
FINAL
TECHNICAL MEMORANDUM
PHASE I SEDIMENT SAMPLE RESULTS
SANTA SUSANA FIELD LABORATORY SITE
AREA IV RADIOLOGICAL STUDY

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SUBJECT: Phase I Sediment 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, Amendment 3. The technical lead on the project is USEPA Region 9.

As part of the radiological study, sediment samples were collected from locations within drainages that originate in Area IV. This Technical Memorandum documents the sediment sampling activities, analytical results, and findings of the Phase I Sediment Sampling. The primary objective of the sediment sampling effort is to evaluate the nature of potential radionuclide contamination in sediment that may have resulted from past nuclear research activities. This objective was achieved through the collection and analysis of sediment samples within Area IV and the NBZ.

The overall approach for the sediment sampling program was to identify drainages that originated in, and exited from, Area IV, identify sediment sampling locations through site reconnaissance, prepare a Field Sampling Plan (FSP) Addendum for the Phase I Sampling, and then present the FSP Addendum and review and finalize proposed locations with USEPA's SSFL Technical Stakeholder workgroup.

2.0 SEDIMENT SAMPLING ACTIVITIES

2.1 Sediment Sample Location Placement

A field reconnaissance, to determine the optimal location for collecting sediment samples, was conducted from October 6, 2010 to November 5, 2010. A total of 40 sediment sampling locations were identified during the reconnaissance. Detailed notes and photographs were taken at each location, as well as, X-Y survey coordinates which were recorded using a SPS 852 handheld Trimble global positioning system unit. The 40 proposed sample locations were documented in the Surface Water and Sediment Addendum to the Phase I Field Sampling Plan for Groundwater, Surface Water, and Sediment (HGL, 2010b). Table 1 provides a summary of the sediment sample locations. Figure 1 illustrates the sediment sampling locations.

2.2 Sample Collection

Sampling collection activities commenced in mid December 2010 after the Site Historic Preservation Office approval letter for the NBZ was received on December 1, 2010.

Sediment samples were collected using a stainless steel trowel and bowl, in accordance with the Final Phase I FSP for Groundwater, Surface Water, and Sediment (HGL, 2010a). A total of 39 sediment samples were collected within Area IV and the NBZ from December 13, 2010 to January 13, 2011. On May 23, 2011, one sediment sample was collected from the bottom of the Building 56 Excavation, also known as the Million Dollar Hole.

2.3 Deviations from the Field Sampling Plan Addendum

There were no deviations from the Phase I FSP (HGL, 2010a) or the FSP Addendum (HGL, 2010b).

2.4 Sediment Description Summary

A total of 39 sediment samples were collected from drainage channels within Area IV and the NBZ and one sediment sample was collected from the Building 56 Excavation. Sediment samples were classified and described in accordance with Description and Identification of Soils (Visual Manual Procedures ASTM D-2488). Sediment mainly consisted of a silty sand, however, other sediment types observed included sandy silt, sandy silt with clay, sand with silt, and poor to well graded sand. The descriptions recorded during the Phase I sampling event are summarized in Table 2. Sediment descriptions by sample location are shown on Table A.1.

3.0 PHASE I SEDIMENT ANALYTICAL RESULTS

Analyses of sediment samples were conducted in accordance with the Quality Assurance Project Plan (QAPP) for Groundwater, Surface Water, and Sediment (HGL, 2010c). All sediment samples were tested for the carbon-14, tritium (H-3), technetium-99, and the default suite of radionuclides presented in Table 3.1 of the Phase I FSP (HGL, 2010a).

3.1 Radiological Trigger Levels

Analytical results were compared to the radiological trigger levels (RTL) established specifically for the Area IV Santa Susana Field Laboratory Radiological Study. RTLs are reference soil concentrations for the radionuclides of concern for the Radiological Study. Analytical results below each RTL are considered uncontaminated or non-actionable, and results that exceed RTL are actionable and may represent contamination. The process used to derive the RTLs is presented in the Technical Memorandum, Radiological Trigger Levels (HGL, 2011).

3.2 Analytical Results

Two of the 40 sediment samples collected during the Phase I sediment sampling event contained radionuclide concentrations that exceeded the RTLs.

The sediment sample collected from location EPASED-13 contained uranium (U)-233/U-234 at a concentration of 2.47 pCi/g that exceeded the RTL of 2.02 pCi/g, and U-238 at a concentration of 2.3 pCi/g that exceeded the RTL of 1.80 pCi/g.

The sample collected from location EPASED-17 contained cesium (Cs)-137 at a concentration of 0.208 pCi/g which exceeded the RTL of 0.207 pCi/g.

Table 2 presents the sample location, sample depth, radionuclide concentration, associated lines of evidence, and technical justification for collecting additional soil samples. Figure 1 presents the sample locations of all the sediment samples collected during Phase I. Figure 2 presents the location, radionuclide, and concentration detected above the RTLs in samples collected from locations EPASED-13 and EPASED-17. A summary of the 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 QAPP (HGL, 2010c). 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 sediment samples were collected at a frequency of 1 per 20 samples (5 percent). A total of two field duplicate sediment samples were collected during the 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, 2010c), 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. Phase I field duplicate sediment sample data includes 202 results from 101 sample/duplicate pairs. Of those, any results that were rejected by data validation were removed from consideration. In addition, analytes that are simply inferred from previously reported results, such as barium-137m, which is inferred from the reported Cs-137 results, are considered redundant and have been removed from consideration, as well. The Z_{DUP} evaluation of the remaining 82 qualified pairs follows:

- 74 results (90.2 percent) were within the expected 95 percent confidence interval for this evaluation, with Z_{DUP} less than 1.96;
- Six results (7.3 percent) were between the 95 percent and 99 percent confidence interval with Z_{DUP} at or above 1.96, but below 2.58;
- Two results (2.4 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, approximately 4 percent of reported Z_{DUP} scores will be in the range between 1.96 and 2.58. Of 74 Z_{DUP} results, approximately 3 percent are expected to fall in this warning range. For this data set, six Z_{DUP} results are in the warning range, suggesting a slightly increased degree of heterogeneity in the co-located field samples than has otherwise been estimated. Nonetheless, a review of the associated field sample and duplicate results does not indicate significant concerns regarding the quality or usability of the data.

The two Z_{DUP} results that exceeded 2.58 are; lead-214 at 3.25, and bismuth-214 at 2.84. These results are from the same sample/duplicate data pair and represent a single parent/daughter pair in the naturally occurring uranium decay chain. The small excursion supports the assertion of an increased degree of heterogeneity in the co-located field samples, discussed above. As with

the slight increase of results in the warning range, these results do not appear to indicate significant concerns regarding the quality or usability of the analytical data. 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 Phase I FSP (HGL, 2010a) and the QAPP (HGL, 2010c). A total of 10 rinsate and 10 source water samples were collected during the Phase I sediment sampling event. Each sample was tested for isotopic uranium, as a surrogate indicator of cross-contamination. The laboratory's reported results for thorium-231 are inferred directly from the reported U-235 results. Those redundant evaluations, as well as any results that are rejected for laboratory quality reasons, have been removed from consideration, as in the evaluation of field duplicate samples, above. Rinsate and source water samples were also analyzed for H-3 if it was included in the analytical suite for samples collected that day.

Phase I sediment equipment rinsate and source water sample data contains 79 total results, which include 39 data pairs evaluated by Z-score duplicate comparison. The ratio of the rinsate water activity to the source water activity is summarized below. The summary also includes a single rinsate sample with no measurable activity, for which the accompanying source water result is rejected due to incomplete analytical results at the time of this report. While corrected results are expected from the laboratory, those results are not believed to be relevant to this evaluation because the corresponding rinsate water is shown to be free of contaminants, which supports the successful decontamination of the associated field sampling equipment.

- 37 results (92.5 percent) were within the expected 95 percent confidence interval for this evaluation, with Z_{DUP} less than 1.96;
- Two results (5.0 percent) were between the 95 percent and 99 percent confidence interval with Z_{DUP} at or above 1.96, but below 2.58;
- One result (2.5 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 will be in the range between 1.96 and 2.58. Given the small number of results being considered, the two results in that warning range is consistent with the expected rate. In addition:

- One Z_{DUP} result in the warning range resulted from reported activity in the source water sample, but no measurable activity in the corresponding rinsate sample. The rinsate water, therefore, is demonstrated to be free of measurable contaminants and the associated field samples are not believed to be subject to sample cross-contamination from the field sampling equipment.

- The second Z_{DUP} result in the warning range is related to a very small amount of activity reported for U-235 in the rinsate sample, but with no corresponding U-234 and U-238 activity, either one or both of which would be expected to be present in much higher concentrations if U-235 were present. The Z_{DUP} result is believed to be a routine statistical excursion, expected in the evaluation, with no indication of any cross-contamination from the field sampling equipment in the associated field samples.

The single Z_{DUP} result that exceeded 2.58, at 2.60, is related to small, but measurable amounts of U-238 activity in the rinsate water sample SED-R-008. The exceedance is marginal and is unsupported by the presence of other uranium isotopes, as expected. Nonetheless, the field sample results associated with this equipment rinsate sample have been reviewed and none exceed the corresponding RTLs for the analyzed radionuclides. It is therefore not possible that any potential sample cross-contamination has resulted in a false positive exceedance of the RTLs in any subsequent sample. The observed Z_{DUP} exceedance is not believed to be significant, and is not believed to indicate evidence of sample cross-contamination to a degree that would adversely affect the quality or usability of the data for its intended purpose.

The overall evaluation of equipment blank results indicates that the decontamination of the field sampling equipment is acceptable and that there is 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 SUMMARY OF FINDINGS

Radionuclide concentrations exceeding RTLs were reported in samples collected at sample locations EPASED-13 and EPASED-17. Additional soil samples will be collected in the vicinity of sample locations EPASED-13 and EPASED-17 during Phase II sediment sampling activities. A Phase II FSP Addendum will be prepared describing the proposed step-out sediment sampling locations, analytical testing, and technical justification for the addition sampling.

6.0 REFERENCES

HydroGeoLogic, Inc., 2010a. Final Phase I Field Sampling Plan for Groundwater, Surface Water, and Sediment, Area IV Radiological Study, Santa Susana Field Laboratory Ventura County, California. July 28, 2010.

HydroGeoLogic, Inc., 2010b. Surface Water and Sediment Addendum to the Phase I Field Sampling Plan for Groundwater, Surface Water, and Sediment, Area IV Radiological Study, Santa Susana Field Laboratory Ventura County, California. December 10, 2010.

HydroGeoLogic, Inc., 2010c. Quality Assurance Project Plan for Groundwater, Surface Water, and Sediment, Area IV Radiological Study, Santa Susana Field Laboratory Ventura County, California. August 11, 2010.

HydroGeoLogic, Inc, 2011a. Technical Memorandum, Radiological Trigger Levels, Santa Susana Field Laboratory Site, Area IV Radiological Study. December.

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TABLES

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Table 1
Summary of Planned and Collected Samples by Location
Phase I Sediment Sampling

Proposed Samples	Sample Collected	Date Collected	Analytes Analyzed¹
EPASED01	EPASED01	12/17/2010	SSFL Default, H-3, Tc-99, C-14
EPASED02	EPASED02	12/21/2010	SSFL Default, H-3, Tc-99, C-14
EPASED03	EPASED03	12/20/2010	SSFL Default, H-3, Tc-99, C-14
EPASED04	EPASED04	12/17/2010	SSFL Default, H-3, Tc-99, C-14
EPASED05	EPASED05	12/20/2010	SSFL Default, H-3, Tc-99, C-14
EPASED06	EPASED06	12/17/2010	SSFL Default, H-3, Tc-99, C-14
EPASED07	EPASED07	12/20/2010	SSFL Default, H-3, Tc-99, C-14
EPASED08	EPASED08	12/20/2010	SSFL Default, H-3, Tc-99, C-14
EPASED09	EPASED09	1/13/2011	SSFL Default, H-3, Tc-99, C-14
EPASED10	EPASED10	12/22/2010	SSFL Default, H-3, Tc-99, C-14
EPASED11	EPASED11	12/16/2010	SSFL Default, H-3, Tc-99, C-14
EPASED12	EPASED12	12/17/2010	SSFL Default, H-3, Tc-99, C-14
EPASED13	EPASED13	12/16/2010	SSFL Default, H-3, Tc-99, C-14
EPASED14	EPASED14	12/17/2010	SSFL Default, H-3, Tc-99, C-14
EPASED15	EPASED15	12/21/2010	SSFL Default, H-3, Tc-99, C-14
EPASED16	EPASED16	12/15/2010	SSFL Default, H-3, Tc-99, C-14
EPASED17	EPASED17	12/16/2010	SSFL Default, H-3, Tc-99, C-14
EPASED18	EPASED18	12/15/2010	SSFL Default, H-3, Tc-99, C-14
EPASED19	EPASED19	12/16/2010	SSFL Default, H-3, Tc-99, C-14
EPASED20	EPASED20	12/16/2010	SSFL Default, H-3, Tc-99, C-14
EPASED21	EPASED21	12/15/2010	SSFL Default, H-3, Tc-99, C-14
EPASED22	EPASED22	12/14/2010	SSFL Default, H-3, Tc-99, C-14
EPASED23	EPASED23	12/14/2010	SSFL Default, H-3, Tc-99, C-14
EPASED24	EPASED24	12/14/2010	SSFL Default, H-3, Tc-99, C-14
EPASED25	EPASED25	12/14/2010	SSFL Default, H-3, Tc-99, C-14
EPASED26	EPASED26	12/14/2010	SSFL Default, H-3, Tc-99, C-14
EPASED27	EPASED27	12/14/2010	SSFL Default, H-3, Tc-99, C-14
EPASED28	EPASED28	1/13/2011	SSFL Default, H-3, Tc-99, C-14
EPASED29	EPASED29	12/13/2010	SSFL Default, H-3, Tc-99, C-14

Table 1
Summary of Planned and Collected Samples by Location
Phase I Sediment Sampling

Proposed Samples	Sample Collected	Date Collected	Analytes Analyzed ¹
EPASED30	EPASED30	12/13/2010	SSFL Default, H-3, Tc-99, C-14
EPASED31	EPASED31	12/13/2010	SSFL Default, H-3, Tc-99, C-14
EPASED32	EPASED32	12/13/2010	SSFL Default, H-3, Tc-99, C-14
EPASED33	EPASED33	12/13/2010	SSFL Default, H-3, Tc-99, C-14
EPASED34	EPASED34	12/20/2010	SSFL Default, H-3, Tc-99, C-14
EPASED35	EPASED35	5/23/2011	SSFL Default, H-3, Tc-99, C-14
EPASED36	EPASED36	12/21/2010	SSFL Default, H-3, Tc-99, C-14
EPASED37	EPASED37	12/20/2010	SSFL Default, H-3, Tc-99, C-14
EPASED38	EPASED38	12/21/2010	SSFL Default, H-3, Tc-99, C-14
EPASED39	EPASED39	12/21/2010	SSFL Default, H-3, Tc-99, C-14
EPASED40	EPASED40	12/13/2010	SSFL Default, H-3, Tc-99, C-14

Note:

¹Default suite includes the radionuclide analysis shown in Table 3.1 of the Field Sampling Plan for Groundwater, Surface Water and Sediment (HGL, 2010a).

C-14 - carbon 14

H-3 - tritium (hydrogen 3)

SSFL - Santa Susana Field Laboratory

Tc-99 - technetium-99

Table 2
Analytical Results Exceeding Radiological Trigger Levels
Phase I Sediment Sampling

Sample Location	Sample Depth (feet)	Radionuclide Detected	Activity	RTL	Associated Line Of Evidence	Step-out Justification
EPASED-13	0.0 - 0.5	U-233/U-234	2.47	2.02	Approximately 350 feet downgradient from Outfall 3. This location is also northwest and downgradient of the RMHF.	Elevated concentrations of U-233/U-234, and U-238. Characterize the sediment upgradient and downgradient of the location where elevated levels of radionuclides were reported in Phase I sediment samples.
		U-238	2.30	1.80		
EPASED-17	0.0 - 0.5	Cs-137	0.208	0.207	Approximately 200 feet downgradient from the SRE Pond.	Elevated concentrations of Cs-137. Characterize the sediment upgradient and downgradient of the location where an elevated concentration of Cs-137 was reported in Phase I sediment samples.

Notes:

Reporting units in picocuries per gram.

Cs - cesium

RMHF - Radioactive Materials Handling Facility

RTL - radiological trigger level

SRE - Sodium Reactor Experiment

U - uranium

FIGURES

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Figure 1
Radiological Sediment Sampling Locations
Phase I Sediment Sampling
Santa Susana Field Laboratory

U.S. EPA Region 9



Legend

- NPDES Outfall Locations
- Sediment Sample Location Results Below RTLs
- Sediment Sample Locations Exceeding RTLs

- Drainage Pathways
- Intermittent Stream
- Permanent Stream
- Subareas

- EPASED40 Sediment Sample Location ID
- 10 NPDES Outfall Location ID

Notes:

NPDES - National Pollutant Discharge Elimination System
RTL - Radiological Trigger Levels



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Fig1_SedimentSamplingLocations.mxd
Project: EP9038
Source: Boeing 2009, CIRGIS 2007, HGL 2010
3/8/2012 pbillcock

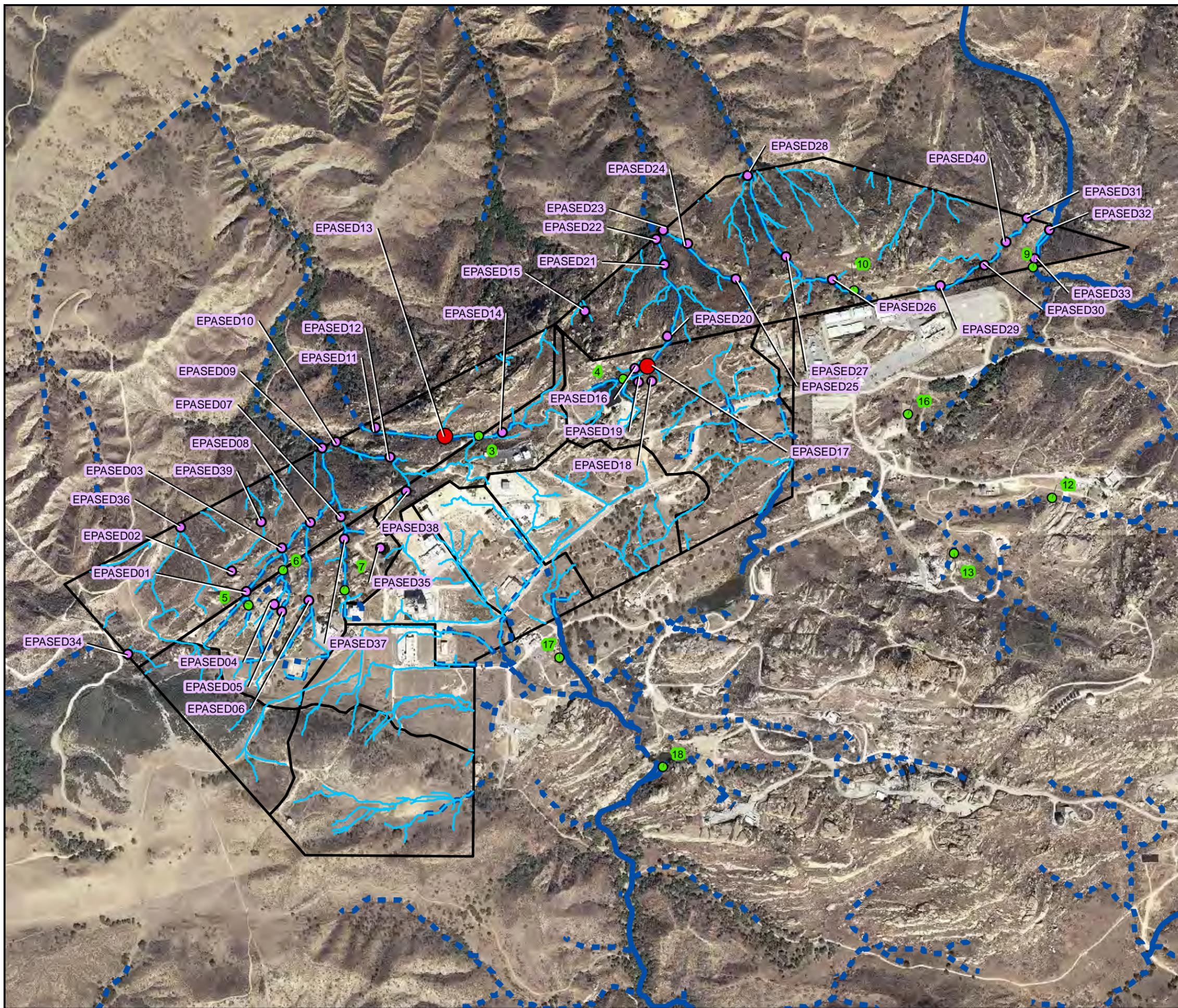


Figure 2
Radiological Sediment Sampling
Concentrations Exceeding RTLs
Phase I Sediment Sampling
Santa Susana Field Laboratory

U.S. EPA Region 9



Legend

- Sediment Sample Location
Results Below RTLs
- Sediment Sample Locations
Exceeding RTLs
- Drainage Pathways
- - - Intermittent Stream
- Permanent Stream
- Subareas

Notes:
 All activity and RTL values shown in picocuries per gram
 Cs - Cesium
 RTL - Radiological Trigger Levels
 U - Uranium



Location ID	Analyte	Activity	RTL
EPASED 13	U-233/234	2.47	2.02
	U-238	2.3	1.8

Location ID	Analyte	Activity	RTL
EPASED 17	Cs-137	0.208	0.207

ATTACHMENT 1

Tables

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Table A.1
Sediment Descriptions by Sample Location
Phase I Sediment Sampling

Sample Location	Interval Collection (inches)	Soil Description	Soil Description	Northing ¹	Easting ¹
EPASED01	0-6	Silty sand	SM	1909821.31252000	6350748.47227000
EPASED02	0-6	Silty sand	SM	1907744.85670000	6345335.93257000
EPASED03	0-6	Poorly graded sand	SP	1910066.41079000	6351601.32489000
EPASED04	0-6	sandy Silt with clay	ML	1910322.57760000	6351734.19011000
EPASED05	0-6	Silty sand	SM	1910003.93978000	6351148.03151000
EPASED06	0-6	Sandy silt	ML	1910430.31951000	6351530.79912000
EPASED07	0-6	Poorly graded sand with silt	SP/SM	1906955.86681000	6344733.51711000
EPASED08	0-6	Poorly graded sand with silt	SP/SM	1906894.73537000	6344803.70430000
EPASED09	0-6	Silty sand	SM	1906990.73649000	6345046.93511000
EPASED10	0-6	Well graded sand	SW	1907692.99559000	6345059.31435000
EPASED11	0-6	Silty sand	SM	1908545.57131000	6345646.14225000
EPASED12	0-6	Well graded sand	SW	1908281.72275000	6345779.93955000
EPASED13	0-6	Silty sand	SM	1909366.90628000	6348282.94472000
EPASED14	0-6	Silty sand	SM	1909875.69201000	6349776.55328000
EPASED15	0-6	Silty sand	SM	1910082.96981000	6349354.95471000
EPASED16	0-6	Silty sand	SM	1908364.70750000	6345166.50049000
EPASED17	0-6	Silty sand	SM	1909883.25859000	6348902.21874000
EPASED18	0-6	Silty sand	SM	1910199.05619000	6348466.71961000
EPASED19	0-6	Silty sand	SM	1910319.00903000	6348246.09112000
EPASED20	0-6	Silty sand	SM	1910240.48229000	6348181.67261000
EPASED21	0-6	Poorly graded sand	SP	1910011.41352000	6348258.62095000
EPASED22	0-6	Silty sand	SM	1908419.03547000	6345291.48548000
EPASED23	0-6	Silty sand	SM	1907465.27229000	6344801.09046000

Table A.1
Sediment Descriptions by Sample Location
Phase I Sediment Sampling

Sample Location	Interval Collection (inches)	Soil Description	Soil Description	Northing ¹	Easting ¹
EPASED24	0-6	Silty sand	SM	1909591.75426000	6347539.24509000
EPASED25	0-6	Silty sand	SM	1907465.29689000	6345692.80423000
EPASED26	0-6	Sandy silt	ML	1908963.52290000	6348141.27866000
EPASED27	0-6	Silty sand	SM	1908953.23322000	6348022.94688000
EPASED28	0-6	Silty sand	SM	1908469.61739000	6346273.69775000
EPASED29	0-6	Silty sand	SM	1908503.05893000	6346793.32762000
EPASED30	0-6	Silty sand	SM	1910810.24001000	6349006.62011000
EPASED31	0-6	Silty sand	SM	1907070.21796000	6344480.71741000
EPASED32	0-6	Silty sand	SM	1907255.43248000	6344349.52345000
EPASED33	0-6	Well graded sand	SW	1909076.70968000	6347989.50534000
EPASED34	0-6	Poorly graded sand with silt	SP/SM	1909097.28904000	6348102.69213000
EPASED35	--	--	--	1907648.86936000	6343887.24026000
EPASED36	0-6	Sandy silt with clay	ML	1907697.73967000	6344616.99929000
EPASED37	0-6	Silty sand	SM	1907545.33151000	6345366.25042000
EPASED38	0-6	Silty sand	SM	1907974.58000000	6345926.68007000
EPASED39	0-6	Poorly graded sand	SP	1910214.58011000	6351341.68040000
EPASED40	0-6	Silty sand	SM	1906508.85753000	6343413.90688000

Notes:

¹Northing and easting measured using NAD83 SPZ5 US Feet

-- Excavation hole 56 location. Little amount and very saturated sediment - boring log not available.

