-	6.92	-	NM	NM	NM
B5-099-PZ	1/7/2016	12	2-12	2.56	-	7.36	-	-	7.13	-	NM	NM	NM
B5-144-PZ	1/6/2016	10	2-10	3.50	NM	NM	NM	-	6.19	-	NM	NM	NM
B5-097-PZ	4/27/2017	15	5-15	3.40	NA	NA	NA	NA	NA	NA	NA	NA	NA
B5-103-PZ	4/24/2017	21	4-17	3.70	NA	NA	NA	NA	NA	NA	-	7.27	-
B5-161-PZ	4/26/2017	17	7-17	3.21	NA	NA	NA	NA	NA	NA	NA	NA	NA

Sample ID	Install Date	Well Total Depth (Feet bgs)	Screen Interval (Feet bgs)	Riser Stick-Up (Feet)	4/26/2017			4/27/2016			4/28/2017		
					Depth to NAPL (Feet TOC)	Depth to Water (Feet TOC)	NAPL Thickness (Feet)	Depth to NAPL (Feet TOC)	Depth to Water (Feet TOC)	NAPL Thickness (Feet)	Depth to NAPL (Feet TOC)	Depth to Water (Feet TOC)	NAPL Thickness (Feet)
B5-098-PZ	1/7/2016	12	2-12	2.75	NM	NM	NM	NM	NM	NM	NM	NM	NM
B5-099-PZ	1/7/2016	12	2-12	2.56	NM	NM	NM	NM	NM	NM	NM	NM	NM
B5-144-PZ	1/6/2016	10	2-10	3.50	NM	NM	NM	NM	NM	NM	NM	NM	NM
B5-097-PZ	4/27/2017	15	5-15	3.40	NA	NA	NA	-	7.02	-	NM	NM	NM
B5-103-PZ	4/24/2017	21	4-17	3.70	-	6.91	-	NM	NM	NM	NM	NM	NM
B5-161-PZ	4/26/2017	17	7-17	3.21	-	9.11	-	NM	NM	NM	-	8.45	-

NA = Not Applicable
NM = Not Measured

bgs = below ground surface
TOC = top of casing

SHADED = NAPL Detection

NAPL Gauging Activities
Parcel B5
Tradepoint Atlantic
Sparrows Point, Maryland

Sample ID	Install Date	Well Total Depth (Feet bgs)	Screen Interval (Feet bgs)	Riser Stick-Up (Feet)	5/1/2017			6/1/2017			6/21/2017		
					Depth to NAPL (Feet TOC)	Depth to Water (Feet TOC)	NAPL Thickness (Feet)	Depth to NAPL (Feet TOC)	Depth to Water (Feet TOC)	NAPL Thickness (Feet)	Depth to NAPL (Feet TOC)	Depth to Water (Feet TOC)	NAPL Thickness (Feet)
B5-098-PZ	1/7/2016	12	2-12	2.75	NM	NM	NM	NM	NM	NM	NM	NM	NM
B5-099-PZ	1/7/2016	12	2-12	2.56	NM	NM	NM	NM	NM	NM	NM	NM	NM
B5-144-PZ	1/6/2016	10	2-10	3.50	NM	NM	NM	NM	NM	NM	NM	NM	NM
B5-097-PZ	4/27/2017	15	5-15	3.40	-	7.00	-	-	7.71	-	-	7.02	-
B5-103-PZ	4/24/2017	21	4-17	3.70	NM	NM	NM	-	6.61	-	-	8.33	-
B5-161-PZ	4/26/2017	17	7-17	3.21	NM	NM	NM	-	8.20	-	-	8.73	-

Sample ID	Install Date	Well Total Depth (Feet bgs)	Screen Interval (Feet bgs)	Riser Stick-Up (Feet)	11/7/2017		
					Depth to NAPL (Feet TOC)	Depth to Water (Feet TOC)	NAPL Thickness (Feet)
B5-098-PZ	1/7/2016	12	2-12	2.75	**7.65**	**9.45**	**1.80**
B5-099-PZ	1/7/2016	12	2-12	2.56	-	7.55	-
B5-144-PZ	1/6/2016	10	2-10	3.50	Destroyed		
B5-097-PZ	4/27/2017	15	5-15	3.40	Destroyed		
B5-103-PZ	4/24/2017	21	4-17	3.70	Destroyed		
B5-161-PZ	4/26/2017	17	7-17	3.21	-	8.43	-

NA = Not Applicable
NM = Not Measured
bgs = below ground surface
TOC = top of casing

