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# FIELD SAMPLING PLAN ADDENDUM 2

## WEST LAKE LANDFILL SUPERFUND SITE OPERABLE UNIT 1

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**Prepared For:**

The United States Environmental Protection Agency Region VII



**Prepared on Behalf of:**

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# TABLE OF CONTENTS

<b>LIST OF ACRONYMS .....</b>	<b>ii</b>
<b>1.0 AREA 2 ADDITIONAL BORINGS .....</b>	<b>1</b>
1.1 Introduction.....	1
1.2 Summary of Design Investigation Findings.....	1
1.3 Proposed Additional Boring Locations.....	2
1.3.1 Proposed Step-Out Borings Along the Northeast Perimeter of Area 2.....	2
1.3.2 Proposed Shallow Hand Auger Perimeter Step-Out Borings.....	2
1.3.3 Proposed Step-Out Borings Along the Southwest Perimeter of Area 2 and Lot 2A2/Buffer Zone .....	2
1.3.3.1 Area A.....	3
1.3.3.2 Area B.....	4
1.3.3.3 Perimeter Boring A2-PB-126.....	4
1.3.3.4 Lot 2A2/Buffer Zone Delineation .....	5
1.4 Drilling and Sampling Methods and Protocols.....	5

## LIST OF TABLES

Table A2-1 Municipal Solid Waste (MSW) Thickness in Perimeter Borings
Table A2-2 Perimeter Borings Analytical Results
Table A2-3 Buffer Zone and Lot 2A2 Analytical Results
Table A2-4 Proposed Additional Boring Sample Collection Detail

## LIST OF FIGURES

Figure A2-1 Area 2 N.E. Corner, Lot 2A2 & Buffer Zone - Site Location Map
Figure A2-2 Area 2 N.E. Corner - Proposed Step-out Borings
Figure A2-3 Area 2, Lot 2A2 & Buffer Zone – Proposed Step-out Borings
Figure A2-4 Analytical Results Along Cross Section A-A’
Figure A2-5 Analytical Results Along Cross Section B-B’
Figure A2-6 Analytical Results Along Cross Section C-C’

## LIST OF ACRONYMS

<b>ACRONYM</b>	<b>Definition</b>
bgs	below ground surface
ft	foot/feet
DIWP	Design Investigation Work Plan
DMP	Data Management Plan
DOE	U.S. Department of Energy
DPT	direct push technology
EPA	U.S. Environmental Protection Agency
FSP	Field Sampling Plan
HSA	hollow stem auger
MSW	Municipal Solid Waste
NCC	non-combustible cover
OU	Operable Unit
pCi/g	picoCurie/gram
QAPP	Quality Assurance Project Plan
RIM	radiologically impacted material
Site	West Lake Superfund Site

# 1.0 AREA 2 ADDITIONAL BORINGS

## 1.1 Introduction

This Field Sampling Plan (FSP) Addendum 2 has been prepared on behalf of West Lake Landfill OU-1 Respondents Bridgeton Landfill, LLC, Cotter Corporation (N.S.L.), and the U.S. Department of Energy (DOE) (collectively, Respondents) for the design investigation for the selected Amended Remedy for Operable Unit 1 (OU-1) of the West Lake Landfill Superfund Site (Site). U.S. Environmental Protection Agency (EPA) approved (with modifications) the FSP, with the associated Design Investigation Work Plan (DIWP), Quality Assurance Project Plan (QAPP), and Data Management Plan (DMP), in September 2020. The final version of the FSP is dated October 16, 2020.

Addendum 2 has been prepared because municipal solid waste (MSW) greater than 2 feet (ft) in thickness and/or analytical results from soil samples with activities greater than 7.9 picocuries per gram (pCi/g) for combined thorium and/or combined radium were identified in a subset of the Hollow Stem Auger (HSA) and Direct Push Technology (DPT) borings drilled between October 21, 2020 and December 12, 2020 around the perimeter of Area 2 in OU-1 and in Lot 2A2/Buffer Zone. As required by EPA and in accordance with FSP Section 2.2.2.1, additional step-out boring locations are proposed as part of this Addendum to delineate the extent of MSW and/or combined radium or thorium greater than 7.9 pCi/g.

## 1.2 Summary of Design Investigation Findings

Three perimeter borings (A2-PB-137, A2-PB-138, and A2-PB-139), and their step-outs (A2-PB-138A, A2-PB-139A, and A2-PB-139B), drilled along the border of OU-1 Area 2 encountered greater than 2 ft of MSW, and soil samples collected from eight other perimeter borings (A2-PB-123, A2-PB-124, A2-PB-125, A2-PB-126, A2-PB-127, A2-PB-128R2, A2-PB-131, and A2-PB-165) have detections of combined thorium and/or combined radium greater than 7.9 pCi/g. Soil samples from 30 DPT locations advanced in Lot 2A2/Buffer Zone also have detections greater than 7.9 pCi/g of combined thorium. Figure A2-1 shows the locations of these 14 perimeter borings and 29 DPT locations. Table A2-1 provides a summary of the MSW thicknesses encountered. MSW was not encountered in the perimeter borings drilled along the Buffer Zone and/or Lot 2A2. Analytical results from the perimeter borings and DPT locations are summarized in Tables A2-2 and A2-3, respectively.

The sample depths shown in Tables A2-1 and A2-2 are reported with respect to both feet below the surveyed ground surface (bgs) at the boring location and feet below DI datum. In order to provide clarification on the sample depths and measuring points, the following definition is provided:

- DI datum: describes the landfill surface below surficial material<sup>1</sup> where such material exists. If no surficial material exists at a given location, then the current ground surface (at the time of the DI) is considered the DI datum. This datum was developed to eliminate the logging and sampling of surficial material (especially drilling pad and non-combustible cover [NCC]). In Areas 1 and 2, the DI datum is synonymous with the 2005 ground surface, as defined in Section 2.2.2 of the DIWP. Tables A2-1 and A2-2 include a column showing the thickness of surficial material (i.e. NCC, inert fill, and drilling pad).

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<sup>1</sup> Surficial material consists of drilling pad, NCC, and/or inert fill

## 1.3 Proposed Additional Boring Locations

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### 1.3.1 Proposed Step-Out Borings Along the Northeast Perimeter of Area 2

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Per FSP Section 2.2.2.1, step-out borings are required when MSW greater than 2 ft in thickness is encountered or analytical results identify combined radium and/or thorium greater than 7.9 pCi/g. Accordingly, step-out borings are proposed to further delineate the extent of MSW (greater than 2 ft in thickness) encountered in perimeter borings A2-PB-137, A2-PB-138-A, and A2-PB-139-B (Table A2-1) to assist in defining the perimeter of the landfilled materials. The previous borings are at the top of a steep slope which limits access for the 25 ft step-out distance provided in FSP Section 2.2.2.1. Therefore, the three currently proposed step-out borings are proposed at off-set distances of approximately 50 ft to 100 ft from the original borings (or previous step-outs) and at elevations 20 ft to 25 ft lower than the original borings (Figure A2-2). The proposed step-out locations will be advanced using DPT to 10 ft bgs in lieu of 25 ft bgs because the ground surface at the proposed locations is below the MSW encountered in the previously drilled borings.

Per the request of EPA, replacement borings adjacent to A2-PB-137 and A2-PB-138 will be installed in close proximity to the original borings to a depth of 25 feet. Samples will be collected and analyzed per the protocol for Geotechnical Perimeter Borings in accordance with Section 2.4.3 of the Field Sampling Plan, West Lake Operable Unit 1. Note that these borings will be installed using a 3-inch diameter MC7 macro-core sampler as described in FSP Variance Request #1 in order to maximize recovery of material at these locations.

To further characterize potential shallow radiologically impacted material (RIM) along the northeast perimeter of Area 2, shallow soil samples from 0 ft to 1 ft and 1 ft to 2 ft bgs will be collected for laboratory analysis from A2-TH125, A2-TH126, and A2-TH127, if possible, based on recovery, type of material recovered, and density of material recovered. The thickness of the gravel pad at this location likely makes hand auger samples infeasible to gather these 0 ft to 1 ft and 1 ft to 2 ft samples so sampling is expected to be limited to the HSA sampling only. Depending on sample mass, laboratory quality control/quality assurance samples may be waived due to lack of sample mass; this would most likely occur if MSW is in the sample as it has a lower bulk density than mineral soil and/or if the samples have low recovery.

### 1.3.2 Proposed Shallow Hand Auger Perimeter Step-Out Borings

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Perimeter boring A2-PB-131 has a detection of combined thorium greater than 7.9 pCi/g in soil samples collected from 0 ft to 1 ft bgs (Figure A2-3, Table A2-2). Because only surficial materials at A2-PB-131 had a detection greater than 7.9 pCi/g and DPT borings in Lot 2A2 adjacent to this area did not have detections greater than 7.9 pCi/g, three hand auger holes to a depth of 2 ft are proposed to define the limits of this surficial material around the A2-PB-131 location. The step-out borings will be advanced at an off-set distance of approximately 10 ft to 15 ft in three directions around A2-PB-131 along the western boundary of Area 2.

### 1.3.3 Proposed Step-Out Borings Along the Southwest Perimeter of Area 2 and Lot 2A2/Buffer Zone

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Three areas along the edge of the OU-1 Area 2 landfill toe extending into Lot 2A2/Buffer Zone have shallow (0 ft to 4 ft bgs) detections of combined thorium and/or combined radium greater than 7.9 pCi/g as shown in Figure A2-3. Perimeter borings A2-PB-123 and A2-PB-126 have combined thorium detected at greater than 7.9 pCi/g at a depth greater than 5 ft bgs.

### 1.3.3.1 Area A

Area A, the blue hatched area shown in Figure A2-3, had near-surface detections of combined thorium and/or combined radium greater than 7.9 pCi/g. These detections were in the 0 ft to 4 ft deep samples along the perimeter of the landfill toe adjacent to or in the northeast portion of the Buffer Zone (borings A2-PB-165, A2-PB-128-R2, and A2-PB-127), as well as in the 0.5 ft to 1.0 ft deep samples in seven Buffer Zone locations (borings 1-BZ-003, 1-BZ-007, 1-BZ-008, 1-BZ-1010, 1-BZ-011, 1-BZ-012, 1-BZ-013) (Tables A2-2 and A2-3). Surface samples (0 ft to 0.5 ft deep) from eight Lot 2A2/Buffer Zone borings, shown with green circles in Figure A2-3 also have detections of combined thorium and/or combined radium greater than 7.9 pCi/g in this area.

The detections of combined thorium and/or combined radium greater than 7.9 pCi/g were in near-surface soil (between 0 ft to 4 ft bgs) or at an elevation consistent with the Buffer Zone samples in borings A2-PB-127, A2-PB-128-R2, and A2-PB-165 as illustrated by Cross-Section A-A' in Figure A2-4. The borings in Area A with detections above 7.9 pCi/g are delineated laterally by borings 1-BZ-005, 1-BZ-001, 1-BZ-014, 4-2A2-097, 1-2A2-052, 1-2A2-051, 1-2A2-044, and 1-2A2-043 with detections of combined radium and/or combined thorium less than 7.9 pCi/g (Figure A2-3). Six DPT locations are being redrilled to a depth of 4 ft bgs to further delineate these locations below a depth of 1 ft bgs in the vicinity of A2-PB-127 and A2-PB-165 as discussed below. Also, three additional DPT locations are proposed at the request of EPA to the north of A2-PB-165, 1-BZ-008, 1-BZ-011, and 1-BZ-013 to better define the 0 ft to 4 ft bgs material along the toe of the landfill slope along the northeast edge of the Buffer Zone and northwest of A2-PB-128-R. Therefore, no HSA step-out borings are proposed in this area because it has already been delineated through the Lot 2A2 and Buffer Zone investigation augmented by the proposed additional borings discussed above. We note that the Buffer Zone area will be evaluated using statistical evaluations comparing all the samples from a decision unit to off-site background reference areas. A2-PB-127 and A2-PB-165 were advanced to provide deeper data than the DPT sampling of the near-surface soils. These two borings confirmed that the soils below 4 ft do not exhibit elevated combined radium and/or thorium or the presence of MSW.

A DPT boring, A2-PB-128-A, is proposed south of A2-PB-128-R2 to a depth of 5 ft bgs to delineate RIM laterally per the request of EPA. The boring depth of 5 ft was selected to be consistent with FSP Section 2.2.2.1 because this lateral direction along the toe is not delineated with the extensive deep boring and shallow sampling in the Buffer Zone discussed above and will not be evaluated using the statistical evaluations that will be used in the Buffer Zone. A2-PB-128-R2 is at the toe of the steep landfill slopes north and east of the boring. Interior borings A2-TH-094 and A2-TH-097 are located at the top of the slope as shown on Figures A2-3, A2-4, and A2-5. A2-TH-094 had combined radium and combined thorium detections above 7.9 pCi/g in the sample from the top foot of the material only, similar to the samples in A2-PB-128-R2. The A2-TH-098 samples were all below 7.9 pCi/g. No HSA or DPT boring is proposed in the landfill slope to the north or east of A2-PB-128-R2 because its results were consistent with its nearest neighbors to the north and east with detection above 7.9 pCi/g only in the 0.8 ft to 1.3 ft bgs sample in boring A2-TH-094 and no samples with detections above 7.9 pCi/g in borings A2-PB-097 and A2-PB-TH-098.

Seven locations (1-BZ-003, 1-BZ-007, 1-BZ-008, 1-BZ-010, 1-BZ-011, 1-BZ-012, and 1-BZ-013) had combined thorium and/or combined radium detections above 7.9 pCi/g in the 0.5 ft to 1.0 ft interval. These detections were identified in laboratory samples but were not detected by gamma scans in the field, so no samples were collected deeper than 1.0 ft bgs per FSP Section 2.4.2.1. Additional DPT sampling is proposed at off-set distances of 2 ft to 5 ft from original boring locations and at depths of 1.0 ft to 4.0 ft, except at 1-BZ-011. This location (1-BZ-011) is adjacent to the deeper boring A2-PB-165 which delineates 1-BZ-011 vertically, so no additional sampling is required at this location. The proposed sampling locations in Lot 2A2 and the Buffer Zone are shown on Figure A2-3.

Eight locations (1-BZ-002, 1-BZ-006, 1-BZ-009, 1-2A2-045, 1-2A2-046, 1-2A2-047, 1-2A2-048, and 1-2A2-053) had combined thorium and/or combined radium detections above 7.9 pCi/g in the 0 ft to 0.5 ft interval. These locations were delineated vertically by deeper samples within the same boreholes and laterally by other adjacent borings in the Buffer Zone and Lot 2A2 with activities less than 7.9 pCi/g (Figure A2-3).

### 1.3.3.2 Area B

Area B, the purple hatched area shown in Figure A2-3, had detections greater than 7.9 pCi/g of combined thorium in samples from 0 ft to 2 ft bgs in A2-PB-125 and A2-PB-124 at the toe of the landfill. In the Buffer Zone, seven locations (2-BZ-027, 3-BZ-029, 3-BZ-030, 3-BZ-031, 3-BZ-032, 3-BZ-034, and 3-BZ-036) had combined thorium detections above 7.9 pCi/g in the 0.5 to 1.0 ft interval and 3-BZ-040 with elevated RIM in 0 ft to 1 ft interval. In Lot 2A2, location 8-2A2-150 has a combined thorium detection above 7.9 pCi/g in the 0.5 ft. to 1.0 ft interval (Tables A2-2 and A2-3). These detections were identified in laboratory samples and not detected by gamma scans in the field, so no samples were collected at depths greater than 1.0 ft bgs in the Buffer Zone and Lot 2A2 borings per FSP Section 2.4.2.1. Additional DPT sampling is proposed below these depths at off-set distances of 2 ft to 5 ft from the original locations, except 3-BZ-034 (adjacent to proposed boring A2-PB-123-B). Cross-Section C-C' on Figure A2-6 shows the existing borings and analytical data. The proposed sampling locations are shown on Figure A2-3.