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED01	Ac-227	0.03 U	0.18	0.061	0.217
EPASED01	Ac-228	1.31 J	0.093	0.047	2.4
EPASED01	Am-241	0.0097 J	0.01	0.004	0.0454
EPASED01	Bi-212	0.956 J	0.15	0.089	2.15
EPASED01	Bi-214	1.05	0.03	0.038	1.59
EPASED01	Cd-113m	0.4 U	50	15	3030
EPASED01	Cm-243/Cm-244	0.0159 J	0.011	0.005	0.0443
EPASED01	Cm-245/Cm-246	0.0048 J	0.0032	0.0024	0.0401
EPASED01	Cm-247/Cm-248	-0.0023 U	0.014	0.0031	0.0306
EPASED01	Co-60	0.0027 U	0.021	0.0045	0.028
EPASED01	Cs-134	0.011 U	0.059	0.0047	0.0864
EPASED01	Cs-137	0.0655 J	0.015	0.0071	0.207
EPASED01	Eu-152	0.007 U	0.028	0.017	0.0566
EPASED01	Eu-154	-0.05 U	0.13	0.038	0.15
EPASED01	Eu-155	0.089 J	0.037	0.015	0.231
EPASED01	H-3	0.059 J	0.062	0.02	11.9
EPASED01	Ho-166m	0.0119 U	0.03	0.0092	0.0432
EPASED01	K-40	21.1 J	0.17	0.65	32.4
EPASED01	Na-22	0.001 U	0.025	0.0074	0.037
EPASED01	Nb-94	0.0115 J	0.017	0.0053	0.0214
EPASED01	Np-236	-0.009 U	0.037	0.011	0.047
EPASED01	Np-239	-0.002 U	0.11	0.032	0.139
EPASED01	Pa-231	-0.01 U	0.71	0.21	0.936
EPASED01	Pb-212	1.51	0.029	0.062	2.69
EPASED01	Pb-214	1.18 J	0.033	0.04	1.7
EPASED01	Pu-236	-0.0062 UL	0.011	0.0027	7.79
EPASED01	Pu-238	0.0015 U	0.0088	0.0024	0.0415
EPASED01	Pu-239/Pu-240	0.0044 J	0.0068	0.0024	0.0404
EPASED01	Pu-244	0.0015 U	0.002	0.001	0.0313
EPASED01	Sb-125	0.151 J	0.047	0.014	0.354
EPASED01	Sn-126	-0.0003 U	0.022	0.0065	0.0237
EPASED01	Sr-90	-0.025 U	0.071	0.02	0.485
EPASED01	Tc-99	0.028 U	0.071	0.021	1.63
EPASED01	Te-125m	0.0348 J	0.011	0.0031	0.0838
EPASED01	Th-228	1.53 K	0.013	0.079	3.98
EPASED01	Th-229	0.0085 J	0.0023	0.0027	0.145
EPASED01	Th-230	1.02 K	0.004	0.057	2.2
EPASED01	Th-232	1.32 K	0.01	0.07	3.1

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED01	Th-234	2.18 R	0.18	0.11	3.19
EPASED01	Tl-208	0.472	0.021	0.019	0.937
EPASED01	Tm-171	-0.1 U	6.9	2.1	72.4
EPASED01	U-233/U-234	1.5	0.013	0.076	2.02
EPASED01	U-235/U-236	0.061 J	0.011	0.01	0.151
EPASED01	U-238	1.39	0.003	0.071	1.8
EPASED02	Ac-227	0.023 U	0.18	0.054	0.217
EPASED02	Ac-228	1.38 J	0.11	0.053	2.4
EPASED02	Am-241	0.0037 J	0.0087	0.0027	0.0454
EPASED02	Bi-212	1.11	0.17	0.11	2.15
EPASED02	Bi-214	0.914	0.032	0.036	1.59
EPASED02	Cd-113m	0 U	51	8.5	3030
EPASED02	Cm-243/Cm-244	0.0046 U	0.012	0.0037	0.0443
EPASED02	Cm-245/Cm-246	-0.0011 U	0.0098	0.002	0.0401
EPASED02	Cm-247/Cm-248	0 U	0.0028	0.0012	0.0306
EPASED02	Co-60	0.0044 U	0.02	0.0059	0.028
EPASED02	Cs-134	0.0056 U	0.067	0.0023	0.0864
EPASED02	Cs-137	0.0622 J	0.016	0.0076	0.207
EPASED02	Eu-152	0.0007 U	0.05	0.0019	0.0566
EPASED02	Eu-154	0.014 U	0.12	0.019	0.15
EPASED02	Eu-155	0.12 J	0.055	0.024	0.231
EPASED02	H-3	0.049 J	0.064	0.02	11.9
EPASED02	Ho-166m	0.0016 U	0.024	0.0093	0.0432
EPASED02	K-40	19.9 J	0.15	0.61	32.4
EPASED02	Na-22	0.0053 U	0.025	0.0076	0.037
EPASED02	Nb-94	-0.0002 U	0.018	0.0053	0.0214
EPASED02	Np-236	-0.008 U	0.044	0.013	0.047
EPASED02	Np-239	0.034 U	0.11	0.032	0.139
EPASED02	Pa-231	0.077 U	0.79	0.064	0.936
EPASED02	Pb-212	1.59	0.028	0.049	2.69
EPASED02	Pb-214	0.958 J	0.031	0.043	1.7
EPASED02	Pu-236	-0.001 U	0.009	0.0024	7.79
EPASED02	Pu-238	0.0021 U	0.0028	0.0015	0.0415
EPASED02	Pu-239/Pu-240	0.0031 U	0.0097	0.0029	0.0404
EPASED02	Pu-244	0.001 U	0.0028	0.001	0.0313
EPASED02	Sb-125	0.127 J	0.052	0.012	0.354
EPASED02	Sn-126	0.0043 U	0.019	0.0058	0.0237
EPASED02	Sr-90	0.1 J	0.078	0.026	0.485

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED02	Tc-99	0.048 J	0.076	0.023	1.63
EPASED02	Te-125m	0.0294 J	0.012	0.0027	0.0838
EPASED02	Th-228	1.35	0.022	0.068	3.98
EPASED02	Th-229	0.0035 J	0.0024	0.0018	0.145
EPASED02	Th-230	0.87	0.008	0.047	2.2
EPASED02	Th-232	1.44	0.008	0.071	3.1
EPASED02	Th-234	1.58 R	0.26	0.097	3.19
EPASED02	Tl-208	0.52	0.021	0.021	0.937
EPASED02	Tm-171	-13.8 R	11	3.4	72.4
EPASED02	U-233/U-234	0.814	0.007	0.044	2.02
EPASED02	U-235/U-236	0.0355 J	0.0032	0.0066	0.151
EPASED02	U-238	0.885	0.003	0.047	1.8
EPASED03	Ac-227	-0.034 U	0.16	0.05	0.217
EPASED03	Ac-228	1	0.098	0.041	2.4
EPASED03	Am-241	0.0029 J	0.0053	0.0018	0.0454
EPASED03	Bi-212	0.799	0.12	0.073	2.15
EPASED03	Bi-214	0.805	0.03	0.031	1.59
EPASED03	Cd-113m	16 U	45	14	3030
EPASED03	Cm-243/Cm-244	0.0011 U	0.0052	0.0014	0.0443
EPASED03	Cm-245/Cm-246	0.0056 J	0.0068	0.0027	0.0401
EPASED03	Cm-247/Cm-248	0.0018 U	0.0025	0.0013	0.0306
EPASED03	Co-60	-0.0001 U	0.018	0.0053	0.028
EPASED03	Cs-134	0.0127 UJ	0.058	0.0065	0.0864
EPASED03	Cs-137	0.0622 J	0.016	0.0078	0.207
EPASED03	Eu-152	0.034 J	0.044	0.017	0.0566
EPASED03	Eu-154	-0.05 U	0.12	0.036	0.15
EPASED03	Eu-155	0.077 J	0.049	0.021	0.231
EPASED03	H-3	0.015 U	0.08	0.024	11.9
EPASED03	Ho-166m	0.0102 U	0.027	0.0051	0.0432
EPASED03	K-40	22.4	0.14	0.68	32.4
EPASED03	Na-22	0.0015 U	0.025	0.0073	0.037
EPASED03	Nb-94	0.0024 U	0.016	0.0024	0.0214
EPASED03	Ni-59	0 UL	0.014	0.0051	5.96
EPASED03	Ni-63	-0.01 U	0.41	0.12	4.92
EPASED03	Np-236	-0.001 U	0.04	0.012	0.047
EPASED03	Np-239	-0.002 U	0.1	0.03	0.139
EPASED03	Pa-231	0.16 U	0.69	0.21	0.936
EPASED03	Pb-212	0.918	0.033	0.032	2.69

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED03	Pb-214	0.865	0.03	0.038	1.7
EPASED03	Pu-236	-0.0026 U	0.0073	0.0016	7.79
EPASED03	Pu-238	0.00138 U	0.0019	0.00098	0.0415
EPASED03	Pu-239/Pu-240	0.00138 U	0.0019	0.00098	0.0404
EPASED03	Pu-244	0.00069 U	0.0019	0.00069	0.0313
EPASED03	Sb-125	0.023 J	0.034	0.01	0.354
EPASED03	Sn-126	0.0029 U	0.018	0.0053	0.0237
EPASED03	Sr-90	0.036 J	0.055	0.017	0.485
EPASED03	Tc-99	0.136	0.19	0.059	1.63
EPASED03	Te-125m	0.0054 J	0.0079	0.0024	0.0838
EPASED03	Th-228	1.02	0.01	0.054	3.98
EPASED03	Th-229	0.0021 U	0.0078	0.0022	0.145
EPASED03	Th-230	0.789 J	0.003	0.044	2.2
EPASED03	Th-232	1.07 J	0.003	0.056	3.1
EPASED03	Th-234	1.24 R	0.23	0.083	3.19
EPASED03	Tl-208	0.348	0.017	0.015	0.937
EPASED03	Tm-171	-10.1 R	9.4	2.9	72.4
EPASED03	U-233/U-234	0.7	0.006	0.038	2.02
EPASED03	U-235/U-236	0.0377 J	0.0071	0.0064	0.151
EPASED03	U-238	0.727 J	0.002	0.039	1.8
EPASED04	Ac-227	0.068 J	0.11	0.014	0.217
EPASED04	Ac-228	1.19 J	0.06	0.04	2.4
EPASED04	Am-241	0.0047 J	0.0049	0.002	0.0454
EPASED04	Bi-212	0.882 J	0.1	0.062	2.15
EPASED04	Bi-214	0.85	0.021	0.029	1.59
EPASED04	Cd-113m	2 U	33	10	3030
EPASED04	Cm-243/Cm-244	0.0079 J	0.0048	0.0025	0.0443
EPASED04	Cm-245/Cm-246	0.0014 U	0.0019	0.001	0.0401
EPASED04	Cm-247/Cm-248	0.00069 U	0.0019	0.0007	0.0306
EPASED04	Co-60	0.003 U	0.012	0.0036	0.028
EPASED04	Cs-134	0.013 U	0.033	0.0032	0.0864
EPASED04	Cs-137	0.0162 J	0.009	0.004	0.207
EPASED04	Eu-152	-0.0098 U	0.032	0.0098	0.0566
EPASED04	Eu-154	0.028 J	0.056	0.015	0.15
EPASED04	Eu-155	0.072 J	0.028	0.012	0.231
EPASED04	H-3	0.085 J	0.063	0.021	11.9
EPASED04	Ho-166m	0.0062 U	0.02	0.0041	0.0432
EPASED04	K-40	19.4 J	0.13	0.58	32.4

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED04	Na-22	0 U	0.017	0.0051	0.037
EPASED04	Nb-94	0.0016 U	0.011	0.0034	0.0214
EPASED04	Np-236	-0.0035 U	0.027	0.0082	0.047
EPASED04	Np-239	-0.01 U	0.074	0.022	0.139
EPASED04	Pa-231	0.03 U	0.47	0.14	0.936
EPASED04	Pb-212	1.47	0.02	0.06	2.69
EPASED04	Pb-214	0.988 J	0.022	0.033	1.7
EPASED04	Pu-236	0 U	0.005	0.0012	7.79
EPASED04	Pu-238	0.0037 J	0.0034	0.0015	0.0415
EPASED04	Pu-239/Pu-240	-0.00046 U	0.0043	0.00086	0.0404
EPASED04	Pu-244	0 U	0.0012	0.00051	0.0313
EPASED04	Sb-125	0.143 J	0.025	0.01	0.354
EPASED04	Sn-126	0.0019 U	0.013	0.0038	0.0237
EPASED04	Sr-90	0.038 U	0.08	0.024	0.485
EPASED04	Tc-99	0.04 J	0.074	0.023	1.63
EPASED04	Te-125m	0.0331 J	0.0057	0.0023	0.0838
EPASED04	Th-228	1.38	0.011	0.071	3.98
EPASED04	Th-229	0.0068 J	0.0023	0.0024	0.145
EPASED04	Th-230	0.975	0.009	0.053	2.2
EPASED04	Th-232	1.29	0.009	0.067	3.1
EPASED04	Th-234	0.389 J R	0.14	0.046	3.19
EPASED04	Tl-208	0.433	0.014	0.016	0.937
EPASED04	Tm-171	4.5 J	4.2	1.6	72.4
EPASED04	U-233/U-234	0.762	0.002	0.038	2.02
EPASED04	U-235/U-236	0.0428 J	0.002	0.0059	0.151
EPASED04	U-238	0.755	0.004	0.038	1.8
EPASED05	Ac-227	0.032 U	0.18	0.06	0.217
EPASED05	Ac-228	1.28	0.1	0.048	2.4
EPASED05	Am-241	0.0025 J	0.0017	0.0012	0.0454
EPASED05	Bi-212	0.902	0.17	0.094	2.15
EPASED05	Bi-214	1.02	0.036	0.039	1.59
EPASED05	Cd-113m	-4 U	51	15	3030
EPASED05	Cm-243/Cm-244	0.0006 U	0.0057	0.0014	0.0443
EPASED05	Cm-245/Cm-246	0.0087 J	0.0064	0.0031	0.0401
EPASED05	Cm-247/Cm-248	0.0026 J	0.0063	0.002	0.0306
EPASED05	Co-60	0.0028 U	0.022	0.0065	0.028
EPASED05	Cs-134	0.0091 UJ	0.06	0.0039	0.0864
EPASED05	Cs-137	0.161	0.017	0.01	0.207

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED05	Eu-152	-0.027 UL	0.05	0.015	0.0566
EPASED05	Eu-154	0.029 U	0.13	0.015	0.15
EPASED05	Eu-155	0.076 J	0.04	0.013	0.231
EPASED05	H-3	0.008 U	0.077	0.023	11.9
EPASED05	Ho-166m	0.025 J	0.032	0.013	0.0432
EPASED05	K-40	20.2	0.23	0.64	32.4
EPASED05	Na-22	0.0051 U	0.026	0.0079	0.037
EPASED05	Nb-94	0.0155 J	0.016	0.0076	0.0214
EPASED05	Ni-59	0 UL	0.016	0.0058	5.96
EPASED05	Ni-63	-0.07 U	0.48	0.14	4.92
EPASED05	Np-236	0.007 U	0.04	0.012	0.047
EPASED05	Np-239	0.007 U	0.089	0.027	0.139
EPASED05	Pa-231	-0.07 U	0.73	0.22	0.936
EPASED05	Pb-212	1.48	0.028	0.046	2.69
EPASED05	Pb-214	1.14	0.034	0.049	1.7
EPASED05	Pu-236	0.0023 J	0.005	0.0016	7.79
EPASED05	Pu-238	0.0017 J	0.0046	0.0014	0.0415
EPASED05	Pu-239/Pu-240	0.0085 J	0.0012	0.0019	0.0404
EPASED05	Pu-244	0 U	0.0012	0.00048	0.0313
EPASED05	Sb-125	0.113	0.046	0.011	0.354
EPASED05	Sn-126	0.0032 U	0.021	0.0062	0.0237
EPASED05	Sr-90	0.068	0.045	0.015	0.485
EPASED05	Tc-99	0.025 U	0.2	0.058	1.63
EPASED05	Te-125m	0.026 J	0.011	0.0026	0.0838
EPASED05	Th-228	1.4	0.014	0.069	3.98
EPASED05	Th-229	0.0016 U	0.013	0.0031	0.145
EPASED05	Th-230	1.01 J	0.009	0.053	2.2
EPASED05	Th-232	1.39 J	0.006	0.069	3.1
EPASED05	Th-234	0.741 J R	0.2	0.068	3.19
EPASED05	Tl-208	0.464	0.023	0.02	0.937
EPASED05	Tm-171	-1.3 U	6.7	2	72.4
EPASED05	U-233/U-234	0.829	0.005	0.04	2.02
EPASED05	U-235/U-236	0.0377 J	0.0017	0.0051	0.151
EPASED05	U-238	0.898 J	0.005	0.043	1.8
EPASED06	Ac-227	-0.002 U	0.16	0.05	0.217
EPASED06	Ac-228	1.41 J	0.097	0.051	2.4
EPASED06	Am-241	0.0035 J	0.0065	0.0022	0.0454
EPASED06	Bi-212	1.1	0.14	0.084	2.15

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED06	Bi-214	0.957	0.026	0.034	1.59
EPASED06	Cd-113m	0.3 U	48	14	3030
EPASED06	Cm-243/Cm-244	0.0009 U	0.0063	0.0016	0.0443
EPASED06	Cm-245/Cm-246	0.0034 J	0.0084	0.0026	0.0401
EPASED06	Cm-247/Cm-248	0 U	0.0082	0.0017	0.0306
EPASED06	Co-60	-0.0008 U	0.02	0.0015	0.028
EPASED06	Cs-134	0.014 U	0.061	0.0045	0.0864
EPASED06	Cs-137	0.205	0.014	0.01	0.207
EPASED06	Eu-152	-0.008 U	0.045	0.014	0.0566
EPASED06	Eu-154	0.005 U	0.11	0.031	0.15
EPASED06	Eu-155	0.081 J	0.047	0.019	0.231
EPASED06	H-3	0.063 J	0.063	0.02	11.9
EPASED06	Ho-166m	-0.0077 U	0.027	0.0083	0.0432
EPASED06	K-40	20.1 J	0.13	0.61	32.4
EPASED06	Na-22	0.0002 U	0.019	0.0057	0.037
EPASED06	Nb-94	0.007 U	0.015	0.0047	0.0214
EPASED06	Np-236	-0.001 U	0.041	0.012	0.047
EPASED06	Np-239	-0.031 U	0.11	0.032	0.139
EPASED06	Pa-231	0.07 U	0.7	0.21	0.936
EPASED06	Pb-212	1.39	0.035	0.045	2.69
EPASED06	Pb-214	1 J	0.03	0.044	1.7
EPASED06	Pu-236	0 U	0.0013	0.00053	7.79
EPASED06	Pu-238	0.0048 J	0.0071	0.0026	0.0415
EPASED06	Pu-239/Pu-240	0.0067 J	0.0026	0.0026	0.0404
EPASED06	Pu-244	0 U	0.0026	0.0011	0.0313
EPASED06	Sb-125	0.147 J	0.047	0.013	0.354
EPASED06	Sn-126	0.0024 U	0.017	0.0052	0.0237
EPASED06	Sr-90	0.014 U	0.063	0.019	0.485
EPASED06	Tc-99	0.004 U	0.082	0.025	1.63
EPASED06	Te-125m	0.034 J	0.011	0.0031	0.0838
EPASED06	Th-228	1.31	0.01	0.064	3.98
EPASED06	Th-229	0.0042 J	0.0038	0.0024	0.145
EPASED06	Th-230	1	0.002	0.05	2.2
EPASED06	Th-232	1.26	0.008	0.062	3.1
EPASED06	Th-234	1.51 R	0.24	0.089	3.19
EPASED06	Tl-208	0.511	0.019	0.02	0.937
EPASED06	Tm-171	-12.7 R	9.6	3	72.4
EPASED06	U-233/U-234	0.943	0.022	0.052	2.02

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED06	U-235/U-236	0.0485 J	0.015	0.0093	0.151
EPASED06	U-238	0.976	0.003	0.053	1.8
EPASED07	Ac-227	0.031 U	0.11	0.067	0.217
EPASED07	Ac-228	1.22	0.095	0.045	2.4
EPASED07	Am-241	0.0043 J	0.0039	0.0017	0.0454
EPASED07	Bi-212	0.92	0.15	0.088	2.15
EPASED07	Bi-214	0.847	0.03	0.032	1.59
EPASED07	Cd-113m	7 U	43	13	3030
EPASED07	Cm-243/Cm-244	0.00157 J	0.0014	0.00091	0.0443
EPASED07	Cm-245/Cm-246	0.0014 U	0.01	0.0024	0.0401
EPASED07	Cm-247/Cm-248	0 U	0.0098	0.002	0.0306
EPASED07	Co-60	-0.01 U	0.021	0.0065	0.028
EPASED07	Cs-134	-0.0161 UJ	0.019	0.0058	0.0864
EPASED07	Cs-137	0.0565 J	0.015	0.0079	0.207
EPASED07	Eu-152	0.014 U	0.042	0.013	0.0566
EPASED07	Eu-154	0.0089 U	0.12	0.0071	0.15
EPASED07	Eu-155	0.01 U	0.035	0.011	0.231
EPASED07	H-3	-0.005 U	0.078	0.022	11.9
EPASED07	Ho-166m	0.0072 U	0.028	0.0076	0.0432
EPASED07	K-40	20.9	0.15	0.64	32.4
EPASED07	Na-22	0.0018 U	0.027	0.008	0.037
EPASED07	Nb-94	0.0036 U	0.016	0.0033	0.0214
EPASED07	Ni-59	0 UL	0.016	0.0059	5.96
EPASED07	Ni-63	-0.13 U	0.47	0.14	4.92
EPASED07	Np-236	-0.0025 U	0.031	0.0094	0.047
EPASED07	Np-239	0.019 U	0.096	0.029	0.139
EPASED07	Pa-231	0.009 U	0.66	0.2	0.936
EPASED07	Pb-212	1.48	0.023	0.06	2.69
EPASED07	Pb-214	0.961	0.03	0.034	1.7
EPASED07	Pu-236	-0.0004 U	0.0047	0.0011	7.79
EPASED07	Pu-238	0.0005 U	0.005	0.0013	0.0415
EPASED07	Pu-239/Pu-240	0.0032 J	0.0014	0.0013	0.0404
EPASED07	Pu-244	0.00053 U	0.0014	0.00053	0.0313
EPASED07	Sb-125	0.131	0.046	0.012	0.354
EPASED07	Sn-126	0.0016 U	0.019	0.0056	0.0237
EPASED07	Sr-90	0.067	0.062	0.02	0.485
EPASED07	Tc-99	0.035 U	0.17	0.05	1.63
EPASED07	Te-125m	0.0302 J	0.011	0.0027	0.0838

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED07	Th-228	1.23	0.013	0.066	3.98
EPASED07	Th-229	0.0136 J	0.0071	0.004	0.145
EPASED07	Th-230	0.839	0.004	0.049	2.2
EPASED07	Th-232	1.07	0.004	0.059	3.1
EPASED07	Th-234	0.489 J R	0.18	0.059	3.19
EPASED07	Tl-208	0.439	0.016	0.017	0.937
EPASED07	Tm-171	-1 U	6	1.8	72.4
EPASED07	U-233/U-234	1	0.005	0.05	2.02
EPASED07	U-235/U-236	0.0422 J	0.0024	0.0064	0.151
EPASED07	U-238	0.916 J	0.002	0.046	1.8
EPASED08	Ac-227	0.058 U	0.15	0.054	0.217
EPASED08	Ac-228	1.05	0.082	0.042	2.4
EPASED08	Am-241	0.0005 U	0.0046	0.0012	0.0454
EPASED08	Bi-212	0.946	0.14	0.084	2.15
EPASED08	Bi-214	0.961	0.026	0.034	1.59
EPASED08	Cd-113m	9 U	41	12	3030
EPASED08	Cm-243/Cm-244	0 U	0.0013	0.00054	0.0443
EPASED08	Cm-245/Cm-246	0.0023 U	0.014	0.0037	0.0401
EPASED08	Cm-247/Cm-248	0.0022 U	0.0082	0.0023	0.0306
EPASED08	Co-60	0.0027 U	0.02	0.0037	0.028
EPASED08	Cs-134	-0.0256 R	0.018	0.0058	0.0864
EPASED08	Cs-137	0.128	0.016	0.0093	0.207
EPASED08	Eu-152	-0.0019 U	0.04	0.0028	0.0566
EPASED08	Eu-154	-0.0019 U	0.11	0.0024	0.15
EPASED08	Eu-155	0.066 J	0.034	0.013	0.231
EPASED08	H-3	0.089 J	0.063	0.021	11.9
EPASED08	Ho-166m	0.000042 U	0.027	0.000049	0.0432
EPASED08	K-40	20.6	0.15	0.63	32.4
EPASED08	Na-22	0.009 U	0.025	0.0076	0.037
EPASED08	Nb-94	0.0067 U	0.015	0.0046	0.0214
EPASED08	Ni-59	0 UL	0.015	0.0056	5.96
EPASED08	Ni-63	-0.01 U	0.46	0.14	4.92
EPASED08	Np-236	-0.0093 U	0.033	0.0099	0.047
EPASED08	Np-239	-0.01 U	0.09	0.027	0.139
EPASED08	Pa-231	-0.002 U	0.62	0.19	0.936
EPASED08	Pb-212	1.33	0.026	0.055	2.69
EPASED08	Pb-214	1.06	0.027	0.036	1.7
EPASED08	Pu-236	0.0028 J	0.006	0.0019	7.79

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED08	Pu-238	0.0026 J	0.0048	0.0016	0.0415
EPASED08	Pu-239/Pu-240	0.0079 J	0.0061	0.0027	0.0404
EPASED08	Pu-244	-0.00066 U	0.0048	0.00073	0.0313
EPASED08	Sb-125	0.108	0.043	0.0094	0.354
EPASED08	Sn-126	-0.0004 U	0.017	0.0051	0.0237
EPASED08	Sr-90	0.033 J	0.055	0.017	0.485
EPASED08	Tc-99	-0.018 U	0.15	0.045	1.63
EPASED08	Te-125m	0.0249 J	0.01	0.0022	0.0838
EPASED08	Th-228	1.02	0.017	0.061	3.98
EPASED08	Th-228	1.17	0.012	0.064	3.98
EPASED08	Th-229	0.004 J	0.0027	0.002	0.145
EPASED08	Th-230	0.892 J	0.005	0.055	2.2
EPASED08	Th-230	1 J	0.004	0.056	2.2
EPASED08	Th-232	0.993 J	0.011	0.06	3.1
EPASED08	Th-232	1.07 J	0.009	0.059	3.1
EPASED08	Th-234	0.637 J R	0.15	0.053	3.19
EPASED08	Tl-208	0.434	0.019	0.018	0.937
EPASED08	Tm-171	-0.03 U	6.1	1.8	72.4
EPASED08	U-233/U-234	0.662	0.002	0.035	2.02
EPASED08	U-235/U-236	0.0356 J	0.0025	0.0059	0.151
EPASED08	U-238	0.676 J	0.002	0.036	1.8
EPASED09	Ac-227	-0.027 U	0.16	0.048	0.217
EPASED09	Ac-228	1.08	0.077	0.041	2.4
EPASED09	Am-241	0.001 U	0.0048	0.0013	0.0454
EPASED09	Bi-212	0.847	0.11	0.064	2.15
EPASED09	Bi-214	0.882	0.03	0.034	1.59
EPASED09	Cd-113m	-3 U	45	13	3030
EPASED09	Cm-243/Cm-244	0.0005 U	0.0047	0.0012	0.0443
EPASED09	Cm-245/Cm-246	0.0063 J	0.0085	0.003	0.0401
EPASED09	Cm-247/Cm-248	0.0023 U	0.0072	0.0021	0.0306
EPASED09	Co-60	0.00013 U	0.018	0.00029	0.028
EPASED09	Cs-134	0.0122 UJ	0.059	0.0037	0.0864
EPASED09	Cs-137	0.0761 J	0.013	0.0072	0.207
EPASED09	Eu-152	0.0199 U	0.044	0.0099	0.0566
EPASED09	Eu-154	0.031 U	0.1	0.024	0.15
EPASED09	Eu-155	0.076 J	0.05	0.022	0.231
EPASED09	H-3	0.037 J	0.076	0.023	11.9
EPASED09	Ho-166m	0.0177 J	0.026	0.008	0.0432

