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CH2MHILL

SMO-473/06
August 2, 2006

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CODE 6443.11

Mr. Don Pfister, Director
Miamisburg Closure Project
U. S. Department of Energy
175 Tri-County Parkway
Springdale, OH 45246

ATTENTION: Paul Lucas

**SUBJECT:** **Contract No. DE-AC24-03OH20152:** Deliverable #39 Potential release site and removal action documentation; Section C.2.3.1.3 Remaining Response Actions; PRS 11 OSC Report, Final

Dear Mr. Pfister:

Attached is the following Final document for your records.

- PRS 11 OSC Report, Final

If you or members of your staff have any questions regarding the document, or if additional support is needed, please contact Dave Rakel at 937-865-4203.

Sincerely,

Michael D. Ebben
Site Manager

ME/jg

Enclosures

cc: T. Fischer, USEPA, (1) w/attachments
B. Nickel, OEPA, (1) w/attachments
S.Helmer, ODH, (1) w/attachments
J. Crombie, ODH, (1) w/attachments
M. Wojciechowski, Tetra Tech, (1) w/attach
G. Gorsuch, DOE/MCP, (1) w/attachments
R. Tormey, DOE/OH, (1) w/attachments
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# PRS 11

## REMOVAL ACTION

# OSC REPORT

This Report Closes PRS 11

**June 2006**

**Final**

**Department of Energy**
**Miamisburg Closure Project**

**CH2MHILL**

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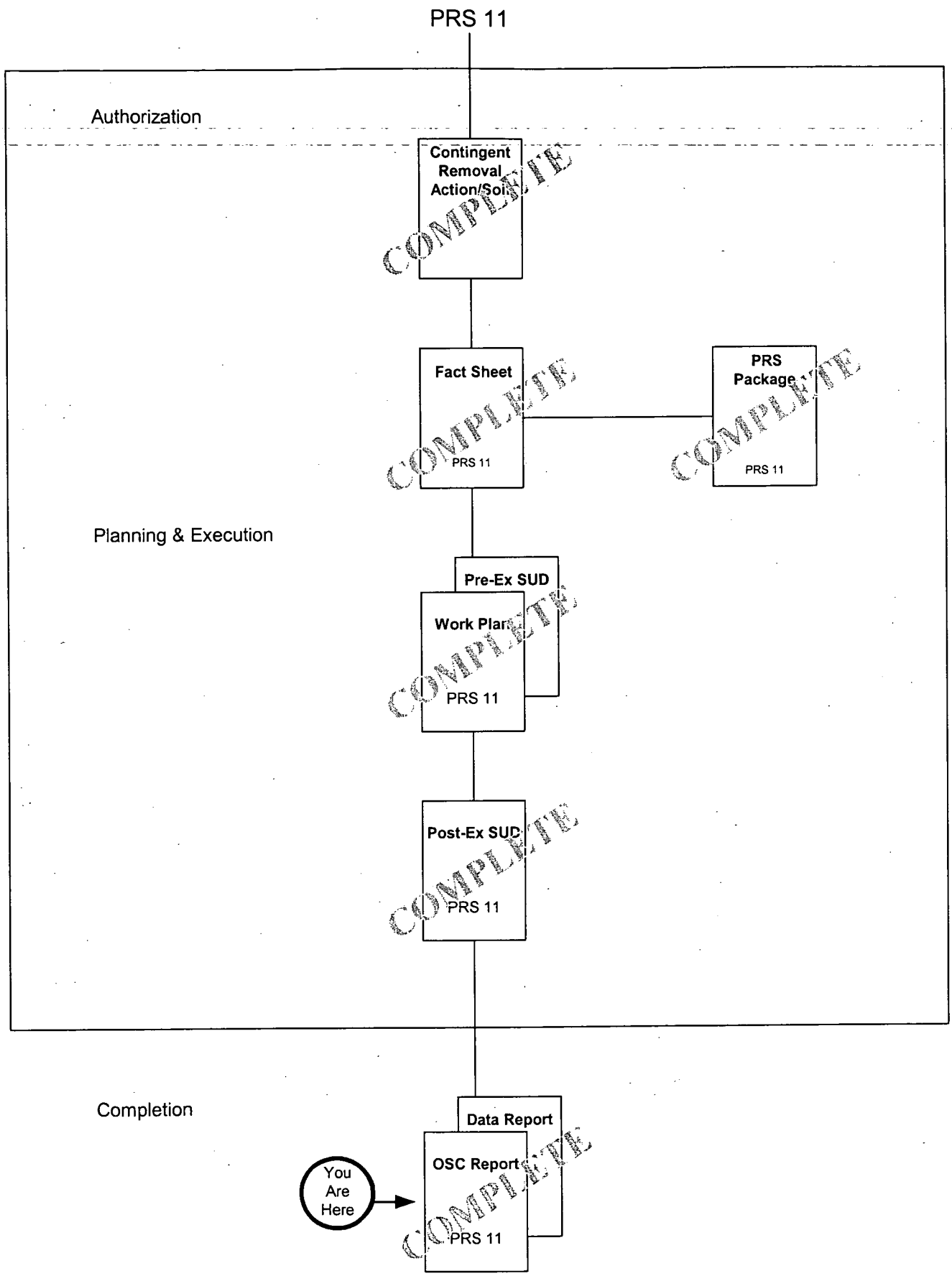
# PRS 11