A2-PB-124 will be delineated vertically by the deeper DPT borings proposed at 3-BZ-027, 3-BZ-029, 3-BZ-030, and 3-BZ-032 and laterally by buffer zone borings beyond these with no RIM detections. Therefore, no additional borings are required as a step-out from A2-PB-124 beyond the DPT borings proposed in this section. We note that the Buffer Zone area will be evaluated using statistical evaluations comparing all the samples from a decision unit to off-site background reference areas. A2-PB-124 was advanced to provide deeper data than the DPT sampling of the near-surface soils. This boring confirmed that the soils below 4 ft did not exhibit elevated combined radium and/or thorium or the presence of MSW.

A2-PB-125 had detections of thorium >7.9 pCi/g from 8 ft to 10 ft bgs; therefore, two step-out borings are proposed between 10 ft and 30 ft from A2-PB-125. Samples will be collected from 8 ft to 9 ft bgs and 9 ft to 10 ft bgs in accordance with Section 2.4.2.3 of the FSP.

Four locations (3-BZ-035, 8-2A2-151, 8-2A2-154, and 8-2A2-146) had combined thorium and/or combined radium detections above 7.9 pCi/g in the 0 ft to 0.5 ft interval. These locations were delineated vertically by deeper samples within the same boreholes. Section 1.3.3.4 discusses eight step-out locations proposed to delineate the western edge of Area B laterally (Figure A2-3).

Boring A2-PB-123 along the edge of Area 2 has detections of combined radium and/or thorium greater than 7.9 pCi/g from 0 ft to 8 ft bgs (Table A2-2). Two step-out HSA borings are proposed at an off-set distance of approximately 30 ft in two directions from A2-PB-123 (Figure A2-3). Cross-section B-B' on Figure A2-5 shows the existing borings and analytical data along the edge of Area 2 and the Buffer Zone.

### 1.3.3.3 Perimeter Boring A2-PB-126

Combined thorium greater than 52.9 pCi/g was detected at a depth of 12 ft to 14 ft bgs in A2-PB-126. Three step-out HSA borings are proposed around this boring to delineate RIM greater than 7.9 pCi/g (Table A2-2, Figure A2-3). The step-out borings will be drilled at an off-set distance of approximately 30 ft in three directions from A2-PB-126 as shown on Figure A2-3. Cross-section B-B' on Figure A2-5 shows the existing borings and analytical data along the edge of Area 2 and the Buffer Zone.



#### 1.3.3.4 Lot 2A2/Buffer Zone Delineation

Three locations along the west side of Sampling Area 8 in Lot 2A2 (8-2A2-146, 8-2A2-151, and 8-2A2-154) and three sample locations along the western edge of the Buffer Zone (3-BZ-040, 3-BZ-041, and 3-BZ-042) had detections of combined thorium greater than 7.9 pCi/g. Eight DPT borings are proposed along the west edge of this area of Lot 2A2 and the Buffer Zone to delineate this area. The proposed locations are shown on Figure A2-3.

The detections in the 0.5 ft to 1.0 ft bgs samples at 3-BZ-041 and 3-BZ-042 were identified in laboratory samples and not detected by gamma scans in the field, so no samples were collected at depths greater than 1.0 ft bgs in these borings. Additional DPT sampling is proposed at 3-BZ-041 and 3-BZ-042 at off-set distances of 2 ft to 5 ft from the original boring locations with samples to be collected between 1.0 ft to 4.0 ft bgs. The proposed locations are shown on Figure A2-3.

## 1.4 Drilling and Sampling Methods and Protocols

The FSP standardizes the field procedures to be performed during the design investigation activities for OU-1. The work proposed in this Addendum 2 uses those standard methods and protocols provided in the FSP. The specific provisions in the FSP that will be used are described below. The proposed depths and sampling details are provided in Table A2-4.

The five borings for A1-PB-123 and A1-PB-126 (Figure A2-3) will be advanced to 25 ft bgs using the HSA drilling method described in FSP Section 2.2.1.3. Soil samples will be logged and sampled following the procedures in FSP Sections 2.4.1 and 2.4.3, respectively. Samples will be submitted for laboratory analysis of the parameters listed in Section 2.4.5.2. Downhole gamma logging will be performed per FSP Section 2.3.2.

Six step-out borings are proposed from A2-PB-137, A2-PB-138-A, and A2-PB-139-B to delineate MSW (Figure A2-2). A2-PB-137-A, A2-PB-138-B, and A2-PB-139-C will be advanced to a depth of 10 ft bgs using DPT, as described in Section 2.2.1.1 of the FSP. A2-PB-137-B, A2-PB-138-C, and A2-PB-139-D will be advanced to a depth of 2.0 ft bgs using the hand auger method as described in FSP Section 2.4.2.5. Soil samples will be logged and sampled following the procedures in FSP Sections 2.4.1 and 2.4.2.3, respectively. Samples will be submitted for laboratory analysis of the parameters listed in Sections 2.4.5.2 (for the perimeter borings).

Twenty-five DPT borings are proposed for Lot 2A2 and the Buffer Zone (Figure A2-3) to delineate the northern and western edges of the Site and define the depth of combined thorium and/or combined radium greater than 7.9 pCi/g located below the prior 0.5 ft to 1.0 ft samples. These 25 borings are proposed to be advanced to 4.0 ft from the ground surface or below the base of overlying rock (if present) using DPT as described in FSP Section 2.2.1.1. Samples collected from the 25 borings will be submitted for laboratory analysis of the parameters listed in Section 2.4.5.1. The DPT borings that coincide with previously drilled borings will be sampled in 6-inch increments from 1 ft bgs or base of the rock to the bottom of the boring. Seven deeper HSA step-out borings from A2-PB-123, A2-PB-125, and A2-PB-126 will also be advanced in the Buffer Zone as discussed above and will augment the information obtained from the DPT borings. The eight DPT borings along the western edge will be sampled at 6-inch increments for the full depth of the 4 ft from the ground surface or base of the rock surface.

The three step-out borings for A1-PB-131 (Figure A2-3) will be advanced to a depth of 2 ft bgs using the hand auger method as described in FSP Section 2.4.2.5. Soil samples will be logged and sampled in 1-ft increments following the procedures in FSP Sections 2.4.1 and 2.4.3, respectively. Samples will be submitted for laboratory analysis of the parameters listed in Section 2.4.5.2.



Borings drilled as part of the investigation will be appropriately abandoned following the protocol described in FSP Section 2.2.3 immediately after drilling and/or gamma logging to minimize safety risks and potential for odors or other emissions to the atmosphere.

# TABLES

**TABLE A2-1 MUNICIPAL SOLID WASTE (MSW) THICKNESS IN PERIMETER BORINGS**

Boring Location	Thickness of Pad/NCC/Inert Fill Above DI Datum ft	Start Depth of MSW Below DI Datum ft	End Depth of MSW Below DI Datum ft	MSW Thickness ft	Boring Depth Below DI Datum ft	Notes
A2-PB-137	0.9	15.8	18.0	>2.2	18.0	
A2-PB-138	0.8	4.7	9.2	>4.5	9.2	MSW also from 2.7-3.2' below DI datum
A2-PB-138-A	4.0	9.6	12.0	>2.4	12.0	
A2-PB-139	1.0	5.5	8.5	3.0	11.0	
A2-PB-139-A	0.8	3.0	6.2	3.2	8.2	
A2-PB-139-B	1.0	12.6	15.0	2.4	17.0	no recovery 15-17'

Note: The Design Investigation (DI) Datum is defined as the landfill surface below recently added fill materials. This term encapsulates material above the 2005 ground surface (e.g. NCC and inert fill), as well as materials added to facilitate boring advancement (i.e. drilling pad).

TABLE A2-2 PERIMETER BORINGS ANALYTICAL RESULTS

Location ID	Sample ID	SDG	Start Depth Below DI Datum	End Depth Below DI Datum	Ground Surface Elevation (NAD83)	Thickness of Surficial Material (GS - DI Datum)	Start Depth BGS	End Depth BGS	Composite (Y/N)	RADIUM-226		RADIUM-228		THORIUM-230		THORIUM-232		Combined Radium		Combined Thorium	
										pCi/g		pCi/g		pCi/g		pCi/g		pCi/g		pCi/g	
A2-PB-119	A2-PB-119-0-0.5-N	527037	0	0.5	451.01	1	1	1.5	N	0.776		0.915		0.892		0.729		1.691		1.621	
A2-PB-119	A2-PB-119-1.5-2-N	527037	1.5	2	451.01	1	2.5	3	N	0.823		0.977		1		0.837		1.8		1.837	
A2-PB-119	A2-PB-119-2-4-N	527037	2	4	451.01	1	3	5	Y	1.01		0.929		1.01		1.08		1.939		2.09	
A2-PB-119	A2-PB-119-4-6-N	527037	4	6	451.01	1	5	7	Y	1.06		1.12		1.08		0.884		2.18		1.964	
A2-PB-119	A2-PB-119-6-8-N	527037	6	8	451.01	1	7	9	Y	0.854		0.91		0.897		0.779		1.764		1.676	
A2-PB-119	A2-PB-119-8-10-N	527037	8	10	451.01	1	9	11	Y	0.983		1.07		0.958		0.937		2.053		1.895	
A2-PB-119	A2-PB-119-10-12-N	527037	10	12	451.01	1	11	13	Y	1.09		1.05		0.925		1.05		2.14		1.975	
A2-PB-119	A2-PB-119-12-14-N	527037	12	14	451.01	1	13	15	Y	0.893		1.01		0.634		0.825		1.903		1.459	
A2-PB-119	A2-PB-119-14-16-N	527037	14	16	451.01	1	15	17	Y	0.906		0.799		0.902		0.809		1.705		1.711	
A2-PB-119	A2-PB-119-16-18-N	527037	16	18	451.01	1	17	19	Y	0.642		0.812		0.565		0.572		1.454		1.137	
A2-PB-119	A2-PB-119-18-20-N	527037	18	20	451.01	1	19	21	Y	0.392		0.529		0.244		0.427		0.921		0.671	
A2-PB-119	A2-PB-119-20-22-N	527037	20	22	451.01	1	21	23	Y	0.545		0.327		0.509		0.327		0.872		0.836	
A2-PB-119	A2-PB-119-22-24-N	527037	22	24	451.01	1	23	25	Y	0.454		0.522		0.479		0.745		0.976		1.224	
A2-PB-119	A2-PB-119-24-25-N	527037	24	25	451.01	1	25	26	Y	0.567		0.598		0.718		0.656		1.165		1.374	
A2-PB-120	A2-PB-120-0-1-N	527036	0	1	449.6	0.9	0.9	1.9	N	1.06		0.9		0.941		0.752		1.96		1.693	
A2-PB-120	A2-PB-120-1-2-N	527036	1	2	449.6	0.9	1.9	2.9	N	0.922		1.02		1.27		1.01		1.942		2.28	
A2-PB-120	A2-PB-120-2-4-N	527036	2	4	449.6	0.9	2.9	4.9	Y	0.916		1.23		1.11		0.925		2.146		2.035	
A2-PB-120	A2-PB-120-4-6-N	527036	4	6	449.6	0.9	4.9	6.9	Y	0.883		0.884		1.22		1.32	J	1.767		2.54	J
A2-PB-120	A2-PB-120-6-8-N	527036	6	8	449.6	0.9	6.9	8.9	Y	0.819		1.25		0.898		0.943		2.069		1.841	
A2-PB-120	A2-PB-120-8-10-N	527036	8	10	449.6	0.9	8.9	10.9	Y	0.981		1.21		1.38		1.26	J	2.191		2.64	J
A2-PB-120	A2-PB-120-10-12-N	527036	10	12	449.6	0.9	10.9	12.9	Y	0.841		0.867		0.953		0.744		1.708		1.697	
A2-PB-120	A2-PB-120-12-14-N	527036	12	14	449.6	0.9	12.9	14.9	Y	0.912		0.984		1.03		0.908	J	1.896		1.938	J
A2-PB-120	A2-PB-120-14-16-N	527036	14	16	449.6	0.9	14.9	16.9	Y	0.896		0.904		0.824		0.897		1.8		1.721	
A2-PB-120	A2-PB-120-16-18-N	527036	16	18	449.6	0.9	16.9	18.9	Y	0.448		0.507		0.237		0.474		0.955		0.711	
A2-PB-120	A2-PB-120-18-20-N	527036	18	20	449.6	0.9	18.9	20.9	Y	0.424		0.45		0.324		0.639		0.874		0.963	
A2-PB-120	A2-PB-120-20-22-N	527036	20	22	449.6	0.9	20.9	22.9	Y	0.489		0.4		0.509		0.555		0.889		1.064	
A2-PB-120	A2-PB-120-22-24-N	527036	22	24	449.6	0.9	22.9	24.9	Y	0.391		0.492		0.465		0.59		0.883		1.055	
A2-PB-121	A2-PB-121-0-4-N	527037	0	4	447.82	1	1	5	Y	0.916		1.01		1.68		1.02		1.926		2.7	
A2-PB-121	A2-PB-121-4-6-N	527037	4	6	447.82	1	5	7	Y	1.02		1.03		1.28		1.27		2.05		2.55	
A2-PB-121	A2-PB-121-6-8-N	527037	6	8	447.82	1	7	9	Y	1.14		1.32		1.25		0.557		2.46		1.807	
A2-PB-121	A2-PB-121-8-10-N	527037	8	10	447.82	1	9	11	Y	1.3		1.08		1.53		1.02		2.38		2.55	
A2-PB-121	A2-PB-121-12-14-N	527037	12	14	447.82	1	13	15	Y	1.1		1.21		0.958		0.844		2.31		1.802	
A2-PB-121	A2-PB-121-14-16-N	527037	14	16	447.82	1	15	17	Y	0.781		0.843		0.719		0.917		1.624		1.636	
A2-PB-121	A2-PB-121-16-18-N	527049	16	18	447.82	1	17	19	Y	0.814		0.752		1.41		0.81		1.566		2.22	
A2-PB-121	A2-PB-121-18-20-N	527049	18	20	447.82	1	19	21	Y	0.814		0.944		0.747		0.701		1.758		1.448	
A2-PB-121	A2-PB-121-20-22-N	527049	20	22	447.82	1	21	23	Y	0.92		0.983		0.837		0.693		1.903		1.53	
A2-PB-121	A2-PB-121-22-24-N	527049	22	24	447.82	1	23	25	Y	0.57		0.462		0.657		0.505		1.032		1.162	
A2-PB-121	A2-PB-121-24-25-N	527049	24	25	447.82	1	25	26	Y	0.506		0.713		0.454		0.49		1.219		0.944	

Notes:

- 1) The Design Investigation (DI) Datum is defined as the landfill surface below recently added fill materials. This term encapsulates material above the 2005 ground surface (e.g. NCC and inert fill), as well as materials added to facilitate boring advancement (i.e. drilling pad).
- 2) The "thickness of surficial material" column refers to the difference between ground surface and the DI datum.

