
TECHNICAL MEMORANDUM
SUBAREA 8, ROUND 2, SOIL SAMPLE RESULTS
SANTA SUSANA FIELD LABORATORY SITE
AREA IV RADIOLOGICAL STUDY

TO: Andrew Bain, EPA Region 9 RPM
FROM: T. Stewart Williford, P.G., HGL
THROUGH: L. Steven Vaughn, R.G., HGL Project Manager
Rene R. Rodriguez, P.E., HGL Deputy Project Manager
CC: Mary Aycock, EPA Region 9 RPM
Shiann-Jang Chern, Ph.D., P.E., EPA Region 9 RPM
Gregg Dempsey, Technical Advisor
DATE: November 26, 2012
SUBJECT: Subarea 8, Round 2 Soil Sample Results

CONTRACT NO: EP-S7-05-05
TASK ORDER NO: 0038

1.0 INTRODUCTION

HydroGeoLogic, Inc. (HGL) is conducting a comprehensive radiological characterization study of Area IV and the Northern Buffer Zone (NBZ) at the Santa Susana Field Laboratory (SSFL) site in Ventura County, California. This work is being executed under U.S. Environmental Protection Agency (USEPA) Region 7 Architect and Engineering Services Contract EP-S7-05-05, Task Order 0038. The technical lead on the project is USEPA Region 9.

As part of the radiological study, surface and subsurface soil samples were collected from locations identified from geophysical surveys, gamma scanning, historical aerial photographs and findings of the Historical Site Assessment. Sampling efforts in the study area were divided into subareas. Analytical results from the Round 1 sampling activities were reviewed in conjunction with the aforementioned lines of evidence, and sample locations were targeted for further investigation in the Round 2 soil sampling effort. This technical memorandum documents the soil sampling activities, analytical results, and conclusions of the Subarea 8 Round 2 soil sampling. The primary objective of the soil sampling effort was to further investigate potential radionuclide contamination by laterally and vertically delineating radionuclide concentrations that exceeded project established Radiological Trigger Levels (RTL) detected during Round 1 sampling activities. This objective was achieved through the collection and analysis of step-out surface and subsurface soil samples, as described in Section 4.2 of the Final Field Sampling Plan (FSP) for Soil Sampling (HGL, 2012a).

The approach for Round 2 soil sampling was to identify potential sample locations from the lines of evidence listed above, prepare a Round 2 FSP Addendum for the subarea, present the

FSP to USEPA's SSFL Technical Stakeholder Workgroup, and review and finalize proposed locations with the Workgroup.

2.0 SOIL SAMPLING ACTIVITIES

2.1 Soil Sample Location Placement and Utility Clearance

A total of 53 surface and 53 subsurface samples were proposed based on Round 1 sample RTL exceedances detected at 25 locations within Subarea 8. Exceedances of RTLs were detected in the following areas:

- 56 Landfill Area (one location),
- Building 4009 Area (five locations),
- Former Sodium Disposal Facility (FSDF) Area (five locations),
- Former Empire State Atomic Development Authority (ESADA) Area (nine locations), and
- Subarea 8-South Area (five locations).

The rationale for soil step-out sample locations is detailed in the Subarea 8 Round 2 Addendum to the Final FSP for Soil Sampling (HGL, 2012b). Table 1 below summarizes the proposed samples and lists the samples collected. Figure 1 illustrates all the soil sample locations (proposed and collected). Deviations from the FSP are discussed in Section 2.3.

Table 1
Summary of Planned and Collected Step-out Samples by Area

Area	Surface		Subsurface		Total	
	Planned	Collected	Planned	Collected	Planned	Collected
56 Landfill Area	0	0	4	4	4	4
Building 4009	8	8	11	11	19	19
FSDF	6	6	12	12	18	18
ESADA	23	27	18	22	41	49
8-South	16	16	8	8	24	24
Total	53	57	53	57	106	114

The proposed sampling locations were discussed during a technical review meeting held on April 18, 2012, with members of USEPA's SSFL Technical Stakeholder Workgroup consisting of representatives of the Department of Energy (DOE), the State of California Department of Toxic Substances Control (DTSC), The Boeing Company (Boeing), USEPA, and the community.

After the locations were finalized with the Stakeholder Workgroup, proposed sampling locations were marked in the field using a SPS 852 handheld Trimble global positioning system (GPS) and magnetic survey spikes. Before sampling activities commenced, utility clearances

were performed at each location by Underground Service Alert (Dig Alert) and a private utility locator.

2.2 Sample Collection

Surface soil samples were collected using a stainless steel trowel or shovel. Subsurface samples were collected using a Geoprobe 6600 Series direct-push technology unit or a hand auger. Soil samples were collected in accordance with the procedures detailed in the Final FSP for Soil Sampling (HGL, 2012a), and the Round 2 FSP Addendum for Subarea 8 (HGL, 2012b). Soil cores were logged and the boring logs are provided in Attachment 2. A total of 114 surface and subsurface soil samples were collected within Subarea 8 from April 30 to June 12, 2012.

During the April 18, 2012, technical review meeting recommendations and action items including those on the topic of Likely Chemical Remediation Zones (LCRZ) and Likely Decontamination and Decommissioning Zone (LD&DZ) were discussed. Round 2 step-out soil samples were not collected in areas designated as a LD&DZ or a LCRZ. USEPA understands that most, if not all, surface soil and infrastructure (building structures, concrete slabs, above-ground pipelines and underground pipelines etc.) may be excavated and removed from areas identified as LD&DZ and LCRZ. In accordance with the USEPA's role under the Administrative Order on Consent (AOC) for Remedial Action (DTSC, 2010) agreement between DTSC and DOE for the SSFL site, USEPA will conduct confirmation soil sampling to verify that site remediation goals have been achieved at all such remediation zones. These follow-on efforts are not included in the current scope of work and will be accomplished using additional external funding.

2.3 Deviations from the Field Sampling Plan Addendum

Four additional surface soil samples were collected from Round 2 step-out Locations 8N-00184 through 8N-00187 and four additional subsurface soil samples were collected from Round 2 step-out Locations 8N-00196 through 8N-00199. The gamma spectrometry analyses were added to these samples to further characterize the data quality gap that occurred in the results of the surface soil sample collected from Round 1 Location 6 (europium-152) and the subsurface sample collected from Round 1 Location 15 (actinium-227). The gamma spectrometry analyses were added after the Round 2 FSP addendum was completed because the Round 1 data quality gap analysis was not available at the time the Round 2 FSP addendum was finalized. The Round 1 data quality gaps are presented in the Final Technical Memorandum, Subarea 8 Round 1 Soil Sample Results (HGL, 2012c). Table 2 summarizes the locations and sample identifications of the samples in which gamma spectrometry default analysis were added to the analytical suite.

Table 2
Summary of Samples which Received Additional Gamma Spectral Analysis

Location	Sample Identification	Sample Type	Sample Depth
8N-00184	40447	Subsurface	1.0 - 5.0
8N-00185	40448	Subsurface	1.0 - 5.0
8N-00186	40449	Subsurface	1.0 - 5.0
8N-00187	40450	Subsurface	1.0 - 5.0
8N-00196	40443	Surface	0.0 - 0.5
8N-00197	40444	Surface	0.0 - 0.5
8N-00198	40445	Surface	0.0 - 0.5
8N-00199	40446	Surface	0.0 - 0.5

Note:

Sample depth measured in feet below ground surface.

2.4 Soil Boring Summary

A total of 53 subsurface borings were completed, of which 18 borings were advanced to 10 feet below ground surface (bgs), 29 were terminated between 5 to 10 feet bgs, and six were completed at a depth less than 5 feet bgs. Boreholes were terminated at depth less than 10 feet bgs due to refusal on artificial fill and refusal on shallow bedrock. Refusal was encountered in one boring due to the presence of artificial fill, and in 34 borings because bedrock was encountered before the proposed depth was reached.

Soil samples were classified and described in accordance with the Final FSP for Soil Sampling (HGL, 2012a). The most common soil types observed were sand, silty sand, silt, and clay. Fill material was encountered in all or a portion of 30 of the borings. The fill material consisted of soils that exhibited a mottled texture and frequently contained pea gravel. Native soil was encountered below fill material in 22 of the 30 borings. Only 23 borings consisted solely of native soil. A summary of the boring log information is presented in Table A.1 and the boring logs are provided in Attachment 2.

3.0 SOIL ANALYTICAL RESULTS

Analyses of soil samples were conducted in accordance with the Final Quality Assurance Project Plan (QAPP) for Soil Sampling (HGL, 2012d). All samples were collected in accordance with the rationale presented in Table 2.3 of the Final FSP for Soil Sampling (HGL, 2012a). Round 2 sample locations and analytical suites are presented in the Subarea 8 Round 2 Addendum (HGL, 2012b). Deviations from the Round 2 FSP addendum are presented in Section 2.3 of this document.

3.1 Round 1 Data Quality Gap Reanalysis

A data quality gap is a sample result for which the minimum detectable concentrations (MDC) is greater than the RTL, but the reported activity is below the RTL, indicating an indeterminate result that may or may not exceed the RTL. The elevated MDC could be the result of sample matrix or spectral interference or, in some cases, laboratory issues that prevent accurate quantification of sample activity to a level low enough to support the RTLs.

The use of RTLs is predicated on the assumption that analytical results will be of known and predictable quality, with the uncertainty constrained to a level that supports direct comparison of results to RTLs. The reported analytical uncertainty is sufficiently reliable to be considered, however the magnitude of that uncertainty may not always allow direct comparison of the activity to the RTL, as discussed above. In many cases, the reported activity is sufficiently below the RTL (more than the associated, elevated 2σ total propagated uncertainty) to decide that the result does not represent an exceedance. For these cases, results are removed from further data quality gap assessment.

During the Round 1 sampling event, there were five samples (six values) identified as data quality gaps, in which the laboratory was directed to reanalyze the sample with a lower MDC value (HGL, 2012c).

- Sample 40080 was identified as a data quality gap for americium (Am)-241 and for curium (Cm)-243/244, resulting from a low chemical yield of 25.6 percent, as well as a moderately increased instrument background count rate.
- Sample 40110 was identified as a data quality gap for Cm-243/244, resulting from the use of a detector with an elevated background count rate in the spectral region of interest.
- Sample 40086 was identified as a data quality gap for plutonium (Pu)-238, resulting from a low chemical yield of 33.0 percent.
- Sample 40245 was identified as a data quality gap for Pu-239/240, resulting from a low chemical yield of 34.6 percent.
- Sample 40202 was identified as a data quality gap for technetium (Tc)-99. The root cause was undetermined and was believed to be associated with routine statistical fluctuations in the sample and/or background count rate.

Based on the reanalysis, lower MDCs were met and no activities exceeded RTLs. The samples are no longer considered data quality gaps and there are no additional Round 1 RTL exceedances. Table 3 summarizes the Round 1 reanalyzed activity, reanalyzed MDC values, and RTLs.

Table 3
Summary of Reanalyzed Round 1 Data Quality Gap Soil Samples

Sample Location	Sample ID	Radionuclide Detected	Reanalyzed Activity	Reanalyzed MDC	RTL
8N-00040	40080	Am-241	0.00158	0.0208	0.045
8N-00040	40080	Cm-243/244	-0.00165	0.0299	0.044
8N-00058	40110	Cm-243/244	-0.00089	0.0393	0.044
8N-00046	40086	Pu-238	0.00488	0.0388	0.042
8N-00125	40245	Pu-239/240	0	0.0164	0.04
8N-00132	40202	Tc-99	-0.334	1.41	1.63

Notes:

Reporting units in picocuries per gram.

ID – identification

3.2 Round 2 Analytical Results

Round 2 soil sampling locations were determined based on RTL exceedances detected in Round 1 soil samples. The Round 2 samples were tested for those analytes that were detected above the RTL in Round 1 samples.

Radiological trigger levels are reference soil concentrations for the radionuclides of concern for the SSFL Area IV Radiological Study. They were designed for screening analytical results of site soil and sediment collected during Round 1 sampling to inform decisions for Round 2 sampling (also called step-out sampling). Individual Round 1 analytical results were compared to RTLs and if results exceed an RTL step-out sampling was conducted. The primary purpose of the RTLs were to guide the placement of Round 2 sampling locations and will not be used to screen Round 2 sample results.

The Round 2 analytical results are documented in this technical memorandum; however, the analytical results have not been screened using the RTLs. The Subarea 8 Round 2 analytical results will be evaluated, along with Round 1 results, using Field Action Level (FAL) established specifically for the SSFL Area IV Radiological Study. The results of the evaluation will be present in the final soil report entitled, Radiological Characterization of Soils in Area IV and NBZ.

Figure 1 presents the locations of the soil samples collected during the Round 1 and Round 2 sampling events. A summary of the Round 2 analytical results is provided in Table A.2.

4.0 QUALITY ASSURANCE/QUALITY CONTROL SAMPLES

In addition to the environmental samples collected, quality control samples were collected as described in the Final QAPP (HGL, 2012d). The results of the quality control samples collected and their affect on data usability are described in the following subsections.

4.1 Field Duplicates

Field duplicate soil samples were collected at a frequency of 1 per 20 samples (5 percent). A total of two field duplicate samples were collected during the Round 2 sampling event. The field duplicate evaluation criterion includes an additional 1σ uncertainty factor of 10 percent to allow for heterogeneity of co-located, but non-homogenized, field samples.

The comparability of a field duplicate result to that of the original sample is assessed by evaluating the Z-score (Z_{DUP}). The Z-score is a statistical test that indicates how many standard deviations an observation is from the expected value. The Z-score is defined in the QAPP (HGL, 2012d), and the Z_{DUP} is calculated as follows:

$$Z_{DUP} = \frac{|X_s - X_d|}{\sqrt{u_s^2 + u_d^2}}$$

where:

- | | | |
|-------|---|--|
| X_s | = | activity of the sample |
| X_d | = | activity of the duplicate |
| u_s | = | combined standard (1σ) uncertainty of the sample |
| u_d | = | combined standard (1σ) uncertainty of the duplicate |

Higher Z_{DUP} scores indicate greater disparity between the sample and the duplicate results. A Z_{DUP} score of 2.0, for example, indicates that the duplicate result differs from the sample result by twice the overall uncertainty of the two results. By extension, a Z_{DUP} score of 1.96 (the warning level) indicates that the two results are statistically equivalent, at the 95 percent confidence interval. A Z_{DUP} score of 2.58 (the exceedance level) indicates that the two results are statistically equivalent, at the 99 percent confidence interval.

A Z_{DUP} evaluation is performed on each paired set of analytes for which parent and duplicate data are reported. This quality assurance/quality control assessment is performed on the validated laboratory results approved and accepted by the project, and recorded in the project database as of September 14, 2012. Subsequent modifications to the approved data or the project database may not be reflected in this assessment.

Round 2 field duplicate sample data includes 96 results from 48 sample/duplicate pairs. Those original reported results included analytes which were not evaluated for any of the following reasons: several radionuclides were removed from consideration (and do not have RTLs), results rejected by data validation, and analytes that are simply inferred from previously reported results, such as yttrium 90, which is inferred from the reported Sr-90 results, are redundant.

The Z_{DUP} evaluation of the remaining 37 qualified pairs follows:

- 36 Z_{DUP} evaluation results (97.3 percent) were within the expected 95 percent confidence interval for this evaluation, with Z_{DUP} less than 1.96;
- One Z_{DUP} evaluation result (2.7 percent) was between the 95 percent and 99 percent confidence interval with Z_{DUP} at or above 1.96, but below 2.58;
- Zero Z_{DUP} evaluation results (0.0 percent) exceeded the 99 percent confidence interval, with Z_{DUP} values at or above 2.58.

The Z_{DUP} statistical test predicts that, in a homogeneous sample/duplicate pairing, 4 percent of reported Z_{DUP} scores (approximately one result in this Z_{DUP} set) will be in the “warning” range between 1.96 and 2.58. In addition, 1 percent (less than one result in this Z_{DUP} set) are expected to exceed a Z_{DUP} score of 2.58. The single Z_{DUP} score in the “warning” range, between 1.96 and 2.58, is within the expected frequency and does not appear to represent a data quality excursion. A summary of the parent and associated duplicate sample results is provided Table A.3.

4.2 Equipment Rinsate and Source Water Blanks

Equipment rinsate blanks were collected at a frequency of one per day, for each type of sampling equipment used per field team. Equipment rinsate blanks were collected in accordance with the Final FSP for Soil Sampling (HGL, 2012a) and the Final QAPP (HGL, 2012d). A total of 22 rinsate samples and two source water samples were collected during the Round 2 sampling event. Each sample was tested for isotopic uranium, as a surrogate indicator of cross-contamination. Any results that were rejected for laboratory quality reasons would have been removed from consideration, as in the evaluation of field duplicate samples. In this dataset, however, no sample results were rejected.

The equipment rinsate assessment was performed on the validated laboratory results approved and accepted by the project, and recorded in the project database as of September 19, 2012. Subsequent modifications to the approved data or the project database may not be reflected in this assessment.

In all cases, the samples were analyzed by the laboratory as received and Total activity is reported.

Round 2 rinsate and source water samples include 132 Total activity results, from which 66 data pairs were evaluated by Z-score duplicate comparison. The Z_{DUP} scores are summarized below.

- 63 Z_{DUP} evaluation results (95.5 percent) were within the expected 95 percent confidence interval for this evaluation, with Z_{DUP} less than 1.96;
- Three Z_{DUP} evaluation result (4.5 percent) were between the 95 percent and 99 percent confidence interval with Z_{DUP} at or above 1.96, but below 2.58;
- Zero Z_{DUP} evaluation results (0.0 percent) exceeded the 99 percent confidence interval, with Z_{DUP} values at or above 2.58.

As with the field duplicates, the Z_{DUP} statistical test predicts that approximately 4 percent of reported Z_{DUP} scores (approximately 3 results in this Z_{DUP} set) will be in the range between 1.96 and 2.58. The three results in that “warning” range are within the expected frequency.