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## Attachments


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| Attachment A | Data Report |
| Attachment B | General Media Information |
| Attachment C | Photo Documentation |
| Attachment D | Public Fact Sheet |

## Acronyms

| | |
|---|---|
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CO | cleanup objective |
| COC | contaminant of concern |
| cy | cubic yards |
| DOE | Department of Energy |
| Ex | Excavation |
| HS | hot spot |
| MCP | Miamisburg Closure Project |
| OEPA | Ohio Environmental Protection Agency |
| OSC | On-Scene Coordinator |
| pCi/g | picoCuries per gram |
| PRP | Potentially Responsible Parties |
| PRS | Potential Release Site |
| RA | Removal Action |
| RASS | Remedial Action Support Survey |
| SUD | Survey Unit Design |
| UCL | upper confidence limit |
| USEPA | United States Environmental Protection Agency |
| VSAP | Verification Sampling and Analysis Plan |

# RECOMMENDATION: PRS 11

The PRS 11 Removal Action (RA) was authorized via the Contingent Action Memo, (Action Memorandum EE/CA, Contingent Removal Action for Contaminated Soil, Final, June 2002) and Public Fact Sheet for PRS 11: Thorium and Polonium-Contaminated Waste Area, Final, May 2005. The PRS 11 RA was performed as a result of historical knowledge and processes, and radiological surveys and soil sample results which showed elevated levels of Th-232. An area immediately east of PRS 11, known to contain "Dayton Unit" debris, was also characterized for radiological contamination as part of the PRS 11 RA. The scope of removal was to remove radioactive contamination associated with the crushed empty thorium drums adjacent to what is known as the "site sanitary landfill," remove contaminated materials (if present) associated with the "Dayton Unit" debris area, and document radioactive contaminants (if present) remaining in the wall adjacent to the "site sanitary landfill."

Radiologically contaminated soil at PRS 11 was excavated per the Contingent Action Memo and Standard Work Package ER/ST-04-011. Verification sampling and analysis for PRS 11 and characterization sampling for the Dayton Unit debris area was performed in accordance with the Standard VSAP, Soils Verification Sampling & Analysis Plan, Final, August 2004.

For PRS 11, the criteria for completion required that the maximum volume of radiologically contaminated soil be removed (supported by an engineering evaluation) without impacting the integrity of the adjacent landfill.