TABLE A2-2 PERIMETER BORINGS ANALYTICAL RESULTS

Location ID	Sample ID	SDG	Start Depth Below DI Datum	End Depth Below DI Datum	Ground Surface Elevation (NAD83)	Thickness of Surficial Material (GS - DI Datum)	Start Depth BGS	End Depth BGS	Composite (Y/N)	RADIUM-226	RADIUM-228	THORIUM-230	THORIUM-232	Combined Radium	Combined Thorium
A2-PB-122	A2-PB-122-0-1-N	527320	0	1	446.51	1	1	2	N	0.707	0.841	1.24	0.668	1.548	1.908
A2-PB-122	A2-PB-122-1-2-N	527320	1	2	446.51	1	2	3	N	1.09	1.14	0.995	0.955	2.23	1.95
A2-PB-122	A2-PB-122-2-4-N	527320	2	4	446.51	1	3	5	Y	1.12	1.13	1.76	1.06	2.25	2.82
A2-PB-122	A2-PB-122-4-6-N	527320	4	6	446.51	1	5	7	Y	1.13	1.3	1.44	1.2	2.43	2.64
A2-PB-122	A2-PB-122-6-8-N	527320	6	8	446.51	1	7	9	Y	0.984	0.865	1.66	1.54	1.849	3.2
A2-PB-122	A2-PB-122-8-10-N	527320	8	10	446.51	1	9	11	Y	1.06	1.01	1.54	1.58	2.07	3.12
A2-PB-122	A2-PB-122-10-12-N	527320	10	12	446.51	1	11	13	Y	0.882	0.918	1.27	1.52	1.8	2.79
A2-PB-122	A2-PB-122-12-14-N	527320	12	14	446.51	1	13	15	Y	0.783	0.594	0.842	0.749	1.377	1.591
A2-PB-122	A2-PB-122-14-16-N	527320	14	16	446.51	1	15	17	Y	0.695	0.93	0.819	0.683	1.625	1.502
A2-PB-122	A2-PB-122-16-18-N	527320	16	18	446.51	1	17	19	Y	0.709	0.696	0.723	0.907	1.405	1.63
A2-PB-122	A2-PB-122-18-20-N	527320	18	20	446.51	1	19	21	Y	0.626	0.727	0.491	0.508	1.353	0.999
A2-PB-122	A2-PB-122-20-22-N	527320	20	22	446.51	1	21	23	Y	0.662	0.61	0.771	0.845	1.272	1.616
A2-PB-122	A2-PB-122-22-24-N	527320	22	24	446.51	1	23	25	Y	0.596	0.613	0.527	0.847	J 1.209	1.374 J
A2-PB-122	A2-PB-122-24-25-N	527320	24	25	446.51	1	25	26	Y	0.899	0.924	1.11	0.837	1.823	1.947
A2-PB-123	A2-PB-123-0-1-N	528627	0	1	460.14	11	11	12	N	11.2	1.09	303	1.3	12.29	304.3
A2-PB-123	A2-PB-123-1-2-N	528627	1	2	460.14	11	12	13	N	3.86	0.988	74.8	1.02	4.848	75.82
A2-PB-123	A2-PB-123-2-4-N	528627	2	4	460.14	11	13	15	Y	2.25	1.17	38.8	1.67	3.42	40.47
A2-PB-123	A2-PB-123-4-6-N	528627	4	6	460.14	11	15	17	Y	1.75	1.23	7.19	1.68	2.98	8.87
A2-PB-123	A2-PB-123-6-8-N	528627	6	8	460.14	11	17	19	Y	1.67	1.36	15.3	1.1	3.03	16.4
A2-PB-123	A2-PB-123-8-10-N	528627	8	10	460.14	11	19	21	Y	1.13	1.23	1.62	0.979	2.36	2.599
A2-PB-123	A2-PB-123-10-12-N	528627	10	12	460.14	11	21	23	Y	1.08	1.2	5.64	1.59	J 2.28	7.23 J
A2-PB-123	A2-PB-123-12-14-N	528627	12	14	460.14	11	23	25	Y	0.636	0.915	1.36	0.988	1.551	2.348
A2-PB-123	A2-PB-123-14-16-N	528627	14	16	460.14	11	25	27	Y	0.979	0.995	0.739	0.893	J 1.974	1.632 J
A2-PB-123	A2-PB-123-16-18-N	528627	16	18	460.14	11	27	29	Y	0.758	0.799	1.08	1.05	1.557	2.13
A2-PB-123	A2-PB-123-18-20-N	528627	18	20	460.14	11	29	31	Y	0.927	0.979	1.27	1.17	1.906	2.44
A2-PB-123	A2-PB-123-20-21-N	528627	20	21	460.14	11	31	32	Y	0.529	0.59	0.757	0.603	1.119	1.36
A2-PB-124	A2-PB-124-0-1-N	527049	0	1	444.18	2	2	3	N	2.57	1.54	23.5	1.14	J 4.11	24.64 J
A2-PB-124	A2-PB-124-1-2-N	527049	1	2	444.18	2	3	4	N	1.4	1.14	2.19	1.17	J 2.54	3.36 J
A2-PB-124	A2-PB-124-2-4-N	527049	2	4	444.18	2	4	6	Y	1.35	1.79	1.77	1.15	3.14	2.92
A2-PB-124	A2-PB-124-4-6-N	527049	4	6	444.18	2	6	8	Y	1.06	0.971	1.31	1.09	2.031	2.4
A2-PB-124	A2-PB-124-6-8-N	527320	6	8	444.18	2	8	10	Y	0.857	1.04	1.28	1.08	1.897	2.36
A2-PB-124	A2-PB-124-8-10-N	527320	8	10	444.18	2	10	12	Y	0.81	1.08	1.05	0.996	1.89	2.046
A2-PB-124	A2-PB-124-10-12-N	527320	10	12	444.18	2	12	14	Y	0.852	1.01	1.12	0.873	1.862	1.993
A2-PB-124	A2-PB-124-12-14-N	527320	12	14	444.18	2	14	16	Y	1.03	1.08	0.936	1.07	2.11	2.006
A2-PB-124	A2-PB-124-14-16-N	527320	14	16	444.18	2	16	18	Y	0.972	1.06	1.2	0.846	2.032	2.046
A2-PB-124	A2-PB-124-16-18-N	527320	16	18	444.18	2	18	20	Y	1.04	1.05	0.887	0.936	2.09	1.823
A2-PB-124	A2-PB-124-18-20-N	527320	18	20	444.18	2	20	22	Y	0.332	0.479	0.536	0.31	0.811	0.846
A2-PB-125	A2-PB-125-0-1-N	528628	0	1	457.06	8	8	9	N	2.43	1.07	45.3	1.19	3.5	46.49
A2-PB-125	A2-PB-125-1-2-N	528628	1	2	457.06	8	9	10	N	1.32	1.35	9.21	1.49	2.67	10.7
A2-PB-125	A2-PB-125-2-4-N	528628	2	4	457.06	8	10	12	Y	1.02	1.59	2.13	1.04	2.61	3.17
A2-PB-125	A2-PB-125-4-6-N	528628	4	6	457.06	8	12	14	Y	1.23	1.13	1.25	1.27	2.36	2.52
A2-PB-125	A2-PB-125-6-8-N	528628	6	8	457.06	8	14	16	Y	1.01	1.03	2.53	1.21	2.04	3.74
A2-PB-125	A2-PB-125-8-10-N	528628	8	10	457.06	8	16	18	Y	0.741	0.837	0.993	0.955	1.578	1.948
A2-PB-125	A2-PB-125-10-12-N	528628	10	12	457.06	8	18	20	Y	0.996	0.951	1.27	1.54	1.947	2.81
A2-PB-125	A2-PB-125-12-14-N	528628	12	14	457.06	8	20	22	Y	1.04	0.959	2.39	1.46	J 1.999	3.85 J
A2-PB-125	A2-PB-125-14-16-N	528628	14	16	457.06	8	22	24	Y	0.96	1.31	1.62	0.859	2.27	2.479
A2-PB-125	A2-PB-125-16-18-N	528628	16	18	457.06	8	24	26	Y	0.472	0.428	0.578	0.545	0.9	1.123
A2-PB-125	A2-PB-125-18-20-N	528628	18	20	457.06	8	26	28	Y	1.07	0.893	0.763	1.24	1.963	2.003

Notes:

- 1) The Design Investigation (DI) Datum is defined as the landfill surface below recently added fill materials. This term encapsulates material above the 2005 ground surface (e.g. NCC and inert fill), as well as materials added to facilitate boring advancement (i.e. drilling pad).
- 2) The "thickness of surficial material" column refers to the difference between ground surface and the DI datum.

TABLE A2-2 PERIMETER BORINGS ANALYTICAL RESULTS

Location ID	Sample ID	SDG	Start Depth Below DI Datum	End Depth Below DI Datum	Ground Surface Elevation (NAD83)	Thickness of Surficial Material (GS - DI Datum)	Start Depth BGS	End Depth BGS	Composite (Y/N)	RADIUM-226	RADIUM-228	THORIUM-230	THORIUM-232	Combined Radium	Combined Thorium
A2-PB-126	A2-PB-126-0-1-N	528625	0	1	454.53	5	5	6	N	1.11	1.09	3.76	1.02	2.2	4.78
A2-PB-126	A2-PB-126-1-2-N	528625	1	2	454.53	5	6	7	N	1.06	0.956	1.04	0.951	2.016	1.991
A2-PB-126	A2-PB-126-2-4-N	528625	2	4	454.53	5	7	9	Y	1.05	1.06	0.926	0.883	2.11	1.809
A2-PB-126	A2-PB-126-4-6-N	528625	4	6	454.53	5	9	11	Y	0.888	0.805	0.941	0.757	1.693	1.698
A2-PB-126	A2-PB-126-6-8-N	528625	6	8	454.53	5	11	13	Y	0.608	0.781	0.563	0.6	1.389	1.163
A2-PB-126	A2-PB-126-8-10-N	528625	8	10	454.53	5	13	15	Y	0.615	0.853	0.772	0.553	1.468	1.325
A2-PB-126	A2-PB-126-10-12-N	528625	10	12	454.53	5	15	17	Y	0.534	0.586	0.723	0.666	1.12	1.389
A2-PB-126	A2-PB-126-12-14-N	528625	12	14	454.53	5	17	19	Y	0.395	0.514	195	1.02	0.909	196.02
A2-PB-126	A2-PB-126-14-16-N	528626	14	16	454.53	5	19	21	Y	0.327	0.574	0.511	0.573	0.901	1.084
A2-PB-126	A2-PB-126-16-18-N	528626	16	18	454.53	5	21	23	Y	0.426	0.519	0.418	0.437	0.945	0.855
A2-PB-126	A2-PB-126-18-20-N	528626	18	20	454.53	5	23	25	Y	0.307	0.54	0.504	0.311	0.847	0.815
A2-PB-127	A2-PB-127-0-1-N	527049	0	1	445.14	1	1	2	N	1.41	1.44	8.91	1.19	J 2.85	10.1 J
A2-PB-127	A2-PB-127-1-2-N	527049	1	2	445.14	1	2	3	N	1.13	1.27	2.93	0.792	J 2.4	3.722 J
A2-PB-127	A2-PB-127-2-4-N	527049	2	4	445.14	1	3	5	Y	1.08	1.04	1.77	0.913	2.12	2.683
A2-PB-127	A2-PB-127-4-6-N	527049	4	6	445.14	1	5	7	Y	0.592	0.76	0.766	0.908	1.352	1.674
A2-PB-127	A2-PB-127-6-8-N	527049	6	8	445.14	1	7	9	Y	0.694	0.727	0.715	0.504	1.421	1.219
A2-PB-127	A2-PB-127-8-10-N	527049	8	10	445.14	1	9	11	Y	0.868	0.917	1.01	0.77	1.785	1.78
A2-PB-127	A2-PB-127-10-12-N	527049	10	12	445.14	1	11	13	Y	0.416	0.453	0.66	0.378	0.869	1.038
A2-PB-127	A2-PB-127-12-14-N	527049	12	14	445.14	1	13	15	Y	0.448	0.545	0.53	0.862	J 0.993	1.392 J
A2-PB-127	A2-PB-127-14-16-N	527049	14	16	445.14	1	15	17	Y	0.414	0.462	0.538	0.625	0.876	1.163
A2-PB-127	A2-PB-127-16-17-N	527049	16	17	445.14	1	17	18	Y	0.447	0.59	0.464	0.301	1.037	0.765
A2-PB-128-R2	A2-PB-128-R2-0-1-N	528626	0	1	457.93	10	10	11	N	5.29	1.35	124	1.65	J 6.64	125.65 J
A2-PB-128-R2	A2-PB-128-R2-1-2-N	528626	1	2	457.93	10	11	12	N	18.2	0.901	459	2.44	19.101	461.44
A2-PB-128-R2	A2-PB-128-R2-2-4-N	528626	2	4	457.93	10	12	14	Y	1.82	1.07	28.3	0.902	2.89	29.202
A2-PB-128-R2	A2-PB-128-R2-4-6-N	528626	4	6	457.93	10	14	16	Y	0.891	0.969	1.29	0.731	1.86	2.021
A2-PB-128-R2	A2-PB-128-R2-6-8-N	528626	6	8	457.93	10	16	18	Y	0.976	0.702	3.75	0.768	1.678	4.518
A2-PB-128-R2	A2-PB-128-R2-8-10-N	528626	8	10	457.93	10	18	20	Y	0.656	0.7	1.56	0.56	1.356	2.12
A2-PB-128-R2	A2-PB-128-R2-10-12-N	528626	10	12	457.93	10	20	22	Y	0.418	0.371	1.26	0.332	0.789	1.592
A2-PB-128-R2	A2-PB-128-R2-12-14-N	528626	12	14	457.93	10	22	24	Y	0.416	0.309	0.415	0.517	0.725	0.932
A2-PB-128-R2	A2-PB-128-R2-14-16-N	528626	14	16	457.93	10	24	26	Y	0.357	0.275	0.702	0.392	0.632	1.094
A2-PB-128-R2	A2-PB-128-R2-16-18-N	528626	16	18	457.93	10	26	28	Y	0.511	0.651	J 0.767	0.708	1.162 J	1.475
A2-PB-128-R2	A2-PB-128-R2-18-20-N	528626	18	20	457.93	10	28	30	N	0.539	0.689	0.724	0.868	1.228	1.592
A2-PB-129	A2-PB-129-0-2-N	528294	0	2	444.83	0	0	2	Y	0.863	1.1	3.86	1.15	1.963	5.01
A2-PB-129	A2-PB-129-2-4-N	528294	2	4	444.83	0	2	4	Y	0.769	0.863	1.41	1.06	1.632	2.47
A2-PB-129	A2-PB-129-4-6-N	528294	4	6	444.83	0	4	6	Y	0.656	0.743	1.19	1.01	1.399	2.2
A2-PB-129	A2-PB-129-6-8-N	528294	6	8	444.83	0	6	8	Y	0.527	0.534	0.693	0.458	1.061	1.151
A2-PB-129	A2-PB-129-8-10-N	528294	8	10	444.83	0	8	10	Y	0.476	0.459	0.422	0.399	0.935	0.821
A2-PB-129	A2-PB-129-10-12-N	528294	10	12	444.83	0	10	12	Y	0.681	0.588	0.792	0.62	1.269	1.412
A2-PB-129	A2-PB-129-12-14-N	528294	12	14	444.83	0	12	14	Y	0.556	0.673	0.536	0.615	1.229	1.151
A2-PB-129	A2-PB-129-14-16-N	528294	14	16	444.83	0	14	16	Y	0.752	0.735	0.657	0.953	1.487	1.61
A2-PB-129	A2-PB-129-16-18-N	528294	16	18	444.83	0	16	18	Y	0.48	0.485	0.541	0.614	0.965	1.155
A2-PB-129	A2-PB-129-18-19-N	528294	18	19	444.83	0	18	19	Y	0.379	0.421	0.232	0.404	0.8	0.636

Notes:

- 1) The Design Investigation (DI) Datum is defined as the landfill surface below recently added fill materials. This term encapsulates material above the 2005 ground surface (e.g. NCC and inert fill), as well as materials added to facilitate boring advancement (i.e. drilling pad).
- 2) The "thickness of surficial material" column refers to the difference between ground surface and the DI datum.