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED09	K-40	17.6	0.12	0.54	32.4
EPASED09	Na-22	0 U	0.027	0.0041	0.037
EPASED09	Nb-94	0.0018 U	0.015	0.0033	0.0214
EPASED09	Ni-59	0 UL	0.014	0.0051	5.96
EPASED09	Ni-63	-0.1 U	0.43	0.13	4.92
EPASED09	Np-236	-0.012 U	0.039	0.012	0.047
EPASED09	Np-239	-0.009 U	0.1	0.03	0.139
EPASED09	Pa-231	-0.09 U	0.67	0.2	0.936
EPASED09	Pb-212	1.25	0.024	0.039	2.69
EPASED09	Pb-214	0.967	0.03	0.043	1.7
EPASED09	Pu-236	-0.0008 U	0.0048	0.0011	7.79
EPASED09	Pu-238	0.00047 U	0.0035	0.00085	0.0415
EPASED09	Pu-239/Pu-240	0.0033 J	0.0013	0.0013	0.0404
EPASED09	Pu-244	0.00047 U	0.0013	0.00047	0.0313
EPASED09	Sb-125	0.094	0.044	0.009	0.354
EPASED09	Sn-126	0.0008 U	0.013	0.0037	0.0237
EPASED09	Sr-90	0.014 U	0.053	0.016	0.485
EPASED09	Tc-99	-0.04 U	0.17	0.051	1.63
EPASED09	Te-125m	0.0217 J	0.01	0.0021	0.0838
EPASED09	Th-228	1.03	0.006	0.052	3.98
EPASED09	Th-229	0.0031 J	0.0021	0.0016	0.145
EPASED09	Th-230	0.765 J	0.006	0.041	2.2
EPASED09	Th-232	1.02 J	0.006	0.052	3.1
EPASED09	Th-234	1.26 R	0.22	0.079	3.19
EPASED09	Tl-208	0.399	0.016	0.016	0.937
EPASED09	Tm-171	-11.3 R	9.2	2.9	72.4
EPASED09	U-233/U-234	0.8	0.006	0.041	2.02
EPASED09	U-235/U-236	0.033 J	0.0023	0.0055	0.151
EPASED09	U-238	0.859 J	0.002	0.043	1.8
EPASED10	Ac-227	0.109 J	0.11	0.025	0.217
EPASED10	Ac-228	1.2	0.11	0.045	2.4
EPASED10	Am-241	-0.0011 U	0.0069	0.0015	0.0454
EPASED10	Bi-212	0.962	0.15	0.088	2.15
EPASED10	Bi-214	0.976	0.031	0.036	1.59
EPASED10	Cd-113m	13 U	51	15	3030
EPASED10	Cm-243/Cm-244	-0.00112 U	0.0052	0.00089	0.0443
EPASED10	Cm-245/Cm-246	0.0101 J	0.0067	0.0031	0.0401
EPASED10	Cm-247/Cm-248	0.0007 U	0.0052	0.0013	0.0306

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED10	Co-60	-0.0047 U	0.025	0.0075	0.028
EPASED10	Cs-134	0.0145 UJ	0.063	0.0055	0.0864
EPASED10	Cs-137	0.0675 J	0.016	0.008	0.207
EPASED10	Eu-152	0.007 U	0.049	0.014	0.0566
EPASED10	Eu-154	-0.043 U	0.14	0.043	0.15
EPASED10	Eu-155	0.076 J	0.037	0.015	0.231
EPASED10	H-3	0.028 U	0.076	0.023	11.9
EPASED10	Ho-166m	0.009 U	0.028	0.011	0.0432
EPASED10	K-40	24	0.15	0.74	32.4
EPASED10	Na-22	-0.0002 U	0.031	0.0092	0.037
EPASED10	Nb-94	0.0047 U	0.019	0.0056	0.0214
EPASED10	Ni-59	0 UL	0.019	0.0072	5.96
EPASED10	Ni-63	-0.28 U	0.59	0.17	4.92
EPASED10	Np-236	0.0002 U	0.035	0.011	0.047
EPASED10	Np-239	0.018 U	0.11	0.032	0.139
EPASED10	Pa-231	0.06 U	0.73	0.15	0.936
EPASED10	Pb-212	1.56	0.025	0.064	2.69
EPASED10	Pb-214	1.05	0.034	0.038	1.7
EPASED10	Pu-236	0.0123 J	0.0057	0.0028	7.79
EPASED10	Pu-238	0.0033 J	0.0013	0.0013	0.0415
EPASED10	Pu-239/Pu-240	0.0066 J	0.0013	0.0018	0.0404
EPASED10	Pu-244	0.00047 U	0.0013	0.00047	0.0313
EPASED10	Sb-125	0.133	0.052	0.013	0.354
EPASED10	Sn-126	0 U	0.022	0.0046	0.0237
EPASED10	Sr-90	0.044 J	0.053	0.017	0.485
EPASED10	Tc-99	0.02 U	0.16	0.047	1.63
EPASED10	Te-125m	0.0308 J	0.012	0.0029	0.0838
EPASED10	Th-228	1.31	0.01	0.065	3.98
EPASED10	Th-229	0.0088 J	0.0022	0.0027	0.145
EPASED10	Th-230	0.939 J	0.007	0.05	2.2
EPASED10	Th-232	1.17 J	0.003	0.059	3.1
EPASED10	Th-234	0.451 J R	0.2	0.063	3.19
EPASED10	Tl-208	0.477	0.022	0.02	0.937
EPASED10	Tm-171	3.3 U	7	2.1	72.4
EPASED10	U-233/U-234	0.86	0.004	0.041	2.02
EPASED10	U-235/U-236	0.0453 J	0.0015	0.0054	0.151
EPASED10	U-238	0.847 J	0.003	0.041	1.8
EPASED11	Ac-227	0.06 U	0.18	0.072	0.217

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED11	Ac-228	1.25 J	0.11	0.05	2.4
EPASED11	Am-241	0 U	0.01	0.0027	0.0454
EPASED11	Bi-212	1.03 J	0.15	0.084	2.15
EPASED11	Bi-214	1.13	0.033	0.041	1.59
EPASED11	Cd-113m	-0.6 U	51	15	3030
EPASED11	Cm-243/Cm-244	0.0008 U	0.012	0.0034	0.0443
EPASED11	Cm-245/Cm-246	0.0011 U	0.01	0.0026	0.0401
EPASED11	Cm-247/Cm-248	-0.0011 U	0.01	0.002	0.0306
EPASED11	Co-60	-0.00033 U	0.023	0.00086	0.028
EPASED11	Cs-134	0.0102 U	0.063	0.0043	0.0864
EPASED11	Cs-137	0.108	0.016	0.0089	0.207
EPASED11	Eu-152	-0.0031 U	0.047	0.0054	0.0566
EPASED11	Eu-154	-0.00132 U	0.14	0.00088	0.15
EPASED11	Eu-155	0.114 J	0.037	0.015	0.231
EPASED11	H-3	0.091 J	0.061	0.02	11.9
EPASED11	Ho-166m	0.0102 U	0.033	0.0073	0.0432
EPASED11	K-40	21.9 J	0.19	0.68	32.4
EPASED11	Na-22	-0.0044 U	0.022	0.0066	0.037
EPASED11	Nb-94	0.0057 U	0.018	0.0055	0.0214
EPASED11	Np-236	-0.017 U	0.038	0.012	0.047
EPASED11	Np-239	-0.014 U	0.1	0.032	0.139
EPASED11	Pa-231	-0.22 U	0.76	0.23	0.936
EPASED11	Pb-212	1.54	0.035	0.064	2.69
EPASED11	Pb-214	1.27 J	0.033	0.044	1.7
EPASED11	Pu-236	-0.001 U	0.0055	0.0011	7.79
EPASED11	Pu-238	0 U	0.0051	0.0013	0.0415
EPASED11	Pu-239/Pu-240	0.0038 J	0.004	0.0016	0.0404
EPASED11	Pu-244	0.00085 U	0.0031	0.00088	0.0313
EPASED11	Sb-125	0.117 J	0.05	0.011	0.354
EPASED11	Sn-126	-0.007 U	0.022	0.0066	0.0237
EPASED11	Sr-90	0.011 U	0.064	0.019	0.485
EPASED11	Te-125m	0.027 J	0.012	0.0024	0.0838
EPASED11	Th-228	1.32	0.013	0.068	3.98
EPASED11	Th-229	0.0059 J	0.0055	0.0024	0.145
EPASED11	Th-230	1.01	0.011	0.055	2.2
EPASED11	Th-232	1.27	0.01	0.066	3.1
EPASED11	Th-234	1.93 R	0.18	0.11	3.19
EPASED11	Tl-208	0.517	0.021	0.021	0.937

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED11	Tm-171	5.8 J	5.6	2.1	72.4
EPASED11	U-233/U-234	1.19	0.007	0.061	2.02
EPASED11	U-235/U-236	0.0601 J	0.0033	0.009	0.151
EPASED11	U-238	1.19	0.007	0.061	1.8
EPASED12	Ac-227	0.377 J	0.16	0.018	0.217
EPASED12	Ac-228	1.26 J	0.11	0.048	2.4
EPASED12	Am-241	0.0041 U	0.011	0.0033	0.0454
EPASED12	Bi-212	0.939 J	0.13	0.071	2.15
EPASED12	Bi-214	1.03	0.03	0.038	1.59
EPASED12	Cd-113m	8 U	42	13	3030
EPASED12	Cm-243/Cm-244	0.0064 J	0.0097	0.0033	0.0443
EPASED12	Cm-245/Cm-246	0.0021 U	0.0028	0.0015	0.0401
EPASED12	Cm-247/Cm-248	0 U	0.0074	0.0015	0.0306
EPASED12	Co-60	-0.0001 U	0.019	0.0057	0.028
EPASED12	Cs-134	0.0184 U	0.056	0.0067	0.0864
EPASED12	Cs-137	0.0684 J	0.015	0.0079	0.207
EPASED12	Eu-152	-0.011 U	0.043	0.013	0.0566
EPASED12	Eu-154	-0.048 U	0.13	0.039	0.15
EPASED12	Eu-155	0.099 J	0.033	0.014	0.231
EPASED12	H-3	0.08 J	0.06	0.02	11.9
EPASED12	Ho-166m	0.0071 U	0.029	0.006	0.0432
EPASED12	K-40	22.4 J	0.16	0.68	32.4
EPASED12	Na-22	0.0027 U	0.027	0.0081	0.037
EPASED12	Nb-94	0.0063 U	0.016	0.0049	0.0214
EPASED12	Np-236	-0.0087 U	0.033	0.0099	0.047
EPASED12	Np-239	-0.006 U	0.098	0.029	0.139
EPASED12	Pa-231	0.003 U	0.58	0.17	0.936
EPASED12	Pb-212	1.51	0.025	0.062	2.69
EPASED12	Pb-214	1.17 J	0.032	0.041	1.7
EPASED12	Pu-236	0 U	0.0013	0.00054	7.79
EPASED12	Pu-238	0.004 J	0.0036	0.0016	0.0415
EPASED12	Pu-239/Pu-240	0.002 J	0.0046	0.0014	0.0404
EPASED12	Pu-242	0 J	0	0	0.0404
EPASED12	Pu-244	0 U	0.0013	0.00055	0.0313
EPASED12	Sb-125	0.129 J	0.045	0.011	0.354
EPASED12	Sn-126	0.00003 U	0.016	0.0048	0.0237
EPASED12	Sr-90	0.01 U	0.081	0.024	0.485
EPASED12	Tc-99	0.076 J	0.087	0.027	1.63

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED12	Te-125m	0.0298 J	0.01	0.0025	0.0838
EPASED12	Th-228	1.22	0.012	0.063	3.98
EPASED12	Th-229	0.0024 J	0.0055	0.0018	0.145
EPASED12	Th-230	1.16	0.003	0.06	2.2
EPASED12	Th-232	1.33	0.012	0.068	3.1
EPASED12	Th-234	2.41 R	0.17	0.12	3.19
EPASED12	Tl-208	0.46	0.018	0.018	0.937
EPASED12	Tm-171	-3 UL	5.9	1.8	72.4
EPASED12	U-233/U-234	1.74	0.013	0.086	2.02
EPASED12	U-235/U-236	0.09	0.004	0.012	0.151
EPASED12	U-238	1.74	0.003	0.086	1.8
EPASED13	Ac-227	0.106 J	0.15	0.047	0.217
EPASED13	Ac-228	1.76 J	0.12	0.061	2.4
EPASED13	Am-241	0 U	0.012	0.0027	0.0454
EPASED13	Bi-212	1.32	0.18	0.11	2.15
EPASED13	Bi-214	1.41	0.036	0.05	1.59
EPASED13	Cd-113m	18 U	57	17	3030
EPASED13	Cm-243/Cm-244	-0.0074 U	0.021	0.005	0.0443
EPASED13	Cm-245/Cm-246	0.0022 U	0.003	0.0016	0.0401
EPASED13	Cm-247/Cm-248	0.0011 U	0.0079	0.0019	0.0306
EPASED13	Co-60	0.003 U	0.028	0.0031	0.028
EPASED13	Cs-134	0.0129 J	0.014	0.0058	0.0864
EPASED13	Cs-137	0.156	0.021	0.013	0.207
EPASED13	Eu-152	-0.000023 U	0.054	0.000032	0.0566
EPASED13	Eu-154	-0.064 U	0.15	0.047	0.15
EPASED13	Eu-155	0.115 J	0.047	0.02	0.231
EPASED13	H-3	0.079 J	0.062	0.02	11.9
EPASED13	Ho-166m	0.0074 U	0.032	0.0076	0.0432
EPASED13	K-40	21.1 J	0.21	0.66	32.4
EPASED13	Na-22	-0.011 U	0.033	0.01	0.037
EPASED13	Nb-94	0.0094 U	0.021	0.0064	0.0214
EPASED13	Np-236	-0.006 U	0.044	0.013	0.047
EPASED13	Np-239	0.002 U	0.13	0.038	0.139
EPASED13	Pa-231	0.12 U	0.87	0.11	0.936
EPASED13	Pb-212	2.11	0.037	0.086	2.69
EPASED13	Pb-214	1.63 J	0.038	0.054	1.7
EPASED13	Pu-236	0.001 U	0.0085	0.0024	7.79
EPASED13	Pu-238	0.0036 J	0.0056	0.002	0.0415

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED13	Pu-239/Pu-240	0.0036 J	0.0016	0.0015	0.0404
EPASED13	Pu-244	0.0006 U	0.0016	0.0006	0.0313
EPASED13	Sb-125	0.209	0.05	0.018	0.354
EPASED13	Sn-126	0.0002 U	0.025	0.0073	0.0237
EPASED13	Sr-90	0.106 J	0.06	0.021	0.485
EPASED13	Te-125m	0.0482 J	0.011	0.0041	0.0838
EPASED13	Th-228	1.79	0.009	0.089	3.98
EPASED13	Th-229	0.0037 J	0.0099	0.003	0.145
EPASED13	Th-230	1.37	0.012	0.071	2.2
EPASED13	Th-232	1.62	0.009	0.082	3.1
EPASED13	Th-234	3.45	0.22	0.16	3.19
EPASED13	Tl-208	0.648	0.024	0.025	0.937
EPASED13	Tm-171	-7.1 UL	7.2	2.2	72.4
EPASED13	U-233/U-234	2.47	0.003	0.12	2.02
EPASED13	U-235/U-236	0.114	0.004	0.013	0.151
EPASED13	U-238	2.3	0.01	0.11	1.8
EPASED14	Ac-227	0.018 U	0.16	0.061	0.217
EPASED14	Ac-228	1.26 J	0.089	0.044	2.4
EPASED14	Am-241	0.0052 J	0.0055	0.0023	0.0454
EPASED14	Bi-212	0.98 J	0.12	0.057	2.15
EPASED14	Bi-214	0.991	0.031	0.037	1.59
EPASED14	Cd-113m	-13 U	45	14	3030
EPASED14	Cm-243/Cm-244	-0.0037 U	0.013	0.0033	0.0443
EPASED14	Cm-245/Cm-246	0 U	0.0066	0.0014	0.0401
EPASED14	Cm-247/Cm-248	0.0027 J	0.0024	0.0015	0.0306
EPASED14	Co-60	-0.0057 U	0.021	0.0062	0.028
EPASED14	Cs-134	0.014 U	0.055	0.0055	0.0864
EPASED14	Cs-137	0.107	0.015	0.0087	0.207
EPASED14	Eu-152	0.005 U	0.039	0.003	0.0566
EPASED14	Eu-154	-0.04 U	0.11	0.034	0.15
EPASED14	Eu-155	0.085 J	0.037	0.015	0.231
EPASED14	H-3	0.032 J	0.063	0.019	11.9
EPASED14	Ho-166m	0.0396 J	0.029	0.0058	0.0432
EPASED14	K-40	19.7 J	0.16	0.61	32.4
EPASED14	Na-22	0.0052 U	0.025	0.0074	0.037
EPASED14	Nb-94	0.0056 U	0.016	0.0034	0.0214
EPASED14	Np-236	-0.0001 U	0.035	0.01	0.047
EPASED14	Np-239	-0.0006 U	0.08	0.024	0.139

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED14	Pa-231	0.23 U	0.63	0.16	0.936
EPASED14	Pb-212	1.46	0.025	0.045	2.69
EPASED14	Pb-214	1.06 J	0.031	0.045	1.7
EPASED14	Pu-236	-0.00047 U	0.0044	0.00088	7.79
EPASED14	Pu-238	0.0038 J	0.0044	0.0017	0.0415
EPASED14	Pu-239/Pu-240	0.0024 J	0.0013	0.0011	0.0404
EPASED14	Pu-244	0 U	0.0013	0.00052	0.0313
EPASED14	Sb-125	0.102 J	0.047	0.0089	0.354
EPASED14	Sn-126	-0.0002 U	0.018	0.0053	0.0237
EPASED14	Sr-90	0.053 J	0.071	0.022	0.485
EPASED14	Tc-99	0.041 J	0.083	0.025	1.63
EPASED14	Te-125m	0.0234 J	0.011	0.0021	0.0838
EPASED14	Th-228	1.23	0.009	0.062	3.98
EPASED14	Th-229	0.0073 J	0.0059	0.0027	0.145
EPASED14	Th-230	0.958	0.007	0.051	2.2
EPASED14	Th-232	1.06	0.003	0.055	3.1
EPASED14	Th-234	2.17 R	0.19	0.11	3.19
EPASED14	Tl-208	0.481	0.02	0.019	0.937
EPASED14	Tm-171	-3.6 UL	6	1.8	72.4
EPASED14	U-233/U-234	1.59	0.004	0.081	2.02
EPASED14	U-235/U-236	0.081	0.012	0.012	0.151
EPASED14	U-238	1.53	0.004	0.078	1.8
EPASED15	Ac-227	0.044 U	0.16	0.049	0.217
EPASED15	Ac-228	1.14 J	0.097	0.042	2.4
EPASED15	Am-241	0.0008 U	0.0099	0.0026	0.0454
EPASED15	Bi-212	0.9 J	0.13	0.08	2.15
EPASED15	Bi-214	1.02	0.031	0.037	1.59
EPASED15	Cd-113m	-0.2 U	45	13	3030
EPASED15	Cm-243/Cm-244	-0.0041 U	0.011	0.0024	0.0443
EPASED15	Cm-245/Cm-246	0.0016 U	0.0022	0.0011	0.0401
EPASED15	Cm-247/Cm-248	0.00079 U	0.0021	0.00079	0.0306
EPASED15	Co-60	0.0002 U	0.022	0.0066	0.028
EPASED15	Cs-134	0.0187 U	0.054	0.0074	0.0864
EPASED15	Cs-137	0.0642 J	0.015	0.0077	0.207
EPASED15	Eu-152	-0.012 U	0.044	0.013	0.0566
EPASED15	Eu-154	-0.0009 U	0.11	0.0041	0.15
EPASED15	Eu-155	0.079 J	0.033	0.013	0.231
EPASED15	H-3	0.066 J	0.066	0.021	11.9

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED15	Ho-166m	0.0335 J	0.029	0.0061	0.0432
EPASED15	K-40	21.1 J	0.15	0.65	32.4
EPASED15	Na-22	0 U	0.026	0.0077	0.037
EPASED15	Nb-94	0.0087 J	0.016	0.0049	0.0214
EPASED15	Np-236	0.005 U	0.034	0.01	0.047
EPASED15	Np-239	-0.001 U	0.096	0.029	0.139
EPASED15	Pa-231	-0.09 U	0.67	0.2	0.936
EPASED15	Pb-212	1.3	0.027	0.054	2.69
EPASED15	Pb-214	1.12 J	0.03	0.038	1.7
EPASED15	Pu-236	-0.0011 U	0.0059	0.0012	7.79
EPASED15	Pu-238	0.0012 U	0.0044	0.0012	0.0415
EPASED15	Pu-239/Pu-240	0.0012 U	0.0016	0.00085	0.0404
EPASED15	Pu-244	0.0006 U	0.0016	0.0006	0.0313
EPASED15	Sb-125	0.109 J	0.043	0.01	0.354
EPASED15	Sn-126	0.0021 U	0.019	0.0056	0.0237
EPASED15	Sr-90	0.044 J	0.055	0.017	0.485
EPASED15	Te-125m	0.0251 J	0.01	0.0023	0.0838
EPASED15	Th-228	1.12	0.003	0.059	3.98
EPASED15	Th-229	0.0039 J	0.0021	0.0018	0.145
EPASED15	Th-230	1.01	0.011	0.055	2.2
EPASED15	Th-232	1.16	0.003	0.061	3.1
EPASED15	Th-234	1.64 R	0.16	0.092	3.19
EPASED15	Tl-208	0.426	0.017	0.017	0.937
EPASED15	Tm-171	-0.2 U	6.2	1.9	72.4
EPASED15	U-233/U-234	0.912	0.012	0.05	2.02
EPASED15	U-235/U-236	0.0463 J	0.0038	0.0083	0.151
EPASED15	U-238	0.98	0.008	0.053	1.8
EPASED16	Ac-227	0.354	0.16	0.017	0.217
EPASED16	Ac-228	1.25	0.092	0.048	2.4
EPASED16	Am-241	0 U	0.0061	0.0014	0.0454
EPASED16	Bi-212	1.06	0.15	0.091	2.15
EPASED16	Bi-214	0.96	0.031	0.036	1.59
EPASED16	Cd-113m	-9 U	49	15	3030
EPASED16	Cm-243/Cm-244	-0.00064 U	0.0047	0.00072	0.0443
EPASED16	Cm-245/Cm-246	0 U	0.0097	0.0024	0.0401
EPASED16	Cm-247/Cm-248	-0.00089 U	0.0065	0.00099	0.0306
EPASED16	Co-60	-0.0003 U	0.019	0.0057	0.028
EPASED16	Cs-134	0.0187 UJ	0.066	0.0096	0.0864

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED16	Cs-137	0.0384 J	0.016	0.0072	0.207
EPASED16	Eu-152	0.012 U	0.041	0.016	0.0566
EPASED16	Eu-154	-0.054 U	0.12	0.036	0.15
EPASED16	Eu-155	0.105 J	0.052	0.022	0.231
EPASED16	H-3	-0.008 U	0.073	0.021	11.9
EPASED16	Ho-166m	0.0064 U	0.03	0.0049	0.0432
EPASED16	K-40	21.6	0.14	0.66	32.4
EPASED16	Na-22	-0.0006 U	0.025	0.0074	0.037
EPASED16	Nb-94	0.0019 U	0.018	0.0024	0.0214
EPASED16	Ni-59	0 UL	0.014	0.0051	5.96
EPASED16	Ni-63	-0.09 U	0.41	0.12	4.92
EPASED16	Np-236	-0.015 U	0.044	0.013	0.047
EPASED16	Np-239	0.03 U	0.099	0.03	0.139
EPASED16	Pa-231	-0.04 U	0.69	0.21	0.936
EPASED16	Pb-212	1.27	0.037	0.042	2.69
EPASED16	Pb-214	1.02	0.034	0.045	1.7
EPASED16	Pu-236	0.024 J	0.0033	0.0035	7.79
EPASED16	Pu-238	0.0013 J	0.0012	0.00076	0.0415
EPASED16	Pu-239/Pu-240	0.0017 J	0.0032	0.0011	0.0404
EPASED16	Pu-244	0 U	0.0012	0.00048	0.0313
EPASED16	Sb-125	0.147	0.046	0.013	0.354
EPASED16	Sn-126	0.0022 U	0.02	0.0058	0.0237
EPASED16	Sr-90	0.024 U	0.053	0.016	0.485
EPASED16	Tc-99	-0.028 U	0.15	0.043	1.63
EPASED16	Te-125m	0.0339 J	0.011	0.0031	0.0838
EPASED16	Th-228	1.31	0.008	0.067	3.98
EPASED16	Th-229	0.0098 J	0.0033	0.0035	0.145
EPASED16	Th-230	1.06 J	0.01	0.056	2.2
EPASED16	Th-232	1.22 J	0.003	0.063	3.1
EPASED16	Th-234	1.43 R	0.25	0.091	3.19
EPASED16	Tl-208	0.455	0.017	0.018	0.937
EPASED16	Tm-171	5.7 J	7.8	2.9	72.4
EPASED16	U-233/U-234	0.79	0.005	0.041	2.02
EPASED16	U-235/U-236	0.0421 J	0.0025	0.0065	0.151
EPASED16	U-238	0.853 J	0.005	0.044	1.8
EPASED17	Ac-227	0.051 U	0.17	0.037	0.217
EPASED17	Ac-228	1.23 J	0.1	0.045	2.4
EPASED17	Am-241	0.0013 U	0.0062	0.0017	0.0454

