



ARM Group LLC

Engineers and Scientists

June 25, 2020

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

Re: Comment Response Letter:
Phase II Investigation Work Plan
Area B: Parcel B11 (Revision 0)
Tradepoint Atlantic
Sparrows Point, MD 21219

Dear Ms. Brown:

On behalf of EnviroAnalytics Group, LLC (EAG), ARM Group LLC (ARM) is providing the following responses to a set of comments received from the Maryland Department of the Environment (MDE) in an email dated April 16, 2020 regarding the previous submission of the Phase II Investigation Work Plan (Revision 0 dated March 11, 2020) for Parcel B11 of the Tradepoint Atlantic property located in Sparrows Point, Maryland. Based on the minor revisions, the Parcel B11 Work Plan itself will not be updated, but this Comment Response Letter serves the purpose of documenting pertinent updates. Revised sampling plan figures are included with this letter. Responses to the comments are provided below; the original comments are included in italics with responses following.

- 1. Depending on the final proposed grade after slag removal/processing, if any, additional samples may be required. Provide a statement regarding anticipated final grade of this parcel.*

The proposed final ground surface elevation for Parcel B11 is 12 feet above mean sea level (amsl), except in areas where the current grade is already below this elevation. Slag reclamation is underway in this parcel, but completion of regrading activities will likely be in 1 to 2 years.

Tradepoint Atlantic provided aerial survey data for the Coke Point Area (CPA) including Parcel B11. Upon review of this data, the locations of several borings have been adjusted slightly to areas that have current elevations of 12 feet amsl or below. Some locations were also shifted to move them off sloped areas for ease of access. When locations were shifted, care was taken to ensure each soil boring continued to target any features of environmental concern that had previously

been targeted for sampling in the Parcel B11 Work Plan (Revision 0). The final selected locations are shown on the attached **Figure 4** through **Figure 9**, which have been updated from the original Work Plan submission. **Figure 9** specifically presents the topographic mapping. Tradepoint Atlantic also provided electronic (CAD) files which allowed for detailed review of the elevation data.

In some cases, it was not practical to shift the soil borings to locations with ground surface elevations at or below 12 feet amsl. In these cases (B11-006-SB and B11-008-SB through B11-012-SB) the thickness of the material that is proposed to be reclaimed at each sample location will determine the depth of the uppermost sample interval (normally collected from 0 to 1 foot below ground surface (bgs)). For example, a location with a current elevation of 14 feet amsl would have its uppermost sample collected in the interval from 2 to 3 feet bgs. Because the amount of material that is proposed to be reclaimed is different at each boring, the planned sample interval adjustments are given in the attached **Table 1**. All soil sample collection procedures will be implemented as usual, accounting for the adjusted sample depths. If boring locations are adjusted in the field, the sample intervals will be modified accordingly to account for the elevation change.

Please note that select soil borings targeting the perimeter of the Dredged Material Containment Facility (DMCF) in the western half of the parcel are proposed at elevations above 12 feet amsl, yet no sample interval adjustments are proposed. It is not anticipated that the slag reclamation efforts will impact the berm surrounding the DMCF.

2. *Regarding soil sampling depth, a shallow sample will be collected from the 0 to 1-foot depth interval, and a deeper sample will be collected from the 4 to 5-foot depth interval. If a concrete slab or slag aggregate occupies the 0 to 1-foot bgs sample, the interval may be shifted to the depth of the first observed soil interval. MDE notes that this parcel is mostly made land from slag material. What is the definition of "soil" in this section? Samples should be collected from the surface if not covered by a concrete slab.*

The MDE is correct that the majority of the surface and subsurface material in this parcel is anticipated to be slag aggregate. Slag aggregate and any other non-native fill materials will be sampled in the same manner as soil. Slag/non-native fill is treated like soil unless it is very large diameter aggregate that cannot be conventionally sampled. Larger diameter slag aggregate and any surface concrete slabs will not be sampled.



3. *Please note that soil gas sampling may be required depending on future development plans and final grade of the parcel.*

The comment is acknowledged.

