



ARM Group LLC

Engineers and Scientists

October 6, 2025

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US EPA Mid-Atlantic Region
4 Penn Center
1600 JFK Boulevard
Philadelphia, PA 19103

Ms. Jennifer Sohns
Land Restoration Program
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230

Re: RADWP Addendum
Area B: Sub-Parcel B13-2
Tradepoint Atlantic
Sparrows Point, MD 21219

Dear Ms. Kimak and Ms. Sohns:

ARM Group LLC (ARM), on behalf of Tradepoint Atlantic (TPA), is submitting this Response and Development Work Plan (RADWP) Addendum to present proposed changes to Sub-Parcel B13-2 (the B13-2 Site), which is part of Area B of the TPA property located in Sparrows Point, Maryland. The original scope of development work was presented to the Maryland Department of the Environment (MDE) and United States Environmental Protection Agency (USEPA) in the *Sub-Parcel B13-2 RADWP* (Revision 0 dated November 25, 2024). Refer to **Figure 1** and **Figure 2** for the Sub-Parcel B13-2 boundary. Sub-Parcel B13-2 was slated to be paved for future use as a laydown and bulk material storage area. The *Sub-Parcel B13-2 RADWP* did not require environmental capping (referred to as a Voluntary Cleanup Program [VCP] cap hereafter), except for a portion where slag aggregate was used as the primary fill material (refer to the 'Existing VCP Cap' area in **Figure 3**).

This Addendum proposes the modification of the B13-2 Site Boundary to exclude the previous northern area of the Site due to the inclusion of this area in a separate Sub-Parcel (B13-3, as shown on **Figure 2**) and proposes the completion of a cement distribution facility (St. Mary's Cement – Sparrows Point Terminal) within the Sub-Parcel B13-2 boundary. The St. Mary's Cement Site is in the southwestern corner of Parcel B13, as shown on **Figure 1** and **Figure 3**. An additional area on Sub-Parcel B13-2 requiring slag fill has been identified. The slag will come from outside of

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Sub-Parcel B13-2. Accordingly, this addendum proposes one additional section of VCP cap ('Proposed VCP Cap'), as shown in **Figure 3**, to the east of the Existing Paved Area.

Due to the modification of the B13-2 Site Boundary, this RADWP Addendum revises the Screening Level Risk Assessment (SLRA) completed in the original RADWP (Revision 0 dated November 25, 2024) to remove data no longer within the revised B13-2 site boundary. Associated figures and tables have also been revised to remove the results associated with the non-relevant locations. **Figure 4** shows the soil boring locations within the revised B13-2 Site Boundary. Also, **Figure S1** and **Figure S2** show soil boring organic and inorganic Project Action Limit (PAL) exceedances, respectively. **Figure 5** has been updated to show the revised B13-2 Site Boundary in relation to the groundwater sample locations. Groundwater PAL exceedances are shown on **Figure GW1**. Lastly, **Figure 6** shows shallow groundwater elevations in relation to the revised B13-2 Site Boundary. **Table 1** and **Table 2** have been updated to remove the soil boring organic and inorganic data, respectively, that are no longer relevant. Groundwater results are summarized in **Table 3**, **Table 4**, and **Table 5**, and remain unchanged from the original RADWP but are included for completeness.

1. SLRA REVISION

1.1 Analysis Process

A human health SLRA has been completed based on the analytical data obtained from the characterization of surface and subsurface soils. The SLRA was conducted to evaluate the existing soil conditions to determine if any response measures are necessary.

The SLRA included the following evaluation process:

Identification of Exposure Units (EUs): The Composite Worker SLRA was evaluated using a single Exposure Unit (EU1) with an area of 81.1 acres. EU1 corresponds with the B13-2 Site Boundary. The Construction Worker SLRA was evaluated using a slightly expanded EU (EU1-EXP), covering 82.9 acres in total which includes the 1.76 acres of additional construction worker areas incorporated within the limit of disturbance to include the facility utility installation outside of the sub-parcel. Soil boring data from locations B5-122-SB, B5-167-SB, B13-006-SB, B13-007-SB, B13-012-SB, B13-013-SB, B13-016-SB, B13-017-SB, and B13-076-SB are included in EU1-EXP but not in EU1.

Identification of Constituents of Potential Concern (COPCs): For the project-specific SLRA, COPC screening was completed assuming a Target Risk of $1E-6$ and THQ of 0.1. The initial screening also identified parameters detected at a frequency greater than 5%. Based on that data set, parameters were identified as COPCs if:

- The compound was detected in soil at a frequency of greater than 5%; and



- The maximum detection exceeded the USEPA's Composite Worker Soil Regional Screening Levels (RSLs).

A COPC screening analysis is provided in **Table 6** to identify all compounds above the relevant screening levels.

All aroclor mixtures (e.g., Aroclor 1242 and Aroclor 1248) are taken into account for the reported concentrations of total polychlorinated biphenyls (PCBs). The total PCBs concentrations are used to evaluate the carcinogenic risk associated with PCBs.

Exposure Point Concentrations (EPCs): The COPC soil datasets for each EU were divided into surface (0 to 1 feet below ground surface [bgs]), subsurface (>1 feet bgs), and pooled depths for estimation of potential EPCs. Thus, there are three soil datasets associated with each EU. If there were less than 10 sample results, the maximum detected value was used as the soil EPC. If there were 10 or more sample results in the dataset, then a statistical analysis was performed using the ProUCL software (version 5.0) developed by the USEPA to determine representative reasonable maximum exposure (RME) values for the EPC for each constituent. The RME value is typically the 95% Upper Confidence Limit of the mean. For lead, the arithmetic mean for each depth was calculated for comparison to the Adult Lead Model (ALM)-based values (presented in **Table 7**).

Risk Ratios: The surface soil EPCs, subsurface soil EPCs, and pooled soil EPCs were compared to the USEPA RSLs for the Composite Worker and to site-specific Soil Screening Levels (SSLs) for the Construction Worker based on equations derived in the USEPA Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites (OSWER 9355.4-24, December 2002). Risk ratios were calculated with a cancer risk of $1E-6$ and a non-cancer Hazard Quotient (HQ) of 1. The risk ratios for the carcinogens were summed to develop a screening level estimate of the baseline cumulative cancer risk. The risk ratios for the non-carcinogens were segregated and summed by target organ to develop a screening level estimate of the baseline cumulative non-cancer Hazard Index (HI).

For the Construction Worker, site-specific risk-based evaluations were completed for a range of potential exposure frequencies to determine the maximum allowable exposure frequency for the site-wide EU1-EXP that would result in risk ratios equivalent to a cumulative cancer risk of $1E-5$ or HI of 1 for the individual target organs. This analysis indicated that the allowable exposure frequency before additional worker protections or more detailed job safety evaluations might be needed is 95 days.

There is no potential for direct human exposure to groundwater for a Composite Worker since groundwater is not used on the TPA property (and is not proposed to be utilized). In the event that construction/excavation leads to a potential Construction Worker exposure to groundwater during development, health and safety plans and management procedures shall be followed to limit exposure risk.



Assessment of Lead: For lead, the arithmetic mean concentrations for surface soils, subsurface soils, and pooled soils for the site-wide EU were compared to the applicable RSL (800 mg/kg) as an initial screening. If the mean concentrations for the EU were below the applicable RSL, the EU was identified as requiring no further action for lead. If a mean concentration exceeded the RSL, the mean values were compared to calculated ALM values with inputs of 1.8 for the geometric standard deviation and a blood baseline lead level of 0.6 micrograms lead per deciliter of blood (ug/dL). This is based on the Updated Residential Soil Lead Guidance for Comprehensive Environmental Response, Compensation, and Liability Act Sites and Resource Conservation and Recovery Act Corrective Action Facilities (USEPA, January 17, 2024). The ALM calculation generates a soil lead concentration of 1,050 mg/kg, which represents the concentrations such that there would be no more than a 5% probability that fetuses exposed to lead would exceed a blood lead of 5 µg/dL. If the arithmetic mean concentrations for the EU were below 1,052 mg/kg, the EU was identified as requiring no further action for lead. The lead averages are presented for surface, subsurface, and pooled soils in **Table 7**. Neither surface, subsurface, nor pooled soils exceeded an average lead concentration of 800 mg/kg and therefore further action for lead is not required.

Assessment of Total Petroleum Hydrocarbon (TPH)/Oil & Grease: EPCs were not calculated for TPH/Oil & Grease. Instead, the individual results were compared to the PAL set to a HQ of 1 (6,200 mg/kg). No soil sample results exceeded the PAL for TPH or Oil & Grease. Contingency measures to address the potential presence of non-aqueous phase liquid (NAPL) which could be encountered during construction are addressed in the original RADWP.

Risk Characterization Approach: Generally, if the baseline risk ratio for each non-carcinogenic COPC or cumulative target organ does not exceed 1, and the sum of the risk ratios for the carcinogenic COPCs does not exceed a cumulative cancer risk of 1E-5, then a no further action determination will be recommended. If the baseline estimate of cumulative cancer risk exceeds 1E-5 but is less than or equal to 1E-4, then capping of the EU will be considered an acceptable remedy for the Composite Worker. The efficacy of capping for elevated non-cancer hazard will be evaluated in terms of the magnitude of exceedance and other factors such as bioavailability. For the Construction Worker, cumulative cancer risks exceeding 1E-5 (but less than or equal to 1E-4) or HI values exceeding 1 will be mitigated via site-specific health and safety requirements.

The USEPA's acceptable risk range is between 1E-6 and 1E-4. If the sum of the risk ratios for carcinogens exceeds a cumulative cancer risk of 1E-4, further analysis of site conditions will be required including the consideration of toxicity reduction in any proposal for a remedy. The magnitude of any non-carcinogen HI exceedances and bioavailability of the COPC will also dictate further analysis of site conditions including consideration of toxicity reduction in any proposal for a remedy.



2. SLRA RESULTS AND RISK CHARACTERIZATION

Soil data were divided into three datasets (surface, subsurface, and pooled) for Sub-Parcel B13-2 to evaluate potential exposure scenarios. Due to the potential for future grading activities including cut and fill, each of these potential exposure scenarios are relevant for the SLRA.

EPCs were calculated for each soil dataset (i.e., surface, subsurface, and pooled soils) in each EU. ProUCL output tables (with computed UCLs) derived from the data for each COPC in soils are provided as electronic attachments, with computations presented and EPCs calculated for COPCs within each of the datasets. The ProUCL input tables are also included as electronic attachments. The results were evaluated to identify any samples that may require additional assessment or special management based on the risk characterization approach. The calculated EPCs for the surface, subsurface, and pooled exposure scenarios are provided in **Table 8**.

As indicated above, the EPCs for lead are the average (i.e., arithmetic mean) values for each dataset. A lead evaluation spreadsheet, providing the computations to determine lead averages for each dataset, is also included as an electronic attachment. The average and maximum lead concentrations are presented for each dataset in **Table 7**, which indicates that neither surface, subsurface, nor pooled soils exceeded an average lead concentration of 800 mg/kg.

Composite Worker Assessment:

Risk ratios for the estimates of potential EPCs for the Composite Worker baseline scenario at the B13-2 Site are shown in **Table 9** (surface), **Table 10** (subsurface), and **Table 11** (pooled). The results are summarized as follows:

Worker Scenario	Exposure Unit	Medium	Hazard Index (>1)	Total Cancer Risk
Composite Worker	EU1 (81.1 acres)	Surface Soil	none	5E-6
		Subsurface Soil	none	6E-6
		Pooled Soil	none	4E-6

Based on the risk ratios for Sub-Parcel B13-2, capping is not necessary to be protective of future Composite Workers for the surface, subsurface, and pooled exposure scenarios. None of the cancer risk values exceeded 1E-5 and none of the non-carcinogenic HI values exceeded 1. However, slag aggregate is/will be used as the fill material and pavement subbase for portions of the Site (“Existing VCP Cap” area and “Proposed VCP Cap” area, as shown on **Figure 3**). Therefore, environmental (VCP) capping will be required to be protective of future Composite Workers for these portions.



Construction Worker Assessment:

Ground intrusive activities which could result in potential Construction Worker exposures are expected to be limited primarily to utility installation tasks performed by specific work crews. Construction Worker risks were evaluated for several different exposure scenarios to determine the maximum exposure frequency for the site-wide EU1-EXP that would result in risk ratios equivalent to a cumulative cancer risk of $1\text{E-}5$ or HI of 1 for any individual target organ. Risk ratios for the Construction Worker scenario using the selected duration (95 days) are shown in **Table 12** (surface), **Table 13** (subsurface), and **Table 14** (pooled). The variables entered for calculation of the site-specific Construction Worker SSLs (EU area, input assumptions, and exposure frequency) are indicated as notes on the tables. The spreadsheet used for computation of the site-specific Construction Worker SSLs is included as **Appendix A**. The results are summarized as follows:

Worker Scenario	Exposure Unit	Medium	Hazard Index (>1)	Total Cancer Risk
Construction Worker	EU1-EXP (82.9 acres) (95 exposure days)	Surface Soil	none	$3\text{E-}7$
		Subsurface Soil	none	$3\text{E-}7$
		Pooled Soil	none	$2\text{E-}7$

Using the selected exposure duration for the site-wide EU1-EXP (95 days), the carcinogenic risks were all less than $1\text{E-}5$, and none of the non-carcinogens caused a cumulative HI to exceed 1 for any target organ system. These findings are below the acceptable limits for no further action established by the agencies. This evaluation indicates that additional site-specific health and safety requirements (beyond standard Level D protection) would be required only if the allowable exposure duration of 95 days were to be exceeded for an individual worker.

Development activities may exceed the allowable duration. In such an event, Construction Worker risks would be required to be mitigated, warranting additional site-specific health and safety requirements to be protective of workers. Upgraded personal protective equipment (PPE) beyond standard Level D protection will be used for the entire scope of intrusive work covered by this RADWP as a protective measure to ensure that there are no unacceptable exposures for Construction Workers during project implementation. The modified Level D PPE requirements which will be applied immediately and throughout this project, including specific PPE details, planning, tracking/supervision, enforcement, and documentation, are outlined in the PPE Standard Operational Procedure provided in the original RADWP.

Institutional controls will be required to be established for the protection of future Construction Workers in the event of any future long-term construction projects which could include intrusive activities. The anticipated institutional controls, including notification requirements, health and



safety requirements, and materials management requirements, are specified in Section 5.4 of the original RADWP.

3. ST. MARY'S CEMENT DEVELOPMENT

As shown on **Figure 7**, a portion of Sub-Parcel B13-2 is proposed to be developed as a cement distribution facility (St. Mary's Site). This development encompasses approximately 3.51 acres with an additional 0.01 acres of External Construction Worker Area for cement conveyor installation. Development work will include the installation of pilings, grading, utility installation, paving, and installation of a storage dome, silos, conveying lines from the finger pier to the facility, and several small buildings (an electrical equipment building and a shop / office building). Refer to **Appendix B** for the development plans.

All development activities will follow the procedures outlined in Section 4 and 5 of the *Sub-Parcel B13-2 RADWP* (Revision 0 dated November 25, 2024). Additional details on soil and water management for the St. Mary's Site are included below.

Based on the SLRA results above, there were no unacceptable risks to composite workers from soil, and environmental (VCP) capping was not required. However, slag fill (obtained from within the St. Mary's Site, refer to **Section 3.1**) is proposed to be used beneath the cement storage pad on-site as shown on **Figure 3** and **7**. Therefore, this area will be capped with a minimum of 12-inches of concrete.

The *Sub-Parcel B13-2 RADWP* also noted no direct exposure risk for future Composite Workers at the B13-2 Site because there is no use of groundwater on the TPA property. If groundwater is encountered, then the appropriate health and safety plans and management procedures shall be followed to limit exposure in accordance with the dewatering requirements outlined in Section 5.2 of the RADWP and discussed below in **Section 3.2**. Additionally, vapor intrusion (VI) risks are evaluated below in **Section 3.2**.

3.1 Soil Management

Grading activities will include an elevation cut to reduce the ground surface elevation in the dome and silo areas by approximately 3 to 4 feet, from approximately 13-14 feet above mean sea level (AMSL) to approximately 10 feet AMSL. Piling installation is not a typical dust generating activity and no soil cuttings will be generated; therefore Environmental Professional (EP) oversight is not required. If the pilings are unable to be completed through the slag layer, then pre-drilling will be conducted for the pilings. The material removed during the pre-drilling and grading activities will be screened by the EP as outlined in the RADWP. If there are no visual indications of potential contamination and no elevated photoionization detector (PID) detections above 10 parts per million (ppm), material can be re-used on-site under a cap. If screening of excavated materials indicates the presence of conditions of potential concern (i.e., sustained PID readings greater than 10 ppm, presence of NAPL, etc.), such materials shall be segregated for additional sampling to



determine suitability for reuse. TPA's Management of Soil Procedure is outlined in the Hillis-Carnes Engineering Associates (HCEA) EP Roles document, included as **Appendix C**.

Material suitable for reuse onsite will be utilized as backfill beneath the proposed storage dome. It is anticipated that up to 4,000 cubic yards may be reused onsite. The base of the storage dome will include concrete slab with a minimum thickness of 12-inches overlaying the backfill material.

The pre-drilling locations will be backfilled with MDE VCP approved Category 2 clean fill.

3.2 Water Management

Shallow groundwater elevations throughout Sub-Parcel B13-2 are less than 1 foot AMSL (approximately 9 feet below the final graded surface). Utility excavations are expected to reach depths of approximately 7 feet below the final graded surface. It is unlikely that utility excavations will encounter groundwater. Water that collects in excavations/trenches due to intrusion of groundwater, stormwater, and/or dust control waters will be managed via one of the below options. The Agencies will be notified which option is selected prior to the generation of groundwater and any dewatering will be done in accordance with all local, state, and federal regulations.

- Transported to be treated at the on-site Humphrey Creek Wastewater Treatment Plant (HCWWTP), following any pretreatment necessary and discharged in accordance with National Pollutant Discharge Elimination System Permit No. 90-DP-0064; Special Conditions; A.1, A.4, or A.6 (whichever is currently in effect); Effluent Limitations and Monitoring Requirements;
- Discharged to the Baltimore County sanitary sewer system;
- Discharged in accordance with the requirements of the General Permit for Stormwater Associated with Construction Activity (20-CP); or
- Off-site disposal.

If water is sent to the HCWWTP via the Tin Mill Canal, trucking, or direct discharge to a drainage system that flows to the HCWWTP, applicable outfall dewatering fluids will be evaluated pursuant to the HCWWTP Constituent Threshold Limits for Dewatering Activities related to Remediation, Development, and Capping Protocol listed below. Water discharged to the Tin Mill Canal will also be pumped through a filter bag, weir frac tank, or equivalent to remove suspended solids prior to discharge.

<u>Analysis</u>	<u>Threshold Levels</u>
• <u>Total metals by USEPA Method 6020A</u>	<u>1,000 ppm</u>
• <u>PCBs by USEPA Method 8082</u>	<u>>Non-Detect</u>
• <u>SVOCs by USEPA Method 8270C</u>	<u>1 ppm</u>
• <u>VOCs by USEPA Method 8260B</u>	<u>1 ppm</u>
• <u>Oil & Grease by USEPA Method 1664</u>	<u>200 ppm</u>



- TPH-DRO by USEPA Method 8015B 200 ppm
- TPH-GRO by USEPA Method 8015B 200 ppm

The EP will inspect water that collects in the excavations/trenches. If the water exhibits indications of significant contamination (e.g., sheen, odor, discoloration, presence of product), the water may also be sampled to confirm conditions. If the results of the analyses are above the threshold levels listed above, groundwater at the St. Mary's Site will be further evaluated to confirm acceptable treatment by the HCWWTP, or will be evaluated to design an appropriate pre-treatment option. Alternatively, the water may be disposed of at an appropriate off-site facility.

Documentation of water testing and the selected disposal option will be reported to the Agencies in the Development Completion Report. Associated permits or permit modifications related to dewatering will also be provided in the Development Completion Report.

As part of the *Sub-Parcel B13-2 RADWP*, groundwater data were screened to determine whether any sample results exceeded the USEPA Vapor Intrusion Target Cancer Risk (carcinogen) or Target Hazard Quotient (THQ) (non-carcinogen) Screening Levels. None of the individual sample results exceeded the cumulative VI cancer risk screening level of $1\text{E-}5$, however, the non-cancer VI HI value of 1 was exceeded at sample locations B13-001-PZ, B13-006-PZ, and B13-042-PZ for cyanide. However, since no permanent structures were proposed as part of the original *Sub-Parcel B13-2 RADWP*, there were no VI risks associated with the B13-2 Site development. The proposed St. Mary's Site will include several buildings, including an office building which will be occupied. B13-001-PZ is located within the proposed St. Mary's Site; the VI risk evaluation is summarized in **Table 5**. Therefore, the potential vapor intrusion risk was further evaluated.

As part of the Parcel B13 Phase II, total cyanide was detected at $6.1\text{ J }\mu\text{g/L}$ at B13-001-PZ; the vapor intrusion screening criteria for cyanide (free or amenable) is $3.5\text{ }\mu\text{g/L}$. The VI risks were conservatively screened using total cyanide rather than free cyanide or cyanide amenable to chlorination. A supplemental cyanide investigation was conducted (*Sitewide Groundwater Study Report*, ARM, 2017), with samples collected from 13 locations across the entire TPA Property with previously detected high total cyanide. Based on the cyanide results, a very small fraction of the total cyanide in groundwater is present in the form of available cyanide (less than 4% in all samples). Therefore, based on this study, the maximum calculated available cyanide in groundwater within the St. Mary's Site is $0.244\text{ }\mu\text{g/L}$ (4% of $6.1\text{ }\mu\text{g/L}$). Accordingly, cyanide in groundwater in the St. Mary's Site area is not expected to present a VI risk.

4. PROPOSED VCP CAP AREA

Based on the SLRA results (refer to Section 1), there were no unacceptable risks to composite workers from soil, and environmental (VCP) capping was not required. However, slag aggregate was/is proposed for use as the primary fill material and pavement subbase for portions of the B13-2 Site as shown on **Figure 3**. The "Existing VCP Cap" area was included in the *Sub-Parcel B13-2 RADWP* (Revision 0 dated November 25, 2024). As part of this Addendum, additional portions



of Sub-Parcel B13-2 will receive slag aggregate as fill (“Proposed VCP Cap” area, refer to **Figure 3**). The slag primary fill requires environmental (VCP) capping to be protective of future Composite Workers.

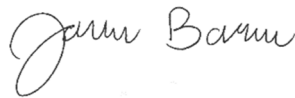
5. SCHEDULE

It is anticipated that St. Mary’s Site grading and pre-drilling will begin in September 2025 and piling installation will begin in October 2025. The St. Mary’s development activities presented in this Addendum are anticipated to be completed in approximately 1 year.

If you have questions regarding any information covered in this document, please feel free to contact Peter Haid at Tradepoint Atlantic: 443-649-5055.

Respectfully submitted,

ARM Group LLC



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Project Geologist II



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Senior Engineer

Attachments:

Figures

Figure 1: Area A and Area B Parcels

Figure 2: Site Map

Figure 3: Paved and Capped Areas

Figure 4: Soil Boring Locations

Figure S1: Soil Organic PAL Exceedances

Figure S2: Soil Inorganic PAL Exceedances

Figure 5: Groundwater Sample Locations

Figure GW1: Groundwater PAL Exceedances

Figure 6: Shallow Groundwater Elevation

Figure 7: St. Mary’s Proposed Site Plan



Tables

Table 1: Summary of Organics Detected in Soil

Table 2: Summary of Inorganics Detected in Soil

Table 3: Summary of Organics Detected in Groundwater

Table 4: Summary of Inorganics Detected in Groundwater

Table 5: Cumulative Vapor Intrusion Criteria Comparison

Table 6: COPC Screen Analysis

Table 7: Assessment of Lead

Table 8: Soil EPCs

Table 9: Risk Ratios Surface (Composite Worker)

Table 10: Risk Ratios Subsurface (Composite Worker)

Table 11: Risk Ratios Pooled (Composite Worker)

Table 12: Risk Ratios Surface (Construction Worker)

Table 13: Risk Ratios Subsurface (Construction Worker)

Table 14: Risk Ratios Pooled (Construction Worker)