SHADED = NAPL Detection

APPENDIX G

QA/QC Tracking Log

Date:	Sample IDs		
12/21/2015	1) B5-002-SB-1		
	2) B5-002-SB-5		
	3) B5-002-SB-10		
	4) B5-001-SB-1		
	5) B5-001-SB-5	Duplicate:	B5-112-SB-1
	6) B5-001-SB-10	Date:	12/21/2015
	7) B5-112-SB-1	MS/MSD:	B5-113-SB-1
	8) B5-112-SB-5	Date:	12/21/2015
	9) B5-112-SB-10	Field Blank:	
	10) B5-113-SB-1	Date:	12/21/2015
	11) B5-113-SB-5	Eq. Blank:	
	12) B5-113-SB-10	Date:	12/21/2015
	13) B5-150-SB-1		
	14) B5-150-SB-5		
	15) B5-150-SB-10		
	16) B5-152-SB-1		
	17) B5-152-SB-5		
	18) B5-152-SB-10		
	19) B5-151-SB-1		
	20) B5-151-SB-5		

Date:	Sample IDs		
12/23/2015	1) B5-122-SB-1		
	2) B5-122-SB-9		
	3) B5-122-SB-10		
	4) B5-167-SB-1		
	5) B5-167-SB-7	Duplicate:	B5-122-SB-9
	6) B5-167-SB-10	Date:	12/23/2015
	7) B5-168-SB-1	MS/MSD:	B5-137-SB-1
	8) B5-168-SB-5	Date:	1/4/2016
	9) B5-168-SB-10	Field Blank:	
1/4/2016	10) B5-138-SB-1	Date:	1/4/2016
	11) B5-138-SB-5	Eq. Blank:	
	12) B5-138-SB-10	Date:	1/4/2016
	13) B5-137-SB-1		
	14) B5-137-SB-5		
	15) B5-137-SB-9.5		
	16) B5-164-SB-1		
	17) B5-164-SB-5		
	18) B5-164-SB-10		
	19) B5-169-SB-1		
	20) B5-169-SB-5		

12/21/2015	1) B5-151-SB-10		
12/22/2015	2) B5-052-SB-1		
	3) B5-053-SB-1		
	4) B5-053-SB-9		
	5) B5-053-SB-10	Duplicate:	B5-053-SB-9
	6) B5-064-SB-1	Date:	12/22/2015
	7) B5-064-SB-7	MS/MSD:	B5-064-SB-1
	8) B5-065-SB-1	Date:	12/22/2015
	9) B5-065-SB-6	Field Blank:	
	10) B5-065-SB-10	Date:	12/22/2010
	11) B5-153-SB-1	Eq. Blank:	
	12) B5-124-SB-1	Date:	12/22/2010
	13) B5-124-SB-9		
	14) B5-124-SB-10		
12/23/2015	15) B5-125-SB-1		
	16) B5-125-SB-8		
	17) B5-125-SB-10		
	18) B5-123-SB-1		
	19) B5-123-SB-8		
	20) B5-123-SB-10		

1/4/2016	1) B5-165-SB-1		
	2) B5-165-SB-5		
	3) B5-142-SB-1		
	4) B5-142-SB-5		
	5) B5-166-SB-1	Duplicate:	B5-142-SB-5
	6) B5-166-SB-5	Date:	1/4/2016
	7) B5-166-SB-10	MS/MSD:	B5-166-SB-1
	8) B5-095-SB-1	Date:	1/4/2016
	9) B5-095-SB-5	Field Blank:	2
	10) B5-095-SB-10	Date:	1/4/2016
1/5/2016	11) B5-094-SB-1	Eq. Blank:	2
	12) B5-094-SB-5	Date:	1/4/2016
	13) B5-094-SB-10		
	14) B5-056-SB-1		
	15) B5-056-SB-5		
	16) B5-057-SB-1		
	17) B5-057-SB-6		
	18) B5-143-SB-1		
	19) B5-143-SB-4.5		
	20) B5-046-SB-1		

Trip Blanks: 12/21/2015, 12/22/2015, 12/23/2015, 1/4/2016, 1/5/2016

QA/QC Tracking Log

Date:	Sample IDs	
1/5/2016	1) B5-046-SB-5	
	2) B5-047-SB-1	
	3) B5-047-SB-4	
	4) B5-051-SB-1	
	5) B5-051-SB-5	Duplicate: B5-047-SB-4
	6) B5-050-SB-1	Date: 1/5/2016
	7) B5-050-SB-5	MS/MSD: B5-051-SB-5
1/6/2016	8) B5-144-SB-1	Date: 1/5/2016
	9) B5-144-SB-4	Field Blank:
	10) B5-148-SB-1	Date: 1/5/2016
	11) B5-148-SB-5	Eq. Blank:
	12) B5-145-SB-1	Date: 1/5/2016
	13) B5-145-SB-5	
	14) B5-147-SB-1	
	15) B5-147-SB-5	
	16) B5-146-SB-1	
	17) B5-146-SB-5	
	18) B5-004-SB-1	
	19) B5-003-SB-1	
	20) B5-003-SB-5	