The evaluation of equipment blank results indicate the decontamination of field sampling equipment was acceptable and that there was no evidence of sample cross-contamination from the sampling equipment that would adversely affect the quality or usability of the reported field sample data. A summary of the rinsate and source water blank analytical results are provided in Table A.4.

5.0 CONCLUSIONS

The Round 2 analytical results are documented in this technical memorandum; however, the analytical results have not been screened using the RTLs. Radiological trigger levels were reference soil concentrations designed to be used as a decision making tool to guide the placement of Round 2 step-out sampling locations. No additional step-out sampling will be conducted as part of the SSFL Area IV Study; therefore, there is no technical reason to compare the data to RTLs.

The Subarea 8 Round 1 and Round 2 analytical results will be evaluated using Field Action Levels (FAL) established specifically for the SSFL Area IV Radiological Study. The results of the evaluation will be presented in the Radiological Characterization of Soils in Area IV and NBZ report.

6.0 REFERENCES

Department of Toxic Substances Control, 2010. Administrative Order On Consent For Remedial Action, Santa Susana Field Laboratory, Simi Hills, Ventura County, California. December.

HydroGeoLogic, Inc. (HGL), 2012a. Final Field Sampling Plan for Soil Sampling, Area IV Radiological Study, Santa Susana Field Laboratory, Ventura County, California. March.

HGL, 2012b. Subarea 8 Round 2 Addendum to the Final Field Sampling Plan for Soil Sampling, Area IV Radiological Study, Santa Susana Field Laboratory, Ventura County, California. July.

HGL, 2012c. Final Technical Memorandum, Subarea 8 Round 1 Soil Sample Results, Santa Susana Field Laboratory, Area IV Radiological Study. July.

HGL, 2012d. Final Quality Assurance Project Plan for Soil Sampling, Area IV Radiological Study, Santa Susana Field Laboratory, Ventura County, California. March.

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FIGURE

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Figure 1

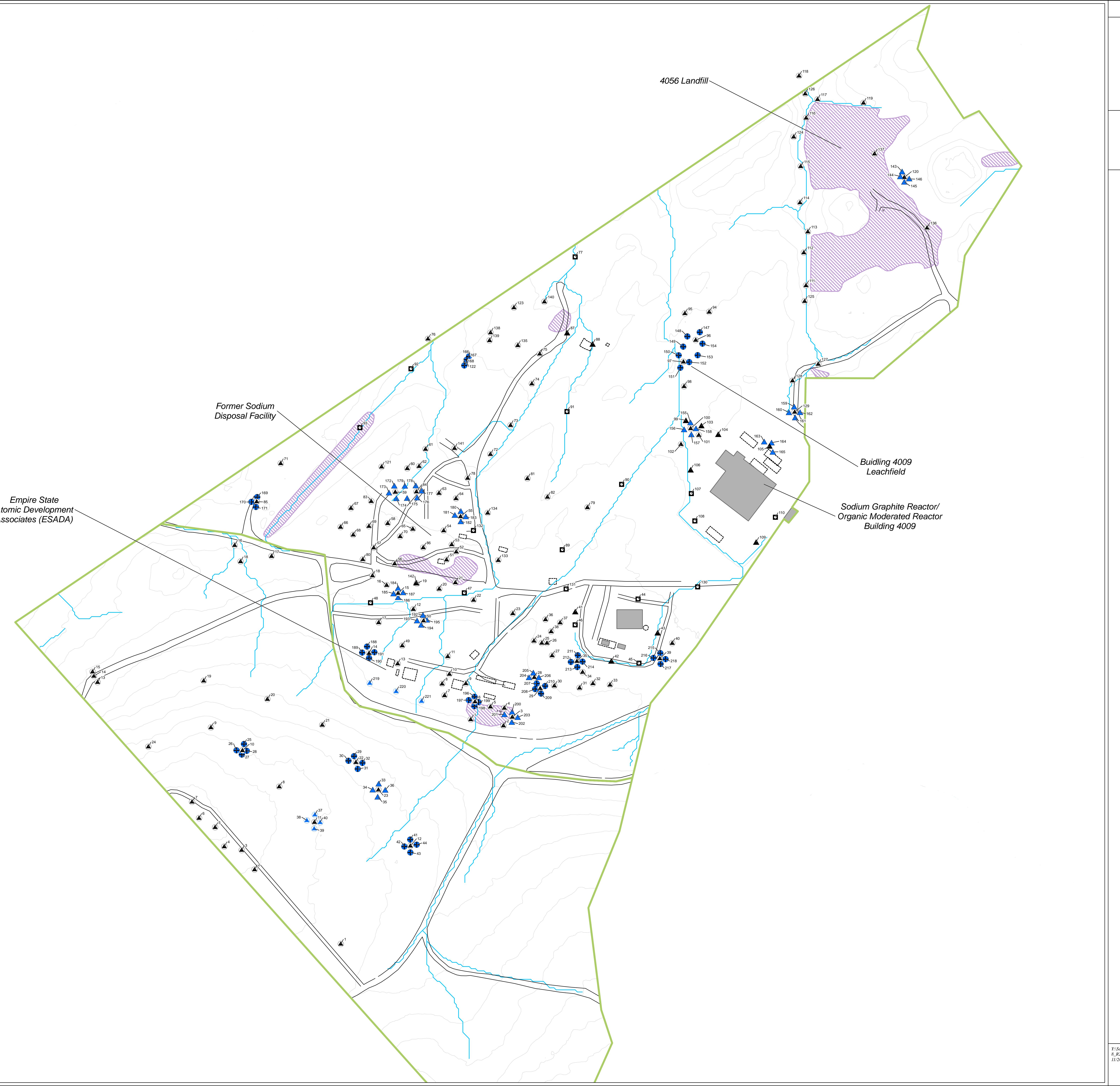
Subarea 8 Sample Locations

Round 1 and Round 2

Santa Susana Field Laboratory



U.S. EPA Region 9



ATTACHMENT 1

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Table A.1
Boring Log Summary
Subarea 8, Round 2

Sample Location	Surface Collection Interval (ft bgs)	Subsurface Collection Interval (ft bgs)	Soil Description	Total Depth (ft bgs)	Refusal Depth (ft bgs)	Notes/Comments	Northing ¹	Easting ¹
8N-00143	NA	1-5	SM/SP/CL	10	NA	Artificial fill to target depth.	1,907,454.01	6,345,597.31
8N-00144	NA	1-5	SM/ML/CL	10	NA	Artificial fill to target depth.	1,907,442.64	6,345,592.90
8N-00145	NA	1-5	SM/ML	10	NA	Artificial fill to target depth.	1,907,429.71	6,345,602.68
8N-00146	NA	1-5	SM/ML/CL	10	NA	Artificial fill to target depth.	1,907,437.40	6,345,613.97
8N-00147	0.0-0.5	NA	ML	0.5	NA	Artificial fill to target depth.	1,907,074.74	6,345,120.40
8N-00148	0.0-0.5	NA	ML	0.5	NA	Artificial fill to target depth.	1,907,064.88	6,345,091.05
8N-00149	0.0-0.5	NA	ML	0.5	NA	Artificial fill to target depth.	1,907,041.05	6,345,081.11
8N-00150	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,907,020.45	6,345,070.54
8N-00151	0.0-0.5	NA	ML	0.5	NA	Artificial fill to target depth.	1,906,991.06	6,345,074.66
8N-00152	0.0-0.5	NA	ML	0.5	NA	Artificial fill to target depth.	1,907,004.50	6,345,095.46
8N-00153	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,907,020.67	6,345,115.32
8N-00154	0.0-0.5	NA	ML	0.5	NA	Artificial fill to target depth.	1,907,047.89	6,345,126.45
8N-00155	NA	1-4.6	ML/SM	4.6	4.6	Refusal on bedrock.	1,906,862.42	6,345,098.28
8N-00156	NA	1-5	ML/SM/SP	8.3	8.3	Refusal on bedrock.	1,906,845.91	6,345,083.45
8N-00157	NA	1-5	ML	5	5	Refusal on artificial fill.	1,906,834.39	6,345,100.34
8N-00158	NA	1-5	ML/SM	8	8	Artificial fill to 6.5 ft bgs, refusal on bedrock.	1,906,848.44	6,345,111.38
8N-00159	NA	1-5	GW/CL/ML/SM/SP	7.5	7.5	Artificial fill to 0.3 ft bgs, refusal on bedrock.	1,906,899.68	6,345,342.93
8N-00160	NA	1-5	GW/CL/ML/SM/SP	6	6	Artificial fill to 1.0 ft bgs, refusal on bedrock.	1,906,886.31	6,345,330.49
8N-00161	NA	1-5	GW/CL/SM/SP	7	7	Artificial fill to 0.1 ft bgs, refusal on bedrock.	1,906,873.95	6,345,345.12
8N-00162	NA	1-5	ML/CL/SM	10	NA	Artificial fill to 2.0 ft bgs.	1,906,886.54	6,345,356.59
8N-00163	NA	1-5	CL/SP	7	7	Artificial fill to 2.7 ft bgs, refusal on bedrock.	1,906,817.09	6,345,272.12

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Table A.1
Boring Log Summary
Subarea 8, Round 2

Sample Location	Surface Collection Interval (ft bgs)	Subsurface Collection Interval (ft bgs)	Soil Description	Total Depth (ft bgs)	Refusal Depth (ft bgs)	Notes/Comments	Northing ¹	Easting ¹
8N-00164	NA	1-5	CL/SM/SP	7	7	Artificial fill to 5.0 ft bgs, refusal on bedrock.	1,906,814.72	6,345,289.53
8N-00165	NA	1-5	CL/SP	8	8	Artificial fill to 6.5 ft bgs, refusal on bedrock.	1,906,792.93	6,345,292.40
8N-00166	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,907,018.21	6,344,576.50
8N-00167	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,907,010.30	6,344,571.46
8N-00168	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,906,996.45	6,344,565.36
8N-00169	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,906,686.24	6,344,076.93
8N-00170	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,906,675.18	6,344,063.50
8N-00171	0.0-0.5	NA	SM	0.5	NA	Target depth reached.	1,906,662.79	6,344,073.94
8N-00172	NA	1-5	CL	7.5	7.5	Artificial fill to 7.5 ft bgs, refusal on bedrock.	1,906,713.29	6,344,400.11
8N-00173	NA	1-5	CL	8	8	Artificial fill to 8.0 ft bgs, refusal on bedrock.	1,906,696.94	6,344,387.70
8N-00174	NA	1-5	CL	7.5	7.5	Artificial fill to 7.5 ft bgs, refusal on bedrock.	1,906,683.53	6,344,404.99
8N-00175	NA	1-5	CL	10	NA	Artificial fill to target depth.	1,906,684.26	6,344,430.43
8N-00176	NA	1-5	CL	10	NA	Artificial fill to target depth.	1,906,685.30	6,344,454.17
8N-00177	NA	1-5	CL	10	NA	Artificial fill to target depth.	1,906,701.36	6,344,465.27
8N-00178	NA	1-5	CL/SP	10	10	Artificial fill to 9.75 ft bgs, refusal on bedrock.	1,906,713.65	6,344,450.80
8N-00179	NA	1-5	CL	7.5	7.5	Artificial fill to 7.5 ft bgs, refusal on bedrock.	1,906,712.86	6,344,425.10
8N-00180	NA	1-5	CL/SP	6.5	6.5	Artificial fill to 6.4 ft bgs, refusal on bedrock.	1,906,653.39	6,344,556.92
8N-00181	NA	1-5	CL/SP	6.5	6.5	Artificial fill to 6.4 ft bgs, refusal on bedrock.	1,906,644.21	6,344,542.80
8N-00182	NA	1-5	CL/ML/SP	5.8	5.8	Artificial fill to 5.7 ft bgs, refusal on bedrock.	1,906,629.19	6,344,557.00
8N-00183	NA	1-4	CL/SP	4	4	Artificial fill to 1.2 ft bgs, refusal on bedrock.	1,906,640.93	6,344,568.82
8N-00184	NA	1-5	ML/CL/SP	7	7	Collected two subsurface samples.	1,906,471.88	6,344,408.96
8N-00185	NA	1-5	ML/CL/SP	6	6	Collected two subsurface samples.	1,906,458.97	6,344,398.24

Table A.1
Boring Log Summary
Subarea 8, Round 2

Sample Location	Surface Collection Interval (ft bgs)	Subsurface Collection Interval (ft bgs)	Soil Description	Total Depth (ft bgs)	Refusal Depth (ft bgs)	Notes/Comments	Northing ¹	Easting ¹
8N-00186	NA	1-5	ML/CL/SP	5.5	5.5	Collected two subsurface samples.	1,906,450.34	6,344,409.26
8N-00187	NA	1-5	ML/CL/SP	7	7	Collected two subsurface samples.	1,906,461.85	6,344,420.93
8N-00188	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,906,333.87	6,344,335.98
8N-00189	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,906,319.69	6,344,324.50
8N-00190	0.0-0.5	NA	ML	0.5	NA	Artificial fill to target depth.	1,906,306.66	6,344,340.78
8N-00191	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,906,320.52	6,344,353.12
8N-00192	NA	1-5	ML/CL/SM/SP	9.5	9.5	Artificial fill to 6.0 ft bgs, refusal on bedrock.	1,906,408.50	6,344,467.61
8N-00193	NA	1-5	ML/CL	10	NA	Target depth reached.	1,906,395.44	6,344,453.71
8N-00194	NA	1-5	ML/CL	10	NA	Target depth reached.	1,906,385.18	6,344,463.71
8N-00195	NA	1-5	ML/CL	10	NA	Target depth reached.	1,906,397.15	6,344,477.00
8N-00196	0.0-0.5	NA	CL	0.5	NA	Collected two surface samples.	1,906,215.35	6,344,589.61
8N-00197	0.0-0.5	NA	CL	0.5	NA	Collected two surface samples.	1,906,207.57	6,344,575.65
8N-00198	0.0-0.5	NA	ML	0.5	NA	Collected two surface samples.	1,906,193.16	6,344,589.00
8N-00199	0.0-0.5	NA	ML	0.5	NA	Collected two surface samples.	1,906,202.73	6,344,598.84
8N-00200	NA	1-5	ML	10	NA	Target depth reached.	1,906,179.91	6,344,677.82
8N-00201	NA	1-5	ML	10	NA	Artificial fill to 2.0 ft bgs.	1,906,174.21	6,344,659.60
8N-00202	NA	1-5	ML	10	NA	Target depth reached.	1,906,156.20	6,344,677.20
8N-00203	NA	1-5	ML	10	NA	Target depth reached.	1,906,167.50	6,344,690.98
8N-00204	NA	1-5	ML/CL	10	NA	Artificial fill to 2.5 ft bgs.	1,906,261.50	6,344,717.85
8N-00205	NA	1-5	ML/CL/SP	10	NA	Artificial fill to 1.6 ft bgs.	1,906,272.53	6,344,727.96
8N-00206	NA	1-5	ML/CL/SP	9	9	Artificial fill to 1.0 ft bgs, refusal on bedrock.	1,906,261.52	6,344,740.93
8N-00207	0.0-0.5	NA	ML	0.5	NA	Artificial fill to target depth.	1,906,246.45	6,344,736.03

Table A.1
Boring Log Summary
Subarea 8, Round 2

Sample Location	Surface Collection Interval (ft bgs)	Subsurface Collection Interval (ft bgs)	Soil Description	Total Depth (ft bgs)	Refusal Depth (ft bgs)	Notes/Comments	Northing ¹	Easting ¹
8N-00208	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,906,233.44	6,344,732.11
8N-00209	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,906,222.73	6,344,745.99
8N-00210	0.0-0.5	NA	SM	0.5	NA	Target depth reached.	1,906,240.92	6,344,755.54
8N-00211	0.0-0.5	NA	ML	0.5	NA	Artificial fill to target depth.	1,906,313.33	6,344,832.64
8N-00212	0.0-0.5	NA	ML	0.5	NA	Artificial fill to target depth.	1,906,297.38	6,344,816.40
8N-00213	0.0-0.5	NA	ML	0.5	NA	Artificial fill to target depth.	1,906,285.38	6,344,831.53
8N-00214	0.0-0.5	NA	ML	0.5	NA	Artificial fill to target depth.	1,906,298.15	6,344,843.81
8N-00215	0.0-0.5	NA	ML	0.5	NA	Artificial fill to target depth.	1,906,318.25	6,345,027.34
8N-00216	0.0-0.5	NA	SM	0.5	NA	Artificial fill to target depth.	1,906,306.90	6,345,011.09
8N-00217	0.0-0.5	NA	SM	0.5	NA	Artificial fill to target depth.	1,906,292.59	6,345,027.81
8N-00218	0.0-0.5	NA	SM	0.5	NA	Artificial fill to target depth.	1,906,304.03	6,345,039.53
8N-00219	0.0-0.5	1-5	ML/SM/SP	5	5	Refusal on bedrock.	1,906,247.63	6,344,342.22
8N-00220	0.0-0.5	1-5	ML/SM/SP	5	5	Refusal on bedrock.	1,906,228.50	6,344,404.50
8N-00221	0.0-0.5	1-5	ML/SM/SP	8	8	Refusal on bedrock.	1,906,205.51	6,344,464.34
8S-00025	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,906,103.82	6,344,045.66
8S-00026	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,906,089.20	6,344,028.17
8S-00027	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,906,079.11	6,344,040.64
8S-00028	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,906,087.76	6,344,052.39
8S-00029	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,906,075.21	6,344,305.22
8S-00030	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,906,064.39	6,344,292.24
8S-00031	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,906,045.19	6,344,314.02
8S-00032	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,906,059.42	6,344,325.10