Appendices

Appendix A: Construction Worker SSL Spreadsheet

Appendix B: Development Plan Drawing

Appendix C: HCEA EP Roles

Electronic Attachments

1: ProUCL Input Files

2: ProUCL Output Files

3: Lead Evaluation

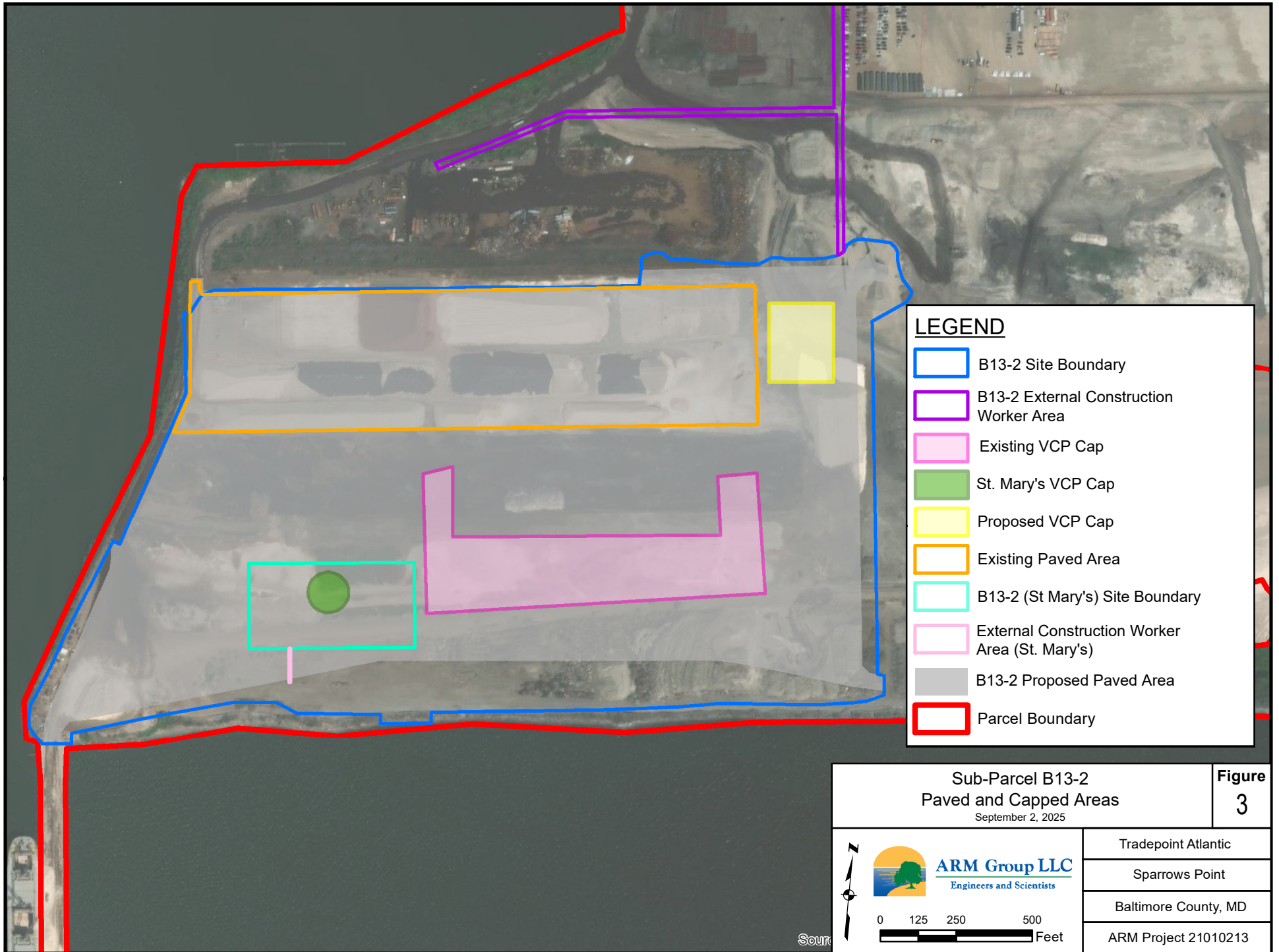


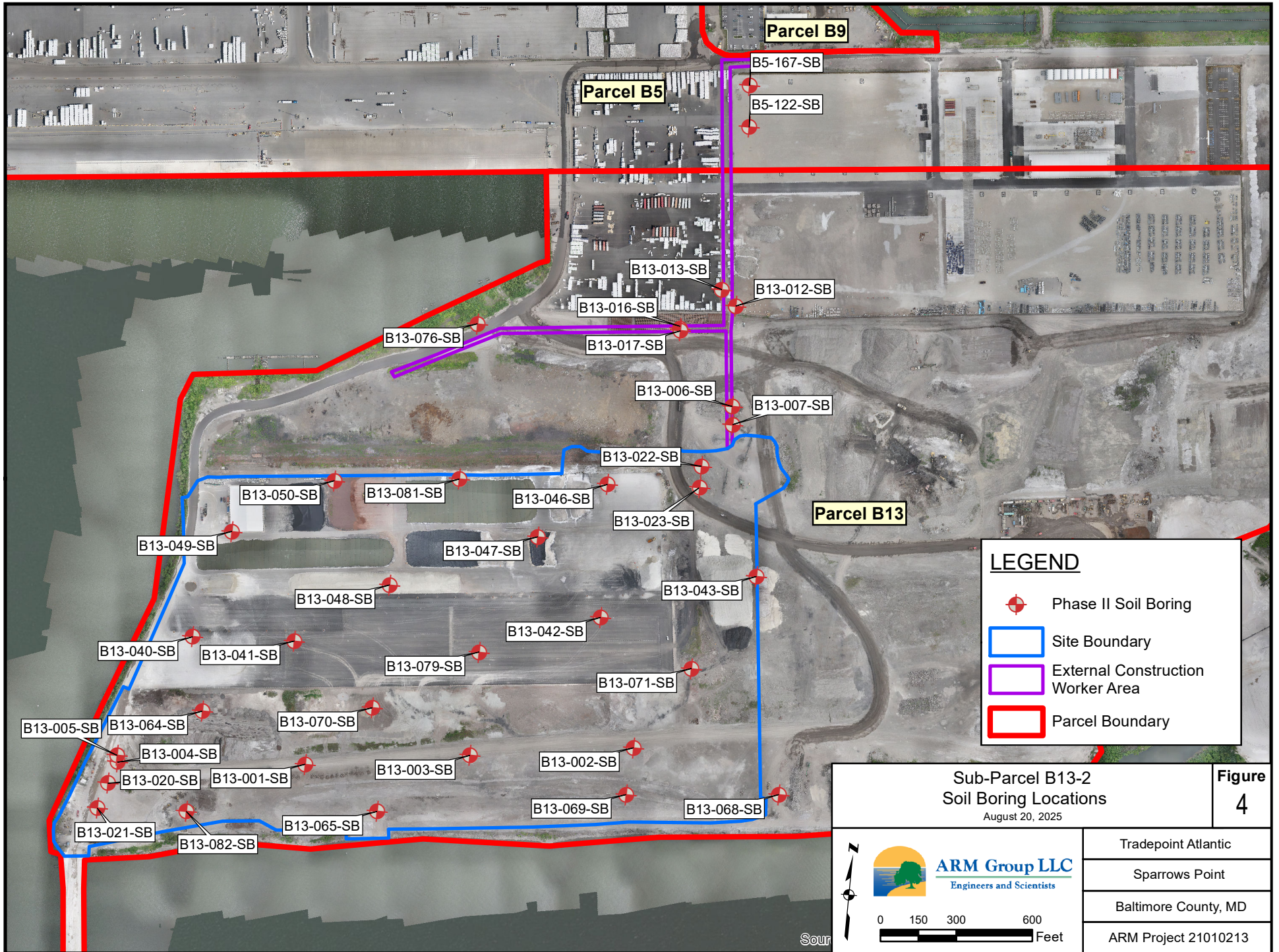
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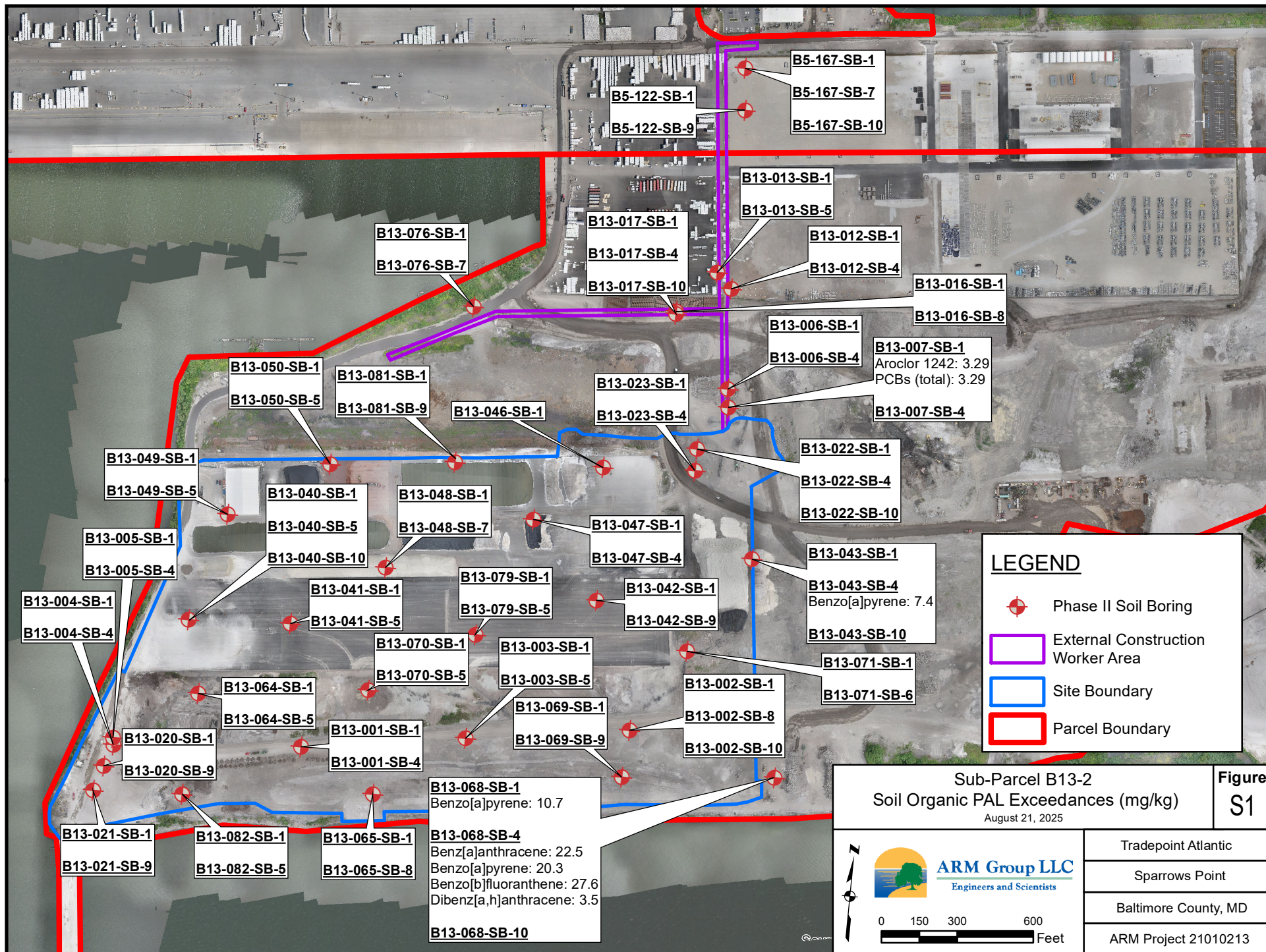
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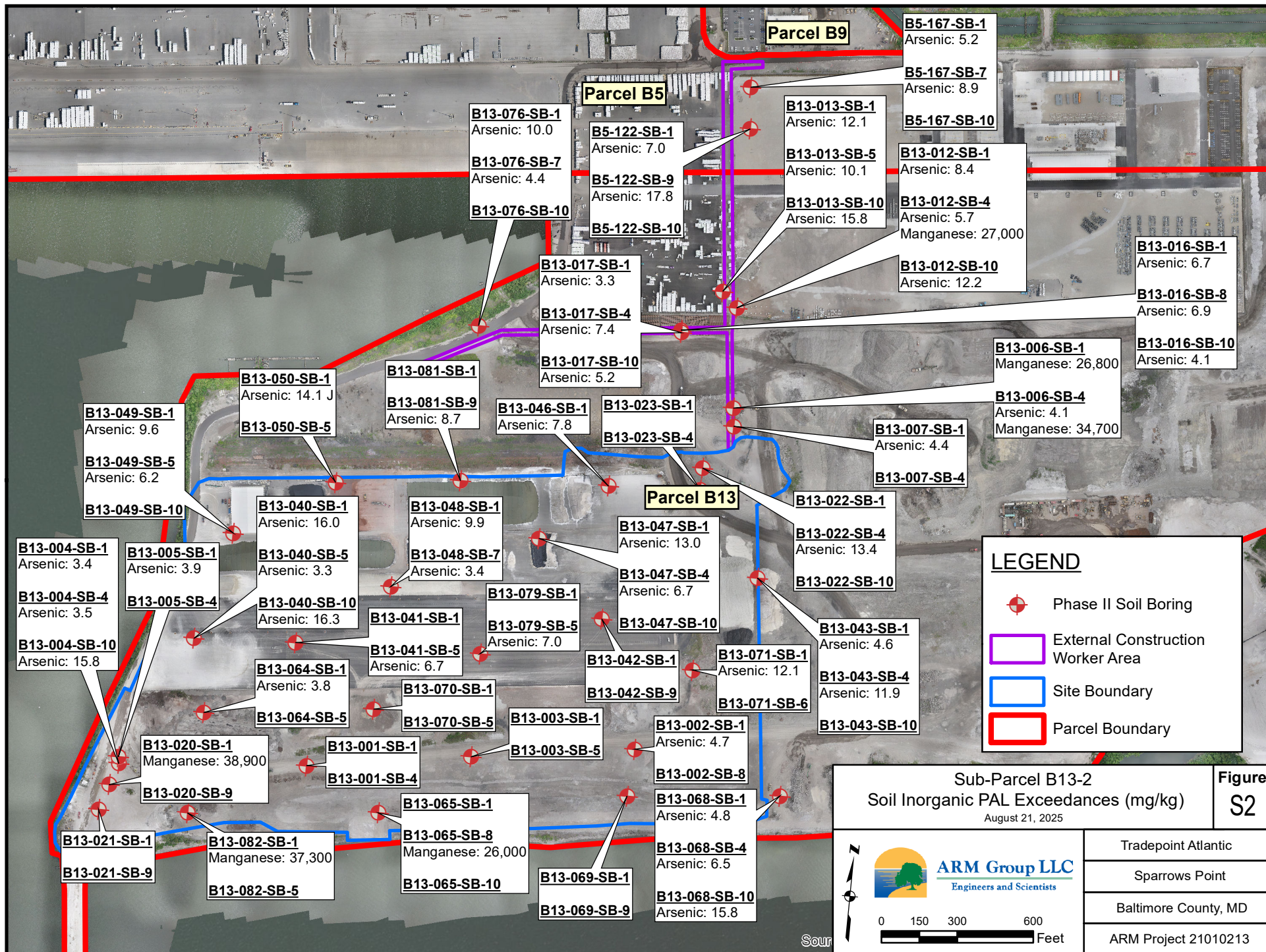