Date:	Sample IDs	
1/7/2016	1) B5-100-SB-5	
1/8/2016	2) B5-101-SB-1	
	3) B5-101-SB-5	
	4) B5-059-SB-1	
	5) B5-058-SB-1	Duplicate: B5-101-SB-5
	6) B5-058-SB-5	Date: 1/8/2016
	7) B5-162-SB-1	MS/MSD: B5-059-SB-1
	8) B5-008-SB-1	Date: 1/8/2015
	9) B5-007-SB-1	Field Blank:
	10) B5-163-SB-1	Date: 1/8/2016
	11) B5-015-SB-1	Eq. Blank:
	12) B5-015-SB-5	Date: 1/8/2016
	13) B5-015-SB-10	
	14) B5-016-SB-1	
	15) B5-016-SB-8.5	
	16) B5-109-SB-1	
	17) B5-108-SB-5	
1/11/2016	18) B5-109-SB-1	
	19) B5-106-SB-1	
	20) B5-106-SB-5	

1/7/2016	1) B5-006-SB-1	
	2) B5-006-SB-5	
	3) B5-005-SB-1	
	4) B5-005-SB-4.5	
	5) B5-010-SB-1	Duplicate: B5-098-SB-4
	6) B5-010-SB-5	Date: 1/7/2016
	7) B5-061-SB-1	MS/MSD: B5-099-SB-4.5
	8) B5-161-SB-1	Date: 1/7/2016
	9) B5-161-SB-4	Field Blank:
	10) B5-161-SB-10	Date: 1/7/2016
	11) B5-099-SB-1	Eq. Blank:
	12) B5-099-SB-4.5	Date: 1/7/2016
	13) B5-098-SB-1	
	14) B5-098-SB-4	
	15) B5-103-SB-1	
	16) B5-103-SB-4.5	
	17) B5-178-SB-1	
	18) B5-178-SB-5	
	19) B5-102-SB-1	
	20) B5-100-SB-1	

1/11/2016	1) B5-107-SB-1	
	2) B5-107-SB-6	
	3) B5-107-SB-10	
	4) B5-010-SB-1	
	5) B5-010-SB-7	Duplicate: B5-009-SB-5
	6) B5-010-SB-10	Date: 1/11/2016
	7) B5-009-SB-1	MS/MSD: B5-105-SB-5
	8) B5-009-SB-5	Date: 1/11/2016
	9) B5-105-SB-1	Field Blank:
	10) B5-105-SB-5	Date: 1/11/2016
	11) B5-105-SB-10	Eq. Blank:
	12) B5-104-SB-1	Date: 1/11/2016
	13) B5-104-SB-5	
1/12/2016	14) B5-041-SB-1	
	15) B5-042-SB-1	
	16) B5-043-SB-1	
	17) B5-043-SB-5	
	18) B5-045-SB-1	
	19) B5-045-SB-5	
	20) B5-044-SB-1	

Trip Blanks: 1/6/2016, 1/7/2016, 1/8/2016, 1/11/2016, 1/12/2016

QA/QC Tracking Log

Date:	Sample IDs	
1/12/2016	1) B5-044-SB-5	
	2) B5-073-SB-1	
	3) B5-073-SB-5	
	4) B5-073-SB-10	
	5) B5-072-SB-1	Duplicate: B5-132-SB-4
	6) B5-072-SB-6	Date: 1/12/2016
	7) B5-072-SB-10	MS/MSD: B5-072-SB-6
	8) B5-132-SB-1	Date: 1/12/2016
	9) B5-132-SB-4	Field Blank:
	10) B5-154-SB-1	Date: 1/12/2016
	11) B5-154-SB-4	Eq. Blank:
	12) B5-155-SB-1	Date: 1/12/2016
	13) B5-155-SB-5	
	14) B5-155-SB-10	
1/13/2016	15) B5-156-SB-1	
	16) B5-156-SB-6	
	17) B5-156-SB-10	
	18) B5-159-SB-1	
	19) B5-159-SB-5	
	20) B5-076-SB-1	

Date:	Sample IDs	
1/14/2016	1) B5-133-SB-5	
	2) B5-133-SB-10	
	3) B5-012-SB-1	
	4) B5-012-SB-5	
	5) B5-011-SB-1	Duplicate: B5-133-SB-5
	6) B5-011-SB-5	Date: 1/14/2016
	7) B5-014-SB-1	MS/MSD: B5-176-SB-5
	8) B5-014-SB-4	Date: 1/14/2016
	9) B5-013-SB-1	Field Blank:
	10) B5-013-SB-4.5	Date: 1/14/2016
	11) B5-176-SB-1	Eq. Blank:
	12) B5-176-SB-5	Date: 1/14/2016
	13) B5-134-SB-1	
	14) B5-135-SB-1	
	15) B5-135-SB-5	
	16) B5-040-SB-1	
	17) B5-040-SB-5	
	18) B5-039-SB-1	
	19) B5-039-SB-5	
	20) B5-136-SB-1	