Table A.1
Boring Log Summary
Subarea 8, Round 2

Sample Location	Surface Collection Interval (ft bgs)	Subsurface Collection Interval (ft bgs)	Soil Description	Total Depth (ft bgs)	Refusal Depth (ft bgs)	Notes/Comments	Northing ¹	Easting ¹
8S-00033	NA	1-5	ML	8	8	Refusal on bedrock.	1,906,010.81	6,344,363.35
8S-00034	NA	1-5	ML	8.25	8.25	Refusal on bedrock.	1,905,996.65	6,344,349.19
8S-00035	NA	1-5	ML	8.5	8.5	Refusal on bedrock.	1,905,979.95	6,344,360.91
8S-00036	NA	1-5	ML	8.5	8.5	Refusal on bedrock.	1,905,996.26	6,344,378.86
8S-00037	0.0-0.5	1-2.8	ML	2.8	2.8	Refusal on bedrock.	1,905,937.22	6,344,212.89
8S-00038	0.0-0.5	1-3	ML	3	3	Refusal on bedrock.	1,905,924.19	6,344,193.95
8S-00039	0.0-0.5	1-4.6	ML	4.6	4.6	Refusal on bedrock.	1,905,904.76	6,344,211.39
8S-00040	0.0-0.5	1-2.5	ML	2.5	2.5	Refusal on bedrock.	1,905,919.29	6,344,225.30
8S-00041	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,905,878.83	6,344,437.87
8S-00042	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,905,862.25	6,344,423.80
8S-00043	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,905,848.45	6,344,437.96
8S-00044	0.0-0.5	NA	ML	0.5	NA	Target depth reached.	1,905,866.47	6,344,452.90

Notes:

¹Northing and easting measured using NAD83 SPZ5 US Feet

bgs - below ground surface

CL - clay

ft - feet

GW - well graded gravel

ML - silt

NA - not applicable

SM - silty sand

SP - poorly graded sand

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8N-00143	40331	Np-237	0.0019 U J	0.0243	0.0061	1.00 - 5.00
8N-00143	40331	Pu-236	-0.005 U	0.021	0.0046	1.00 - 5.00
8N-00143	40331	Pu-238	-0.002 U	0.0184	0.0042	1.00 - 5.00
8N-00143	40331	Pu-239/240	0.0031	0.0085	0.0025	1.00 - 5.00
8N-00143	40331	Pu-241	-0.0686 U	2.16	0.634	1.00 - 5.00
8N-00143	40331	Pu-244	-0.0029 U	0.0121	0.0021	1.00 - 5.00
8N-00144	40332	Np-237	-0.0048 U J	0.0377	0.009	1.00 - 5.00
8N-00144	40332	Pu-236	-0.0044 U	0.0293	0.0068	1.00 - 5.00
8N-00144	40332	Pu-238	-0.0024 U	0.0211	0.0045	1.00 - 5.00
8N-00144	40332	Pu-239/240	-0.0013 U	0.0115	0.0022	1.00 - 5.00
8N-00144	40332	Pu-241	-0.595 U	2.34	0.675	1.00 - 5.00
8N-00144	40332	Pu-244	-0.0008 U	0.0143	0.0026	1.00 - 5.00
8N-00145	40333	Np-237	0.0018 U J	0.0226	0.0057	1.00 - 5.00
8N-00145	40333	Pu-236	-0.0055 U	0.0392	0.0093	1.00 - 5.00
8N-00145	40333	Pu-238	-0.0005 U	0.028	0.0065	1.00 - 5.00
8N-00145	40333	Pu-239/240	-0.0032 U	0.0257	0.0052	1.00 - 5.00
8N-00145	40333	Pu-241	-0.275 U	2.83	0.825	1.00 - 5.00
8N-00145	40333	Pu-244	0.0051	0.016	0.0045	1.00 - 5.00
8N-00146	40334	Np-237	-0.0053 U J	0.0184	0.0032	1.00 - 5.00
8N-00146	40334	Pu-236	0.0023 U	0.021	0.0055	1.00 - 5.00
8N-00146	40334	Pu-238	-0.0005 U	0.0176	0.004	1.00 - 5.00
8N-00146	40334	Pu-239/240	-0.0033 U	0.0136	0.0024	1.00 - 5.00
8N-00146	40334	Pu-241	-0.684 U	2.71	0.781	1.00 - 5.00
8N-00146	40334	Pu-244	-0.0011 U	0.0096	0.0019	1.00 - 5.00
8N-00147	40335	Ac-227	-0.0403 U	0.168	0.0506	0.00 - 0.50
8N-00147	40335	Ac-228	1.25	0.078	0.0634	0.00 - 0.50
8N-00147	40335	Ag-108m	-0.0019 R	0.0128	0.0043	0.00 - 0.50
8N-00147	40335	Ba-133	0.0064 R	0.0175	0.006	0.00 - 0.50
8N-00147	40335	Bi-212	0.925	0.115	0.0817	0.00 - 0.50
8N-00147	40335	Bi-214	0.946	0.0272	0.0452	0.00 - 0.50
8N-00147	40335	Cd-113m	2.57 U	114	36	0.00 - 0.50
8N-00147	40335	Cf-249	0.0413 R	0.0772	0.0362	0.00 - 0.50
8N-00147	40335	Co-60	-0.0037 U	0.0151	0.0045	0.00 - 0.50
8N-00147	40335	Cs-134	0.0074 JSK	0.014	0.0048	0.00 - 0.50
8N-00147	40335	Cs-137	0.0777	0.0149	0.0073	0.00 - 0.50
8N-00147	40335	Eu-152	0.0114 U	0.0422	0.0153	0.00 - 0.50
8N-00147	40335	Eu-154	-0.0435 U	0.084	0.0279	0.00 - 0.50

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8N-00147	40335	Eu-155	0.118 SK	0.0564	0.0266	0.00 - 0.50
8N-00147	40335	Ho-166m	-0.0034 U	0.0233	0.0069	0.00 - 0.50
8N-00147	40335	K-40	19.5	0.116	1.07	0.00 - 0.50
8N-00147	40335	Na-22	-0.0048 U	0.0173	0.0052	0.00 - 0.50
8N-00147	40335	Nb-94	0.0101 JSK	0.0146	0.0047	0.00 - 0.50
8N-00147	40335	Np-236	-0.0115 U	0.0311	0.01	0.00 - 0.50
8N-00147	40335	Np-239	0.0037 U	0.113	0.0331	0.00 - 0.50
8N-00147	40335	Pa-231	-0.0811 U	0.683	0.203	0.00 - 0.50
8N-00147	40335	Pb-212	1.4	0.0285	0.0755	0.00 - 0.50
8N-00147	40335	Pb-214	1.05	0.03	0.0487	0.00 - 0.50
8N-00147	40335	Sb-125	0.0095 U	0.0399	0.012	0.00 - 0.50
8N-00147	40335	Sn-126	0 U	0.0152	0.0044	0.00 - 0.50
8N-00147	40335	Sr-90	0.0272 U	0.324	0.0911	0.00 - 0.50
8N-00147	40335	Th-234	1.37	0.245	0.126	0.00 - 0.50
8N-00147	40335	Tl-208	0.441	0.0143	0.0252	0.00 - 0.50
8N-00147	40335	Tm-171	-1.89 U	9.76	3.33	0.00 - 0.50
8N-00147	40335	Y-90	0.0272 U	0.324	0.0911	0.00 - 0.50
8N-00148	40336	Ac-227	0.033 U	0.195	0.0588	0.00 - 0.50
8N-00148	40336	Ac-228	1.21	0.0854	0.064	0.00 - 0.50
8N-00148	40336	Ag-108m	0.0025 R	0.0148	0.005	0.00 - 0.50
8N-00148	40336	Ba-133	-0.0002 R	0.0193	0.0067	0.00 - 0.50
8N-00148	40336	Bi-212	0.803	0.119	0.078	0.00 - 0.50
8N-00148	40336	Bi-214	0.889	0.0302	0.0434	0.00 - 0.50
8N-00148	40336	Cd-113m	-21.1 U	123	40.6	0.00 - 0.50
8N-00148	40336	Cf-249	0.0712 R	0.0821	0.0411	0.00 - 0.50
8N-00148	40336	Co-60	0.0003 U	0.0165	0.0048	0.00 - 0.50
8N-00148	40336	Cs-134	0.0131 JSK	0.0152	0.0057	0.00 - 0.50
8N-00148	40336	Cs-137	0.0755	0.0152	0.0082	0.00 - 0.50
8N-00148	40336	Eu-152	-0.0622 U J	0.0431	0.0212	0.00 - 0.50
8N-00148	40336	Eu-154	-0.0549 U	0.0914	0.0315	0.00 - 0.50
8N-00148	40336	Eu-155	0.0757 SK	0.0629	0.0274	0.00 - 0.50
8N-00148	40336	Ho-166m	0.0027 U	0.0249	0.0073	0.00 - 0.50
8N-00148	40336	K-40	20	0.123	1.08	0.00 - 0.50
8N-00148	40336	Na-22	0.0014 U	0.0196	0.0057	0.00 - 0.50
8N-00148	40336	Nb-94	0.0068 U	0.0147	0.0045	0.00 - 0.50
8N-00148	40336	Np-236	-0.0102 U	0.0344	0.0112	0.00 - 0.50
8N-00148	40336	Np-239	-0.0252 U	0.125	0.0382	0.00 - 0.50

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8N-00148	40336	Pa-231	0.0545 U	0.779	0.253	0.00 - 0.50
8N-00148	40336	Pb-212	1.39	0.032	0.0889	0.00 - 0.50
8N-00148	40336	Pb-214	1.05	0.0338	0.0525	0.00 - 0.50
8N-00148	40336	Sb-125	0.0019 U	0.042	0.0128	0.00 - 0.50
8N-00148	40336	Sn-126	0.0082 J	0.0164	0.0051	0.00 - 0.50
8N-00148	40336	Sr-90	0.0642 U	0.343	0.099	0.00 - 0.50
8N-00148	40336	Th-234	1.66	0.27	0.165	0.00 - 0.50
8N-00148	40336	Tl-208	0.402	0.0164	0.0233	0.00 - 0.50
8N-00148	40336	Tm-171	-5.05 U	11.1	4.12	0.00 - 0.50
8N-00148	40336	Y-90	0.0642 U	0.343	0.099	0.00 - 0.50
8N-00149	40337	Sr-90	0.093 U	0.245	0.073	0.00 - 0.50
8N-00149	40337	Y-90	0.093 U	0.245	0.073	0.00 - 0.50
8N-00150	40338	Sr-90	-0.164 U	0.337	0.0845	0.00 - 0.50
8N-00150	40338	Y-90	-0.164 U	0.337	0.0845	0.00 - 0.50
8N-00151	40339	Sr-90	0.0887 U	0.236	0.0705	0.00 - 0.50
8N-00151	40339	Y-90	0.0887 U	0.236	0.0705	0.00 - 0.50
8N-00152	40340	Sr-90	0.181	0.275	0.0883	0.00 - 0.50
8N-00152	40340	Y-90	0.181	0.275	0.0883	0.00 - 0.50
8N-00153	40341	Sr-90	-0.0819 U	0.224	0.0529	0.00 - 0.50
8N-00153	40341	Y-90	-0.0819 U	0.224	0.0529	0.00 - 0.50
8N-00154	40342	Ac-227	-0.0408 U	0.182	0.057	0.00 - 0.50
8N-00154	40342	Ac-228	1.23	0.115	0.0615	0.00 - 0.50
8N-00154	40342	Ag-108m	0.0114 R	0.0183	0.0065	0.00 - 0.50
8N-00154	40342	Ba-133	0.0013 R	0.0207	0.0068	0.00 - 0.50
8N-00154	40342	Bi-212	0.91	0.152	0.0891	0.00 - 0.50
8N-00154	40342	Bi-214	0.92	0.0366	0.046	0.00 - 0.50
8N-00154	40342	Cd-113m	-25.5 U	120	37.7	0.00 - 0.50
8N-00154	40342	Cf-249	0.0693 R	0.0868	0.0356	0.00 - 0.50
8N-00154	40342	Co-60	0.0026 U	0.0219	0.0062	0.00 - 0.50
8N-00154	40342	Cs-134	0.011 JSK	0.0179	0.0064	0.00 - 0.50
8N-00154	40342	Cs-137	0.0647	0.0209	0.0098	0.00 - 0.50
8N-00154	40342	Eu-152	-0.0031 U	0.0476	0.0138	0.00 - 0.50
8N-00154	40342	Eu-154	-0.0652 U	0.113	0.0381	0.00 - 0.50
8N-00154	40342	Eu-155	0.0696 SK	0.0567	0.0231	0.00 - 0.50
8N-00154	40342	Ho-166m	-0.0119 U	0.0315	0.0097	0.00 - 0.50
8N-00154	40342	K-40	18.5	0.181	1.02	0.00 - 0.50
8N-00154	40342	Na-22	-0.0068 U	0.0239	0.0075	0.00 - 0.50

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8N-00154	40342	Nb-94	0.0101 JSK	0.0189	0.006	0.00 - 0.50
8N-00154	40342	Np-236	-0.0208 U	0.0305	0.0104	0.00 - 0.50
8N-00154	40342	Np-239	-0.0756 U	0.12	0.0415	0.00 - 0.50
8N-00154	40342	Pa-231	0.0545 U	0.797	0.245	0.00 - 0.50
8N-00154	40342	Pb-212	1.33	0.0313	0.074	0.00 - 0.50
8N-00154	40342	Pb-214	1.01	0.0352	0.0479	0.00 - 0.50
8N-00154	40342	Sb-125	-0.0032 U	0.0474	0.0139	0.00 - 0.50
8N-00154	40342	Sn-126	0.0113 J	0.0218	0.0069	0.00 - 0.50
8N-00154	40342	Sr-90	0.0274 U	0.333	0.0941	0.00 - 0.50
8N-00154	40342	Th-234	1.27	0.231	0.117	0.00 - 0.50
8N-00154	40342	Tl-208	0.436	0.0202	0.0264	0.00 - 0.50
8N-00154	40342	Tm-171	2.06 U	7.07	2.47	0.00 - 0.50
8N-00154	40342	Y-90	0.0274 U	0.333	0.0941	0.00 - 0.50
8N-00155	40343	Sr-90	0.13 U	0.314	0.0953	1.00 - 4.60
8N-00155	40343	Y-90	0.13 U	0.314	0.0953	1.00 - 4.60
8N-00156	40344	Sr-90	-0.063 U	0.285	0.0753	1.00 - 5.00
8N-00156	40344	Y-90	-0.063 U	0.285	0.0753	1.00 - 5.00
8N-00157	40345	Sr-90	0.0066 U	0.413	0.115	1.00 - 5.00
8N-00157	40345	Y-90	0.0066 U	0.413	0.115	1.00 - 5.00
8N-00158	40346	Sr-90	0.0724 U	0.239	0.0694	1.00 - 5.00
8N-00158	40346	Y-90	0.0724 U	0.239	0.0694	1.00 - 5.00
8N-00159	40347	Sr-90	-0.0655 U	0.261	0.0628	1.00 - 5.00
8N-00159	40347	Y-90	-0.0655 U	0.261	0.0628	1.00 - 5.00
8N-00160	40348	Sr-90	-0.0582 U	0.228	0.0543	1.00 - 5.00
8N-00160	40348	Y-90	-0.0582 U	0.228	0.0543	1.00 - 5.00
8N-00161	40349	Sr-90	0.23	0.312	0.102	1.00 - 5.00
8N-00161	40349	Y-90	0.23	0.312	0.102	1.00 - 5.00
8N-00162	40350	Sr-90	-0.0708 U	0.292	0.0738	1.00 - 5.00
8N-00162	40350	Y-90	-0.0708 U	0.292	0.0738	1.00 - 5.00
8N-00163	40351	Sr-90	-0.0336 U	0.305	0.0787	1.00 - 5.00
8N-00163	40351	Y-90	-0.0336 U	0.305	0.0787	1.00 - 5.00
8N-00164	40352	Sr-90	0.0796 U	0.52	0.151	1.00 - 5.00
8N-00164	40352	Y-90	0.0796 U	0.52	0.151	1.00 - 5.00
8N-00165	40353	Sr-90	0.0358 U	0.169	0.048	1.00 - 5.00
8N-00165	40353	Y-90	0.0358 U	0.169	0.048	1.00 - 5.00
8N-00166	40354	Sr-90	0.0022 U	0.29	0.0798	0.00 - 0.50
8N-00166	40354	Y-90	0.0022 U	0.29	0.0798	0.00 - 0.50

