



ARM Group LLC

Engineers and Scientists

December 9, 2020

Ms. Barbara Brown
Project Coordinator
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230

Re: Remnant Sampling Work Plan (Revision 1)
Area A: Parcel A1
Tradepoint Atlantic
Sparrows Point, MD 21219

Dear Ms. Brown:

ARM Group LLC (ARM), on behalf of Tradepoint Atlantic, is proposing to conduct supplemental soil sampling to assess Composite Worker and Construction Worker risk on an undeveloped area (the Remnant Area) within Parcel A1 (the Site), which is part of Area A of the Tradepoint Atlantic property located in Sparrows Point, Maryland. This Remnant Area, totaling approximately 2.24 acres, is located in the southern portion of the Site, which is currently used as a FedEx Ground Distribution Center. A Phase II Investigation for Parcel A1 was completed by Weaver Consultants Group and the results were presented to the Maryland Department of the Environment (MDE) and United States Environmental Protection Agency (USEPA) in the Phase II Environmental Site Assessment Report/Response Action Plan dated April 23, 2015.

Three soil borings are proposed within the Remnant Area to supplement existing soil data from the adjacent Parcel B8 in the implementation of a Screening Level Risk Assessment (SLRA) to evaluate Composite Worker and Construction Worker risk. The SLRA will be prepared and presented to the MDE and USEPA upon receipt of the supplemental data. Three soil borings are proposed to be completed at the locations shown on **Figure 1**.

This document proposes the protocols to be followed during the sampling activities. All soil sampling will be conducted in accordance with the Standard Operating Procedures (SOPs) and requirements given in the property-wide Quality Assurance Project Plan (QAPP). Analytical methods, sample containers, preservatives, and holding times for the sample analyses are listed in the QAPP Worksheet 19 & 30 – Sample Containers, Preservation, and Holding Times. The investigation will be conducted under the property-wide Health and Safety Plan (HASP).

Each boring will be completed using a Geoprobe® direct push rig. Soil samples will be screened, collected, and analyzed in accordance with procedures referenced in the QAPP Worksheet 21 – Field SOPs, SOP No. 009 – Sub-Surface Soil Sampling and SOP No. 008 – Surface Soil Sample Collection. Regarding soil sampling depth, a homogenized shallow sample will be collected from the 0 to 2 foot below ground surface (bgs) interval, and a deeper sample will be collected from the 4 to 5 foot depth interval. One additional sample will also be collected from the 9 to 10 foot depth interval if groundwater has not been encountered. It should be noted that no soil samples will be collected from a depth that is below the water table. At each boring location, the uppermost sample interval will be adjusted downward if pavement or recycled concrete is present at the surface.

Soil samples will be analyzed for semi-volatile organic compounds (SVOCs), TAL-Metals, Oil & Grease, total petroleum hydrocarbon diesel range organics (TPH-DRO) and gasoline range organics (TPH-GRO), hexavalent chromium, and cyanide. Samples from any depth interval with a sustained photoionization detector (PID) reading of greater than 10 ppm will also be analyzed for volatile organic compounds (VOCs). Additionally, the soil sample collected from the shallow interval (0 to 2 feet bgs) will be analyzed for PCBs. If the PID or other field observations indicate contamination to exist at a depth greater than 3 feet bgs but less than 9 feet bgs, and above the water table, the sample from the 4 to 5 foot interval may be shifted to the depth interval indicated by the PID response.

If the PID reading from the 9 to 10 foot depth interval is less than 10 ppm, all parameters will be held by the laboratory pending the analysis of the 4 to 5 foot depth interval samples. If this depth interval exhibits a sustained PID reading of 10 ppm, it will be analyzed for VOCs, SVOCs, TPH-DRO, TPH-GRO, and Oil & Grease. However, the samples for metals and cyanide will be held by the laboratory pending the analysis of the 4 to 5 foot depth interval samples. If the analyses from the 4 to 5 foot depth interval show exceedances of Project Action Limits (PALs) for any constituents, the held sample from the 9 to 10 foot depth interval will be analyzed for those constituents that exhibited PAL exceedances in the overlying 4 to 5 foot sample.

The shallow soil sample interval will be a homogenized vertical sample of the top 2 feet of material recovered from each boring (i.e., the 0 to 2 foot interval). The top sampling interval will be homogenized to create a representative sample from 0 to 2 feet by mixing in a decontaminated or dedicated glass or stainless-steel bowl. The homogenized sample will contain an equal volume of soil from throughout the vertical interval. Mixing will be performed only after collecting samples for VOCs (if required based on PID readings) and TPH-GRO, because volatile organics should always be collected directly from the sample location. The VOC/GRO samples will be biased to target any evidence of contamination observed via field screening methods using the PID and visual/olfactory methods. If no evidence of volatile contamination is observed, VOCs will not be collected, and TPH-GRO will be collected from the midpoint of the sampling interval.

If non-aqueous phase liquid (NAPL) is encountered in any soil borings, the MDE will be notified, and the NAPL shall be delineated in accordance with standard procedures.



Any soil waste generated during the proposed sampling activities will be placed in designated drums and characterized for PCBs and TCLP parameters (VOCs, SVOCs, and metals) to determine the appropriate disposal requirements. Any (minimal) aqueous waste generated from decontamination fluids, etc. will be managed in bulk with waste from other investigations and will be appropriately characterized prior to disposal.