TABLE A2-2 PERIMETER BORINGS ANALYTICAL RESULTS

Location ID	Sample ID	SDG	Start Depth Below DI Datum	End Depth Below DI Datum	Ground Surface Elevation (NAD83)	Thickness of Surficial Material (GS - DI Datum)	Start Depth BGS	End Depth BGS	Composite (Y/N)	RADIUM-226	RADIUM-228	THORIUM-230	THORIUM-232	Combined Radium	Combined Thorium		
A2-PB-130	A2-PB-130-0-1-N	528291	0	1	445.69	0.8	0.8	1.8	N	1.17	1.02	1.29	1.02	J	2.19	2.31	J
A2-PB-130	A2-PB-130-1-2-N	528291	1	2	445.69	0.8	1.8	2.8	N	1.01	0.987	1.18	1.16	J	1.997	2.34	J
A2-PB-130	A2-PB-130-2-4-N	528291	2	4	445.69	0.8	2.8	4.8	Y	0.654	0.888	0.702	0.944		1.542	1.646	
A2-PB-130	A2-PB-130-4-6-N	528291	4	6	445.69	0.8	4.8	6.8	Y	0.986	0.977	1.12	1.01		1.963	2.13	
A2-PB-130	A2-PB-130-6-8-N	528291	6	8	445.69	0.8	6.8	8.8	Y	0.809	0.97	0.786	0.758		1.779	1.544	
A2-PB-130	A2-PB-130-8-10-N	528291	8	10	445.69	0.8	8.8	10.8	Y	0.836	0.83	1.01	0.931		1.666	1.941	
A2-PB-130	A2-PB-130-10-12-N	528291	10	12	445.69	0.8	10.8	12.8	Y	0.613	0.872	0.798	1.05		1.485	1.848	
A2-PB-130	A2-PB-130-12-14-N	528291	12	14	445.69	0.8	12.8	14.8	Y	0.331	0.518	0.252	0.393		0.849	0.645	
A2-PB-130	A2-PB-130-14-16-N	528291	14	16	445.69	0.8	14.8	16.8	Y	0.362	0.576	0.448	0.309		0.938	0.757	
A2-PB-130	A2-PB-130-16-18-N	528291	16	18	445.69	0.8	16.8	18.8	Y	0.419	0.649	0.397	0.541		1.068	0.938	
A2-PB-131	A2-PB-131-0-1-N	528288	0	1	444.81	0.3	0.3	1.3	N	2.53	1	16.5	1.15	J	3.53	17.65	J
A2-PB-131	A2-PB-131-1-2-N	528288	1	2	444.81	0.3	1.3	2.3	N	1.16	1.08	1.56	1.16		2.24	2.72	
A2-PB-131	A2-PB-131-2-4-N	528288	2	4	444.81	0.3	2.3	4.3	Y	1.03	0.952	1.89	0.701		1.982	2.591	
A2-PB-131	A2-PB-131-4-6-N	528288	4	6	444.81	0.3	4.3	6.3	Y	0.842	1.14	1.02	1.09	J	1.982	2.11	J
A2-PB-131	A2-PB-131-6-8-N	528288	6	8	444.81	0.3	6.3	8.3	Y	0.944	0.847	1.26	0.951	J	1.791	2.211	J
A2-PB-131	A2-PB-131-8-10-N	528294	8	10	444.81	0.3	8.3	10.3	Y	0.454	0.673	0.594	0.531		1.127	1.125	
A2-PB-131	A2-PB-131-10-12-N	528294	10	12	444.81	0.3	10.3	12.3	Y	0.293	0.539	0.594	0.329		0.832	0.923	
A2-PB-131	A2-PB-131-12-14-N	528294	12	14	444.81	0.3	12.3	14.3	Y	0.383	0.561	0.383	0.315		0.944	0.698	
A2-PB-131	A2-PB-131-14-16-N	528294	14	16	444.81	0.3	14.3	16.3	Y	0.471	0.633	0.54	0.761		1.104	1.301	
A2-PB-131	A2-PB-131-16-19-N	528294	16	19	444.81	0.3	16.3	19.3	Y	0.506	0.571	0.389	0.454		1.077	0.843	
A2-PB-132-R	A2-PB-132-R-0-2-N	528287	0	2	445.32	0	0	2	Y	1.11	1.35	1.79	0.844		2.46	2.634	
A2-PB-132-R	A2-PB-132-R-2-4-N	528287	2	4	445.32	0	2	4	Y	1.09	1.02	1.22	0.831		2.11	2.051	
A2-PB-132-R	A2-PB-132-R-4-6-N	528287	4	6	445.32	0	4	6	Y	0.775	1.02	0.62	0.832		1.795	1.452	
A2-PB-132-R	A2-PB-132-R-6-8-N	528287	6	8	445.32	0	6	8	Y	0.94	0.992	0.891	0.803		1.932	1.694	
A2-PB-132-R	A2-PB-132-R-8-10-N	528287	8	10	445.32	0	8	10	Y	0.834	0.719	1.12	0.771		1.553	1.891	
A2-PB-132-R	A2-PB-132-R-10-12-N	528287	10	12	445.32	0	10	12	Y	0.614	0.761	0.514	0.774	J	1.375	1.288	J
A2-PB-132-R	A2-PB-132-R-12-14-N	528287	12	14	445.32	0	12	14	Y	0.405	0.548	0.6	0.418		0.953	1.018	
A2-PB-132-R	A2-PB-132-R-14-16-N	528287	14	16	445.32	0	14	16	Y	0.331	0.405	0.357	0.21		0.736	0.567	
A2-PB-132-R	A2-PB-132-R-16-18-N	528287	16	18	445.32	0	16	18	Y	0.348	0.339	0.6	0.423		0.687	1.023	
A2-PB-132-R	A2-PB-132-R-18-20-N	528287	18	20	445.32	0	18	20	Y	0.339	0.361	0.449	0.513		0.7	0.962	
A2-PB-133	A2-PB-133-0-2-N	528292	0	2	446	1	1	3	Y	0.901	1.37	1.44	0.87		2.271	2.31	
A2-PB-133	A2-PB-133-2-4-N	528292	2	4	446	1	3	5	Y	0.814	0.853	0.892	0.657		1.667	1.549	
A2-PB-133	A2-PB-133-4-6-N	528292	4	6	446	1	5	7	Y	0.619	0.721	0.43	0.691		1.34	1.121	
A2-PB-133	A2-PB-133-6-8-N	528292	6	8	446	1	7	9	Y	0.495	0.56	0.575	0.558		1.055	1.133	
A2-PB-133	A2-PB-133-8-10-N	528292	8	10	446	1	9	11	Y	0.541	0.544	0.635	0.818		1.085	1.453	
A2-PB-133	A2-PB-133-10-12-N	528292	10	12	446	1	11	13	Y	0.502	0.542	0.649	0.527		1.044	1.176	
A2-PB-133	A2-PB-133-12-14-N	528292	12	14	446	1	13	15	Y	0.642	0.775	0.617	0.608		1.417	1.225	
A2-PB-133	A2-PB-133-14-16-N	528292	14	16	446	1	15	17	Y	0.317	0.591	0.433	0.383		0.908	0.816	
A2-PB-133	A2-PB-133-16-18-N	528292	16	18	446	1	17	19	Y	0.48	0.564	0.368	0.294		1.044	0.662	
A2-PB-133	A2-PB-133-18-19-N	528292	18	19	446	1	19	20	Y	0.32	0.236	0.543	0.587		0.556	1.13	

Notes:

- 1) The Design Investigation (DI) Datum is defined as the landfill surface below recently added fill materials. This term encapsulates material above the 2005 ground surface (e.g. NCC and inert fill), as well as materials added to facilitate boring advancement (i.e. drilling pad).
- 2) The "thickness of surficial material" column refers to the difference between ground surface and the DI datum.



TABLE A2-2 PERIMETER BORINGS ANALYTICAL RESULTS

Location ID	Sample ID	SDG	Start Depth Below DI Datum	End Depth Below DI Datum	Ground Surface Elevation (NAD83)	Thickness of Surficial Material (GS - DI Datum)	Start Depth BGS	End Depth BGS	Composite (Y/N)	RADIUM-226	RADIUM-228	THORIUM-230	THORIUM-232	Combined Radium	Combined Thorium	
A2-PB-134	A2-PB-134-0-1-N	528282	0	1	444.9	0.8	0.8	1.8	N	0.865	1.17	1.44	1.18	2.035	2.62	
A2-PB-134	A2-PB-134-1-2-N	528282	1	2	444.9	0.8	1.8	2.8	N	0.825	1.29	1.09	1.21	2.115	2.3	
A2-PB-134	A2-PB-134-2-4-N	528282	2	4	444.9	0.8	2.8	4.8	Y	0.885	1.12	1.22	1.3	2.005	2.52	
A2-PB-134	A2-PB-134-4-6-N	528282	4	6	444.9	0.8	4.8	6.8	Y	0.659	0.805	0.794	0.904	1.464	1.698	
A2-PB-134	A2-PB-134-6-8-N	528282	6	8	444.9	0.8	6.8	8.8	Y	0.42	1.03	0.929	0.722	1.45	1.651	
A2-PB-134	A2-PB-134-8-10-N	528282	8	10	444.9	0.8	8.8	10.8	Y	0.732	0.792	0.706	0.944	1.524	1.65	
A2-PB-134	A2-PB-134-10-12-N	528282	10	12	444.9	0.8	10.8	12.8	Y	0.593	0.911	0.78	0.603	1.504	1.383	
A2-PB-134	A2-PB-134-12-14-N	528282	12	14	444.9	0.8	12.8	14.8	Y	0.468	0.746	0.718	0.489	1.214	1.207	
A2-PB-134	A2-PB-134-14-16-N	528282	14	16	444.9	0.8	14.8	16.8	Y	0.434	0.596	0.634	0.49	1.03	1.124	
A2-PB-134	A2-PB-134-16-18-N	528282	16	18	444.9	0.8	16.8	18.8	Y	0.364	0.571	0.257	0.509	0.935	0.766	
A2-PB-134	A2-PB-134-18-19-N	528282	18	19	444.9	0.8	18.8	19.8	Y	0.404	0.456	0.357	0.29	0.86	0.647	
A2-PB-135	A2-PB-135-0-1-N	528282	0	1	443.37	0.8	0.8	1.8	N	0.986	1.15	0.861	1.01	J 2.136	1.871	J
A2-PB-135	A2-PB-135-1-2-N	528282	1	2	443.37	0.8	1.8	2.8	N	0.511	0.809	1.04	0.795	1.32	1.835	
A2-PB-135	A2-PB-135-2-4-N	528282	2	4	443.37	0.8	2.8	4.8	Y	0.823	0.669	0.603	0.731	1.492	1.334	
A2-PB-135	A2-PB-135-4-6-N	528282	4	6	443.37	0.8	4.8	6.8	Y	0.601	0.626	0.938	0.6	1.227	1.538	
A2-PB-135	A2-PB-135-6-8-N	528282	6	8	443.37	0.8	6.8	8.8	Y	0.5	0.559	0.55	0.633	1.059	1.183	
A2-PB-135	A2-PB-135-8-10-N	528282	8	10	443.37	0.8	8.8	10.8	Y	0.452	0.784	0.471	0.419	1.236	0.89	
A2-PB-135	A2-PB-135-10-12-N	528282	10	12	443.37	0.8	10.8	12.8	Y	0.416	0.347	0.525	0.341	0.763	0.866	
A2-PB-135	A2-PB-135-12-14-N	528282	12	14	443.37	0.8	12.8	14.8	Y	0.316	0.535	0.547	0.319	0.851	0.866	
A2-PB-135	A2-PB-135-14-16-N	528282	14	16	443.37	0.8	14.8	16.8	Y	0.312	0.49	0.431	0.48	0.802	0.911	
A2-PB-135	A2-PB-135-16-18-N	528282	16	18	443.37	0.8	16.8	18.8	Y	0.332	0.411	0.258	0.578	0.743	0.836	
A2-PB-136	A2-PB-136-0-1-N	528631	0	1	442.44	0	0	1	N	1.23	1.28	2.56	1.2	J 2.51	3.76	J
A2-PB-136	A2-PB-136-1-2-N	528631	1	2	442.44	0	1	2	N	0.897	1.19	1.59	1.24	J 2.087	2.83	J
A2-PB-136	A2-PB-136-2-4-N	528631	2	4	442.44	0	2	4	Y	0.956	1	0.922	0.849	1.956	1.771	
A2-PB-136	A2-PB-136-4-6-N	528631	4	6	442.44	0	4	6	Y	1.16	1.16	1.01	1.57	2.32	2.58	
A2-PB-136	A2-PB-136-6-8-N	528631	6	8	442.44	0	6	8	Y	0.57	0.722	0.933	1.01	1.292	1.943	
A2-PB-136	A2-PB-136-8-10-N	528631	8	10	442.44	0	8	10	Y	0.387	0.611	0.969	1.54	J 0.998	2.509	J
A2-PB-136	A2-PB-136-10-12-N	528631	10	12	442.44	0	10	12	Y	1.06	1.28	1.58	1.34	2.34	2.92	
A2-PB-136	A2-PB-136-12-14-N	528631	12	14	442.44	0	12	14	Y	0.631	0.589	0.832	0.572	1.22	1.404	
A2-PB-165	A2-PB-165-0-1-N	528291	0	1	445.57	2	2	3	N	7.81	1.22	153	1.65	J 9.03	154.65	J
A2-PB-165	A2-PB-165-1-2-N	528291	1	2	445.57	2	3	4	N	2.11	0.968	36.7	1.01	3.078	37.71	
A2-PB-165	A2-PB-165-2-4-N	528291	2	4	445.57	2	4	6	Y	0.78	0.716	4.04	0.949	1.496	4.989	
A2-PB-165	A2-PB-165-4-6-N	528291	4	6	445.57	2	6	8	Y	0.718	0.998	0.853	0.986	1.716	1.839	
A2-PB-165	A2-PB-165-6-8-N	528291	6	8	445.57	2	8	10	Y	0.661	0.666	5.78	0.483	1.327	6.263	
A2-PB-165	A2-PB-165-8-10-N	528291	8	10	445.57	2	10	12	Y	0.424	J 0.482	0.337	0.38	0.906	J 0.717	
A2-PB-165	A2-PB-165-10-12-N	528291	10	12	445.57	2	12	14	Y	0.552	0.653	1.33	0.603	1.205	1.933	
A2-PB-165	A2-PB-165-12-14-N	528291	12	14	445.57	2	14	16	Y	0.5	0.579	0.882	0.507	1.079	1.389	
A2-PB-165	A2-PB-165-14-16-N	528291	14	16	445.57	2	16	18	Y	0.474	0.55	0.204	0.347	1.024	0.551	
A2-PB-165	A2-PB-165-16-17-N	528291	16	17	445.57	2	18	19	Y	0.285	0.459	0.42	0.554	0.744	0.974	

Notes:

- 1) The Design Investigation (DI) Datum is defined as the landfill surface below recently added fill materials. This term encapsulates material above the 2005 ground surface (e.g. NCC and inert fill), as well as materials added to facilitate boring advancement (i.e. drilling pad).
- 2) The "thickness of surficial material" column refers to the difference between ground surface and the DI datum.