1/13/2016	1) B5-076-SB-6	
	2) B5-077-SB-1	
	3) B5-077-SB-5	
	4) B5-075-SB-1	
	5) B5-075-SB-5	Duplicate: B5-077-SB-5
	6) B5-074-SB-1	Date: 1/13/2016
	7) B5-074-SB-5	MS/MSD: B5-075-SB-1
	8) B5-139-SB-1	Date: 1/13/2016
	9) B5-139-SB-7	Field Blank:
	10) B5-097-SB-1	Date: 1/13/2016
	11) B5-097-SB-4	Eq. Blank:
	12) B5-096-SB-1	Date: 1/13/2016
	13) B5-096-SB-5	
	14) B5-083-SB-1	
	15) B5-083-SB-5	
	16) B5-082-SB-1	
	17) B5-082-SB-5	
	18) B5-081-SB-1	
	19) B5-081-SB-5	
1/14/2016	20) B5-133-SB-1	

1/14/2016	1) B5-136-SB-8	
	2) B5-085-SB-1	
1/15/2016	3) B5-084-SB-1	
	4) B5-091-SB-1	
	5) B5-091-SB-7	Duplicate: B5-091-SB-7
	6) B5-032-SB-1	Date: 1/15/2016
	7) B5-032-SB-5	MS/MSD: B5-032-SB-5
	8) B5-031-SB-1	Date: 1/15/2016
	9) B5-092-SB-1	Field Blank:
	10) B5-092-SB-5	Date: 1/15/2016
	11) B5-093-SB-1	Eq. Blank:
	12) B5-093-SB-4	Date: 1/15/2016
	13) B5-089-SB-1	
	14) B5-088-SB-1	
	15) B5-088-SB-5	
	16) B5-086-SB-1	
	17) B5-087-SB-1	
	18) B5-087-SB-5	
	19) B5-087-SB-10	
	20) B5-038-SB-1	

Trip Blanks: 1/13/2016, 1/14/2016, 1/15/2016

QA/QC Tracking Log

Date:	Sample IDs	
1/15/2016	1) B5-038-SB-5	
	2) B5-038-SB-10	
	3) B5-037-SB-1	
	4) B5-037-SB-5	
1/18/2016	5) B5-141-SB-1	Duplicate: B5-079-SB-4
	6) B5-174-SB-1	Date: 1/19/2016
1/19/2016	7) B5-175-SB-1	MS/MSD: B5-078-SB-4
	8) B5-175-SB-5	Date: 1/19/2016
	9) B5-149-SB-1	Field Blank:
	10) B5-149-SB-5	Date: 1/19/2016
	11) B5-140-SB-1	Eq. Blank:
	12) B5-140-SB-5	Date: 1/19/2016
	13) B5-079-SB-1	
	14) B5-079-SB-4	
	15) B5-078-SB-1	
	16) B5-078-SB-4	
	17) B5-080-SB-1	
	18) B5-080-SB-5	
	19) B5-033-SB-1	
	20) B5-033-SB-8	

Date:	Sample IDs	
1/20/2016	1) B5-179-SB-1	
	2) B5-179-SB-9	
	3) B5-180-SB-1	
	4) B5-180-SB-5	
1/21/2016	5) B5-019-SB-1	Duplicate: B5-111-SB-4
	6) B5-019-SB-4	Date: 1/21/2016
	7) B5-020-SB-1	MS/MSD: B5-110-SB-4
	8) B5-020-SB-3.5	Date: 1/21/2016
	9) B5-110-SB-1	Field Blank:
	10) B5-110-SB-4	Date: 1/21/2016
	11) B5-111-SB-1	Eq. Blank:
	12) B5-111-SB-4	Date: 1/21/2016
	13) B5-171-SB-1	
	14) B5-170-SB-1	
	15) B5-018-SB-1	
	16) B5-017-SB-1	
	17) B5-158-SB-1	
	18) B5-158-SB-5	
	19) B5-054-SB-1	
	20) B5-054-SB-4	