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8N-00167	40355	Sr-90	0.0705 U	0.296	0.0864	0.00 - 0.50
8N-00167	40355	Y-90	0.0705 U	0.296	0.0864	0.00 - 0.50
8N-00168	40356	Sr-90	0.0226 U	0.321	0.0906	0.00 - 0.50
8N-00168	40356	Y-90	0.0226 U	0.321	0.0906	0.00 - 0.50
8N-00169	40357	Am-241	0.009	0.0049	0.0046	0.00 - 0.50
8N-00170	40358	Am-241	0.0102	0.0123	0.0055	0.00 - 0.50
8N-00171	40359	Am-241	-0.0073 U	0.0256	0.0052	0.00 - 0.50
8N-00172	40360	Am-241	0.0059	0.0165	0.0049	1.00 - 5.00
8N-00172	40360	Np-237	-0.008 U J	0.0521	0.0116	1.00 - 5.00
8N-00172	40360	Pu-236	0.0092 U	0.0226	0.0068	1.00 - 5.00
8N-00172	40360	Pu-238	-0.0007 U	0.0325	0.0081	1.00 - 5.00
8N-00172	40360	Pu-239/240	-0.0018 U	0.0205	0.0041	1.00 - 5.00
8N-00172	40360	Pu-241	-1.16 U	2.83	0.806	1.00 - 5.00
8N-00172	40360	Pu-244	-0.0009 U	0.0161	0.0029	1.00 - 5.00
8N-00173	40361	Am-241	0.0033 U	0.0164	0.0041	1.00 - 5.00
8N-00173	40361	Np-237	0.0026 U J	0.0199	0.005	1.00 - 5.00
8N-00173	40361	Pu-236	-0.0025 U	0.022	0.0047	1.00 - 5.00
8N-00173	40361	Pu-238	0.0116	0.0118	0.0051	1.00 - 5.00
8N-00173	40361	Pu-239/240	-0.003 U	0.0202	0.004	1.00 - 5.00
8N-00173	40361	Pu-241	0.848 U	2.35	0.711	1.00 - 5.00
8N-00173	40361	Pu-244	-0.0013 U	0.0118	0.0023	1.00 - 5.00
8N-00174	40362	Am-241	-0.0048 U	0.0274	0.0059	1.00 - 5.00
8N-00174	40362	Np-237	0.0022 U J	0.0236	0.006	1.00 - 5.00
8N-00174	40362	Pu-236	-0.0009 U	0.0283	0.0065	1.00 - 5.00
8N-00174	40362	Pu-238	0.0023 U	0.0249	0.0061	1.00 - 5.00
8N-00174	40362	Pu-239/240	0.0013 U	0.0125	0.0026	1.00 - 5.00
8N-00174	40362	Pu-241	-0.624 U	3.88	1.13	1.00 - 5.00
8N-00174	40362	Pu-244	-0.0008 U	0.017	0.003	1.00 - 5.00
8N-00175	40363	Am-241	0.0082	0.016	0.0054	1.00 - 5.00
8N-00175	40363	Np-237	0.0007 U J	0.0191	0.0045	1.00 - 5.00
8N-00175	40363	Pu-236	0.0013 U	0.0214	0.0052	1.00 - 5.00
8N-00175	40363	Pu-238	0.0084 U	0.021	0.0063	1.00 - 5.00
8N-00175	40363	Pu-239/240	0.0005 U	0.0115	0.0022	1.00 - 5.00
8N-00175	40363	Pu-241	-1.65 U	3.65	1.04	1.00 - 5.00
8N-00175	40363	Pu-244	-0.0008 U	0.0142	0.0026	1.00 - 5.00
8N-00175	40363	Sr-90	0.0151 U	0.279	0.0774	1.00 - 5.00
8N-00175	40363	Y-90	0.0151 U	0.279	0.0774	1.00 - 5.00

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8N-00176	40364	Sr-90	0.0692 U	0.266	0.0769	1.00 - 5.00
8N-00176	40364	Y-90	0.0692 U	0.266	0.0769	1.00 - 5.00
8N-00177	40365	Sr-90	0.0496 U	0.23	0.065	1.00 - 5.00
8N-00177	40365	Y-90	0.0496 U	0.23	0.065	1.00 - 5.00
8N-00178	40366	Sr-90	0.106 U	0.256	0.0775	1.00 - 5.00
8N-00178	40366	Y-90	0.106 U	0.256	0.0775	1.00 - 5.00
8N-00179	40367	Am-241	0.0066 U	0.0204	0.0058	1.00 - 5.00
8N-00179	40367	Np-237	0.0081 J	0.0191	0.0058	1.00 - 5.00
8N-00179	40367	Pu-236	-0.0038 U	0.0293	0.0068	1.00 - 5.00
8N-00179	40367	Pu-238	0.0096 U	0.024	0.0072	1.00 - 5.00
8N-00179	40367	Pu-239/240	-0.0042 U	0.0175	0.0031	1.00 - 5.00
8N-00179	40367	Pu-241	0.153 U	2.72	0.802	1.00 - 5.00
8N-00179	40367	Pu-244	-0.0009 U	0.0153	0.0028	1.00 - 5.00
8N-00179	40367	Sr-90	0.179	0.286	0.0912	1.00 - 5.00
8N-00179	40367	Y-90	0.179	0.286	0.0912	1.00 - 5.00
8N-00180	40368	Sr-90	0.0498 U	0.307	0.0874	1.00 - 5.00
8N-00180	40368	Y-90	0.0498 U	0.307	0.0874	1.00 - 5.00
8N-00181	40369	Sr-90	0.215	0.259	0.0875	1.00 - 5.00
8N-00181	40369	Y-90	0.215	0.259	0.0875	1.00 - 5.00
8N-00182	40370	Sr-90	0.182	0.225	0.0763	1.00 - 5.00
8N-00182	40370	Y-90	0.182	0.225	0.0763	1.00 - 5.00
8N-00183	40371	Sr-90	-0.0322 U	0.24	0.0611	1.00 - 4.00
8N-00183	40371	Y-90	-0.0322 U	0.24	0.0611	1.00 - 4.00
8N-00184	40372	Sr-90	0.0206 U	0.152	0.0415	1.00 - 5.00
8N-00184	40372	Y-90	0.0206 U	0.152	0.0415	1.00 - 5.00
8N-00184	40447	Ac-227	0.0544 U	0.233	0.0688	1.00 - 5.00
8N-00184	40447	Ac-228	1.44	0.116	0.0749	1.00 - 5.00
8N-00184	40447	Ag-108m	0.0101 R	0.019	0.0068	1.00 - 5.00
8N-00184	40447	Ba-133	0.0167 R	0.0255	0.0093	1.00 - 5.00
8N-00184	40447	Bi-212	0.804	0.159	0.0811	1.00 - 5.00
8N-00184	40447	Bi-214	1.07	0.0373	0.0529	1.00 - 5.00
8N-00184	40447	Cd-113m	-57.8 U	154	50.3	1.00 - 5.00
8N-00184	40447	Cf-249	0.0758 R	0.102	0.052	1.00 - 5.00
8N-00184	40447	Co-60	0.0048 U	0.0203	0.006	1.00 - 5.00
8N-00184	40447	Cs-134	0.0106 JSK	0.0188	0.0067	1.00 - 5.00
8N-00184	40447	Cs-137	0.0179 J	0.0233	0.0095	1.00 - 5.00
8N-00184	40447	Eu-152	0.0141 U	0.0561	0.0241	1.00 - 5.00

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8N-00184	40447	Eu-154	-0.0233 U	0.113	0.0341	1.00 - 5.00
8N-00184	40447	Eu-155	0.0663 JSK	0.0812	0.0288	1.00 - 5.00
8N-00184	40447	Ho-166m	0.0087 U	0.0334	0.0097	1.00 - 5.00
8N-00184	40447	K-40	19.9	0.158	1.09	1.00 - 5.00
8N-00184	40447	Na-22	-0.0044 U	0.0236	0.0072	1.00 - 5.00
8N-00184	40447	Nb-94	0.0053 U	0.0189	0.0055	1.00 - 5.00
8N-00184	40447	Np-236	0.0048 U	0.0436	0.0132	1.00 - 5.00
8N-00184	40447	Np-239	0.028 U	0.155	0.0456	1.00 - 5.00
8N-00184	40447	Pa-231	-0.567 U	0.947	0.341	1.00 - 5.00
8N-00184	40447	Pb-212	1.56	0.0382	0.0886	1.00 - 5.00
8N-00184	40447	Pb-214	1.21	0.041	0.0579	1.00 - 5.00
8N-00184	40447	Sb-125	0.0105 U	0.0541	0.0161	1.00 - 5.00
8N-00184	40447	Sn-126	-0.0001 U	0.0209	0.006	1.00 - 5.00
8N-00184	40447	Th-234	1.31 J	0.418	0.348	1.00 - 5.00
8N-00184	40447	Tl-208	0.481	0.0206	0.0282	1.00 - 5.00
8N-00184	40447	Tm-171	-12 U J	15.1	5.4	1.00 - 5.00
8N-00185	40373	Sr-90	-0.021 U	0.342	0.0939	1.00 - 5.00
8N-00185	40373	Y-90	-0.021 U	0.342	0.0939	1.00 - 5.00
8N-00185	40448	Ac-227	-0.0877 U	0.211	0.0672	1.00 - 5.00
8N-00185	40448	Ac-228	1.37	0.112	0.0696	1.00 - 5.00
8N-00185	40448	Ag-108m	0.0014 R	0.0179	0.0061	1.00 - 5.00
8N-00185	40448	Ba-133	0.0035 R	0.0227	0.0079	1.00 - 5.00
8N-00185	40448	Bi-212	0.948	0.151	0.0856	1.00 - 5.00
8N-00185	40448	Bi-214	1.08	0.0349	0.0525	1.00 - 5.00
8N-00185	40448	Cd-113m	-13.9 U	137	44.6	1.00 - 5.00
8N-00185	40448	Cf-249	0.0114 R	0.0953	0.0391	1.00 - 5.00
8N-00185	40448	Co-60	-0.0048 U	0.0199	0.0061	1.00 - 5.00
8N-00185	40448	Cs-134	-0.0084 U	0.0168	0.0062	1.00 - 5.00
8N-00185	40448	Cs-137	0.0104 J	0.0194	0.0068	1.00 - 5.00
8N-00185	40448	Eu-152	-0.05 U J	0.0509	0.0205	1.00 - 5.00
8N-00185	40448	Eu-154	-0.0207 U	0.111	0.0331	1.00 - 5.00
8N-00185	40448	Eu-155	0.0652 SK	0.0718	0.0289	1.00 - 5.00
8N-00185	40448	Ho-166m	-0.0075 U	0.0298	0.0092	1.00 - 5.00
8N-00185	40448	K-40	19.2	0.158	1.06	1.00 - 5.00
8N-00185	40448	Na-22	-0.001 U	0.0236	0.007	1.00 - 5.00
8N-00185	40448	Nb-94	0.007 U	0.0183	0.0056	1.00 - 5.00
8N-00185	40448	Np-236	-0.0121 U	0.0388	0.0125	1.00 - 5.00

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8N-00185	40448	Np-239	-0.0081 U	0.143	0.0427	1.00 - 5.00
8N-00185	40448	Pa-231	-0.137 U	0.884	0.279	1.00 - 5.00
8N-00185	40448	Pb-212	1.61	0.036	0.098	1.00 - 5.00
8N-00185	40448	Pb-214	1.22	0.0383	0.0607	1.00 - 5.00
8N-00185	40448	Sb-125	0.0252 JSK	0.0516	0.0158	1.00 - 5.00
8N-00185	40448	Sn-126	0.0044 U	0.0204	0.0061	1.00 - 5.00
8N-00185	40448	Th-234	1.5	0.311	0.154	1.00 - 5.00
8N-00185	40448	Tl-208	0.478	0.0191	0.0283	1.00 - 5.00
8N-00185	40448	Tm-171	-6.28 U	12.3	4.51	1.00 - 5.00
8N-00186	40374	Sr-90	0.0219 U	0.224	0.0635	1.00 - 5.00
8N-00186	40374	Y-90	0.0219 U	0.224	0.0635	1.00 - 5.00
8N-00186	40449	Ac-227	0.0275 U	0.249	0.0744	1.00 - 5.00
8N-00186	40449	Ac-228	1.42	0.112	0.0739	1.00 - 5.00
8N-00186	40449	Ag-108m	-0.0008 R	0.0187	0.0064	1.00 - 5.00
8N-00186	40449	Ba-133	0.001 R	0.0251	0.0087	1.00 - 5.00
8N-00186	40449	Bi-212	1.02	0.159	0.0913	1.00 - 5.00
8N-00186	40449	Bi-214	1.15	0.0363	0.0576	1.00 - 5.00
8N-00186	40449	Cd-113m	-7.38 U	166	49.7	1.00 - 5.00
8N-00186	40449	Cf-249	0.0241 R	0.109	0.052	1.00 - 5.00
8N-00186	40449	Co-60	-0.0061 U	0.0219	0.0068	1.00 - 5.00
8N-00186	40449	Cs-134	0.01 JSK	0.0182	0.0063	1.00 - 5.00
8N-00186	40449	Cs-137	0.006 U J	0.0215	0.0073	1.00 - 5.00
8N-00186	40449	Eu-152	0.0018 U	0.0601	0.0197	1.00 - 5.00
8N-00186	40449	Eu-154	-0.0171 U	0.123	0.0363	1.00 - 5.00
8N-00186	40449	Eu-155	0.0991 SK	0.0878	0.0318	1.00 - 5.00
8N-00186	40449	Ho-166m	0.0056 U	0.034	0.0101	1.00 - 5.00
8N-00186	40449	K-40	19.6	0.16	1.09	1.00 - 5.00
8N-00186	40449	Na-22	-0.0157 U	0.0246	0.0085	1.00 - 5.00
8N-00186	40449	Nb-94	0.0158 JSK	0.0204	0.0069	1.00 - 5.00
8N-00186	40449	Np-236	-0.011 U	0.0473	0.015	1.00 - 5.00
8N-00186	40449	Np-239	0.062 U	0.166	0.0508	1.00 - 5.00
8N-00186	40449	Pa-231	0.0623 U	1.05	0.313	1.00 - 5.00
8N-00186	40449	Pb-212	1.7	0.0411	0.103	1.00 - 5.00
8N-00186	40449	Pb-214	1.31	0.0432	0.0639	1.00 - 5.00
8N-00186	40449	Sb-125	0.0167 U	0.0564	0.0165	1.00 - 5.00
8N-00186	40449	Sn-126	0.0119 J	0.0217	0.0068	1.00 - 5.00
8N-00186	40449	Th-234	1.47 J	0.489	0.393	1.00 - 5.00

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8N-00186	40449	Tl-208	0.49	0.0222	0.0296	1.00 - 5.00
8N-00186	40449	Tm-171	-17.4 U J	20.6	7.65	1.00 - 5.00
8N-00187	40375	Sr-90	0.0152 U	0.175	0.0494	1.00 - 5.00
8N-00187	40375	Y-90	0.0152 U	0.175	0.0494	1.00 - 5.00
8N-00187	40450	Ac-227	0.0518 U	0.252	0.0761	1.00 - 5.00
8N-00187	40450	Ac-228	1.49	0.114	0.0773	1.00 - 5.00
8N-00187	40450	Ag-108m	0.01 R	0.0188	0.0066	1.00 - 5.00
8N-00187	40450	Ba-133	0.0274 R	0.0275	0.0112	1.00 - 5.00
8N-00187	40450	Bi-212	0.884	0.164	0.0893	1.00 - 5.00
8N-00187	40450	Bi-214	1.11	0.0363	0.0538	1.00 - 5.00
8N-00187	40450	Cd-113m	-51.4 U	167	59.8	1.00 - 5.00
8N-00187	40450	Cf-249	0.0173 R	0.111	0.0581	1.00 - 5.00
8N-00187	40450	Co-60	0.01 U	0.0217	0.0065	1.00 - 5.00
8N-00187	40450	Cs-134	0.0075 U	0.0183	0.0063	1.00 - 5.00
8N-00187	40450	Cs-137	0.0096 U J	0.022	0.0076	1.00 - 5.00
8N-00187	40450	Eu-152	0.0156 U	0.0606	0.027	1.00 - 5.00
8N-00187	40450	Eu-154	0.0124 U	0.124	0.0371	1.00 - 5.00
8N-00187	40450	Eu-155	0.0948 SK	0.0917	0.0321	1.00 - 5.00
8N-00187	40450	Ho-166m	-0.0033 U	0.0327	0.0097	1.00 - 5.00
8N-00187	40450	K-40	20.2	0.154	1.11	1.00 - 5.00
8N-00187	40450	Na-22	0.0044 U	0.0253	0.0073	1.00 - 5.00
8N-00187	40450	Nb-94	0.0097 JSK	0.0192	0.006	1.00 - 5.00
8N-00187	40450	Np-236	-0.0033 U	0.0503	0.0171	1.00 - 5.00
8N-00187	40450	Np-239	-0.104 U	0.166	0.0562	1.00 - 5.00
8N-00187	40450	Pa-231	0.319 U	1.06	0.356	1.00 - 5.00
8N-00187	40450	Pb-212	1.59	0.0421	0.0928	1.00 - 5.00
8N-00187	40450	Pb-214	1.27	0.0434	0.0616	1.00 - 5.00
8N-00187	40450	Sb-125	0.0074 U	0.0578	0.0175	1.00 - 5.00
8N-00187	40450	Sn-126	-0.0032 U	0.0207	0.0062	1.00 - 5.00
8N-00187	40450	Th-234	2.09 J	0.511	0.533	1.00 - 5.00
8N-00187	40450	Tl-208	0.485	0.0202	0.029	1.00 - 5.00
8N-00187	40450	Tm-171	-21.3 U J	21.3	8.43	1.00 - 5.00
8N-00188	40376	Sr-90	0.134 U	0.285	0.0874	0.00 - 0.50
8N-00188	40376	Y-90	0.134 U	0.285	0.0874	0.00 - 0.50
8N-00189	40377	Sr-90	0.119 U	0.325	0.0975	0.00 - 0.50
8N-00189	40377	Y-90	0.119 U	0.325	0.0975	0.00 - 0.50
8N-00190	40378	Sr-90	0.002 U	0.236	0.0647	0.00 - 0.50