The findings of this investigation will be incorporated into a Remnant SLRA Report that addresses both Composite Worker and Construction Worker risk scenarios to determine if risk levels are acceptable on the Remnant Area. The supplemental samples are intended to verify the existing surface soils (0 to 2 feet) are acceptable to cap any potentially impacted subsurface material. In the event that a remedial response action is required in the future, a Work Plan will be provided under separate cover for agency review.

If you have any questions, or if we can provide any additional information at this time, please do not hesitate to contact ARM Group LLC at 410-290-7775.

Respectfully Submitted,
ARM Group LLC



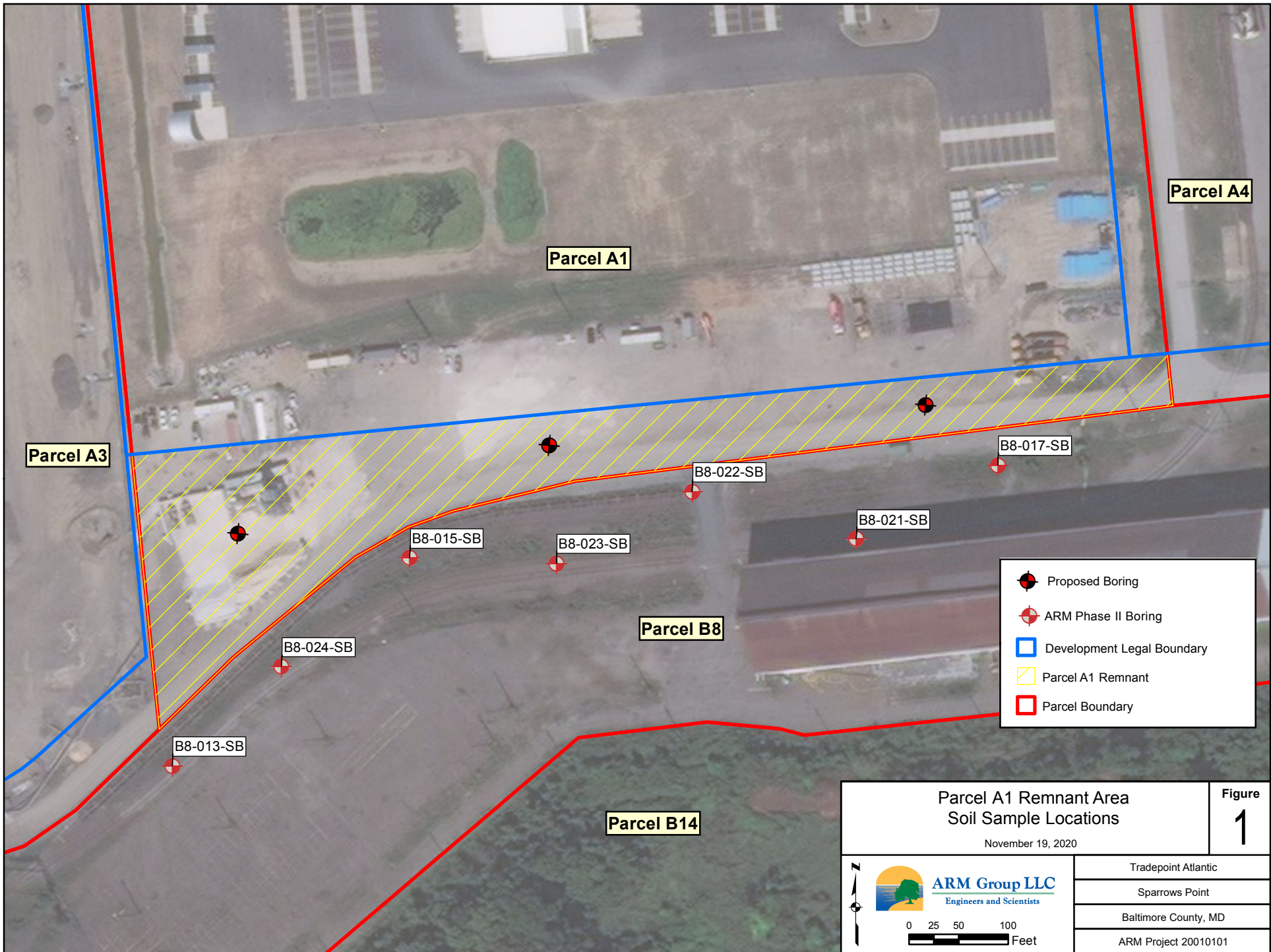
Taylor R. Smith, P.E.
Project Manager



T. Neil Peters, P.E.
Senior Vice President



FIGURES



	Proposed Boring
	ARM Phase II Boring
	Development Legal Boundary
	Parcel A1 Remnant
	Parcel Boundary

Parcel A1 Remnant Area Soil Sample Locations November 19, 2020		Figure 1
 0 25 50 100 Feet	 ARM Group LLC Engineers and Scientists	
	Tradepoint Atlantic	
	Sparrows Point	
	Baltimore County, MD	
		ARM Project 20010101