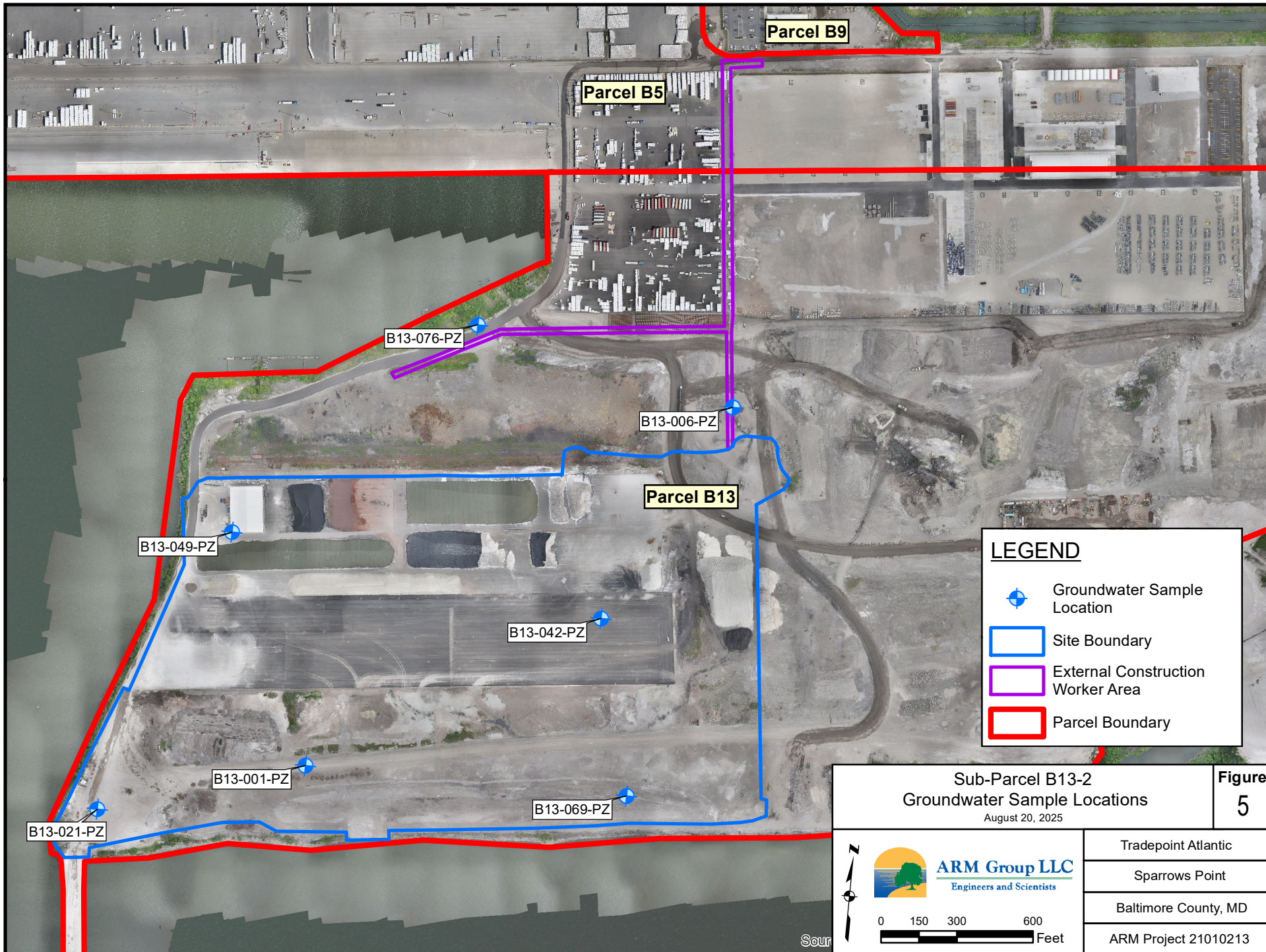


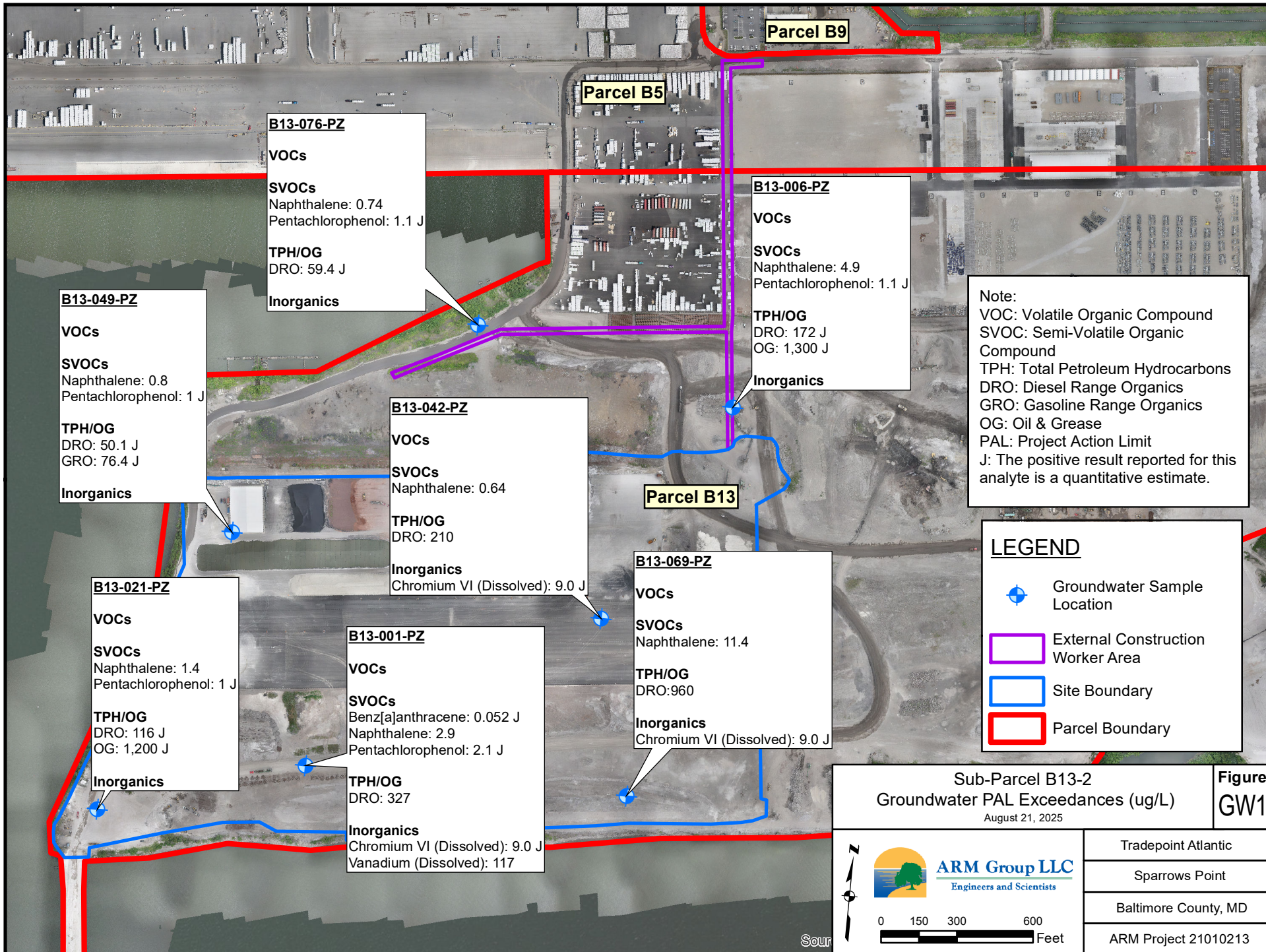


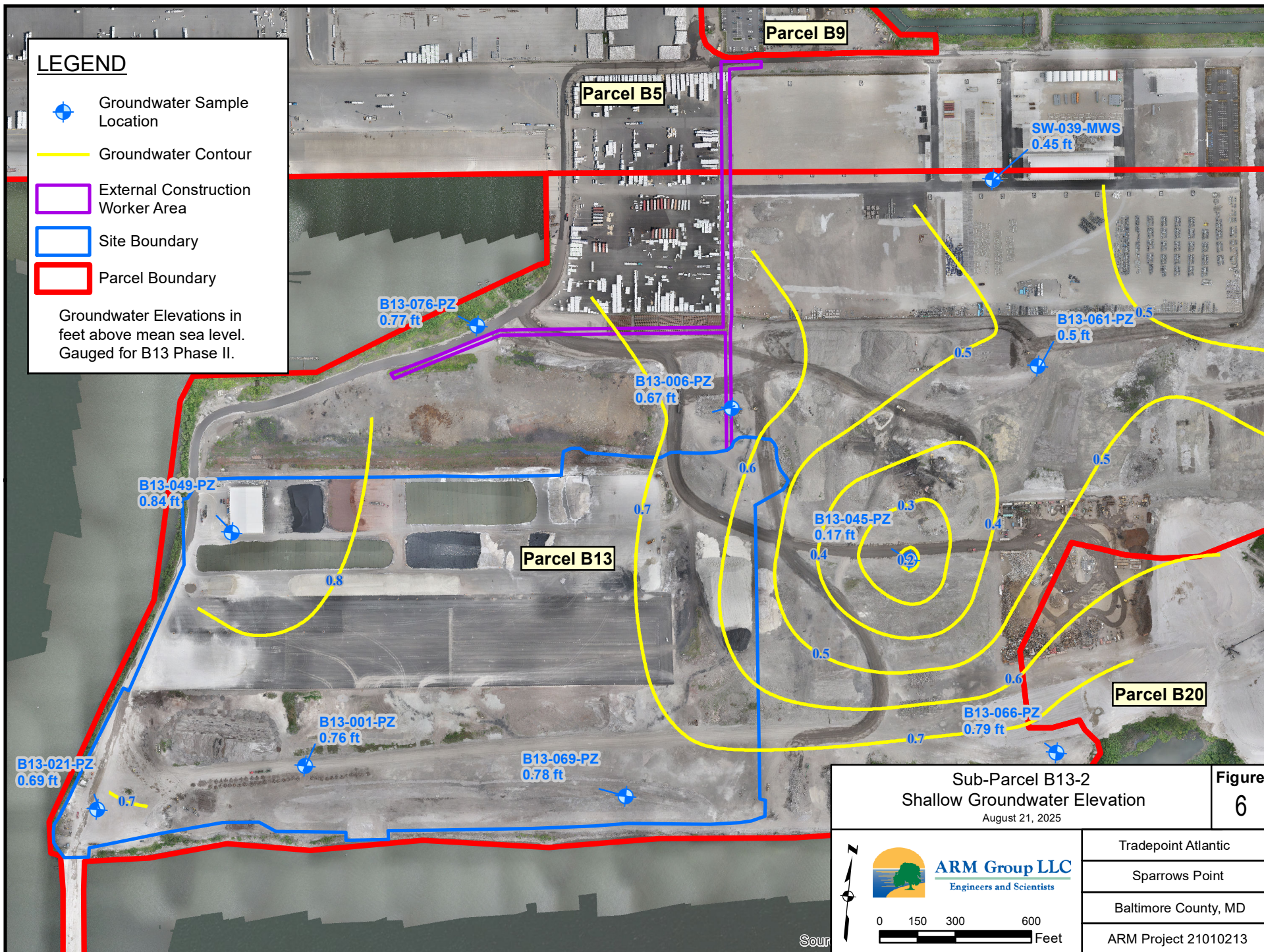


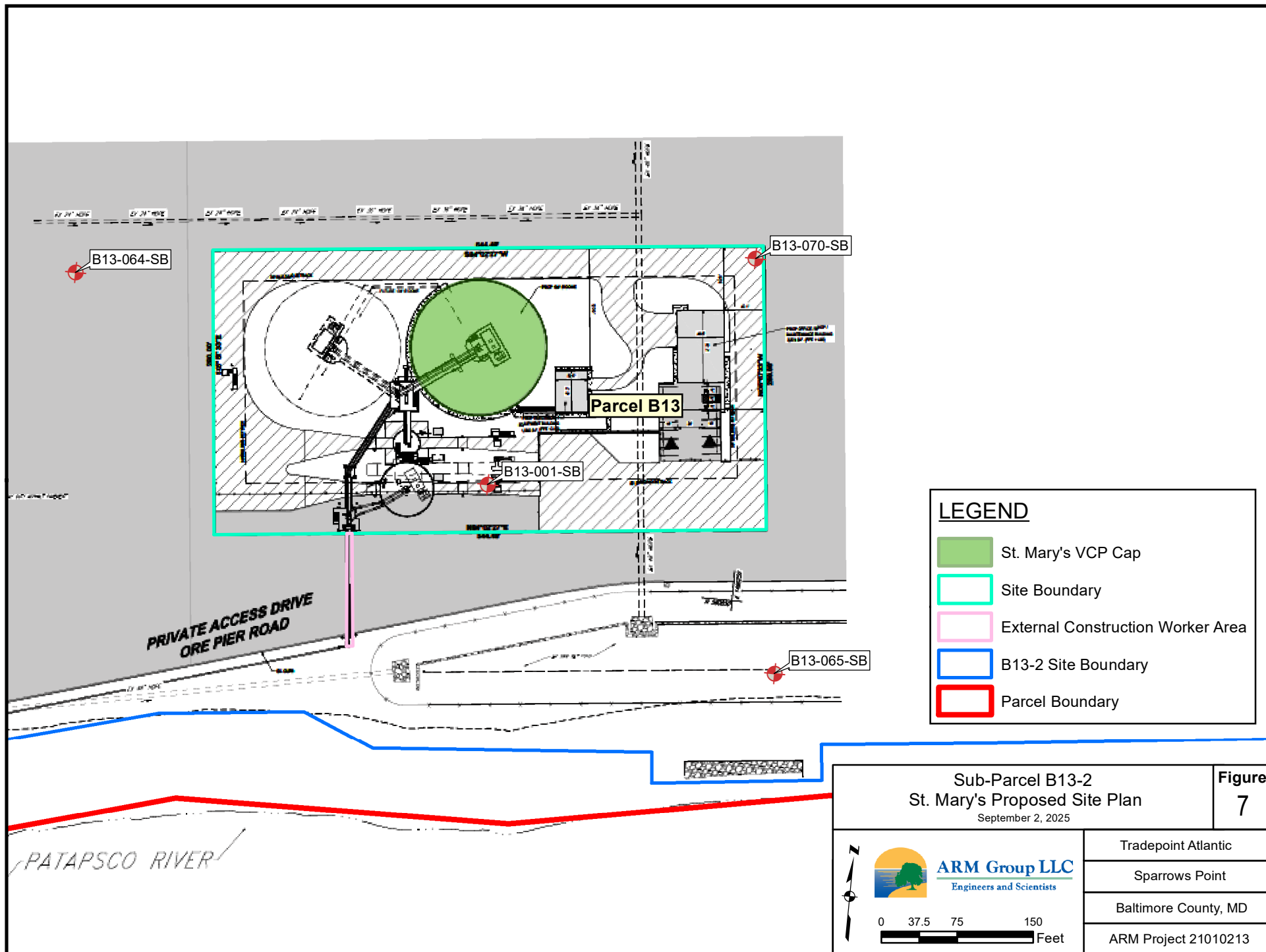












TABLES

Table 1 - Sub-Parcel B13-2
Summary of Organics Detected in Soil

Parameter	Units	PAL	B13-001-SB-1 8/23/2016	B13-001-SB-4 8/23/2016	B13-002-SB-1* 8/24/2016	B13-002-SB-8* 8/24/2016	B13-002-SB-10 8/24/2016	B13-003-SB-1 8/24/2016	B13-003-SB-5 8/24/2016	B13-004-SB-1 8/23/2016	B13-004-SB-4 8/23/2016	B13-005-SB-1 8/23/2016	B13-005-SB-4 8/23/2016	B13-006-SB-1* 8/24/2016
Volatile Organic Compounds														
2-Butanone (MEK)	mg/kg	190,000	0.014 U	0.01 U	0.009 U	0.01 U	N/A	N/A	N/A	N/A	N/A	N/A	0.012 U	0.013 U
2-Hexanone	mg/kg	1,300	0.014 U	0.01 U	0.009 U	0.01 U	N/A	N/A	N/A	N/A	N/A	N/A	0.012 U	0.013 U
Acetone	mg/kg	670,000	0.074 J	0.011 J	0.0057 J	0.006 J	N/A	N/A	N/A	N/A	N/A	N/A	0.011 J	0.0089 J
Benzene	mg/kg	5.1	0.0069 U	0.0051 U	0.0045 U	0.0051 U	N/A	N/A	N/A	N/A	N/A	N/A	0.0061 U	0.0065 U
Ethylbenzene	mg/kg	25	0.0069 U	0.0051 U	0.0045 U	0.0051 U	N/A	N/A	N/A	N/A	N/A	N/A	0.0061 U	0.0065 U
Isopropylbenzene	mg/kg	9,900	0.0069 U	0.0051 U	0.0045 U	0.0051 U	N/A	N/A	N/A	N/A	N/A	N/A	0.0061 U	0.0065 U
Methylene Chloride	mg/kg	1,000	0.0069 U	0.0051 U	0.0045 U	0.0051 U	N/A	N/A	N/A	N/A	N/A	N/A	0.0061 U	0.0065 U
Toluene	mg/kg	47,000	0.0068 J	0.0051 U	0.0045 U	0.0051 U	N/A	N/A	N/A	N/A	N/A	N/A	0.0061 U	0.0065 U
Xylenes	mg/kg	2,800	0.015 J	0.015 U	0.014 U	0.015 U	N/A	N/A	N/A	N/A	N/A	N/A	0.018 U	0.02 U
Semi-Volatile Organic Compounds^														
1,1-Biphenyl	mg/kg	200	0.017 J	0.017 J	0.036 J	0.016 J	N/A	0.073 U	0.073 U	0.014 J	0.072 U	0.072 U	0.074 U	0.069 J
2,4-Dimethylphenol	mg/kg	16,000	0.073 UJ	0.075 U	0.071 U	0.073 U	N/A	0.073 U	0.073 U	0.069 U	0.072 U	0.072 U	0.074 U	0.073 U
2-Chloronaphthalene	mg/kg	60,000	0.073 U	0.075 U	0.071 U	0.073 U	N/A	0.073 U	0.073 U	0.069 U	0.072 U	0.072 U	0.074 U	0.073 U
2-Methylnaphthalene	mg/kg	3,000	0.038	0.041	0.088	0.048	N/A	0.049	0.021	0.042	0.0058 J	0.024 J	0.0077	0.34
2-Methylphenol	mg/kg	41,000	0.073 UJ	0.075 U	0.071 U	0.073 U	N/A	0.073 U	0.073 U	0.069 U	0.072 U	0.072 U	0.074 U	0.073 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	0.15 UJ	0.15 U	0.14 U	0.15 U	N/A	0.15 U	0.14 U	0.14 U	0.14 U	0.14 U	0.15 U	0.019 J
Acenaphthene	mg/kg	45,000	0.023	0.018	0.049	0.082	N/A	0.012	0.0053 J	0.0071 U	0.00056 J	0.0049 J	0.0016 J	0.025 J
Acenaphthylene	mg/kg	45,000	0.035	0.03	0.052	0.058	N/A	0.0087	0.0072 J	0.0018 J	0.0098	0.01 J	0.0052 J	0.12
Acetophenone	mg/kg	120,000	0.073 U	0.075 U	0.071 U	0.073 U	N/A	0.073 U	0.073 U	0.069 U	0.072 U	0.072 U	0.074 U	0.073 U
Anthracene	mg/kg	230,000	0.075	0.061	0.25	0.47	N/A	0.029	0.024	0.0042 J	0.0094	0.023 J	0.008	0.35
Benz[a]anthracene	mg/kg	21	0.29	0.22	0.86	1.4	N/A	0.073	0.061	0.0096	0.051	0.25 J	0.028	0.84
Benzaldehyde	mg/kg	120,000	0.073 R	0.075 R	0.071 U	0.073 U	N/A	0.073 R	0.073 R	0.069 R	0.072 R	0.072 R	0.074 R	0.017 J
Benzo[a]pyrene	mg/kg	2.1	0.31	0.25	0.67	1.1	0.81 J	0.069	0.055	0.011 J	0.043	0.41 J	0.024	0.79
Benzo[b]fluoranthene	mg/kg	21	0.45	0.37	1.1	1.8	N/A	0.18	0.095	0.027 J	0.071	0.53 J	0.058	1.7
Benzo[g,h,i]perylene	mg/kg		0.14	0.1	0.19	0.23	N/A	0.046	0.035	0.0064 J	0.024	0.26 J	0.016	0.41
Benzo[k]fluoranthene	mg/kg	210	0.16	0.14	0.43	1.7	N/A	0.14	0.032	0.024 J	0.027	0.2 J	0.053	1.3
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.073 U	0.075 U	0.071 U	0.073 U	N/A	0.027 B	0.073 UJ	0.069 U	0.072 U	0.072 U	0.074 U	0.073 U
Carbazole	mg/kg		0.035 J	0.028 J	0.09	0.16	N/A	0.073 U	0.073 U	0.069 U	0.072 U	0.072 U	0.074 U	0.14
Chrysene	mg/kg	2,100	0.28	0.23	0.79	1.2	N/A	0.089	0.077	0.018	0.048	0.29 J	0.031	0.85
Dibenz[a,h]anthracene	mg/kg	2.1	0.055	0.038	0.085	0.12	N/A	0.015	0.011	0.0016 J	0.0089	0.076 J	0.0056 J	0.12
Diethylphthalate	mg/kg	660,000	0.073 U	0.075 U	0.071 U	0.073 U	N/A	0.073 U	0.073 U	0.069 U	0.072 U	0.072 U	0.074 U	0.073 U
Di-n-butylphthalate	mg/kg	82,000	0.073 U	0.075 U	0.071 U	0.073 U	N/A	0.073 U	0.073 U	0.069 U	0.072 U	0.072 U	0.074 U	0.073 U
Fluoranthene	mg/kg	30,000	0.53	0.41	1.6	2.7	N/A	0.14	0.11	0.014	0.093	0.3 J	0.059	2.1
Fluorene	mg/kg	30,000	0.018	0.013	0.044	0.091	N/A	0.0095	0.0058 J	0.0015 J	0.0012 J	0.0037 J	0.0012 J	0.055 J
Indeno[1,2,3-c,d]pyrene	mg/kg	21	0.14	0.11	0.22	0.29	N/A	0.043	0.031	0.0049 J	0.026	0.23 J	0.015	0.36
Naphthalene	mg/kg	8.6	0.18	0.28	0.17	0.13	N/A	0.066	0.033	0.027	0.018	0.026 J	0.026	0.98
N-Nitrosodiphenylamine	mg/kg	470	0.073 U	0.075 U	0.071 U	0.073 U	N/A	0.073 U	0.073 U	0.069 U	0.072 U	0.072 U	0.074 U	0.073 U
Phenanthrene	mg/kg		0.26	0.22	0.8	1.3	N/A	0.11	0.097	0.03	0.029	0.1 J	0.026	1.4
Phenol	mg/kg	250,000	0.073 UJ	0.075 U	0.071 U	0.073 U	N/A	0.073 U	0.073 U	0.069 U	0.072 U	0.072 U	0.074 U	0.073 U
Pyrene	mg/kg	23,000	0.49	0.4	1.4	2.3	N/A	0.13	0.1	0.014	0.071	0.29 J	0.049	1.9
PCBs														
Aroclor 1242	mg/kg	0.97	0.0569 U	N/A	0.0527 U	N/A	N/A	0.056 U	N/A	0.0481 J	N/A	0.179	N/A	0.0563 U
Aroclor 1248	mg/kg	0.94	0.0569 U	N/A	0.0527 U	N/A	N/A	0.056 U	N/A	0.0537 U	N/A	0.0544 U	N/A	0.0563 U
Aroclor 1254	mg/kg	0.97	0.0569 U	N/A	0.0527 U	N/A	N/A	0.056 U	N/A	0.0537 U	N/A	0.0544 U	N/A	0.0849
Aroclor 1268	mg/kg		0.0569 U	N/A	0.0527 U	N/A	N/A	0.056 U	N/A	0.0537 U	N/A	0.0544 U	N/A	0.0563 U
PCBs (total)	mg/kg	0.97	0.0569 U	N/A	0.0527 U	N/A	N/A	0.056 U	N/A	0.0481 J	N/A	0.179	N/A	0.0849
TPH/Oil & Grease														
Diesel Range Organics	mg/kg	6,200	51 J	70.9 J	54.2	37	N/A	36.8 J	40.1 J	127 J	12.1 J	39 J	24.6 J	59
Gasoline Range Organics	mg/kg	6,200	11.1 U	12.1 U	10.3 U	11.1 U	N/A	18 U	11.9 U	6.4 U	16.2 U	9.2 U	13.7 U	11.8 U
Oil & Grease	mg/kg	6,200	666	494	276	351	N/A	337	429	1,520	411	412	545	339

Bold indicates detection

Values in red indicate a detection exceedance of the Project Action Limit (PAL)

* Indicates non-validated data

^ PAH compounds were analyzed via SIM

N/A: This parameter was not analyzed for this sample.

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 low.

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

B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.

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.

Table 1 - Sub-Parcel B13-2
Summary of Organics Detected in Soil

Parameter	Units	PAL	B13-006-SB-4*	B13-007-SB-1*	B13-007-SB-4*	B13-012-SB-1	B13-012-SB-4	B13-013-SB-1	B13-013-SB-5	B13-016-SB-1*	B13-016-SB-8*	B13-017-SB-1*	B13-017-SB-4*	B13-017-SB-10*
			8/24/2016	8/24/2016	8/24/2016	8/29/2016	8/29/2016	8/29/2016	8/29/2016	8/26/2016	8/26/2016	8/25/2016	8/25/2016	8/25/2016
Volatile Organic Compounds														
2-Butanone (MEK)	mg/kg	190,000	0.0086 U	0.009 U	N/A	N/A	0.0075 U	N/A	0.0057 J	N/A	N/A	N/A	0.012 U	N/A
2-Hexanone	mg/kg	1,300	0.0086 U	0.009 U	N/A	N/A	0.0075 U	N/A	0.0091 U	N/A	N/A	N/A	0.012 U	N/A
Acetone	mg/kg	670,000	0.0074 J	0.0053 J	N/A	N/A	0.0045 J	N/A	0.017 J	N/A	N/A	N/A	0.0083 B	N/A
Benzene	mg/kg	5.1	0.0043 U	0.0045 U	N/A	N/A	0.0038 U	N/A	0.0046 U	N/A	N/A	N/A	0.0059 U	N/A
Ethylbenzene	mg/kg	25	0.0043 U	0.0045 U	N/A	N/A	0.0038 U	N/A	0.0046 U	N/A	N/A	N/A	0.0059 U	N/A
Isopropylbenzene	mg/kg	9,900	0.0043 U	0.0045 U	N/A	N/A	0.0038 UJ	N/A	0.0046 UJ	N/A	N/A	N/A	0.0059 U	N/A
Methylene Chloride	mg/kg	1,000	0.0043 U	0.0045 U	N/A	N/A	0.0038 U	N/A	0.0046 U	N/A	N/A	N/A	0.0059 U	N/A
Toluene	mg/kg	47,000	0.0043 U	0.0045 U	N/A	N/A	0.0038 U	N/A	0.0046 U	N/A	N/A	N/A	0.0059 U	N/A
Xylenes	mg/kg	2,800	0.013 U	0.013 U	N/A	N/A	0.011 U	N/A	0.014 U	N/A	N/A	N/A	0.018 U	N/A
Semi-Volatile Organic Compounds^														
1,1-Biphenyl	mg/kg	200	0.074 U	0.019 J	0.071 U	0.072 U	0.027 J	0.071 U	0.072 U	0.049 J	0.076 U	0.017 J	0.019 J	N/A
2,4-Dimethylphenol	mg/kg	16,000	0.074 U	0.07 U	0.071 U	0.072 R	0.073 R	0.071 U	0.072 U	0.073 U	0.076 U	0.07 U	0.08 U	N/A
2-Chloronaphthalene	mg/kg	60,000	0.074 U	0.07 U	0.071 U	0.072 U	0.073 U	0.071 U	0.072 U	0.043 J	0.076 U	0.07 U	0.08 U	N/A
2-Methylnaphthalene	mg/kg	3,000	0.013	0.06 J	0.0042 J	0.028	0.075	0.027	0.053	0.18	0.02	0.019	0.092	N/A
2-Methylphenol	mg/kg	41,000	0.074 U	0.07 U	0.071 U	0.072 R	0.073 R	0.071 U	0.072 U	0.073 U	0.076 U	0.07 U	0.08 U	N/A
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	0.15 U	0.14 U	0.14 U	0.14 R	0.14 R	0.14 U	0.14 U	0.027 J	0.15 U	0.14 U	0.16 U	N/A
Acenaphthene	mg/kg	45,000	0.0075 U	0.0091 J	0.001 J	0.0023 J	0.0093	0.0037 J	0.0036 J	0.032	0.004 J	0.0031 J	0.01	N/A
Acenaphthylene	mg/kg	45,000	0.024	0.0086 J	0.0066 J	0.0048 J	0.021	0.018	0.015	0.11	0.014	0.017	0.075	N/A
Acetophenone	mg/kg	120,000	0.074 U	0.02 J	0.071 U	0.072 U	0.073 U	0.071 U	0.072 U	0.073 U	0.076 U	0.07 U	0.08 U	N/A
Anthracene	mg/kg	230,000	0.017	0.019 J	0.0055 J	0.023	0.078	0.044	0.016	0.23	0.025	0.011	0.14	N/A
Benz[a]anthracene	mg/kg	21	0.088	0.038 J	0.023	0.042	0.13	0.12	0.044	0.4	0.096	0.047	0.51	N/A
Benzaldehyde	mg/kg	120,000	0.074 U	0.03 J	0.071 U	0.024 J	0.073 R	0.071 R	0.072 R	0.073 U	0.076 U	0.016 J	0.08 U	N/A
Benzo[a]pyrene	mg/kg	2.1	0.072	0.038 J	0.019	0.039	0.091 J	0.12	0.048	0.43	0.1	0.075	0.46	0.025
Benzo[b]fluoranthene	mg/kg	21	0.36	0.12	0.079	0.13	0.28 J	0.32	0.14	1.1	0.21	0.16	0.96	N/A
Benzo[g,h,i]perylene	mg/kg		0.038	0.015 J	0.0081	0.013	0.028 J	0.037	0.018	0.27	0.055	0.061	0.27	N/A
Benzo[k]fluoranthene	mg/kg	210	0.26	0.091	0.058	0.097	0.21 J	0.24	0.11	1	0.19	0.11	0.7	N/A
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.024 J	0.58	0.071 U	0.072 UJ	0.073 UJ	0.02 B	0.15 J	0.11	0.076 U	0.07 U	0.08 U	N/A
Carbazole	mg/kg		0.64	0.057 J	0.071 U	0.072 U	0.025 J	0.071 U	0.072 UJ	0.069 J	0.076 U	0.07 U	0.058 J	N/A
Chrysene	mg/kg	2,100	0.11	0.07 J	0.026	0.072	0.16	0.11	0.066	0.53	0.1	0.058	0.48	N/A
Dibenz[a,h]anthracene	mg/kg	2.1	0.015	0.071 U	0.0032 J	0.0057 J	0.011 J	0.014	0.0061 J	0.12	0.022	0.017	0.09	N/A
Diethylphthalate	mg/kg	660,000	0.074 U	0.07 U	0.071 U	0.072 U	0.073 U	0.071 U	0.072 U	0.073 U	0.076 U	0.07 U	0.08 U	N/A
Di-n-butylphthalate	mg/kg	82,000	0.074 U	0.07 U	0.071 U	0.072 U	0.073 U	0.071 U	0.072 UJ	0.059 B	0.076 U	0.07 U	0.08 U	N/A
Fluoranthene	mg/kg	30,000	0.13	0.077	0.026	0.12	0.4	0.24	0.088	0.63	0.18	0.054	1	N/A
Fluorene	mg/kg	30,000	0.0075 U	0.0063 J	0.00088 J	0.004 J	0.011	0.0098	0.0075	0.032	0.0067 J	0.0023 J	0.025	N/A
Indeno[1,2,3-c,d]pyrene	mg/kg	21	0.043	0.011 J	0.0085	0.012 J	0.022 J	0.035 J	0.013 J	0.28	0.053	0.046	0.25	N/A
Naphthalene	mg/kg	8.6	0.019	0.041 J	0.0064 J	0.056	0.12	0.061	0.066	0.43	0.025	0.031	0.22	N/A
N-Nitrosodiphenylamine	mg/kg	470	0.074 U	0.07 U	0.071 U	0.072 U	0.073 U	0.071 U	0.072 UJ	0.073 U	0.076 U	0.07 U	0.08 U	N/A
Phenanthrene	mg/kg		0.044	0.11	0.0088	0.13	0.36	0.15	0.089	0.56	0.1	0.045	0.63	N/A
Phenol	mg/kg	250,000	0.074 U	0.07 U	0.071 U	0.072 R	0.073 R	0.071 U	0.072 U	0.023 J	0.076 U	0.07 U	0.08 U	N/A
Pyrene	mg/kg	23,000	0.12	0.06 J	0.024	0.093	0.31	0.19	0.068	0.6	0.15	0.056	0.81	N/A
PCBs														
Aroclor 1242	mg/kg	0.97	N/A	3.29	N/A	0.061 U	N/A	0.0604 U	N/A	0.0533 U	N/A	0.0549 U	N/A	N/A
Aroclor 1248	mg/kg	0.94	N/A	0.109 U	N/A	0.061 U	N/A	0.0604 U	N/A	0.0533 U	N/A	0.0549 U	N/A	N/A
Aroclor 1254	mg/kg	0.97	N/A	0.109 U	N/A	0.061 U	N/A	0.0604 U	N/A	0.0533 U	N/A	0.0549 U	N/A	N/A
Aroclor 1268	mg/kg		N/A	0.109 U	N/A	0.061 U	N/A	0.0604 U	N/A	0.0533 U	N/A	0.0549 U	N/A	N/A
PCBs (total)	mg/kg	0.97	N/A	3.29	N/A	0.061 U	N/A	0.0604 U	N/A	0.0533 U	N/A	0.0549 U	N/A	N/A
TPH/Oil & Grease														
Diesel Range Organics	mg/kg	6,200	106	213	7.1 U	43.9 J	80.8 J	26 J	47.6 J	86.3	18.1	15.2	34.1	N/A
Gasoline Range Organics	mg/kg	6,200	9.3 U	10.7 U	15.2 U	8.3 U	8.2 U	8.3 U	8.6 J	11.4 U	8.6 U	9.4 U	12.8 U	N/A
Oil & Grease	mg/kg	6,200	353	3,060	471	482	676	686	2,460	442	303	258	349	N/A

Bold indicates detection

Values in red indicate a detection exceedance of the Project Action Limit (PAL)

* Indicates non-validated data

^ PAH compounds were analyzed via SIM

N/A: This parameter was not analyzed for this sample.

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 low.

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

B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.

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.

Table 1 - Sub-Parcel B13-2
Summary of Organics Detected in Soil

Parameter	Units	PAL	B13-020-SB-1 8/23/2016	B13-020-SB-9 8/23/2016	B13-021-SB-1 8/23/2016	B13-021-SB-9 8/23/2016	B13-022-SB-1* 8/24/2016	B13-022-SB-4* 8/24/2016	B13-022-SB-10 8/24/2016	B13-023-SB-1* 8/24/2016	B13-023-SB-4* 8/24/2016	B13-040-SB-1 8/24/2016	B13-040-SB-5 8/24/2016	B13-040-SB-10 8/24/2016
Volatile Organic Compounds														
2-Butanone (MEK)	mg/kg	190,000	N/A	0.01 U	N/A	0.014 U	0.0045 J	0.011 U	N/A	N/A	0.015 U	N/A	N/A	N/A
2-Hexanone	mg/kg	1,300	N/A	0.01 U	N/A	0.014 U	0.014 U	0.011 U	N/A	N/A	0.015 U	N/A	N/A	N/A
Acetone	mg/kg	670,000	N/A	0.0087 J	N/A	0.013 J	0.022	0.015	N/A	N/A	0.0082 J	N/A	N/A	N/A
Benzene	mg/kg	5.1	N/A	0.005 U	N/A	0.0068 U	0.0071 U	0.0053 U	N/A	N/A	0.0075 U	N/A	N/A	N/A
Ethylbenzene	mg/kg	25	N/A	0.005 U	N/A	0.0068 U	0.0071 U	0.0053 U	N/A	N/A	0.0075 U	N/A	N/A	N/A
Isopropylbenzene	mg/kg	9,900	N/A	0.005 U	N/A	0.0068 U	0.0071 U	0.0053 U	N/A	N/A	0.0075 U	N/A	N/A	N/A
Methylene Chloride	mg/kg	1,000	N/A	0.005 UJ	N/A	0.0068 UJ	0.0071 U	0.0053 U	N/A	N/A	0.0075 U	N/A	N/A	N/A
Toluene	mg/kg	47,000	N/A	0.005 U	N/A	0.0068 U	0.0071 U	0.0053 U	N/A	N/A	0.0075 U	N/A	N/A	N/A
Xylenes	mg/kg	2,800	N/A	0.015 U	N/A	0.02 U	0.021 U	0.016 U	N/A	N/A	0.022 U	N/A	N/A	N/A
Semi-Volatile Organic Compounds^														
1,1-Biphenyl	mg/kg	200	0.079 U	0.072 U	0.071 U	0.074 U	0.72 U	0.74 U	N/A	0.069 U	0.072 U	0.025 J	0.027 J	N/A
2,4-Dimethylphenol	mg/kg	16,000	0.079 R	0.072 U	0.071 R	0.074 U	0.072 U	0.034 J	N/A	0.069 U	0.072 U	0.072 U	0.071 U	N/A
2-Chloronaphthalene	mg/kg	60,000	0.079 U	0.072 U	0.071 U	0.074 U	0.72 U	0.74 U	N/A	0.069 U	0.072 U	0.072 U	0.071 U	N/A
2-Methylnaphthalene	mg/kg	3,000	0.028	0.002 J	0.024	0.0036 J	0.071 U	0.12	N/A	0.1	0.0072 U	0.12	0.089	N/A
2-Methylphenol	mg/kg	41,000	0.079 R	0.072 U	0.071 R	0.074 U	0.072 U	0.074 U	N/A	0.069 U	0.072 U	0.072 U	0.071 U	N/A
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	0.16 R	0.14 U	0.14 R	0.15 U	0.14 U	0.15 U	N/A	0.14 U	0.14 U	0.14 U	0.14 U	N/A
Acenaphthene	mg/kg	45,000	0.0023 J	0.00075 J	0.0015 J	0.0022 J	0.071 U	0.075 U	N/A	0.0056 J	0.0072 U	0.014	0.014	N/A
Acenaphthylene	mg/kg	45,000	0.003 J	0.00073 J	0.0025 J	0.00067 J	0.15	0.19	N/A	0.009	0.0017 J	0.036	0.042	N/A
Acetophenone	mg/kg	120,000	0.079 U	0.072 U	0.071 U	0.074 U	0.072 U	0.074 U	N/A	0.069 U	0.072 U	0.072 U	0.071 U	N/A
Anthracene	mg/kg	230,000	0.014	0.0022 J	0.0087	0.0037 J	0.071 U	0.27	N/A	0.026	0.0013 J	0.05	0.075	N/A
Benz[a]anthracene	mg/kg	21	0.035	0.02	0.024	0.013	0.031 J	0.1	N/A	0.085	0.007 J	0.16	0.26	N/A
Benzaldehyde	mg/kg	120,000	0.027 J	0.072 R	0.071 R	0.074 R	0.072 U	0.074 U	N/A	0.069 U	0.072 U	0.072 R	0.071 R	N/A
Benzo[a]pyrene	mg/kg	2.1	0.027	0.015	0.022	0.018	0.024 J	0.084	N/A	0.086	0.0058 J	0.16	0.25	0.95 J
Benzo[b]fluoranthene	mg/kg	21	0.068	0.042	0.052	0.031	0.066 J	0.2	N/A	0.22	0.014	0.35	0.54	N/A
Benzo[g,h,i]perylene	mg/kg		0.016	0.0062 J	0.011	0.0098	0.026 J	0.066 J	N/A	0.021	0.0021 J	0.093	0.13	N/A
Benzo[k]fluoranthene	mg/kg	210	0.062	0.038	0.047	0.028	0.05 J	0.17	N/A	0.2	0.013	0.32	0.15	N/A
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.079 U	0.072 U	0.071 U	0.074 U	0.072 U	0.074 U	N/A	0.1	0.072 U	0.072 UJ	0.071 UJ	N/A
Carbazole	mg/kg		0.079 U	0.072 U	0.071 U	0.074 U	0.072 U	0.74 U	N/A	0.069 U	0.072 U	0.072 U	0.022 J	N/A
Chrysene	mg/kg	2,100	0.042	0.024	0.032	0.013	0.017 J	0.12	N/A	0.15	0.0058 J	0.17	0.33	N/A
Dibenz[a,h]anthracene	mg/kg	2.1	0.0056 J	0.0026 J	0.0044 J	0.0031 J	0.071 U	0.022 J	N/A	0.012	0.0072 U	0.034	0.048	N/A
Diethylphthalate	mg/kg	660,000	0.079 U	0.072 U	0.071 U	0.074 U	0.72 U	0.74 U	N/A	0.069 U	0.072 U	0.072 U	0.071 U	N/A
Di-n-butylphthalate	mg/kg	82,000	0.079 U	0.072 U	0.071 U	0.074 U	0.072 U	0.37 J	N/A	0.069 U	0.072 U	0.072 U	0.071 U	N/A
Fluoranthene	mg/kg	30,000	0.099	0.036	0.064	0.027	0.027 J	0.22	N/A	0.12	0.011	0.29	0.44	N/A
Fluorene	mg/kg	30,000	0.0038 J	0.0073 U	0.002 J	0.0011 J	0.071 U	0.075 U	N/A	0.011	0.0072 U	0.021	0.017	N/A
Indeno[1,2,3-c,d]pyrene	mg/kg	21	0.014	0.0065 J	0.01	0.009	0.021 J	0.053 J	N/A	0.021	0.0023 J	0.09	0.13	N/A
Naphthalene	mg/kg	8.6	0.03	0.0028 B	0.02	0.0071 B	0.019 J	0.2	N/A	0.045	0.0019 J	0.48	0.1	N/A
N-Nitrosodiphenylamine	mg/kg	470	0.079 U	0.072 U	0.071 U	0.074 U	0.072 U	0.74 U	N/A	0.069 U	0.072 U	0.072 U	0.071 U	N/A
Phenanthrene	mg/kg		0.082	0.011	0.058	0.014	0.071 U	0.38	N/A	0.14	0.004 J	0.14	0.25	N/A
Phenol	mg/kg	250,000	0.079 R	0.072 U	0.071 R	0.074 U	0.072 U	0.074 U	N/A	0.069 U	0.072 U	0.072 U	0.071 U	N/A
Pyrene	mg/kg	23,000	0.078	0.052	0.048	0.021	0.044 J	0.19	N/A	0.12	0.0086	0.28	0.41	N/A
PCBs														
Aroclor 1242	mg/kg	0.97	0.0562 U	N/A	0.0545 U	N/A	0.0534 U	N/A	N/A	0.0534 U	N/A	0.0543 U	N/A	N/A
Aroclor 1248	mg/kg	0.94	0.0562 U	N/A	0.0545 U	N/A	0.0534 U	N/A	N/A	0.0534 U	N/A	0.0543 U	N/A	N/A
Aroclor 1254	mg/kg	0.97	0.0562 U	N/A	0.0545 U	N/A	0.0534 U	N/A	N/A	0.0534 U	N/A	0.0543 U	N/A	N/A
Aroclor 1268	mg/kg		0.0562 U	N/A	0.0545 U	N/A	0.0534 U	N/A	N/A	0.0534 U	N/A	0.0543 U	N/A	N/A
PCBs (total)	mg/kg	0.97	0.0562 U	N/A	0.0545 U	N/A	0.0534 U	N/A	N/A	0.0534 U	N/A	0.0543 U	N/A	N/A
TPH/Oil & Grease														
Diesel Range Organics	mg/kg	6,200	28.2 J	13.6 J	61.6 J	30.7 J	3,680	2,450	4.4 J	49.1	3.3 J	33.3 J	33.8 J	N/A
Gasoline Range Organics	mg/kg	6,200	14.9 U	10.8 U	14.5 U	16.7 U	14.3 U	11.7 U	N/A	8.5 U	15.1 U	12.4 U	9.6 U	N/A
Oil & Grease	mg/kg	6,200	381	325	316	315	4,350	4,620	N/A	473	290	340	388	N/A

Bold indicates detection

Values in red indicate a detection exceedance of the Project Action Limit (PAL)

* Indicates non-validated data

^ PAH compounds were analyzed via SIM

N/A: This parameter was not analyzed for this sample.