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8N-00190	40378	Y-90	0.002 U	0.236	0.0647	0.00 - 0.50
8N-00191	40379	Sr-90	0.096 U	0.266	0.0798	0.00 - 0.50
8N-00191	40379	Y-90	0.096 U	0.266	0.0798	0.00 - 0.50
8N-00192	40380	Sr-90	0.142	0.183	0.0613	1.00 - 5.00
8N-00192	40380	Y-90	0.142	0.183	0.0613	1.00 - 5.00
8N-00193	40381	Sr-90	-0.0061 U	0.281	0.077	1.00 - 5.00
8N-00193	40381	Y-90	-0.0061 U	0.281	0.077	1.00 - 5.00
8N-00194	40382	Sr-90	0.212	0.149	0.0599	1.00 - 5.00
8N-00194	40382	Y-90	0.212	0.149	0.0599	1.00 - 5.00
8N-00195	40383	Sr-90	0.294	0.202	0.0776	1.00 - 5.00
8N-00195	40383	Y-90	0.294	0.202	0.0776	1.00 - 5.00
8N-00196	40384	Sr-90	0.0257 U	0.279	0.0782	0.00 - 0.50
8N-00196	40384	Y-90	0.0257 U	0.279	0.0782	0.00 - 0.50
8N-00196	40443	Ac-227	-0.0331 U	0.17	0.0507	0.00 - 0.50
8N-00196	40443	Ac-228	1.1	0.0825	0.0562	0.00 - 0.50
8N-00196	40443	Ag-108m	-0.0032 R	0.0138	0.0049	0.00 - 0.50
8N-00196	40443	Ba-133	-0.0034 R	0.0186	0.0064	0.00 - 0.50
8N-00196	40443	Bi-212	0.717	0.118	0.0696	0.00 - 0.50
8N-00196	40443	Bi-214	0.73	0.0279	0.0376	0.00 - 0.50
8N-00196	40443	Cd-113m	49.4 U	118	36.8	0.00 - 0.50
8N-00196	40443	Cf-249	0.0222 R	0.0766	0.0302	0.00 - 0.50
8N-00196	40443	Co-60	-0.0016 U	0.0162	0.0049	0.00 - 0.50
8N-00196	40443	Cs-134	0.0026 U	0.014	0.0048	0.00 - 0.50
8N-00196	40443	Cs-137	0.0114 J	0.0179	0.0056	0.00 - 0.50
8N-00196	40443	Eu-152	-0.0314 U J	0.0408	0.0149	0.00 - 0.50
8N-00196	40443	Eu-154	-0.0409 U	0.0853	0.0277	0.00 - 0.50
8N-00196	40443	Eu-155	0.0069 U	0.0619	0.0188	0.00 - 0.50
8N-00196	40443	Ho-166m	0.0004 U	0.0243	0.007	0.00 - 0.50
8N-00196	40443	K-40	17.9	0.111	0.976	0.00 - 0.50
8N-00196	40443	Na-22	-0.0033 U	0.0173	0.0053	0.00 - 0.50
8N-00196	40443	Nb-94	-0.0023 U	0.0138	0.0041	0.00 - 0.50
8N-00196	40443	Np-236	-0.0086 U	0.0332	0.0104	0.00 - 0.50
8N-00196	40443	Np-239	0.0148 U	0.116	0.0338	0.00 - 0.50
8N-00196	40443	Pa-231	-0.0554 U	0.713	0.217	0.00 - 0.50
8N-00196	40443	Pb-212	1.33	0.029	0.0755	0.00 - 0.50
8N-00196	40443	Pb-214	0.823	0.0311	0.0406	0.00 - 0.50
8N-00196	40443	Sb-125	0.0007 U	0.0404	0.012	0.00 - 0.50

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8N-00196	40443	Sn-126	0.0009 U	0.0159	0.0046	0.00 - 0.50
8N-00196	40443	Th-234	1.38	0.265	0.15	0.00 - 0.50
8N-00196	40443	Tl-208	0.397	0.0144	0.023	0.00 - 0.50
8N-00196	40443	Tm-171	-3.92 U	11.3	3.94	0.00 - 0.50
8N-00197	40385	Sr-90	0.0644 U	0.242	0.0707	0.00 - 0.50
8N-00197	40385	Y-90	0.0644 U	0.242	0.0707	0.00 - 0.50
8N-00197	40444	Ac-227	-0.0892 U	0.172	0.0553	0.00 - 0.50
8N-00197	40444	Ac-228	1.1	0.0807	0.0576	0.00 - 0.50
8N-00197	40444	Ag-108m	-0.0049 R	0.013	0.0047	0.00 - 0.50
8N-00197	40444	Ba-133	0.0161 R	0.0183	0.0069	0.00 - 0.50
8N-00197	40444	Bi-212	0.847	0.116	0.0716	0.00 - 0.50
8N-00197	40444	Bi-214	0.81	0.0267	0.0401	0.00 - 0.50
8N-00197	40444	Cd-113m	-4.86 U	116	35	0.00 - 0.50
8N-00197	40444	Cf-249	0.0451 R	0.0758	0.0351	0.00 - 0.50
8N-00197	40444	Co-60	-0.0043 U	0.0149	0.0046	0.00 - 0.50
8N-00197	40444	Cs-134	0.0056 U	0.0138	0.0048	0.00 - 0.50
8N-00197	40444	Cs-137	0.042	0.0146	0.0067	0.00 - 0.50
8N-00197	40444	Eu-152	-0.0138 U	0.0436	0.0134	0.00 - 0.50
8N-00197	40444	Eu-154	-0.0343 U	0.08	0.0254	0.00 - 0.50
8N-00197	40444	Eu-155	0.0672 SK	0.0642	0.0238	0.00 - 0.50
8N-00197	40444	Ho-166m	-0.0013 U	0.0239	0.0073	0.00 - 0.50
8N-00197	40444	K-40	19.4	0.112	1.05	0.00 - 0.50
8N-00197	40444	Na-22	0.0016 U	0.0187	0.0055	0.00 - 0.50
8N-00197	40444	Nb-94	0.0046 U	0.0139	0.0043	0.00 - 0.50
8N-00197	40444	Np-236	-0.0037 U	0.0351	0.0108	0.00 - 0.50
8N-00197	40444	Np-239	-0.0113 U	0.116	0.034	0.00 - 0.50
8N-00197	40444	Pa-231	-0.147 U	0.714	0.22	0.00 - 0.50
8N-00197	40444	Pb-212	1.27	0.03	0.0715	0.00 - 0.50
8N-00197	40444	Pb-214	0.951	0.0308	0.0449	0.00 - 0.50
8N-00197	40444	Sb-125	0.0172 U	0.0406	0.0124	0.00 - 0.50
8N-00197	40444	Sn-126	-0.0046 U	0.0155	0.0049	0.00 - 0.50
8N-00197	40444	Th-234	1.49	0.277	0.16	0.00 - 0.50
8N-00197	40444	Tl-208	0.39	0.0146	0.0229	0.00 - 0.50
8N-00197	40444	Tm-171	-2.18 U	13.5	4.57	0.00 - 0.50
8N-00198	40386	Sr-90	0.0201 U	0.273	0.0771	0.00 - 0.50
8N-00198	40386	Y-90	0.0201 U	0.273	0.0771	0.00 - 0.50
8N-00198	40445	Ac-227	-0.0752 U	0.212	0.0683	0.00 - 0.50

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8N-00198	40445	Ac-228	1.03	0.107	0.0538	0.00 - 0.50
8N-00198	40445	Ag-108m	0.0081 R	0.0171	0.0058	0.00 - 0.50
8N-00198	40445	Ba-133	0.0122 R	0.0229	0.0081	0.00 - 0.50
8N-00198	40445	Bi-212	0.776	0.137	0.0807	0.00 - 0.50
8N-00198	40445	Bi-214	0.751	0.0371	0.0386	0.00 - 0.50
8N-00198	40445	Cd-113m	-74.7 U	139	47.4	0.00 - 0.50
8N-00198	40445	Cf-249	-0.0323 R	0.0935	0.049	0.00 - 0.50
8N-00198	40445	Co-60	0.0005 U	0.0202	0.0058	0.00 - 0.50
8N-00198	40445	Cs-134	0.0164 JSK	0.0174	0.0066	0.00 - 0.50
8N-00198	40445	Cs-137	0.0232	0.0218	0.0088	0.00 - 0.50
8N-00198	40445	Eu-152	-0.0039 U	0.0512	0.0185	0.00 - 0.50
8N-00198	40445	Eu-154	0.012 U	0.114	0.0339	0.00 - 0.50
8N-00198	40445	Eu-155	0.0596 JSK	0.0789	0.0269	0.00 - 0.50
8N-00198	40445	Ho-166m	-0.0057 U	0.029	0.0087	0.00 - 0.50
8N-00198	40445	K-40	19	0.135	1.19	0.00 - 0.50
8N-00198	40445	Na-22	-0.0029 U	0.0233	0.0069	0.00 - 0.50
8N-00198	40445	Nb-94	0.0044 U	0.0176	0.0052	0.00 - 0.50
8N-00198	40445	Np-236	-0.0278 U	0.0414	0.0158	0.00 - 0.50
8N-00198	40445	Np-239	-0.0268 U	0.141	0.044	0.00 - 0.50
8N-00198	40445	Pa-231	-0.331 U	0.902	0.294	0.00 - 0.50
8N-00198	40445	Pb-212	1.14	0.0362	0.0765	0.00 - 0.50
8N-00198	40445	Pb-214	0.795	0.0375	0.044	0.00 - 0.50
8N-00198	40445	Sb-125	-0.018 U	0.0483	0.0152	0.00 - 0.50
8N-00198	40445	Sn-126	-0.0035 U	0.0191	0.0057	0.00 - 0.50
8N-00198	40445	Th-234	1.1 J	0.428	0.293	0.00 - 0.50
8N-00198	40445	Tl-208	0.364	0.0175	0.0219	0.00 - 0.50
8N-00198	40445	Tm-171	-7.27 U	20.1	6.17	0.00 - 0.50
8N-00199	40387	Sr-90	0.0561 U	0.227	0.0662	0.00 - 0.50
8N-00199	40387	Y-90	0.0561 U	0.227	0.0662	0.00 - 0.50
8N-00199	40446	Ac-227	-0.0776 U	0.186	0.0586	0.00 - 0.50
8N-00199	40446	Ac-228	1.02	0.0961	0.0522	0.00 - 0.50
8N-00199	40446	Ag-108m	-0.0017 R	0.0136	0.0046	0.00 - 0.50
8N-00199	40446	Ba-133	0.0056 R	0.02	0.0068	0.00 - 0.50
8N-00199	40446	Bi-212	0.709	0.117	0.0752	0.00 - 0.50
8N-00199	40446	Bi-214	0.614	0.0286	0.0323	0.00 - 0.50
8N-00199	40446	Cd-113m	-4.36 U	124	37.9	0.00 - 0.50
8N-00199	40446	Cf-249	0.0385 R	0.0801	0.0374	0.00 - 0.50

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8N-00199	40446	Co-60	0.0042 U	0.0172	0.0049	0.00 - 0.50
8N-00199	40446	Cs-134	0.0048 U	0.0145	0.0049	0.00 - 0.50
8N-00199	40446	Cs-137	0.206	0.0175	0.0143	0.00 - 0.50
8N-00199	40446	Eu-152	0.0304 J	0.0457	0.0165	0.00 - 0.50
8N-00199	40446	Eu-154	-0.0679 U J	0.0908	0.033	0.00 - 0.50
8N-00199	40446	Eu-155	0.0297 U	0.0675	0.0215	0.00 - 0.50
8N-00199	40446	Ho-166m	0.0004 U	0.0251	0.0073	0.00 - 0.50
8N-00199	40446	K-40	17.2	0.133	1.01	0.00 - 0.50
8N-00199	40446	Na-22	-0.0013 U	0.0204	0.006	0.00 - 0.50
8N-00199	40446	Nb-94	0.0026 U	0.0149	0.0043	0.00 - 0.50
8N-00199	40446	Np-236	-0.0089 U	0.0355	0.0111	0.00 - 0.50
8N-00199	40446	Np-239	0.0028 U	0.127	0.0373	0.00 - 0.50
8N-00199	40446	Pa-231	-0.0293 U	0.79	0.242	0.00 - 0.50
8N-00199	40446	Pb-212	1.17	0.032	0.0787	0.00 - 0.50
8N-00199	40446	Pb-214	0.737	0.0312	0.0394	0.00 - 0.50
8N-00199	40446	Sb-125	-0.0008 U	0.0418	0.0126	0.00 - 0.50
8N-00199	40446	Sn-126	0.0092 J	0.0171	0.0053	0.00 - 0.50
8N-00199	40446	Th-234	1.18	0.292	0.157	0.00 - 0.50
8N-00199	40446	Tl-208	0.335	0.0163	0.0205	0.00 - 0.50
8N-00199	40446	Tm-171	-0.496 U	14.5	4.86	0.00 - 0.50
8N-00200	40388	Sr-90	-0.0522 U	0.302	0.0781	1.00 - 5.00
8N-00200	40388	Y-90	-0.0522 U	0.302	0.0781	1.00 - 5.00
8N-00201	40389	Sr-90	0.0557 U	0.248	0.0724	1.00 - 5.00
8N-00201	40389	Y-90	0.0557 U	0.248	0.0724	1.00 - 5.00
8N-00202	40390	Sr-90	-0.0603 U	0.221	0.0529	1.00 - 5.00
8N-00202	40390	Y-90	-0.0603 U	0.221	0.0529	1.00 - 5.00
8N-00203	40391	Sr-90	0.0892 U	0.238	0.0711	1.00 - 5.00
8N-00203	40391	Y-90	0.0892 U	0.238	0.0711	1.00 - 5.00
8N-00204	40392	Sr-90	0.102 U	0.293	0.0869	1.00 - 5.00
8N-00204	40392	Y-90	0.102 U	0.293	0.0869	1.00 - 5.00
8N-00205	40393	Sr-90	0.628	0.493	0.173	1.00 - 5.00
8N-00205	40393	Y-90	0.628	0.493	0.173	1.00 - 5.00
8N-00206	40394	Sr-90	-0.0391 U	0.261	0.064	1.00 - 5.00
8N-00206	40394	Y-90	-0.0391 U	0.261	0.064	1.00 - 5.00
8N-00207	40395	Sr-90	-0.0583 U	0.249	0.065	0.00 - 0.50
8N-00207	40395	Y-90	-0.0583 U	0.249	0.065	0.00 - 0.50
8N-00208	40396	Sr-90	0.0807 U	0.221	0.066	0.00 - 0.50

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8N-00208	40396	Y-90	0.0807 U	0.221	0.066	0.00 - 0.50
8N-00209	40397	Sr-90	0.0896 U	0.255	0.076	0.00 - 0.50
8N-00209	40397	Y-90	0.0896 U	0.255	0.076	0.00 - 0.50
8N-00210	40398	Sr-90	-0.0091 U	0.225	0.0612	0.00 - 0.50
8N-00210	40398	Y-90	-0.0091 U	0.225	0.0612	0.00 - 0.50
8N-00211	40399	Sr-90	0.113 U	0.226	0.0701	0.00 - 0.50
8N-00211	40399	Y-90	0.113 U	0.226	0.0701	0.00 - 0.50
8N-00212	40400	Sr-90	-0.0356 U	0.252	0.0668	0.00 - 0.50
8N-00212	40400	Y-90	-0.0356 U	0.252	0.0668	0.00 - 0.50
8N-00213	40401	Sr-90	0.0351 U	0.226	0.0639	0.00 - 0.50
8N-00213	40401	Y-90	0.0351 U	0.226	0.0639	0.00 - 0.50
8N-00214	40402	Sr-90	-0.057 U	0.197	0.0473	0.00 - 0.50
8N-00214	40402	Y-90	-0.057 U	0.197	0.0473	0.00 - 0.50
8N-00215	40403	Sr-90	0.111 U	0.305	0.0911	0.00 - 0.50
8N-00215	40403	Y-90	0.111 U	0.305	0.0911	0.00 - 0.50
8N-00216	40404	Sr-90	-0.0906 U	0.3	0.0759	0.00 - 0.50
8N-00216	40404	Y-90	-0.0906 U	0.3	0.0759	0.00 - 0.50
8N-00217	40405	Sr-90	0.214	0.345	0.109	0.00 - 0.50
8N-00217	40405	Y-90	0.214	0.345	0.109	0.00 - 0.50
8N-00218	40406	Sr-90	0.139	0.215	0.0688	0.00 - 0.50
8N-00218	40406	Y-90	0.139	0.215	0.0688	0.00 - 0.50
8N-00219	40407	Sr-90	0.039 U	0.2	0.0572	0.00 - 0.50
8N-00219	40407	Y-90	0.039 U	0.2	0.0572	0.00 - 0.50
8N-00219	40408	Sr-90	0.0454 U	0.182	0.0528	1.00 - 5.00
8N-00219	40408	Y-90	0.0454 U	0.182	0.0528	1.00 - 5.00
8N-00220	40409	Sr-90	0.0017 U	0.23	0.0618	0.00 - 0.50
8N-00220	40409	Y-90	0.0017 U	0.23	0.0618	0.00 - 0.50
8N-00220	40410	Sr-90	0.042 U	0.198	0.0572	1.00 - 5.00
8N-00220	40410	Y-90	0.042 U	0.198	0.0572	1.00 - 5.00
8N-00221	40411	Sr-90	0.0535 U	0.146	0.0432	0.00 - 0.50
8N-00221	40411	Y-90	0.0535 U	0.146	0.0432	0.00 - 0.50
8N-00221	40412	Sr-90	-0.0436 U	0.333	0.0879	1.00 - 5.00
8N-00221	40412	Y-90	-0.0436 U	0.333	0.0879	1.00 - 5.00
8S-00025	40413	Ac-227	-0.0513 U	0.27	0.081	0.00 - 0.50
8S-00025	40413	Ac-228	1.14	0.171	0.0644	0.00 - 0.50
8S-00025	40413	Ag-108m	0.0038 R	0.0252	0.0083	0.00 - 0.50
8S-00025	40413	Ba-133	0.0074 R	0.0297	0.0101	0.00 - 0.50