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED17	Bi-212	1.01 J	0.15	0.091	2.15
EPASED17	Bi-214	0.963	0.034	0.037	1.59
EPASED17	Cd-113m	-8 U	49	15	3030
EPASED17	Cm-243/Cm-244	-0.0013 U	0.007	0.0014	0.0443
EPASED17	Cm-245/Cm-246	0.0023 J	0.0021	0.0013	0.0401
EPASED17	Cm-247/Cm-248	0.0015 U	0.0056	0.0016	0.0306
EPASED17	Co-60	0.00004 U	0.02	0.0059	0.028
EPASED17	Cs-134	0.0081 U	0.061	0.007	0.0864
EPASED17	Cs-137	0.208	0.02	0.013	0.207
EPASED17	Eu-152	0.0003 U	0.042	0.013	0.0566
EPASED17	Eu-154	-0.055 U	0.13	0.038	0.15
EPASED17	Eu-155	0.068 J	0.036	0.014	0.231
EPASED17	H-3	0.046 J	0.067	0.02	11.9
EPASED17	Ho-166m	0.0072 U	0.031	0.0067	0.0432
EPASED17	K-40	22.4 J	0.19	0.69	32.4
EPASED17	Na-22	-0.0009 U	0.025	0.0075	0.037
EPASED17	Nb-94	0.0042 U	0.018	0.0053	0.0214
EPASED17	Np-236	0.006 U	0.036	0.011	0.047
EPASED17	Np-239	-0.011 U	0.11	0.032	0.139
EPASED17	Pa-231	0.23 U	0.68	0.21	0.936
EPASED17	Pb-212	1.45	0.034	0.061	2.69
EPASED17	Pb-214	1.08 J	0.032	0.037	1.7
EPASED17	Pu-236	0.0005 U	0.0097	0.0028	7.79
EPASED17	Pu-238	0.0046 J	0.0048	0.0019	0.0415
EPASED17	Pu-239/Pu-240	0.0302 J	0.0014	0.0041	0.0404
EPASED17	Pu-244	0.00051 U	0.0014	0.00051	0.0313
EPASED17	Sb-125	0.106 J	0.049	0.011	0.354
EPASED17	Sn-126	0.0029 U	0.019	0.0058	0.0237
EPASED17	Sr-90	0.005 U	0.056	0.016	0.485
EPASED17	Te-125m	0.0245 J	0.011	0.0026	0.0838
EPASED17	Th-228	1.11	0.012	0.056	3.98
EPASED17	Th-229	0.0074 J	0.0019	0.0023	0.145
EPASED17	Th-230	0.796	0.002	0.043	2.2
EPASED17	Th-232	1.1	0.002	0.056	3.1
EPASED17	Th-234	0.35 J R	0.19	0.061	3.19
EPASED17	Tl-208	0.457	0.021	0.019	0.937
EPASED17	Tm-171	-2.8 U	6.2	1.9	72.4
EPASED17	U-233/U-234	0.837	0.001	0.041	2.02

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED17	U-235/U-236	0.0366 J	0.005	0.0053	0.151
EPASED17	U-238	0.813	0.001	0.04	1.8
EPASED18	Ac-227	0.05 U	0.14	0.016	0.217
EPASED18	Ac-228	1.31	0.071	0.043	2.4
EPASED18	Am-241	0.0042 J	0.0065	0.0023	0.0454
EPASED18	Bi-212	1.06	0.12	0.077	2.15
EPASED18	Bi-214	0.968	0.025	0.034	1.59
EPASED18	Cd-113m	-7 U	39	12	3030
EPASED18	Cm-243/Cm-244	0.00069 U	0.0019	0.00069	0.0443
EPASED18	Cm-245/Cm-246	0.0128 J	0.0099	0.0042	0.0401
EPASED18	Cm-247/Cm-248	0 U	0.0066	0.0013	0.0306
EPASED18	Co-60	-0.0002 U	0.016	0.0046	0.028
EPASED18	Cs-134	0.0157 UJ	0.043	0.0048	0.0864
EPASED18	Cs-137	0.0572 J	0.012	0.0056	0.207
EPASED18	Eu-152	0.019 J	0.037	0.013	0.0566
EPASED18	Eu-154	-0.021 U	0.095	0.028	0.15
EPASED18	Eu-155	0.083 J	0.034	0.014	0.231
EPASED18	H-3	0.065 J	0.069	0.022	11.9
EPASED18	Ho-166m	0.0374 J	0.023	0.0049	0.0432
EPASED18	K-40	23.9	0.15	0.71	32.4
EPASED18	Na-22	-0.0001 U	0.022	0.0064	0.037
EPASED18	Nb-94	0.0079 J	0.014	0.0042	0.0214
EPASED18	Ni-59	0 UL	0.015	0.018	5.96
EPASED18	Ni-63	-0.08 U	0.47	0.14	4.92
EPASED18	Np-236	-0.0168 UL	0.031	0.0095	0.047
EPASED18	Np-239	-0.009 U	0.087	0.026	0.139
EPASED18	Pa-231	0.03 U	0.55	0.17	0.936
EPASED18	Pb-212	1.64	0.023	0.066	2.69
EPASED18	Pb-214	1.09	0.026	0.036	1.7
EPASED18	Pu-236	0.01 J	0.0041	0.0025	7.79
EPASED18	Pu-238	0.0014 U	0.0051	0.0014	0.0415
EPASED18	Pu-239/Pu-240	0.0041 J	0.0019	0.0017	0.0404
EPASED18	Pu-244	0.00069 U	0.0019	0.00069	0.0313
EPASED18	Sb-125	0.146	0.036	0.011	0.354
EPASED18	Sn-126	0.0003 U	0.014	0.0042	0.0237
EPASED18	Sr-90	0.044 J	0.054	0.017	0.485
EPASED18	Tc-99	0.09	0.19	0.056	1.63
EPASED18	Te-125m	0.0338 J	0.0084	0.0026	0.0838

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED18	Th-228	1.2	0.013	0.06	3.98
EPASED18	Th-229	0.005 J	0.0075	0.0027	0.145
EPASED18	Th-230	0.825 J	0.006	0.044	2.2
EPASED18	Th-232	1.2 J	0.002	0.06	3.1
EPASED18	Th-234	1.68 R	0.16	0.093	3.19
EPASED18	Tl-208	0.497	0.016	0.018	0.937
EPASED18	Tm-171	-0.02 U	6.2	1.9	72.4
EPASED18	U-233/U-234	0.833	0.005	0.042	2.02
EPASED18	U-235/U-236	0.032 J	0.0021	0.0052	0.151
EPASED18	U-238	0.914 J	0.002	0.045	1.8
EPASED19	Ac-227	0.029 U	0.088	0.028	0.217
EPASED19	Ac-228	1.23 J	0.073	0.043	2.4
EPASED19	Am-241	0 U	0.0081	0.0016	0.0454
EPASED19	Bi-212	1.01 J	0.13	0.077	2.15
EPASED19	Bi-214	0.966	0.027	0.034	1.59
EPASED19	Cd-113m	-14 U	42	13	3030
EPASED19	Cm-243/Cm-244	-0.0011 U	0.014	0.0034	0.0443
EPASED19	Cm-245/Cm-246	0.001 U	0.012	0.003	0.0401
EPASED19	Cm-247/Cm-248	0.0019 U	0.0025	0.0013	0.0306
EPASED19	Co-60	0 U	0.019	0.0035	0.028
EPASED19	Cs-134	0.0025 U	0.048	0.0022	0.0864
EPASED19	Cs-137	0.188	0.014	0.0095	0.207
EPASED19	Eu-152	-0.019 U	0.039	0.012	0.0566
EPASED19	Eu-154	0.012 U	0.088	0.018	0.15
EPASED19	Eu-155	0.078 J	0.036	0.015	0.231
EPASED19	H-3	0.038 J	0.066	0.02	11.9
EPASED19	Ho-166m	0.0309 J	0.025	0.0046	0.0432
EPASED19	K-40	18.9 J	0.16	0.58	32.4
EPASED19	Na-22	-0.002 U	0.022	0.0064	0.037
EPASED19	Nb-94	0.0002 U	0.014	0.0042	0.0214
EPASED19	Np-236	-0.0033 U	0.027	0.008	0.047
EPASED19	Np-239	-0.0005 U	0.086	0.026	0.139
EPASED19	Pa-231	-0.13 U	0.59	0.18	0.936
EPASED19	Pb-212	1.43	0.022	0.043	2.69
EPASED19	Pb-214	0.987 J	0.027	0.042	1.7
EPASED19	Pu-236	0.001 U	0.0039	0.0011	7.79
EPASED19	Pu-238	0.0029 U	0.01	0.003	0.0415
EPASED19	Pu-239/Pu-240	0.0058 J	0.0071	0.0028	0.0404

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED19	Pu-244	0 U	0.0026	0.0011	0.0313
EPASED19	Sb-125	0.127 J	0.04	0.0096	0.354
EPASED19	Sn-126	0.0015 U	0.015	0.0046	0.0237
EPASED19	Sr-90	0.185 J	0.06	0.024	0.485
EPASED19	Te-125m	0.0294 J	0.0093	0.0022	0.0838
EPASED19	Th-228	1.3	0.011	0.065	3.98
EPASED19	Th-229	0.005 J	0.0027	0.0023	0.145
EPASED19	Th-230	0.98	0.01	0.051	2.2
EPASED19	Th-232	1.15	0.007	0.058	3.1
EPASED19	Th-234	1.76 R	0.16	0.09	3.19
EPASED19	Tl-208	0.483	0.015	0.018	0.937
EPASED19	Tm-171	-3.3 UL	5.4	1.7	72.4
EPASED19	U-233/U-234	1.23	0.009	0.063	2.02
EPASED19	U-235/U-236	0.0649 J	0.0034	0.0095	0.151
EPASED19	U-238	1.2	0.008	0.062	1.8
EPASED20	Ac-227	-0.04 U	0.18	0.054	0.217
EPASED20	Ac-228	1.05 J	0.096	0.043	2.4
EPASED20	Am-241	0.0009 U	0.0087	0.0022	0.0454
EPASED20	Bi-212	0.902 J	0.14	0.08	2.15
EPASED20	Bi-214	0.813	0.028	0.031	1.59
EPASED20	Cd-113m	0.9 U	47	14	3030
EPASED20	Cm-243/Cm-244	0 U	0.0025	0.001	0.0443
EPASED20	Cm-245/Cm-246	0.0018 U	0.0068	0.0019	0.0401
EPASED20	Cm-247/Cm-248	0.0018 U	0.0024	0.0013	0.0306
EPASED20	Co-60	-0.0014 U	0.018	0.0052	0.028
EPASED20	Cs-134	0.012 U	0.068	0.0087	0.0864
EPASED20	Cs-137	0.0606 J	0.016	0.0077	0.207
EPASED20	Eu-152	0.008 U	0.049	0.0055	0.0566
EPASED20	Eu-154	0.032 J	0.063	0.019	0.15
EPASED20	Eu-155	0.099 J	0.047	0.019	0.231
EPASED20	H-3	-0.007 K	0.076	0.02	11.9
EPASED20	Ho-166m	-0.0025 U	0.031	0.0038	0.0432
EPASED20	K-40	22.8 J	0.14	0.7	32.4
EPASED20	Na-22	0 U	0.027	0.008	0.037
EPASED20	Nb-94	0.0036 U	0.016	0.0049	0.0214
EPASED20	Np-236	-0.01 U	0.041	0.012	0.047
EPASED20	Np-239	0.022 U	0.11	0.032	0.139
EPASED20	Pa-231	0.12 U	0.59	0.14	0.936

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED20	Pb-212	1.15	0.038	0.039	2.69
EPASED20	Pb-214	0.911 J	0.032	0.041	1.7
EPASED20	Pu-236	-0.0027 U	0.0067	0.0014	7.79
EPASED20	Pu-238	0.0006 U	0.0052	0.0013	0.0415
EPASED20	Pu-239/Pu-240	0.0034 J	0.0042	0.0016	0.0404
EPASED20	Pu-244	0.00112 U	0.0015	0.0008	0.0313
EPASED20	Sb-125	0.108 J	0.052	0.013	0.354
EPASED20	Sn-126	0.0055 U	0.019	0.0057	0.0237
EPASED20	Sr-90	0.075 J	0.068	0.022	0.485
EPASED20	Te-125m	0.0249 J	0.012	0.0031	0.0838
EPASED20	Th-228	0.966	0.012	0.052	3.98
EPASED20	Th-229	0.005 J	0.0052	0.0022	0.145
EPASED20	Th-230	0.74	0.003	0.042	2.2
EPASED20	Th-232	0.912	0.008	0.05	3.1
EPASED20	Th-234	1.12 R	0.25	0.085	3.19
EPASED20	Tl-208	0.416	0.019	0.018	0.937
EPASED20	Tm-171	-8.5 UL	11	3.2	72.4
EPASED20	U-233/U-234	0.688	0.012	0.04	2.02
EPASED20	U-235/U-236	0.0349 J	0.01	0.0074	0.151
EPASED20	U-238	0.698	0.003	0.04	1.8
EPASED21	Ac-227	0.006 U	0.16	0.054	0.217
EPASED21	Ac-228	1.09	0.11	0.043	2.4
EPASED21	Am-241	0.00133 U	0.0018	0.00094	0.0454
EPASED21	Bi-212	0.934	0.15	0.085	2.15
EPASED21	Bi-214	0.956	0.034	0.037	1.59
EPASED21	Cd-113m	8 U	46	14	3030
EPASED21	Cm-243/Cm-244	0 U	0.0048	0.00098	0.0443
EPASED21	Cm-245/Cm-246	0.0107 J	0.0029	0.0034	0.0401
EPASED21	Cm-247/Cm-248	-0.0011 U	0.0077	0.0012	0.0306
EPASED21	Co-60	0.0014 U	0.022	0.0064	0.028
EPASED21	Cs-134	0.008 UJ	0.057	0.0047	0.0864
EPASED21	Cs-137	0.0412 J	0.013	0.006	0.207
EPASED21	Eu-152	0.026 J	0.043	0.014	0.0566
EPASED21	Eu-154	0.028 U	0.12	0.036	0.15
EPASED21	Eu-155	0.022 J	0.039	0.012	0.231
EPASED21	H-3	0.004 U	0.071	0.021	11.9
EPASED21	Ho-166m	0.0146 J	0.027	0.0058	0.0432
EPASED21	K-40	25.2	0.19	0.77	32.4

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED21	Na-22	-0.0111 U	0.03	0.0091	0.037
EPASED21	Nb-94	0.0093 J	0.016	0.005	0.0214
EPASED21	Ni-59	0 UL	0.015	0.013	5.96
EPASED21	Ni-63	-0.12 U	0.47	0.14	4.92
EPASED21	Np-236	0.0008 U	0.036	0.011	0.047
EPASED21	Np-239	-0.008 U	0.096	0.029	0.139
EPASED21	Pa-231	-0.02 U	0.6	0.18	0.936
EPASED21	Pb-212	1.17	0.031	0.038	2.69
EPASED21	Pb-214	1.03	0.032	0.045	1.7
EPASED21	Pu-236	0.0118 J	0.0044	0.0026	7.79
EPASED21	Pu-238	0.0028 J	0.0025	0.0016	0.0415
EPASED21	Pu-239/Pu-240	0.00092 U	0.0025	0.00092	0.0404
EPASED21	Pu-244	-0.0009 U	0.0068	0.001	0.0313
EPASED21	Sb-125	0.0938	0.048	0.0099	0.354
EPASED21	Sn-126	0 U	0.02	0.0048	0.0237
EPASED21	Sr-90	-0.009 U	0.053	0.015	0.485
EPASED21	Tc-99	0.138	0.19	0.058	1.63
EPASED21	Te-125m	0.0217 J	0.011	0.0023	0.0838
EPASED21	Th-228	0.958 J	0.01	0.05	3.98
EPASED21	Th-229	0.0054 J	0.003	0.0024	0.145
EPASED21	Th-230	0.833 J	0.01	0.044	2.2
EPASED21	Th-232	0.936 J	0.006	0.049	3.1
EPASED21	Th-234	0.234 J R	0.26	0.034	3.19
EPASED21	Tl-208	0.392	0.018	0.016	0.937
EPASED21	Tm-171	-4 UL	6.8	2.1	72.4
EPASED21	U-233/U-234	0.709	0.008	0.039	2.02
EPASED21	U-235/U-236	0.0357 J	0.0077	0.0065	0.151
EPASED21	U-238	0.81 J	0.002	0.043	1.8
EPASED22	Ac-227	0.06 U	0.17	0.052	0.217
EPASED22	Ac-228	1.21	0.1	0.048	2.4
EPASED22	Am-241	0 U	0.0051	0.0012	0.0454
EPASED22	Bi-212	0.889	0.14	0.079	2.15
EPASED22	Bi-214	0.984	0.035	0.038	1.59
EPASED22	Cd-113m	-0.4 U	43	13	3030
EPASED22	Cm-243/Cm-244	0.0018 J	0.0034	0.0012	0.0443
EPASED22	Cm-245/Cm-246	0.007 J	0.0057	0.0026	0.0401
EPASED22	Cm-247/Cm-248	0.0023 J	0.0021	0.0013	0.0306
EPASED22	Co-60	0.0065 U	0.023	0.0055	0.028

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED22	Cs-134	-0.002 UJ	0.061	0.018	0.0864
EPASED22	Cs-137	0.107	0.015	0.0085	0.207
EPASED22	Eu-152	-0.012 U	0.048	0.014	0.0566
EPASED22	Eu-154	-0.032 U	0.12	0.037	0.15
EPASED22	Eu-155	0.105 J	0.038	0.016	0.231
EPASED22	H-3	0.007 U	0.072	0.021	11.9
EPASED22	Ho-166m	0.008 U	0.03	0.011	0.0432
EPASED22	K-40	22.4	0.15	0.69	32.4
EPASED22	Na-22	0.0019 U	0.026	0.0078	0.037
EPASED22	Nb-94	0.0026 U	0.017	0.0034	0.0214
EPASED22	Ni-59	0 UL	0.014	0.0052	5.96
EPASED22	Ni-63	0.003 U	0.4	0.12	4.92
EPASED22	Np-236	-0.007 U	0.032	0.0095	0.047
EPASED22	Np-239	0.002 U	0.1	0.031	0.139
EPASED22	Pa-231	-0.13 U	0.72	0.22	0.936
EPASED22	Pb-212	1.49	0.026	0.061	2.69
EPASED22	Pb-214	1.1	0.033	0.038	1.7
EPASED22	Pu-236	0.00157 J	0.0014	0.00091	7.79
EPASED22	Pu-238	0.00137 U	0.0019	0.00097	0.0415
EPASED22	Pu-239/Pu-240	0.0041 J	0.0019	0.0017	0.0404
EPASED22	Pu-244	0 U	0.0018	0.00076	0.0313
EPASED22	Sb-125	0.148	0.049	0.014	0.354
EPASED22	Sn-126	-0.0003 U	0.021	0.0062	0.0237
EPASED22	Sr-90	0.051 J	0.059	0.019	0.485
EPASED22	Tc-99	0.035 U	0.2	0.06	1.63
EPASED22	Te-125m	0.0343 J	0.011	0.0033	0.0838
EPASED22	Th-228	1.05	0.008	0.056	3.98
EPASED22	Th-229	0.0072 J	0.0075	0.0031	0.145
EPASED22	Th-230	0.843 J	0.003	0.047	2.2
EPASED22	Th-232	1.07 J	0.008	0.057	3.1
EPASED22	Th-234	1.65 R	0.18	0.099	3.19
EPASED22	Tl-208	0.454	0.019	0.018	0.937
EPASED22	Tm-171	-2.5 U	6.1	1.9	72.4
EPASED22	U-233/U-234	0.794	0.004	0.04	2.02
EPASED22	U-235/U-236	0.0454 J	0.0053	0.0061	0.151
EPASED22	U-238	0.801 J	0.002	0.04	1.8
EPASED23	Ac-227	0.08 J	0.14	0.043	0.217
EPASED23	Ac-228	1.21	0.089	0.044	2.4

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED23	Am-241	0.0044 J	0.0051	0.002	0.0454
EPASED23	Bi-212	1.01	0.16	0.091	2.15
EPASED23	Bi-214	1.1	0.031	0.04	1.59
EPASED23	Cd-113m	-14 U	46	14	3030
EPASED23	Cm-243/Cm-244	0.0005 U	0.0051	0.0013	0.0443
EPASED23	Cm-245/Cm-246	0.0029 J	0.0071	0.0022	0.0401
EPASED23	Cm-247/Cm-248	0 U	0.0026	0.0011	0.0306
EPASED23	Co-60	-0.0073 U	0.023	0.0069	0.028
EPASED23	Cs-134	0.001 UJ	0.038	0.011	0.0864
EPASED23	Cs-137	0.0809	0.016	0.0078	0.207
EPASED23	Eu-152	-0.00077 U	0.045	0.0009	0.0566
EPASED23	Eu-154	0.0007 U	0.11	0.0026	0.15
EPASED23	Eu-155	0.079 J	0.038	0.015	0.231
EPASED23	H-3	0.011 U	0.076	0.022	11.9
EPASED23	Ho-166m	0.0402 J	0.027	0.0056	0.0432
EPASED23	K-40	22.1	0.18	0.68	32.4
EPASED23	Na-22	0.0012 U	0.022	0.0063	0.037
EPASED23	Nb-94	0.0007 U	0.019	0.0039	0.0214
EPASED23	Ni-59	0 UL	0.018	0.0065	5.96
EPASED23	Ni-63	0.07 U	0.52	0.15	4.92
EPASED23	Np-236	0.001 U	0.035	0.011	0.047
EPASED23	Np-239	0.009 U	0.1	0.031	0.139
EPASED23	Pa-231	0.25	0.45	0.15	0.936
EPASED23	Pb-212	1.48	0.029	0.061	2.69
EPASED23	Pb-214	1.17	0.032	0.04	1.7
EPASED23	Pu-236	-0.00089 U	0.0041	0.0007	7.79
EPASED23	Pu-238	0.0036 J	0.0068	0.0022	0.0415
EPASED23	Pu-239/Pu-240	0.0022 J	0.0054	0.0017	0.0404
EPASED23	Pu-244	0 U	0.002	0.00081	0.0313
EPASED23	Sb-125	0.123	0.05	0.011	0.354
EPASED23	Sn-126	-0.009 U	0.021	0.0063	0.0237
EPASED23	Sr-90	0.023 U	0.062	0.019	0.485
EPASED23	Tc-99	-0.069 U	0.17	0.049	1.63
EPASED23	Te-125m	0.0284 J	0.012	0.0026	0.0838
EPASED23	Th-228	1.06	0.005	0.058	3.98
EPASED23	Th-229	0.0071 J	0.0074	0.0031	0.145
EPASED23	Th-230	0.903 J	0.004	0.051	2.2
EPASED23	Th-232	1.06 J	0.004	0.058	3.1

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED23	Th-234	0.501 J R	0.18	0.059	3.19
EPASED23	Tl-208	0.495	0.018	0.019	0.937
EPASED23	Tm-171	-2.6 U	6.7	2	72.4
EPASED23	U-233/U-234	0.772	0.001	0.037	2.02
EPASED23	U-235/U-236	0.0375 J	0.0015	0.0049	0.151
EPASED23	U-238	0.812 J	0.001	0.039	1.8
EPASED24	Ac-227	0.064 U	0.17	0.078	0.217
EPASED24	Ac-228	1.37	0.11	0.051	2.4
EPASED24	Am-241	0.0059 J	0.004	0.002	0.0454
EPASED24	Bi-212	1.12	0.15	0.092	2.15
EPASED24	Bi-214	1.1	0.034	0.04	1.59
EPASED24	Cd-113m	5 U	47	14	3030
EPASED24	Cm-243/Cm-244	-0.0021 U	0.01	0.0027	0.0443
EPASED24	Cm-245/Cm-246	0.01 J	0.003	0.0034	0.0401
EPASED24	Cm-247/Cm-248	0.0033 J	0.003	0.0019	0.0306
EPASED24	Co-60	0.00058 U	0.023	0.00052	0.028
EPASED24	Cs-134	0.0187 J	0.015	0.0067	0.0864
EPASED24	Cs-137	0.0963	0.015	0.0083	0.207
EPASED24	Eu-152	-0.007 U	0.046	0.014	0.0566
EPASED24	Eu-154	0.013 U	0.091	0.015	0.15
EPASED24	Eu-155	0.074 J	0.038	0.015	0.231
EPASED24	H-3	0.054 J	0.059	0.019	11.9
EPASED24	Ho-166m	0.0078 U	0.03	0.0091	0.0432
EPASED24	K-40	20.9	0.16	0.65	32.4
EPASED24	Na-22	-0.0032 U	0.028	0.0082	0.037
EPASED24	Nb-94	0.0067 U	0.017	0.0052	0.0214
EPASED24	Ni-59	0 UL	0.013	0.0049	5.96
EPASED24	Ni-63	-0.07 U	0.4	0.12	4.92
EPASED24	Np-236	-0.01 U	0.037	0.011	0.047
EPASED24	Np-239	-0.006 U	0.077	0.023	0.139
EPASED24	Pa-231	-0.05 U	0.7	0.21	0.936
EPASED24	Pb-212	1.65	0.026	0.067	2.69
EPASED24	Pb-214	1.17	0.033	0.041	1.7
EPASED24	Pu-236	-0.00135 U	0.0048	0.00087	7.79
EPASED24	Pu-238	0.0032 J	0.006	0.002	0.0415
EPASED24	Pu-239/Pu-240	0.0016 U	0.0022	0.0012	0.0404
EPASED24	Pu-244	0 U	0.006	0.0012	0.0313
EPASED24	Sb-125	0.137	0.049	0.011	0.354

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED24	Sn-126	-0.0012 U	0.021	0.0061	0.0237
EPASED24	Sr-90	0.006 U	0.06	0.018	0.485
EPASED24	Tc-99	0.035 U	0.2	0.058	1.63
EPASED24	Te-125m	0.0317 J	0.011	0.0026	0.0838
EPASED24	Th-228	1.22	0.009	0.064	3.98
EPASED24	Th-229	0.00007 U	0.012	0.0029	0.145
EPASED24	Th-230	0.888 J	0.009	0.049	2.2
EPASED24	Th-232	1.16 J	0.009	0.061	3.1
EPASED24	Th-234	0.765 J R	0.17	0.062	3.19
EPASED24	Tl-208	0.482	0.021	0.02	0.937
EPASED24	Tm-171	-1.9 U	5.9	1.8	72.4
EPASED24	U-233/U-234	0.867	0.003	0.041	2.02
EPASED24	U-235/U-236	0.0466 J	0.0038	0.0053	0.151
EPASED24	U-238	0.855 J	0.001	0.04	1.8
EPASED25	Ac-227	0.04 U	0.16	0.049	0.217
EPASED25	Ac-228	1.26 J	0.12	0.05	2.4
EPASED25	Am-241	-0.0035 U	0.016	0.004	0.0454
EPASED25	Bi-212	1 J	0.14	0.083	2.15
EPASED25	Bi-214	1.03	0.029	0.037	1.59
EPASED25	Cd-113m	-4 U	47	14	3030
EPASED25	Cm-243/Cm-244	-0.0086 U	0.02	0.0049	0.0443
EPASED25	Cm-245/Cm-246	0.0023 U	0.011	0.0029	0.0401
EPASED25	Cm-247/Cm-248	0 U	0.003	0.0013	0.0306
EPASED25	Co-60	0.0023 U	0.025	0.0034	0.028
EPASED25	Cs-134	0.0282 J	0.01	0.0037	0.0864
EPASED25	Cs-137	0.106	0.017	0.0094	0.207
EPASED25	Eu-152	-0.004 U	0.047	0.014	0.0566
EPASED25	Eu-154	0.0062 U	0.14	0.0083	0.15
EPASED25	Eu-155	0.067 J	0.036	0.014	0.231
EPASED25	H-3	0.013 K	0.062	0.018	11.9
EPASED25	Ho-166m	0.012 U	0.031	0.012	0.0432
EPASED25	K-40	22 J	0.17	0.68	32.4
EPASED25	Na-22	-0.0052 U	0.028	0.0085	0.037
EPASED25	Nb-94	0.0068 U	0.018	0.0037	0.0214
EPASED25	Np-236	-0.011 U	0.036	0.011	0.047
EPASED25	Np-239	-0.022 U	0.1	0.032	0.139
EPASED25	Pa-231	-0.06 U	0.74	0.22	0.936
EPASED25	Pb-212	1.44	0.029	0.06	2.69