TABLE A2-3 BUFFER ZONE AND LOT 2A2 ANALYTICAL RESULTS

Boring ID	Sample ID	Start Depth Below DI Datum	End Depth Below DI Datum	Ground Surface Elevation (NAD83)	Thickness of Surficial Material (GS- DI Datum)	Start Depth BGS	End Depth BGS	Composite (Y/N)	RADIUM-226		RADIUM-228		THORIUM-230		THORIUM-232		Combined Radium		Combined Thorium		Core Scan - Alpha  (cpm)	Core Scan - Beta  (cpm)	Core Scan - Gamma  (cpm)
		ft	ft			ft	ft		ft	ft	pCi/g	pCi/g	pCi/g	pCi/g	pCi/g	pCi/g	pCi/g	pCi/g	pCi/g	pCi/g			
1-2A2-043	1-2A2-043-0-0.5-N	0	0.5	445.69	1	1	1.5	N	1.12	0.993	2.27	1.06	2.113	3.33	4	303	5414						
1-2A2-043	1-2A2-043-0.5-1-N	0.5	1	445.69	1	1.5	2	N	0.982	1.25	1.16	0.94	2.232	2.1	5	315	5707						
1-2A2-044	1-2A2-044-0-0.5-N	0	0.5	445.048	1.2	1.2	1.7	N	1.13	0.992	1.24	1.01	2.122	2.25	5	287	5043						
1-2A2-044	1-2A2-044-0.5-1-N	0.5	1	445.048	1.2	1.7	2.2	N	0.762	1.45	1.25	1.25	2.212	2.5	4	313	5042						
1-2A2-045	1-2A2-045-0-0.5-N	0	0.5	445.348	2	2	2.5	N	2.21	1.36	38.4	1.63	3.57	40.03	7	342	6303						
1-2A2-045	1-2A2-045-0.5-1-N	0.5	1	445.348	2	2.5	3	N	1.07	1.52	1.89	1.01	2.59	2.9	4	313	6350						
1-2A2-046	1-2A2-046-0-0.5-N	0	0.5	445.367	1.2	1.2	1.7	N	1.87	1.2	32.3	1.4	3.07	33.7	5	305	5827						
1-2A2-046	1-2A2-046-0.5-1-N	0.5	1	445.367	1.2	1.7	2.2	N	1.11	1.52	1.92	1.42	J	2.63	3.34	J	1	305	5875				
1-2A2-047	1-2A2-047-0-0.5-N	0	0.5	445.809	0.7	0.7	1.2	N	1.34	1.09	10.6	1.03	J	2.43	11.63	J	2	303	6115				
1-2A2-047	1-2A2-047-0.5-1-N	0.5	1	445.809	0.7	1.2	1.7	N	1.14	1.19	1.49	1.05	2.33	2.54	4	323	6002						
1-2A2-048	1-2A2-048-0-0.5-N	0	0.5	445.194	0.7	0.7	1.2	N	1.33	0.659	8.56	0.55	1.989	9.11	5	268	5347						
1-2A2-048	1-2A2-048-0.5-1-N	0.5	1	445.194	0.7	1.2	1.7	N	1.15	1.38	2.5	1.15	J	2.53	3.65	J	3	325	5308				
1-2A2-049	1-2A2-049-0-0.5-N	0	0	445.604	1.1	1.1	1.6	N	1.09	1.33	1.77	0.951	2.42	2.721	4	264	5280						
1-2A2-049	1-2A2-049-0.5-1-N	0.5	1	445.604	1.1	1.6	2.1	N	1.07	0.99	1.46	1.04	2.06	2.5	3	300	5348						
1-2A2-050	1-2A2-050-0-0.5-N	0	0.5	445.151	1.1	1.1	1.6	N	0.872	1.12	2.1	1.2	1.992	3.3	2	323	5237						
1-2A2-050	1-2A2-050-0.5-1-N	0.5	1	445.151	1.1	1.6	2.1	N	1.07	1.33	1.5	1.26	2.4	2.76	1	309	5193						
1-2A2-051	1-2A2-051-0-0.5-N	0	0.5	445.307	1.1	1.1	1.6	N	1.11	1.26	2.48	1.34	2.37	3.82	4	287	5231						
1-2A2-051	1-2A2-051-0.5-1-N	0.5	1	445.307	1.1	1.6	2.1	N	0.972	1.12	1.44	1.14	J	2.092	2.58	J	6	276	5272				
1-2A2-052	1-2A2-052-0-0.5-N	0	0.5	445.425	4	4	4.5	N	1.04	0.916	1.37	0.974	J	1.956	2.344	J	4	266	5061				
1-2A2-052	1-2A2-052-0.5-1-N	0.5	1	445.425	4	4.5	5	N	0.622	0.801	0.987	0.656	1.423	1.643	6	296	5190						
1-2A2-053	1-2A2-053-0-0.5-N	0	0.5	445.933	2.1	2.1	2.6	N	1.42	1.31	12.3	1.04	2.73	13.34	6	290	5451						
1-2A2-053	1-2A2-053-0.5-1-N	0.5	1	445.933	2.1	2.6	3.1	N	1.35	1.62	5.99	1.06	2.97	7.05	4	298	5503						
1-2A2-054	1-2A2-054-0-0.5-N	0	0.5	446.052	1.8	1.8	2.3	N	1.13	1.06	4.22	1.07	2.19	5.29	5	307	5213						
1-2A2-054	1-2A2-054-0.5-1-N	0.5	1	446.052	1.8	2.3	2.8	N	1.08	1.19	1.35	1.16	2.27	2.51	6	262	5310						
1-2A2-055	1-2A2-055-0-0.5-N	0	0.5	445.737	1.2	1.2	1.7	N	0.943	1.51	1.93	1.01	2.453	2.94	4	268	5232						
1-2A2-055	1-2A2-055-0.5-1-N	0.5	1	445.737	1.2	1.7	2.2	N	1.07	1.42	1.26	0.954	2.49	2.214	7	283	5118						
1-2A2-056	1-2A2-056-0-0.5-N	0	0.5	445.705	1.3	1.3	1.8	N	0.961	0.973	1.44	1.05	1.934	2.49	1	288	5141						
1-2A2-056	1-2A2-056-0.5-1-N	0.5	1	445.705	1.3	1.8	2.3	N	1.11	1.02	1.59	1.1	2.13	2.69	5	291	5191						
1-BZ-001	1-BZ-001-0-0.5-N	0	0.5	445.26	1.1	1.1	1.6	N	1.34	1.07	2.78	1.33	2.41	4.11	2	286	4058						
1-BZ-001	1-BZ-001-0.5-1-N	0.5	1	445.26	1.1	1.6	2.1	N	1.39	1.44	1.32	1.29	J	2.83	2.61	J	0	296	4230				
1-BZ-002	1-BZ-002-0-0.5-N	0	0.5	444.668	1.1	1.1	1.6	N	2.4	1.09	32.4	1.35	3.49	33.75	1	317	4267						
1-BZ-002	1-BZ-002-0.5-1-N	0.5	1	444.668	1.1	1.6	2.1	N	1.36	1.47	3.65	1.29	2.83	4.94	2	295	4284						
1-BZ-003	1-BZ-003-0-0.5-N	0	0.5	445.009	1.5	1.5	2	N	7.9	1.46	206	2.37	J	9.36	208.37	J	3	314	4672				
1-BZ-003	1-BZ-003-0.5-1-N	0.5	1	445.009	1.5	2	2.5	N	1.82	1.18	23.7	1.27	3	24.97	3	305	4240						
1-BZ-004	1-BZ-004-0-0.5-N	0	0.5	449.119	5.2	5.2	5.7	N	1.26	1.16	2.36	0.984	2.42	3.344	6	271	4560						
1-BZ-004	1-BZ-004-0.5-1-N	0.5	1	449.119	5.2	5.7	6.2	N	1.17	1.09	2.31	1.61	2.26	3.92	5	286	4522						
1-BZ-005	1-BZ-005-0-0.5-N	0	0.5	445.788	1	1	1.5	N	1.22	1.41	3.65	0.854	2.63	4.504	3	285	4171						
1-BZ-005	1-BZ-005-0.5-1-N	0.5	1	445.788	1	1.5	2	N	1.13	1.19	2.14	1.01	2.32	3.15	2	289	4150						
1-BZ-006	1-BZ-006-0-0.5-N	0	0.5	445.069	1.5	1.5	2	N	1.47	1.15	7.65	1.63	2.62	9.28	2	286	4169						
1-BZ-006	1-BZ-006-0.5-1-N	0.5	1	445.069	1.5	2	2.5	N	1.3	1.4	2.6	0.982	2.7	3.582	2	290	4126						
1-BZ-007	1-BZ-007-0-0.5-N	0	0.5	444.636	1.3	1.3	1.8	N	12.9	1.2	283	1.34	14.1	284.34	4	382	5004						
1-BZ-007	1-BZ-007-0.5-1-N	0.5	1	444.636	1.3	1.8	2.3	N	4.51	1.32	87.5	1.17	5.83	88.67	3	348	4546						
1-BZ-008	1-BZ-008-0-0.5-N	0	0.5	445.288	1.4	1.4	1.9	N	11.5	1.6	333	1.67	J	13.1	334.67	J	5	408	4979				
1-BZ-008	1-BZ-008-0.5-1-D	0.5	1	445.288	1.4	1.9	2.4	N	1.34	1.3	12.1	1.2	2.64	13.3	7	260	4200						
1-BZ-008	1-BZ-008-0.5-1-N	0.5	1	445.288	1.4	1.9	2.4	N	1.41	1.6	18.8	0.909	3.01	19.709	7	260	4200						

- Notes:
- 1) The Design Investigation (DI) Datum is defined as the landfill surface below recently added fill materials. This term encapsulates material above the 2005 ground surface (e.g. NCC and inert fill), as well as materials added to facilitate boring advancement (i.e. drilling pad).
  - 2) The "thickness of surficial material" column refers to the difference between ground surface and the DI datum.

TABLE A2-3 BUFFER ZONE AND LOT 2A2 ANALYTICAL RESULTS

Boring ID	Sample ID	Start Depth Below DI Datum	End Depth Below DI Datum	Ground Surface Elevation (NAD83)	Thickness of Surficial Material (GS- DI Datum)	Start Depth BGS	End Depth BGS	Composite (Y/N)	RADIUM-226		RADIUM-228		THORIUM-230		THORIUM-232		Combined Radium		Combined Thorium		Core Scan - Alpha  (cpm)	Core Scan - Beta  (cpm)	Core Scan - Gamma  (cpm)
		ft	ft			ft	ft		ft	ft	pCi/g	pCi/g	pCi/g	pCi/g	pCi/g	pCi/g	pCi/g	pCi/g	pCi/g	pCi/g			
1-BZ-009	1-BZ-009-0-0.5-N	0	0.5	447.085	2.1	2.1	2.6	N	1.38	1.46	12.4	1.17	J	2.84	13.57	J	6	288	4441				
1-BZ-009	1-BZ-009-0.5-1-N	0.5	1	447.085	2.1	2.6	3.1	N	1.26	1.4	1.48	0.853		2.66	2.333		4	273	4456				
1-BZ-010	1-BZ-010-0-0.5-N	0	0.5	445.373	1.6	1.6	2.1	N	5.59	1.16	41.9	0.678		6.75	42.578		4	340	4391				
1-BZ-010	1-BZ-010-0.5-1-D	0.5	1	445.373	1.6	2.1	2.6	N	1.65	1.22	12.8	1.36		2.87	14.16		3	335	4220				
1-BZ-010	1-BZ-010-0.5-1-N	0.5	1	445.373	1.6	2.1	2.6	N	1.9	1.08	19.9	1.33		2.98	21.23		3	335	4220				
1-BZ-011	1-BZ-011-0-0.5-N	0	0.5	445.455	1.6	1.6	2.1	N	23	1.58	509	1.43		24.58	510.43		6	242	5505				
1-BZ-011	1-BZ-011-0.5-1-N	0.5	1	445.455	1.6	2.1	2.6	N	2.73	1.31	48	1.28		4.04	49.28		3	334	4756				
1-BZ-012	1-BZ-012-0-0.5-N	0	0.5	449.858	3	3	3.5	N	1.76	1.27	16.5	1.05		3.03	17.55		4	279	4236				
1-BZ-012	1-BZ-012-0.5-1-N	0.5	1	449.858	3	3.5	4	N	3.14	1.2	52.1	1.36		4.34	53.46		4	312	4249				
1-BZ-013	1-BZ-013-0-0.5-N	0	0.5	447.058	1.3	1.3	1.8	N	12.4	1.13	308	1.38		13.53	309.38		5	306	5291				
1-BZ-013	1-BZ-013-0.5-1-N	0.5	1	447.058	1.3	1.8	2.3	N	43.3	0.968	1040	3.37		44.268	1043.37		9	401	6877				
1-BZ-014	1-BZ-014-0-0.5-N	0	0.5	444.992	1.5	1.5	2	N	1.19	1.24	1.55	1.6	J	2.43	3.15	J	1	290	4154				
1-BZ-014	1-BZ-014-0.5-1-N	0.5	1	444.992	1.5	2	2.5	N	1.14	1.13	1.29	1.05		2.27	2.34		3	297	4139				
2-BZ-015	2-BZ-015-0-0.5-N	0	0.5	445.387	1.3	1.3	1.8	N	1.01	0.73	2.29	1.03		1.74	3.32		6	266	4379				
2-BZ-015	2-BZ-015-0.5-1-D	0.5	1	445.387	1.3	1.8	2.3	N	1.04	0.989	1.17	1.15		2.029	2.32		5	311	4586				
2-BZ-015	2-BZ-015-0.5-1-N	0.5	1	445.387	1.3	1.8	2.3	N	0.93	1.17	1.1	1.04		2.1	2.14		5	311	4586				
2-BZ-016	2-BZ-016-0-0.5-N	0	0.5	445.606	1.5	1.5	2	N	0.989	1.25	3.08	1.94	J	2.239	5.02	J	6	335	4495				
2-BZ-016	2-BZ-016-0.5-1-N	0.5	1	445.606	1.5	2	2.5	N	0.897	1.17	3.01	1.7		2.067	4.71		7	291	4417				
2-BZ-017	2-BZ-017-0-0.5-N	0	0.5	445.459	1.8	1.8	2.3	N	1.25	1.4	3.38	0.724		2.65	4.104		1	279	4466				
2-BZ-017	2-BZ-017-0.5-1-N	0.5	1	445.459	1.8	2.3	2.8	N	1.22	1.17	1.09	1.24	J	2.39	2.33	J	2	304	4478				
2-BZ-018	2-BZ-018-0-0.5-N	0	0.5	445.647	1.3	1.3	1.8	N	1.39	1.36	1.75	0.618		2.75	2.368		2	304	4398				
2-BZ-018	2-BZ-018-0.5-1-N	0.5	1	445.647	1.3	1.8	2.3	N	1.21	1.22	1.47	1.35		2.43	2.82		5	301	4465				
2-BZ-019	2-BZ-019-0-0.5-N	0	0.5	446.463	2	2	2.5	N	1.06	1.33	3.35	1.18		2.39	4.53		6	299	4341				
2-BZ-019	2-BZ-019-0.5-1-N	0.5	1	446.463	2	2.5	3	N	1.14	1.33	1.2	0.85		2.47	2.05		4	273	4334				
2-BZ-020	2-BZ-020-0-0.5-N	0	0.5	445.505	1.2	1.2	1.7	N	1.17	1.15	2.28	1.28	J	2.32	3.56	J	6	279	4594				
2-BZ-020	2-BZ-020-0.5-1-N	0.5	1	445.505	1.2	1.7	2.2	N	1.01	1.07	1.03	1.21		2.08	2.24		5	357	4453				
2-BZ-021	2-BZ-021-0-0.5-N	0	0.5	445.356	1.3	1.3	1.8	N	1.19	1.36	1.34	0.819		2.55	2.159		6	277	4517				
2-BZ-021	2-BZ-021-0.5-1-N	0.5	1	445.356	1.3	1.8	2.3	N	0.993	1.11	1.11	1.27		2.103	2.38		5	273	4364				
2-BZ-022	2-BZ-022-0-0.5-N	0	0.5	445.259	1.1	1.1	1.6	N	1.44	1.42	2.14	1.15	J	2.86	3.29	J	6	288	4407				
2-BZ-022	2-BZ-022-0.5-1-N	0.5	1	445.259	1.1	1.6	2.1	N	1.1	1.14	1.33	0.77		2.24	2.1		8	294	4404				
2-BZ-023	2-BZ-023-0-0.5-N	0	0.5	445.944	1.3	1.3	1.8	N	1.15	1.22	2.23	0.936		2.37	3.166		7	288	4221				
2-BZ-023	2-BZ-023-0.5-1-D	0.5	1	445.944	1.3	1.8	2.3	N	0.947	0.996	2.39	0.988		1.943	3.378		5	285	4306				
2-BZ-023	2-BZ-023-0.5-1-N	0.5	1	445.944	1.3	1.8	2.3	N	1.01	1.19	2.16	1.11		2.2	3.27		5	285	4306				
2-BZ-024	2-BZ-024-0-0.5-N	0	0.5	445.698	1.3	1.3	1.8	N	1.16	1.22	2.19	1.49	J	2.38	3.68	J	4	324	4415				
2-BZ-024	2-BZ-024-0.5-1-N	0.5	1	445.698	1.3	1.8	2.3	N	1.15	1.29	1.69	0.865		2.44	2.555		3	322	4477				
2-BZ-025	2-BZ-025-0-0.5-N	0	0.5	445.481	1.4	1.4	1.9	N	0.914	1.28	1.47	1.35		2.194	2.82		7	291	3942				
2-BZ-025	2-BZ-025-0.5-1-N	0.5	1	445.481	1.4	1.9	2.4	N	0.971	1.34	2	1.39		2.311	3.39		10	312	4064				
2-BZ-026	2-BZ-026-0-0.5-N	0	0.5	444.834	1.8	1.8	2.3	N	1.38	1.05	6.35	0.807		2.43	7.157		6	355	4028				
2-BZ-026	2-BZ-026-0.5-1-N	0.5	1	444.834	1.8	2.3	2.8	N	1.3	1.44	1.47	1.17		2.74	2.64		7	236	3988				
2-BZ-027	2-BZ-027-0-0.5-N	0	0.5	448.766	5.7	5.7	6.2	N	2.56	1.24	47.7	1.4		3.8	49.1		4	280	4562				
2-BZ-027	2-BZ-027-0.5-1-N	0.5	1	448.766	5.7	6.2	6.7	N	1.76	1.43	20.1	1.37		3.19	21.47		6	269	4280				
2-BZ-028	2-BZ-028-0-0.5-N	0	0.5	444.813	1.7	1.7	2.2	N	1.17	1.38	2.23	1.15		2.55	3.38		6	293	3972				
2-BZ-028	2-BZ-028-0.5-1-N	0.5	1	444.813	1.7	2.2	2.7	N	0.977	1.14	1.09	1.1		2.117	2.19		6	307	4116				
3-BZ-029	3-BZ-029-0-0.5-N	0	0.5	447.978	5.4	5.4	5.9	N	4.59	1.39	83.8	1.18		5.98	84.98		5	307	4575				
3-BZ-029	3-BZ-029-0.5-1-N	0.5	1	447.978	5.4	5.9	6.4	N	4.71	1.41	129	2.23	J	6.12	131.23	J	6	320	4532				
3-BZ-030	3-BZ-030-0-0.5-N	0	0.5	443.977	1.3	1.3	1.8	N	1.65	1.25	11	1.14		2.9	12.14		6	282	3966				
3-BZ-030	3-BZ-030-0.5-1-N	0.5	1	443.977	1.3	1.8	2.3	N	1.73	1.59	16.2	1.34		3.32	17.54		10	318	4334				
3-BZ-031	3-BZ-031-0-0.5-N	0	0.5	445.723	2.4	2.4	2.9	N	1.51	1.09	19.9	0.836		2.6	20.736		6	310	4365				
3-BZ-031	3-BZ-031-0.5-1-N	0.5	1	445.723	2.4	2.9	3.4	N	3.72	1.33	79.1	1.22		5.05	80.32		8	352	4267				
3-BZ-032	3-BZ-032-0-0.5-N	0	0.5	444.054	1.3	1.3	1.8	N	1.63	1.13	13.2	0.835		2.76	14.035		9	364	4148				
3-BZ-032	3-BZ-032-0.5-1-N	0.5	1	444.054	1.3	1.8	2.3	N	1.85	1.16	18.7	1.32		3.01	20.02		5	298	4135				
3-BZ-033	3-BZ-033-0-0.5-N	0	0.5	444.74	1.6	1.6	2.1	N	1.08	1.18	2.65	1.04		2.26	3.69		6	302	4245				
3-BZ-033	3-BZ-033-0.5-1-N	0.5	1	444.74	1.6	2.1	2.6	N	1.06	1.26	1.94	0.876		2.32	2.816		5	312	4117				