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



Ryan Clancy
Staff Engineer






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



FIGURES



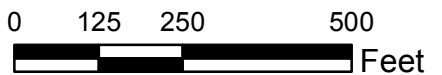


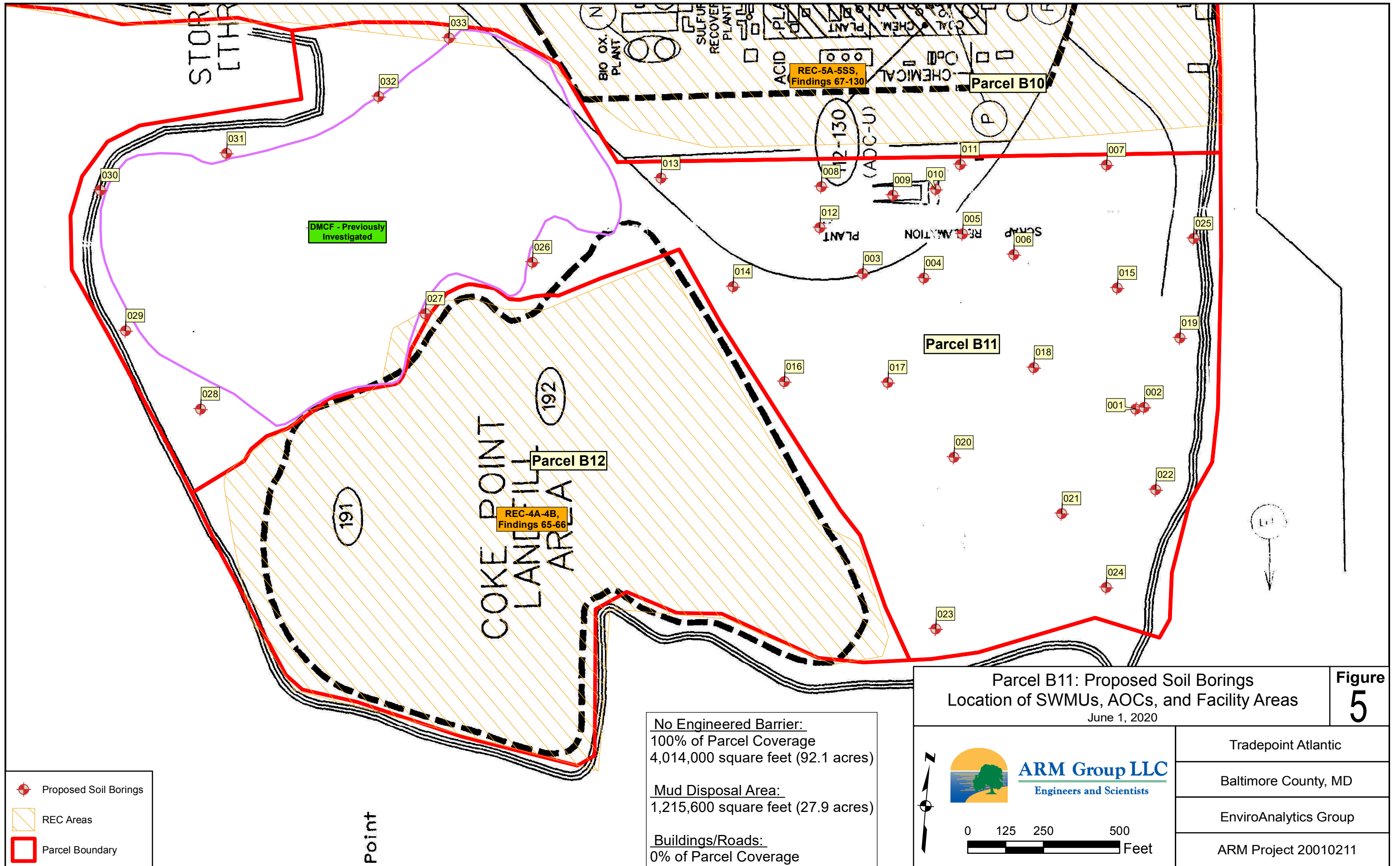
-  Proposed Soil Borings
-  REC Areas
-  Parcel Boundary