This removal action was successfully completed and resulted in the excavation (at PRS 11 only) and disposal of approximately 14,978 cubic yards (cy) of radioactively contaminated soil (for disposal at Envirocare). Radioactive contamination remains in the wall adjacent to the landfill. Other historical wastes, including but not limited to volatile organic compounds, remain in the central and northern areas of the PRS 11 excavation.

After a thorough review of this On-Scene Coordinator (OSC) Report, the Core Team agrees that the RA associated with PRS 11 and the Dayton Unit area has met the objective as described in the Public Fact Sheet, May 2005. The waste that remains will be addressed within Operable Unit 1.

Paul Lucas 6/13/06

Paul Lucas, OSC
U.S. Department of Energy
Springdale, Ohio

Timothy J. Fischer 6/13/06

Timothy J. Fischer, Remedial Project Manager
USEPA
Chicago, Illinois

6/19/06

Brian Nickel, Project Manager
OEPA
Dayton, Ohio

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## 1.0 SUMMARY OF EVENTS

This section describes the site background and events leading up to the removal action (RA), parties involved in responding to the RA, cleanup objective (CO) determination, chronological narrative of the RA, and resources committed to complete the project.

### 1.1 Site Conditions and Background

**Background.** PRS 11. Potential Release Site (PRS) 11 is located as shown on Figure 1 (on page A8/171). PRS 11 is a site containing crushed, buried drums previously containing thorium process materials used for thorium projects in the 1960s.

Dayton Unit area. The Core Team approved an alternate approach for the Dayton Unit Historic Burial Trench (SU3) that contains buried wood ash and debris from a fire that had consumed flooring that was potentially contaminated with polonium. Due to a lack of sample data, SU3 was developed under the Pre-Excavation Survey Unit Design to obtain at depth characterization (RASS) data. The RASS data results confirmed the absence of contamination (all results were below COs) and are reported in Attachment A.

**Removal Action.** This OSC Report documents completion of the PRS 11 RA and characterization performed at the Dayton Unit area; both of which were authorized via the Contingent Action Memo, (Action Memorandum EE/CA, Contingent Removal Action for Contaminated Soil, Final, June 2002) and Public Fact Sheet for PRS 11: Thorium and Polonium-Contaminated Waste Area, Final, May 2005. Known radiological contamination at PRS 11 and the potential for radiological contamination at the Dayton Units area warranted a RA under CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act). PRS 11 is closed via this OSC Report.

Radiologically contaminated soil at PRS 11 was excavated per the Contingent Action Memo and Standard Work Package ER/ST-04-011. Verification sampling and analysis for PRS 11 and characterization sampling for the Dayton Unit debris area was performed in accordance with the Standard VSAP, Soils Verification Sampling & Analysis Plan [VSAP], Final, August 2004 and the Post-Excavation (Ex) Survey Unit Design (SUD). An excerpt of the associated SUD is included in Appendix C of Attachment A to this OSC Report. The Public Fact Sheet, Attachment B, identifies the criteria for completion of PRS 11. SUs 1-3 are shown on Figure 2 (A9/171). Verification and characterization sampling results are contained in Attachment A and demonstrate that PRS 11 has met the objective as described in the Public Fact Sheet, May 2005.

For PRS 11, the criteria for completion in the direction of the landfill and buffer required that the maximum volume of radiologically contaminated soil be removed (and any remaining contamination characterized) without impacting the integrity of the adjacent landfill. An independent engineering evaluation report was generated to determine options to maximize contaminant removal, without jeopardizing the integrity of the adjacent landfill, and is included in Attachment A. Recommendations from the evaluation that were made available during the excavation activities were utilized.

Moving away from the landfill, contamination was chased and the surface was verified. All results are reported in Attachment A to this OSC Report.