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED25	Pb-214	1.14 J	0.034	0.039	1.7
EPASED25	Pu-236	-0.00055 U	0.004	0.00061	7.79
EPASED25	Pu-238	0.0006 U	0.0067	0.0018	0.0415
EPASED25	Pu-239/Pu-240	0.0061 J	0.0015	0.0019	0.0404
EPASED25	Pu-244	0.00111 U	0.0015	0.00079	0.0313
EPASED25	Sb-125	0.107 J	0.049	0.01	0.354
EPASED25	Sn-126	0.0017 U	0.018	0.0054	0.0237
EPASED25	Sr-90	0.022 U	0.056	0.017	0.485
EPASED25	Te-125m	0.0247 J	0.011	0.0024	0.0838
EPASED25	Th-228	1.18	0.009	0.06	3.98
EPASED25	Th-229	0.0018 U	0.0068	0.0019	0.145
EPASED25	Th-230	0.987	0.012	0.052	2.2
EPASED25	Th-232	1.18	0.003	0.06	3.1
EPASED25	Th-234	0.426 J R	0.19	0.06	3.19
EPASED25	Tl-208	0.466	0.02	0.019	0.937
EPASED25	Tm-171	-0.2 U	6.8	2.1	72.4
EPASED25	U-233/U-234	0.819	0.011	0.045	2.02
EPASED25	U-235/U-236	0.037 J	0.0033	0.0069	0.151
EPASED25	U-238	0.873	0.003	0.047	1.8
EPASED26	Ac-227	0.05 U	0.15	0.06	0.217
EPASED26	Ac-228	1.52 J	0.076	0.056	2.4
EPASED26	Am-241	0.0018 U	0.0099	0.0027	0.0454
EPASED26	Bi-212	1.14	0.14	0.089	2.15
EPASED26	Bi-214	1.14	0.028	0.039	1.59
EPASED26	Cd-113m	-0.7 U	35	11	3030
EPASED26	Cm-243/Cm-244	0.0036 J	0.0084	0.0026	0.0443
EPASED26	Cm-245/Cm-246	-0.0018 U	0.0083	0.0014	0.0401
EPASED26	Cm-247/Cm-248	0.0026 J	0.0024	0.0015	0.0306
EPASED26	Co-60	-0.0017 U	0.018	0.0053	0.028
EPASED26	Cs-134	0.0096 U	0.05	0.0033	0.0864
EPASED26	Cs-137	0.0827	0.014	0.0078	0.207
EPASED26	Eu-152	0.015 U	0.041	0.013	0.0566
EPASED26	Eu-154	-0.0056 U	0.1	0.0045	0.15
EPASED26	Eu-155	0.093 J	0.037	0.015	0.231
EPASED26	H-3	0.041 J	0.063	0.019	11.9
EPASED26	Ho-166m	0.0127 J	0.025	0.0096	0.0432
EPASED26	K-40	24 J	0.17	0.72	32.4
EPASED26	Na-22	0 U	0.027	0.0067	0.037

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED26	Nb-94	0.0135 J	0.011	0.0048	0.0214
EPASED26	Np-236	-0.004 U	0.034	0.01	0.047
EPASED26	Np-239	-0.017 U	0.093	0.028	0.139
EPASED26	Pa-231	0.08 U	0.62	0.19	0.936
EPASED26	Pb-212	1.8	0.026	0.073	2.69
EPASED26	Pb-214	1.32 J	0.028	0.044	1.7
EPASED26	Pu-236	-0.0016 U	0.011	0.0031	7.79
EPASED26	Pu-238	0.0017 U	0.0053	0.0016	0.0415
EPASED26	Pu-239/Pu-240	0.004 J	0.0042	0.0017	0.0404
EPASED26	Pu-244	0.00057 U	0.0015	0.00057	0.0313
EPASED26	Sb-125	0.146 J	0.042	0.011	0.354
EPASED26	Sn-126	0.0079 J	0.012	0.0038	0.0237
EPASED26	Sr-90	0.006 U	0.054	0.016	0.485
EPASED26	Te-125m	0.0337 J	0.0096	0.0026	0.0838
EPASED26	Th-228	1.33	0.012	0.067	3.98
EPASED26	Th-229	0.0038 J	0.0071	0.0024	0.145
EPASED26	Th-230	0.969	0.011	0.052	2.2
EPASED26	Th-232	1.27	0.003	0.065	3.1
EPASED26	Th-234	1.91 R	0.17	0.1	3.19
EPASED26	Tl-208	0.547	0.017	0.02	0.937
EPASED26	Tm-171	1.4 U	4.6	1.4	72.4
EPASED26	U-233/U-234	0.905 K	0.002	0.047	2.02
EPASED26	U-235/U-236	0.0485 J	0.0029	0.0074	0.151
EPASED26	U-238	0.919 K	0.002	0.048	1.8
EPASED27	Ac-227	0.048 U	0.17	0.051	0.217
EPASED27	Ac-228	1.15 J	0.11	0.045	2.4
EPASED27	Am-241	0 U	0.01	0.0025	0.0454
EPASED27	Bi-212	1.02 J	0.16	0.1	2.15
EPASED27	Bi-214	0.997	0.028	0.036	1.59
EPASED27	Cd-113m	1 U	47	14	3030
EPASED27	Cm-243/Cm-244	0 U	0.0088	0.0021	0.0443
EPASED27	Cm-245/Cm-246	0.0025 J	0.0023	0.0015	0.0401
EPASED27	Cm-247/Cm-248	0 U	0.0061	0.0012	0.0306
EPASED27	Co-60	0.001 U	0.021	0.0052	0.028
EPASED27	Cs-134	0.01 U	0.057	0.017	0.0864
EPASED27	Cs-137	0.0611 J	0.014	0.0068	0.207
EPASED27	Eu-152	0.0078 U	0.042	0.0054	0.0566
EPASED27	Eu-154	-0.043 U	0.12	0.037	0.15

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED27	Eu-155	0.047 J	0.034	0.011	0.231
EPASED27	H-3	0.024 K	0.063	0.019	11.9
EPASED27	Ho-166m	-0.0007 U	0.03	0.0089	0.0432
EPASED27	K-40	21.8 J	0.18	0.67	32.4
EPASED27	Na-22	0.0038 U	0.027	0.0079	0.037
EPASED27	Nb-94	0.0034 U	0.017	0.0035	0.0214
EPASED27	Np-236	0.0006 U	0.036	0.011	0.047
EPASED27	Np-239	-0.009 U	0.097	0.029	0.139
EPASED27	Pa-231	0.01 U	0.68	0.2	0.936
EPASED27	Pb-212	1.44	0.025	0.059	2.69
EPASED27	Pb-214	1.11 J	0.033	0.039	1.7
EPASED27	Pu-236	-0.0025 U	0.011	0.0028	7.79
EPASED27	Pu-238	-0.0012 U	0.0062	0.0013	0.0415
EPASED27	Pu-239/Pu-240	0.0058 J	0.0016	0.0018	0.0404
EPASED27	Pu-244	0.00057 U	0.0016	0.00058	0.0313
EPASED27	Sb-125	0.11 J	0.046	0.011	0.354
EPASED27	Sn-126	0.0133 J	0.014	0.0062	0.0237
EPASED27	Sr-90	0.07 J	0.057	0.019	0.485
EPASED27	Te-125m	0.0254 J	0.011	0.0024	0.0838
EPASED27	Th-228	1.21	0.011	0.062	3.98
EPASED27	Th-229	0.0042 J	0.0019	0.0017	0.145
EPASED27	Th-230	0.969	0.008	0.052	2.2
EPASED27	Th-232	1.06	0.008	0.056	3.1
EPASED27	Th-234	1.6 R	0.16	0.092	3.19
EPASED27	Tl-208	0.444	0.018	0.018	0.937
EPASED27	Tm-171	-1.1 U	5.3	1.6	72.4
EPASED27	U-233/U-234	0.919	0.002	0.048	2.02
EPASED27	U-235/U-236	0.0451 J	0.0079	0.0074	0.151
EPASED27	U-238	0.964	0.006	0.05	1.8
EPASED28	Ac-227	0.052 U	0.15	0.048	0.217
EPASED28	Ac-228	1.39	0.072	0.047	2.4
EPASED28	Am-241	0.0023 J	0.0015	0.0011	0.0454
EPASED28	Bi-212	1.06	0.12	0.075	2.15
EPASED28	Bi-214	1.1	0.029	0.039	1.59
EPASED28	Cd-113m	-5 U	41	12	3030
EPASED28	Cm-243/Cm-244	0.0006 U	0.0041	0.001	0.0443
EPASED28	Cm-245/Cm-246	0.0065 J	0.0053	0.0024	0.0401
EPASED28	Cm-247/Cm-248	0.00071 U	0.0019	0.00071	0.0306

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED28	Co-60	-0.0062 U	0.017	0.0052	0.028
EPASED28	Cs-134	0.0102 UJ	0.045	0.0033	0.0864
EPASED28	Cs-137	0.0431 J	0.011	0.0052	0.207
EPASED28	Eu-152	0.0066 U	0.035	0.0043	0.0566
EPASED28	Eu-154	0.011 U	0.091	0.016	0.15
EPASED28	Eu-155	0.107 J	0.036	0.016	0.231
EPASED28	H-3	-0.012 U	0.075	0.022	11.9
EPASED28	Ho-166m	0.0021 U	0.021	0.0033	0.0432
EPASED28	K-40	23.5	0.15	0.7	32.4
EPASED28	Na-22	0.0005 U	0.021	0.0061	0.037
EPASED28	Nb-94	0.0065 U	0.014	0.0041	0.0214
EPASED28	Ni-59	0 UL	0.027	0.00997	5.96
EPASED28	Ni-63	0.83	0.7	0.22	4.92
EPASED28	Np-236	-0.0028 U	0.03	0.009	0.047
EPASED28	Np-239	0.008 U	0.088	0.026	0.139
EPASED28	Pa-231	0.1 U	0.58	0.18	0.936
EPASED28	Pb-212	1.53	0.031	0.063	2.69
EPASED28	Pb-214	1.24	0.028	0.04	1.7
EPASED28	Pu-236	-0.0005 U	0.0056	0.0012	7.79
EPASED28	Pu-238	0.0037 J	0.0034	0.0015	0.0415
EPASED28	Pu-239/Pu-240	0.0014 J	0.0013	0.00081	0.0404
EPASED28	Pu-244	0 U	0.0034	0.0007	0.0313
EPASED28	Sb-125	0.122	0.037	0.0093	0.354
EPASED28	Sn-126	0.0018 U	0.015	0.0046	0.0237
EPASED28	Sr-90	-0.036 UL	0.054	0.014	0.485
EPASED28	Tc-99	0.035 U	0.19	0.057	1.63
EPASED28	Te-125m	0.0281 J	0.0086	0.0022	0.0838
EPASED28	Th-228	1.47	0.009	0.073	3.98
EPASED28	Th-229	0.0093 J	0.0025	0.003	0.145
EPASED28	Th-230	1.04 J	0.007	0.054	2.2
EPASED28	Th-232	1.42	0.007	0.07	3.1
EPASED28	Th-234	0.425 J R	0.17	0.055	3.19
EPASED28	Tl-208	0.49	0.016	0.018	0.937
EPASED28	Tm-171	-1.8 U	6.2	1.9	72.4
EPASED28	U-233/U-234	0.826	0.004	0.04	2.02
EPASED28	U-235/U-236	0.0431 J	0.0016	0.0054	0.151
EPASED28	U-238	0.8 J	0.004	0.039	1.8
EPASED29	Ac-227	0.017 U	0.16	0.048	0.217

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED29	Ac-228	1.14	0.09	0.044	2.4
EPASED29	Am-241	0.0031 J	0.0038	0.0015	0.0454
EPASED29	Bi-212	0.883	0.14	0.082	2.15
EPASED29	Bi-214	0.753	0.03	0.03	1.59
EPASED29	Cd-113m	8 U	44	13	3030
EPASED29	Cm-243/Cm-244	0.001 U	0.0037	0.001	0.0443
EPASED29	Cm-245/Cm-246	0.0085 J	0.011	0.0041	0.0401
EPASED29	Cm-247/Cm-248	0.0024 U	0.0032	0.0017	0.0306
EPASED29	Co-60	0.0025 U	0.02	0.0059	0.028
EPASED29	Cs-134	0.0016 UJ	0.05	0.0025	0.0864
EPASED29	Cs-137	0.104	0.016	0.0088	0.207
EPASED29	Eu-152	-0.012 U	0.043	0.013	0.0566
EPASED29	Eu-154	0.0135 U	0.12	0.0082	0.15
EPASED29	Eu-155	0.075 J	0.034	0.013	0.231
EPASED29	H-3	0.021 U	0.074	0.022	11.9
EPASED29	Ho-166m	0.0113 U	0.028	0.0057	0.0432
EPASED29	K-40	20.2	0.21	0.63	32.4
EPASED29	Na-22	0.0095 U	0.024	0.0072	0.037
EPASED29	Nb-94	0.0047 U	0.016	0.0039	0.0214
EPASED29	Ni-59	0 UL	0.021	0.0079	5.96
EPASED29	Ni-63	0.13 U	0.64	0.19	4.92
EPASED29	Np-236	0.004 U	0.035	0.01	0.047
EPASED29	Np-239	0.018 U	0.096	0.029	0.139
EPASED29	Pa-231	-0.15 U	0.67	0.2	0.936
EPASED29	Pb-212	1.3	0.024	0.04	2.69
EPASED29	Pb-214	0.833	0.028	0.037	1.7
EPASED29	Pu-236	0 U	0.0043	0.00098	7.79
EPASED29	Pu-238	0.0022 U	0.0069	0.002	0.0415
EPASED29	Pu-239/Pu-240	0.0045 J	0.002	0.0018	0.0404
EPASED29	Pu-244	0.0015 U	0.002	0.001	0.0313
EPASED29	Sb-125	0.109	0.042	0.011	0.354
EPASED29	Sn-126	0.0146 J	0.014	0.0064	0.0237
EPASED29	Sr-90	-0.003 U	0.065	0.019	0.485
EPASED29	Tc-99	-0.047 U	0.15	0.044	1.63
EPASED29	Te-125m	0.0251 J	0.0098	0.0025	0.0838
EPASED29	Th-228	1.01	0.003	0.055	3.98
EPASED29	Th-229	0.0081 J	0.0022	0.0026	0.145
EPASED29	Th-230	0.674 J	0.003	0.04	2.2

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED29	Th-232	0.961	0.011	0.052	3.1
EPASED29	Th-234	0.292 J R	0.19	0.059	3.19
EPASED29	Tl-208	0.437	0.02	0.018	0.937
EPASED29	Tm-171	1 U	5.2	1.6	72.4
EPASED29	U-233/U-234	0.663	0.002	0.036	2.02
EPASED29	U-235/U-236	0.0324 J	0.0028	0.006	0.151
EPASED29	U-238	0.661 J	0.002	0.036	1.8
EPASED30	Ac-227	0.028 U	0.18	0.053	0.217
EPASED30	Ac-228	1.3	0.11	0.05	2.4
EPASED30	Am-241	0.0039 J	0.0057	0.0021	0.0454
EPASED30	Bi-212	1.07	0.16	0.098	2.15
EPASED30	Bi-214	1.09	0.032	0.039	1.59
EPASED30	Cd-113m	9 U	50	15	3030
EPASED30	Cm-243/Cm-244	0.0023 J	0.0056	0.0018	0.0443
EPASED30	Cm-245/Cm-246	0.0058 J	0.01	0.0034	0.0401
EPASED30	Cm-247/Cm-248	-0.0009 U	0.0069	0.0011	0.0306
EPASED30	Co-60	0.00001 U	0.021	0.0062	0.028
EPASED30	Cs-134	0.02 UJ	0.063	0.0053	0.0864
EPASED30	Cs-137	0.108	0.019	0.01	0.207
EPASED30	Eu-152	0.006 U	0.048	0.015	0.0566
EPASED30	Eu-154	0.013 U	0.12	0.016	0.15
EPASED30	Eu-155	0.075 J	0.041	0.016	0.231
EPASED30	H-3	0 U	0.081	0.023	11.9
EPASED30	Ho-166m	0.02 J	0.031	0.011	0.0432
EPASED30	K-40	22	0.22	0.68	32.4
EPASED30	Na-22	0.0034 U	0.026	0.0079	0.037
EPASED30	Nb-94	0.0045 U	0.018	0.004	0.0214
EPASED30	Ni-59	0 UL	0.016	0.0058	5.96
EPASED30	Ni-63	-0.12 U	0.46	0.14	4.92
EPASED30	Np-236	-0.008 U	0.039	0.012	0.047
EPASED30	Np-239	0.003 U	0.097	0.029	0.139
EPASED30	Pa-231	0.12 U	0.73	0.22	0.936
EPASED30	Pb-212	1.48	0.026	0.046	2.69
EPASED30	Pb-214	1.15	0.036	0.05	1.7
EPASED30	Pu-236	0 U	0.0015	0.00061	7.79
EPASED30	Pu-238	0.0029 U	0.0089	0.0026	0.0415
EPASED30	Pu-239/Pu-240	0.0086 J	0.0026	0.0029	0.0404
EPASED30	Pu-244	0 U	0.0026	0.0011	0.0313

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED30	Sb-125	0.161	0.049	0.015	0.354
EPASED30	Sn-126	0.0053 U	0.021	0.0062	0.0237
EPASED30	Sr-90	0.029 U	0.063	0.019	0.485
EPASED30	Tc-99	-0.056 U	0.15	0.045	1.63
EPASED30	Te-125m	0.0372 J	0.011	0.0034	0.0838
EPASED30	Th-228	1.35	0.01	0.071	3.98
EPASED30	Th-229	0.0057 J	0.011	0.0035	0.145
EPASED30	Th-230	1.01 J	0.01	0.057	2.2
EPASED30	Th-232	1.19	0.004	0.064	3.1
EPASED30	Th-234	1.92 R	0.19	0.1	3.19
EPASED30	Tl-208	0.495	0.023	0.021	0.937
EPASED30	Tm-171	0.8 U	7.2	2.2	72.4
EPASED30	U-233/U-234	0.879	0.007	0.044	2.02
EPASED30	U-235/U-236	0.0349 J	0.0021	0.0055	0.151
EPASED30	U-238	0.895 J	0.002	0.045	1.8
EPASED31	Ac-227	0.048 U	0.14	0.056	0.217
EPASED31	Ac-228	1.35	0.099	0.05	2.4
EPASED31	Am-241	0.00055 U	0.0041	0.00099	0.0454
EPASED31	Bi-212	0.994	0.15	0.08	2.15
EPASED31	Bi-214	1.02	0.038	0.039	1.59
EPASED31	Cd-113m	11 U	50	15	3030
EPASED31	Cm-243/Cm-244	-0.00054 U	0.004	0.0006	0.0443
EPASED31	Cm-245/Cm-246	0.0017 U	0.008	0.0022	0.0401
EPASED31	Cm-247/Cm-248	0.0008 U	0.0062	0.0015	0.0306
EPASED31	Co-60	0.0009 U	0.023	0.0067	0.028
EPASED31	Cs-134	0.0036 UJ	0.062	0.0042	0.0864
EPASED31	Cs-137	0.114	0.02	0.011	0.207
EPASED31	Eu-152	0.0008 U	0.048	0.014	0.0566
EPASED31	Eu-154	0.071 J	0.1	0.032	0.15
EPASED31	Eu-155	0.097 J	0.04	0.016	0.231
EPASED31	H-3	0.025 U	0.072	0.022	11.9
EPASED31	Ho-166m	0.013 U	0.033	0.01	0.0432
EPASED31	K-40	24.6	0.23	0.76	32.4
EPASED31	Na-22	-0.0035 U	0.027	0.008	0.037
EPASED31	Nb-94	0.0072 U	0.019	0.0057	0.0214
EPASED31	Ni-59	0 UL	0.016	0.03	5.96
EPASED31	Ni-63	-0.04 U	0.47	0.14	4.92
EPASED31	Np-236	-0.0005 U	0.037	0.011	0.047

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED31	Np-239	-0.038 U	0.1	0.031	0.139
EPASED31	Pa-231	-0.22 U	0.73	0.22	0.936
EPASED31	Pb-212	1.5	0.032	0.047	2.69
EPASED31	Pb-214	1.08	0.037	0.047	1.7
EPASED31	Pu-236	-0.0009 U	0.0049	0.001	7.79
EPASED31	Pu-238	0.0015 U	0.002	0.001	0.0415
EPASED31	Pu-239/Pu-240	0.0022 J	0.002	0.0013	0.0404
EPASED31	Pu-244	0.00073 U	0.002	0.00073	0.0313
EPASED31	Sb-125	0.137	0.054	0.013	0.354
EPASED31	Sn-126	0.0006 U	0.02	0.006	0.0237
EPASED31	Sr-90	0.03 U	0.061	0.019	0.485
EPASED31	Tc-99	0.013 U	0.15	0.044	1.63
EPASED31	Te-125m	0.0317 J	0.012	0.003	0.0838
EPASED31	Th-228	1.41	0.01	0.073	3.98
EPASED31	Th-229	0.0099 K	0.0045	0.0041	0.145
EPASED31	Th-230	0.958 J	0.012	0.054	2.2
EPASED31	Th-232	1.41	0.004	0.073	3.1
EPASED31	Th-234	0.44 J R	0.21	0.066	3.19
EPASED31	Tl-208	0.524	0.024	0.022	0.937
EPASED31	Tm-171	-6.4 R	6.2	1.9	72.4
EPASED31	U-233/U-234	0.75	0.002	0.04	2.02
EPASED31	U-235/U-236	0.0354 J	0.0027	0.0061	0.151
EPASED31	U-238	0.779 J	0.002	0.041	1.8
EPASED32	Ac-227	0.035 U	0.16	0.059	0.217
EPASED32	Ac-228	1.17	0.1	0.044	2.4
EPASED32	Am-241	0.0022 J	0.0015	0.0011	0.0454
EPASED32	Bi-212	0.96	0.15	0.088	2.15
EPASED32	Bi-214	0.92	0.037	0.036	1.59
EPASED32	Cd-113m	3 U	48	14	3030
EPASED32	Cm-243/Cm-244	0.00053 U	0.0014	0.00053	0.0443
EPASED32	Cm-245/Cm-246	0.0041 U	0.011	0.0034	0.0401
EPASED32	Cm-247/Cm-248	0.001 U	0.0027	0.001	0.0306
EPASED32	Co-60	-0.0046 U	0.021	0.0062	0.028
EPASED32	Cs-134	0.0225 UJ	0.054	0.0095	0.0864
EPASED32	Cs-137	0.1	0.017	0.0095	0.207
EPASED32	Eu-152	0.015 U	0.045	0.014	0.0566
EPASED32	Eu-154	-0.064 UL	0.12	0.037	0.15
EPASED32	Eu-155	0.098 J	0.041	0.017	0.231

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED32	H-3	-0.018 U	0.073	0.021	11.9
EPASED32	Ho-166m	-0.0002 U	0.024	0.007	0.0432
EPASED32	K-40	23.1	0.23	0.71	32.4
EPASED32	Na-22	0.006 U	0.022	0.0066	0.037
EPASED32	Nb-94	0.00007 U	0.015	0.0044	0.0214
EPASED32	Ni-59	0 UL	0.01	0.015	5.96
EPASED32	Ni-63	0.04 U	0.31	0.093	4.92
EPASED32	Np-236	0.001 U	0.038	0.011	0.047
EPASED32	Np-239	0.04 U	0.094	0.028	0.139
EPASED32	Pa-231	-0.14 U	0.68	0.21	0.936
EPASED32	Pb-212	1.34	0.029	0.042	2.69
EPASED32	Pb-214	1	0.032	0.043	1.7
EPASED32	Pu-236	0.012 J	0.0054	0.0028	7.79
EPASED32	Pu-238	0.0032 J	0.0014	0.0013	0.0415
EPASED32	Pu-239/Pu-240	0.0021 J	0.0039	0.0013	0.0404
EPASED32	Pu-244	0.00107 U	0.0014	0.00076	0.0313
EPASED32	Sb-125	0.111	0.048	0.011	0.354
EPASED32	Sn-126	0.0004 U	0.014	0.004	0.0237
EPASED32	Sr-90	0.025 U	0.049	0.015	0.485
EPASED32	Tc-99	0.033 U	0.2	0.06	1.63
EPASED32	Te-125m	0.0256 J	0.011	0.0026	0.0838
EPASED32	Th-228	1.15	0.009	0.058	3.98
EPASED32	Th-229	0.0085 J	0.0025	0.0028	0.145
EPASED32	Th-230	0.866 J	0.002	0.045	2.2
EPASED32	Th-232	1.17	0.002	0.058	3.1
EPASED32	Th-234	1.71 R	0.18	0.092	3.19
EPASED32	Tl-208	0.438	0.02	0.018	0.937
EPASED32	Tm-171	-5.7 UL	5.7	1.8	72.4
EPASED32	U-233/U-234	0.728	0.008	0.039	2.02
EPASED32	U-235/U-236	0.0382 J	0.0028	0.0065	0.151
EPASED32	U-238	0.722 J	0.002	0.039	1.8
EPASED33	Ac-227	0.041 U	0.16	0.05	0.217
EPASED33	Ac-228	1.03	0.097	0.043	2.4
EPASED33	Am-241	0.0024 J	0.0044	0.0015	0.0454
EPASED33	Bi-212	0.79	0.15	0.09	2.15
EPASED33	Bi-214	0.761	0.032	0.031	1.59
EPASED33	Cd-113m	21	35	14	3030
EPASED33	Cm-243/Cm-244	0.0006 U	0.0043	0.0011	0.0443