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 low.

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.

B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.

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.

Table 1 - Sub-Parcel B13-2
Summary of Organics Detected in Soil

Parameter	Units	PAL	B13-041-SB-1	B13-041-SB-4	B13-042-SB-1	B13-042-SB-9	B13-043-SB-1*	B13-043-SB-4*	B13-043-SB-10	B13-046-SB-1*	B13-047-SB-1*	B13-047-SB-4*	B13-048-SB-1	B13-048-SB-7
			8/24/2016	8/24/2016	8/24/2016	8/24/2016	8/24/2016	8/24/2016	8/24/2016	8/24/2016	8/26/2016	8/26/2016	8/26/2016	8/24/2016
Volatile Organic Compounds														
2-Butanone (MEK)	mg/kg	190,000	N/A	0.013 U	N/A	0.011 U	N/A	0.011 U	N/A	N/A	N/A	0.16 U	0.009 U	0.0091 U
2-Hexanone	mg/kg	1,300	N/A	0.013 U	N/A	0.011 U	N/A	0.0023 J	N/A	N/A	N/A	0.16 U	0.009 U	0.0091 U
Acetone	mg/kg	670,000	N/A	0.012 B	N/A	0.012 B	N/A	0.013 B	N/A	N/A	N/A	0.16 U	0.0067 B	0.011 B
Benzene	mg/kg	5.1	N/A	0.0065 U	N/A	0.0055 U	N/A	0.011	N/A	N/A	N/A	0.081 U	0.0045 U	0.0013 J
Ethylbenzene	mg/kg	25	N/A	0.0065 U	N/A	0.0055 U	N/A	0.0063	N/A	N/A	N/A	0.081 U	0.0045 U	0.0046 U
Isopropylbenzene	mg/kg	9,900	N/A	0.0065 U	N/A	0.0055 U	N/A	0.0053 U	N/A	N/A	N/A	0.081 U	0.0045 U	0.0046 U
Methylene Chloride	mg/kg	1,000	N/A	0.0065 UJ	N/A	0.0055 UJ	N/A	0.0053 U	N/A	N/A	N/A	0.081 U	0.0045 UJ	0.0046 UJ
Toluene	mg/kg	47,000	N/A	0.0065 U	N/A	0.0055 U	N/A	0.021	N/A	N/A	N/A	0.081 U	0.0045 U	0.0022 B
Xylenes	mg/kg	2,800	N/A	0.019 U	N/A	0.016 U	N/A	0.0066 J	N/A	N/A	N/A	0.24 U	0.013 U	0.014 U
Semi-Volatile Organic Compounds^														
1,1-Biphenyl	mg/kg	200	0.075 U	0.018 J	0.071 U	0.019 J	0.069 U	0.14	N/A	0.015 J	0.071 U	0.073 U	0.069 U	0.074 U
2,4-Dimethylphenol	mg/kg	16,000	0.075 R	0.076 R	0.071 R	0.072 R	0.069 U	0.072 U	N/A	0.07 U	0.071 U	0.073 U	0.069 UJ	0.074 U
2-Chloronaphthalene	mg/kg	60,000	0.075 U	0.076 U	0.071 U	0.072 U	0.069 U	0.072 U	N/A	0.07 U	0.071 U	0.073 U	0.069 U	0.074 U
2-Methylnaphthalene	mg/kg	3,000	0.021	0.021 J	0.025 J	0.023	0.043	0.12	0.0071 U	0.015	0.0032 J	0.0074 U	0.02 J	0.0075 U
2-Methylphenol	mg/kg	41,000	0.075 R	0.076 R	0.071 R	0.072 R	0.069 U	0.072 U	N/A	0.07 U	0.071 U	0.073 U	0.069 UJ	0.074 U
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	0.15 R	0.15 R	0.14 R	0.14 R	0.14 U	0.14 U	N/A	0.14 U	0.14 U	0.15 U	0.14 UJ	0.15 U
Acenaphthene	mg/kg	45,000	0.0028 J	0.0034 J	0.0012 J	0.0097	0.0039 J	0.44	0.00058 J	0.00077 J	0.00052 J	0.0074 U	0.011	0.0075 U
Acenaphthylene	mg/kg	45,000	0.0032 J	0.0028 J	0.0014 J	0.017	0.0045 J	0.12	0.0017 J	0.007 U	0.0031 J	0.0074 U	0.0032 J	0.0075 U
Acetophenone	mg/kg	120,000	0.075 U	0.076 U	0.071 U	0.072 U	0.069 U	0.052 J	N/A	0.07 U	0.071 U	0.073 U	0.069 U	0.074 U
Anthracene	mg/kg	230,000	0.012	0.013	0.0064 J	0.038	0.02	3.1	0.00096 J	0.0039 J	0.0028 J	0.0074 U	0.019	0.0075 U
Benz[a]anthracene	mg/kg	21	0.034	0.055	0.011	0.26	0.033	7.7	0.0021 J	0.0092	0.013	0.0074 U	0.071	0.0014 J
Benzaldehyde	mg/kg	120,000	0.045 J	0.076 R	0.071 R	0.072 R	0.069 U	0.024 J	N/A	0.07 U	0.071 U	0.073 U	0.069 R	0.074 R
Benzo[a]pyrene	mg/kg	2.1	0.028	0.034	0.012	0.43	0.033	7.4	0.0011 J	0.0087	0.013	0.0074 U	0.087	0.0075 U
Benzo[b]fluoranthene	mg/kg	21	0.06	0.089	0.028 J	0.79	0.1	10.4	0.0031 J	0.02	0.027	0.0074 U	0.23	0.0011 J
Benzo[g,h,i]perylene	mg/kg		0.02	0.026	0.01	0.27	0.018	4.5	0.0071 U	0.012	0.011	0.0074 U	0.096	0.0075 U
Benzo[k]fluoranthene	mg/kg	210	0.022	0.081	0.021	0.22	0.095	3.8	0.0022 J	0.017	0.024	0.0074 U	0.17	0.0075 U
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.075 UJ	0.076 U	0.071 UJ	0.072 UJ	0.069 U	0.072 U	N/A	0.07 U	0.071 U	0.073 U	0.069 U	0.074 UJ
Carbazole	mg/kg		0.075 U	0.076 U	0.071 U	0.028 J	0.069 U	2.2	N/A	0.07 U	0.071 U	0.073 U	0.069 U	0.074 U
Chrysene	mg/kg	2,100	0.049	0.061	0.02	0.4	0.054	7.6	0.0014 J	0.02	0.016	0.0074 U	0.082	0.00083 J
Dibenz[a,h]anthracene	mg/kg	2.1	0.0064 J	0.0088	0.0031 J	0.077	0.0072	1.2	0.0071 U	0.0038 J	0.0027 J	0.0074 U	0.027	0.0075 U
Diethylphthalate	mg/kg	660,000	0.075 U	0.076 U	0.071 U	0.072 U	0.069 U	0.072 U	N/A	0.07 U	0.071 U	0.073 U	0.069 U	0.074 U
Di-n-butylphthalate	mg/kg	82,000	0.075 U	0.076 U	0.071 U	0.072 U	0.069 U	0.072 U	N/A	0.07 U	0.071 U	0.073 U	0.069 U	0.074 U
Fluoranthene	mg/kg	30,000	0.095	0.11	0.026	0.45	0.068	16.2	0.0028 J	0.018	0.024	0.0074 U	0.13	0.0018 J
Fluorene	mg/kg	30,000	0.0033 J	0.006 J	0.0016 J	0.0033 J	0.0095	0.54	0.0071 U	0.0027 J	0.0069 U	0.0074 U	0.0042 J	0.0075 U
Indeno[1,2,3-c,d]pyrene	mg/kg	21	0.018	0.02	0.0066 J	0.25	0.015	4	0.0071 U	0.006 J	0.0088	0.0074 U	0.081	0.0075 U
Naphthalene	mg/kg	8.6	0.042	0.084 J	0.02 J	0.073	0.034	0.37	0.0021 J	0.012	0.011	0.0074 U	0.035	0.0075 U
N-Nitrosodiphenylamine	mg/kg	470	0.075 U	0.076 U	0.071 U	0.072 U	0.069 U	0.072 U	N/A	0.07 U	0.071 U	0.073 U	0.069 U	0.074 U
Phenanthrene	mg/kg		0.073	0.077	0.035 J	0.29	0.1	6.9	0.0028 J	0.037	0.0099	0.00057 J	0.1	0.0022 J
Phenol	mg/kg	250,000	0.075 R	0.076 R	0.071 R	0.072 R	0.069 U	0.072 U	N/A	0.07 U	0.071 U	0.073 U	0.069 UJ	0.074 U
Pyrene	mg/kg	23,000	0.075	0.091	0.023	0.39	0.054	15.1	0.0019 J	0.017	0.02	0.0074 U	0.1	0.0013 J
PCBs														
Aroclor 1242	mg/kg	0.97	0.0551 U	N/A	0.0565 U	N/A	0.0523 U	N/A	N/A	0.0466 J	0.062 U	N/A	0.0522 U	N/A
Aroclor 1248	mg/kg	0.94	0.0551 U	N/A	0.0565 U	N/A	0.0523 U	N/A	N/A	0.0529 U	0.062 U	N/A	0.0522 U	N/A
Aroclor 1254	mg/kg	0.97	0.0551 U	N/A	0.0565 U	N/A	0.0523 U	N/A	N/A	0.0529 U	0.062 U	N/A	0.0522 U	N/A
Aroclor 1268	mg/kg		0.0551 U	N/A	0.0565 U	N/A	0.0523 U	N/A	N/A	0.0529 U	0.062 U	N/A	0.0522 U	N/A
PCBs (total)	mg/kg	0.97	0.0551 U	N/A	0.0565 U	N/A	0.0523 U	N/A	N/A	0.0466 J	0.062 U	N/A	0.0522 U	N/A
TPH/Oil & Grease														
Diesel Range Organics	mg/kg	6,200	19.7 J	33.9 J	22.2 J	94.3 J	17.5	119	N/A	15.1	6.2 J	5.3 J	43.8 J	3.4 J
Gasoline Range Organics	mg/kg	6,200	13.4 U	10 U	9.2 U	10.2 U	9.4 U	11.1 U	N/A	6.4 U	10.9 U	16 U	10 U	9.1 U
Oil & Grease	mg/kg	6,200	305	349	140	1,580	120	1,030	N/A	256	218	272	445	484

Bold indicates detection

Values in red indicate a detection exceedance of the Project Action Limit (PAL)

* Indicates non-validated data

^ PAH compounds were analyzed via SIM

N/A: This parameter was not analyzed for this sample.

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 low.

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

B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.

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.

Table 1 - Sub-Parcel B13-2
Summary of Organics Detected in Soil

Parameter	Units	PAL	B13-049-SB-1 8/24/2016	B13-049-SB-5 8/24/2016	B13-050-SB-1 8/24/2016	B13-050-SB-5 8/24/2016	B13-064-SB-1 8/23/2016	B13-064-SB-5 8/23/2016	B13-065-SB-1 8/23/2016	B13-065-SB-8 8/23/2016	B13-068-SB-1 9/1/2016	B13-068-SB-4 9/1/2016	B13-068-SB-10* 9/1/2016	B13-069-SB-1 8/23/2016
Volatile Organic Compounds														
2-Butanone (MEK)	mg/kg	190,000	N/A	N/A	N/A	N/A	0.009 U	N/A	N/A	0.0056 J	N/A	0.0095 U	N/A	N/A
2-Hexanone	mg/kg	1,300	N/A	N/A	N/A	N/A	0.009 U	N/A	N/A	0.0092 U	N/A	0.0095 U	N/A	N/A
Acetone	mg/kg	670,000	N/A	N/A	N/A	N/A	0.0084 J	N/A	N/A	0.28	N/A	0.006 B	N/A	N/A
Benzene	mg/kg	5.1	N/A	N/A	N/A	N/A	0.0045 U	N/A	N/A	0.0046 U	N/A	0.0048 U	N/A	N/A
Ethylbenzene	mg/kg	25	N/A	N/A	N/A	N/A	0.0045 U	N/A	N/A	0.0046 U	N/A	0.0048 U	N/A	N/A
Isopropylbenzene	mg/kg	9,900	N/A	N/A	N/A	N/A	0.0045 U	N/A	N/A	0.0046 U	N/A	0.0048 U	N/A	N/A
Methylene Chloride	mg/kg	1,000	N/A	N/A	N/A	N/A	0.0045 U	N/A	N/A	0.0046 UJ	N/A	0.0048 U	N/A	N/A
Toluene	mg/kg	47,000	N/A	N/A	N/A	N/A	0.0045 U	N/A	N/A	0.0046 U	N/A	0.0048 U	N/A	N/A
Xylenes	mg/kg	2,800	N/A	N/A	N/A	N/A	0.013 U	N/A	N/A	0.014 U	N/A	0.014 U	N/A	N/A
Semi-Volatile Organic Compounds^														
1,1-Biphenyl	mg/kg	200	0.072 U	0.074 U	0.067 U	0.071 U	0.075 U	0.072 U	0.05 J	0.048 J	0.32 J	0.34 J	N/A	0.071 U
2,4-Dimethylphenol	mg/kg	16,000	0.072 UJ	0.074 U	0.067 UJ	0.071 U	0.075 U	0.072 U	0.072 R	0.074 R	0.071 U	0.075 U	N/A	0.071 R
2-Chloronaphthalene	mg/kg	60,000	0.072 U	0.074 U	0.067 U	0.071 U	0.075 U	0.072 U	0.072 U	0.074 U	0.071 U	0.075 U	N/A	0.071 U
2-Methylnaphthalene	mg/kg	3,000	0.0065 J	0.0053 J	0.017	0.0071 U	0.015	0.0074 U	0.12	0.076	0.88	2.2 UJ	N/A	0.017
2-Methylphenol	mg/kg	41,000	0.072 UJ	0.074 U	0.067 UJ	0.071 U	0.075 U	0.072 U	0.072 R	0.074 R	0.071 U	0.075 U	N/A	0.071 R
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	0.14 UJ	0.15 U	0.13 UJ	0.14 U	0.15 U	0.14 U	0.14 R	0.15 R	0.14 U	0.021 J	N/A	0.14 R
Acenaphthene	mg/kg	45,000	0.0024 J	0.0006 J	0.002 J	0.0071 U	0.00081 J	0.0074 U	0.029	0.014	2.5	13.8	N/A	0.0062 J
Acenaphthylene	mg/kg	45,000	0.0029 J	0.0039 J	0.00071 J	0.0071 U	0.00078 J	0.0074 U	0.15	0.032	0.24	0.75	N/A	0.0081
Acetophenone	mg/kg	120,000	0.072 U	0.074 U	0.067 U	0.071 U	0.075 U	0.072 U	0.072 U	0.074 U	0.071 U	0.028 B	N/A	0.071 U
Anthracene	mg/kg	230,000	0.022	0.0044 J	0.0046 J	0.0071 U	0.0031 J	0.0074 U	0.28	0.11	5.5	14.9	N/A	0.023
Benz[a]anthracene	mg/kg	21	0.39	0.032	0.014 J	0.0071 U	0.011	0.0074 U	0.79	0.17	11.8	22.5	0.33	0.071
Benzaldehyde	mg/kg	120,000	0.072 R	0.074 R	0.067 R	0.071 R	0.075 R	0.072 R	0.072 R	0.074 R	0.022 J	0.041 J	N/A	0.071 R
Benzo[a]pyrene	mg/kg	2.1	0.31	0.041	0.011	0.0071 U	0.011	0.0074 U	0.69	0.15	10.7	20.3	0.3	0.06
Benzo[b]fluoranthene	mg/kg	21	0.76	0.099	0.039	0.0071 U	0.018	0.00054 J	1.2	0.23	13.4	27.6	0.4	0.1
Benzo[g,h,i]perylene	mg/kg		0.13	0.021	0.011 J	0.0071 U	0.0082	0.0074 U	0.27	0.058	6	10.1	N/A	0.026
Benzo[k]fluoranthene	mg/kg	210	0.69	0.04	0.035 J	0.0071 U	0.0071 J	0.0074 U	0.41	0.1	5.9	9.7	0.17	0.044
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.51 J	0.074 U	0.067 UJ	0.071 U	0.075 U	0.072 U	0.072 U	0.074 U	0.41 J	0.23 J	N/A	0.071 U
Carbazole	mg/kg		0.089	0.074 U	0.067 U	0.071 U	0.075 U	0.072 U	0.097	0.057 J	0.69 J	0.41 J	N/A	0.071 U
Chrysene	mg/kg	2,100	0.45	0.091	0.032 J	0.0071 U	0.014	0.0074 U	0.77	0.17	11.8	23.4	N/A	0.079
Dibenz[a,h]anthracene	mg/kg	2.1	0.046	0.0063 J	0.0046 J	0.0071 U	0.0026 J	0.0074 U	0.11	0.021	1.9	3.5	0.061	0.0069 J
Diethylphthalate	mg/kg	660,000	0.072 U	0.074 U	0.067 U	0.071 U	0.086	0.054 B	0.072 U	0.074 U	0.071 U	0.075 U	N/A	0.071 U
Di-n-butylphthalate	mg/kg	82,000	0.072 U	0.074 U	0.067 U	0.071 U	0.075 U	0.072 U	0.072 U	0.074 U	0.071 U	0.075 U	N/A	0.071 U
Fluoranthene	mg/kg	30,000	0.93	0.22	0.032 J	0.0071 U	0.021	0.0007 J	1.4	0.57	27.5	62	N/A	0.15
Fluorene	mg/kg	30,000	0.0032 J	0.0076 U	0.0035 J	0.0071 U	0.0013 J	0.0074 U	0.031	0.02	1.8	11.1	N/A	0.0059 J
Indeno[1,2,3-c,d]pyrene	mg/kg	21	0.13	0.022	0.0078 J	0.0071 U	0.0069 J	0.0074 U	0.3	0.06	5.3	9.1	0.17	0.026
Naphthalene	mg/kg	8.6	0.0081 J	0.006 B	0.046 J	0.0071 U	0.012	0.0074 U	0.43	0.35	0.26	0.54 UJ	N/A	0.04
N-Nitrosodiphenylamine	mg/kg	470	0.072 U	0.074 U	0.067 U	0.071 U	0.075 U	0.072 U	0.072 U	0.074 U	0.071 U	0.075 U	N/A	0.071 U
Phenanthrene	mg/kg		0.12	0.052	0.048 J	0.00068 J	0.022	0.0011 J	1.1	0.5	12.4	54.3	N/A	0.076
Phenol	mg/kg	250,000	0.072 UJ	0.074 U	0.067 UJ	0.071 U	0.075 U	0.072 U	0.072 R	0.074 R	0.029 J	0.1	N/A	0.071 R
Pyrene	mg/kg	23,000	0.81	0.17	0.031 J	0.0071 U	0.017	0.0074 U	1.1	0.4	23.3	49	N/A	0.13
PCBs														
Aroclor 1242	mg/kg	0.97	0.0543 U	N/A	0.0513 U	N/A	0.0542 U	N/A	0.0562 U	N/A	0.0546 U	N/A	N/A	0.056 U
Aroclor 1248	mg/kg	0.94	0.128	N/A	0.0513 U	N/A	0.0542 U	N/A	0.0562 U	N/A	0.0546 U	N/A	N/A	0.056 U
Aroclor 1254	mg/kg	0.97	0.0543 U	N/A	0.0513 U	N/A	0.0542 U	N/A	0.0562 U	N/A	0.236	N/A	N/A	0.056 U
Aroclor 1268	mg/kg		0.0543 U	N/A	0.0513 U	N/A	0.0542 U	N/A	0.0562 U	N/A	0.723	N/A	N/A	0.056 U
PCBs (total)	mg/kg	0.97	0.128	N/A	0.0513 U	N/A	0.0542 U	N/A	0.0562 U	N/A	0.959	N/A	N/A	0.056 U
TPH/Oil & Grease														
Diesel Range Organics	mg/kg	6,200	36.5 J	6.6 J	9.1 J	7.1 UJ	16.1 J	10.3 J	41.4 J	24.8 J	325 J	294 J	N/A	20 J
Gasoline Range Organics	mg/kg	6,200	10.1 U	15.2 U	6.7 U	13.8 U	9.1 U	17 U	9.9 U	11.1 U	10.4 U	11.4 U	N/A	10.6 U
Oil & Grease	mg/kg	6,200	663	374	283	631	378	446	427	378	1,190	2,030	N/A	560

Bold indicates detection

Values in red indicate a detection exceedance of the Project Action Limit (PAL)

* Indicates non-validated data

^ PAH compounds were analyzed via SIM

N/A: This parameter was not analyzed for this sample.

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 low.

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.

B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.

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.

Table 1 - Sub-Parcel B13-2
Summary of Organics Detected in Soil

Parameter	Units	PAL	B13-069-SB-9	B13-070-SB-1	B13-070-SB-5	B13-071-SB-1*	B13-071-SB-6*	B13-076-SB-1*	B13-076-SB-7*	B13-079-SB-1	B13-079-SB-5	B13-081-SB-1*	B13-081-SB-9*	B13-082-SB-1
			8/23/2016	8/23/2016	8/23/2016	8/24/2016	8/24/2016	8/26/2016	8/26/2016	8/24/2016	8/24/2016	8/26/2016	8/26/2016	8/23/2016
Volatile Organic Compounds														
2-Butanone (MEK)	mg/kg	190,000	0.0094 U	N/A	0.012 U	0.0071 U	0.0086 U	0.012	0.018 U	N/A	N/A	N/A	0.13 U	N/A
2-Hexanone	mg/kg	1,300	0.0094 U	N/A	0.012 U	0.0071 U	0.0086 U	0.0064 U	0.018 U	N/A	N/A	N/A	0.13 U	N/A
Acetone	mg/kg	670,000	0.0076 J	N/A	0.01 J	0.022	0.013	0.02 B	0.03	N/A	N/A	N/A	0.13 U	N/A
Benzene	mg/kg	5.1	0.0047 U	N/A	0.0023 J	0.0017 J	0.0043 U	0.0014 J	0.0088 U	N/A	N/A	N/A	0.022 J	N/A
Ethylbenzene	mg/kg	25	0.0047 U	N/A	0.0059 U	0.0036 U	0.0043 U	0.0024 J	0.012	N/A	N/A	N/A	0.021 J	N/A
Isopropylbenzene	mg/kg	9,900	0.0047 U	N/A	0.0059 U	0.0036 U	0.0043 U	0.0032 U	0.0088 U	N/A	N/A	N/A	0.067 U	N/A
Methylene Chloride	mg/kg	1,000	0.0047 UJ	N/A	0.0059 U	0.0036 U	0.0043 U	0.0032 U	0.0088 U	N/A	N/A	N/A	0.067 U	N/A
Toluene	mg/kg	47,000	0.0047 U	N/A	0.0023 J	0.0023 J	0.0043 U	0.0011 J	0.0088 U	N/A	N/A	N/A	0.033 J	N/A
Xylenes	mg/kg	2,800	0.014 U	N/A	0.018 U	0.011 U	0.013 U	0.014	0.076	N/A	N/A	N/A	0.2 U	N/A
Semi-Volatile Organic Compounds^														
1,1-Biphenyl	mg/kg	200	0.023 J	0.091 U	0.071 U	0.073 U	0.073 U	0.042 J	0.062 J	0.017 J	0.023 J	0.071 U	0.073 U	0.07 U
2,4-Dimethylphenol	mg/kg	16,000	0.072 R	0.091 U	0.071 U	0.073 U	0.073 U	0.071 U	0.053 J	0.075 R	0.079 R	0.071 U	0.073 U	0.07 UJ
2-Chloronaphthalene	mg/kg	60,000	0.072 U	0.091 U	0.071 U	0.073 U	0.073 U	0.071 U	0.088 U	0.075 U	0.079 U	0.071 U	0.073 U	0.07 U
2-Methylnaphthalene	mg/kg	3,000	0.037	0.0091 U	0.02	0.0044 J	0.0038 J	0.074	0.12	0.009 J	0.054	0.0071 U	0.0072 U	0.0032 J
2-Methylphenol	mg/kg	41,000	0.072 R	0.091 U	0.071 U	0.073 U	0.073 U	0.071 U	0.088 U	0.075 R	0.079 R	0.071 U	0.073 U	0.07 UJ
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	0.14 R	0.18 U	0.14 U	0.15 U	0.15 U	0.14 U	0.03 J	0.15 R	0.16 R	0.14 U	0.15 U	0.14 UJ
Acenaphthene	mg/kg	45,000	0.0096	0.0091 U	0.018	0.0073 U	0.00068 J	0.0064 J	0.0056 J	0.0031 J	0.021	0.0071 U	0.0072 U	0.00093 J
Acenaphthylene	mg/kg	45,000	0.011	0.0091 U	0.003 J	0.0073 U	0.0074 U	0.0079	0.0057 J	0.0014 J	0.02	0.0071 U	0.0072 U	0.0069 U
Acetophenone	mg/kg	120,000	0.072 U	0.091 U	0.071 U	0.073 U	0.073 U	0.071 U	0.088 U	0.075 U	0.079 U	0.071 U	0.073 U	0.07 U
Anthracene	mg/kg	230,000	0.042	0.0091 U	0.013	0.00098 J	0.0028 J	0.04	0.021	0.015	0.051	0.0071 U	0.0072 U	0.0032 J
Benz[a]anthracene	mg/kg	21	0.083	0.0025 J	0.13	0.0031 J	0.0052 J	0.077	0.034	0.036	0.19	0.0019 J	0.0072 U	0.0067 J
Benzaldehyde	mg/kg	120,000	0.072 R	0.091 R	0.071 R	0.073 U	0.073 U	0.071 U	0.15	0.023 J	0.079 R	0.071 U	0.073 U	0.07 R
Benzo[a]pyrene	mg/kg	2.1	0.075	0.0018 J	0.25	0.0015 J	0.0035 J	0.054	0.025	0.032	0.21	0.0071 U	0.0072 U	0.0048 J
Benzo[b]fluoranthene	mg/kg	21	0.19	0.004 J	0.29	0.0043 J	0.0082	0.16	0.05	0.082	0.46	0.0017 J	0.0072 U	0.025
Benzo[g,h,i]perylene	mg/kg		0.024	0.0013 J	0.13	0.0073 U	0.0013 J	0.058	0.02	0.027	0.11	0.0071 U	0.0072 U	0.0046 J
Benzo[k]fluoranthene	mg/kg	210	0.17	0.0029 J	0.12	0.0039 J	0.0074	0.14	0.044	0.074	0.41	0.0015 J	0.0072 U	0.023
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.072 UJ	0.091 U	0.071 U	0.073 U	0.073 U	0.071 U	0.088 U	0.075 UJ	0.028 B	0.071 U	0.073 U	0.07 U
Carbazole	mg/kg		0.072 U	0.091 U	0.071 U	0.073 U	0.073 U	0.019 J	0.034 J	0.075 U	0.028 J	0.071 U	0.073 U	0.07 U
Chrysene	mg/kg	2,100	0.093	0.0019 J	0.15	0.0028 J	0.0055 J	0.12	0.046	0.052	0.21	0.0014 J	0.0072 U	0.018
Dibenz[a,h]anthracene	mg/kg	2.1	0.0099	0.0091 U	0.042	0.0073 U	0.0074 U	0.019	0.0054 J	0.0076 J	0.034	0.0071 U	0.0072 U	0.0013 J
Diethylphthalate	mg/kg	660,000	0.072 U	0.091 U	0.071 U	0.073 U	0.073 U	0.071 U	0.088 U	0.075 U	0.079 U	0.024 J	0.073 U	0.07 U
Di-n-butylphthalate	mg/kg	82,000	0.072 U	0.091 U	0.071 U	0.073 U	0.073 U	0.071 U	0.088 U	0.075 U	0.079 U	0.071 U	0.073 U	0.07 U
Fluoranthene	mg/kg	30,000	0.22	0.0025 J	0.13	0.0056 J	0.014	0.16	0.074	0.099	0.31	0.0022 J	0.00065 J	0.016
Fluorene	mg/kg	30,000	0.0057 J	0.0091 U	0.0048 J	0.00064 J	0.0012 J	0.0073	0.006 J	0.0031 J	0.017	0.0071 U	0.0072 U	0.0013 J
Indeno[1,2,3-c,d]pyrene	mg/kg	21	0.026	0.0091 U	0.12	0.0073 U	0.0011 J	0.048	0.014	0.021	0.1	0.0071 U	0.0072 U	0.0045 J
Naphthalene	mg/kg	8.6	0.11	0.0032 B	0.029	0.004 J	0.0054 J	0.065	0.075	0.009 J	0.14	0.0071 U	0.0072 U	0.0037 B
N-Nitrosodiphenylamine	mg/kg	470	0.072 U	0.091 U	0.071 U	0.073 U	0.073 U	0.071 U	0.088 U	0.075 U	0.079 U	0.071 U	0.073 U	0.07 U
Phenanthrene	mg/kg		0.15	0.0035 J	0.055	0.0068 J	0.013	0.19	0.14	0.058	0.16	0.0025 J	0.0013 J	0.011
Phenol	mg/kg	250,000	0.072 R	0.091 U	0.071 U	0.073 U	0.073 U	0.071 U	0.088 U	0.075 R	0.079 R	0.071 U	0.073 U	0.07 UJ
Pyrene	mg/kg	23,000	0.17	0.0024 J	0.13	0.0042 J	0.01	0.13	0.068	0.099	0.38	0.0021 J	0.0072 U	0.019
PCBs														
Aroclor 1242	mg/kg	0.97	N/A	0.0515 U	N/A	0.0543 U	N/A	0.0522 U	N/A	0.0608 U	N/A	0.0523 U	N/A	0.0535 U
Aroclor 1248	mg/kg	0.94	N/A	0.0515 U	N/A	0.0543 U	N/A	0.0522 U	N/A	0.0608 U	N/A	0.0523 U	N/A	0.0535 U
Aroclor 1254	mg/kg	0.97	N/A	0.0515 U	N/A	0.0543 U	N/A	0.0522 U	N/A	0.0608 U	N/A	0.0523 U	N/A	0.0535 U
Aroclor 1268	mg/kg		N/A	0.0515 U	N/A	0.0543 U	N/A	0.0522 U	N/A	0.0608 U	N/A	0.0523 U	N/A	0.0535 U
PCBs (total)	mg/kg	0.97	N/A	0.0515 U	N/A	0.0543 U	N/A	0.0522 U	N/A	0.0608 U	N/A	0.0523 U	N/A	0.0535 U
TPH/Oil & Grease														
Diesel Range Organics	mg/kg	6,200	25.2 J	5.3 J	46.1 J	4.6 J	6.3 J	70.1	174	16.8 J	108 J	3.2 J	7.4	7.5 J
Gasoline Range Organics	mg/kg	6,200	8.9 U	10.9 U	11.7 U	10.7 U	9.5 U	22.4	26.7	12.1 U	11 U	10.4 U	16.8 U	11.2 U
Oil & Grease	mg/kg	6,200	796	1,270	803	115	595	247	332	1,720	994	418	474	234

Bold indicates detection

Values in red indicate a detection exceedance of the Project Action Limit (PAL)

* Indicates non-validated data

^ PAH compounds were analyzed via SIM

N/A: This parameter was not analyzed for this sample.