- Notes:
- 1) The Design Investigation (DI) Datum is defined as the landfill surface below recently added fill materials. This term encapsulates material above the 2005 ground surface (e.g. NCC and inert fill), as well as materials added to facilitate boring advancement (i.e. drilling pad).
  - 2) The "thickness of surficial material" column refers to the difference between ground surface and the DI datum.

TABLE A2-3 BUFFER ZONE AND LOT 2A2 ANALYTICAL RESULTS

Boring ID	Sample ID	Start Depth Below DI Datum ft	End Depth Below DI Datum ft	Ground Surface Elevation (NAD83) ft	Thickness of Surficial Material (GS-DI Datum) ft	Start Depth BGS ft	End Depth BGS ft	Composite (Y/N)	RADIUM-226		RADIUM-228		THORIUM-230		THORIUM-232		Combined Radium		Combined Thorium		Core Scan - Alpha (cpm)	Core Scan - Beta (cpm)	Core Scan - Gamma (cpm)
									pCi/g		pCi/g		pCi/g		pCi/g		pCi/g		pCi/g				
3-BZ-034	3-BZ-034-0-0.5-N	0	0.5	448.485	5.7	5.7	6.2	N	1.31		1.04		12.9		0.915		2.35		13.815		8	266	4661
3-BZ-034	3-BZ-034-0.5-1-N	0.5	1	448.485	5.7	6.2	6.7	N	1.39		1.18		10.3		1.45		2.57		11.75		3	291	4467
3-BZ-035	3-BZ-035-0-0.5-N	0	0.5	443.754	1.8	1.8	2.3	N	1.83		1.06		21.6		1.22		2.89		22.82		7	347	4311
3-BZ-035	3-BZ-035-0.5-1-N	0.5	1	443.754	1.8	2.3	2.8	N	1.12		1.51		2.91		1.29		2.63		4.2		6	349	4076
3-BZ-036	3-BZ-036-0-0.5-N	0	0.5	444.232	2.1	2.1	2.6	N	1.36		1.03		4.71		1.13		2.39		5.84		8	290	4228
3-BZ-036	3-BZ-036-0.5-1-D	0.5	1	444.232	2.1	2.6	3.1	N	1.39		1.39		5.45		1.24		2.78		6.69		5	341	4325
3-BZ-036	3-BZ-036-0.5-1-N	0.5	1	444.232	2.1	2.6	3.1	N	1.36		1.38		7.16		0.975		2.74		8.135		5	341	4325
3-BZ-037	3-BZ-037-0-0.5-N	0	0.5	444.397	0.9	0.9	1.4	N	1.21		1.13		3.09		1.15		2.34		4.24		7	310	4304
3-BZ-037	3-BZ-037-0.5-1-N	0.5	1	444.397	0.9	1.4	1.9	N	1.06		1.49		1.54		1.07		2.55		2.61		8	345	4204
3-BZ-038	3-BZ-038-0-0.5-N	0	0.5	444.048	1.1	1.1	1.6	N	1.08		1.46		2.59	J	1.38		2.54		3.97		3	266	4099
3-BZ-038	3-BZ-038-0.5-1-N	0.5	1	444.048	1.1	1.6	2.1	N	1.05		1.2		1.78		1.35		2.25		3.13		3	335	4192
3-BZ-039	3-BZ-039-0-0.5-N	0	0.5	443.91	1.3	1.3	1.8	N	1.13		1.41		3.53		1.2		2.54		4.73		4	305	4086
3-BZ-039	3-BZ-039-0.5-1-N	0.5	1	443.91	1.3	1.8	2.3	N	1.15		1.24		2.33		1.01		2.39		3.34		3	309	4091
3-BZ-040	3-BZ-040-0-0.33-N	0	0.33	443.828	1.1	1.1	1.43	N	1.05		0.864		1.03		1.34		1.914		2.37		6	306	4267
3-BZ-040	3-BZ-040-0.67-1.17-N	0.67	1.17	443.828	1.1	1.77	2.27	N	1.53		1.29		12.2		1.37	J	2.82		13.57	J	6	316	4205
3-BZ-040	3-BZ-040-1.17-1.67-N	1.17	1.67	443.828	1.1	2.27	2.77	N	1.19		1.3		3.6		1.79	J	2.49		5.39	J	4	325	4254
3-BZ-041	3-BZ-041-0-0.5-N	0	0.5	443.032	0.8	0.8	1.3	N	1.53		1.04		10		1.09		2.57		11.09		4	276	4190
3-BZ-041	3-BZ-041-0.5-1-N	0.5	1	443.032	0.8	1.3	1.8	N	1.5		1.08		25.5		0.926		2.58		26.426		5	323	4441
3-BZ-042	3-BZ-042-0-0.5-N	0	0.5	443.359	1	1	1.5	N	1.03		1.13		7.84		0.837		2.16		8.677		1	278	3067
3-BZ-042	3-BZ-042-0.5-1-N	0.5	1	443.359	1	1.5	2	N	1.77		1.21		25.4		1.55		2.98		26.95		2	331	4182
8-2A2-141	8-2A2-141-0-0.5-N	0	0.5	446.647	2	2	2.5	N	1.11		1.28		2.69		1.29		2.39		3.98		3	294	5740
8-2A2-141	8-2A2-141-0.5-1-N	0.5	1	446.647	2	2.5	3	N	1.15		1.27		1.6		1.04		2.42		2.64		3	313	5618
8-2A2-142	8-2A2-142-0-0.5-N	0	0.5	447.029	2.3	2.3	2.8	N	1.28		1.33		2.44		1.44		2.61		3.88		4	313	6357
8-2A2-142	8-2A2-142-0.5-1-N	0.5	1	447.029	2.3	2.8	3.3	N	1.08		1.03		1.69		1.11		2.11		2.8		7	365	6368
8-2A2-143	8-2A2-143-0-0.5-N	0	0.5	444.873	1.3	1.3	1.8	N	1.18		1.12		1		1.06		2.3		2.06		8	322	5887
8-2A2-143	8-2A2-143-0.5-1-N	0.5	1	444.873	1.3	1.8	2.3	N	1.13		1.21		1.2		1.44		2.34		2.64		6	322	5917
8-2A2-144	8-2A2-144-0-0.5-N	0	0.5	446.504	2.5	2.5	3	N	1.12		1.06		1.78		0.912		2.18		2.692		4	302	5319
8-2A2-144	8-2A2-144-0.5-1-N	0.5	1	446.504	2.5	3	3.5	N	1.11		0.996		1.27		0.726		2.106		1.996		8	273	5397
8-2A2-145	8-2A2-145-0-0.5-N	0	0.5	446.039	2.5	2.5	3	N	1.22		1.15		2.51		1.17		2.37		3.68		8	277	5076
8-2A2-145	8-2A2-145-0.5-1-N	0.5	1	446.039	2.5	3	3.5	N	1.25		1.11		1.41		1.18		2.36		2.59		6	317	5485
8-2A2-146	8-2A2-146-0-0.5-N	0	0.5	445.186	2.4	2.4	2.9	N	1.44		1.32		10.9		0.746		2.76		11.646		4	270	5549
8-2A2-146	8-2A2-146-0.5-1-N	0.5	1	445.186	2.4	2.9	3.4	N	1.2		1.36		2.32		1.4		2.56		3.72		8	249	5649
8-2A2-147	8-2A2-147-0-0.5-N	0	0.5	445.891	1.4	1.4	1.9	N	1.33		1.38		2.27		1.26		2.71		3.53		6	328	6257
8-2A2-147	8-2A2-147-0.5-1-N	0.5	1	445.891	1.4	1.9	2.4	N	1.22		1.33		1.56		1.03		2.55		2.59		5	352	6306
8-2A2-148	8-2A2-148-0-0.5-D	0	0.5	446.216	1.4	1.4	1.9	N	1.02	J	1.2		2.55		1.18		2.22	J	3.73		6	272	6130
8-2A2-148	8-2A2-148-0-0.5-N	0	0.5	446.216	1.4	1.4	1.9	N	1.1	J	1.14		1.92		1.25		2.24	J	3.17		6	272	6130
8-2A2-148	8-2A2-148-0.5-1-N	0.5	1	446.216	1.4	1.9	2.4	N	0.901		1.11		0.965		1.15	J	2.011		2.115	J	6	325	6070
8-2A2-149	8-2A2-149-0-0.5-N	0	0.5	445.792	1.7	1.7	2.2	N	0.93		0.855		1.79		1.13		1.785		2.92		4	316	5451
8-2A2-149	8-2A2-149-0.5-1-N	0.5	1	445.792	1.7	2.2	2.7	N	1.19		1.08		3.06		1.3		2.27		4.36		3	336	5549
8-2A2-150	8-2A2-150-0-0.5-N	0	0.5	445.452	2.3	2.3	2.8	N	1.11		1.46		3.71		1.2		2.57		4.91		4	286	5424
8-2A2-150	8-2A2-150-0.5-1-N	0.5	1	445.452	2.3	2.8	3.3	N	1.3		1.28		8.72		1		2.58		9.72		6	341	5497
8-2A2-151	8-2A2-151-0-0.5-N	0	0.5	444.577	2.1	2.1	2.6	N	1.82		1.21		27.9		1.05		3.03		28.95		6	315	5472
8-2A2-151	8-2A2-151-0.5-1-N	0.5	1	444.577	2.1	2.6	3.1	N	1.1		1.28		1.54		1.23		2.38		2.77		4	294	5563
8-2A2-152	8-2A2-152-0-0.5-N	0	0.5	444.275	1.8	1.8	2.3	N	0.936		1.08		1.84		0.895		2.016		2.735		3	312	6259
8-2A2-152	8-2A2-152-0.5-1-N	0.5	1	444.275	1.8	2.3	2.8	N	1.29		1.35		6.02		1.04		2.64		7.06		6	308	6214
8-2A2-153	8-2A2-153-0-0.5-N	0	0.5	445.513	2.2	2.2	2.7	N	0.821		0.891		1.03		0.776		1.712		1.806		3	313	6026
8-2A2-153	8-2A2-153-0.5-1-N	0.5	1	445.513	2.2	2.7	3.2	N	0.831		0.836		1.06		1.22		1.667		2.28		4	351	5879
8-2A2-154	8-2A2-154-0-0.5-N	0	0.5	445.711	1.6	1.6	2.1	N	1.48		1.05		10.5		1.09		2.53		11.59		9	326	5592
8-2A2-154	8-2A2-154-0.5-1-N	0.5	1	445.711	1.6	2.1	2.6	N	1.01		1.36		1.83		1.5		2.37		3.33		6	295	5457

Notes:  
 1) The Design Investigation (DI) Datum is defined as the landfill surface below recently added fill materials. This term encapsulates material above the 2005 ground surface (e.g. NCC and inert fill), as well as materials added to facilitate boring advancement (i.e. drilling pad).  
 2) The "thickness of surficial material" column refers to the difference between ground surface and the DI datum.

**TABLE A2-4 PROPOSED ADDITIONAL BORING SAMPLE COLLECTION DETAIL**

Area	Northing (Local Site Coordinates)	Easting (Local Site Coordinates)	Location ID	Perimeter Borings Within Waste	Perimeter HSA Borings Outside Waste	DPT Borings Outside Waste	Hand Auger Borings Outside Waste	Estimated Total Boring Depth (feet B2005GS)	Total Laboratory Analytical Samples	Core Scan Interval (feet B2005GS)	Downhole Gamma Interval (feet B2005GS)
Area 2	1070177.10	514599.75	A2-PB-128-A			X		5	6	0-5	-
Area 2	1070880.39	515501.05	A2-PB-137-A			X		10	6	0 - 10	-
Area 2	1070810.55	515437.75	A2-PB-137-R**		X			25	14	0-25	0-25
Area 2	1070768.17	515680.63	A2-PB-138-B			X		10	6	0 - 10	-
Area 2	1070727.55	515627.14	A2-PB-138-R**		X			25	14	0-25	0-25
Area 2	1070616.69	515841.32	A2-PB-139-C			X		10	6	0 - 10	-
Area 2	1070582.20	515794.23	A2-PB-139-D				X	2	2	0-2	-
Area 2	1070486.57	514110.26	A2-PB-131-A				X	2	2	0-2	-
Area 2	1070469.42	514101.01	A2-PB-131-B				X	2	2	0-2	-
Area 2	1070458.73	514121.43	A2-PB-131-C				X	2	2	0-2	-
Area 2	1069807.28	514290.15	A2-PB-123-A		X			25	14	0 - 25	0 - 25
Area 2	1069771.26	514292.79	A2-PB-123-B		X			25	14	0 - 25	0 - 25
Area 2	1069929.33	514405.06	A2-PB-125-A		X			25	14	0 - 25	0 - 25
Area 2	1069917.63	514373.90	A2-PB-125-B		X			25	14	0 - 25	0 - 25
Area 2	1070092.88	514526.16	A2-PB-126-A		X			25	14	0 - 25	0 - 25
Area 2	1070085.45	514482.92	A2-PB-126-B		X			25	14	0 - 25	0 - 25
Area 2	1070045.08	514489.90	A2-PB-126-C		X			25	14	0 - 25	0 - 25
Buffer Zone	1070194.65	514459.24	1-BZ-003-A*			X		4	6	0 - 4	-
Buffer Zone	1070194.79	514497.67	1-BZ-007-A*			X		4	6	0 - 4	-
Buffer Zone	1070233.30	514497.78	1-BZ-008-A*			X		4	6	0 - 4	-
Buffer Zone	1070257.71	514575.44	1-BZ-046			X		4	6	0 - 4	-
Buffer Zone	1070194.53	514536.30	1-BZ-010-A*			X		4	6	0 - 4	-
Buffer Zone	1070265.99	514528.48	1-BZ-045			X		4	6	0 - 4	-
Buffer Zone	1070194.62	514574.65	1-BZ-012-A*			X		4	6	0 - 4	-
Buffer Zone	1070232.59	514574.68	1-BZ-013-A*			X		4	6	0 - 4	-
Buffer Zone	1070267.92	514496.16	1-BZ-044			X		4	6	0 - 4	-
Buffer Zone	1069872.50	514347.79	2-BZ-027-A*			X		4	6	0 - 4	-
Buffer Zone	1069833.67	514309.32	3-BZ-029-A*			X		4	6	0 - 4	-
Buffer Zone	1069888.47	514295.64	3-BZ-030-A*			X		4	6	0 - 4	-
Buffer Zone	1069796.53	514272.52	3-BZ-031-A*			X		4	6	0 - 4	-
Buffer Zone	1069842.37	514260.62	3-BZ-032-A*			X		4	6	0 - 4	-
Buffer Zone	1069796.72	514235.72	3-BZ-036-A*			X		4	6	0 - 4	-
Buffer Zone	1069649.40	514161.68	3-BZ-041*			X		4	6	0 - 4	-
Buffer Zone	1069612.16	514161.92	3-BZ-042*			X		4	6	0 - 4	-
Buffer Zone	1069580.74	514134.31	3-BZ-043			X		4	8	0 - 4	-
Lot2A2	1069804.66	514189.85	8-2A2-150-A*			X		4	6	0 - 4	-
Lot2A2	1069798.47	514125.71	8-2A2-155			X		4	8	0 - 4	-
Lot2A2	1069756.53	514147.64	8-2A2-156			X		4	8	0 - 4	-
Lot2A2	1069711.28	514169.81	8-2A2-157			X		4	8	0 - 4	-
Lot2A2/Buffer	1069681.46	514154.62	8-2A2-158			X		4	8	0 - 4	-
Lot2A2/Buffer	1069650.99	514131.63	8-2A2-159			X		4	8	0 - 4	-
Lot2A2/Buffer	1069615.96	514127.18	8-2A2-160			X		4	8	0 - 4	-
Lot2A2/Buffer	1069615.96	514127.18	8-2A2-161			X		4	8	0 - 4	-
<b>TOTAL BORING/ SAMPLE COUNT</b>	-	-	<b>43</b>	<b>0</b>	<b>9</b>	<b>30</b>	<b>4</b>	-	<b>330</b>	-	-