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED33	Cm-245/Cm-246	0.0058 J	0.0061	0.0026	0.0401
EPASED33	Cm-247/Cm-248	0 U	0.0022	0.00092	0.0306
EPASED33	Co-60	0.0019 U	0.02	0.0059	0.028
EPASED33	Cs-134	0.0033 UJ	0.059	0.0041	0.0864
EPASED33	Cs-137	0.0324 J	0.014	0.0064	0.207
EPASED33	Eu-152	0.0046 U	0.046	0.0044	0.0566
EPASED33	Eu-154	-0.028 U	0.11	0.034	0.15
EPASED33	Eu-155	0.071 J	0.045	0.018	0.231
EPASED33	H-3	0.069 J	0.057	0.018	11.9
EPASED33	Ho-166m	0.0283 J	0.028	0.0065	0.0432
EPASED33	K-40	22.6	0.16	0.69	32.4
EPASED33	Na-22	-0.0015 U	0.024	0.0071	0.037
EPASED33	Nb-94	0.0048 U	0.015	0.0036	0.0214
EPASED33	Ni-59	0 UL	0.013	0.0049	5.96
EPASED33	Ni-63	0.13 U	0.39	0.12	4.92
EPASED33	Np-236	-0.007 U	0.041	0.012	0.047
EPASED33	Np-239	0.0004 U	0.091	0.027	0.139
EPASED33	Pa-231	-0.07 U	0.67	0.2	0.936
EPASED33	Pb-212	0.991	0.035	0.035	2.69
EPASED33	Pb-214	0.815	0.032	0.038	1.7
EPASED33	Pu-236	0.0192 J	0.0038	0.0034	7.79
EPASED33	Pu-238	0.0005 U	0.0056	0.0015	0.0415
EPASED33	Pu-239/Pu-240	0.00047 U	0.0013	0.00047	0.0404
EPASED33	Pu-244	0 U	0.0013	0.00052	0.0313
EPASED33	Sb-125	0.111	0.047	0.011	0.354
EPASED33	Sn-126	0.0005 U	0.019	0.0056	0.0237
EPASED33	Sr-90	0.014 U	0.05	0.015	0.485
EPASED33	Tc-99	-0.056 U	0.16	0.046	1.63
EPASED33	Te-125m	0.0258 J	0.011	0.0027	0.0838
EPASED33	Th-228	1.1	0.009	0.057	3.98
EPASED33	Th-229	0.0021 U	0.011	0.0031	0.145
EPASED33	Th-230	0.879 J	0.007	0.047	2.2
EPASED33	Th-232	1.08	0.007	0.056	3.1
EPASED33	Th-234	1.21 R	0.24	0.083	3.19
EPASED33	Tl-208	0.377	0.018	0.016	0.937
EPASED33	Tm-171	-10.8 R	9	2.8	72.4
EPASED33	U-233/U-234	0.702	0.008	0.037	2.02
EPASED33	U-235/U-236	0.0461 J	0.0024	0.0067	0.151

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED33	U-238	0.671 J	0.005	0.036	1.8
EPASED34	Ac-227	0.024 U	0.14	0.03	0.217
EPASED34	Ac-228	1.13	0.092	0.044	2.4
EPASED34	Am-241	0.00064 U	0.0017	0.00064	0.0454
EPASED34	Bi-212	0.879	0.13	0.075	2.15
EPASED34	Bi-214	0.884	0.03	0.033	1.59
EPASED34	Cd-113m	9 U	42	13	3030
EPASED34	Cm-243/Cm-244	0.0019 J	0.0017	0.0011	0.0443
EPASED34	Cm-245/Cm-246	0.0083 J	0.0086	0.0034	0.0401
EPASED34	Cm-247/Cm-248	0.0027 J	0.0025	0.0016	0.0306
EPASED34	Co-60	-0.0051 U	0.02	0.0059	0.028
EPASED34	Cs-134	0.0103 UJ	0.048	0.0041	0.0864
EPASED34	Cs-137	0.101	0.016	0.0093	0.207
EPASED34	Eu-152	-0.009 U	0.036	0.011	0.0566
EPASED34	Eu-154	-0.027 U	0.11	0.033	0.15
EPASED34	Eu-155	0.091 J	0.037	0.016	0.231
EPASED34	H-3	0.034 U	0.078	0.024	11.9
EPASED34	Ho-166m	0.0076 U	0.026	0.007	0.0432
EPASED34	K-40	20.9	0.2	0.64	32.4
EPASED34	Na-22	-0.0053 U	0.024	0.0071	0.037
EPASED34	Nb-94	0.0028 U	0.015	0.0046	0.0214
EPASED34	Ni-59	0 UL	0.013	0.0047	5.96
EPASED34	Ni-63	-0.07 U	0.39	0.11	4.92
EPASED34	Np-236	-0.0007 U	0.033	0.0099	0.047
EPASED34	Np-239	-0.005 U	0.09	0.027	0.139
EPASED34	Pa-231	-0.03 U	0.62	0.18	0.936
EPASED34	Pb-212	1.25	0.022	0.039	2.69
EPASED34	Pb-214	0.919	0.028	0.04	1.7
EPASED34	Pu-236	0.0121 J	0.0032	0.0024	7.79
EPASED34	Pu-238	0.0007 U	0.0048	0.0012	0.0415
EPASED34	Pu-239/Pu-240	0.004 J	0.0018	0.0016	0.0404
EPASED34	Pu-244	0 U	0.0018	0.00073	0.0313
EPASED34	Sb-125	0.0953	0.039	0.0088	0.354
EPASED34	Sn-126	-0.0023 U	0.017	0.0052	0.0237
EPASED34	Sr-90	0.024 U	0.052	0.016	0.485
EPASED34	Tc-99	-0.006 U	0.14	0.043	1.63
EPASED34	Te-125m	0.022 J	0.0089	0.002	0.0838
EPASED34	Th-228	1.09	0.016	0.058	3.98

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED34	Th-229	0.0039 J	0.0095	0.003	0.145
EPASED34	Th-230	0.869 J	0.003	0.048	2.2
EPASED34	Th-232	1.07	0.003	0.057	3.1
EPASED34	Th-234	1.72 R	0.17	0.092	3.19
EPASED34	Tl-208	0.407	0.018	0.016	0.937
EPASED34	Tm-171	-0.4 U	5.7	1.7	72.4
EPASED34	U-233/U-234	0.999	0.01	0.052	2.02
EPASED34	U-235/U-236	0.0446 J	0.0031	0.0074	0.151
EPASED34	U-238	1.02 J	0.007	0.053	1.8
EPASED35	Ac-227	0.02 U	0.14	0.06	0.217
EPASED35	Ac-228	1.02	0.093	0.039	2.4
EPASED35	Am-241	0.0007 U	0.0065	0.0016	0.0454
EPASED35	Bi-212	0.788 J	0.11	0.058	2.15
EPASED35	Bi-214	0.798	0.026	0.029	1.59
EPASED35	Cd-113m	-9 U	39	12	3030
EPASED35	Cm-243/Cm-244	-0.0041 U	0.012	0.0028	0.0443
EPASED35	Cm-245/Cm-246	0.002 J	0.0018	0.0011	0.0401
EPASED35	Cm-247/Cm-248	-0.00064 U	0.0047	0.00072	0.0306
EPASED35	Co-60	0.0018 U	0.018	0.0031	0.028
EPASED35	Cs-134	0.0121 J	0.011	0.0034	0.0864
EPASED35	Cs-137	0.057 J	0.017	0.0064	0.207
EPASED35	Eu-152	0.017 J	0.028	0.011	0.0566
EPASED35	Eu-154	-0.062 UL	0.11	0.033	0.15
EPASED35	Eu-155	0.072 J	0.031	0.012	0.231
EPASED35	Ho-166m	0.0037 U	0.027	0.0049	0.0432
EPASED35	K-40	20.3	0.15	0.62	32.4
EPASED35	Na-22	-0.0009 U	0.023	0.0068	0.037
EPASED35	Nb-94	0.0038 U	0.015	0.0032	0.0214
EPASED35	Np-236	-0.0005 U	0.029	0.0088	0.047
EPASED35	Np-239	0.017 U	0.088	0.026	0.139
EPASED35	Pa-231	-0.25 U	0.62	0.19	0.936
EPASED35	Pb-212	1.17	0.019	0.048	2.69
EPASED35	Pb-214	0.855	0.026	0.03	1.7
EPASED35	Pu-236	-0.00088 U	0.0047	0.00094	7.79
EPASED35	Pu-238	0 U	0.0057	0.0014	0.0415
EPASED35	Pu-239/Pu-240	0.0013 J	0.0032	0.00099	0.0404
EPASED35	Pu-244	0.00086 U	0.0012	0.00061	0.0313
EPASED35	Sb-125	0.123 J	0.038	0.011	0.354

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED35	Sn-126	-0.0004 U	0.017	0.0049	0.0237
EPASED35	Sr-90	0.044 J	0.067	0.021	0.485
EPASED35	Te-125m	0.0283 J	0.0089	0.0026	0.0838
EPASED35	Th-228	1.01	0.008	0.05	3.98
EPASED35	Th-229	0.0022 U	0.0095	0.0026	0.145
EPASED35	Th-230	0.691	0.004	0.036	2.2
EPASED35	Th-232	0.929	0.002	0.046	3.1
EPASED35	Th-234	0.335 J	0.17	0.052	3.19
EPASED35	Tl-208	0.347	0.015	0.014	0.937
EPASED35	Tm-171	3 J	4.7	1.4	72.4
EPASED35	U-233/U-234	0.86 K	0.002	0.045	2.02
EPASED35	U-235/U-236	0.056 J	0.0028	0.0079	0.151
EPASED35	U-238	0.881	0.008	0.046	1.8
EPASED36	Ac-227	0.064 U	0.19	0.056	0.217
EPASED36	Ac-228	1.49 J	0.096	0.056	2.4
EPASED36	Am-241	-0.001 U	0.013	0.0031	0.0454
EPASED36	Bi-212	1.18	0.14	0.083	2.15
EPASED36	Bi-214	1.17	0.032	0.042	1.59
EPASED36	Cd-113m	4 U	53	16	3030
EPASED36	Cm-243/Cm-244	-0.001 U	0.012	0.0027	0.0443
EPASED36	Cm-245/Cm-246	-0.0011 U	0.01	0.0021	0.0401
EPASED36	Cm-247/Cm-248	0.0011 U	0.0079	0.0019	0.0306
EPASED36	Co-60	0.006 U	0.018	0.0055	0.028
EPASED36	Cs-134	0.0198 U	0.074	0.0055	0.0864
EPASED36	Cs-137	0.029 J	0.016	0.0051	0.207
EPASED36	Eu-152	-0.0034 U	0.051	0.0033	0.0566
EPASED36	Eu-154	-0.042 U	0.13	0.04	0.15
EPASED36	Eu-155	0.104 J	0.054	0.022	0.231
EPASED36	H-3	0.071 J	0.065	0.021	11.9
EPASED36	Ho-166m	0.0032 U	0.032	0.0026	0.0432
EPASED36	K-40	24.1 J	0.13	0.73	32.4
EPASED36	Na-22	-0.00059 U	0.033	0.00995	0.037
EPASED36	Nb-94	0.0035 U	0.018	0.0038	0.0214
EPASED36	Np-236	-0.014 U	0.046	0.014	0.047
EPASED36	Np-239	-0.0007 U	0.12	0.035	0.139
EPASED36	Pa-231	0.06 U	0.81	0.24	0.936
EPASED36	Pb-212	1.53	0.038	0.049	2.69
EPASED36	Pb-214	1.31 J	0.035	0.056	1.7

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED36	Pu-236	-0.00049 U	0.0045	0.00091	7.79
EPASED36	Pu-238	-0.0017 U	0.0092	0.0019	0.0415
EPASED36	Pu-239/Pu-240	0.006 J	0.0063	0.0026	0.0404
EPASED36	Pu-244	0.00086 U	0.0023	0.00086	0.0313
EPASED36	Sb-125	0.128 J	0.044	0.011	0.354
EPASED36	Sn-126	-0.0002 U	0.02	0.0061	0.0237
EPASED36	Sr-90	0.021 U	0.057	0.017	0.485
EPASED36	Tc-99	0.094 J	0.091	0.028	1.63
EPASED36	Te-125m	0.0295 J	0.01	0.0025	0.0838
EPASED36	Th-228	1.28	0.015	0.063	3.98
EPASED36	Th-229	0.009 J	0.0082	0.0036	0.145
EPASED36	Th-230	1.2	0.006	0.06	2.2
EPASED36	Th-232	1.25	0.008	0.062	3.1
EPASED36	Th-234	1.71 R	0.26	0.1	3.19
EPASED36	Tl-208	0.544	0.019	0.02	0.937
EPASED36	Tm-171	-11.5 R	11	3.4	72.4
EPASED36	U-233/U-234	1.07	0.009	0.058	2.02
EPASED36	U-235/U-236	0.0569 J	0.0043	0.0098	0.151
EPASED36	U-238	1.19	0.003	0.063	1.8
EPASED37	Ac-227	0.038 U	0.16	0.026	0.217
EPASED37	Ac-228	1.38	0.13	0.052	2.4
EPASED37	Am-241	0.0022 J	0.004	0.0013	0.0454
EPASED37	Bi-212	1.1	0.18	0.12	2.15
EPASED37	Bi-214	1.11	0.037	0.042	1.59
EPASED37	Cd-113m	-0.9 U	50	15	3030
EPASED37	Cm-243/Cm-244	0.00053 U	0.0039	0.00095	0.0443
EPASED37	Cm-245/Cm-246	0.0116 J	0.006	0.0031	0.0401
EPASED37	Cm-247/Cm-248	0.0019 J	0.0017	0.0011	0.0306
EPASED37	Co-60	0.0045 U	0.025	0.0051	0.028
EPASED37	Cs-134	0.0188 UJ	0.067	0.0051	0.0864
EPASED37	Cs-137	0.044 J	0.016	0.0072	0.207
EPASED37	Eu-152	0.002 U	0.046	0.011	0.0566
EPASED37	Eu-154	-0.06 U	0.14	0.043	0.15
EPASED37	Eu-155	0.097 J	0.041	0.017	0.231
EPASED37	H-3	0.037 J	0.076	0.023	11.9
EPASED37	Ho-166m	0.016 J	0.033	0.011	0.0432
EPASED37	K-40	21.6	0.18	0.67	32.4
EPASED37	Na-22	0.0023 U	0.028	0.0084	0.037

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED37	Nb-94	0.0009 U	0.014	0.0042	0.0214
EPASED37	Ni-59	0 UL	0.016	0.0058	5.96
EPASED37	Ni-63	-0.13 U	0.48	0.14	4.92
EPASED37	Np-236	-0.011 U	0.039	0.012	0.047
EPASED37	Np-239	0.025 U	0.11	0.032	0.139
EPASED37	Pa-231	0.11 U	0.74	0.22	0.936
EPASED37	Pb-212	1.62	0.032	0.067	2.69
EPASED37	Pb-214	1.23	0.033	0.042	1.7
EPASED37	Pu-236	0.0144 J	0.0035	0.0028	7.79
EPASED37	Pu-238	0.0034 J	0.0063	0.0021	0.0415
EPASED37	Pu-239/Pu-240	0.0027 J	0.005	0.0017	0.0404
EPASED37	Pu-244	0 U	0.0018	0.00075	0.0313
EPASED37	Sb-125	0.154	0.053	0.014	0.354
EPASED37	Sn-126	-0.0028 U	0.021	0.0064	0.0237
EPASED37	Sr-90	0.044 J	0.062	0.019	0.485
EPASED37	Tc-99	-0.055 U	0.16	0.046	1.63
EPASED37	Te-125m	0.0355 J	0.012	0.0033	0.0838
EPASED37	Th-228	1.21	0.013	0.063	3.98
EPASED37	Th-229	0.0012 U	0.011	0.0027	0.145
EPASED37	Th-230	0.865 J	0.003	0.049	2.2
EPASED37	Th-232	1.1	0.003	0.059	3.1
EPASED37	Th-234	2.31 R	0.2	0.12	3.19
EPASED37	Tl-208	0.524	0.023	0.022	0.937
EPASED37	Tm-171	-0.3 U	7.4	2.2	72.4
EPASED37	U-233/U-234	1.57	0.003	0.071	2.02
EPASED37	U-235/U-236	0.0804 J	0.0014	0.0073	0.151
EPASED37	U-238	1.47 J	0.001	0.066	1.8
EPASED38	Ac-227	0.062 U	0.15	0.02	0.217
EPASED38	Ac-228	1.48 J	0.074	0.048	2.4
EPASED38	Am-241	0.0013 U	0.0092	0.0023	0.0454
EPASED38	Bi-212	1.17	0.13	0.079	2.15
EPASED38	Bi-214	1.08	0.028	0.037	1.59
EPASED38	Cd-113m	0.6 U	42	13	3030
EPASED38	Cm-243/Cm-244	0 U	0.011	0.0026	0.0443
EPASED38	Cm-245/Cm-246	0.0034 J	0.0084	0.0026	0.0401
EPASED38	Cm-247/Cm-248	0 U	0.003	0.0012	0.0306
EPASED38	Co-60	0.0022 U	0.018	0.0029	0.028
EPASED38	Cs-134	0.0103 U	0.05	0.003	0.0864

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED38	Cs-137	0.0575 J	0.012	0.0055	0.207
EPASED38	Eu-152	0.023 J	0.04	0.012	0.0566
EPASED38	Eu-154	-0.035 U	0.1	0.03	0.15
EPASED38	Eu-155	0.022 J	0.037	0.011	0.231
EPASED38	H-3	0.076 J	0.062	0.02	11.9
EPASED38	Ho-166m	0.0079 U	0.025	0.0068	0.0432
EPASED38	K-40	23.1 J	0.16	0.69	32.4
EPASED38	Na-22	0.0002 U	0.022	0.0066	0.037
EPASED38	Nb-94	0.0053 U	0.014	0.0042	0.0214
EPASED38	Np-236	-0.0091 U	0.032	0.0098	0.047
EPASED38	Np-239	0.009 U	0.09	0.027	0.139
EPASED38	Pa-231	-0.07 U	0.52	0.16	0.936
EPASED38	Pb-212	1.85	0.025	0.075	2.69
EPASED38	Pb-214	1.28 J	0.027	0.042	1.7
EPASED38	Pu-236	-0.0009 U	0.0063	0.0015	7.79
EPASED38	Pu-238	-0.0005 U	0.0054	0.0012	0.0415
EPASED38	Pu-239/Pu-240	0.005 J	0.0014	0.0016	0.0404
EPASED38	Pu-244	0 U	0.0013	0.00056	0.0313
EPASED38	Sb-125	0.133 J	0.042	0.0088	0.354
EPASED38	Sn-126	-0.0007 U	0.011	0.0033	0.0237
EPASED38	Sr-90	0.051 J	0.055	0.018	0.485
EPASED38	Te-125m	0.0308 J	0.0097	0.002	0.0838
EPASED38	Th-228	1.31	0.01	0.067	3.98
EPASED38	Th-229	0.0068 J	0.0051	0.0024	0.145
EPASED38	Th-230	0.986	0.01	0.053	2.2
EPASED38	Th-232	1.27	0.003	0.065	3.1
EPASED38	Th-234	1.8 R	0.17	0.097	3.19
EPASED38	Tl-208	0.557	0.019	0.021	0.937
EPASED38	Tm-171	-6.1 R	5.6	1.7	72.4
EPASED38	U-233/U-234	1.06	0.003	0.057	2.02
EPASED38	U-235/U-236	0.0614 J	0.0038	0.0096	0.151
EPASED38	U-238	1.08	0.003	0.057	1.8
EPASED39	Ac-227	0.057 U	0.15	0.02	0.217
EPASED39	Ac-228	1 J	0.086	0.039	2.4
EPASED39	Am-241	0.0034 J	0.0091	0.0028	0.0454
EPASED39	Bi-212	0.857 J	0.14	0.083	2.15
EPASED39	Bi-214	0.793	0.029	0.031	1.59
EPASED39	Cd-113m	-0.1 U	44	13	3030

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED39	Cm-243/Cm-244	0 U	0.0061	0.0012	0.0443
EPASED39	Cm-245/Cm-246	0.003 J	0.0027	0.0018	0.0401
EPASED39	Cm-247/Cm-248	0.00099 U	0.0027	0.00099	0.0306
EPASED39	Co-60	0.0046 U	0.02	0.0054	0.028
EPASED39	Cs-134	0.001 U	0.047	0.014	0.0864
EPASED39	Cs-137	0.0525 J	0.013	0.0063	0.207
EPASED39	Eu-152	0.0005 U	0.041	0.012	0.0566
EPASED39	Eu-154	0.008 U	0.11	0.034	0.15
EPASED39	Eu-155	0.063 J	0.036	0.015	0.231
EPASED39	H-3	0.071 J	0.063	0.02	11.9
EPASED39	Ho-166m	0.0083 U	0.028	0.007	0.0432
EPASED39	K-40	21.4 J	0.19	0.66	32.4
EPASED39	Na-22	-0.0013 U	0.025	0.0073	0.037
EPASED39	Nb-94	0.0041 U	0.016	0.0031	0.0214
EPASED39	Np-236	0.0062 U	0.033	0.0099	0.047
EPASED39	Np-239	-0.009 U	0.092	0.028	0.139
EPASED39	Pa-231	0.16 U	0.63	0.19	0.936
EPASED39	Pb-212	1.13	0.023	0.035	2.69
EPASED39	Pb-214	0.816 J	0.027	0.036	1.7
EPASED39	Pu-236	-0.0022 U	0.0066	0.0012	7.79
EPASED39	Pu-238	0.0006 U	0.0052	0.0013	0.0415
EPASED39	Pu-239/Pu-240	0.0034 J	0.0015	0.0014	0.0404
EPASED39	Pu-244	0.00056 U	0.0015	0.00056	0.0313
EPASED39	Sb-125	0.0938 J	0.042	0.0095	0.354
EPASED39	Sn-126	0.0026 U	0.013	0.0038	0.0237
EPASED39	Sr-90	-0.0009 U	0.059	0.017	0.485
EPASED39	Te-125m	0.0217 J	0.0097	0.0022	0.0838
EPASED39	Th-228	1.02	0.011	0.055	3.98
EPASED39	Th-229	0.004 J	0.0074	0.0025	0.145
EPASED39	Th-230	0.732	0.009	0.042	2.2
EPASED39	Th-232	0.966	0.003	0.053	3.1
EPASED39	Th-234	1.27 R	0.17	0.082	3.19
EPASED39	Tl-208	0.36	0.019	0.016	0.937
EPASED39	Tm-171	-1.8 U	6.2	1.9	72.4
EPASED39	U-233/U-234	0.705	0.003	0.04	2.02
EPASED39	U-235/U-236	0.0424 J	0.0035	0.0076	0.151
EPASED39	U-238	0.695	0.008	0.04	1.8
EPASED40	Ac-227	0.148 J	0.13	0.051	0.217

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED40	Ac-228	1.29 J	0.1	0.051	2.4
EPASED40	Am-241	0.0016 U	0.0077	0.0021	0.0454
EPASED40	Bi-212	0.959 J	0.15	0.084	2.15
EPASED40	Bi-214	0.907	0.033	0.035	1.59
EPASED40	Cd-113m	-21 U	49	15	3030
EPASED40	Cm-243/Cm-244	-0.0016 U	0.014	0.0037	0.0443
EPASED40	Cm-245/Cm-246	0.0021 U	0.0028	0.0015	0.0401
EPASED40	Cm-247/Cm-248	0.002 U	0.0028	0.0014	0.0306
EPASED40	Co-60	0.0023 U	0.022	0.0065	0.028
EPASED40	Cs-134	0.0176 U	0.072	0.0064	0.0864
EPASED40	Cs-137	0.027 J	0.021	0.0067	0.207
EPASED40	Eu-152	0.006 U	0.051	0.015	0.0566
EPASED40	Eu-154	-0.048 U	0.13	0.038	0.15
EPASED40	Eu-155	0.108 J	0.058	0.025	0.231
EPASED40	H-3	0.061 J	0.06	0.019	11.9
EPASED40	Ho-166m	0.0117 U	0.033	0.0087	0.0432
EPASED40	K-40	22.9 J	0.15	0.7	32.4
EPASED40	Na-22	0 U	0.028	0.0056	0.037
EPASED40	Nb-94	0.0062 U	0.019	0.0056	0.0214
EPASED40	Np-236	-0.006 U	0.044	0.013	0.047
EPASED40	Np-239	0.019 U	0.12	0.035	0.139
EPASED40	Pa-231	0.03 U	0.66	0.2	0.936
EPASED40	Pb-212	1.48	0.03	0.046	2.69
EPASED40	Pb-214	0.954 J	0.034	0.043	1.7
EPASED40	Pu-236	-0.0005 U	0.0052	0.0011	7.79
EPASED40	Pu-238	0.0024 U	0.011	0.0031	0.0415
EPASED40	Pu-239/Pu-240	-0.0012 U	0.011	0.0023	0.0404
EPASED40	Pu-244	0 U	0.0033	0.0014	0.0313
EPASED40	Sb-125	0.132 J	0.054	0.013	0.354
EPASED40	Sn-126	0.0002 U	0.021	0.0064	0.0237
EPASED40	Sr-90	-0.005 U	0.068	0.019	0.485
EPASED40	Tc-99	0.059 J	0.073	0.023	0.0838
EPASED40	Te-125m	0.0305 J	0.013	0.003	3.98
EPASED40	Th-228	1.14	0.011	0.058	0.145
EPASED40	Th-229	0.0085 J	0.0019	0.0025	2.2
EPASED40	Th-230	0.813	0.01	0.044	3.1
EPASED40	Th-232	1.06	0.007	0.054	3.19
EPASED40	Th-234	1.38 R	0.27	0.096	0.937

Table A.2
Analytical Results Summary
Phase I Sediment Sampling

Sample Identification	Analyte Name	Activity	MDC	TPU	RTL
EPASED40	Tl-208	0.517	0.024	0.022	72.4
EPASED40	Tm-171	-16.6 R	11	3.5	2.02
EPASED40	U-233/U-234	0.855 K	0.004	0.05	0.151
EPASED40	U-235/U-236	0.0508 J	0.0049	0.0098	1.8
EPASED40	U-238	0.804 K	0.004	0.048	0.217

Notes:

Refer to Table 3.1 of the Final Groundwater, Surface Water and Sediment Sampling Plan (HGL, 2010a) for definition of radionuclide symbols.

Reporting units in picocuries per gram.

MDC - minimum detectable concentration

RTL - Radiological Trigger Levels

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.

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

UJ - Not considered detected. The associated number is the reported concentration, which may be inaccurate.

UL - Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.