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 low.

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

B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.

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.

Table 1 - Sub-Parcel B13-2
Summary of Organics Detected in Soil

Parameter	Units	PAL	B13-082-SB-5	B5-122-SB-1*	B5-122-SB-9*	B5-167-SB-1*	B5-167-SB-7*	B5-167-SB-10*
			8/23/2016	12/23/2015	12/23/2015	12/23/2015	12/23/2015	12/23/2015
Volatile Organic Compounds								
2-Butanone (MEK)	mg/kg	190,000	N/A	0.0095 U	0.011 U	0.012 U	0.011 U	N/A
2-Hexanone	mg/kg	1,300	N/A	0.0095 U	0.011 U	0.012 U	0.011 U	N/A
Acetone	mg/kg	670,000	N/A	0.046	0.16	0.015	0.026	N/A
Benzene	mg/kg	5.1	N/A	0.0048 U	0.041	0.006 U	0.0054 U	N/A
Ethylbenzene	mg/kg	25	N/A	0.0048 U	0.025	0.006 U	0.0054 U	N/A
Isopropylbenzene	mg/kg	9,900	N/A	0.0048 U	0.0053 J	0.006 U	0.0054 U	N/A
Methylene Chloride	mg/kg	1,000	N/A	0.0048 U	0.0053 U	0.006 U	0.011	N/A
Toluene	mg/kg	47,000	N/A	0.0048 U	0.039	0.006 U	0.0054 U	N/A
Xylenes	mg/kg	2,800	N/A	0.014 U	0.019	0.018 U	0.016 U	N/A
Semi-Volatile Organic Compounds^								
1,1-Biphenyl	mg/kg	200	0.071 U	7.4 U	7.6 U	7.2 U	7.9 U	N/A
2,4-Dimethylphenol	mg/kg	16,000	0.071 R	7.4 U	7.6 U	7.2 U	7.9 U	N/A
2-Chloronaphthalene	mg/kg	60,000	0.071 U	7.4 U	7.6 U	7.2 U	7.9 U	N/A
2-Methylnaphthalene	mg/kg	3,000	0.0024 J	0.033	0.011	0.014	0.12	N/A
2-Methylphenol	mg/kg	41,000	0.071 R	7.4 U	7.6 U	7.2 U	7.9 U	N/A
3&4-Methylphenol(m&p Cresol)	mg/kg	41,000	0.14 R	14.9 U	15.3 U	14.3 U	15.7 U	N/A
Acenaphthene	mg/kg	45,000	0.0073 U	0.0025 J	0.0023 J	0.0014 J	0.055	N/A
Acenaphthylene	mg/kg	45,000	0.0073 U	0.0028 J	0.0027 J	0.0017 J	0.12	N/A
Acetophenone	mg/kg	120,000	0.071 U	7.4 U	7.6 U	7.2 U	7.9 U	N/A
Anthracene	mg/kg	230,000	0.0073 U	0.0097	0.0058 J	0.0088	0.15	N/A
Benz[a]anthracene	mg/kg	21	0.0012 J	0.031	0.022	0.015	0.32	N/A
Benzaldehyde	mg/kg	120,000	0.071 R	7.4 U	7.6 U	7.2 U	7.9 U	N/A
Benzo[a]pyrene	mg/kg	2.1	0.0073 U	0.025	0.026	0.014	0.5	0.0027 J
Benzo[b]fluoranthene	mg/kg	21	0.00061 J	0.069	0.064	0.052	1.2	N/A
Benzo[g,h,i]perylene	mg/kg		0.0073 U	0.024	0.024	0.028	0.28	N/A
Benzo[k]fluoranthene	mg/kg	210	0.0073 U	0.058	0.052	0.043	0.96	N/A
bis(2-Ethylhexyl)phthalate	mg/kg	160	0.071 U	7.4 U	7.6 U	7.2 U	7.9 U	N/A
Carbazole	mg/kg		0.071 U	7.4 U	7.6 U	7.2 U	7.9 U	N/A
Chrysene	mg/kg	2,100	0.0011 J	0.043	0.033	0.025	0.42	N/A
Dibenz[a,h]anthracene	mg/kg	2.1	0.0073 U	0.0053 J	0.007 J	0.0048 J	0.11	N/A
Diethylphthalate	mg/kg	660,000	0.071 U	7.4 U	7.6 U	7.2 U	7.9 U	N/A
Di-n-butylphthalate	mg/kg	82,000	0.071 U	7.4 U	7.6 U	7.2 U	7.9 U	N/A
Fluoranthene	mg/kg	30,000	0.0015 B	0.087	0.03	0.039	0.61	N/A
Fluorene	mg/kg	30,000	0.0073 U	0.0021 J	0.0033 J	0.0048 J	0.043	N/A
Indeno[1,2,3-c,d]pyrene	mg/kg	21	0.0073 U	0.017	0.02	0.021	0.28	N/A
Naphthalene	mg/kg	8.6	0.0078	0.067	0.011	0.02	0.13	N/A
N-Nitrosodiphenylamine	mg/kg	470	0.071 U	7.4 U	7.6 U	7.2 U	7.9 U	N/A
Phenanthrene	mg/kg		0.019	0.081	0.033	0.05	0.27	N/A
Phenol	mg/kg	250,000	0.071 R	7.4 U	7.6 U	7.2 U	7.9 U	N/A
Pyrene	mg/kg	23,000	0.00083 J	0.069	0.025	0.024	0.63	N/A
PCBs								
Aroclor 1242	mg/kg	0.97	N/A	0.53	N/A	0.018 U	N/A	N/A
Aroclor 1248	mg/kg	0.94	N/A	0.19 U	N/A	0.018 U	N/A	N/A
Aroclor 1254	mg/kg	0.97	N/A	0.19 U	N/A	0.018 U	N/A	N/A
Aroclor 1268	mg/kg		N/A	N/A	N/A	N/A	N/A	N/A
PCBs (total)	mg/kg	0.97	N/A	0.53 J	N/A	0.13 U	N/A	N/A
TPH/Oil & Grease								
Diesel Range Organics	mg/kg	6,200	5.2 J	49.8	27	12.6	87.2	N/A
Gasoline Range Organics	mg/kg	6,200	11.5 U	9.1 U	50.7	13.6	11.9 U	N/A
Oil & Grease	mg/kg	6,200	325	N/A	N/A	N/A	N/A	N/A

Bold indicates detection

Values in red indicate a detection exceedance of the Project Action Limit (PAL)

* Indicates non-validated data

^ PAH compounds were analyzed via SIM

N/A: This parameter was not analyzed for this sample.

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 low.

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

B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.

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.

Table 2 - Sub-Parcel B13-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B13-001-SB-1	B13-001-SB-4	B13-002-SB-1*	B13-002-SB-8*	B13-003-SB-1	B13-003-SB-5	B13-004-SB-1	B13-004-SB-4	B13-004-SB-10
			8/23/2016	8/23/2016	8/24/2016	8/24/2016	8/24/2016	8/24/2016	8/23/2016	8/23/2016	8/23/2016
Metals											
Aluminum	mg/kg	1,100,000	26,800	21,000	21,100	29,500	35,400	37,500	18,100	39,600	N/A
Antimony	mg/kg	470	2.7 UJ	2.7 UJ	2.6 U	2.8 U	2.8 UJ	2.7 UJ	2.6 UJ	2.6 UJ	N/A
Arsenic	mg/kg	3	2.5	2.3 U	4.7	2.3 U	2.2 J	2.3 U	3.4	3.5	1.9
Barium	mg/kg	220,000	322 J	249 J	286	563	389	467	160 J	675 J	N/A
Beryllium	mg/kg	2,300	3.3	2.4	2.2	2.9	4.5	5.1	3.4	4.5	N/A
Cadmium	mg/kg	100	0.66 B	0.86 B	0.47 B	0.45 B	0.57 B	0.38 B	0.52 B	0.37 B	N/A
Chromium	mg/kg	1,800,000	298 J	487 J	448	480	172	115	68.5 J	76.9 J	N/A
Chromium VI	mg/kg	6.3	0.4 B	0.27 B	0.48 B	0.39 B	0.31 B	0.36 B	0.33 B	0.3 B	N/A
Cobalt	mg/kg	350	10.9 J	12.2 J	6.1	5.8	4.9	5	2.4 J	2.9 J	N/A
Copper	mg/kg	47,000	34 J	39.6 J	36.9	22.9	13.5	10.2	7.9 J	20.5 J	N/A
Iron	mg/kg	820,000	98,200	129,000	138,000	83,900	59,300	41,300	84,700	21,400	N/A
Lead	mg/kg	800	42.3 J	82.4 J	19.4	17.3	20.7	11.3	28.8 J	12.4 J	N/A
Manganese	mg/kg	26,000	7,220	13,900	11,900	20,900	7,710	4,980	3,580	8,400	N/A
Mercury	mg/kg	350	0.0031 J-	0.03 J-	0.0049 J	0.0021 J	0.0031 J	0.0057 J	0.0046 J-	0.11 UJ	N/A
Nickel	mg/kg	22,000	96 J	90.9 J	42.2	31	27.7	67.1	11.1 J	4.2 J	N/A
Selenium	mg/kg	5,800	2.2 B	2.7 B	3.4 U	3.7 U	3.4 B	3.6 U	2.8 B	4.4	N/A
Silver	mg/kg	5,800	2.7 U	2.7 U	2.6 U	2.8 U	2.8 U	2.7 U	2.6 U	2.6 U	N/A
Thallium	mg/kg	12	9.1 UJ	9 UJ	8.5 U	9.2 U	9.2 U	9 U	8.7 UJ	8.5 UJ	N/A
Vanadium	mg/kg	5,800	479	598	442	2,200	309	172	39.6	433	N/A
Zinc	mg/kg	350,000	126 J	288 J	66.4	46.1	50.7 J	19.6 J	47.9 J	19.2 J	N/A
Other											
Cyanide, Total	mg/kg	150	1.2	0.78	1.2	0.56 J	0.97 J-	0.7 J-	1.1	0.6	N/A

Bold indicates detection
Values in red indicate a detection exceedance of the Project Action Limit (PAL)
N/A: This parameter was not analyzed for this sample.
* Indicates non-validated data

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 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 analyte.

Table 2 - Sub-Parcel B13-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B13-005-SB-1	B13-005-SB-4	B13-006-SB-1*	B13-006-SB-4*	B13-007-SB-1*	B13-007-SB-4*	B13-012-SB-1	B13-012-SB-4	B13-012-SB-10*
			8/23/2016	8/23/2016	8/24/2016	8/24/2016	8/24/2016	8/24/2016	8/29/2016	8/29/2016	8/29/2016
Metals											
Aluminum	mg/kg	1,100,000	11,700	38,000	19,000	9,290	14,400	36,200	5,980	16,600	N/A
Antimony	mg/kg	470	2.6 UJ	2.7 UJ	2.8 U	2.8 U	2.6 U	2.7 U	2.4 UJ	2.3 UJ	N/A
Arsenic	mg/kg	3	3.9	2.2 U	2.3 U	4.1	4.4	2.2 U	8.4	5.7	12.2
Barium	mg/kg	220,000	185 J	548 J	53	132	190	362	45.2 J	62.1 J	N/A
Beryllium	mg/kg	2,300	0.89	4.7	0.49 J	0.35 J	1.9	4.1	0.66 J	0.27 J	N/A
Cadmium	mg/kg	100	3.4	0.48 B	0.8 B	0.77 B	5.8	0.48 B	0.44 J	0.39 J	N/A
Chromium	mg/kg	1,800,000	705 J	180 J	1,090	837	117	43.1	287	1,430	N/A
Chromium VI	mg/kg	6.3	0.39 B	0.35 B	1.3 B	0.64 B	0.51 B	0.38 B	0.74 B	0.74 B	N/A
Cobalt	mg/kg	350	5.6 J	4.6 J	2.8 J	34.2	6.7	1 J	4.2	6.3	N/A
Copper	mg/kg	47,000	60.8 J	13.8 J	30	99.1	35.6	11	55.3 J	35.6 J	N/A
Iron	mg/kg	820,000	169,000	44,500	172,000	162,000	122,000	16,400	153,000	247,000	N/A
Lead	mg/kg	800	126 J	33.3 J	37.8	47.8	183	4.9	33	6.9	N/A
Manganese	mg/kg	26,000	18,600	9,650	26,800	34,700	4,800	4,280	6,470	27,000	7,830
Mercury	mg/kg	350	0.025 J-	0.0022 J-	0.02 J	0.024 J	0.028 J	0.11 U	0.031 J	0.014 J	N/A
Nickel	mg/kg	22,000	31.2 J	12.1 J	20.4	20.5	50.2	6.1 J	67 J	35.4 J	N/A
Selenium	mg/kg	5,800	3.5 U	6.3	3.7 U	3.7 U	3.5 U	5.2	3.2 U	3 U	N/A
Silver	mg/kg	5,800	2.6 U	2.7 U	2.8 U	2.8 U	2.6 U	2.7 U	1.6 J	3.6	N/A
Thallium	mg/kg	12	8.8 UJ	9 UJ	9.2 U	9.2 U	8.8 U	8.8 U	8 U	4.7 J	N/A
Vanadium	mg/kg	5,800	1,270	685	491	2,190	103	133	208	346	N/A
Zinc	mg/kg	350,000	892 J	81.4 J	122	104	259	13.2	84.5 J	17.7 J	N/A
Other											
Cyanide, Total	mg/kg	150	3.4	0.77	0.57	0.59	0.49 J	0.36 J	0.83 J+	0.47 B	N/A

Bold indicates detection

Values in red indicate a detection exceedance of the Project Action Limit (PAL)

N/A: This parameter was not analyzed for this sample.

* ndicates non-validated data

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 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 analyte.

Table 2 - Sub-Parcel B13-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B13-013-SB-1	B13-013-SB-5	B13-013-SB-10*	B13-016-SB-1*	B13-016-SB-8*	B13-016-SB-10*	B13-017-SB-1*	B13-017-SB-4*	B13-017-SB-10*
			8/29/2016	8/29/2016	8/29/2016	8/26/2016	8/26/2016	8/26/2016	8/25/2016	8/25/2016	8/25/2016
Metals											
Aluminum	mg/kg	1,100,000	7,800	4,370	N/A	19,200	28,000	N/A	38,900	22,400	N/A
Antimony	mg/kg	470	2.7 UJ	2.2 UJ	N/A	2.7	2.8 U	N/A	2.5 U	2.8 U	N/A
Arsenic	mg/kg	3	12.1	10.1	15.8	6.7	6.9	4.1	3.3	7.4	5.2
Barium	mg/kg	220,000	92.8 J	34.7 J	N/A	227	314	N/A	308	364	N/A
Beryllium	mg/kg	2,300	0.88 J	0.41 J	N/A	3.3	3.3	N/A	5.6	1.8	N/A
Cadmium	mg/kg	100	0.62 J	0.67 J	N/A	0.55 B	0.88 B	N/A	0.41 B	0.65 B	N/A
Chromium	mg/kg	1,800,000	228	367	N/A	101	135	N/A	13.2	215	N/A
Chromium VI	mg/kg	6.3	0.69 B	0.29 B	N/A	0.39 B	0.31 B	N/A	0.51 B	0.33 B	N/A
Cobalt	mg/kg	350	11.2	8.9	N/A	6.1	14	N/A	3.7 J	19.4	N/A
Copper	mg/kg	47,000	117 J	129 J	N/A	37.8	45.1	N/A	8.1	36.8	N/A
Iron	mg/kg	820,000	236,000	182,000	N/A	86,200	53,400	N/A	20,500	90,100	N/A
Lead	mg/kg	800	127	75.1	N/A	56.6	145	N/A	22.6	66.8	N/A
Manganese	mg/kg	26,000	3,490	1,860	N/A	3,330	4,400	N/A	3,000	14,600	N/A
Mercury	mg/kg	350	0.04 J	0.13	N/A	0.027 J	0.12 U	N/A	0.0026 B	0.042 J	N/A
Nickel	mg/kg	22,000	193 J	185 J	N/A	30.3	78.5	N/A	4.3 J	134	N/A
Selenium	mg/kg	5,800	2.2 J	2.9 U	N/A	3.6 U	3.7 U	N/A	3.3 U	3.8 U	N/A
Silver	mg/kg	5,800	2.9	3	N/A	2.7 U	2.8 U	N/A	2.5 U	1.7 J	N/A
Thallium	mg/kg	12	9 U	7.3 U	N/A	9.1 U	9.3 U	N/A	8.2 U	9.4 U	N/A
Vanadium	mg/kg	5,800	96.1	38.5	N/A	182	164	N/A	36.4	206	N/A
Zinc	mg/kg	350,000	118 J	103 J	N/A	134	181	N/A	49.8	138	N/A
Other											
Cyanide, Total	mg/kg	150	1.2 J+	1 J+	N/A	2.1	2.4	N/A	0.37 J	1.6	N/A

Bold indicates detection
Values in red indicate a detection exceedance of the Project Action Limit (PAL)
N/A: This parameter was not analyzed for this sample.
* ndicates non-validated data

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 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 analyte.

Table 2 - Sub-Parcel B13-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B13-020-SB-1	B13-020-SB-9	B13-021-SB-1	B13-021-SB-9	B13-022-SB-1*	B13-022-SB-4*	B13-022-SB-10	B13-023-SB-1*	B13-023-SB-4*
			8/23/2016	8/23/2016	8/23/2016	8/23/2016	8/24/2016	8/24/2016	8/24/2016	8/24/2016	8/24/2016
Metals											
Aluminum	mg/kg	1,100,000	30,500	42,000	24,300	40,600	38,900	22,600	N/A	6,620	50,300
Antimony	mg/kg	470	2.9 UJ	2.7 UJ	2.6 UJ	2.8 UJ	2.6 U	2.6 U	N/A	2.5 U	2.7 U
Arsenic	mg/kg	3	2.5 UJ	2.3 UJ	2.2 UJ	2.5 J	2.2 U	13.4	1.9	2.6	2.3 U
Barium	mg/kg	220,000	177 J	381 J	232 J	363 J	563	241	N/A	96.7	623
Beryllium	mg/kg	2,300	1	5.8	3.8	6.4	4.7	2.8	N/A	0.68 J	5
Cadmium	mg/kg	100	0.71 B	0.42 B	0.54 B	0.26 B	0.32 B	0.53 B	N/A	0.81 B	0.41 B
Chromium	mg/kg	1,800,000	1,260	204	135	23.2	21.1	129	N/A	155	17.5
Chromium VI	mg/kg	6.3	0.33 B	0.26 B	0.3 B	0.31 B	0.31 B	0.4 B	N/A	0.38 B	0.31 B
Cobalt	mg/kg	350	0.3 J	28.1	1.7 J	2.1 J	1.4 J	11.3	N/A	3.4 J	2.4 J
Copper	mg/kg	47,000	7.9	9.9	74.2	4.8	6.2	51.2	N/A	27.1	8
Iron	mg/kg	820,000	128,000 J	33,000 J	45,100 J	17,200 J	13,900	120,000	N/A	82,500	16,800
Lead	mg/kg	800	13	7.7	11	6.6	4.3	38.5	N/A	45.4	2.3 U
Manganese	mg/kg	26,000	38,900	3,310	8,050	2,440	5,820	4,350	N/A	4,100	7,440
Mercury	mg/kg	350	0.0044 J	0.1 U	0.01 J	0.1 U	0.0049 J	0.005 J	N/A	0.015 J	0.11 U
Nickel	mg/kg	22,000	10.9 J	159 J	12.6 J	7 J	3.5 J	57.1	N/A	31.5	6.4 J
Selenium	mg/kg	5,800	3.9 U	4.3	2.5 J	2.6 J	3.5 U	2.1 J	N/A	3.4 U	3.7 U
Silver	mg/kg	5,800	2.9 UJ	2.7 UJ	2.6 UJ	2.8 UJ	2.6 U	2.6 U	N/A	2.5 U	2.7 U
Thallium	mg/kg	12	9.8 UJ	9 UJ	8.8 UJ	9.2 UJ	8.7 U	8.7 U	N/A	8.5 U	9.1 U
Vanadium	mg/kg	5,800	357	101	161	37	26.7	196	N/A	96.6	50.9
Zinc	mg/kg	350,000	70.8 J	18.1 J	34.2 J	9.4 J	11.9	97.3	N/A	208	4.3 B
Other											
Cyanide, Total	mg/kg	150	4.5	0.71	0.49 J	0.84	0.94	0.32 J	N/A	1.2	0.62

Bold indicates detection
Values in red indicate a detection exceedance of the Project Action Limit (PAL)
N/A: This parameter was not analyzed for this sample.
* ndicates non-validated data

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 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 analyte.

Table 2 - Sub-Parcel B13-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B13-040-SB-1	B13-040-SB-5	B13-040-SB-10	B13-041-SB-1	B13-041-SB-4	B13-042-SB-1	B13-042-SB-9	B13-043-SB-1*	B13-043-SB-4*
			8/24/2016	8/24/2016	8/24/2016	8/24/2016	8/24/2016	8/24/2016	8/24/2016	8/24/2016	8/24/2016
Metals											
Aluminum	mg/kg	1,100,000	18,300	16,800	N/A	25,300	23,600	9,370	33,600	3,160	22,000
Antimony	mg/kg	470	2.6 UJ	2.7 UJ	N/A	2.8 UJ	2.9 UJ	2.5 UJ	2.6 UJ	2.6 U	2.6 U
Arsenic	mg/kg	3	16	3.3	16.3	2.4 U	6.7	2.1 U	2.2 U	4.6	11.9
Barium	mg/kg	220,000	277	250	N/A	267	258	42.6	521	60.2	640
Beryllium	mg/kg	2,300	2.5	1.8	N/A	2.4	2.3	0.4 J	3.3	0.47 J	1.7
Cadmium	mg/kg	100	0.37 B	0.62 B	N/A	0.64 B	0.64 B	0.48 B	0.59 B	0.34 B	3.1
Chromium	mg/kg	1,800,000	141	209	N/A	408	444	427	428	80.6	476
Chromium VI	mg/kg	6.3	0.34 B	0.47 B	N/A	0.36 B	0.36 B	1.9 J-	0.47 B	0.3 B	0.49 B
Cobalt	mg/kg	350	7.6	7	N/A	40.4	45.2	2.7 J	5	6.2	15.6
Copper	mg/kg	47,000	46.2	27.7	N/A	23.9	32	7.9	34.7	14.3	83.1
Iron	mg/kg	820,000	78,300	91,600	N/A	125,000	142,000	145,000	102,000	112,000	147,000
Lead	mg/kg	800	36.6	52.1	N/A	9.9	9.6	6.6	20.4	6.8	713
Manganese	mg/kg	26,000	7,330	17,300	N/A	13,100	14,900	10,900	15,300	3,220	20,400
Mercury	mg/kg	350	0.11 U	0.014 J	N/A	0.0066 J	0.0065 J	0.0065 J	0.005 J	0.014 J	0.004 J
Nickel	mg/kg	22,000	50.2	88.8	N/A	32.2	26.7	17.9	28.3	44.5	34.7
Selenium	mg/kg	5,800	3.5 U	3.6 U	N/A	2.4 B	3.9 U	3.4 U	2.5 B	3.5 U	2 B
Silver	mg/kg	5,800	2.6 U	2.7 U	N/A	2.8 U	2.9 U	2.5 U	2.6 U	2.6 U	2.6 U
Thallium	mg/kg	12	8.8 U	9.1 U	N/A	9.4 U	9.7 U	8.4 U	8.7 U	8.8 U	8.5 U
Vanadium	mg/kg	5,800	297	479	N/A	308	366	270	1,690	56.9	3,240
Zinc	mg/kg	350,000	69.2 J	55.2 J	N/A	88.1 J	83.1 J	87.6 J	54.1 J	54.6	1,300
Other											
Cyanide, Total	mg/kg	150	1.1 J-	0.67 J-	N/A	0.79 J-	0.36 J	0.19 J-	1.3 J-	0.39 J	5.3

Bold indicates detection
Values in red indicate a detection exceedance of the Project Action Limit (PAL)
N/A: This parameter was not analyzed for this sample.
* ndicates non-validated data

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 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 analyte.