Since the Department of Energy (DOE) is the sole responsible party for PRS 11, no Potentially Responsible Parties (PRPs) were sought to clean up the site. Monsanto Research Corporation, EG&G Mound Applied Technologies, and BWXT of Ohio, Inc were the operating contractors at the site from 1948 to 30 September 1988, from 1 October 1988 until 30 September 1997, and from 1 October 1997 until 31 December 2002 respectively. CH2M Hill Mound, Inc. became the site contractor for the Miamisburg Closure Project (MCP) effective January 1, 2003.

## 1.2 Organization of the Removal Action

Table 1 lists the parties responding to the removal action, and their responsibilities.

**Table 1: Organization of the Removal Action**

| | | |
|---|---|---|
| US Environmental Protection Agency (USEPA)<br>SFR-5J<br>77 W. Jackson Street<br>Chicago, IL 60604<br>312-353-2000 | Timothy J. Fischer | Federal agency responsible for oversight |
| Ohio Environmental Protection Agency (OEPA)<br>401 E. Fifth Street<br>Dayton, OH 45402-2911<br>937-285-6357 | Brian K. Nickel | State agency responsible for oversight |
| US Dept. of Energy<br>Miamisburg Closure Project<br>175 Tri-County Parkway<br>Springdale, OH 45246<br>513-246-0071 | Paul Lucas | On-scene Coordinator responsible for oversight and success |
| CH2M HILL<br>Environmental Restoration Project<br>1075 Mound Road<br>Miamisburg, OH 45343-3030<br>937-608-8220 | Jim Fontaine | Provide OSC with technical assistance, administrative support, field oversight, sample management, site safety, photo, site documentation, and preparation of the OSC Report |

## 1.3 Objectives

Documentation Objective. The objectives of this OSC Report are to describe the RA fieldwork and document successful completion. Remediation was not required for the Dayton Unit area. Material quantities for PRS 11 and disposition locations are presented in Table 2. The cost breakdown of the removal action is presented in Table 3.

## Table 2: Materials and Disposition

| Type of Material | Quantity (cy) | Disposal Method | Disposal Location |
|---|---|---|---|
| Contaminated soil/debris | 14,978 | Rail transport | Envirocare of Utah |
| Contaminated soil/debris (mixed waste) | 1 drum | Truck | Envirocare of Utah |

## Table 3: Removal Cost

| Cost Category | Cost |
|---|---|
| Planning/Fieldwork/ Restoration/grading/seeding | $ 1,094,445 |
| Transportation/Disposal of Contaminated Soil | $ 3,568,589 |
| Subcontractors (Verification Sampling, Analyses, & Data Validation) | $ 37,824 |
| Closure Documentation | $50,032 |
| **Estimated Total Project Cost** | **$ 4,750,890** |

For PRS 11, the criteria for completion in the direction of the landfill and buffer required that the maximum volume of radiologically contaminated soil be removed (supported by an engineering evaluation) and contamination characterized without impacting the integrity of the adjacent landfill. Moving away from the landfill, contamination was chased and the surface was verified. All results are reported in Attachment A to this OSC Report.

Cleanup Objective. Contaminants of concern (COCs) and COs were originally defined in the Fact Sheet (see Attachment B). Additional COCs identified during the fieldwork were included in the Post-Ex SUD. Final COCs, COs, and Hot Spot criteria are presented in Table 4.

## Table 4: Soil Cleanup Objectives (pCi/g)

| COC | Cleanup Objective | Hot Spot | Location |
|---|---|---|---|
| Actinium-227 +D | 4.6 | 13.61 | PRS 11 |
| Bismuth-210m | 8.3 | 24.9 | PRS 11 & Dayton area |
| Lead-210 +D | 7.4 | 19.8 | PRS 11 & Dayton area |
| Plutonium-238 | 55 | 165 | PRS 11 (SU2 Only) |
| Protactinium-231 | 4.0 | 11.8 | PRS 11 |
| Radium-226 +D | 2.9 | 4.7 | PRS 11 |

| COC | Cleanup Objective | Hot Spot | Location |
|---|---|---|---|
| Thorium-230 +D | 2.8 | 4.6 | PRS 11 |
| Thorium-232 +D | 2.1 | 3.5 | PRS 11 |
| Uranium-238 +D | 2.2 | 4.2 | PRS 11 |

+D indicates Plus Daughters

As-Left Data/Conditions. As described in the Core Team-approved Post-Ex SUD, the excavation could not remove all of the contaminated materials in the area (wall) adjacent to the landfill. A 15-foot buffer to the wall was established. Verification results within this buffer area above COs were removed from the verification data set and added to the wall as-left data set. Documentation of the as-left condition of the wall is provided in the Data Report (A97/171).