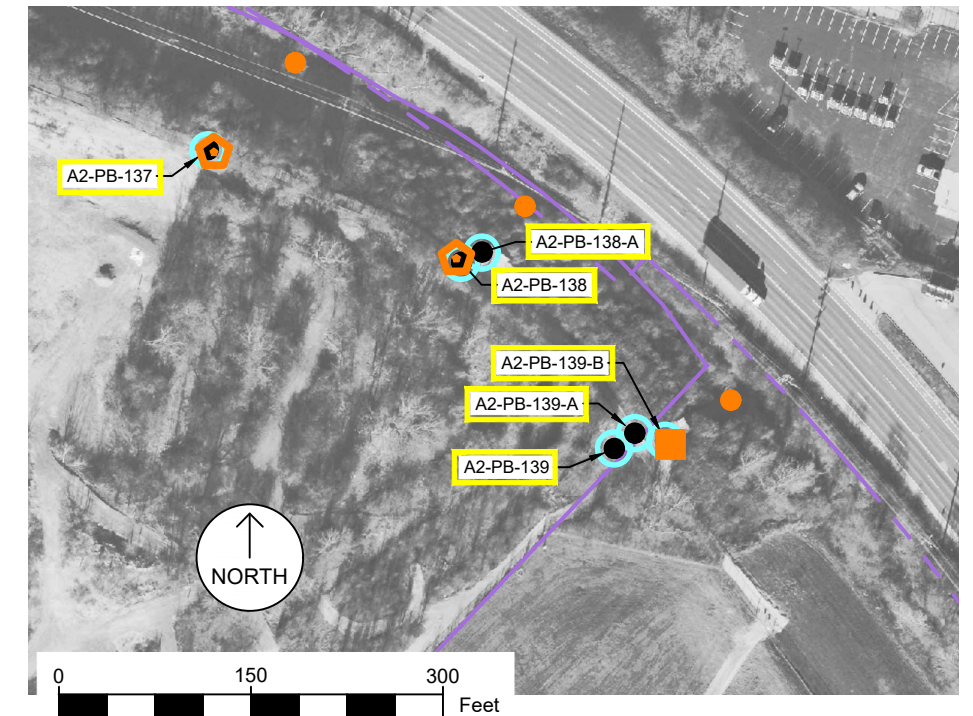
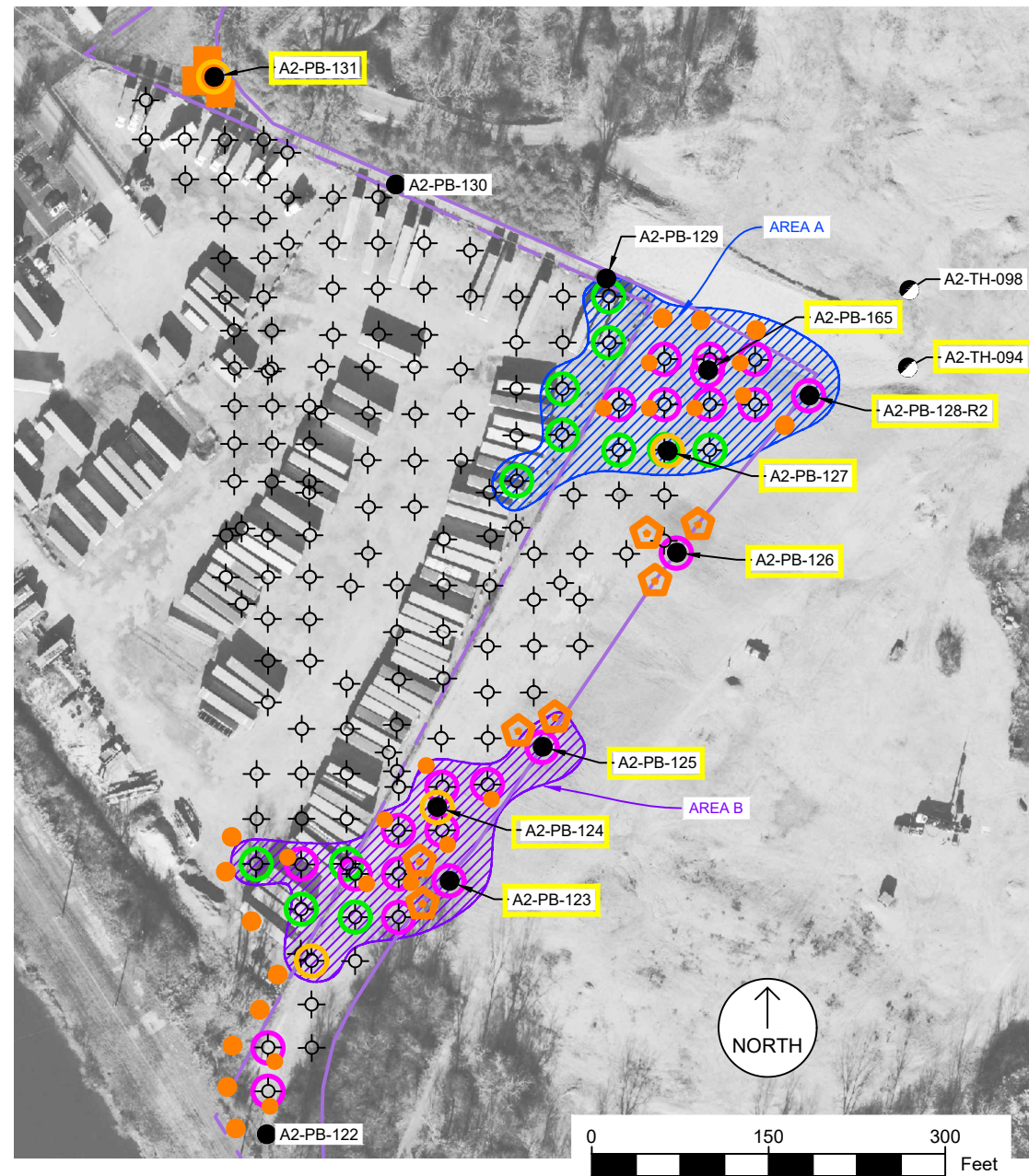
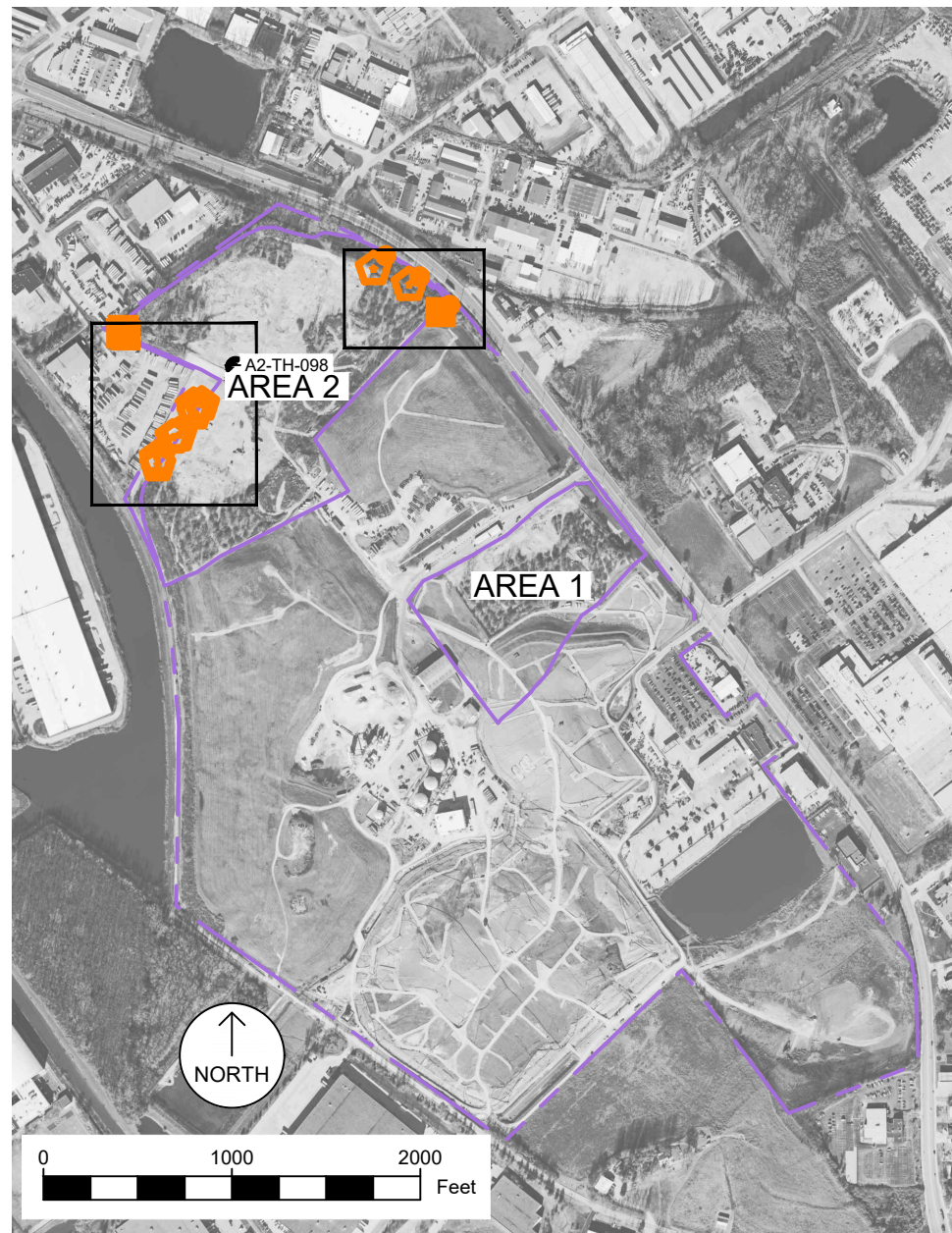
**Notes:**

- Total depth of perimeter borings proposed within waste will ultimately be determined in the field based on observations of waste thickness. Borings will be installed through the full extent of waste and 5-feet into native soils.
  - Sample counts do not include replicate samples which will be collected at a frequency of 1 pair (2 samples) per 20 normal samples for interior/thorium borings, and at a frequency of 1 per boring in perimeter borings.
  - Sample counts do not include follow-up samples that may be collected as a result of step-outs, or from resampling due to replicate failure.
  - All sample counts are estimates and may vary based on field conditions (e.g., core recovery).
- \* Vertical delineation locations for buffer zone borings and 8-2A2-150 will be sited 2 to 5 ft from original locations  
 \*\* HSA will utilize 3-inch diameter MC7 macro-core sampler for sampling instead of split spoons in order to maximize recovery.