1/19/2016	1) B5-033-SB-10	
	2) B5-034-SB-1	
1/20/2016	3) B5-121-SB-1	
	4) B5-121-SB-5	
	5) B5-119-SB-1	Duplicate: B5-121-SB-5
	6) B5-119-SB-5	Date: 1/20/2016
	7) B5-120-SB-1	MS/MSD: B5-120-SB-1
	8) B5-120-SB-4.5	Date: 1/20/2016
	9) B5-067-SB-1	Field Blank:
	10) B6-066-SB-1	Date: 1/20/2016
	11) B5-117-SB-1	Eq. Blank:
	12) B5-118-SB-1	Date: 1/20/2016
	13) B5-116-SB-1	
	14) B5-116-SB-4	
	15) B5-027-SB-1	
	16) B5-027-SB-5	
	17) B5-028-SB-1	
	18) B5-028-SB-4.5	
	19) B5-114-SB-1	
	20) B5-115-SB-1	

1/21/2016	1) B5-055-SB-1	
	2) B5-157-SB-1	
	3) B5-157-SB-5	
1/22/2016	4) B5-173-SB-1	
	5) B5-173-SB-5	Duplicate: B5-172-SB-5
	6) B5-173-SB-10	Date: 1/22/2016
	7) B5-172-SB-1	MS/MSD: B5-022-SB-1
	8) B5-172-SB-5	Date: 1/22/2016
	9) B5-022-SB-1	Field Blank:
	10) B5-022-SB-5	Date: 2/1/2016
	11) B5-021-SB-1	Eq. Blank:
	12) B5-021-SB-5	Date: 2/1/2016
	13) B5-160-SB-1	
	14) B5-160-SB-4	
	15) B5-023-SB-1	
	16) B5-023-SB-5	
2/1/2016	17) B5-025-SB-1	
	18) B5-025-SB-5	
	19) B5-026-SB-1	
	20) B5-029-SB-1	

Trip Blanks: 1/18/2016, 1/19/2016, 1/20/2016, 1/21/2016, 1/22/2016, 2/1/2016

QA/QC Tracking Log

Date:	Sample IDs	
2/1/2016	1) B5-029-SB-5	
	2) B5-030-SB-1	
	3) B5-030-SB-4	
	4) B5-024-SB-1	
	5) B5-048-SB-1	Duplicate: B5-048-SB-1
	6) B5-049-SB-1	Date: 2/1/2016
	7) B5-117-SB-1	MS/MSD: B5-049-SB-1
	8) B5-117-SB-3.5	Date: 2/1/2016
	9) B5-071-SB-1	Field Blank:
	10) B5-070-SB-1	Date: 2/2/2016
	11) B5-063-SB-1	Eq. Blank:
	12) B5-063-SB-4	Date: 2/2/2016
	13) B5-062-SB-1	
	14) B5-068-SB-1	
	15) B5-069-SB-1	
	16) B5-069-SB-4	
4/13/2016	17) B5-090-SB-1	
	18) B5-090-SB-4.75	
	19)	
	20)	

Date:	Sample IDs	
	1)	
	2)	
	3)	
	4)	
	5)	Duplicate:
	6)	Date:
	7)	MS/MSD:
	8)	Date:
	9)	Field Blank:
	10)	Date:
	11)	Eq. Blank:
	12)	Date:
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1/9/2017	1) B5-185-SB-1	
	2) B5-188-SB-1	
	3) B5-186-SB-1	
	4) B5-183-SB-1	
	5) B5-181-SB-1	Duplicate: B5-188-SB-1
	6) B5-182-SB-1	Date: 1/9/2017
	7) B5-187-SB-1	MS/MSD: B5-182-SB-1
	8) B5-184-SB-1	Date: 1/9/2017
	9)	Field Blank:
	10)	Date: 1/9/2017
	11)	Eq. Blank:
	12)	Date: 1/9/2017
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	6)	Date:
	7)	MS/MSD:
	8)	Date:
	9)	Field Blank:
	10)	Date:
	11)	Eq. Blank:
	12)	Date:
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Trip Blanks: 4/13/2016

QA/QC Tracking Log

Date:	Sample IDs	
4/5/2016	1) B5-129-SD	
	2) B5-128-SD	
	3) B5-126-SD	
	4) B5-127-SD	
4/6/2016	5) B5-131-SD	Duplicate: B5-131-SD
	6) B5-130-SD	Date: 4/6/2016
	7)	MS/MSD: B5-127-SD
	8)	Date: 4/5/2016
	9)	
	10)	
	11)	Field Blank:
	12)	Date: 4/6/2016
	13)	Eq. Blank:
	14)	Date: 4/6/2016
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	20)	

Date:	Sample IDs	
	1)	
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	3)	
	4)	
	5)	
	6)	
	7)	Duplicate:
	8)	Date:
	9)	MS/MSD:
	10)	Date:
	11)	Field Blank:
	12)	Date:
	13)	
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	1)	
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	6)	
	7)	Duplicate:
	8)	Date:
	9)	MS/MSD:
	10)	Date:
	11)	Field Blank:
	12)	Date:
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	7)	Duplicate:
	8)	Date:
	9)	MS/MSD:
	10)	Date:
	11)	Field Blank:
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Trip Blanks:

APPENDIX H

EVALUATION OF DATA COMPLETENESS
Percentage of Non-rejected Results vs. Total Results

Parameter	Parameter Group	Matrix	Unit	Number of Validated Results	Detections	Number of Rejected Results	Number of Non-rejected Results	Completeness
Cyanide	CN	Soil	mg/kg	180	150	0	180	100.00%
Aluminum	Metal	Soil	mg/kg	180	180	0	180	100.00%
Antimony	Metal	Soil	mg/kg	180	8	0	180	100.00%
Arsenic	Metal	Soil	mg/kg	189	155	0	189	100.00%
Barium	Metal	Soil	mg/kg	180	180	0	180	100.00%
Beryllium	Metal	Soil	mg/kg	180	140	0	180	100.00%
Cadmium	Metal	Soil	mg/kg	180	58	0	180	100.00%
Chromium	Metal	Soil	mg/kg	180	180	0	180	100.00%
Chromium VI	Metal	Soil	mg/kg	180	85	0	180	100.00%
Cobalt	Metal	Soil	mg/kg	180	137	0	180	100.00%
Copper	Metal	Soil	mg/kg	180	174	0	180	100.00%
Iron	Metal	Soil	mg/kg	180	180	0	180	100.00%
Lead	Metal	Soil	mg/kg	181	171	0	181	100.00%
Manganese	Metal	Soil	mg/kg	181	181	0	181	100.00%
Mercury	Metal	Soil	mg/kg	180	128	16	164	91.11%
Nickel	Metal	Soil	mg/kg	180	164	0	180	100.00%
Selenium	Metal	Soil	mg/kg	180	22	0	180	100.00%
Silver	Metal	Soil	mg/kg	180	36	0	180	100.00%
Thallium	Metal	Soil	mg/kg	180	3	0	180	100.00%
Vanadium	Metal	Soil	mg/kg	180	180	0	180	100.00%
Zinc	Metal	Soil	mg/kg	180	178	0	180	100.00%
Aroclor 1016	PCB	Soil	mg/kg	102	1	0	102	100.00%
Aroclor 1221	PCB	Soil	mg/kg	102	0	0	102	100.00%
Aroclor 1232	PCB	Soil	mg/kg	102	0	0	102	100.00%
Aroclor 1242	PCB	Soil	mg/kg	102	2	0	102	100.00%
Aroclor 1248	PCB	Soil	mg/kg	102	1	0	102	100.00%
Aroclor 1254	PCB	Soil	mg/kg	102	17	0	102	100.00%
Aroclor 1260	PCB	Soil	mg/kg	102	23	0	102	100.00%
Aroclor 1262	PCB	Soil	mg/kg	9	0	0	9	100.00%
Aroclor 1268	PCB	Soil	mg/kg	9	0	0	9	100.00%
PCBs (total)	PCB	Soil	mg/kg	102	20	0	102	100.00%
1,1-Biphenyl	SVOC	Soil	mg/kg	180	5	0	180	100.00%
1,2,4,5-Tetrachlorobenzene	SVOC	Soil	mg/kg	180	0	0	180	100.00%
2,3,4,6-Tetrachlorophenol	SVOC	Soil	mg/kg	180	0	0	180	100.00%
2,4,5-Trichlorophenol	SVOC	Soil	mg/kg	180	0	0	180	100.00%
2,4,6-Trichlorophenol	SVOC	Soil	mg/kg	180	0	0	180	100.00%
2,4-Dichlorophenol	SVOC	Soil	mg/kg	180	0	0	180	100.00%
2,4-Dimethylphenol	SVOC	Soil	mg/kg	180	4	0	180	100.00%
2,4-Dinitrophenol	SVOC	Soil	mg/kg	180	0	1	179	99.44%
2,4-Dinitrotoluene	SVOC	Soil	mg/kg	180	0	0	180	100.00%
2,6-Dinitrotoluene	SVOC	Soil	mg/kg	180	0	0	180	100.00%
2-Chloronaphthalene	SVOC	Soil	mg/kg	180	0	0	180	100.00%
2-Chlorophenol	SVOC	Soil	mg/kg	180	0	0	180	100.00%
2-Methylnaphthalene	SVOC	Soil	mg/kg	181	146	0	181	100.00%
2-Methylphenol	SVOC	Soil	mg/kg	180	2	0	180	100.00%
2-Nitroaniline	SVOC	Soil	mg/kg	180	0	0	180	100.00%
3&4-Methylphenol(m&p Cresol)	SVOC	Soil	mg/kg	180	4	0	180	100.00%
3,3'-Dichlorobenzidine	SVOC	Soil	mg/kg	125	0	18	107	85.60%
4-Chloroaniline	SVOC	Soil	mg/kg	180	0	0	180	100.00%
4-Nitroaniline	SVOC	Soil	mg/kg	180	0	0	180	100.00%
Acenaphthene	SVOC	Soil	mg/kg	181	116	0	181	100.00%
Acenaphthylene	SVOC	Soil	mg/kg	181	130	0	181	100.00%
Acetophenone	SVOC	Soil	mg/kg	180	5	0	180	100.00%
Anthracene	SVOC	Soil	mg/kg	181	152	0	181	100.00%
Benz[a]anthracene	SVOC	Soil	mg/kg	181	161	0	181	100.00%
Benzaldehyde	SVOC	Soil	mg/kg	180	1	16	164	91.11%