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8S-00025	40413	Bi-212	0.991	0.206	0.111	0.00 - 0.50
8S-00025	40413	Bi-214	0.85	0.0502	0.0495	0.00 - 0.50
8S-00025	40413	Cd-113m	69.9 U	188	56.7	0.00 - 0.50
8S-00025	40413	Cf-249	0.0573 R	0.126	0.0583	0.00 - 0.50
8S-00025	40413	Co-60	0.002 U	0.0298	0.0085	0.00 - 0.50
8S-00025	40413	Cs-134	0.0029 U	0.024	0.0079	0.00 - 0.50
8S-00025	40413	Cs-137	0.0924	0.0296	0.0147	0.00 - 0.50
8S-00025	40413	Eu-152	-0.0317 U	0.0696	0.0234	0.00 - 0.50
8S-00025	40413	Eu-154	-0.0322 U	0.172	0.0505	0.00 - 0.50
8S-00025	40413	Eu-155	0.0248 U	0.0864	0.0266	0.00 - 0.50
8S-00025	40413	Ho-166m	-0.0148 U	0.0436	0.0136	0.00 - 0.50
8S-00025	40413	K-40	20.1	0.236	1.18	0.00 - 0.50
8S-00025	40413	Na-22	-0.0055 U	0.0364	0.0108	0.00 - 0.50
8S-00025	40413	Nb-94	-0.0104 U	0.025	0.008	0.00 - 0.50
8S-00025	40413	Np-236	-0.0128 U	0.047	0.0148	0.00 - 0.50
8S-00025	40413	Np-239	0.0175 U	0.177	0.0518	0.00 - 0.50
8S-00025	40413	Pa-231	-0.22 U	1.16	0.35	0.00 - 0.50
8S-00025	40413	Pb-212	1.4	0.0448	0.0839	0.00 - 0.50
8S-00025	40413	Pb-214	0.952	0.0506	0.0508	0.00 - 0.50
8S-00025	40413	Sb-125	0.0113 U	0.0698	0.0209	0.00 - 0.50
8S-00025	40413	Sn-126	-0.0109 U	0.0284	0.009	0.00 - 0.50
8S-00025	40413	Th-234	1.27	0.354	0.183	0.00 - 0.50
8S-00025	40413	Tl-208	0.43	0.0267	0.0303	0.00 - 0.50
8S-00025	40413	Tm-171	-11.5 U	15.1	5.85	0.00 - 0.50
8S-00026	40414	Ac-227	0.0375 U	0.183	0.056	0.00 - 0.50
8S-00026	40414	Ac-228	0.994	0.0965	0.0513	0.00 - 0.50
8S-00026	40414	Ag-108m	0.008 R	0.0154	0.0054	0.00 - 0.50
8S-00026	40414	Ba-133	-0.0052 R	0.0193	0.0067	0.00 - 0.50
8S-00026	40414	Bi-212	0.652	0.131	0.0784	0.00 - 0.50
8S-00026	40414	Bi-214	0.755	0.03	0.0386	0.00 - 0.50
8S-00026	40414	Cd-113m	38.3 U	122	39	0.00 - 0.50
8S-00026	40414	Cf-249	0.0396 R	0.0838	0.0357	0.00 - 0.50
8S-00026	40414	Co-60	-0.0091 U	0.0161	0.0053	0.00 - 0.50
8S-00026	40414	Cs-134	0.0148 JSK	0.015	0.0063	0.00 - 0.50
8S-00026	40414	Cs-137	0.233 Y	0.0195	0.016	0.00 - 0.50
8S-00026	40414	Eu-152	-0.0006 U	0.0451	0.0173	0.00 - 0.50
8S-00026	40414	Eu-154	-0.0056 U	0.0984	0.029	0.00 - 0.50

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8S-00026	40414	Eu-155	0.0811 SK	0.0616	0.0263	0.00 - 0.50
8S-00026	40414	Ho-166m	-0.0012 U	0.0257	0.0078	0.00 - 0.50
8S-00026	40414	K-40	18.1	0.138	1.09	0.00 - 0.50
8S-00026	40414	Na-22	-0.0035 U	0.0206	0.0063	0.00 - 0.50
8S-00026	40414	Nb-94	0.0049 U	0.0151	0.0046	0.00 - 0.50
8S-00026	40414	Np-236	0.0168 U	0.0347	0.0116	0.00 - 0.50
8S-00026	40414	Np-239	-0.0035 U	0.125	0.038	0.00 - 0.50
8S-00026	40414	Pa-231	-0.284 U	0.771	0.249	0.00 - 0.50
8S-00026	40414	Pb-212	1.16	0.0318	0.0717	0.00 - 0.50
8S-00026	40414	Pb-214	0.86	0.033	0.0441	0.00 - 0.50
8S-00026	40414	S-125	-0.001 U	0.0439	0.0129	0.00 - 0.50
8S-00026	40414	Sn-126	0.0078 U	0.0172	0.0053	0.00 - 0.50
8S-00026	40414	Th-234	1.14	0.247	0.118	0.00 - 0.50
8S-00026	40414	Tl-208	0.356	0.0153	0.022	0.00 - 0.50
8S-00026	40414	Tm-171	-3.07 U	10.5	3.58	0.00 - 0.50
8S-00027	40415	Ac-227	0.0153 U	0.219	0.067	0.00 - 0.50
8S-00027	40415	Ac-228	1.15	0.114	0.0594	0.00 - 0.50
8S-00027	40415	Ag-108m	0.0027 R	0.0175	0.0058	0.00 - 0.50
8S-00027	40415	Ba-133	0.0048 R	0.0239	0.0081	0.00 - 0.50
8S-00027	40415	Bi-212	0.679	0.157	0.0751	0.00 - 0.50
8S-00027	40415	Bi-214	0.791	0.036	0.0412	0.00 - 0.50
8S-00027	40415	Cd-113m	47.2 U	149	46.6	0.00 - 0.50
8S-00027	40415	Cf-249	-0.104 R	0.098	0.0588	0.00 - 0.50
8S-00027	40415	Co-60	-0.0033 U	0.0201	0.006	0.00 - 0.50
8S-00027	40415	Cs-134	0.0022 U	0.0177	0.0059	0.00 - 0.50
8S-00027	40415	Cs-137	0.0185	0.0205	0.0067	0.00 - 0.50
8S-00027	40415	Eu-152	0.0225 U	0.0554	0.0201	0.00 - 0.50
8S-00027	40415	Eu-154	-0.0022 U	0.113	0.0338	0.00 - 0.50
8S-00027	40415	Eu-155	0.0244 U	0.0829	0.025	0.00 - 0.50
8S-00027	40415	Ho-166m	0.009 U	0.0314	0.0092	0.00 - 0.50
8S-00027	40415	K-40	18.7	0.151	1.17	0.00 - 0.50
8S-00027	40415	Na-22	0.0008 U	0.0244	0.0071	0.00 - 0.50
8S-00027	40415	Nb-94	-0.0039 U	0.0171	0.0051	0.00 - 0.50
8S-00027	40415	Np-236	-0.0017 U	0.0438	0.013	0.00 - 0.50
8S-00027	40415	Np-239	-0.0611 U	0.147	0.048	0.00 - 0.50
8S-00027	40415	Pa-231	-0.439 U	0.933	0.323	0.00 - 0.50
8S-00027	40415	Pb-212	1.28	0.0372	0.0856	0.00 - 0.50

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8S-00027	40415	Pb-214	0.904	0.0378	0.0491	0.00 - 0.50
8S-00027	40415	Sb-125	0.0186 U	0.0533	0.0161	0.00 - 0.50
8S-00027	40415	Sn-126	-0.0049 U	0.0193	0.0058	0.00 - 0.50
8S-00027	40415	Th-234	1.54	0.364	0.183	0.00 - 0.50
8S-00027	40415	Tl-208	0.402	0.0184	0.0239	0.00 - 0.50
8S-00027	40415	Tm-171	-4.69 U	20.9	7.04	0.00 - 0.50
8S-00028	40416	Ac-227	-0.0049 U	0.228	0.0676	0.00 - 0.50
8S-00028	40416	Ac-228	1.13	0.107	0.0586	0.00 - 0.50
8S-00028	40416	Ag-108m	0.0025 R	0.0186	0.0061	0.00 - 0.50
8S-00028	40416	Ba-133	0.01 R	0.0239	0.0083	0.00 - 0.50
8S-00028	40416	Bi-212	0.836	0.143	0.091	0.00 - 0.50
8S-00028	40416	Bi-214	0.869	0.0373	0.0439	0.00 - 0.50
8S-00028	40416	Cd-113m	-2.57 U	152	48.6	0.00 - 0.50
8S-00028	40416	Cf-249	0.009 R	0.0998	0.0469	0.00 - 0.50
8S-00028	40416	Co-60	0.0066 U	0.0217	0.0062	0.00 - 0.50
8S-00028	40416	Cs-134	0.0117 JSK	0.0181	0.0063	0.00 - 0.50
8S-00028	40416	Cs-137	0.0775	0.0204	0.0104	0.00 - 0.50
8S-00028	40416	Eu-152	0.0033 U	0.0577	0.0178	0.00 - 0.50
8S-00028	40416	Eu-154	0.0356 U	0.125	0.037	0.00 - 0.50
8S-00028	40416	Eu-155	0.0499 SK	0.082	0.0296	0.00 - 0.50
8S-00028	40416	Ho-166m	0.0153 U	0.0318	0.0096	0.00 - 0.50
8S-00028	40416	K-40	20.2	0.137	1.18	0.00 - 0.50
8S-00028	40416	Na-22	0.0043 U	0.0252	0.0072	0.00 - 0.50
8S-00028	40416	Nb-94	0.0118 JSK	0.0184	0.0058	0.00 - 0.50
8S-00028	40416	Np-236	-0.0277 U	0.0435	0.0152	0.00 - 0.50
8S-00028	40416	Np-239	-0.0221 U	0.152	0.0454	0.00 - 0.50
8S-00028	40416	Pa-231	0.182 U	0.968	0.297	0.00 - 0.50
8S-00028	40416	Pb-212	1.36	0.0392	0.0953	0.00 - 0.50
8S-00028	40416	Pb-214	1.02	0.0401	0.0536	0.00 - 0.50
8S-00028	40416	S-125	0.0139 U	0.0531	0.016	0.00 - 0.50
8S-00028	40416	Sn-126	0.0057 U	0.0206	0.006	0.00 - 0.50
8S-00028	40416	Th-234	1.31	0.361	0.18	0.00 - 0.50
8S-00028	40416	Tl-208	0.387	0.0185	0.0243	0.00 - 0.50
8S-00028	40416	Tm-171	-9.98 U	20.2	7.42	0.00 - 0.50
8S-00029	40417	Sr-90	0.255	0.3	0.101	0.00 - 0.50
8S-00029	40417	Y-90	0.255	0.3	0.101	0.00 - 0.50
8S-00030	40418	Sr-90	-0.0186 U	0.281	0.0741	0.00 - 0.50

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8S-00030	40418	Y-90	-0.0186 U	0.281	0.0741	0.00 - 0.50
8S-00031	40419	Sr-90	0.606	0.355	0.139	0.00 - 0.50
8S-00031	40419	Y-90	0.606	0.355	0.139	0.00 - 0.50
8S-00032	40420	Sr-90	0.0775 U	0.171	0.0523	0.00 - 0.50
8S-00032	40420	Y-90	0.0775 U	0.171	0.0523	0.00 - 0.50
8S-00033	40421	Sr-90	-0.0386 U	0.271	0.0722	1.00 - 5.00
8S-00033	40421	Y-90	-0.0386 U	0.271	0.0722	1.00 - 5.00
8S-00034	40422	Sr-90	0.156	0.203	0.0677	1.00 - 5.00
8S-00034	40422	Y-90	0.156	0.203	0.0677	1.00 - 5.00
8S-00035	40423	Sr-90	-0.109 U	0.347	0.0883	1.00 - 5.00
8S-00035	40423	Y-90	-0.109 U	0.347	0.0883	1.00 - 5.00
8S-00036	40424	Sr-90	0.0233 U	0.205	0.0566	1.00 - 5.00
8S-00036	40424	Y-90	0.0233 U	0.205	0.0566	1.00 - 5.00
8S-00037	40425	Ac-227	0.0258 U	0.199	0.0596	0.00 - 0.50
8S-00037	40425	Ac-228	0.983	0.0975	0.0554	0.00 - 0.50
8S-00037	40425	Ag-108m	0.0127 R	0.0155	0.0057	0.00 - 0.50
8S-00037	40425	Ba-133	0.0074 R	0.0196	0.0068	0.00 - 0.50
8S-00037	40425	Bi-212	0.589 J	0.194	0.153	0.00 - 0.50
8S-00037	40425	Bi-214	0.731	0.0302	0.0373	0.00 - 0.50
8S-00037	40425	Cd-113m	-73 U	127	43.9	0.00 - 0.50
8S-00037	40425	Cf-249	-0.0108 R	0.081	0.0395	0.00 - 0.50
8S-00037	40425	Co-60	0.0059 U	0.0178	0.0051	0.00 - 0.50
8S-00037	40425	Cs-134	0.005 U	0.015	0.005	0.00 - 0.50
8S-00037	40425	Cs-137	0.726 Y	0.0178	0.0416	0.00 - 0.50
8S-00037	40425	Eu-152	-0.0282 U	0.0464	0.0179	0.00 - 0.50
8S-00037	40425	Eu-154	-0.008 U	0.0914	0.0274	0.00 - 0.50
8S-00037	40425	Eu-155	0.0308 U	0.0636	0.0198	0.00 - 0.50
8S-00037	40425	Ho-166m	-0.013 U	0.0243	0.008	0.00 - 0.50
8S-00037	40425	K-40	16.9	0.125	0.921	0.00 - 0.50
8S-00037	40425	Na-22	-0.0115 U	0.0188	0.0063	0.00 - 0.50
8S-00037	40425	Nb-94	-0.0018 U J	0.0146	0.0043	0.00 - 0.50
8S-00037	40425	Np-236	-0.0092 U	0.0338	0.0102	0.00 - 0.50
8S-00037	40425	Np-239	0.0288 U	0.131	0.0394	0.00 - 0.50
8S-00037	40425	Pa-231	-0.0601 U J	0.787	0.257	0.00 - 0.50
8S-00037	40425	Pb-212	1.15	0.0323	0.0745	0.00 - 0.50
8S-00037	40425	Pb-214	0.868	0.0341	0.0453	0.00 - 0.50
8S-00037	40425	S-125	0.0124 U	0.0458	0.014	0.00 - 0.50

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8S-00037	40425	Sn-126	-0.0038 U	0.0149	0.0045	0.00 - 0.50
8S-00037	40425	Sr-90	0.0314 U	0.173	0.0484	0.00 - 0.50
8S-00037	40425	Th-234	0.972	0.274	0.122	0.00 - 0.50
8S-00037	40425	Tl-208	0.331	0.0157	0.0203	0.00 - 0.50
8S-00037	40425	Tm-171	-8.3 U	10.9	4.37	0.00 - 0.50
8S-00037	40425	Y-90	0.0314 U	0.173	0.0484	0.00 - 0.50
8S-00037	40426	Ac-227	-0.0341 U	0.198	0.0598	1.00 - 2.80
8S-00037	40426	Ac-228	0.894	0.105	0.0507	1.00 - 2.80
8S-00037	40426	Ag-108m	0.0061 R	0.0153	0.0051	1.00 - 2.80
8S-00037	40426	Ba-133	-0.0021 R	0.0202	0.007	1.00 - 2.80
8S-00037	40426	Bi-212	0.526	0.135	0.0811	1.00 - 2.80
8S-00037	40426	Bi-214	0.586	0.0321	0.0335	1.00 - 2.80
8S-00037	40426	Cd-113m	-38.1 U	134	42.6	1.00 - 2.80
8S-00037	40426	Cf-249	0.0416 R	0.0904	0.0427	1.00 - 2.80
8S-00037	40426	Co-60	-0.0062 U	0.0174	0.0055	1.00 - 2.80
8S-00037	40426	Cs-134	-0.0046 U	0.0161	0.0057	1.00 - 2.80
8S-00037	40426	Cs-137	0.0475	0.018	0.0088	1.00 - 2.80
8S-00037	40426	Eu-152	-0.0037 U	0.0485	0.0159	1.00 - 2.80
8S-00037	40426	Eu-154	-0.0554 U	0.0947	0.0315	1.00 - 2.80
8S-00037	40426	Eu-155	0.0796 JSK	0.07	0.0282	1.00 - 2.80
8S-00037	40426	Ho-166m	-0.0064 U	0.028	0.0085	1.00 - 2.80
8S-00037	40426	K-40	13.7	0.142	0.764	1.00 - 2.80
8S-00037	40426	Na-22	-0.0027 U	0.0207	0.0061	1.00 - 2.80
8S-00037	40426	Nb-94	0.0059 U J	0.0161	0.0048	1.00 - 2.80
8S-00037	40426	Np-236	-0.0102 U	0.0357	0.0114	1.00 - 2.80
8S-00037	40426	Np-239	-0.0004 U	0.131	0.0388	1.00 - 2.80
8S-00037	40426	Pa-231	0.204 U J	0.81	0.275	1.00 - 2.80
8S-00037	40426	Pb-212	1.03	0.0336	0.063	1.00 - 2.80
8S-00037	40426	Pb-214	0.672	0.0346	0.0353	1.00 - 2.80
8S-00037	40426	S-125	0.0181 U	0.0456	0.0141	1.00 - 2.80
8S-00037	40426	Sn-126	0.0094 J	0.0183	0.0056	1.00 - 2.80
8S-00037	40426	Sr-90	-0.0046 U	0.232	0.0617	1.00 - 2.80
8S-00037	40426	Th-234	1.11 J	0.362	0.305	1.00 - 2.80
8S-00037	40426	Tl-208	0.319	0.0167	0.0211	1.00 - 2.80
8S-00037	40426	Tm-171	5.91 U	14.6	4.6	1.00 - 2.80
8S-00037	40426	Y-90	-0.0046 U	0.232	0.0617	1.00 - 2.80
8S-00038	40427	Ac-227	0.0275 U	0.184	0.0537	0.00 - 0.50