No Engineered Barrier:
 100% of Parcel Coverage
 4,014,000 square feet (92.1 acres)

Mud Disposal Area:
 1,215,600 square feet (27.9 acres)


Buildings/Roads:
 0% of Parcel Coverage

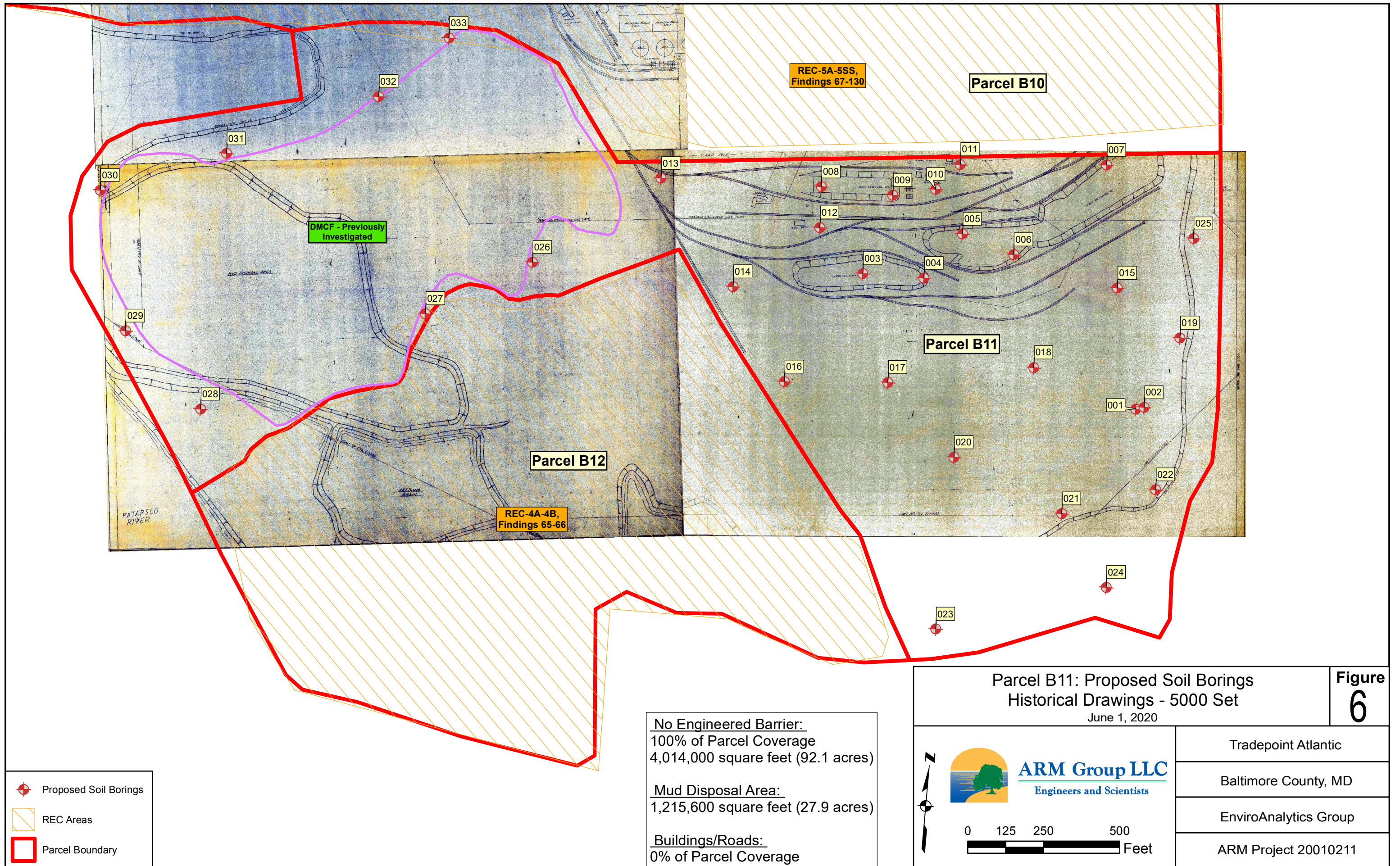
| | | |
|--|-----------------------|---|
| Parcel B11: Proposed Soil Borings Aerial View June 1, 2020 | | Figure 4 |
|   ARM Group LLC Engineers and Scientists | Tradepoint Atlantic | |
| | Baltimore County, MD | |
| | EnviroAnalytics Group | |
| | ARM Project 20010211 | |
|  | | |