## FIGURES

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### LEGEND

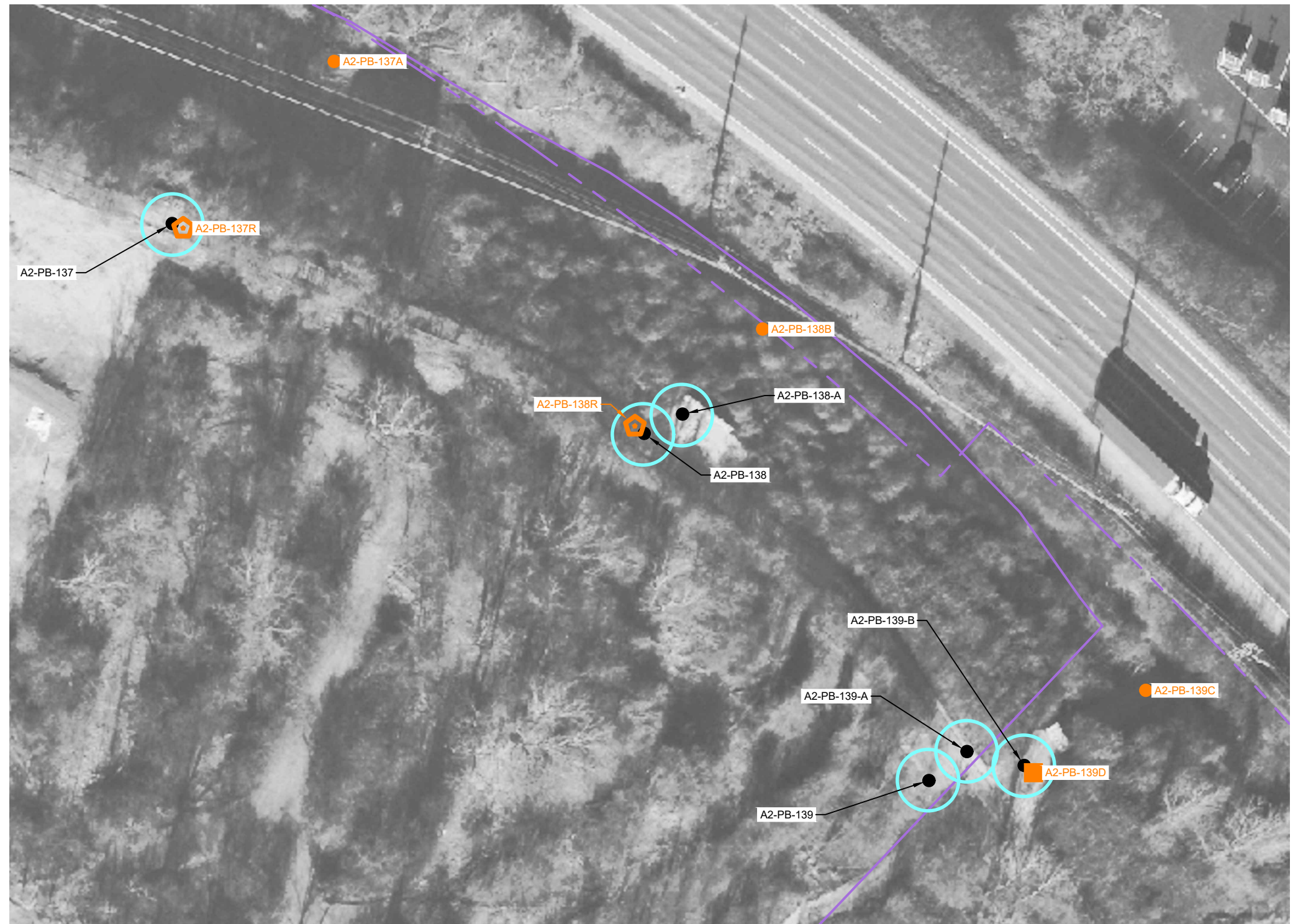
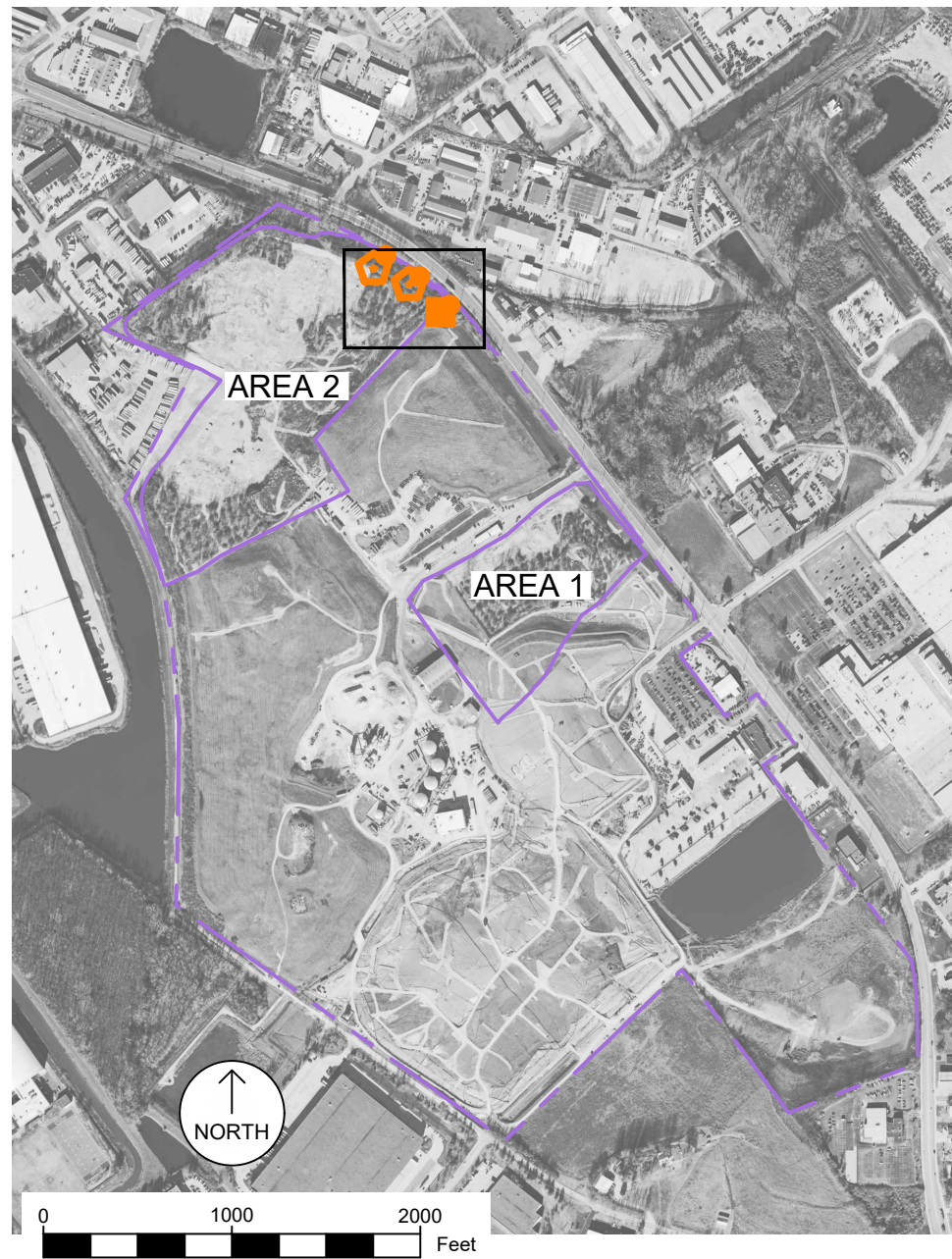
- PROPERTY BOUNDARY
- AREA 1 & 2 RADIOLOGICALLY IMPACTED MATERIAL (RIM) BOUNDARIES
- A2-PB-124 EXISTING PERIMETER BORING
- A2-PB-123 BORING WITH ELEVATED ANALYTICAL RESULTS OR MSW
- A2-TH-098 INTERIOR THORIUM BORINGS
- (Magenta) >7.9 PCI/G BELOW 0.5 FT DEPTH
- (Green) >7.9 PCI/G 0.0 - 0.5 FT DEPTH
- (Orange) >7.9 PCI/G 0.0-1.0 FT DEPTH; <7.9 PCI/G BELOW 1.0 FT DEPTH
- (Cyan) STEP-OUT REQUIRED DUE TO ENCOUNTERING MSW
- (Orange) PROPOSED BORING - HAND AUGER
- (House shape) PROPOSED BORING - HSA
- (Orange) PROPOSED BORING - DPT
- A' — A CROSS SECTION ALIGNMENT

### NOTES:

- AERIAL TOPOGRAPHY AND PHOTOGRAPH PROVIDED BY COOPER AERIAL SURVEYS, INC. AND IS DATED DECEMBER 09, 2020, SURVEYED IN LOCAL SITE COORDINATE SYSTEM.

PROJECT WEST LAKE LANDFILL SUPERFUND SITE OU-1 REMEDIAL DESIGN BRIDGETON, ST. LOUIS COUNTY, MO	PREPARED FOR WEST LAKE LANDFILL 13570 ST. CHARLES ROCK ROAD BRIDGETON, MISSOURI 63044	JULY 2021 DESIGNED BY: PL APPROVED BY: ---	FIGURE <h1 style="margin: 0;">A2-1</h1>												
DRAWING TITLE <h2 style="margin: 0;">AREA 2 N.E. CORNER, LOT 2A2 &amp; BUFFER ZONE SITE LOCATION MAP</h2>		REVISIONS: #1 boring names & type edits	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>DATE</th> <th>DSN.</th> <th>APV.</th> </tr> </thead> <tbody> <tr> <td>08/16/21</td> <td>---</td> <td>---</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	DATE	DSN.	APV.	08/16/21	---	---						
DATE	DSN.	APV.													
08/16/21	---	---													
PROJECT NUMBER: BT-191   FILE PATH: C:\Users\plins\Dropbox (Feezor Engineering)\Bridgeton\BT-191 (RDWP Design And Management)\to Be Filed\2021-03-02 Addenda Figures\addendum 2 (area 2)\Addendum 2 Figures Rev2 8-16-21															













**NOTES:**

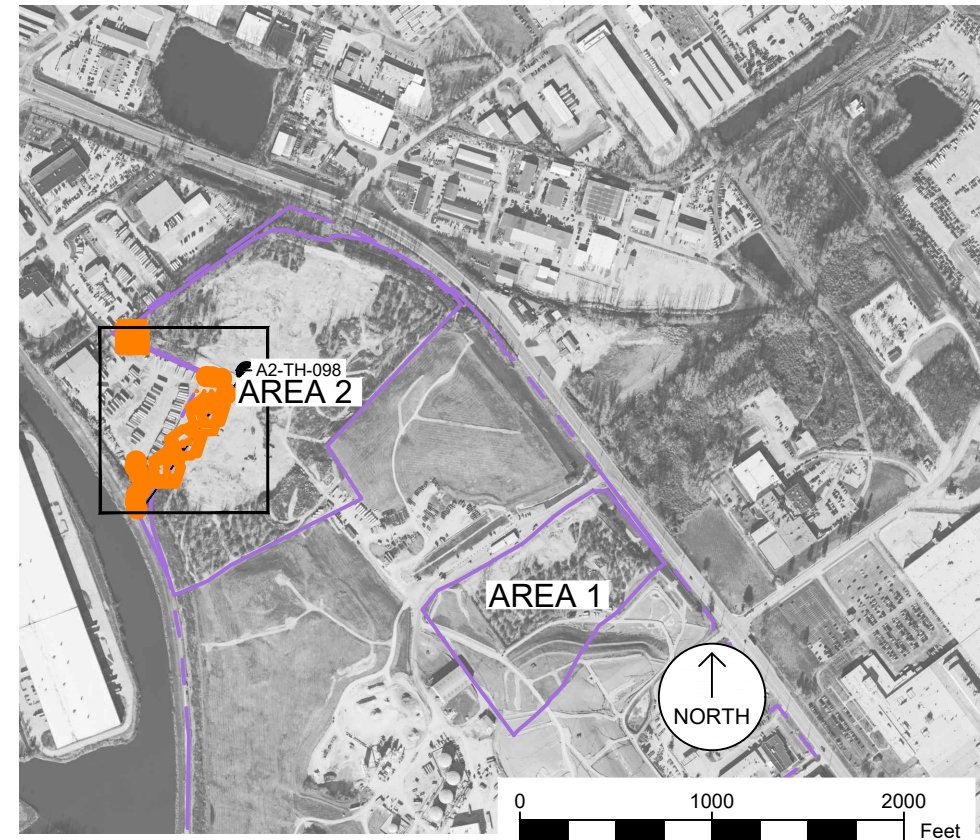
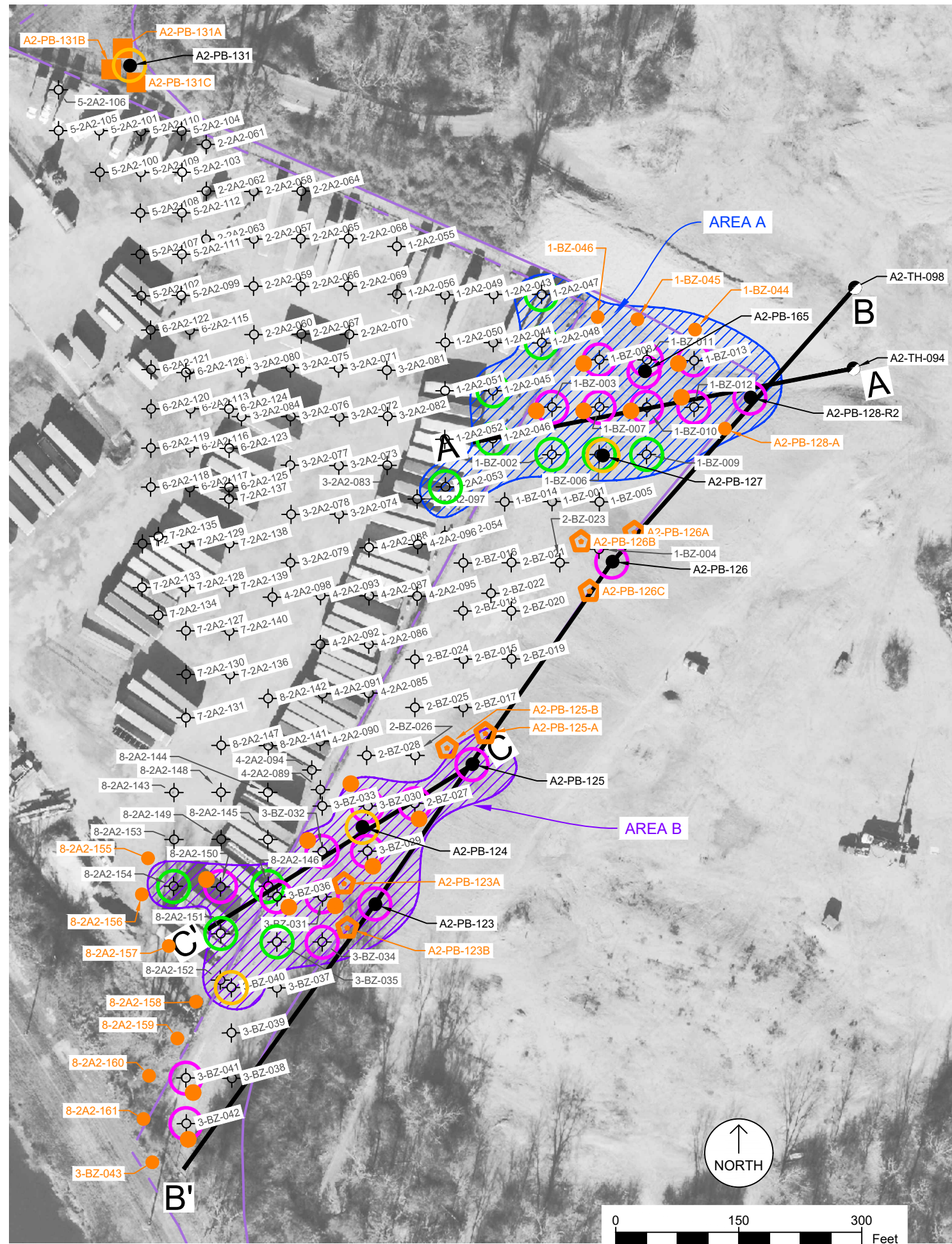
- AERIAL TOPOGRAPHY AND PHOTOGRAPH PROVIDED BY COOPER AERIAL SURVEYS, INC. AND IS DATED DECEMBER 09, 2020, SURVEYED IN LOCAL SITE COORDINATE SYSTEM.

**LEGEND**

-  PROPERTY BOUNDARY
-  AREA 1 & 2 RADIOLOGICALLY IMPACTED MATERIAL (RIM) BOUNDARIES
-  A2-PB-137
-  BORING WITH ELEVATED ANALYTICAL RESULTS OR MSW
-  STEP-OUT REQUIRED DUE TO ENCOUNTERING MSW
-  PROPOSED BORING - HSA
-  PROPOSED BORING - HAND AUGER
-  PROPOSED BORING - DPT

PROJECT WEST LAKE LANDFILL SUPERFUND SITE OU-1 REMEDIAL DESIGN BRIDGETON, ST. LOUIS COUNTY, MO	PREPARED FOR WEST LAKE LANDFILL 13570 ST. CHARLES ROCK ROAD BRIDGETON, MISSOURI 63044	JUNE 2021 DESIGNED BY: PL APPROVED BY: ---	FIGURE <b>A2-2</b>		
DRAWING TITLE <b>AREA 2 - N.E. CORNER PROPOSED STEP-OUT BORINGS</b>		REVISIONS:	DATE	DSN.	APV.
		#1 boring names & type edits	08/16/21	---	---
PROJECT NUMBER: BT-191		FILE PATH: C:\Users\plins\Dropbox (Feezor Engineering)\Bridgeton\BT-191 (RDWP Design And Management)\to Be Filed\2021-03-02 Addenda Figures\addendum 2 (area 2)\Addendum 2 Figures Rev2 8-16-21			





NOTES:  
 • AERIAL TOPOGRAPHY AND PHOTOGRAPH PROVIDED BY COOPER AERIAL SURVEYS, INC. AND IS DATED DECEMBER 09, 2020, SURVEYED IN LOCAL SITE COORDINATE SYSTEM.

**LEGEND**

- PROPERTY BOUNDARY
- AREA 1 & 2 RADIOLOGICALLY IMPACTED MATERIAL (RIM) BOUNDARIES
- A2-PB-126
- A2-TH-098
- >7.9 PCI/G BELOW 0.5 FT DEPTH
- >7.9 PCI/G 0.0 - 0.5 FT DEPTH
- >7.9 PCI/G 0.0-1.0 FT DEPTH; <7.9 PCI/G BELOW 1.0 FT DEPTH
- PROPOSED BORING - HAND AUGER
- PROPOSED BORING - HSA
- PROPOSED BORING - DPT
- CROSS SECTION ALIGNMENT

PROJECT WEST LAKE LANDFILL SUPERFUND SITE OU-1 REMEDIAL DESIGN BRIDGETON, ST. LOUIS COUNTY, MO	PREPARED FOR WEST LAKE LANDFILL 13570 ST. CHARLES ROCK ROAD BRIDGETON, MISSOURI 63044	JULY 2021		FIGURE <b>A2-3</b>	
		DESIGNED BY: PL APPROVED BY: ---			
DRAWING TITLE <b>AREA 2, LOT 2A2 &amp; BUFFER ZONE PROPOSED STEP-OUT BORINGS</b>		REVISIONS:	DATE	DSN.	APV.
		#_ _____	___/___/___	___	___
PROJECT NUMBER: BT-191   FILE PATH: C:\Users\User\Dropbox (Feezor Engineering)\Bridgeton\BT-191 (RDWP Design And Management)\to Be Filed\2021-03-02 Addenda Figures\addendum 2 (area 2)\Addendum 2 Figures					