EVALUATION OF DATA COMPLETENESS
Percentage of Non-rejected Results vs. Total Results

Parameter	Parameter Group	Matrix	Unit	Number of Validated Results	Detections	Number of Rejected Results	Number of Non-rejected Results	Completeness
Benzo[a]pyrene	SVOC	Soil	mg/kg	183	166	0	183	100.00%
Benzo[b]fluoranthene	SVOC	Soil	mg/kg	181	167	0	181	100.00%
Benzo[g,h,i]perylene	SVOC	Soil	mg/kg	181	160	0	181	100.00%
Benzo[k]fluoranthene	SVOC	Soil	mg/kg	181	167	0	181	100.00%
bis(2-chloroethoxy)methane	SVOC	Soil	mg/kg	180	0	0	180	100.00%
bis(2-Chloroethyl)ether	SVOC	Soil	mg/kg	180	0	0	180	100.00%
bis(2-Chloroisopropyl)ether	SVOC	Soil	mg/kg	180	0	0	180	100.00%
bis(2-Ethylhexyl)phthalate	SVOC	Soil	mg/kg	180	1	0	180	100.00%
Caprolactam	SVOC	Soil	mg/kg	180	0	0	180	100.00%
Carbazole	SVOC	Soil	mg/kg	180	6	0	180	100.00%
Chrysene	SVOC	Soil	mg/kg	181	169	0	181	100.00%
Dibenz[a,h]anthracene	SVOC	Soil	mg/kg	181	129	0	181	100.00%
Diethylphthalate	SVOC	Soil	mg/kg	180	0	0	180	100.00%
Di-n-butylphthalate	SVOC	Soil	mg/kg	180	0	0	180	100.00%
Di-n-ocytlphthalate	SVOC	Soil	mg/kg	180	1	0	180	100.00%
Fluoranthene	SVOC	Soil	mg/kg	181	174	0	181	100.00%
Fluorene	SVOC	Soil	mg/kg	181	135	0	181	100.00%
Hexachlorobenzene	SVOC	Soil	mg/kg	180	0	0	180	100.00%
Hexachlorobutadiene	SVOC	Soil	mg/kg	180	0	0	180	100.00%
Hexachlorocyclopentadiene	SVOC	Soil	mg/kg	180	0	0	180	100.00%
Hexachloroethane	SVOC	Soil	mg/kg	180	0	0	180	100.00%
Indeno[1,2,3-c,d]pyrene	SVOC	Soil	mg/kg	181	154	0	181	100.00%
Isophorone	SVOC	Soil	mg/kg	180	0	0	180	100.00%
Naphthalene	SVOC	Soil	mg/kg	181	125	0	181	100.00%
Nitrobenzene	SVOC	Soil	mg/kg	180	0	0	180	100.00%
N-Nitroso-di-n-propylamine	SVOC	Soil	mg/kg	125	0	18	107	85.60%
N-Nitrosodiphenylamine	SVOC	Soil	mg/kg	180	0	0	180	100.00%
Pentachlorophenol	SVOC	Soil	mg/kg	125	0	18	107	85.60%
Phenanthrene	SVOC	Soil	mg/kg	181	175	0	181	100.00%
Phenol	SVOC	Soil	mg/kg	180	1	0	180	100.00%
Pyrene	SVOC	Soil	mg/kg	181	175	0	181	100.00%
Diesel Range Organics	TPH	Soil	mg/kg	181	166	0	181	100.00%
Gasoline Range Organics	TPH	Soil	mg/kg	346	26	0	346	100.00%
1,1,1-Trichloroethane	VOC	Soil	mg/kg	180	2	0	180	100.00%
1,1,2,2-Tetrachloroethane	VOC	Soil	mg/kg	180	0	0	180	100.00%
1,1,2-Trichloro-1,2,2-Trifluoroethane	VOC	Soil	mg/kg	180	0	1	179	99.44%
1,1,2-Trichloroethane	VOC	Soil	mg/kg	180	0	0	180	100.00%
1,1-Dichloroethane	VOC	Soil	mg/kg	180	1	0	180	100.00%
1,1-Dichloroethene	VOC	Soil	mg/kg	180	0	0	180	100.00%
1,2,3-Trichlorobenzene	VOC	Soil	mg/kg	180	2	1	179	99.44%
1,2,4-Trichlorobenzene	VOC	Soil	mg/kg	180	2	1	179	99.44%
1,2-Dibromo-3-chloropropane	VOC	Soil	mg/kg	180	0	1	179	99.44%
1,2-Dibromoethane	VOC	Soil	mg/kg	180	0	0	180	100.00%
1,2-Dichlorobenzene	VOC	Soil	mg/kg	180	0	0	180	100.00%
1,2-Dichloroethane	VOC	Soil	mg/kg	180	0	0	180	100.00%
1,2-Dichloroethene (Total)	VOC	Soil	mg/kg	180	0	0	180	100.00%
1,2-Dichloropropane	VOC	Soil	mg/kg	180	0	0	180	100.00%
1,3-Dichlorobenzene	VOC	Soil	mg/kg	180	0	1	179	99.44%
1,4-Dichlorobenzene	VOC	Soil	mg/kg	180	0	1	179	99.44%
2-Butanone (MEK)	VOC	Soil	mg/kg	180	9	0	180	100.00%
2-Hexanone	VOC	Soil	mg/kg	180	1	0	180	100.00%
4-Methyl-2-pentanone (MIBK)	VOC	Soil	mg/kg	180	0	0	180	100.00%
Acetone	VOC	Soil	mg/kg	180	110	8	172	95.56%
Benzene	VOC	Soil	mg/kg	180	20	0	180	100.00%
Bromodichloromethane	VOC	Soil	mg/kg	180	0	0	180	100.00%
Bromoform	VOC	Soil	mg/kg	180	0	0	180	100.00%