Table 2 - Sub-Parcel B13-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B13-043-SB-10	B13-046-SB-1*	B13-047-SB-1*	B13-047-SB-4*	B13-047-SB-10*	B13-048-SB-1	B13-048-SB-7	B13-049-SB-1	B13-049-SB-5
			8/24/2016	8/26/2016	8/26/2016	8/26/2016	8/26/2016	8/24/2016	8/24/2016	8/24/2016	8/24/2016
Metals											
Aluminum	mg/kg	1,100,000	N/A	4,070	18,800	36,500	N/A	4,550	40,900	25,900	33,900
Antimony	mg/kg	470	N/A	2.3 U	2.7 U	2.8 U	N/A	1.7 J	2.7 UJ	2.6 UJ	2.7 UJ
Arsenic	mg/kg	3	1.9 U	7.8	13	6.7	2.2 U	9.9	3.4	9.6	6.2
Barium	mg/kg	220,000	N/A	81.1	496	671	N/A	52.6	620	510	897
Beryllium	mg/kg	2,300	N/A	0.55 J	2.1	4.4	N/A	0.59 J	4	2.4	3.4
Cadmium	mg/kg	100	N/A	0.36 B	0.3 B	0.37 B	N/A	0.22 B	0.34 B	0.77 B	0.5 B
Chromium	mg/kg	1,800,000	N/A	115	53.6	65.4	N/A	91.1	99.3	124	198
Chromium VI	mg/kg	6.3	N/A	0.72 B	0.46 B	0.31 B	N/A	0.37 B	0.36 B	2.5 J-	0.35 B
Cobalt	mg/kg	350	N/A	14.6	3.5 J	10.8	N/A	12.7	13.3	6.8	11.6
Copper	mg/kg	47,000	N/A	20.5	16.9	22	N/A	32.5	37.7	33.3	45.7
Iron	mg/kg	820,000	N/A	187,000	165,000	65,200	N/A	172,000	44,100	83,500	81,000
Lead	mg/kg	800	N/A	7.1	6	2.4 U	N/A	19.3	4.8	445	37.1
Manganese	mg/kg	26,000	N/A	3,680	5,130	6,860	N/A	2,720	8,350	6,430	11,900
Mercury	mg/kg	350	N/A	0.0072 J	0.098 U	0.11 U	N/A	0.019 J	0.11 U	0.0025 J	0.0031 J
Nickel	mg/kg	22,000	N/A	272	16.4	18.3	N/A	29.2	60.6	19.6	18.7
Selenium	mg/kg	5,800	N/A	3.1 U	3.6 U	3.8 U	N/A	3.4 U	3.6 U	2.6 B	3.6 B
Silver	mg/kg	5,800	N/A	2.7	1.3 J	2.8 U	N/A	2.5 U	2.7 U	2.6 U	2.7 U
Thallium	mg/kg	12	N/A	7.7 U	9 U	8.6 J	N/A	8.4 U	9 U	8.6 U	9 U
Vanadium	mg/kg	5,800	N/A	65.2	158	648	N/A	207	562	241	627
Zinc	mg/kg	350,000	N/A	33.5	37.8	4.7 U	N/A	42.5 J	3.5 B	193 J	11.7 J
Other											
Cyanide, Total	mg/kg	150	N/A	0.14 J	0.62	1.9	N/A	0.095 J	1 J-	1.3 J-	0.96 J-

Bold indicates detection
Values in red indicate a detection exceedance of the Project Action Limit (PAL)
N/A: This parameter was not analyzed for this sample.
* ndicates non-validated data

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 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 analyte.

Table 2 - Sub-Parcel B13-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B13-049-SB-10	B13-050-SB-1	B13-050-SB-5	B13-056-SB-10*	B13-064-SB-1	B13-064-SB-5	B13-065-SB-1	B13-065-SB-8	B13-065-SB-10*
			8/24/2016	8/24/2016	8/24/2016	8/26/2016	8/23/2016	8/23/2016	8/23/2016	8/23/2016	8/23/2016
Metals											
Aluminum	mg/kg	1,100,000	N/A	4,890	36,000	N/A	26,300	41,800	13,300	7,220	N/A
Antimony	mg/kg	470	N/A	2.2 J	2.6 UJ	N/A	2.7 UJ	2.7 UJ	2.6 UJ	2.6 UJ	N/A
Arsenic	mg/kg	3	2 U	14.1 J	2.2 U	3.9	3.8	2.2 U	2.2 UJ	2.2 UJ	N/A
Barium	mg/kg	220,000	N/A	63.2	614	N/A	292 J	343 J	266 J	261 J	N/A
Beryllium	mg/kg	2,300	N/A	0.62 J	2.9	N/A	3.1	6.5	1.3	0.22 J	N/A
Cadmium	mg/kg	100	N/A	0.2 B	0.36 B	N/A	0.51 B	0.24 B	0.97 B	0.89 B	N/A
Chromium	mg/kg	1,800,000	N/A	36.1 J	27.1	N/A	237 J	10.4 J	1,160	1,390	N/A
Chromium VI	mg/kg	6.3	N/A	0.28 B	0.3 B	N/A	0.4 B	0.31 B	0.26 B	0.31 B	N/A
Cobalt	mg/kg	350	N/A	18.1	1.4 J	N/A	12.7 J	0.8 J	3.7 J	1.3 J	N/A
Copper	mg/kg	47,000	N/A	28.3	2.6 J	N/A	44.1 J	1.8 J	35.6	23.6	N/A
Iron	mg/kg	820,000	N/A	170,000	11,500	N/A	111,000	9,090	164,000 J	269,000 J	N/A
Lead	mg/kg	800	N/A	23.5 J	2.4	N/A	39.9 J	4 J	89.7	17.2	N/A
Manganese	mg/kg	26,000	N/A	5,900	8,880	N/A	6,940	2,510	24,100	26,000	9,320
Mercury	mg/kg	350	N/A	0.021 J	0.11 U	N/A	0.0036 J-	0.11 UJ	0.018 J	0.012 J	N/A
Nickel	mg/kg	22,000	N/A	39.5 J	1.7 J	N/A	25.1 J	1.1 J	36.7 J	22.1 J	N/A
Selenium	mg/kg	5,800	N/A	3.2 U	3.5 U	N/A	4.8	3.4 B	3.5 U	3.5 U	N/A
Silver	mg/kg	5,800	N/A	2.4 U	2.6 U	N/A	2.7 U	2.7 U	2.6 UJ	2.6 UJ	N/A
Thallium	mg/kg	12	N/A	8 U	8.7 U	N/A	8.8 UJ	8.9 UJ	8.8 UJ	8.8 UJ	N/A
Vanadium	mg/kg	5,800	N/A	48.9 J	317	N/A	517	48	745	759	N/A
Zinc	mg/kg	350,000	N/A	76.1 J	4.3 UJ	N/A	29.2 J	6 J	141 J	96.2 J	N/A
Other											
Cyanide, Total	mg/kg	150	N/A	1.3 J-	0.046 J	N/A	0.5 J	0.24 J	2.3	0.61 J	N/A

Bold indicates detection
Values in red indicate a detection exceedance of the Project Action Limit (PAL)
N/A: This parameter was not analyzed for this sample.
* ndicates non-validated data

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 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 analyte.

Table 2 - Sub-Parcel B13-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B13-068-SB-1	B13-068-SB-4	B13-068-SB-10*	B13-069-SB-1	B13-069-SB-9	B13-070-SB-1	B13-070-SB-5	B13-071-SB-1*	B13-071-SB-6*
			9/1/2016	9/1/2016	9/1/2016	8/23/2016	8/23/2016	8/23/2016	8/23/2016	8/23/2016	8/24/2016
Metals											
Aluminum	mg/kg	1,100,000	21,300	16,100	N/A	30,700	8,720	2,810	35,000	34,100	34,700
Antimony	mg/kg	470	2.7 UJ	2.7 UJ	N/A	2.7 UJ	2.8 UJ	3.4 UJ	2.7 UJ	2.6 U	2.6 U
Arsenic	mg/kg	3	4.8	6.5	2.9	2.3 UJ	2.1 J	2.8 U	2.3 U	2.2 U	2.1 U
Barium	mg/kg	220,000	256 J	187 J	N/A	447 J	227 J	30.6 J	318 J	234	397
Beryllium	mg/kg	2,300	2.5	2.1	N/A	3.9	0.29 J	1.1 U	3.8	4.9	6.1
Cadmium	mg/kg	100	1.2 B	1.1 B	N/A	0.47 B	0.68 B	0.42 B	0.5 B	0.4 B	0.37 B
Chromium	mg/kg	1,800,000	373	336	N/A	266	1,460	246 J	226 J	9	18.4
Chromium VI	mg/kg	6.3	0.47 J-	0.51 J-	N/A	0.3 B	0.31 B	0.37 B	0.33 B	0.3 B	0.31 B
Cobalt	mg/kg	350	5.3	6	N/A	20.6	2.4 J	33.9 J	7.4 J	0.64 J	1.2 J
Copper	mg/kg	47,000	67.6 J	80.5 J	N/A	21.7	42.5	9.8 J	19.3 J	1.9 J	3.9 J
Iron	mg/kg	820,000	165,000 J	135,000 J	N/A	73,100 J	212,000 J	35,900	69,900	16,300	11,000
Lead	mg/kg	800	104 J	156 J	N/A	15.5	28.1	5 J	18.5 J	11.6	4.6
Manganese	mg/kg	26,000	9,680	8,430	N/A	8,220	25,800	718	13,200	2,870	3,540
Mercury	mg/kg	350	0.43 J-	0.46 J-	N/A	0.1 U	0.0085 J	0.0043 J-	0.0031 J-	0.1 U	0.0022 J
Nickel	mg/kg	22,000	58.7	62.3	N/A	166 J	26.6 J	748 J	72.7 J	1.6 J	3.3 J
Selenium	mg/kg	5,800	3.6 U	3.6 U	N/A	3.2 J	3.7 U	4.5 U	4	2.5 J	2 B
Silver	mg/kg	5,800	0.92 J	0.95 J	N/A	2.7 UJ	2.8 UJ	3.4 U	2.7 U	2.6 U	2.6 U
Thallium	mg/kg	12	9.1 U	9.1 U	N/A	9.1 UJ	9.3 UJ	11.3 UJ	9 UJ	8.8 U	8.5 U
Vanadium	mg/kg	5,800	239	219	N/A	457	642	17.5	843	40.7	73.2
Zinc	mg/kg	350,000	638 J	424 J	N/A	38.2 J	106 J	19.7 J	44 J	2.6 B	6.7 B
Other											
Cyanide, Total	mg/kg	150	2.9 J-	2.6 J-	N/A	1.1 J-	0.61 J-	0.75 U	0.35 J	0.048 J	0.17 J

Bold indicates detection
Values in red indicate a detection exceedance of the Project Action Limit (PAL)
N/A: This parameter was not analyzed for this sample.
* ndicates non-validated data

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 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 analyte.

Table 2 - Sub-Parcel B13-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B13-076-SB-1*	B13-076-SB-7*	B13-076-SB-10*	B13-079-SB-1	B13-079-SB-5	B13-081-SB-1*	B13-081-SB-9*	B13-082-SB-1	B13-082-SB-5
			8/26/2016	8/26/2016	8/26/2016	8/24/2016	8/24/2016	8/26/2016	8/26/2016	8/23/2016	8/23/2016
Metals											
Aluminum	mg/kg	1,100,000	8,890	23,700	N/A	27,900	33,800	31,500	28,200	6,310	32,000
Antimony	mg/kg	470	2.9 U	3.2 U	N/A	2.8 UJ	2.8 UJ	2.3 U	2.7 U	2.5 UJ	2.5 UJ
Arsenic	mg/kg	3	10	4.4	2.6	2.3 U	7	1.9 U	8.7	2.1 UJ	2.1 UJ
Barium	mg/kg	220,000	99.8	447	N/A	331	555	827	661	99 J	224 J
Beryllium	mg/kg	2,300	1.2	2.5	N/A	4.4	3.7	4.6	2.3	0.36 J	5.8
Cadmium	mg/kg	100	0.64 B	0.35 B	N/A	0.88 B	0.45 B	0.34 B	0.48 B	0.99 B	0.37 B
Chromium	mg/kg	1,800,000	270	131	N/A	381	102	17	118	2,040	673
Chromium VI	mg/kg	6.3	0.33 B	0.62 B	N/A	0.41 B	0.43 B	0.3 B	0.52 B	1.5 J-	0.25 B
Cobalt	mg/kg	350	10.7	15.7	N/A	1.1 J	38.4	0.59 J	7.7	6	4.2 U
Copper	mg/kg	47,000	55.1	37.5	N/A	12.5	58.5	6	24.2	48.2	3.6 J
Iron	mg/kg	820,000	121,000	37,500	N/A	75,000	98,700	18,900	78,400	246,000 J	74,900 J
Lead	mg/kg	800	52.6	25.1	N/A	65.8	30	2.5	2.6	6.8	3.4
Manganese	mg/kg	26,000	5,080	4,130	N/A	15,000	8,560	8,400	10,300	37,300	14,200
Mercury	mg/kg	350	0.51	0.13 U	N/A	0.017 J	0.0099 J	0.1 U	0.11 U	0.0021 J	0.1 U
Nickel	mg/kg	22,000	51.4	125	N/A	7.5 J	36.4	3.8 B	16.9	72.7 J	3.4 J
Selenium	mg/kg	5,800	3.9 U	4.2 U	N/A	3.7 U	3.1 B	3.1 U	2.7 J	3.3 U	2.3 J
Silver	mg/kg	5,800	2.9 U	3.2 U	N/A	2.8 U	2.8 U	2.3 U	2.7 U	2.5 UJ	2.5 UJ
Thallium	mg/kg	12	9.7 U	10.5 U	N/A	9.4 U	9.4 U	7.8 U	9.9	8.3 UJ	8.4 UJ
Vanadium	mg/kg	5,800	233	117	N/A	174	276	132	754	815	320
Zinc	mg/kg	350,000	240	54.9	N/A	211 J	54.5 J	7.1	8.2	28.4 J	2 B
Other											
Cyanide, Total	mg/kg	150	2.8	1.8	N/A	4.8 J-	0.86 J-	0.1 J	0.23 J	0.15 J	0.39 J

Bold indicates detection

Values in red indicate a detection exceedance of the Project Action Limit (PAL)

N/A: This parameter was not analyzed for this sample.

* ndicates non-validated data

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 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 analyte.

Table 2 - Sub-Parcel B13-2
Summary of Inorganics Detected in Soil

Parameter	Units	PAL	B5-122-SB-1*	B5-122-SB-9*	B5-122-SB-10*	B5-167-SB-1*	B5-167-SB-7*	B5-167-SB-10*
			12/23/2015	12/23/2015	12/23/2015	12/23/2015	12/23/2015	12/23/2015
Metals								
Aluminum	mg/kg	1,100,000	9,800	26,200	N/A	9,410	30,300	N/A
Antimony	mg/kg	470	2.3 U	2.6 U	N/A	13.5	2.6 U	N/A
Arsenic	mg/kg	3	7	17.8	2.1 U	5.2	8.9	3.1 U
Barium	mg/kg	220,000	269	352	N/A	112	394	N/A
Beryllium	mg/kg	2,300	0.67 J	1.5	N/A	0.74 J	5.4	N/A
Cadmium	mg/kg	100	0.9 J	1.1 J	N/A	2	1.9	N/A
Chromium	mg/kg	1,800,000	563	1,950	N/A	117	119	N/A
Chromium VI	mg/kg	6.3	0.81 J	1.2 U	N/A	1.1 U	1.2 U	N/A
Cobalt	mg/kg	350	5.1	66.6	N/A	5.2	13.5	N/A
Copper	mg/kg	47,000	38.2	188	N/A	59.8	45.8	N/A
Iron	mg/kg	820,000	198,000	107,000	N/A	78,000	68,600	N/A
Lead	mg/kg	800	526	75.4	N/A	493	99.5	N/A
Manganese	mg/kg	26,000	15,000	13,500	N/A	1,940	4,700	N/A
Mercury	mg/kg	350	0.038 J	0.0061 J	N/A	0.42	0.025 J	N/A
Nickel	mg/kg	22,000	41.3	398	N/A	35.8	22.9	N/A
Selenium	mg/kg	5,800	3 U	3.5 U	N/A	9	3.4 U	N/A
Silver	mg/kg	5,800	2.9	1.6 J	N/A	12.9	2.6 U	N/A
Thallium	mg/kg	12	7.6 U	8.7 U	N/A	7.4 U	8.6 U	N/A
Vanadium	mg/kg	5,800	327	99.2	N/A	58.9	270	N/A
Zinc	mg/kg	350,000	429	271	N/A	504	380	N/A
Other								
Cyanide, Total	mg/kg	150	1.3	2.1	N/A	1.2	1.1	N/A

Bold indicates detection
Values in red indicate a detection exceedance of the Project Action Limit (PAL)
N/A: This parameter was not analyzed for this sample.
* ndicates non-validated data

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 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 analyte.

Table 3 - Sub-Parcel B13-2
Summary of Organics Detected in Groundwater

Parameter	Units	PAL	B13-001-PZ*	B13-006-PZ	B13-021-PZ	B13-042-PZ*	B13-049-PZ	B13-069-PZ*	B13-076-PZ
Volatile Organic Compounds									
2-Butanone (MEK)	µg/L	5,600	10 U	10 U	10 U	10 U	10 U	4.2 J	10 U
Acetone	µg/L	14,000	10 U	10 U	10 U	10 U	10 U	48.6	10 U
Benzene	µg/L	5	0.82 J	1 U	0.57 J	0.9 J	1 U	0.81 J	1 U
Carbon disulfide	µg/L	810	1.4	1.8	1 U	1.8	1.6	1.7	1.3
Toluene	µg/L	1,000	1 U	0.38 B	1.4	0.34 J	0.6 J	0.48 J	0.95 J
Semi-Volatile Organic Compounds^									
1,4-Dioxane	µg/L	0.46	0.09 J	0.15	0.12	0.11	0.1	0.086 J	0.11
2,4-Dimethylphenol	µg/L	360	0.51 J	1 U	1 U	1 U	1 U	1 U	1 U
2-Methylnaphthalene	µg/L	36	0.37	0.22	0.093 B	0.059 J	0.048 B	1.4	0.1
2-Methylphenol	µg/L	930	0.36 J	1 U	1 U	1 U	1 U	0.31 J	1 U
3&4-Methylphenol(m&p Cresol)	µg/L	930	1 J	2.1 U	2 U	2.1 U	2.1 U	1.3 J	2.1 U
Acenaphthene	µg/L	530	0.69	0.085 J	0.15	0.055 J	0.043 J	2.8	0.079 J
Acenaphthylene	µg/L	530	0.081 J	0.028 J	0.015 J	0.019 J	0.029 J	0.29	0.1 U
Acetophenone	µg/L	1,900	1 U	1 U	1 U	1 U	1 U	0.71 J	1 U
Anthracene	µg/L	1,800	0.095 J	0.039 J	0.022 J	0.02 J	0.1 U	0.36	0.018 J
Benz[a]anthracene	µg/L	0.0298	0.052 J	0.1 U	0.1 U	0.1 U	0.1 U	0.029 J	0.1 U
Benzo[a]pyrene	µg/L	0.2	0.059 J	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo[b]fluoranthene	µg/L	0.25	0.067 J	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo[g,h,i]perylene	µg/L		0.045 J	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Benzo[k]fluoranthene	µg/L	2.5	0.028 J	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
bis(2-Ethylhexyl)phthalate	µg/L	6	0.21 J	1 U	1 U	0.94 J	1 U	0.27 J	1 U
Carbazole	µg/L		0.44 J	0.27 J	1 U	0.14 J	1 U	1.5	1 U
Chrysene	µg/L	25	0.038 J	0.1 U	0.1 U	0.1 U	0.0097 J	0.014 J	0.0079 J
Fluoranthene	µg/L	800	0.2	0.084 J	0.032 J	0.077 J	0.084 J	0.35	0.092 J
Fluorene	µg/L	290	0.33	0.079 J	0.061 J	0.063 J	0.041 J	0.88	0.061 J
Indeno[1,2,3-c,d]pyrene	µg/L	0.25	0.04 J	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
Naphthalene	µg/L	0.12	2.9	4.9	1.4	0.64	0.8	11.4	0.74
Pentachlorophenol	µg/L	1	2.1 J	1.1 J	1 J	0.89 J	1 J	0.91 J	1.1 J
Phenanthrene	µg/L		0.61	0.12	0.091 J	0.19	0.093 J	2.5	0.18
Phenol	µg/L	5,800	1 U	0.27 J	1 U	1 U	1 U	19.5	1 U
Pyrene	µg/L	120	0.16	0.068 J	0.021 J	0.052 J	0.055 J	0.21	0.062 J
TPH/Oil & Grease									
Diesel Range Organics	µg/L	47	327	172 J	116 J	210	50.1 J	960	59.4 J
Gasoline Range Organics	µg/L	47	200 U	200 U	200 U	200 U	76.4 J	200 U	200 U
Oil & Grease	µg/L	47	4,770 U	1,300 J	1,200 J	4,800 U	4,820 U	4,770 U	4,820 U

Detections in bold

* indicates non-validated data results

^ PAH compounds were analyzed via SIM

Values in red indicate an exceedance of the Project Action Limit (PAL)

U: The 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.

Table 4 - Sub-Parcel B13-2
Summary of Inorganics Detected in Groundwater

Parameter	Units	PAL	B13-001-PZ*	B13-006-PZ	B13-021-PZ	B13-042-PZ*	B13-049-PZ	B13-069-PZ*	B13-076-PZ
Metals, Dissolved									
Aluminum, Dissolved	µg/L	20,000	158	90.4	150	159	107	96	343
Barium, Dissolved	µg/L	2,000	48.6	71.3	33.6	46.2	38.1	458	44.5
Chromium VI, Dissolved	µg/L	0.035	9 J	8 B	8 B	9 J	8 B	9 J	8 B
Chromium, Dissolved	µg/L	100	5 U	5 U	1.6 J	1.1 J	1.7 J	1.6 J	1.4 J
Lead, Dissolved	µg/L	15	5 U	5 U	5 U	5 U	5 U	3.3 J	5 U
Manganese, Dissolved	µg/L	430	5 U	6.6	0.94 J	5 U	1 J	1.1 J	1 J
Nickel, Dissolved	µg/L	390	1.7 J	10 U	1.2 B	10 U	1.1 B	16.8	0.87 B
Selenium, Dissolved	µg/L	50	7.9 J	5.2 J	4.1 J	8 U	8 U	5 J	8 U
Vanadium, Dissolved	µg/L	86	117	29.6	34.9	18.5	40.4	1.4 J	4.1 J
Other									
Cyanide	µg/L	200	6.1 J	6.3 J	3.2 J	6.3 J	4.1 J	5.1 J	10 U

Detections in bold

* indicates non-validated data results

Values in red indicate an exceedance of the Project Action Limit (PAL)

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.

B: This analyte was not detected substantially above the level of the associated method blank/preparation or field blank.

Table 5 - Sub-Parcel B13-2
Cumulative Vapor Intrusion Criteria Comparison

				B13-001-PZ		B13-006-PZ		B13-021-PZ		B13-042-PZ		B13-049-PZ		B13-069-PZ		B13-076-PZ	
Parameter	Type	Organ Systems	VI Screening Criteria (ug/L)	Conc. (ug/L)	Cancer Risk	Conc. (ug/L)	Cancer Risk	Conc. (ug/L)	Cancer Risk	Conc. (ug/L)	Cancer Risk	Conc. (ug/L)	Cancer Risk	Conc. (ug/L)	Cancer Risk	Conc. (ug/L)	Cancer Risk
Cancer Risk																	
1,4-Dioxane	SVOC		130,000	0.09 J	6.9E-12	0.15	1.2E-11	0.12	9.2E-12	0.11	8.5E-12	0.1	7.7E-12	0.086 J	6.6E-12	0.11	8.5E-12
Naphthalene	SVOC		200	2.9	1.5E-07	4.9	2.5E-07	1.4	7.0E-08	0.64	3.2E-08	0.8	4.0E-08	11.4	5.7E-07	0.74	3.7E-08
Benzene	VOC		69	0.82 J	1.2E-07	1 U	0	0.57 J	8.3E-08	0.9 J	1.3E-07	1 U	0	0.81 J	1.2E-07	1 U	0
Cumulative Vapor Intrusion Cancer Risk				3E-07		2E-07		2E-07		2E-07		4E-08		7E-07		4E-08	
Non-Cancer Hazard																	
				Conc. (ug/L)	Non-Cancer HQ	Conc. (ug/L)	Non-Cancer HQ	Conc. (ug/L)	Non-Cancer HQ	Conc. (ug/L)	Non-Cancer HQ	Conc. (ug/L)	Non-Cancer HQ	Conc. (ug/L)	Non-Cancer HQ	Conc. (ug/L)	Non-Cancer HQ
Cyanide	Other	None Specified	3.5	6.1 J	1.7	6.3 J	1.8	3.2 J	0.9	6.3 J	1.8	4.1 J	1.2	5.1 J	1.5	10 U	0
Cumulative Vapor Intrusion Non-Cancer Hazard				2		2		1		2		1		1		0	

Highlighted values indicate exceedances of the cumulative vapor intrusion criteria
TCR > 1E-05
THI > 1

Conc. = Concentration
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

**Table 6 - Sub-Parcel B13-2
COPC Screening Analysis**

Parameter	CAS#	Location of Max Result	Max Detection (mg/kg)	Final Flag	Min Detection (mg/kg)	Average Detection (mg/kg)	Total Samples	Frequency of Detection (%)	Cancer TR=1E-06 (mg/kg)	Non-Cancer HQ=0.1 (mg/kg)	COPC?
1,1-Biphenyl	92-52-4	B13-068-SB-4	0.34	J	0.014	0.06	71	36.62	410	20	no
2,4-Dimethylphenol	105-67-9	B13-076-SB-7	0.053	J	0.034	0.04	56	3.57		1,600	no
2-Butanone (MEK)	78-93-3	B13-076-SB-1	0.012		0.0045	0.007	36	11.11		19,000	no
2-Chloronaphthalene	91-58-7	B13-016-SB-1	0.043	J	0.043	0.04	71	1.41		6,000	no
2-Hexanone	591-78-6	B13-043-SB-4	0.0023	J	0.0023	0.002	36	2.78		130	no
2-Methylnaphthalene	91-57-6	B13-068-SB-1	0.88		0.0020	0.06	72	84.72		300	no
Acenaphthene	83-32-9	B13-068-SB-4	13.8		0.00052	0.3	72	80.56		4,500	no
Acenaphthylene	208-96-8	B13-068-SB-4	0.75		0.00067	0.04	72	83.33			no
Acetone	67-64-1	B13-065-SB-8	0.28		0.0045	0.03	36	72.22		67,000	no
Acetophenone	98-86-2	B13-043-SB-4	0.05	J	0.02	0.04	71	2.82		12,000	no
Aluminum	7429-90-5	B13-023-SB-4	50,300		2,810	23,301	71	100.00		110,000	no
Anthracene	120-12-7	B13-068-SB-4	14.9		0.0010	0.43	72	87.50		23,000	no
Antimony	7440-36-0	B5-167-SB-1	13.5		1.7	5.03	71	5.63		47	no
Aroclor 1242	53469-21-9	B13-007-SB-1	3.29		0.0466	0.82	36	13.89	0.95		YES (C)
Aroclor 1248	12672-29-6	B13-049-SB-1	0.128		0.128	0.13	36	2.78	0.95		no
Aroclor 1254	11097-69-1	B13-068-SB-1	0.236		0.0849	0.16	36	5.56	0.97	1.5	no
Arsenic	7440-38-2	B5-122-SB-9	17.8		1.9	6.98	85	62.35	3	48	YES (C)
Barium	7440-39-3	B13-049-SB-5	897		30.600	319	71	100.00		22,000	no
Benz[a]anthracene	56-55-3	B13-068-SB-4	22.5		0.0012	0.75	73	94.52	21		YES (C)
Benzaldehyde	100-52-7	B13-076-SB-7	0.15		0.016	0.04	35	31.43	820	12,000	no
Benzene	71-43-2	B5-122-SB-9	0.041		0.0013	0.01	36	19.44	5.1	42	no
Benzo[a]pyrene	50-32-8	B13-068-SB-4	20.3		0.0011	0.71	77	90.91	2.1	22	YES (C)
Benzo[b]fluoranthene	205-99-2	B13-068-SB-4	27.6		0.00054	1.00	73	95.89	21		YES (C)
Benzo[g,h,i]perylene	191-24-2	B13-068-SB-4	10.1		0.0013	0.40	72	87.50			no
Benzo[k]fluoranthene	207-08-9	B13-068-SB-4	9.7		0.0015	0.5	73	91.78	210		no
Beryllium	7440-41-7	B13-064-SB-5	6.50		0.22	2.73	71	98.59	6,900	230	no
bis(2-Ethylhexyl)phthalate	117-81-7	B13-007-SB-1	0.58		0.024	0.26	71	11.27	160	1,600	no
Cadmium	7440-43-9	B13-007-SB-1	5.8		0.39	1.8	71	15.49	9,300	10	no
Carbazole	86-74-8	B13-043-SB-4	2.2		0.019	0.24	71	29.58			no
Chromium†	7440-47-3	B13-082-SB-1	2,040		9	359	71	100.00		180,000	no
Chromium VI	18540-29-9	B13-049-SB-1	2.5	J-	0.47	1.28	71	8.45	20	100	no

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 low.