Table A.3
Parent and Field Duplicate Results Summary
Phase I Sediment Sampling

Sample Identification	Parent Sample				Sample Identification	Field Duplicate Sample			
	Analyte Name	Activity	MDC	TPU		Analyte Name	Activity	MDC	TPU
EPASED01	Ac-228	1.31 J	0.093	0.047	SED-DUP-001	Ac-228	1.35	0.12	0.052
EPASED01	Ac-227	0.03 U	0.18	0.061	SED-DUP-001	Ac-227	0.033 U	0.14	0.064
EPASED01	Am-241	0.0097 J	0.01	0.004	SED-DUP-001	Am-241	-0.0019 U	0.015	0.0036
EPASED01	Ba-133	-0.114 R	0.03	0.01	SED-DUP-001	Ba-133	-0.0179 UJ	0.022	0.0067
EPASED01	Ba-137m	0.062 J	0.014	0.0067	SED-DUP-001	Ba-137m	0.0433 J	0.012	0.0053
EPASED01	Bi-212	0.956 J	0.15	0.089	SED-DUP-001	Bi-212	1.07 J	0.14	0.079
EPASED01	Bi-214	1.05	0.03	0.038	SED-DUP-001	Bi-214	0.891	0.031	0.034
EPASED01	Cd-113m	0.4 U	50	15	SED-DUP-001	Cd-113m	-0.02 U	48	14
EPASED01	Cm-243/Cm-244	0.0159 J	0.011	0.005	SED-DUP-001	Cm-243/Cm-244	-0.001 U	0.014	0.0036
EPASED01	Cm-245/Cm-246	0.0048 J	0.0032	0.0024	SED-DUP-001	Cm-245/Cm-246	0.0014 U	0.01	0.0025
EPASED01	Cm-247/Cm-248	-0.0023 U	0.014	0.0031	SED-DUP-001	Cm-247/Cm-248	0.0013 U	0.0036	0.0013
EPASED01	Co-60	0.0027 U	0.021	0.0045	SED-DUP-001	Co-60	0.0028 U	0.019	0.0053
EPASED01	Cs-134	0.011 U	0.059	0.0047	SED-DUP-001	Cs-134	-0.001 U	0.058	0.018
EPASED01	Cs-137	0.0655 J	0.015	0.0071	SED-DUP-001	Cs-137	0.0458 J	0.013	0.0056
EPASED01	Eu-152	0.007 U	0.028	0.017	SED-DUP-001	Eu-152	-0.00009 U	0.044	0.013
EPASED01	Eu-154	-0.05 U	0.13	0.038	SED-DUP-001	Eu-154	-0.024 U	0.12	0.036
EPASED01	Eu-155	0.089 J	0.037	0.015	SED-DUP-001	Eu-155	0.104	0.041	0.017
EPASED01	H-3	0.059 J	0.062	0.02	SED-DUP-001	H-3	-0.039 UL	0.21	0.06
EPASED01	Ho-166m	0.0119 U	0.03	0.0092	SED-DUP-001	Ho-166m	0.0039 U	0.028	0.0042
EPASED01	K-40	21.1 J	0.17	0.65	SED-DUP-001	K-40	21.4	0.18	0.66
EPASED01	Na-22	0.001 U	0.025	0.0074	SED-DUP-001	Na-22	0.0003 U	0.027	0.0081

Table A.3
Parent and Field Duplicate Results Summary
Phase I Sediment Sampling

Sample Identification	Parent Sample				Sample Identification	Field Duplicate Sample			
	Analyte Name	Activity	MDC	TPU		Analyte Name	Activity	MDC	TPU
EPASED01	Nb-94	0.0115 J	0.017	0.0053	SED-DUP-001	Nb-94	0.006 U	0.017	0.0051
EPASED01	Np-236	-0.009 U	0.037	0.011	SED-DUP-001	Np-236	0.0006 U	0.037	0.011
EPASED01	Np-239	-0.002 U	0.11	0.032	SED-DUP-001	Np-239	-0.003 U	0.1	0.03
EPASED01	Pa-231	-0.01 U	0.71	0.21	SED-DUP-001	Pa-231	-0.01 U	0.69	0.21
EPASED01	Pb-212	1.51	0.029	0.062	SED-DUP-001	Pb-212	1.65	0.028	0.051
EPASED01	Pb-214	1.18 J	0.033	0.04	SED-DUP-001	Pb-214	0.97	0.033	0.043
EPASED01	Pu-236	-0.0062 UL	0.011	0.0027	SED-DUP-001	Pu-236	0 U	0.0049	0.0012
EPASED01	Pu-238	0.0015 U	0.0088	0.0024	SED-DUP-001	Pu-238	0.0005 U	0.0085	0.0023
EPASED01	Pu-239/Pu-240	0.0044 J	0.0068	0.0024	SED-DUP-001	Pu-239/Pu-240	0.0027 J	0.0015	0.0012
EPASED01	Pu-244	0.0015 U	0.002	0.001	SED-DUP-001	Pu-244	0.0027 J	0.0015	0.0012
EPASED01	Sb-125	0.151 J	0.047	0.014	SED-DUP-001	Sb-125	0.138 J	0.05	0.012
EPASED01	Sn-126	-0.0003 U	0.022	0.0065	SED-DUP-001	Sn-126	0.0069 U	0.015	0.0047
EPASED01	Sr-90	-0.025 U	0.071	0.02	SED-DUP-001	Sr-90	0.046 J	0.055	0.017
EPASED01	Tc-99	0.028 U	0.071	0.021	SED-DUP-001	Tc-99	0.026 U	0.082	0.025
EPASED01	Th-228	1.53 K	0.013	0.079	SED-DUP-001	Th-228	1.27 K	0.014	0.067
EPASED01	Th-229	0.0085 J	0.0023	0.0027	SED-DUP-001	Th-229	0.0074 J	0.013	0.0046
EPASED01	Th-230	1.02 K	0.004	0.057	SED-DUP-001	Th-230	1.06 K	0.01	0.058
EPASED01	Th-232	1.32 K	0.01	0.07	SED-DUP-001	Th-232	1.25 K	0.004	0.067
EPASED01	Th-234	2.18 R	0.18	0.11	SED-DUP-001	Th-234	2.43 R	0.19	0.12
EPASED01	Tl-208	0.472	0.021	0.019	SED-DUP-001	Tl-208	0.539	0.021	0.021
EPASED01	Tm-171	-0.1 U	6.9	2.1	SED-DUP-001	Tm-171	0.6 U	5.2	1.6

Table A.3
Parent and Field Duplicate Results Summary
Phase I Sediment Sampling

Sample Identification	Parent Sample				Sample Identification	Field Duplicate Sample			
	Analyte Name	Activity	MDC	TPU		Analyte Name	Activity	MDC	TPU
EPASED01	U-233/U-234	1.5	0.013	0.076	SED-DUP-001	U-233/U-234	1.73	0.007	0.083
EPASED01	U-235/U-236	0.061 J	0.011	0.01	SED-DUP-001	U-235/U-236	0.092	0.003	0.011
EPASED01	U-238	1.39	0.003	0.071	SED-DUP-001	U-238	1.57	0.007	0.077
EPASED02	Ac-228	1.38 J	0.11	0.053	SED-DUP-002	Ac-228	1.38 J	0.12	0.054
EPASED02	Ac-227	0.023 U	0.18	0.054	SED-DUP-002	Ac-227	0.03 U	0.18	0.072
EPASED02	Am-241	0.0037 J	0.0087	0.0027	SED-DUP-002	Am-241	0.0068 J	0.0062	0.0027
EPASED02	Ba-133	-0.128 R	0.033	0.012	SED-DUP-002	Ba-133	-0.0294 R	0.024	0.0076
EPASED02	Ba-137m	0.0588 J	0.015	0.0071	SED-DUP-002	Ba-137m	0.0683 J	0.014	0.007
EPASED02	Bi-212	1.11	0.17	0.11	SED-DUP-002	Bi-212	1.09 J	0.15	0.087
EPASED02	Bi-214	0.914	0.032	0.036	SED-DUP-002	Bi-214	0.981	0.032	0.037
EPASED02	Cd-113m	0 U	51	8.5	SED-DUP-002	Cd-113m	-4 U	51	15
EPASED02	Cm-243/Cm-244	0.0046 U	0.012	0.0037	SED-DUP-002	Cm-243/Cm-244	0.0099 J	0.0061	0.0032
EPASED02	Cm-245/Cm-246	-0.0011 U	0.0098	0.002	SED-DUP-002	Cm-245/Cm-246	0.0031 J	0.0077	0.0024
EPASED02	Cm-247/Cm-248	0 U	0.0028	0.0012	SED-DUP-002	Cm-247/Cm-248	-0.001 U	0.0095	0.0019
EPASED02	Co-60	0.0044 U	0.02	0.0059	SED-DUP-002	Co-60	0.0008 U	0.023	0.0013
EPASED02	Cs-134	0.0056 U	0.067	0.0023	SED-DUP-002	Cs-134	0.0097 U	0.061	0.0063
EPASED02	Cs-137	0.0622 J	0.016	0.0076	SED-DUP-002	Cs-137	0.0722 J	0.015	0.0074
EPASED02	Eu-152	0.0007 U	0.05	0.0019	SED-DUP-002	Eu-152	-0.018 U	0.049	0.015
EPASED02	Eu-154	0.014 U	0.12	0.019	SED-DUP-002	Eu-154	0.008 U	0.13	0.014
EPASED02	Eu-155	0.12 J	0.055	0.024	SED-DUP-002	Eu-155	0.11 J	0.039	0.017
EPASED02	H-3	0.049 J	0.064	0.02	SED-DUP-002	H-3	0.073 J	0.064	0.021

Table A.3
Parent and Field Duplicate Results Summary
Phase I Sediment Sampling

Sample Identification	Parent Sample				Sample Identification	Field Duplicate Sample			
	Analyte Name	Activity	MDC	TPU		Analyte Name	Activity	MDC	TPU
EPASED02	Ho-166m	0.0016 U	0.024	0.0093	SED-DUP-002	Ho-166m	0.018 J	0.033	0.012
EPASED02	K-40	19.9 J	0.15	0.61	SED-DUP-002	K-40	21.1 J	0.17	0.65
EPASED02	Na-22	0.0053 U	0.025	0.0076	SED-DUP-002	Na-22	0.0006 U	0.031	0.0091
EPASED02	Nb-94	-0.0002 U	0.018	0.0053	SED-DUP-002	Nb-94	0.0047 U	0.018	0.0041
EPASED02	Np-236	-0.008 U	0.044	0.013	SED-DUP-002	Np-236	-0.007 U	0.038	0.011
EPASED02	Np-239	0.034 U	0.11	0.032	SED-DUP-002	Np-239	0.0004 U	0.11	0.033
EPASED02	Pa-231	0.077 U	0.79	0.064	SED-DUP-002	Pa-231	0.02 U	0.73	0.22
EPASED02	Pb-212	1.59	0.028	0.049	SED-DUP-002	Pb-212	1.74	0.027	0.071
EPASED02	Pb-214	0.958 J	0.031	0.043	SED-DUP-002	Pb-214	1.11 J	0.032	0.039
EPASED02	Pu-236	-0.001 U	0.009	0.0024	SED-DUP-002	Pu-236	0.001 U	0.0053	0.0015
EPASED02	Pu-238	0.0021 U	0.0028	0.0015	SED-DUP-002	Pu-238	0.0024 J	0.0035	0.0013
EPASED02	Pu-239/Pu-240	0.0031 U	0.0097	0.0029	SED-DUP-002	Pu-239/Pu-240	0.0038 J	0.0013	0.0013
EPASED02	Pu-244	0.001 U	0.0028	0.001	SED-DUP-002	Pu-244	-0.00047 U	0.0035	0.00053
EPASED02	Sb-125	0.127 J	0.052	0.012	SED-DUP-002	Sb-125	0.143 J	0.045	0.013
EPASED02	Sn-126	0.0043 U	0.019	0.0058	SED-DUP-002	Sn-126	-0.0002 U	0.02	0.006
EPASED02	Sr-90	0.1 J	0.078	0.026	SED-DUP-002	Sr-90	0.027 U	0.077	0.023
EPASED02	Tc-99	0.048 J	0.076	0.023	SED-DUP-002	Tc-99	0.049 J	0.078	0.024
EPASED02	Th-228	1.35	0.022	0.068	SED-DUP-002	Th-228	1.22	0.011	0.061
EPASED02	Th-229	0.0035 J	0.0024	0.0018	SED-DUP-002	Th-229	0.0039 J	0.0087	0.0028
EPASED02	Th-230	0.87	0.008	0.047	SED-DUP-002	Th-230	0.86	0.003	0.046
EPASED02	Th-232	1.44	0.008	0.071	SED-DUP-002	Th-232	1.25	0.003	0.063

Table A.3
Parent and Field Duplicate Results Summary
Phase I Sediment Sampling

Sample Identification	Parent Sample				Sample Identification	Field Duplicate Sample			
	Analyte Name	Activity	MDC	TPU		Analyte Name	Activity	MDC	TPU
EPASED02	Th-234	1.58 R	0.26	0.097	SED-DUP-002	Th-234	1.72 R	0.19	0.1
EPASED02	Tl-208	0.52	0.021	0.021	SED-DUP-002	Tl-208	0.542	0.022	0.022
EPASED02	Tm-171	-13.8 R	11	3.4	SED-DUP-002	Tm-171	0.2 U	4.6	1.4
EPASED02	U-233/U-234	0.814	0.007	0.044	SED-DUP-002	U-233/U-234	0.866	0.003	0.047
EPASED02	U-235/U-236	0.0355 J	0.0032	0.0066	SED-DUP-002	U-235/U-236	0.0506 J	0.0034	0.0083
EPASED02	U-238	0.885	0.003	0.047	SED-DUP-002	U-238	0.906	0.003	0.049

Notes:

Refer to Table 3.1 of the Final Phase I Field Sampling Plan for Groundwater, Surface Water, and Sediment (HGL, 2010a) for a definition of radionuclide symbols.

Reporting units in picocuries per gram.

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.

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

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

UJ - Not considered detected. The associated number is the reported concentration, which may be inaccurate.

UL - Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.

Table A.4
Rinsate and Source Comparison Summary
Phase I Sediment Sampling

Sample Type	Sample Identification	H-3			U-233/ U234			U-235/ U236			U-238		
		Activity	MDC	TPU	Activity	MDC	TPU	Activity	MDC	TPU	Activity	MDC	TPU
Rinsate	SED-R-001	4	130	39	0.0033	0.014	0.0059	0.0024	0.0066	0.0024	0.006	0.014	0.0059
Source	SED-S-001	32	140	42	-0.0006	0.021	0.0065	-0.0049	0.023	0.0034	0.0059	0.014	0.0058
Rinsate	SED-R-002	37	140	41	-0.0043	0.022	0.0061	-0.0025	0.024	0.0044	0.0004	0.019	0.0058
Source	SED-S-002	49	130	39	0.0032	0.024	0.0078	0.0028	0.0076	0.0028	0.0013	0.017	0.0055
Rinsate	SED-R-003	14	140	42	0.0018	0.019	0.0064	0.0025	0.0068	0.0025	0.0024	0.019	0.0061
Source	SED-S-003	22	140	40	-0.0104	0.029	0.0069	0.003	0.0082	0.003	-0.0077	0.029	0.0069
Rinsate	SED-R-004	34	130	40	-0.0035	0.021	0.006	0.0085	0.0077	0.0049	-0.0009	0.0062	0.0039
Source	SED-S-004	45	130	41	0.0044	0.0057	0.0056	-0.0026	0.019	0.0026	0.0008	0.0057	0.0042
Rinsate	SED-R-005	39	140	42	-0.0103	0.028	0.0069	0.0052	0.019	0.0052	0.0089	0.019	0.0071
Source	SED-S-005	53	140	42	0.0116	0.006	0.007	0	0.02	0.0039	-0.0011	0.024	0.0066
Rinsate	SED-R-006	27	140	41	0.0052	0.021	0.0074	0.0028	0.0075	0.0028	0.0012	0.006	0.0044
Source	SED-S-006	71	140	42	0.0083	0.015	0.0069	0	0.024	0.0052	0.0068	0.0056	0.0055
Rinsate	SED-R-007	51	140	42	0.0139	0.019	0.0081	0.0025	0.023	0.0056	-0.0077	0.022	0.0049
Source	SED-S-007	59	130	40	-0.0013	0.0061	0.0045	0	0.0076	0.0028	0.0036	0.0061	0.005
Rinsate	SED-R-008	50	130	39	0.0138	0.02	0.0083	0.0025	0.018	0.0043	0.0265	0.021	0.0097
Source	SED-S-008	32	140	41	-0.0044	0.03	0.0083	0.0075	0.0067	0.0043	-0.0057	0.03	0.0077
Rinsate	SED-R-009	27	140	42	0.0102	0.015	0.0071	0.0051	0.0069	0.0036	0.0046	0.015	0.0058
Source	SED-S-009	32	130	40	0.0101	0.019	0.0077	0.0051	0.019	0.0051	0.0005	0.025	0.0071
Rinsate	SED-R-010	49	120	37	0.0036	0.0054	0.0053	0.0025	0.0067	0.0025	0.0006	0.013	0.0047

Notes:

Reporting units in picocuries per liter.

H-3 - tritium

MDC - minimum detectable concentration

TPU - total propagated uncertainty

U - uranium

ATTACHMENT 2

Boring Logs

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Project Name: SSFL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NBE	Location ID ERASED01
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/17/10 / 1245	Date/Time Total Depth Reached 12/17/10 / 1345
Type of Sampling Device trowel/shovel	Samples Collected ERASED 01 1245 12/17/10 (2) 1/2 gal bags / (1) 4 oz. jar		
Geologist Stephanie Leary Montrose	Checked by/Date A. [Signature] 5/1/12		

Radiological Background 16	Radiological Equipment Used AP R meter	PID Used Mini Rae 2000 (Background = 0.0 ppm)
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Depth	Interval	Recovery	PID	Radiological	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Borehole Gamma Readings <small>(CPM)</small>
6"				18	0"-6" silty sand (dark brown 10YR 3/3) 35% silt, 65% fine to med. grained sand non plastic, loose, moist plant debris / material (roots, leaves, twigs)	SM	NA
TD = 6"							

Project Name: SSEL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NBZ	Location ID ERASED 02
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/21/10 / 0950	Date/Time Total Depth Reached 12/21/10 / 1030
Type of Sampling Device trowel/shovel	Samples Collected 12/21/10 0950 (2) 1/2 gal bag (1) 4oz jar		
Geologist Stephanie Lopez-Montoya	Checked by/Date C. Stran... 5/1/12		

Radiological Background 1b	Radiological Equipment Used AP R meter	PID Used Mini Rae 2000 (Background = 0.0cpm)
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Depth	Interval	Recovery	PID	Radiological	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Inches	Borehole Gamma Readings (CPM)
6"			0.1	1b	0-6" SM silty SAND (dark brown 10YR 3/3) 35% silt, 65% fm to med. grained sand non plastic, loose, moist plant material (grass, roots)	SM		NA
					TD = 6"			

Project Name: SSFL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NBZ	Location ID EPASED 03
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/20/10 0940	Date/Time Total Depth Reached 12/20/10 1010
Type of Sampling Device trowel/shovel	Samples Collected EPASED 03 0940 (2) 1/2 gal bag / (1) 4 oz jar		
Geologist Stephane Lepinard	Checked by/Date J. Stuart Wilford 5/1/12		

Radiological Background 3	Radiological Equipment Used AP R meter	PID Used Mini Rae 2000 (background = 0.0ppm)
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Depth	Interval	Recovery	PID	Radiological	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Borehole Gamma Readings (CPM)
6"			0.0	14	0"-6" SP SAND (brown 10YR 5/3) 15% silt, 85% fine to coarse grained sand, trace gravel (subangular + subrounded) plant material (roots, grass, leaves, twigs) key loose, non plastic, wet/saturated TD = 6" (note: water under water from rain run-off)	SP	NA

Project Name: SSFL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NB2	Location ID EPOSED 04
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/17/10 / 1130	Date/Time Total Depth Reached 12/17/10 / 1155
Type of Sampling Device trowel/shovel	Samples Collected EPOSED 04 / 1130 (2) 1/2 gal bag, (1) 4 oz. jar		
Geologist Stephanie Lepore-Nestrose	Checked by/Date J. Stewart Wilford 5/1/12		

Radiological Background 14	Radiological Equipment Used M R meter	PID Used Mini Rae 2000 (Background = 0.0cpm)
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Depth	Interval	Recovery	PID	Radiological	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Borehole Gamma Readings (CPM)
6"			0.0	14	<p>surface = cobbles + grass</p> <p>0"-6" ML sandy SILT with clay (brown 10Y2.5/3)</p> <p>20% clay; 35% fine graded sand, 45% silt</p> <p>med. plasticity, soft, moist, plant material (roots, grass), worms</p> <p style="text-align: center;">TD = 6"</p> <p style="text-align: center;">Approx. 6" below ground surface = geofabric</p>	ML	NA

Project Name: SSEL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NBZ	Location ID EPASED05
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/20/10 / 0830	Date/Time Total Depth Reached 12/20/10 / 0900
Type of Sampling Device trowel/shovel	Samples Collected EPASED05 0830 (2) 1/2 gal bag / (1) 4oz jar		
Geologist Stephanie Lopez-Montrose	Checked by/Date [Signature] 5/1/12		

Radiological Background 14	Radiological Equipment Used up R meter	PID Used Mini Rae 2000 (Background = 0.0 ppm)
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Depth	Interval	Recovery	PID	Radiological	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Borehole Gamma Readings (CPM)
0"	0-6"	[Diagram]	0.8	15	SM silty sand (dark brown 10YR 3/3) 10% clay, 30% silt, 60% fine to coarse grained sand, trace gravel - sub rounded & sub angular, plant material (roots, grass) low plasticity, soft, moist TD = 6"	SM	NA

Project Name: SSFL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID N32	Location ID EPASD 06
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/17/10 / 1525	Date/Time Total Depth Reached 12/17/10 / 1540
Type of Sampling Device trowel/shovel	Samples Collected EPASD 06 1525 (2) 1/2 gal bag / (1) 4oz jar		
Geologist Stephanie Lepore-Munroe	Checked by/Date Stephanie Lepore-Munroe 5/1/12		

Radiological Background 16	Radiological Equipment Used APR meter	PID Used Mini Rae 2000 (Background = 0 oppm)
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Depth	Interval	Recovery	PID	Radiological	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Borehole Gamma Readings <small>(CPM)</small>
6"			0.0	16	0"-6" ML sandy SILT (dark brown 10%R 3/3) 60% silt, 40% fine grained sand low plasticity, soft, moist plant material (roots, grass)	ML	NA
					TD = 6"		

Project Name: SSEL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NBE	Location ID EPASED 07
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/20/10 / 1330	Date/Time Total Depth Reached 12/20/10 / 1355
Type of Sampling Device trowel/shovel	Samples Collected EPASED 07 1330 (2) 1/2 gal bag / (1) 4oz jar		
Geologist Stephanie Lopez, MSHM	Checked by/Date J. Hunt / 5/1/12		

Radiological Background 10	Radiological Equipment Used AP R meter	PID Used Mini Rae 2000 (Background = 0.04cpm)
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Depth	Interval	Recovery	PID	Radiological	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Borehole Gamma Readings (CPM)
6"					0-6" SP sand w/ silt (brown 10YR 5/3) 20% silt, 80% fine to coarse grained sand, trace gravel (subangular + subrounded) broken pieces of asphalt; plant material (roots, grass, twigs, leaves), non plastic, loose, wet, burnt piece of wood TD = 6" Note: Rainy heavily - location wet Note: Debris in charge near sample location	SP	NA

Project Name: SSFL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NBE	Location ID EPASED08
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/20/10 / 1040	Date/Time Total Depth Reached 12/20/10 / 1105
Type of Sampling Device trowel/shovel	Samples Collected EPASED 08 1040 (2) 1/2 gal bags / (1) 4oz. jar		
Geologist Stephene Lopez	Checked by/Date [Signature] 5/11/12		

Radiological Background 14	Radiological Equipment Used MP R meter	PID Used Mini Rae 2000 (Background = 0.0cpm)
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Depth	Interval	Recovery	PID	Radiological	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Borehole Gamma Readings <small>(CPM)</small>
6"		↓	0.0	14	0'-6" SP SAND w/ silt (brown 10YR 4/3) 20% silt, 80% fine to coarse grained sand trace gravel (subangular & subrounded) plant material (roots, grass, twigs, leaves) very loose, non plastic, wet/saturated TD = 6" (Note: location near water from rain run-off)	SP	NA

Project Name: SSEL Area IV Radiological Study	Project Number: EP9038.01.22.04.03	Subarea ID: NBZ	Location ID: EPASED09
Drilling Company: HGL	Driller: NA	Ground Elevation: NA	Total Drilled Depth: 6"
Drilling Equipment: trowel/shovel	Borehole Diameter: NA	Date/Time Drilling Started: 1/13/11 / 0940	Date/Time Total Depth Reached: 1/13/11 / 1100
Type of Sampling Device: trowel/shovel	Samples Collected: EPASED09 / 0940 1/2 gal bag (2) / 4 oz jar (1)		
Geologist: Stephenie Lepage Montrose	Checked by/Date: <i>[Signature]</i> 5/1/12		

Radiological Background: 18 ³	Radiological Equipment Used: up R meter	PID Used: Mini Rae 2000 (0.2 ppm)
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Depth	Interval	Recovery	PID	Radiological	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Borehole Gamma Readings (CPM)
6"	5" 4" 3" 2" 1"	↓	0.3	20	<p>0-6" SM silty SAND (dark brown 10YR 3/3) 30% silt, 70% fine to coarse ground sand plant material (grass, roots), non plastic, loose, moist</p> <p style="text-align: center;">TD = 6"</p> <p>Note: Drainage contains primarily sandstone and is on an approximately 70° slope</p>	SM	NA

Project Name: SSEL Area IV Radiological Study	Project Number: EP9038.01.22.04.03	Subarea ID: NBZ	Location ID: EPA5E010
Drilling Company: HGL	Driller: NA	Ground Elevation: NA	Total Drilled Depth: 6"
Drilling Equipment: trowel/shovel	Borehole Diameter: NA	Date/Time Drilling Started: 12/22/10 / 1010	Date/Time Total Depth Reached: 12/22/10 / 1030
Type of Sampling Device: trowel/shovel	Samples Collected: EPA5E010 1010 (2) 1/2 gal bag - / (1) 4oz. jar		
Geologist: Stephanie Lequin Mastroz	Checked by/Date: K. Stout Mallyat 5/1/12		

Radiological Background: 18	Radiological Equipment Used: RP R meter	PID Used: Mini Rae 2000 (Background = 0.3ppm)
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Depth	Interval	Recovery	PID	Radiological	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Borehole Gamma Readings (CPM)
6"			0.3	18	0" - 6" SW SAND (brown 10YR 5/3) 15% silt, 80% fine to coarse grained sand very loose, moist, non plastic, 5% gravel (sub angular & sub rounded) plant material (roots, grass, twigs, leaves) well graded TD = 6"	SW	NA

Project Name: SSEL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID N3Z	Location ID EPASED L1
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/16/10 / 1420	Date/Time Total Depth Reached 12/16/10 / 1435
Type of Sampling Device trowel/shovel	Samples Collected EPASED 11 1420		
Geologist Stephanie Lapaya Montano	Checked by/Date [Signature] 5/1/12		
Radiological Background 16	Radiological Equipment Used AP R meter	PID Used Mini Rae 2000 (Background = 0.0 gpm)	

Depth	Interval	Recovery	PID	Radiological	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Inches	Borehole Gamma Readings (CPM)
6"	5"		07	15	0"-6" SM silty SAND (Dark Brown 10YR 3/3) 40% silt, 60% fine to medium grained sand low plasticity, very soft, loose, moist plant material (grass, roots, leaves)	SM		NA
					TD = 6"			

Project Name: SSEL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NBE	Location ID EPASED 12
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/17/10 / 1020	Date/Time Total Depth Reached 12/17/10 / 1035
Type of Sampling Device trowel/shovel	Samples Collected EPASED 12 1020 (2) 1/2 gal bags / (1) 4oz jar		
Geologist Stephanie Legume Andrade	Checked by/Date [Signature] 5/1/12		