EVALUATION OF DATA COMPLETENESS
Percentage of Non-rejected Results vs. Total Results

Parameter	Parameter Group	Matrix	Unit	Number of Validated Results	Detections	Number of Rejected Results	Number of Non-rejected Results	Completeness
Bromomethane	VOC	Soil	mg/kg	180	0	36	144	80.00%
Carbon disulfide	VOC	Soil	mg/kg	180	0	1	179	99.44%
Carbon tetrachloride	VOC	Soil	mg/kg	180	1	0	180	100.00%
Chlorobenzene	VOC	Soil	mg/kg	180	0	0	180	100.00%
Chloroethane	VOC	Soil	mg/kg	180	0	17	163	90.56%
Chloroform	VOC	Soil	mg/kg	180	1	0	180	100.00%
Chloromethane	VOC	Soil	mg/kg	180	0	1	179	99.44%
cis-1,2-Dichloroethene	VOC	Soil	mg/kg	180	0	0	180	100.00%
cis-1,3-Dichloropropene	VOC	Soil	mg/kg	180	0	1	179	99.44%
Cyclohexane	VOC	Soil	mg/kg	180	9	0	180	100.00%
Dibromochloromethane	VOC	Soil	mg/kg	180	0	1	179	99.44%
Dichlorodifluoromethane	VOC	Soil	mg/kg	180	0	2	178	98.89%
Ethylbenzene	VOC	Soil	mg/kg	180	8	0	180	100.00%
Isopropylbenzene	VOC	Soil	mg/kg	180	6	1	179	99.44%
Methyl Acetate	VOC	Soil	mg/kg	180	2	57	123	68.33%
Methyl tert-butyl ether (MTBE)	VOC	Soil	mg/kg	180	0	0	180	100.00%
Methylene Chloride	VOC	Soil	mg/kg	180	0	0	180	100.00%
Styrene	VOC	Soil	mg/kg	180	1	2	178	98.89%
Tetrachloroethene	VOC	Soil	mg/kg	180	7	0	180	100.00%
Toluene	VOC	Soil	mg/kg	180	31	0	180	100.00%
trans-1,2-Dichloroethene	VOC	Soil	mg/kg	180	0	0	180	100.00%
trans-1,3-Dichloropropene	VOC	Soil	mg/kg	180	0	1	179	99.44%
Trichloroethene	VOC	Soil	mg/kg	180	1	0	180	100.00%
Trichlorofluoromethane	VOC	Soil	mg/kg	180	0	0	180	100.00%
Vinyl chloride	VOC	Soil	mg/kg	180	0	1	179	99.44%
Xylenes	VOC	Soil	mg/kg	180	14	0	180	100.00%
1,4-Dioxane	VOC/SVOC	Soil	mg/kg	180	0	138	42	23.33%

Data validation has been completed for a representative 50% of all samples