COPC = Constituent of Potential Concern

TR = Target Risk

HQ = Hazard Quotient

C = Compound was identified as a cancer COPC

NC = Compound was identified as a non-cancer COPC

*PCBs (total) include the sum of all detected aroclor mixtures, including those without RSLs (e.g. Aroclor 1262, Aroclor 1268) which are not displayed.

^Lead is assessed separately through the ALM and IEUBK models.

†Chromium was evaluated against the RSL for chromium (III) insoluble salts

**Table 6 - Sub-Parcel B13-2
COPC Screening Analysis**

Parameter	CAS#	Location of Max Result	Max Detection (mg/kg)	Final Flag	Min Detection (mg/kg)	Average Detection (mg/kg)	Total Samples	Frequency of Detection (%)	Cancer TR=1E-06 (mg/kg)	Non-Cancer HQ=0.1 (mg/kg)	COPC?
Chrysene	218-01-9	B13-068-SB-4	23.4		0.00083	0.8	72	94.44	2100		no
Cobalt	7440-48-4	B5-122-SB-9	66.6		0.3	10.3	71	98.59	1,900	35	YES (NC)
Copper	7440-50-8	B5-122-SB-9	188		1.8	35.617	71	100.00		4,700	no
Cyanide, Total	57-12-5	B13-043-SB-4	5.3		0.046	1.13	71	97.18		120	no
Dibenz[a,h]anthracene	53-70-3	B13-068-SB-4	3.5		0.0013	0.14	73	80.82	2.1		YES (C)
Diethylphthalate	84-66-2	B13-064-SB-1	0.086		0.024	0.06	71	2.82		66,000	no
Di-n-butylphthalate	84-74-2	B13-022-SB-4	0.37	J	0.37	0.37	71	1.41		8,200	no
Ethylbenzene	100-41-4	B5-122-SB-9	0.025		0.0024	0.01	36	13.89	25	2,000	no
Fluoranthene	206-44-0	B13-068-SB-4	62		0.00065	1.80	72	95.83		3,000	no
Fluorene	86-73-7	B13-068-SB-4	11.1		0.00064	0.25	72	77.78		3,000	no
Indeno[1,2,3-c,d]pyrene	193-39-5	B13-068-SB-4	9.1		0.0011	0.36	73	86.30	21		no
Iron	7439-89-6	B13-065-SB-8	269,000	J	9,090	102,280	71	100.00		82,000	YES (NC)
Isopropylbenzene	98-82-8	B5-122-SB-9	0.0053	J	0.0053	0.01	36	2.78		990	no
Lead^	7439-92-1	B13-043-SB-4	713		2.4	66.7	71	97.18		800	no
Manganese	7439-96-5	B13-020-SB-1	38,900		718	10,487	73	100.00		2,600	YES (NC)
Mercury	7439-97-6	B13-076-SB-1	0.51		0.0021	0.05	71	73.24		35	no
Methylene Chloride	75-09-2	B5-167-SB-7	0.011		0.011	0.01	36	2.78	1000	320	no
Naphthalene	91-20-3	B13-006-SB-1	0.98		0.0019	0.11	72	83.33	8.6	59	no
Nickel	7440-02-0	B13-070-SB-1	748	J	1.1	62.3	71	98.59	64,000	2,200	no
PCBs (total)*	1336-36-3	B13-007-SB-1	3.29		0.0466	0.66	36	22.22	0.94		YES (C)
Phenanthrene	85-01-8	B13-068-SB-4	54		0.00057	1.20	72	98.61			no
Phenol	108-95-2	B13-068-SB-4	0.1		0.023	0.05	56	5.36		25,000	no
Pyrene	129-00-0	B13-068-SB-4	49		0.00083	1.52	72	94.44		2,300	no
Selenium	7782-49-2	B5-167-SB-1	9		2.1	3.87	71	21.13		580	no
Silver	7440-22-4	B5-167-SB-1	12.9		0.92	3.01	71	16.90		580	no
Thallium	7440-28-0	B13-081-SB-9	9.9		4.7	7.73	71	4.23		1.2	YES (NC)
Toluene	108-88-3	B5-122-SB-9	0.039		0.0011	0.02	36	19.44		4,700	no
Vanadium	7440-62-2	B13-043-SB-4	3,240		17.5	417	71	100.00		580	YES (NC)
Xylenes	1330-20-7	B13-076-SB-7	0.076		0.0066	0.03	36	13.89		250	no
Zinc	7440-66-6	B13-043-SB-4	1,300		6	146	71	90.14		35,000	no

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 low.

COPC = Constituent of Potential Concern

C = Compound was identified as a cancer COPC

TR = Target Risk

NC = Compound was identified as a non-cancer COPC

HQ = Hazard Quotient

*PCBs (total) include the sum of all detected aroclor mixtures, including those without RSLs (e.g. Aroclor 1262, Aroclor 1268) which are not displayed.

^Lead is assessed separately through the ALM and IEUBK models.

†Chromium was evaluated against the RSL for chromium (III) insoluble salts

**Table 7 - Sub-Parcel B13-2
Assessment of Lead**

Exposure Unit	Surface/Sub-Surface	Maximum Concentration (mg/kg)	Arithmetic Mean (mg/kg)
EU1 (81.1 ac.)	Surface	445	44.9
	Sub-Surface	713	50.7
	Pooled	713	47.7
EU1 -EXP (82.9 ac.)	Surface	526	76.2
	Sub-Surface	713	53.3
	Pooled	713	64.9

**Table 8 - Sub-Parcel B13-2
Soil Exposure Point Concentrations**

Parameter	EU1 (81.1 ac.)					
	EPCs - Surface Soils		EPCs - Sub-Surface Soils		EPCs - Pooled Soils	
	EPC Type	EPC (mg/kg)	EPC Type	EPC (mg/kg)	EPC Type	EPC (mg/kg)
Arsenic	95% GROS Adjusted Gamma UCL	8.26	95% KM (t) UCL	5.23	95% GROS Approximate Gamma UCL	5.41
Cobalt	95% Adjusted Gamma UCL	12.9	Gamma Adjusted KM-UCL	15.3	95% KM Approximate Gamma UCL	12.1
Iron	95% Student's-t UCL	129,143	95% Student's-t UCL	104,045	95% Student's-t UCL	110,801
Manganese	95% Adjusted Gamma UCL	13,838	95% Student's-t UCL	13,320	95% Approximate Gamma UCL	12,667
Thallium	NA	NA	95% KM (t) UCL	8.65	95% KM (t) UCL	7.98
Vanadium	95% Adjusted Gamma UCL	423	95% Adjusted Gamma UCL	928	95% Approximate Gamma UCL	589
Benz[a]anthracene	95% Chebyshev (Mean, Sd) UCL	2.45	97.5% KM (Chebyshev) UCL	6.43	95% KM (Chebyshev) UCL	2.95
Benzo[a]pyrene	97.5% KM (Chebyshev) UCL	2.97	97.5% KM (Chebyshev) UCL	5.53	95% KM (Chebyshev) UCL	2.63
Benzo[b]fluoranthene	95% Chebyshev (Mean, Sd) UCL	2.85	99% KM (Chebyshev) UCL	11.9	95% KM (Chebyshev) UCL	3.66
Dibenz[a,h]anthracene	95% KM (Chebyshev) UCL	0.40	95% KM (Chebyshev) UCL	0.76	KM H-UCL	0.12
PCBs (total)	Gamma Adjusted KM-UCL	0.20	NA	NA	Gamma Adjusted KM-UCL	0.20

Bold indicates maximum value

NA: No Detections

EU = Exposure Unit

EPC = Exposure Point Concentration

UCL = Upper Confidence Limit

Sd = Standard Deviation

KM = Kaplan-Meier

Table 8 - Sub-Parcel B13-2
Soil Exposure Point Concentrations

Parameter	EU1-EXP (82.9 ac.)					
	EPCs - Surface Soils		EPCs - Sub-Surface Soils		EPCs - Pooled Soils	
	EPC Type	EPC (mg/kg)	EPC Type	EPC (mg/kg)	EPC Type	EPC (mg/kg)
Arsenic	95% GROS Adjusted Gamma UCL	7.60	95% GROS Approximate Gamma UCL	6.75	95% GROS Approximate Gamma UCL	6.00
Cobalt	95% Adjusted Gamma UCL	10.8	Gamma Adjusted KM-UCL	18.0	95% KM Approximate Gamma UCL	13.0
Iron	95% Student's-t UCL	132,361	95% Student's-t UCL	108,047	95% Student's-t UCL	115,088
Manganese	95% H-UCL	13,333	95% Adjusted Gamma UCL	13,923	95% Approximate Gamma UCL	12,195
Thallium	NA	NA	95% KM (t) UCL	6.29	95% KM (t) UCL	5.35
Vanadium	95% Adjusted Gamma UCL	359	95% Adjusted Gamma UCL	797	95% Approximate Gamma UCL	516
Benz[a]anthracene	95% Chebyshev (Mean, Sd) UCL	1.89	97.5% KM (Chebyshev) UCL	4.91	KM H-UCL	0.94
Benzo[a]pyrene	95% KM (Chebyshev) UCL	1.72	97.5% KM (Chebyshev) UCL	4.08	KM H-UCL	1.05
Benzo[b]fluoranthene	95% Chebyshev (Mean, Sd) UCL	2.25	97.5% KM (Chebyshev) UCL	6.17	KM H-UCL	2.91
Dibenz[a,h]anthracene	95% KM (Chebyshev) UCL	0.31	95% KM (Chebyshev) UCL	0.60	KM H-UCL	0.08
PCBs (total)	Gamma Adjusted KM-UCL	0.54	NA	NA	Gamma Adjusted KM-UCL	0.54

Bold indicates maximum value

NA: No Detections

EU = Exposure Unit

EPC = Exposure Point Concentration

UCL = Upper Confidence Limit

Sd = Standard Deviation

KM = Kaplan-Meier

Table 9 - Sub-Parcel B13-2
Surface Soils
Composite Worker Risk Ratios

Parameter	Target Organs	EU1 (81.1 ac.)				
		EPC (mg/kg)	Composite Worker			
			RSLs (mg/kg)		Risk Ratios	
			Cancer	Non-Cancer	Risk	HQ
Arsenic	Cardiovascular; Dermal	8.26	3.0	480	2.8E-06	0.02
Cobalt	Respiratory; Thyroid	12.9	1,900	350	6.8E-09	0.04
Iron	Gastrointestinal	129,143		820,000		0.2
Manganese	Nervous	13,838		26,000		0.5
Thallium	Dermal	NA		12		
Vanadium	Dermal; Respiratory	423		5,800		0.07
Benz[a]anthracene		2.45	21		1.2E-07	
Benzo[a]pyrene	Developmental	2.97	2.1	220	1.4E-06	0.01
Benzo[b]fluoranthene		2.85	21		1.4E-07	
Dibenz[a,h]anthracene		0.40	2.1		1.9E-07	
PCBs (total)		0.20	0.94		2.1E-07	
					5E-06	↓

RSLs were obtained from the EPA Regional Screening Levels for Composite Worker Soil with TR=1E-6 and THQ=1.0

EPC: Exposure Point Concentration
 HQ: Hazard Quotient
 HI: Hazard Index
 NA: No Detections

Total HI	Cardiovascular	0
	Dermal	0
	Developmental	0
	Gastrointestinal	0
	Nervous	1
	Respiratory	0
	Thyroid	0

Table 10 - Sub-Parcel B13-2
Subsurface Soils
Composite Worker Risk Ratios

Parameter	Target Organs	EU1 (81.1 ac.)				
		EPC (mg/kg)	Composite Worker			
			RSLs (mg/kg)		Risk Ratios	
			Cancer	Non-Cancer	Risk	HQ
Arsenic	Cardiovascular; Dermal	5.23	3.0	480	1.7E-06	0.01
Cobalt	Respiratory; Thyroid	15.3	1,900	350	8.1E-09	0.04
Iron	Gastrointestinal	104,045		820,000		0.1
Manganese	Nervous	13,320		26,000		0.5
Thallium	Dermal	8.65		12		0.7
Vanadium	Dermal; Respiratory	928		5,800		0.2
Benz[a]anthracene		6.43	21		3.1E-07	
Benzo[a]pyrene	Developmental	5.53	2.1	220	2.6E-06	0.03
Benzo[b]fluoranthene		11.9	21		5.7E-07	
Dibenz[a,h]anthracene		0.76	2.1		3.6E-07	
PCBs (total)		NA	0.94			
					6E-06	↓

RSLs were obtained from the EPA Regional Screening Levels for Composite Worker Soil with TR=1E-6 and THQ=1.0

EPC: Exposure Point Concentration
 HQ: Hazard Quotient
 HI: Hazard Index
 NA: No Detections

Total HI	Cardiovascular	0
	Dermal	1
	Developmental	0
	Gastrointestinal	0
	Nervous	1
	Respiratory	0
	Thyroid	0

**Table 11 - Sub-Parcel B13-2
Pooled Soils
Composite Worker Risk Ratios**

Parameter	Target Organs	EU1 (81.1 ac.)				
		EPC (mg/kg)	Composite Worker			
			RSLs (mg/kg)		Risk Ratios	
			Cancer	Non-Cancer	Risk	HQ
Arsenic	Cardiovascular; Dermal	5.41	3.0	480	1.8E-06	0.01
Cobalt	Respiratory; Thyroid	12.1	1,900	350	6.4E-09	0.03
Iron	Gastrointestinal	110,801		820,000		0.1
Manganese	Nervous	12,667		26,000		0.5
Thallium	Dermal	7.98		12		0.7
Vanadium	Dermal; Respiratory	589		5,800		0.1
Benz[a]anthracene		2.95	21		1.4E-07	
Benzo[a]pyrene	Developmental	2.63	2.1	220	1.3E-06	0.01
Benzo[b]fluoranthene		3.66	21		1.7E-07	
Dibenz[a,h]anthracene		0.12	2.1		5.7E-08	
PCBs (total)		0.20	0.94		2.1E-07	
					4E-06	↓

RSLs were obtained from the EPA Regional Screening Levels for Composite Worker Soil with TR=1E-6 and THQ=1.0

EPC: Exposure Point Concentration
 HQ: Hazard Quotient
 HI: Hazard Index

Total HI	Cardiovascular	0
	Dermal	1
	Developmental	0
	Gastrointestinal	0
	Nervous	0
	Respiratory	0
	Thyroid	0

Table 12 - Sub-Parcel B13-2
Surface Soils
Construction Worker Risk Ratios

95 Day		EU1-EXP (82.9 ac.)				
Parameter	Target Organs	EPC (mg/kg)	Construction Worker			
			SSLs (mg/kg)		Risk Ratios	
			Cancer	Non-Cancer	Risk	HQ
Arsenic	Cardiovascular; Dermal	7.60	39.8	254	1.9E-07	0.03
Cobalt	Respiratory; Thyroid	10.8	17,798	2,561	6.1E-10	0.004
Iron	Gastrointestinal	132,361		633,004		0.2
Manganese	Nervous	13,333		11,491		1
Thallium	Dermal	NA		36.2		
Vanadium	Dermal; Respiratory	359		4,244		0.08
Benz[a]anthracene		1.89	367		5.1E-09	
Benzo[a]pyrene	Developmental	1.72	44.6	14.2	3.9E-08	0.1
Benzo[b]fluoranthene		2.25	443		5.1E-09	
Dibenz[a,h]anthracene		0.31	46.9		6.6E-09	
PCBs (total)		0.54	11.0		4.9E-08	
					3E-07	↓

SSLs calculated using equations in 2002 EPA Supplemental Guidance

Guidance Equation Input Assumptions:

5 cars/day (2 tons/car)

5 trucks/day (20 tons/truck)

3 meter source depth thickness

EPC: Exposure Point Concentration

HQ: Hazard Quotient

HI: Hazard Index

NA: No Detections

Total HI	Cardiovascular	0
	Dermal	0
	Developmental	0
	Gastrointestinal	0
	Nervous	1
	Respiratory	0
	Thyroid	0

Table 13 - Sub-Parcel B13-2
Subsurface Soils
Construction Worker Risk Ratios

95 Day		EU1-EXP (82.9 ac.)				
Parameter	Target Organs	EPC (mg/kg)	Construction Worker			
			SSLs (mg/kg)		Risk Ratios	
			Cancer	Non-Cancer	Risk	HQ
Arsenic	Cardiovascular; Dermal	6.75	39.8	254	1.7E-07	0.03
Cobalt	Respiratory; Thyroid	18.0	17,798	2,561	1.0E-09	0.007
Iron	Gastrointestinal	108,047		633,004		0.2
Manganese	Nervous	13,923		11,491		1
Thallium	Dermal	6.29		36.2		0.2
Vanadium	Dermal; Respiratory	797		4,244		0.2
Benz[a]anthracene		4.91	367		1.3E-08	
Benzo[a]pyrene	Developmental	4.08	44.6	14.2	9.1E-08	0.3
Benzo[b]fluoranthene		6.17	443		1.4E-08	
Dibenz[a,h]anthracene		0.60	46.9		1.3E-08	
PCBs (total)		NA	11.0			
					3E-07	↓

SSLs calculated using equations in 2002 EPA Supplemental Guidance

Guidance Equation Input Assumptions:

5 cars/day (2 tons/car)

5 trucks/day (20 tons/truck)

3 meter source depth thickness

EPC: Exposure Point Concentration

HQ: Hazard Quotient

HI: Hazard Index

NA: No Detections

Total HI	Cardiovascular	0
	Dermal	0
	Developmental	0
	Gastrointestinal	0
	Nervous	1
	Respiratory	0
	Thyroid	0

Table 14 - Sub-Parcel B13-2
Pooled Soils
Construction Worker Risk Ratios

95 Day		EU1-EXP (82.9 ac.)				
Parameter	Target Organs	EPC (mg/kg)	Construction Worker			
			SSLs (mg/kg)		Risk Ratios	
			Cancer	Non-Cancer	Risk	HQ
Arsenic	Cardiovascular; Dermal	6.00	39.8	254	1.5E-07	0.02
Cobalt	Respiratory; Thyroid	13.0	17,798	2,561	7.3E-10	0.005
Iron	Gastrointestinal	115,088		633,004		0.2
Manganese	Nervous	12,195		11,491		1
Thallium	Dermal	5.35		36.2		0.1
Vanadium	Dermal; Respiratory	516		4,244		0.1
Benz[a]anthracene		0.94	367		2.6E-09	
Benzo[a]pyrene	Developmental	1.05	44.6	14.2	2.4E-08	0.07
Benzo[b]fluoranthene		2.91	443		6.6E-09	
Dibenz[a,h]anthracene		0.08	46.9		1.7E-09	
PCBs (total)		0.54	11.0		4.9E-08	
					2E-07	↓

SSLs calculated using equations in 2002 EPA Supplemental Guidance

Guidance Equation Input Assumptions:

5 cars/day (2 tons/car)

5 trucks/day (20 tons/truck)

3 meter source depth thickness

EPC: Exposure Point Concentration

HQ: Hazard Quotient

HI: Hazard Index

Total HI	Cardiovascular	0
	Dermal	0
	Developmental	0
	Gastrointestinal	0
	Nervous	1
	Respiratory	0
	Thyroid	0

APPENDIX A

**Construction Worker Soil Screening Levels
Maximum Allowable Work Day Exposure
Calculation Spreadsheet - Sub-Parcel B13-2**

Description	Variable	Value
Days worked per week	DW	5
Exposure duration (yr)	ED	1
Hours worked per day	ET	8
A/constant (unitless) - particulate emission factor	Aconst	12.9351
B/constant (unitless) - particulate emission factor	Bconst	5.7383
C/constant (unitless) - particulate emission factor	Cconst	71.7711
Dispersion correction factor (unitless)	FD	0.185
Days per year with at least .01" precipitation	P	130
Target hazard quotient (unitless)	THQ	1
Body weight (kg)	BW	80
Averaging time - noncancer (yr)	ATnc	1
Soil ingestion rate (mg/d)	IR	330
Skin-soil adherence factor (mg/cm2)	AF	0.3
Skin surface exposed (cm2)	SA	3300
Event frequency (ev/day)	EV	1
Target cancer risk (unitless)	TR	01E-06
Averaging time - cancer (yr)	ATc	70
A/constant (unitless) - volatilization	Aconstv	2.4538
B/constant (unitless) - volatilization	Bconstv	17.566
C/constant (unitless) - volatilization	Cconstv	189.0426
Dry soil bulk density (kg/L)	Pb	1.5
Average source depth (m)	ds	3
Soil particle density (g/cm3)	Ps	2.65
Total soil porosity	Lpore/Lsoil	0.43
Air-filled soil porosity	Lair/Lsoil	0.28

Construction Worker Soil Screening Levels
Maximum Allowable Work Day Exposure
Calculation Spreadsheet - Sub-Parcel B13-2

Area of site (ac)	Ac	82.9
Overall duration of construction (wk/yr)	EW	19
Exposure frequency (day/yr)	EF	95
Cars per day	Ca	5
Tons per car	CaT	2
Trucks per day	Tru	5
Tons per truck	TrT	20
Mean vehicle weight (tons)	w	11
Derivation of dispersion factor - particulate emission factor (g/m2-s per kg/m3)	Q/Csr	13.3
Overall duration of construction (hr)	tc	3,192
Overall duration of traffic (s)	Tt	2,736,000
Surface area (m2)	AR	335,485
Length (m)	LR	579
Distance traveled (km)	ΣVKT	550
Particulate emission factor (m3/kg)	PEFsc	198,528,387
Derivation of dispersion factor - volatilization (g/m2-s per kg/m3)	Q/Csa	6.12
Total time of construction (s)	Tcv	2,736,000