-  Proposed Soil Borings
-  REC Areas
-  Parcel Boundary

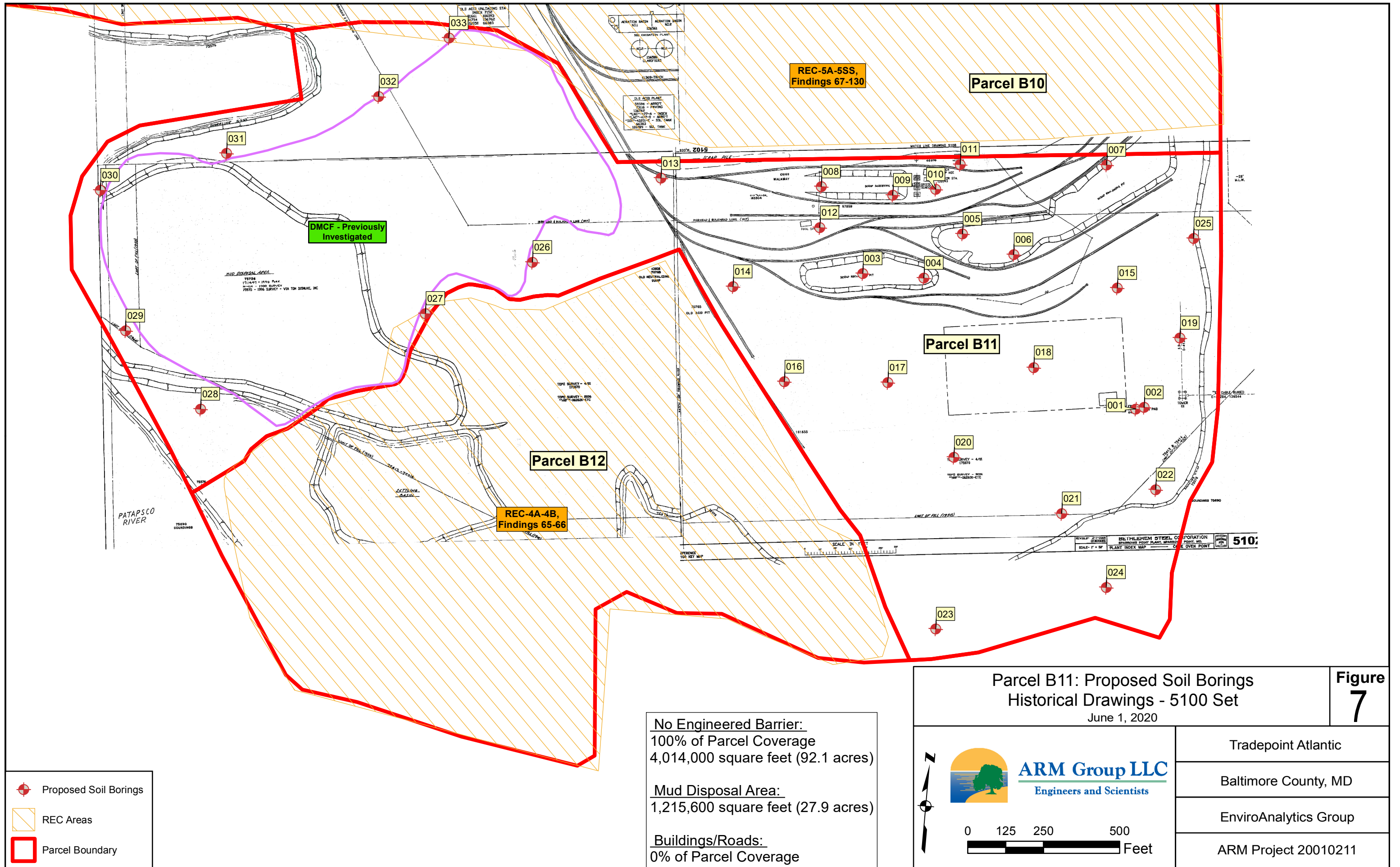
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| <p><u>No Engineered Barrier:</u> 100% of Parcel Coverage 4,014,000 square feet (92.1 acres)</p> <p><u>Mud Disposal Area:</u> 1,215,600 square feet (27.9 acres)</p> <p><u>Buildings/Roads:</u> 0% of Parcel Coverage</p> |
|--|