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8S-00038	40427	Ac-228	1.07	0.0909	0.0556	0.00 - 0.50
8S-00038	40427	Ag-108m	-0.0074 R	0.0145	0.0055	0.00 - 0.50
8S-00038	40427	Ba-133	0.0083 R	0.0198	0.0067	0.00 - 0.50
8S-00038	40427	Bi-212	0.725	0.13	0.0743	0.00 - 0.50
8S-00038	40427	Bi-214	0.778	0.0307	0.0393	0.00 - 0.50
8S-00038	40427	Cd-113m	-34.4 U	120	36.4	0.00 - 0.50
8S-00038	40427	Cf-249	0.0013 R	0.0819	0.0324	0.00 - 0.50
8S-00038	40427	Co-60	0.0015 U	0.016	0.0047	0.00 - 0.50
8S-00038	40427	Cs-134	0.0092 JSK	0.0155	0.0055	0.00 - 0.50
8S-00038	40427	Cs-137	0.0722	0.0162	0.0082	0.00 - 0.50
8S-00038	40427	Eu-152	-0.0152 U	0.0443	0.0142	0.00 - 0.50
8S-00038	40427	Eu-154	-0.0518 U	0.0907	0.0305	0.00 - 0.50
8S-00038	40427	Eu-155	0.0581 SK	0.0633	0.0234	0.00 - 0.50
8S-00038	40427	Ho-166m	-0.0075 U	0.0243	0.0073	0.00 - 0.50
8S-00038	40427	K-40	17.7	0.118	0.974	0.00 - 0.50
8S-00038	40427	Na-22	0.0046 U	0.0208	0.0062	0.00 - 0.50
8S-00038	40427	Nb-94	0.0037 U J	0.0149	0.0043	0.00 - 0.50
8S-00038	40427	Np-236	-0.023 U	0.0331	0.0116	0.00 - 0.50
8S-00038	40427	Np-239	0.0647 J	0.124	0.0386	0.00 - 0.50
8S-00038	40427	Pa-231	0.0915 U J	0.771	0.225	0.00 - 0.50
8S-00038	40427	Pb-212	1.26	0.0312	0.072	0.00 - 0.50
8S-00038	40427	Pb-214	0.853	0.0334	0.0422	0.00 - 0.50
8S-00038	40427	S-125	0.0209 U	0.0443	0.0137	0.00 - 0.50
8S-00038	40427	Sn-126	-0.0025 U	0.0157	0.0046	0.00 - 0.50
8S-00038	40427	Sr-90	0.105 U	0.221	0.068	0.00 - 0.50
8S-00038	40427	Th-234	1.45	0.267	0.153	0.00 - 0.50
8S-00038	40427	Tl-208	0.4	0.0155	0.0238	0.00 - 0.50
8S-00038	40427	Tm-171	-7.16 U	11.9	4.39	0.00 - 0.50
8S-00038	40427	Y-90	0.105 U	0.221	0.068	0.00 - 0.50
8S-00038	40428	Ac-227	0.0271 U	0.167	0.0507	1.00 - 3.00
8S-00038	40428	Ac-228	0.887	0.0842	0.0466	1.00 - 3.00
8S-00038	40428	Ag-108m	-0.0121 R	0.0129	0.0056	1.00 - 3.00
8S-00038	40428	Ba-133	-0.0019 R	0.0168	0.0057	1.00 - 3.00
8S-00038	40428	Bi-212	0.704	0.115	0.0684	1.00 - 3.00
8S-00038	40428	Bi-214	0.658	0.0256	0.0328	1.00 - 3.00
8S-00038	40428	Cd-113m	-28.3 U	111	36	1.00 - 3.00
8S-00038	40428	Cf-249	0.0077 R	0.0722	0.0356	1.00 - 3.00

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8S-00038	40428	Co-60	-0.0036 U	0.0146	0.0043	1.00 - 3.00
8S-00038	40428	Cs-134	0.0001 U	0.0124	0.0043	1.00 - 3.00
8S-00038	40428	Cs-137	-0.0022 U	0.0152	0.0046	1.00 - 3.00
8S-00038	40428	Eu-152	0.0044 U	0.04	0.0141	1.00 - 3.00
8S-00038	40428	Eu-154	-0.0404 U	0.0848	0.0275	1.00 - 3.00
8S-00038	40428	Eu-155	0.0468 JSK	0.0578	0.02	1.00 - 3.00
8S-00038	40428	Ho-166m	0.0103 U	0.0247	0.0076	1.00 - 3.00
8S-00038	40428	K-40	13.3	0.111	0.807	1.00 - 3.00
8S-00038	40428	Na-22	-0.0043 U	0.0185	0.0057	1.00 - 3.00
8S-00038	40428	Nb-94	0.0033 U J	0.0137	0.0041	1.00 - 3.00
8S-00038	40428	Np-236	-0.0157 U	0.03	0.0098	1.00 - 3.00
8S-00038	40428	Np-239	-0.0403 U	0.109	0.035	1.00 - 3.00
8S-00038	40428	Pa-231	0.248 U J	0.694	0.233	1.00 - 3.00
8S-00038	40428	Pb-212	0.962	0.0277	0.06	1.00 - 3.00
8S-00038	40428	Pb-214	0.721	0.0289	0.0374	1.00 - 3.00
8S-00038	40428	Sb-125	-0.0106 U	0.0377	0.0115	1.00 - 3.00
8S-00038	40428	Sn-126	0.0013 U	0.0151	0.0045	1.00 - 3.00
8S-00038	40428	Sr-90	0.0273 U	0.269	0.0756	1.00 - 3.00
8S-00038	40428	Th-234	0.98 J	0.306	0.254	1.00 - 3.00
8S-00038	40428	Tl-208	0.292	0.0135	0.018	1.00 - 3.00
8S-00038	40428	Tm-171	-5.29 U	9.82	3.16	1.00 - 3.00
8S-00038	40428	Y-90	0.0273 U	0.269	0.0756	1.00 - 3.00
8S-00039	40433	Ac-227	-0.0005 U	0.161	0.0551	0.00 - 0.50
8S-00039	40433	Ac-228	0.963	0.11	0.0511	0.00 - 0.50
8S-00039	40433	Ag-108m	0.0058 R	0.0156	0.0052	0.00 - 0.50
8S-00039	40433	Ba-133	-0.0005 R	0.0182	0.006	0.00 - 0.50
8S-00039	40433	Bi-212	0.776	0.141	0.0793	0.00 - 0.50
8S-00039	40433	Bi-214	0.733	0.0323	0.0384	0.00 - 0.50
8S-00039	40433	Cd-113m	-27.3 U	113	37.2	0.00 - 0.50
8S-00039	40433	Cf-249	0.0238 R	0.0811	0.0358	0.00 - 0.50
8S-00039	40433	Co-60	-0.004 U	0.0189	0.0055	0.00 - 0.50
8S-00039	40433	Cs-134	-0.0005 U	0.0158	0.0054	0.00 - 0.50
8S-00039	40433	Cs-137	0.0814	0.0196	0.0114	0.00 - 0.50
8S-00039	40433	Eu-152	-0.0302 U	0.044	0.0159	0.00 - 0.50
8S-00039	40433	Eu-154	-0.0277 U	0.112	0.034	0.00 - 0.50
8S-00039	40433	Eu-155	0.0564 SK	0.049	0.0225	0.00 - 0.50
8S-00039	40433	Ho-166m	-0.0004 U	0.0301	0.0086	0.00 - 0.50

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8S-00039	40433	K-40	15.2	0.147	0.845	0.00 - 0.50
8S-00039	40433	Na-22	0.0005 U	0.023	0.0068	0.00 - 0.50
8S-00039	40433	Nb-94	0.0017 U J	0.0174	0.0052	0.00 - 0.50
8S-00039	40433	Np-236	-0.0108 U	0.0276	0.0086	0.00 - 0.50
8S-00039	40433	Np-239	0.0179 U	0.113	0.0343	0.00 - 0.50
8S-00039	40433	Pa-231	0.121 U J	0.722	0.221	0.00 - 0.50
8S-00039	40433	Pb-212	1.05	0.0291	0.0594	0.00 - 0.50
8S-00039	40433	Pb-214	0.737	0.0326	0.037	0.00 - 0.50
8S-00039	40433	Sb-125	-0.0111 U	0.0418	0.0126	0.00 - 0.50
8S-00039	40433	Sn-126	0.0038 U	0.0187	0.0056	0.00 - 0.50
8S-00039	40433	Sr-90	-0.0738 U	0.283	0.0745	0.00 - 0.50
8S-00039	40433	Th-234	1.16	0.209	0.111	0.00 - 0.50
8S-00039	40433	Tl-208	0.34	0.0172	0.0223	0.00 - 0.50
8S-00039	40433	Tm-171	3.92 J	6.31	2.32	0.00 - 0.50
8S-00039	40433	Y-90	-0.0738 U	0.283	0.0745	0.00 - 0.50
8S-00039	40434	Ac-227	-0.0552 U	0.183	0.0554	1.00 - 4.60
8S-00039	40434	Ac-228	1.31	0.0894	0.0663	1.00 - 4.60
8S-00039	40434	Ag-108m	0.0038 R	0.0148	0.0051	1.00 - 4.60
8S-00039	40434	Ba-133	-0.008 R	0.0185	0.0067	1.00 - 4.60
8S-00039	40434	Bi-212	0.797	0.125	0.0773	1.00 - 4.60
8S-00039	40434	Bi-214	0.804	0.0284	0.0408	1.00 - 4.60
8S-00039	40434	Cd-113m	-99.5 U J	117	43.5	1.00 - 4.60
8S-00039	40434	Cf-249	0.0589 R	0.0786	0.0368	1.00 - 4.60
8S-00039	40434	Co-60	-0.0013 U	0.0173	0.0052	1.00 - 4.60
8S-00039	40434	Cs-134	0.0063 U	0.0143	0.005	1.00 - 4.60
8S-00039	40434	Cs-137	-0.0024 U	0.0173	0.005	1.00 - 4.60
8S-00039	40434	Eu-152	0.011 U	0.0448	0.015	1.00 - 4.60
8S-00039	40434	Eu-154	-0.0856 U J	0.0921	0.0355	1.00 - 4.60
8S-00039	40434	Eu-155	0.0741 SK	0.0623	0.0293	1.00 - 4.60
8S-00039	40434	Ho-166m	-0.002 U	0.0257	0.0075	1.00 - 4.60
8S-00039	40434	K-40	20	0.121	1.09	1.00 - 4.60
8S-00039	40434	Na-22	-0.0007 U	0.0193	0.0057	1.00 - 4.60
8S-00039	40434	Nb-94	0.0035 U J	0.0156	0.0045	1.00 - 4.60
8S-00039	40434	Np-236	0.0075 U	0.0351	0.0108	1.00 - 4.60
8S-00039	40434	Np-239	0.0033 U	0.123	0.0357	1.00 - 4.60
8S-00039	40434	Pa-231	0.124 U J	0.781	0.237	1.00 - 4.60
8S-00039	40434	Pb-212	1.44	0.0306	0.0816	1.00 - 4.60

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8S-00039	40434	Pb-214	0.857	0.0312	0.0421	1.00 - 4.60
8S-00039	40434	Sb-125	0.0015 U	0.0418	0.0124	1.00 - 4.60
8S-00039	40434	Sn-126	0.0013 U	0.0166	0.0047	1.00 - 4.60
8S-00039	40434	Sr-90	0.0669 U	0.297	0.0863	1.00 - 4.60
8S-00039	40434	Th-234	1.42	0.28	0.141	1.00 - 4.60
8S-00039	40434	Tl-208	0.442	0.0155	0.0255	1.00 - 4.60
8S-00039	40434	Tm-171	-2.23 U	12	4.08	1.00 - 4.60
8S-00039	40434	Y-90	0.0669 U	0.297	0.0863	1.00 - 4.60
8S-00040	40435	Ac-227	0.036 U	0.151	0.0446	0.00 - 0.50
8S-00040	40435	Ac-228	0.874	0.0735	0.0467	0.00 - 0.50
8S-00040	40435	Ag-108m	0.0003 R	0.0117	0.0038	0.00 - 0.50
8S-00040	40435	Ba-133	-0.0057 R	0.0152	0.0054	0.00 - 0.50
8S-00040	40435	Bi-212	0.648	0.0992	0.0622	0.00 - 0.50
8S-00040	40435	Bi-214	0.602	0.0247	0.0307	0.00 - 0.50
8S-00040	40435	Cd-113m	44.2 U	102	31.1	0.00 - 0.50
8S-00040	40435	Cf-249	0.0473 R	0.0665	0.0312	0.00 - 0.50
8S-00040	40435	Co-60	-0.0019 U	0.0142	0.0041	0.00 - 0.50
8S-00040	40435	Cs-134	0.0019 U	0.012	0.0039	0.00 - 0.50
8S-00040	40435	Cs-137	0.0295	0.0151	0.0065	0.00 - 0.50
8S-00040	40435	Eu-152	-0.0231 U	0.0366	0.0133	0.00 - 0.50
8S-00040	40435	Eu-154	-0.0405 U	0.0739	0.0248	0.00 - 0.50
8S-00040	40435	Eu-155	0.0448 SK	0.0499	0.0207	0.00 - 0.50
8S-00040	40435	Ho-166m	0.0075 U	0.0209	0.0061	0.00 - 0.50
8S-00040	40435	K-40	14.9	0.102	0.824	0.00 - 0.50
8S-00040	40435	Na-22	-0.004 U	0.0154	0.0046	0.00 - 0.50
8S-00040	40435	Nb-94	0.0053 U J	0.0123	0.0037	0.00 - 0.50
8S-00040	40435	Np-236	-0.0145 U	0.0269	0.009	0.00 - 0.50
8S-00040	40435	Np-239	-0.0622 U	0.0982	0.0328	0.00 - 0.50
8S-00040	40435	Pa-231	0.265 U J	0.617	0.193	0.00 - 0.50
8S-00040	40435	Pb-212	1.04	0.0247	0.0566	0.00 - 0.50
8S-00040	40435	Pb-214	0.686	0.0263	0.0334	0.00 - 0.50
8S-00040	40435	Sb-125	-0.0039 U	0.0341	0.0103	0.00 - 0.50
8S-00040	40435	Sn-126	-0.0065 U	0.0124	0.004	0.00 - 0.50
8S-00040	40435	Sr-90	0.113 U	0.394	0.116	0.00 - 0.50
8S-00040	40435	Th-234	1.05	0.21	0.104	0.00 - 0.50
8S-00040	40435	Tl-208	0.291	0.0133	0.0175	0.00 - 0.50
8S-00040	40435	Tm-171	-2.81 U	8.3	2.89	0.00 - 0.50

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8S-00040	40435	Y-90	0.113 U	0.394	0.116	0.00 - 0.50
8S-00040	40436	Ac-227	-0.0002 U	0.172	0.0522	1.00 - 2.50
8S-00040	40436	Ac-228	0.988	0.104	0.0501	1.00 - 2.50
8S-00040	40436	Ag-108m	0.0057 R	0.0165	0.0055	1.00 - 2.50
8S-00040	40436	Ba-133	0.0003 R	0.0189	0.0062	1.00 - 2.50
8S-00040	40436	Bi-212	0.701 J	0.229	0.183	1.00 - 2.50
8S-00040	40436	Bi-214	0.668	0.0323	0.0377	1.00 - 2.50
8S-00040	40436	Cd-113m	-0.123 U	112	34.1	1.00 - 2.50
8S-00040	40436	Cf-249	0.0188 R	0.0789	0.0273	1.00 - 2.50
8S-00040	40436	Co-60	0.0015 U	0.0204	0.0057	1.00 - 2.50
8S-00040	40436	Cs-134	-0.0034 U	0.0159	0.0056	1.00 - 2.50
8S-00040	40436	Cs-137	0.0023 U	0.0195	0.0058	1.00 - 2.50
8S-00040	40436	Eu-152	-0.0058 U	0.0442	0.0129	1.00 - 2.50
8S-00040	40436	Eu-154	-0.0165 U	0.113	0.0334	1.00 - 2.50
8S-00040	40436	Eu-155	0.0703 SK	0.0501	0.0204	1.00 - 2.50
8S-00040	40436	Ho-166m	0.0009 U	0.0289	0.0082	1.00 - 2.50
8S-00040	40436	K-40	13.6	0.151	0.765	1.00 - 2.50
8S-00040	40436	Na-22	-0.0093 U	0.0218	0.0071	1.00 - 2.50
8S-00040	40436	Nb-94	0.0099 JSK	0.018	0.0056	1.00 - 2.50
8S-00040	40436	Np-236	-0.0113 U	0.0282	0.0088	1.00 - 2.50
8S-00040	40436	Np-239	0.0334 U	0.113	0.0348	1.00 - 2.50
8S-00040	40436	Pa-231	-0.119 U J	0.699	0.218	1.00 - 2.50
8S-00040	40436	Pb-212	1.06	0.0285	0.0601	1.00 - 2.50
8S-00040	40436	Pb-214	0.68	0.0316	0.0344	1.00 - 2.50
8S-00040	40436	S-125	-0.0123 U	0.044	0.0134	1.00 - 2.50
8S-00040	40436	Sn-126	0.0061 U	0.0195	0.0059	1.00 - 2.50
8S-00040	40436	Sr-90	-0.0653 U	0.34	0.0906	1.00 - 2.50
8S-00040	40436	Th-234	1.12	0.207	0.106	1.00 - 2.50
8S-00040	40436	Tl-208	0.347	0.0176	0.0222	1.00 - 2.50
8S-00040	40436	Tm-171	7.5 J	6.43	2.76	1.00 - 2.50
8S-00040	40436	Y-90	-0.0653 U	0.34	0.0906	1.00 - 2.50
8S-00041	40429	Ac-227	-0.0029 U	0.198	0.0596	0.00 - 0.50
8S-00041	40429	Ac-228	1.08	0.0967	0.061	0.00 - 0.50
8S-00041	40429	Ag-108m	-0.001 R	0.0165	0.0056	0.00 - 0.50
8S-00041	40429	Ba-133	0.0074 R	0.0218	0.0076	0.00 - 0.50
8S-00041	40429	Bi-212	0.671	0.144	0.0777	0.00 - 0.50
8S-00041	40429	Bi-214	0.733	0.0346	0.039	0.00 - 0.50