Verification results for PRS 11 are identified in the Data Report (Attachment A to this OSC Report), Tables 1 through 3 (A16/171 through A96/171). Two verification results (2.39 pCi/g and 2.57 pCi/g) at PRS 11 for Thorium-232 (Th-232) are above the CO of 2.1 pCi/g. Within the verification data set, these results met the cleanup criteria established in the Standard VSAP (see Data Report Appendix D). There were no other sample results (except Thallium-208 and Radium-224) that exceeded the CO for any analyte. Thallium-208 (Tl-208) and Radium-224 (Ra-224) are daughter products in the Th-232 decay chain. Since Th-232 is a contaminant of concern (COC), and all Th-232 results meet the cleanup criteria, the Tl-208 and Ra-224 CO exceedances are not considered significant because the CO for the parent nuclide (Th-232) accounts for daughter product activity. Therefore, no further action will be taken based on the parent nuclide (Th-232+D) results.

Hot Spot Criteria. The Hot Spot criteria for the contaminants are presented in Table 4. There were no sample results in the verification data set that exceeded the hot spot criteria for any analyte.

## 1.4 Chronological Narrative of the Removal Actions

Table 5 presents a chronological narrative of events surrounding the RA.

**Table 5: Chronology of RA**

| Timeframe | Activity |
|---|---|
| June 2002 | Contingent Action Memo issued |
| December 2003 | Fact Sheet and PRS Package recommending removal |
| August 2004 | Standard Verification Sampling & Analysis Plan approved |
| February 2005 | PRS 11 Work Plan and Pre-Excavation Survey Unit Design approved |
| May 2005 | PRS 11 Public Fact Sheet final |
| April 2005 - October 2005 | PRS 11 mobilization and contaminated soil RA activities |
| June-July 2005 | area characterization sampling |
| July 2005 | Engineering report |
| November 2005 - December 2005 | PRS 11 verification sampling & analysis. |
| December 2005 - January 2006 | Backfill and Site Restoration |
| February 2006 | PRS 11 OSC Report prepared |

# 2.0 EFFECTIVENESS OF THE REMOVAL ACTIONS

The PRS 11 (and area) removal action is complete. The objectives of the Public Fact Sheet, PRS 11: Thorium and Polonium-Contaminated Waste Area, Final, May 2005 described in Section 1.3 have been met. The Fact Sheet is included in Attachment D. The limits of verification are identified on Figures 2-5 (see A9/171 – A12/171). Results of verification sampling and analysis are provided in Attachment A, and photographs of the site remediation are provided in Attachment C.

## 2.1 Actions Taken by Mound Personnel

CH2M Hill Mound, Inc. personnel planned and performed removal action oversight, and performed monitoring, sampling and analyses, and documentation. The project met the removal action objectives (Section 1.3), as outlined in the Fact Sheet. CH2M Hill Mound, Inc. personnel prepared this OSC Report, which shows that the Removal Action objectives were achieved.

## 2.2 Actions Taken by Local, State, and Federal Agencies

The DOE/MCP was the lead agency for the RA and provided the funding. DOE, USEPA, and OEPA had oversight responsibility for the RA and review of the Action Memorandum and OSC Report to ensure that the objectives were met.