| | | |
|---|--|-----------------------------------|
| <p>Parcel B11: Proposed Soil Borings Location of SWMUs, AOCs, and Facility Areas June 1, 2020</p> | | <p>Figure 5</p> |
|  <p>ARM Group LLC Engineers and Scientists</p> | | <p>Tradepoint Atlantic</p> |
| <p>0 125 250 500 Feet</p> | | <p>Baltimore County, MD</p> |
| <p>EnviroAnalytics Group</p> | | <p>ARM Project 20010211</p> |



Parcel B11: Proposed Soil Borings
Historical Drawings - 5000 Set
June 1, 2020

Figure 6



REC-5A-5SS,
Findings 67-130

Parcel B10

DMCF - Previously Investigated

Parcel B12

REC-4A-4B,
Findings 65-66

Parcel B11

Parcel B11: Proposed Soil Borings
Historical Drawings - 5100 Set
June 1, 2020

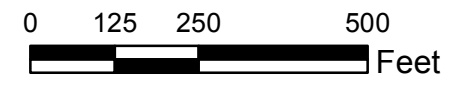
Figure
7

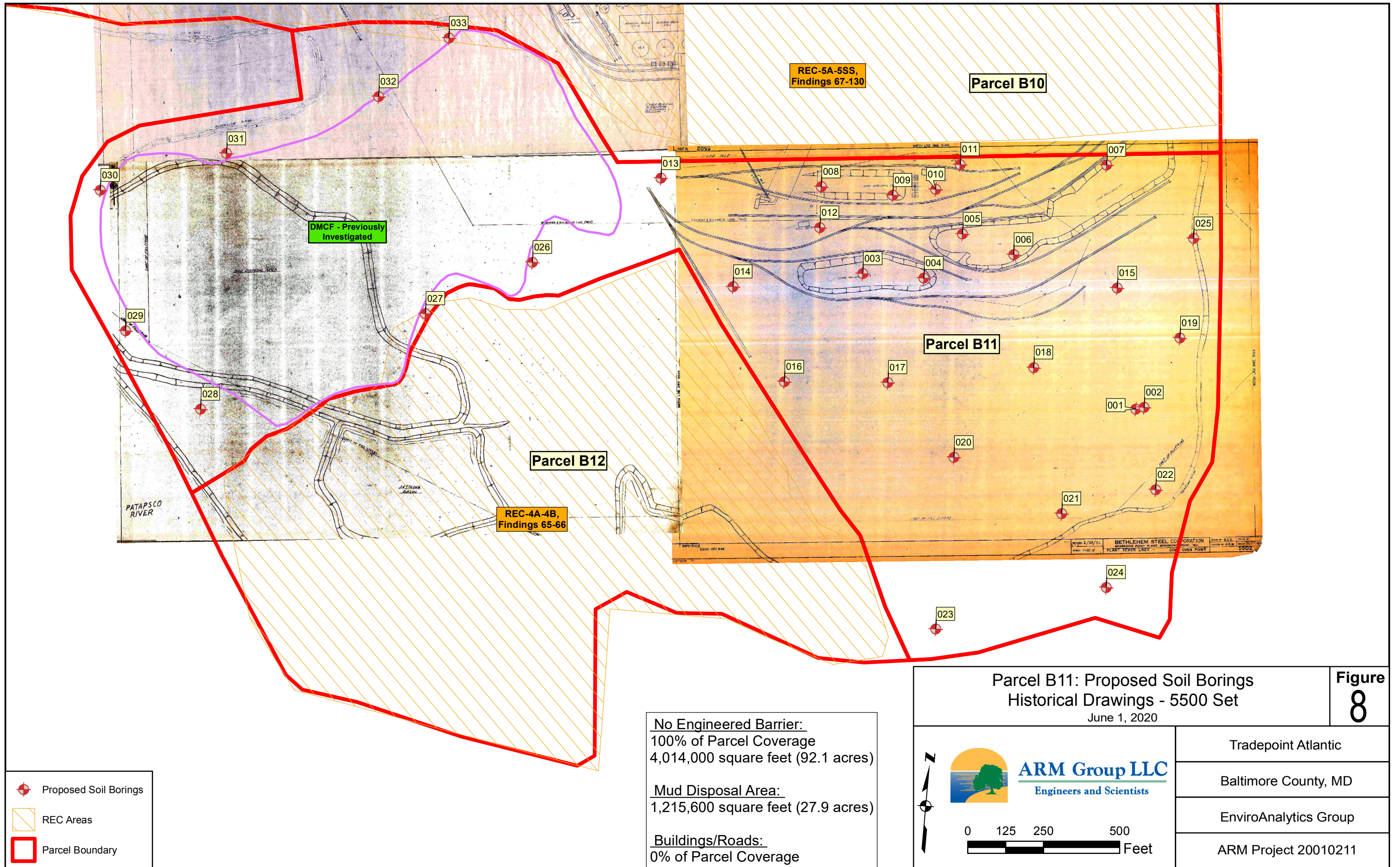
Tradepoint Atlantic

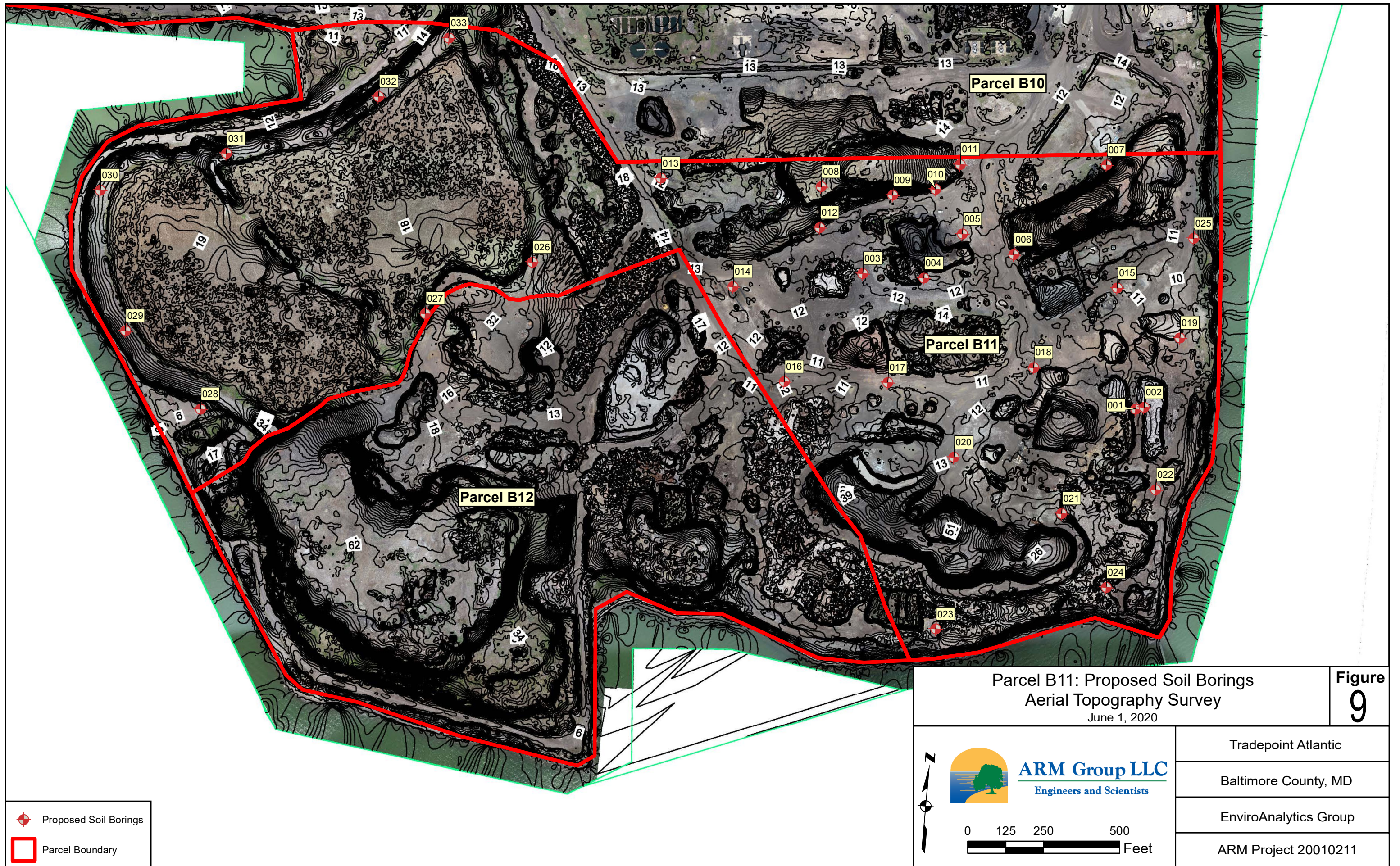
Baltimore County, MD

EnviroAnalytics Group

ARM Project 20010211







TABLES

**Table 1 - Parcel B11
Sample Interval Adjustment Table**

| Location Name | Elevation at Proposed Soil Boring Location (ft amsl) | Adjustment for Top (0-1 ft) Sample Depth (ft bgs) |
|----------------------|---|--|
| B11-001-SB | 11 | 0 |
| B11-002-SB | 11 | 0 |
| B11-003-SB | 12 | 0 |
| B11-004-SB | 12 | 0 |
| B11-005-SB | 12 | 0 |
| B11-006-SB | 15 | 3 |
| B11-007-SB | 12 | 0 |
| B11-008-SB | 37 | 25 |
| B11-009-SB | 14 | 2 |
| B11-010-SB | 14 | 2 |
| B11-011-SB | 14 | 2 |
| B11-012-SB | 14 | 2 |
| B11-013-SB | 12 | 0 |
| B11-014-SB | 12 | 0 |
| B11-015-SB | 11 | 0 |
| B11-016-SB | 12 | 0 |
| B11-017-SB | 11 | 0 |
| B11-018-SB | 12 | 0 |
| B11-019-SB | 9 | 0 |
| B11-020-SB | 12 | 0 |
| B11-021-SB | 6 | 0 |
| B11-022-SB | 8 | 0 |
| B11-023-SB | 9 | 0 |
| B11-024-SB | 10 | 0 |
| B11-025-SB | 10 | 0 |
| B11-026-SB* | 32 | 0 |
| B11-027-SB* | 31 | 0 |
| B11-028-SB* | 7 | 0 |
| B11-029-SB* | 22 | 0 |
| B11-030-SB* | 25 | 0 |
| B11-031-SB* | 33 | 0 |
| B11-032-SB* | 27 | 0 |
| B11-033-SB* | 28 | 0 |

amsl: above mean sea level

bgs: below ground surface

*B11-026 through B11-033 target the perimeter of the DMCF (no slag recovery planned).

DMCF: Dredged Material Containment Facility