Radiological Background 18	Radiological Equipment Used MP R meter	PID Used Mini Rae 2000 (Background = 0.0ppm)
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Depth	Interval	Recovery	PID	Radiological	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Borehole Gamma Readings	
							Inches	(CPM)
6"			0.0	18	0"-6" SW SAND (brown 10YR 5/3) @ 15" 5% silt, 80% fine to coarse grained sand 5% gravel (sub angular + subrounded), plant material (roots, leaves, twigs), non plastic, loose, moist, well graded TD = 6" Note: sandstone ballus throughout drainage/run	SW	NA	

Project Name: SSEL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NBZ	Location ID EPASED 13
Drilling Company HGL	Driller	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/16/10 / 1530	Date/Time Total Depth Reached 12/16/10 / 1550
Type of Sampling Device trowel/shovel	Samples Collected EPASED 13 1530 (2) 1/2 gal bag / (1) 4oz jar		
Geologist Stephen Lepore Montrose	Checked by/Date [Signature] 5/1/12		

Radiological Background 15	Radiological Equipment Used AP R meter	PID Used Mini Rae 2000 (Background = 0.9 ppm)
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Depth	Interval	Recovery	PID	Radiological	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Borehole Gamma Readings	
							Inches	(CPM)
6"			0.9	15	0.4-6" silty SAND (brown 10YR 4/3) 40% silt, 60% fine to coarse grained sand. low plasticity, very soft, loose, moist plant material (roots, leaves, twigs)	SM	NA	
					TD = 6"			

Project Name: SSEL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NBE	Location ID EPA500 14
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/17/10 / 0845	Date/Time Total Depth Reached 12/17/10 / 0855
Type of Sampling Device trowel/shovel	Samples Collected EPA500 14 0845 (2) 1/2 gal bag (W) 401 jar		
Geologist Stephanie Lynn Norton	Checked by/Date J. Stewart Wilford 5/1/12		

Radiological Background 18	Radiological Equipment Used AP R meter	PID Used Mini Rae 2000 (Background = 0.0 ppm)
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Depth	Interval	Recovery	PID	Radiological	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Borehole Gamma Readings	
							Inches	(CPM)
6"			0.0	18	0"-6" SM silty SAND (Brown 10YR 4/3) 25% silt, 75% fine to coarse grained sand plant material (roots, grass, leaves, twigs) non plastic, loose, moist TID = 6" (note: raining during sampling)	SM	NA	

Project Name: SSEL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NBZ	Location ID EPASED 15
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/21/10 / 1305	Date/Time Total Depth Reached 12/21/10 1315
Type of Sampling Device trowel/shovel	Samples Collected EPASED 15 1305 (2) 1/2 gal bag (1) 4 oz jar		
Geologist Stephanie Lapeyre Anderson	Checked by/Date St. Stewart [Signature]		

Radiological Background 18	Radiological Equipment Used MP R meter	PID Used Mini Rae 2000 (background = 0.01 ppm)
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Depth	Interval	Recovery	PID	Radiological	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Borehole Gamma Readings	
							Inches	(CPM)
6"			0.1	18	0'6" SM silty sand (very dark brown 10YR 2/2) 30% silty fine to coarse grained sand plant material (roots, grass, leaves) moist, low plasticity, loose, very soft TD = 6"	SM	NA	

Project Name: SSEL Area JV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID Area 10 + NBZ	Location ID EPASED 16
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/15/10 / 1340	Date/Time Total Depth Reached 12/15/10 / 1405
Type of Sampling Device trowel/shovel	Samples Collected EPASED 16 1340 (2) 1/2 gal bags / (1) 4oz jar		
Geologist Stephanie Lepeux Portrose	Checked by/Date A. Stant... 5/1/12		

Radiological Background 15	Radiological Equipment Used RP R meter	PID Used Mini Rae 2000 (Background = 0.0 ppm)
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Depth	Interval	Recovery	PID	Radiological	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Borehole Gamma Readings	
							Inches	(CPM)
6"			0.4	15	0"-6" SM silty sand (dark brown: 10YR 3/3) 10% clay, 35% silt, 55% fine to med. graded sand low plasticity, very soft, moist, plant debris / natural (roots, grass, leaves, twigs) TD = 6" Note: at 6" = sandstone	SM	NA	

Project Name: SSEL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID N32	Location ID EP9038 17
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/10/10 / 1050	Date/Time Total Depth Reached 12/10/10 / 1120
Type of Sampling Device trowel/shovel	Samples Collected EP9038 17 1050 (2) 4oz gel bag / (1) 4oz jar		
Geologist Stephanie Lopez Montrose	Checked by/Date [Signature] 5/1/12		

Radiological Background 14	Radiological Equipment Used APR meter	PID Used Mini Rae 2000 (Background = 0.1 ppm)
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Depth	Interval	Recovery	PID	Radiological	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Borehole Gamma Readings (CPM)
6"			1.0	12	0'-6" SM silty sand (dark brown 10YR 3/3) 40% silt 60% fine to coarse grained sand plant material (roots), trace gravel - subangular, concrete debris, metal wire, worm low plasticity, very soft, loose, moist TD = 6" Note: Drilling contained considerable amount of debris (concrete, wires)	SM	NA

Project Name: SSEL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID Area 10 + WGE	Location ID EPASED 18
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/15/10 / 1240	Date/Time Total Depth Reached 12/15/10 / 1255
Type of Sampling Device trowel/shovel	Samples Collected EPASED 18 1240 (2) 42 gal bag / (1) 4oz. jar		
Geologist Stephanie Lepage Montrose	Checked by/Date A. Stewart 5/1/12		

Radiological Background 15	Radiological Equipment Used MP R meter	PID Used Mini Rae 2000 (Background = 0.8 ppm)
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Depth	Interval	Recovery	PID	Radiological	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Borehole Gamma Readings (CPM)
6"			0.8	15	0"-6" silt SAND SM SAND (3) 45% silt, 55% fine to medium grained sand low plasticity, very soft, moist plant material/debris (roots, leaves, twigs) TO = 6"	SM	NA

Project Name: SSEL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NBZ	Location ID EPASEO 19
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/16/10 / 0935	Date/Time Total Depth Reached 12/16/10 / 0950
Type of Sampling Device trowel/shovel	Samples Collected EPASEO 19 0935 (2) 1/2 gal bag / (1) 4oz jar		
Geologist Stephane Lepym Nantua		Checked by/Date J. Howard Wilford 5/1/12	

Radiological Background 15	Radiological Equipment Used AP R meter	PID Used Mini Rae 2000 (Background = 0.07ppm)
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Depth	Interval	Recovery	PID	Radiological	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Borehole Gamma Readings (CPM)
6"			0.0	15	<p>0"-6" ^{dark yellowish} silty sand (brown 10YR 3/4)</p> <p>10% clay, 35% silt, 55% fine to medium grained sand, trace coarse grained sand, plant debris (roots, twigs), worms, low plasticity, very soft, moist</p> <p style="text-align: center;">TD = 6"</p>	SM	NA

Project Name: SSEL Area JV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NSZ	Location ID ERASED 20
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/16/10 / 1140	Date/Time Total Depth Reached 12/16/10 / 1200
Type of Sampling Device trowel/shovel	Samples Collected ERASED 20 1140 (2) 1/2 gal bag / (1) 4 oz jar		
Geologist Stephanie Lepeya Montez	Checked by/Date [Signature] 5/2/12		

Radiological Background 14	Radiological Equipment Used up R meter	PID Used Mini Rae 2000 (Background = 0.4 ppm)
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Depth	Interval	Recovery	PID	Radiological	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Inches	Borehole Gamma Readings (CPM)
6"			0.4	14	0"-6" SM silty sand (dark brown color = 3/3) 30% silt, 70% fine to coarse grained sand, plant material (roots, grass, leaves), non plastic, loose, moist TOC = 6" Note: sandstone outcrop approx 4 ft. down gradient in drainage	SM		NA

Project Name: SSEL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NB2	Location ID EPASED 21
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/15/10 / 0930	Date/Time Total Depth Reached 12/15/10 / 0940
Type of Sampling Device trowel/shovel	Samples Collected EPASED 21 0930 (2) 1/2 gal bags / (1) 4 oz jar		
Geologist Stephanie Lepepe-Morhose	Checked by/Date <i>[Signature]</i> 5/2/12		

Radiological Background 19	Radiological Equipment Used MP R meter	PID Used Mini Rae 2000 (Background = 0.0ppm)
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Depth	Interval	Recovery	PID	Radiological	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Inches	Borehole Gamma Readings (CPM)
6"			0.7	19	0"-6" SP SAND (brown 10YR 4/3) 10% silt, 90% fine to coarse grained sand, plant debris, loose, moist, plant (leaves, twigs)	SP		NA
					TD = 6" Note: Drainage/Rainie contained numerous sandstone boulders and heavy brush			

Project Name: SSEL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NBZ	Location ID EPASED 22
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/14/10 / 1010	Date/Time Total Depth Reached 12/14/10 / 1030
Type of Sampling Device trowel/shovel	Samples Collected EPASED 22 1010 (2) 1/2 gal bags / (1) 4 oz jar		
Geologist Stephanie Lopez-Montez	Checked by/Date A. Howard Millipal 5/12/12		

Radiological Background 20	Radiological Equipment Used AP R meter	PID Used Mini Rae 2000 (Background = 0.0ppm)
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Depth	Interval	Recovery	PID	Radiological	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Borehole Gamma Readings	
							Inches	(CPM)
6"			0.2	20	0"-6" SM silty sand (brown 10YR 3/3) 30% silt, 70% fine to coarse grained sand, plant material (leaves, roots, twigs), trace gravel subrounded & subangular, 100% moist, non plastic TD = 6" Note: drainage contained numerous sandstone boulders	SM	NA	

Project Name: SSFL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NBZ	Location ID EMSD 23
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/14/10 / 0920	Date/Time Total Depth Reached 12/14/10 / 0940
Type of Sampling Device trowel/shovel	Samples Collected EMSD 23 0920 (2) 1/2 gal bags / (1) 4 oz jar		
Geologist Stephanie Lapeyre Montrose	Checked by/Date J. Stewart Wilkford 5/2/12		

Radiological Background 22	Radiological Equipment Used APR meter	PID Used Mini Rae 2000 (Background = 0.0 ppm)
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Depth	Interval	Recovery	PID	Radiological	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Inches	Borehole Gamma Readings (CPM)
6"			0.0	21	0.1-6" silty sand (dark brown 10 YR 2/2) 35% silt, 65% fine to coarse grained sand non plastic, loose, trace gravel-subangular and sub rounded plant material (roots, grass) moist TD = 6"	SM		NA
					Note: Drainage composed of primarily sandstone			

Project Name: SSFL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NBZ	Location ID EPASED 24
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/14/10 / 1120	Date/Time Total Depth Reached 12/14/10 / 1145
Type of Sampling Device trowel/shovel	Samples Collected EPASED 24 1120 (2) 1/2 gal bags / (1) 4 oz jar		
Geologist Stephanie Lapere Montrose	Checked by/Date J. Stewart Vulliamy 5/2/12		

Radiological Background 20	Radiological Equipment Used MP R meter	PID Used Mini Rae 2000 (Background = 0.7 ppm)
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Depth	Interval	Recovery	PID	Radiological	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Inches	Borehole Gamma Readings (CPM)
6"			1.0	20	0' - 6" SM silty sand (dark brown 10YR 3/5) 30% silty, 70% fine to coarse grained sand plant debris/material (twigs, leaves, grass, roots), loose, non plastic, moist TD = 6" Note: Drivage composed of primarily sandstone	SM		NA

Project Name: SSEL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NSZ	Location ID EPA50 25
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/14/10 / 1245	Date/Time Total Depth Reached 12/14/10 / 1310
Type of Sampling Device trowel/shovel	Samples Collected EPA50 25 1245 (2) 1/2 gal bags / (1) 4oz. jar		
Geologist Stephanie Lepere Montrose	Checked by/Date J. Stewart Hill / 5/22/12		

Radiological Background 20	Radiological Equipment Used up R meter	PID Used Mini Rae 2000 (Background = 1.0 @ 6.0 ppm)
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Depth	Interval	Recovery	PID	Radiological	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Borehole Gamma Readings (CPM)
6"			0.8	20	0"-6" SA silty SAND (clean brown 10YR 2/2) 30% silt, 70% fine to coarse grained sand non plastic, loose, moist, plant debris/matted (roots, leaves, twigs) TD = 6" Drainage composed primarily of sandstone	SA	NA

Project Name: SSEL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NBZ	Location ID EPASEO 26
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/14/10 / 1425	Date/Time Total Depth Reached 12/14/10 /
Type of Sampling Device trowel/shovel	Samples Collected EPASEO 26 1525 (2) 1/2 gal bags / (1) 4oz jar		
Geologist Stephane Lepin	Checked by/Date J. Stewart Mallyard 5/2/12		

Radiological Background 18	Radiological Equipment Used up R meter	PID Used Mini Rae 2000 (Background = 0.9 ppm)
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Depth	Interval	Recovery	PID	Radiological	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Inches	Borehole Gamma Readings (CPM)
6"			0.8	19	0"-6" ML sand, SILT (brown 10YR 4/3) 10% clay, 50% silt, 40% fine to medium grained sand, plant material (roots, grass, twigs) low plasticity, very soft, moist TD = 6"	ML		NA

Project Name: SSEL Area JV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID N02	Location ID BASED 27
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/14/10 / 1605	Date/Time Total Depth Reached 12/14/10 / 1620
Type of Sampling Device trowel/shovel	Samples Collected EPASD 27 1605 (2) 1/2 gal bags / (1) 4 oz. jar		
Geologist Stephanie Lepeymontre	Checked by/Date A. Stewart Williford 5/14/12		

Radiological Background 20	Radiological Equipment Used up R meter	PID Used Mini Rae 2000 (Background = 1.2 ppm)
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Depth	Interval	Recovery	PID	Radiological	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Borehole Gamma Readings	
							Inches	(CPM)
6"			1.2	19	0-6" SM silty SAND (brown 10YR 4/3) 30% silt, 70% fine to coarse grained sand, plant material (roots, twigs/grass), loose moist, non plastic, piece of white plastic TD = 6"	SM	NA	

Project Name: SSFL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NBZ	Location ID EPASED 28
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 1/13/11 / 1115	Date/Time Total Depth Reached 1/13/11 / 1145
Type of Sampling Device trowel/shovel	Samples Collected EPASED 28 / 1115 1/2 gal bag (2) / 4 oz jar (1)		
Geologist Stephanie Lapeyre Montrose	Checked by/Date <i>[Signature]</i> 5/2/12		

Radiological Background 19	Radiological Equipment Used AP R meter	PID Used Mini Rae 2000 (0.2 ppm)
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Depth	Interval	Recovery	PID	Radiological	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Inches	Borehole Gamma Readings (CPM)
6"			0.2	19	0-6" SM silty SAND (very dark brown 10% 2/2) 30% silt, 70% fine to coarse grained sand plant material (grass, roots), trace gravel - sub angular wet, non-plastic, loose	SM		NA
					TD = 6" Note: pooled water still in drainage from rains, drainage primarily sandstone.			

Project Name: SSEL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID N02	Location ID EPASED 29
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth (dug via trowel) 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/13/10 / 1150	Date/Time Total Depth Reached 12/13/10 / 1205
Type of Sampling Device trowel/shovel	Samples Collected EPASED 29 1150 (2) 1/2 gal bags / (1) 4oz jar		
Geologist Stephanie Lapierre Montrose	Checked by/Date J. Stewart Wilkford 5/2/12		

Radiological Background 20	Radiological Equipment Used w/ R meter	PID Used Mini Rae 2000 (Background=0.0 ppm)
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Depth	Interval	Recovery	PID	Radiological	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Inches	Borehole Gamma Readings (CPM)
6"			0.0	20	5M silty SAND (brown 10YR 3/3) 25% silt, 70% fine to coarse grained sand plant material/debris (roots, leaves, twigs) non plastic, loose, fine 5% subangular and subrounded gravel TD = 6"	SM		NA

Project Name: SSEL Area JV Radiological Study	Project Number: EP9038.01.22.04.03	Subarea ID: N 37	Location ID: EPASED 30
Drilling Company: HGL	Driller: NA	Ground Elevation: NA	Total Drilled Depth: 6"
Drilling Equipment: trowel/shovel	Borehole Diameter: NA	Date/Time Drilling Started: 12/13/10 / 1110	Date/Time Total Depth Reached: 12/13/10 / 1120
Type of Sampling Device: trowel/shovel	Samples Collected: EPASED 30 / 1110 (2) 1/2 gal bag / (1) 4 oz jar		
Geologist: Stephane Lepere Moritose	Checked by/Date: J. Howard Williams 5/2/12		

Radiological Background: 16	Radiological Equipment Used: up R meter	PID Used: Mini Rae 2000 (Background = 0.0 ppm)
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Depth	Interval	Recovery	PID	Radiological	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Inches	Borehole Gamma Readings (CPM)
6"			0.0	16	<p>0"-6" SM silty sand (Dark Brown 10YR 3/3)</p> <p>10% clay; 30% silt, 60% fine to med. grained sand</p> <p>plant debris/material (roots)</p> <p>low plasticity, very soft, moist</p> <p style="text-align: center; font-size: 1.2em;">TD = 6"</p>	SM	NA	NA

Project Name: SSFL Area IV Radiological Study		Project Number EP9038.01.22.04.03	Subarea ID NB2	Location ID EPASED31				
Drilling Company HGL		Driller NA	Ground Elevation NA	Total Drilled Depth 6"				
Drilling Equipment trowel/shovel		Borehole Diameter NA	Date/Time Drilling Started 12/13/10 / 0920	Date/Time Total Depth Reached 12/13/10 / 0930				
Type of Sampling Device trowel/shovel			Samples Collected EPASED31 0930 (2) 1/2 gal bag / (1) 4oz jar					
Geologist Stephanie Lepeye Montrose			Checked by/Date M. Stuart Williford 5/2/12					
Radiological Background 19		Radiological Equipment Used APR meter		PID Used Mini Rae 2000 (background = 0.0 ppm)				
Depth	Interval	Recovery	PID	Radiological	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Inches	Borehole Gamma Readings (CPM)
6"			0.0	15	0'-6" SM silty SAND (dark brown 10YR 3/3) 30% silt, 70% fine to coarse grained sand trace gravel, plant material (roots), no plastic, loose subangular & sub rounded moist	SM		NA
					TO = 6"			

Project Name: SSEL Area JV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NBZ	Location ID EPASED 32
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/13/10/1450	Date/Time Total Depth Reached 1510 / 12/13/10
Type of Sampling Device trowel/shovel	Samples Collected EPASED 32 1455 2) 1/2 gal bag (1) 4 oz jar		Checked by/Date J. Stout/5/2/12
Geologist Stephanie Lapoyre Montrose		Checked by/Date	

Radiological Background ZZ	Radiological Equipment Used up R meter	PID Used Mini Rae 2000 (Background = 0.0 ppm)
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Depth	Interval	Recovery	PID	Radiological	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Inches	Borehole Gamma Readings (CPM)
6"			0.0	21	<p>SM silty SAND (dark brown 10YR 3/3) 25% silt, 75% fine to coarse grained sand, trace gravel (subangular) (subrounded) plant material/debris (roots, twigs, grass), non plastic, loose, moist</p> <p>TD = 6"</p>	Sr		NA

Project Name: SSEL Area JV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NBZ	Location ID EPASED33
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/13/10 / 1540	Date/Time Total Depth Reached 12/13/10 / 1550
Type of Sampling Device trowel/shovel	Samples Collected EPASED33 1540 (2) 1/2 gal bag #11402708		
Geologist Stephanie Lepere-Montrose	Checked by/Date J. Stewart with form 5/2/12		

Radiological Background 21	Radiological Equipment Used up R meter	PID Used Mini Rae 2000 Background (0.0)
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Depth	Interval	Recovery	PID	Radiological	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Borehole Gamma Readings (CPM)
6"	2	1	21.0	21	0'-6" SW SAND (Brown to yr 4/3) 10% silt, 85% fine to coarse grained sand, 5% gravel (sub angular and sub rounded) very loose, moist TD = 6"	SW	NA

Project Name: SSEL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NBZ	Location ID ERASED 34
Drilling Company HGL	Driller	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/20/10 / 1530	Date/Time Total Depth Reached 12/20/10 / 1530
Type of Sampling Device trowel/shovel	Samples Collected ERASED 34 1530 (2) 1/2 gal bags (1) 4oz jar		
Geologist Stephens Lopez	Checked by/Date E. Stuart Willford 5/2/12		

Radiological Background 16	Radiological Equipment Used up R meter	PID Used Mini Rae 2000 (background = 0.0 pp-)
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Depth	Interval	Recovery	PID	Radiological	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Borehole Gamma Readings (CPM)
6"				16	<p>0'-6" SP SAND with silt (brown 10YR 5/3)</p> <p>20% silt, 80% fine to coarse grained sand</p> <p>trace gravel - subangular & subrounded,</p> <p>loose, saturated ^{wet/saturated}, non plastic, plant material (grass, roots, leaves)</p> <p>TP = 6"</p> <p>Note: location where water</p>	SP	NA

Project Name: SSFL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID N32	Location ID EPASED35
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth NA
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 5/23/2011 / 0940	Date/Time Total Depth Reached 5/23/2011 / 1520
Type of Sampling Device trowel/shovel	Samples Collected EPASED35 1320 (4) 1/2-gal. bags + (1) 8-oz. jar		
Geologist Stephanie Lapeyre Montrose	Checked by/Date <i>[Signature]</i>		

Radiological Background NA	Radiological Equipment Used M R meter (NA)	PID Used Mini Rae 2000 (NA)
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Depth	Interval	Recovery	PID	Radiological	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Borehole Gamma Readings	
							Inches	(CPM)
**			NA	NA	100% saturated, contained fine to coarse grained sediment (unable to determine percentages), very dark color, organic material, strong odor. Unable to conduct field tests to determine lithology and collect readings from PID and micro R due to saturation. ** Collected sediment from the bottom of the hole 56 excavation (also known as the "million dollar hole")			NA

Project Name: SSEL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NBZ	Location ID EPASED 36
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/21/10 / 1155	Date/Time Total Depth Reached 12/21/10 / 1200
Type of Sampling Device trowel/shovel	Samples Collected EPASED 36 1155 (2) 12 gal bags 1 (1) 402 jar		
Geologist Stephanie Lapierre Minkov	Checked by/Date A. Stuart Wilford 5/2/12		

Radiological Background 14	Radiological Equipment Used M/R meter	PID Used Mini Rae 2000 (background = 0.0 ppm)
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Depth	Interval	Recovery	PID	Radiological	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Borehole Gamma Readings (CPM)
6"			0.8	14	0"-6" ML sandy SILT with clay (brown 10YR 5/3) 15% clay, 40% fine grained sand, 45% silt plant material (roots, grass) low plasticity; soft, moist TD = 6"	ML	NA

Project Name: SSEL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NB2/Area IV	Location ID EPASB0 37
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/20/10 / 1430	Date/Time Total Depth Reached 12/20/10 / 1450
Type of Sampling Device trowel/shovel	Samples Collected EPASB0 37 1430 (2) 1/2 gal bags / (1) 4 oz jar		
Geologist Stephanie Lopez-Munoz	Checked by/Date J. [Signature] 5/2/12		

Radiological Background No	Radiological Equipment Used M R meter	PID Used Mini Rae 2000 (Background = 0.0 ppm)
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Depth	Interval	Recovery	PID	Radiological	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, minerology, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Borehole Gamma Readings	
							Inches	(CPM)
6"			00	16	0-6" SM silty sand (brown 10YR 4/3) 25% silty 75% fine to coarse grained sand trace gravel - subangular & subrounded loose, non-plastic, wet, plant material (roots, twigs, leaves, grass) TD = 6" Note: Considerable amount of debris (barbed wire, tin cans, concrete & asphalt debris) in drainage near sample location.	SM	NA	

Project Name: SSEL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NBZ	Location ID EPASED 38
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6'
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/21/10 1515	Date/Time Total Depth Reached 12/21/10 1530
Type of Sampling Device trowel/shovel	Samples Collected BRASED 38 1515 (2) 1/2 gal bag / (1) 4oz jar		
Geologist Stephanie Lopez MS	Checked by/Date M. Stewart Willford 5/12		

Radiological Background 18	Radiological Equipment Used AP R meter	PID Used Mini Rae 2000 (background = 0.3ppm)
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Depth	Interval	Recovery	PID	Radiological	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Borehole Gamma Readings (CPM)
6"	0'-6"			18	silty SAND (brown 10YR 4/3) 25% silt, 75% fine to coarse grained sand plant material (roots, grass, leaves) non-plastic, loose, moist TD = 6"	SM	NA

Project Name: SSEL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NBZ	Location ID ERASED 39
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/21/10 / 1055	Date/Time Total Depth Reached 12/21/10 / 1105
Type of Sampling Device trowel/shovel	Samples Collected ERASED 39 / 1055 (2) 1/2 gal bag / (1) 4 oz jar		
Geologist Stephane Lapere Montrose	Checked by/Date J. Hunt / 5/2/12		

Radiological Background 6	Radiological Equipment Used M R meter	PID Used Mini Rae 2000 (Background = 0.0cpm)
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Depth	Interval	Recovery	PID	Radiological	Description (Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)	USCS Symbol	Borehole Gamma Readings	
							Inches	(CPM)
6"			0.1	16	0"-6" SP SAND (brown 10YR 5/3) 15% silt, 85% fine to coarse grained sand very loose, moist, non plastic plant debris (roots, leaves) TD = 6"	SP		NA

Project Name: SSFL Area IV Radiological Study	Project Number EP9038.01.22.04.03	Subarea ID NB2	Location ID EPASED 40
Drilling Company HGL	Driller NA	Ground Elevation NA	Total Drilled Depth 6"
Drilling Equipment trowel/shovel	Borehole Diameter NA	Date/Time Drilling Started 12/13/10 / 1020	Date/Time Total Depth Reached 12/13/10 / 1030
Type of Sampling Device trowel/shovel	Samples Collected EPASED 40 (2) 1/2 gal bag / (1) 4 oz jar		
Geologist Stephanie Lepeque Montrose	Checked by/Date <i>[Signature]</i> 5/2/12		

Radiological Background 19	Radiological Equipment Used dPR meter	PID Used Mini Rae 2000 (background = 0.0ppm)
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Depth	Interval	Recovery	PID	Radiological	Description <small>(Include lithology, grain size, sorting, angularity, Munsell color name & notation, mineralogy, bedding, plasticity, density, consistency, etc., as applicable)</small>	USCS Symbol	Borehole Gamma Readings (CPM)
6"		↓	0.0	19	0'-6" SM (dark brown 1042 3/3) silty sand, 30% silt, 70% fine to coarse grained sand, non plastic, loose, moist, plant material/roots <div style="text-align: center; font-size: 2em;">TD = 6"</div>	SM	NA