→ EU1-EXP

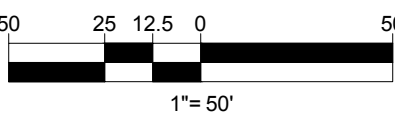
Input

Calculation

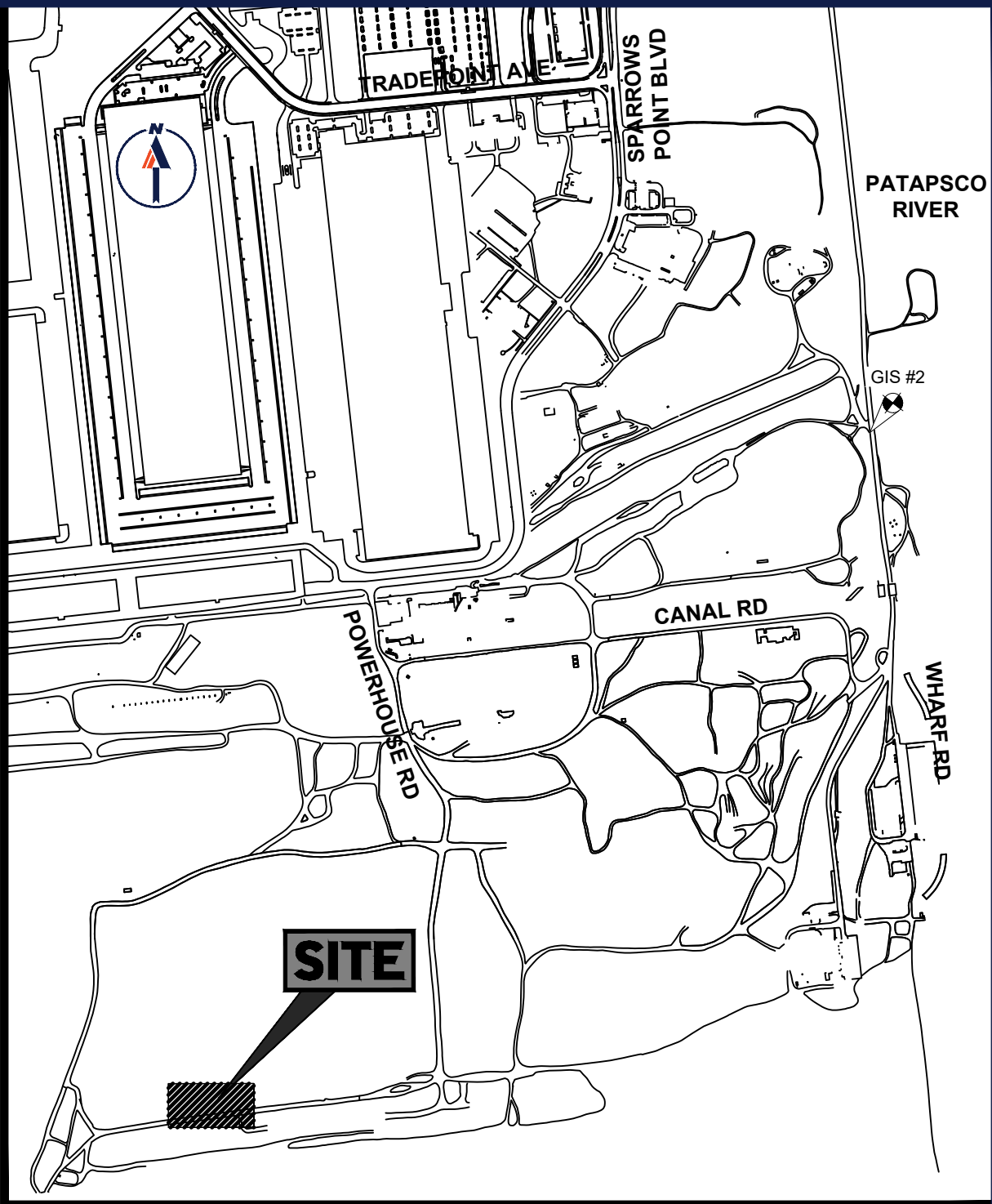
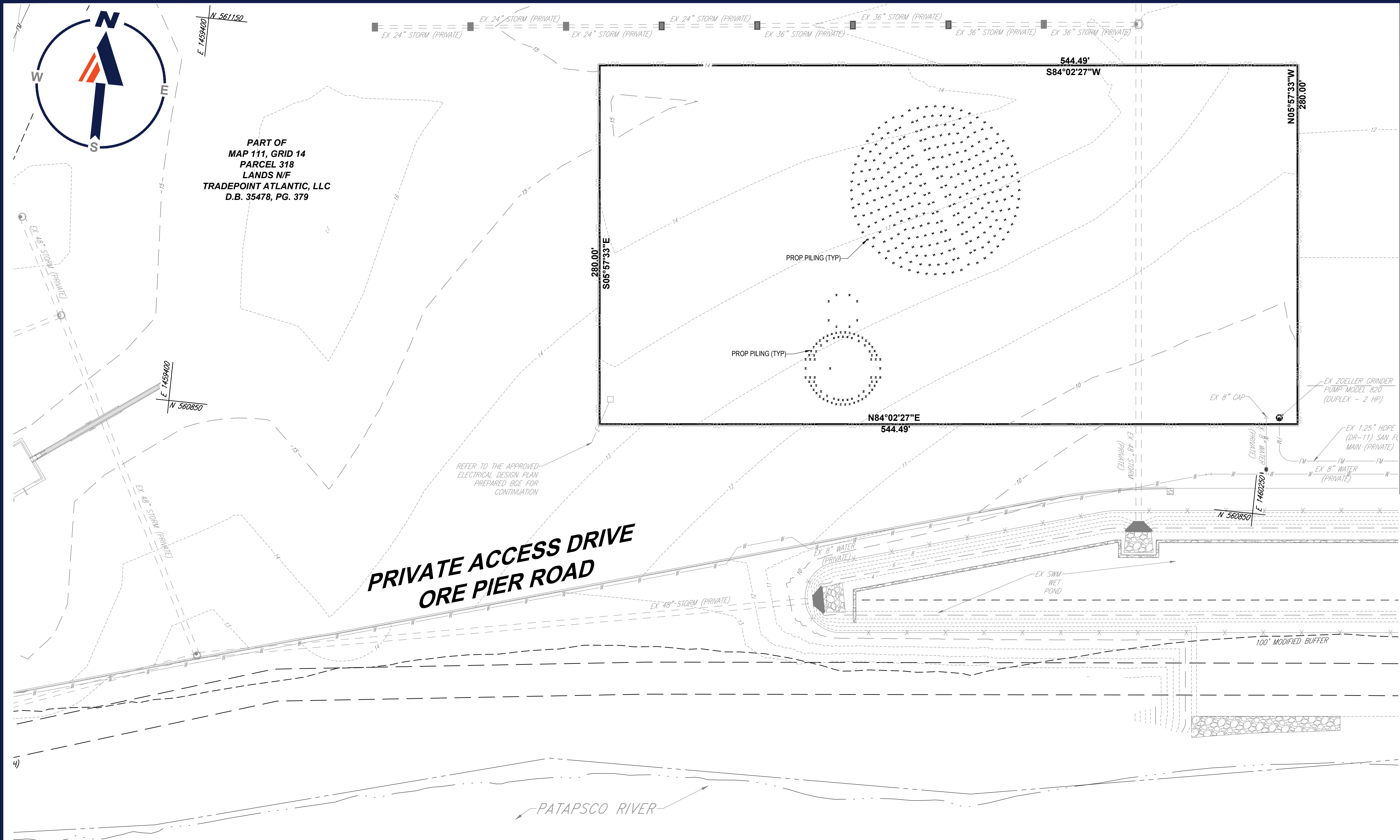
Chemical	RfD & RfC Sources	^a Ingestion SF (mg/kg-day) ⁻¹	^a Inhalation Unit Risk (ug/m ³) ⁻¹	^a Subchronic RfD (mg/kg-day)	^a Subchronic RfC (mg/m ³)	^a GIABS	Dermally Adjusted RfD (mg/kg-day)	^a ABS	^a RBA	^a Dia	^a Diw	^a Henry's Law Constant (unitless)	^a Kd	^a Koc	DA	Volatilization Factor - Unlimited Reservoir (m ³ /kg)	Carcinogenic Ingestion/ Dermal SL (SLing/der)	Carcinogenic Inhalation SL (SLinh)	Carcinogenic SL (mg/kg)	Non-Carcinogenic Ingestion/ Dermal SL (SLing/der)	Non-Carcinogenic Inhalation SL (SLinh)	Non-Carcinogenic SL (mg/kg)
Arsenic, Inorganic	I/C	1.50E+00	4.30E-03	3.00E-04	1.50E-05	1	3.00E-04	0.03	0.6			-	2.90E+01				39.9	37,251	39.8	256	34,325	254
Cobalt	P	-	9.00E-03	3.00E-03	2.00E-05	1	3.00E-03	0.01	1			-	4.50E+01					17,798	17,798	2,713	45,766	2,561
Iron	P	-	-	7.00E-01	-	1	7.00E-01	0.01	1			-	2.50E+01							633,004		633,004
Manganese (Non-diet)	I	-	-	2.40E-02	5.00E-05	0.04	9.60E-04	0.01	1			-	6.50E+01							12,774	114,415	11,491
Thallium (Soluble Salts)	P	-	-	4.00E-05	-	1	4.00E-05	0.01	1			-	7.10E+01							36.2		36.2
Vanadium and Compounds	A	-	-	1.00E-02	1.00E-04	0.026	2.60E-04	0.01	1			-	1.00E+03							4,324	228,830	4,244
Benz[a]anthracene	I	1.00E-01	6.00E-05	-	-	1		0.13	1	2.60E-02	6.70E-06	4.91E-04	1.08E+03	1.80E+05	6.71E-10	1.25E+5	469	1,677	367			
Benzo[a]pyrene	I	1.00E+00	6.00E-04	3.00E-04	2.00E-06	1	3.00E-04	0.13	1	4.80E-02	5.60E-06	1.87E-05	3.54E+03	5.90E+05	2.37E-11	6.65E+5	46.9	891	44.6	201	15.3	14.2
Benzo[b]fluoranthene	I	1.00E-01	6.00E-05	-	-	1		0.13	1	4.80E-02	5.60E-06	2.69E-05	3.60E+03	6.00E+05	2.91E-11	5.99E+5	469		8,034	443		
Dibenz[a,h]anthracene	I	1.00E+00	6.00E-04	-	-	1		0.13	1	4.50E-02	5.20E-06	5.76E-06	1.14E+04	1.90E+06	4.13E-12	1.59E+6	46.9	266,968	46.9			
PCB Total	I	2.00E+00	5.71E-04	-	-	1		0.14	1	2.40E-02	6.30E-06	1.70E-02	4.68E+02	7.80E+04	4.66E-08	1.50E+4	23.0	21.2	11.0			

*chemical specific parameters found in Chemical Specific Parameters Spreadsheet at <https://www.epa.gov/risk/regional-screening-levels-rsls>
^chemical specific parameters found in Unpaved Road Traffic calculator at https://epa-prgs.ornl.gov/cgi-bin/chemicals/csl_search
I: chemical specific parameters found in the IRIS at <https://www.epa.gov/iris>
C: chemical specific parameters found in Cal EPA at <https://www.dtsc.ca.gov/AssessingRisk>
A: chemical specific parameters found in Agency for Toxic Substances and Disease Registry Minimal Risk Levels (MRLs) at https://www.atsdr.cdc.gov/mrls/pdfs/atsdr_mrls.pdf
P: chemical specific parameters found in the Database of EPA PPRTVs at <https://hhpprtv.ornl.gov/quickview/pprtv.php>

APPENDIX B



1



LOCATION MAP

COPYRIGHT ADC THE MAP PEOPLE
PERMIT USE NO. 20602153-5
SCALE: 1"=1,000'

BENCHMARK INFORMATION

ELEVATIONS ARE BASED ON NAVD 88, COORDINATES AND MERIDIAN ARE BASED ON THE MARYLAND COORDINATE SYSTEM (MCS) PER THE FOLLOWING MONUMENTS:

GIS #2 (BRASS DISK)
N 565,182.39, E. 1,464,480.72, ELEV. 9.95
EAST SIDE OF WHARF ROAD 408± NORTH OF LIGHT TOWER

BALTIMORE COUNTY STANDARD GRADING PLAN NOTES

1. THE PROPOSED GRADING SHOWN ON THIS PLAN MEETS THE REQUIREMENTS SET FORTH BY BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY AND COMPLIES WITH ARTICLE 33, TITLE 5 OF THE BALTIMORE COUNTY CODE. HOWEVER, DUE TO BUILDING TYPES AND LAYOUT, SOME FIELD ADJUSTMENTS MAY BE REQUIRED. ALL CHANGES MUST COMPLY WITH THE ABOVE MENTIONED REQUIREMENTS.
2. ALL SWALES HAVE BEEN DESIGNED BY THE ENGINEER TO CONVEY RUNOFF ACCORDING TO BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS DESIGN STANDARDS.
3. THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN THE CRITICAL AREA BUFFER AND FOREST BUFFER, EXCEPT AS PERMITTED BY THE BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY.
4. STORMWATER MANAGEMENT HAS BEEN ADDRESSED VIA A WET POND #6350 PER APPROVED PLANS ENTITLED: "CONSTRUCTED DOCUMENTS FOR TRADEPOINT ATLANTIC, SOUTHEAST PENINSULA, SPARROWS POINT BOULEVARD", DATED 05/09/24 (LAST REVISED 7/22/24); APPROVED ON 05/28/25.

SITE SPECIFIC GRADING NOTES

1. ALL UTILITIES SHOWN ARE PRIVATE UNLESS OTHERWISE NOTED.
2. THE SUBJECT DEVELOPMENT AREA IS LOCATED IN FLOOD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) PER MAP ENTITLED "NATIONAL FLOOD INSURANCE PROGRAM, FIRM, FLOOD INSURANCE RATE MAP, BALTIMORE COUNTY, MARYLAND (UNINCORPORATED AREAS) PANEL 555 OF 580", MAP NUMBER 240010555G, MAP REVISED MAY 5, 2014.
3. ADDITIONAL EXISTING UTILITIES AND SITE FEATURES LOCATED WITHIN THE LIMIT OF DISTURBANCE NOT IDENTIFIED AS "TO BE REMOVED" OR "TO BE RELOCATED" MAY REQUIRE REMOVAL OR RELOCATION AS DIRECTED BY THE GEOTECHNICAL ENGINEER AND APPROVED BY TRADEPOINT DEVELOPMENT.
4. EXISTING UTILITIES NOTED AS "TO REMAIN" WITHIN THE LIMIT OF DISTURBANCE MUST BE MAINTAINED TO PROVIDE SERVICE FOR THE PROPOSED OR ADJACENT DEVELOPMENT.
5. EXISTING GRADES SHOWN ON THIS PLAN ARE FROM THE TPA TRIMBLE STRATUS AERIAL SURVEY ON 5/6/2024. IF ACTUAL EXISTING GRADES DIFFER FROM WHAT IS SHOWN ON THESE PLANS, CONTRACTOR IS TO NOTIFY BOHLER IN WRITING.
6. EXISTING MANHOLE, CLEANOUT, AND VALVE COVERS WITHIN THE LIMIT OF DISTURBANCE NOT IDENTIFIED AS "TO BE REMOVED" ARE TO BE ADJUSTED TO MEET FINAL GRADES.
7. LOCATION OF ALL UNDERGROUND UTILITIES ARE APPROXIMATE. SOURCE INFORMATION FROM PLANS AND MARKINGS HAVE BEEN COMBINED WITH OBSERVED EVIDENCE OF UTILITIES TO DEVELOP A VIEW OF THOSE UNDERGROUND UTILITIES. HOWEVER, LACKING EXCAVATION, THE EXACT LOCATION OF UNDERGROUND FEATURES CANNOT BE ACCURATELY, COMPLETELY, AND RELIABLY DEPICTED. WHERE ADDITIONAL OR MORE DETAILED INFORMATION IS REQUIRED, THE CLIENT IS ADVISED THAT EXCAVATION MAY BE REQUIRED.
8. SPOTS NOTED AS ± HAVE BEEN INTERPOLATED FROM EXISTING TOPOGRAPHY. CONTRACTOR IS TO VERIFY THESE SPOT ELEVATIONS PRIOR TO CONSTRUCTION AND NOTIFY BOHLER IN WRITING IF THE ACTUAL ELEVATIONS DIFFER.

CRITICAL AREA COVERAGES NOTE

(AREA TO BE TREATED BY EXISTING STORMWATER MANAGEMENT FACILITY APPROVED UNDER TRADEPOINT ATLANTIC PROJECT - SOUTHEAST PENINSULA)

PRE-DEVELOPMENT COVERAGES
IMPERVIOUS AREA = 0 SF OR 0.00 AC

PERVIOUS AREA = 152,460 SF OR 3.50 AC

TOTAL AREA = 152,460 SF OR 3.50 AC

POST-DEVELOPMENT COVERAGES
IMPERVIOUS AREA = 0 SF OR 0.00 AC

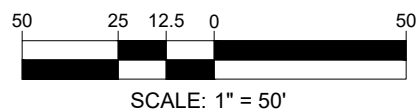
PERVIOUS AREA = 152,460 SF OR 3.50 AC

TOTAL AREA = 152,460 SF OR 3.50 AC

LEGEND

EXISTING NOTE	TYPICAL NOTE TEXT	PROPOSED NOTE
---	ONSITE PROPERTY LINE / R.O.W. LINE	---
---120---	CONTOUR LINE	120 121
TC 516.4 OR 516.4	SPOT ELEVATIONS	TC 516.00 BC 515.50
SL	SANITARY SEWER LINE	SL
W	UNDERGROUND WATER LINE	W
I	INDUSTRIAL WATER LINE	I
E	UNDERGROUND ELECTRIC LINE	E
G	UNDERGROUND GAS LINE	G
OH	OVERHEAD WIRE	OH
T	UNDERGROUND TELEPHONE LINE	T
FM	STORM SEWER	FM
FM	SANITARY SEWER FORCE MAIN	FM
	LIMIT OF DISTURBANCE	100' 100'
NB	IDA CRITICAL AREA BOUNDARY	
	CONCRETE CURB & GUTTER	CURB AND GUTTER
	HEAVY DUTY ASPHALT PAVEMENT (REFER TO GEOTECHNICAL RECOMMENDATION)	SPILL CURB
FP	100-YEAR FEMA FLOODPLAIN	

MARYLAND COORDINATE SYSTEM (MCS)



OWNER'S/DEVELOPER'S CERTIFICATION - GRADING

I/WE CERTIFY THAT ALL GRADING ON THIS SITE WILL BE DONE IN ACCORDANCE WITH THE CURRENT GRADING REQUIREMENTS AS SET FORTH BY THE BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY AND WITH THE REQUIREMENTS SPECIFIED IN ARTICLE 33, TITLE 5 OF THE BALTIMORE COUNTY CODE.

SIGNATURE OF OWNER/DEVELOPER	TITLE	DATE
PRINT NAME		

STORMWATER MANAGEMENT NOT REQUIRED

BALTIMORE COUNTY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
AND SUSTAINABILITY

APPROVED FOR GRADING

DATE

DEVELOPER

ST-MARYS CEMENT U.S. LLC.
9333 DEARBORN STREET
DETROIT, MI 48209
CONTACT: DOMINIC DEMERS
PHONE: 450-524-4982

OWNER

TRADEPOINT ATLANTIC, LLC.
6995 BETHLEHEM BOULEVARD
BALTIMORE, MD 21219
CONTACT: MIKE HURWITZ
PHONE: 410-935-4443

LIMIT OF DISTURBANCE: 152,460 S.F. OR 3.50 AC.

COMPANY INFO:

BOHLER //

901 DULANEY VALLEY ROAD, SUITE 801
TOWSON, MARYLAND 21204
Phone: (410) 821-7900
Fax: (410) 821-7987
MD@BohlerEng.com

M.J. GESELL

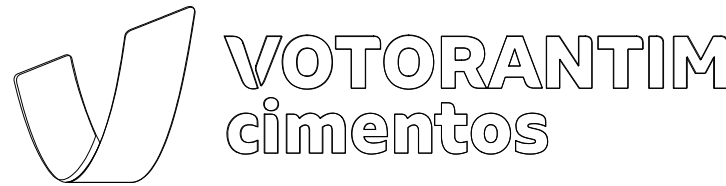
PROFESSIONAL ENGINEER
MARYLAND LICENSE No. 44097
PROFESSIONAL CERTIFICATION
I, MICHAEL J. GESELL, HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 44097, EXPIRATION DATE: 6/9/27
MGESELL@BOHLERENG.COM

PROJECT ADDRESS:

400 ORE PIER ROAD
BALTIMORE, MD 21219
ELECTION DISTRICT: 15
COUNCILMANIC DISTRICT: 7

0A	25/06/06	ISSUED FOR REVIEW	MJG
REV	YY/MM/DD	DESCRIPTION	CHK

REVISION SCHEDULE



PLANT:
ST-MARY'S CEMENT TERMINAL
SPARROWS POINT, MD

PROJECT NAME:

SPARROWS POINT TERMINAL

COMPANY PROJECT #:

MDA230014.00

SCALE:

1"=50'

DESIGN BY:

MJG

DRAWN BY:

MJG

CHECKED BY:

MJG

DRAWING TITLE:

MASS GRADING
- GRADING
PLAN

DRAWING NUMBER:

C8003.0A

APPENDIX C

Tradepoint Atlantic Facility

Hillis-Carnes Engineering Associates, Inc. Environmental Professional Roles

Hillis-Carnes Engineering Associates, Inc. (HCEA) is acting as the Environmental Professional (EP) for development of the Tradepoint Atlantic (TPA) facility. The EP's roles are as follows.

A. Monitoring of Excavated Soils

HCEA will monitor the environmental condition of soil as it is being excavated, including, but not limited to, the following example activities, as applicable: a) site grading and site preparation; b) excavation of underground utility trenches for new utilities; and c) excavation for installation of inlet/manholes. The monitoring includes the following:

- 1) Soils will be monitored with a calibrated photoionization detector (PID) for evidence of volatile organic compounds (VOCs). Evidence of VOCs is sustained PID readings greater than 10 metered units on the PID;
- 2) Soils will be inspected for visual indication of environmental impact (i.e., staining apparently due to impact);
- 3) Soils will be inspected for olfactory indication of environment impact (i.e., odors apparently due to impact);
- 4) Soils will be inspected for the presence of waste materials; and/or
- 5) Soils will be inspected for evidence of non-aqueous phase liquids (NAPL, which could potentially be drained or otherwise extracted from the soil).

If soils meeting any of the criteria above are encountered, HCEA will coordinate with the General Contractor and their Subcontractor(s) to segregate those materials by placing the materials on plastic sheeting (6-mil minimum) and covering the material with plastic sheeting at the end of each work day. Each stockpile of contaminated soil will not exceed 500 cubic yards. HCEA will coordinate with the Maryland Department of the Environment's (MDE's) Voluntary Cleanup Program (VCP) Project Manager for further evaluation of this material (e.g., for potential re-use on-parcel, for off-parcel disposal, etc.)

If NAPL is encountered in the utility trench, procedures described in the NAPL Contingency Plan attached to this document will be followed. Refer to the NAPL Contingency Plan for additional details. The NAPL Contingency Plan is included in the Response and Development Work Plan (RADWP) or the Limited Scope Project Plan, as applicable.

If the contractor encounters soils with unusual or strong odors, the contractor should inform the EP in order to evaluate the conditions of the soil.

B. Protocol for Impacted Soils

If soils meeting any of the criteria presented in the Section A are encountered, HCEA will coordinate with the appropriate parties to segregate those materials.

HCEA will then coordinate with TPA and the MDE's VCP Project Manager for further evaluation of this material for: a) potential placement on the parcel on which the project is occurring; b) potential placement on another parcel within the TPA facility; c) potential disposal at Grey's Landfill; or d) potential disposal at an off-terminal location.

Evaluation of the material could include the laboratory analysis of the material for the following parameters: Total Petroleum Hydrocarbons-Diesel Range Organics (TPH-DRO); TPH-Gasoline Range Organics (TPH-GRO); Oil & Grease; Polychlorinated Biphenyls (PCBs); and Priority Pollutant Metals. The specifics of such an evaluation will be provided by HCEA to TPA and the MDE's VCP via a written sampling and analysis plan prior to any work conducted for the evaluation.

C. Protocol for Non-Impacted Soils

Excavated materials that do not meet the criteria presented in Section A will be stockpiled. No excavated materials may be replaced in a trench or excavation as backfill unless monitored/inspected and approved by the MDE. Similarly, separate sampling and approval by the MDE will be required to allow excavated materials to be placed within other areas of the TPA facility outside of the project boundary. In such instances, a sampling Work Plan that includes a description of the material, an estimated volume, and proposed sampling parameters will need to be submitted to the MDE for approval. The resulting analytical data will also be submitted to the MDE to determine the suitability of the material for its specified use. HCEA will coordinate with appropriate parties to facilitate removal of excess materials from the project site and will document approximate quantities and placement locations within the TPA facility.

D. Air Monitoring

HCEA will be on-site conducting daily air monitoring for total dust. At a minimum, this will consist of monitoring for visible dust. When sustained visual dust is observed, HCEA will request that the General Contractor implement methods for supplementing standard dust suppression methods to address dust levels. Such methods could include, but will not necessarily be limited to, an increase in the frequency of water trucks spraying the area, covering of soil piles with plastic sheeting, decrease drop heights of soil from excavation equipment, etc. If visible dust is sustained after additional methods are implemented to reduce dust, real-time dust monitoring equipment may be used.

If real-time dust monitoring is implemented, HCEA's on-site personnel will utilize a monitor to provide mass dust readings throughout the work day within the work area, or immediately downwind of the work area, depending on site conditions and activity. In addition to the work area monitoring, monitors will be stationed daily at two of the four perimeters of the parcel. The perimeters will correspond to those that are upwind and downwind of the work area, based on the predicted prevailing wind direction for that day. The prevailing wind direction will be assessed during the day and the positioning of the upwind and downwind monitors will be adjusted if there is a substantial shift in the prevailing wind direction.

When dust readings are sustained above the total dust action limit of 3.0 milligrams per cubic meter of air (mg/m³), HCEA will coordinate with the General Contractor to implement additional methods for supplementing the standard dust suppression methods to address the dust levels

E. Monitoring of Dewatering Activity

If dewatering becomes necessary during the Development Phase of the project, the water must be conveyed to the Humphrey Creek Waste Water Treatment Plant (HCWWTP). HCEA will document dewatering activity. During dewatering activities, if gross contamination is observed, the EP will contact the HCWWTP Operator to confirm if laboratory analysis is required, as well as potential analytes. If laboratory analysis of water produced by the dewatering becomes necessary, HCEA will collect water samples for transport to an analytical laboratory. All dewatering activities being conveyed to the HCWWTP via drain lines or direct purge into the Tin Mill Canal will require the use of a filter bag prior to discharge.

F. Monitoring of Worker Breathing Zone

In the event of unexpected/non-standard conditions that appear to warrant monitoring for organic vapor concentrations in the breathing zone of workers in the excavation trench, HCEA will notify TPA and monitoring will be conducted as described in this section. Such conditions include, but are not necessarily limited to, the following: encountering NAPL; unexpected/non-standard odors detected by the EP; and unexpected/non-standard odors or other conditions reported to the EP by the General Contractor or their Subcontractor(s). The monitoring will include attaching tubing to the sample port of the PID and the lowering of the tubing into the excavation trench when an individual(s) will be/is(are) physically enter(ing) the trench and where the unexpected/non-standard condition(s) has(have) been reported.

In the absence of NAPL, if the PID readings are greater than 5 metered units above background in the breathing zone for a 3-minute period, personnel will stop work, retreat from the work area, and allow time (at least 15 minutes) for vapors to dissipate. If monitoring indicates that concentrations still exceed 5 metered units after 15 minutes, HCEA will advise that work not continue without further evaluation.

G. Monitoring of PPE Standard Operation Procedures

An Interim Personal Protective Equipment (PPE) Standard Operational Procedure (SOP) has been prepared for the Sparrows Point Development. HCEA will monitor the implementation of the PPE SOP in accordance with the attachment. This monitoring will include, but is not limited to, at least one daily spot check for implementation of PPE SOP where there is ground intrusive work, with documentation of observations.

H. Documentation of Placement of Clean Fill

HCEA will monitor the placement of 24 inches of clean fill where clean fill is required. Generally, 18 inches of clean fill followed by 6 inches of topsoil will constitute the 24 inches of required clean fill. At approximate 10,000 square-foot intervals, HCEA will document the placement of clean fill, including photo-documentation of a measuring device against the clean fill profile. Photo-documentation will also be utilized to document that the placement of clean fill began immediately at the curbside. After placement, a hand auger will be utilized to evaluate the thickness of clean fill. Hand augering will occur once per every 10,000 square feet of clean fill placement.

I. Confined Spaces and Other Health and Safety Considerations

Any protocols or procedures related to Permitted Confined Spaces or Non-Permitted Confined Spaces, or any other aspects related to worker health and safety, will be the responsibility of the General Contractor.

J. MDE Notification

In the event of unexpected/non-standard conditions, HCEA will notify TPA so that TPA can notify the MDE's VCP Project Manager of such condition(s). Such conditions include, but are not necessarily limited to, the following: conditions warranting monitoring for organic vapor concentrations in the breathing zone of workers in the excavation trench; previously undiscovered contamination; and previously undiscovered storage tanks or other oil-related issues.

K. Close-Out Documentation

HCEA will provide close-out documentation for the project, in accordance with the spreadsheet that is attached. Note that HCEA will be requesting certain documents from the Contractor(s) for this task including, but not necessarily limited to, the following: a) disposal manifests for disposal of impacted soil outside of terminal property and/or Grey's Landfill; b) clean fill affidavits for any material that is imported onto the parcel; and c) truck tickets for any material that is imported onto the parcel.

L. Points of Contact:

TPA: Mr. Pete Haid: 732-841-7935; phaid@tradepointatlantic.com
Mr. Matthew Newman, P.E.: 443-791-9046; mnewman@tradepointatlantic.com
HCEA: Mr. Keith Progin: 443-250-9467; kprogin@hcea.com
MDE VCP: Ms. Barbara Brown: 410-537-3212; barbara.brown1@maryland.gov

Attachments: Sparrows Point Development Interim PPE Standard Operational Procedure (January 20, 2019)
Documentation Requirements for VCP Completion Reports (November 19, 2018)
Utility Excavation NAPL Contingency Plan – Revision 4 (June 19, 2017)

Documentation Requirements for VCP Completion Reports

Documentation	Responsible Party
General:	
Pre-construction meeting - memo with list of attendees and attached EP Roles Summary	EP
Daily Construction Observation Reports	EP
Soil Excavations:	
Soil Screening: PID Readings, Visual and Olfactory Observations (general statement if under 10 ppm; maximum readings if above 10 ppm)	EP
Impacted Soils: Stockpile Locations & Stabilization Measures	EP
Impacted Soils: Waste Characterization Sample Results or MDE inspection results	EP
Impacted Soils: Disposal Manifests (for off-parcel, off-Terminal or at Greys Landfill)	EP
Impacted Soils: Narrative for on-site placement and approximate quantity (in daily report)	EP
Non-Impacted Soils: Off-parcel disposal - Narrative of approximate quantity and location	EP
Non-Impacted Soils: On-parcel placement - Narrative of location for large quantities only (basins)	EP
Dust monitoring, as applicable:	
Monitoring equipment (manufacturer and model)	EP
Monitoring locations and results (appended to daily report)	EP
Summary/Log of dust suppression actions (included in daily report)	EP
Construction:	
As-Built Drawings, including: - Minimum thickness of all layers: clean fill, subbase, asphalt layers, floor slabs - Grading and compaction specifications - Detention pond construction - Landscaping details	Contractor
Construction Photos (of milestones; note-worthy occurrences; minimum of monthly)	EP
Over excavation of utility trenches (if needed per NAPL Contingency Plan)	EP
VCP-Approved Clean Fill:	
Source Documentation (e.g., facility affidavit for clean material)	EP
Analytical Results (in absence of facility affidavit)	EP
Truck Tickets for Imported VCP-Approved Clean Fill	EP
Water Management:	
Grading Permit	Contractor
Groundwater Discharge Approvals and locations (as applicable)	EP
Collection/Reporting of samples of water removed from excavations	EP
Documentation of what is sent to WWTP or Outfalls	EP
Health and Safety protocols:	
HASP Acknowledgement (HASP cover page and management approval page)	Contractor

TPA = Tradepoint Atlantic

EP = Environmental Professional