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8S-00041	40429	Cd-113m	0.609 U	130	40.4	0.00 - 0.50
8S-00041	40429	Cf-249	-0.0156 R	0.0862	0.0426	0.00 - 0.50
8S-00041	40429	Co-60	-0.0085 U	0.0165	0.0054	0.00 - 0.50
8S-00041	40429	Cs-134	0.0061 U	0.0169	0.0057	0.00 - 0.50
8S-00041	40429	Cs-137	0.0346	0.0198	0.0079	0.00 - 0.50
8S-00041	40429	Eu-152	0.0034 U	0.0487	0.0168	0.00 - 0.50
8S-00041	40429	Eu-154	0.0517 U	0.11	0.0326	0.00 - 0.50
8S-00041	40429	Eu-155	0.0612 JSK	0.0698	0.0246	0.00 - 0.50
8S-00041	40429	Ho-166m	-0.0002 U	0.0281	0.0083	0.00 - 0.50
8S-00041	40429	K-40	16.3	0.134	0.902	0.00 - 0.50
8S-00041	40429	Na-22	-0.0019 U	0.0217	0.0064	0.00 - 0.50
8S-00041	40429	Nb-94	0.0063 U	0.0171	0.0051	0.00 - 0.50
8S-00041	40429	Np-236	-0.0056 U	0.0364	0.0108	0.00 - 0.50
8S-00041	40429	Np-239	0.0097 U	0.131	0.0392	0.00 - 0.50
8S-00041	40429	Pa-231	0.0318 U	0.827	0.269	0.00 - 0.50
8S-00041	40429	Pb-212	1.15	0.0327	0.0665	0.00 - 0.50
8S-00041	40429	Pb-214	0.844	0.0356	0.0422	0.00 - 0.50
8S-00041	40429	Sb-125	0.0236 U	0.0489	0.0148	0.00 - 0.50
8S-00041	40429	Sn-126	0.0081 U	0.0193	0.0058	0.00 - 0.50
8S-00041	40429	Sr-90	0.0351 U	0.25	0.07	0.00 - 0.50
8S-00041	40429	Th-234	1.43 J	0.374	0.371	0.00 - 0.50
8S-00041	40429	Tl-208	0.369	0.0178	0.0221	0.00 - 0.50
8S-00041	40429	Tm-171	-8.81 U	12.4	4.45	0.00 - 0.50
8S-00041	40429	Y-90	0.0351 U	0.25	0.07	0.00 - 0.50
8S-00042	40430	Ac-227	-0.02 U	0.207	0.0613	0.00 - 0.50
8S-00042	40430	Ac-228	1.21	0.103	0.0614	0.00 - 0.50
8S-00042	40430	Ag-108m	0.0186 R	0.0173	0.0068	0.00 - 0.50
8S-00042	40430	Ba-133	-0.0088 R	0.0212	0.0077	0.00 - 0.50
8S-00042	40430	Bi-212	0.835	0.131	0.0751	0.00 - 0.50
8S-00042	40430	Bi-214	0.793	0.0355	0.04	0.00 - 0.50
8S-00042	40430	Cd-113m	-55.8 U	136	42.8	0.00 - 0.50
8S-00042	40430	Cf-249	0.0254 R	0.0925	0.037	0.00 - 0.50
8S-00042	40430	Co-60	-0.0004 U	0.0188	0.0054	0.00 - 0.50
8S-00042	40430	Cs-134	0.0027 U	0.0167	0.0055	0.00 - 0.50
8S-00042	40430	Cs-137	0.0698	0.0195	0.0081	0.00 - 0.50
8S-00042	40430	Eu-152	0.0336 J	0.0498	0.019	0.00 - 0.50
8S-00042	40430	Eu-154	0.0028 U	0.108	0.032	0.00 - 0.50

Table A.2
Analytical Results Summary
Subarea 8, Round 2

Sample Location	Sample Identification	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
8S-00042	40430	Eu-155	0.0036 U	0.074	0.0225	0.00 - 0.50
8S-00042	40430	Ho-166m	-0.0103 U	0.0287	0.0089	0.00 - 0.50
8S-00042	40430	K-40	18.7	0.145	1.1	0.00 - 0.50
8S-00042	40430	Na-22	0.0018 U	0.0224	0.0064	0.00 - 0.50
8S-00042	40430	Nb-94	-0.0013 U	0.0165	0.0049	0.00 - 0.50
8S-00042	40430	Np-236	-0.03 U J	0.0391	0.0142	0.00 - 0.50
8S-00042	40430	Np-239	0.0391 U	0.143	0.0425	0.00 - 0.50
8S-00042	40430	Pa-231	-0.288 U	0.866	0.269	0.00 - 0.50
8S-00042	40430	Pb-212	1.3	0.0356	0.0876	0.00 - 0.50
8S-00042	40430	Pb-214	0.894	0.035	0.0474	0.00 - 0.50
8S-00042	40430	Sb-125	0.0205 U	0.0484	0.015	0.00 - 0.50
8S-00042	40430	Sn-126	0.0001 U	0.0183	0.0053	0.00 - 0.50
8S-00042	40430	Sr-90	0.123 U	0.225	0.0706	0.00 - 0.50
8S-00042	40430	Th-234	1.12	0.328	0.152	0.00 - 0.50
8S-00042	40430	Tl-208	0.383	0.0173	0.0235	0.00 - 0.50
8S-00042	40430	Tm-171	-11.4 U	16.2	6.23	0.00 - 0.50
8S-00042	40430	Y-90	0.123 U	0.225	0.0706	0.00 - 0.50
8S-00043	40431	Sr-90	0.0738 U	0.323	0.0938	0.00 - 0.50
8S-00043	40431	Y-90	0.0738 U	0.323	0.0938	0.00 - 0.50
8S-00044	40432	Sr-90	0.447	0.419	0.146	0.00 - 0.50
8S-00044	40432	Y-90	0.447	0.419	0.146	0.00 - 0.50

Notes:

Refer to Table 2.1 of the Final Field Sampling Plan for Soil Sampling (HGL, 2012a) for a definition of radionuclide symbols.

Reporting units in picocuries per gram.

bgs - below ground surface

MDC - minimum detectable concentration

RTL - radiological trigger level

TPU - total propagated uncertainty

J - The analyte was detected at the reported concentration; the quantitation is an estimate.

K - Analyte present. Reported value may be biased high. Actual value is expected to be lower.

R - The result is rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria.

S - Analyte result is subject to spectral interference. Unless otherwise qualified, the data is believed to be consistent with the background study results and may be used for its intended purpose.

U - Not considered detected. The associated number is the reported concentration.

Table A.3
Parent and Field Duplicate Sample Results Summary
Subarea 8, Round 2

Sample Location	Parent Sample					Field Duplicate Sample				
	Sample ID	Analyte Name	Activity	MDC	TPU	Sample ID	Analyte Name	Activity	MDC	TPU
8N-00176	40364	Sr-90	0.0692 U	0.266	0.0769	40439	Sr-90	-0.0696 U	0.219	0.0508
8N-00179	40367	Am-241	0.00663 U	0.0204	0.00583	40437	Am-241	0.00197 U	0.0237	0.00591
8N-00179	40367	Np-237	0.00809 J	0.0191	0.00581	40437	Np-237	0.00351 U J	0.0244	0.00631
8N-00179	40367	Pu-236	-0.00379 U	0.0293	0.00675	40437	Pu-236	-0.00557 U	0.0342	0.00747
8N-00179	40367	Pu-238	0.00961 U	0.024	0.00717	40437	Pu-238	0.00649 U	0.0249	0.00685
8N-00179	40367	Pu-239/240	-0.00418 U	0.0175	0.0031	40437	Pu-239/240	0.00596	0.0141	0.00445
8N-00179	40367	Pu-241	0.153 U	2.72	0.802	40437	Pu-241	-0.909 U	2.71	0.776
8N-00179	40367	Pu-244	-0.000852 U	0.0153	0.00276	40437	Pu-244	-0.000278 U	0.0172	0.00311
8N-00179	40367	Sr-90	0.179	0.286	0.0912	40437	Sr-90	-0.036 U	0.165	0.0395
8N-00187	40375	Sr-90	0.0152 U	0.175	0.0494	40440	Sr-90	-0.0122 U	0.243	0.0668
8N-00200	40388	Sr-90	-0.0522 U	0.302	0.0781	40442	Sr-90	0.138 U	0.267	0.0829
8S-00030	40418	Sr-90	-0.0186 U	0.281	0.0741	40441	Sr-90	-0.161 U	0.358	0.0884
8S-00039	40433	Ac-227	-0.000495 U	0.161	0.0551	40438	Ac-227	-0.0487 U	0.176	0.0544
8S-00039	40433	Ac-228	0.963	0.11	0.0511	40438	Ac-228	0.931	0.0877	0.0512
8S-00039	40433	Bi-212	0.776	0.141	0.0793	40438	Bi-212	0.695	0.112	0.0701
8S-00039	40433	Bi-214	0.733	0.0323	0.0384	40438	Bi-214	0.721	0.0259	0.0366
8S-00039	40433	Cd-113m	-27.3 U	113	37.2	40438	Cd-113m	-40 U	116	39.5
8S-00039	40433	Co-60	-0.00402 U	0.0189	0.00554	40438	Co-60	0.00271 U	0.0165	0.0047
8S-00039	40433	Cs-134	-0.000522 U	0.0158	0.00539	40438	Cs-134	0.0013 U	0.0126	0.00419
8S-00039	40433	Cs-137	0.0814	0.0196	0.0114	40438	Cs-137	0.105	0.0155	0.0109
8S-00039	40433	Eu-152	-0.0302 U	0.044	0.0159	40438	Eu-152	-0.0277 U	0.0418	0.0157
8S-00039	40433	Eu-154	-0.0277 U	0.112	0.034	40438	Eu-154	-0.0541 U	0.0809	0.0287
8S-00039	40433	Eu-155	0.0564 SK	0.049	0.0225	40438	Eu-155	0.0456 SK	0.0576	0.0204

Table A.3
Parent and Field Duplicate Sample Results Summary
Subarea 8, Round 2

Sample Location	Parent Sample					Field Duplicate Sample				
	Sample ID	Analyte Name	Activity	MDC	TPU	Sample ID	Analyte Name	Activity	MDC	TPU
8S-00039	40433	Ho-166m	-0.000416 U	0.0301	0.00856	40438	Ho-166m	0.00139 U	0.0235	0.00687
8S-00039	40433	K-40	15.2	0.147	0.845	40438	K-40	16.5	0.104	0.9
8S-00039	40433	Na-22	0.000505 U	0.023	0.00681	40438	Na-22	-0.0108 U	0.017	0.00575
8S-00039	40433	Nb-94	0.00165 U J	0.0174	0.00521	40438	Nb-94	0.00638 U J	0.0142	0.0043
8S-00039	40433	Np-236	-0.0108 U	0.0276	0.00856	40438	Np-236	0.00067 U	0.0321	0.00968
8S-00039	40433	Np-239	0.0179 U	0.113	0.0343	40438	Np-239	-0.00585 U	0.117	0.0351
8S-00039	40433	Pa-231	0.121 U J	0.722	0.221	40438	Pa-231	-0.118 U J	0.712	0.235
8S-00039	40433	Pb-212	1.05	0.0291	0.0594	40438	Pb-212	1.1	0.029	0.0711
8S-00039	40433	Pb-214	0.737	0.0326	0.037	40438	Pb-214	0.781	0.0309	0.0409
8S-00039	40433	Sb-125	-0.0111 U	0.0418	0.0126	40438	Sb-125	0.000745 U	0.0397	0.0121
8S-00039	40433	Sn-126	0.00379 U	0.0187	0.00558	40438	Sn-126	0.001 U	0.0155	0.00451
8S-00039	40433	Sr-90	-0.0738 U	0.283	0.0745	40438	Sr-90	-0.000676 U	0.17	0.0434
8S-00039	40433	Tl-208	0.34	0.0172	0.0223	40438	Tl-208	0.327	0.0145	0.0197
8S-00039	40433	Tm-171	3.92 J	6.31	2.32	40438	Tm-171	-1.64 U	10.2	3.61

Notes:

Refer to Table 2.1 of the Final Field Sampling Plan for Soil Sampling (HGL, 2012a) for a definition of radionuclide symbols.

Reporting units in picocuries per gram.

ID - identification

MDC - minimum detectable concentration

TPU - total propagated uncertainty

J - The analyte was detected at the reported concentration; the quantitation is an estimate.

K - Analyte present. Reported value may be biased high. Actual value is expected to be lower.

S - Analyte result is subject to spectral interference. Unless otherwise qualified, the data is believed to be consistent with the background study results and may be used for its intended purpose.

U - Not considered detected. The associated number is the reported concentration.

Table A.4
Rinsate and Source Water Comparison Summary
Subarea 8, Round 2

Sample Type	Sample ID	U-233/U-234			U-235/U-236			U-238		
		Activity	MDC	TPU	Activity	MDC	TPU	Activity	MDC	TPU
Rinsate	R0547	-0.00212 U	0.067	0.0149	-0.00547 U	0.0484	0.00938	0.00172 U	0.0392	0.00759
Source	S0280	-0.0214 U	0.0718	0.0125	0 J	0.0221	0.00816	-0.00475 U	0.042	0.00813
Rinsate	R0548	-0.00386 U	0.0616	0.0128	-0.00334 U	0.0599	0.0108	0.00614	0.0166	0.00615
Source	S0280	-0.0214 U	0.0718	0.0125	0 J	0.0221	0.00816	-0.00475 U	0.042	0.00813
Rinsate	R0549	-0.000389 U	0.104	0.0247	-0.015 U	0.082	0.0149	-0.00606 U	0.0536	0.0104
Source	S0280	-0.0214 U	0.0718	0.0125	0 J	0.0221	0.00816	-0.00475 U	0.042	0.00813
Rinsate	R0550	-0.0182 U	0.0956	0.0208	-0.00132 U	0.0748	0.0156	0.0334	0.0181	0.0151
Source	S0280	-0.0214 U	0.0718	0.0125	0 J	0.0221	0.00816	-0.00475 U	0.042	0.00813
Rinsate	R0551	-0.00746 U	0.0733	0.0152	-0.00732 U	0.0834	0.0168	0.00377 U	0.0531	0.0117
Source	S0280	-0.0214 U	0.0718	0.0125	0 J	0.0221	0.00816	-0.00475 U	0.042	0.00813
Rinsate	R0552	-0.0235 U	0.107	0.0232	0.0228 U	0.0704	0.0201	0.0309	0.046	0.0171
Source	S0280	-0.0214 U	0.0718	0.0125	0 J	0.0221	0.00816	-0.00475 U	0.042	0.00813
Rinsate	R0553	0.0398	0.0657	0.0217	0.0298	0.0202	0.015	0.0137	0.0384	0.0113
Source	S0281	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0554	0.00219 U	0.0608	0.0135	0.00232 U	0.0529	0.0102	0.0269	0.0182	0.0135
Source	S0280	-0.0214 U	0.0718	0.0125	0 J	0.0221	0.00816	-0.00475 U	0.042	0.00813
Rinsate	R0555	-0.00323 U	0.0671	0.0134	0.00257 U	0.0584	0.0113	0.0243	0.0473	0.0158
Source	S0280	-0.0214 U	0.0718	0.0125	0 J	0.0221	0.00816	-0.00475 U	0.042	0.00813
Rinsate	R0556	-0.0136 U	0.0886	0.0173	0.00121 U	0.101	0.0227	0.0208 U	0.0642	0.0183
Source	S0280	-0.0214 U	0.0718	0.0125	0 J	0.0221	0.00816	-0.00475 U	0.042	0.00813
Rinsate	R0567	0.00751 U	0.115	0.0273	0.0284	0.0385	0.0202	0.0115	0.0312	0.0115
Source	S0280	-0.0214 U	0.0718	0.0125	0 J	0.0221	0.00816	-0.00475 U	0.042	0.00813
Rinsate	R0568	-0.0516 U	0.242	0.0573	0.0205 U	0.102	0.0255	0.0498	0.117	0.0358
Source	S0280	-0.0214 U	0.0718	0.0125	0 J	0.0221	0.00816	-0.00475 U	0.042	0.00813

Table A.4
Rinsate and Source Water Comparison Summary
Subarea 8, Round 2

Sample Type	Sample ID	U-233/U-234			U-235/U-236			U-238		
		Activity	MDC	TPU	Activity	MDC	TPU	Activity	MDC	TPU
Rinsate	R0569	-0.0369 U	0.148	0.0293	0.00393 U	0.0894	0.0173	0	0.0308	0.0114
Source	S0280	-0.0214 U	0.0718	0.0125	0 J	0.0221	0.00816	-0.00475 U	0.042	0.00813
Rinsate	R0570	-0.0193 U	0.17	0.039	0.0482	0.0936	0.0314	0.00665 U	0.0937	0.0207
Source	S0280	-0.0214 U	0.0718	0.0125	0 J	0.0221	0.00816	-0.00475 U	0.042	0.00813
Rinsate	R0571	-0.0125 U	0.12	0.0247	-0.00597 U	0.107	0.0194	-0.0237 U	0.0994	0.0176
Source	S0281	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0572	0.0358 U	0.162	0.0446	0.0043 U	0.0979	0.019	0.0249	0.0337	0.0177
Source	S0281	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0575	-0.00627 U	0.095	0.0196	0.0117	0.0317	0.0117	0.0284	0.0257	0.0165
Source	S0281	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0576	-0.0259 U	0.0857	0.0235	0.00557 U	0.0393	0.0121	0.0135	0.0318	0.0108
Source	S0281	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0581	-0.00159 U	0.0533	0.0154	0.0158	0.00854	0.01	0.0102	0.00691	0.00767
Source	S0281	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0582	-0.0123 U	0.127	0.0317	0.00603 U	0.085	0.023	0.016 U	0.0789	0.0232
Source	S0281	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0583	-0.0279 U	0.11	0.025	0.0092	0.0249	0.0146	0.0116 U	0.0587	0.0176
Source	S0280	-0.0214 U	0.0718	0.0125	0 J	0.0221	0.00816	-0.00475 U	0.042	0.00813
Rinsate	R0634	0.0168 U	0.108	0.0307	0.0111 U	0.0552	0.0174	0.03	0.0447	0.0187
Source	S0281	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201

Notes:

Refer to Table 2.1 of the Final Field Sampling Plan for Soil Sampling (HGL, 2012a) for a definition of radionuclide symbols.

Reporting units in picocuries per liter.

MDC - minimum detectable concentration

J - The analyte was detected at the reported concentration; the quantitation is an estimate.

TPU - total propagated uncertainty

U - Not considered detected. The associated number is the reported concentration.

ATTACHMENT 2

Boring Logs

The boring logs are provided in a separate pdf due to size restrictions.

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