## 2.3 Actions Taken by Subcontractors

Subcontractors involved in the project included:

- Weston Solutions Inc. (Miamisburg, Ohio) - performed safety oversight, soil sampling, data management, and review and validation report.
- Water Quality (Cincinnati, Ohio) – performed excavation.
- Envirocare (Clive, Utah) - disposal of radiologically contaminated waste.
- Bowser-Morner, Inc. (Dayton, Ohio) – generated engineering report.

# 3.0 DIFFICULTIES ENCOUNTERED

## 3.1 Items that Affect the Removal Action

Removal of overburden, to access the area of contamination to be addressed, was required as the initial phase of the RA. The overburden being removed was surveyed in place via a walkover survey with a Field Instrument for Detection of Low Energy Radiation (FIDLER) and then removed in 5-foot cuts and transported to the southwest area of the Spoils Area (also known as PRS 282) to be stockpiled for reuse later as fill for PRS 11. The overburden material was staged in discrete piles, which were FIDLER surveyed prior to grading. During this process, four piles had elevated readings that prompted further investigation/action.

On May 3, 2005, a pile with an elevated FIDLER reading was bias sampled and yielded a result of 24.9 pCi/g Th-232. The entire pile, with an additional 1 to 1.5 feet of material that was under the footprint, was removed for disposal. As-left FIDLER survey and sampling showed no remaining contamination above COs (maximum result of 0.41 pCi/g Th-232). The response to this event was to change the work plan to remove overburden in 1.5-foot cuts instead of 5-foot cuts.

On May 10, 2005, two piles exhibited elevated FIDLER readings. The first was attributed to a large granite rock with encrusted dirt. However, the entire pile, with an additional 1 to 1.5 feet of material that was under the footprint, was removed for disposal as a precautionary measure. As-left survey and sampling showed no remaining contamination above COs (maximum result of 0.49 pCi/g Th-232). The second pile, with an elevated FIDLER reading, was attributed to a piece of glass (approximately one foot below the piles surface). The glass was removed and the pile resurveyed. No elevated FIDLER readings were observed.

On May 11, 2005, a pile with an elevated FIDLER was bias sampled and yielded a result of 25.58 pCi/g Th-232. The entire pile, with an additional 1 to 1.5 feet of material that was under the footprint, was removed for disposal. As-left survey and sampling showed no remaining contamination above COs (maximum result of 0.47 pCi/g Th-232). An investigation revealed the elevated soils origin to be from soil that surrounded wells that had been installed through the thorium drum contamination layer. Subsequent to

this event, soil surrounding wells was assumed contaminated and disposed of accordingly.

Plutonium-238 (Pu-238) contamination was found on June 7, 2005 in the eastern portion of the excavation via in-process sampling results from material going to the Rail Spur (all material below 707 feet above mean sea level) for disposal. Sampling within the excavation area on June 8, 2005 revealed the contamination to be at 702.6 feet above mean sea level and that the area containing the Pu-238 contamination was discrete (estimated to be within a 12-foot diameter spherical area within a trash layer).

Subsequently, the area where the Pu-238 was discovered and the associated excavation area surrounding this location was designated as a separate survey unit (SU2). Although Pu-238 was only found in SU2, the Core Team agreed to characterize the rest of the dig footprint (SU1) for this contaminant. This was accomplished by requiring the on-site gamma spectrometry screening data, on the verification samples, to exhibit a minimum detectable activity (MDA) of less than 20 pCi/g and that no Pu-238 was to be above the CO. The aforementioned conditions were met with the exception of the MDA on one sample (SU1-PRS11-037, activity = 0.0 pCi/g with an MDA = 30.63 pCi/g), which was addressed by off site laboratory isotopic plutonium analysis (activity = 2.6 pCi/g with an MDA = 0.04 pCi/g). The results met the conditions agreed upon by the Core Team and therefore Pu-238 was determined not to be a concern in SU1. The data from this characterization is presented in a posting plot included in Appendix D as Figures 2 and 3.

Volatile organic compounds (VOCs) and mercury were encountered in June 2005 and August 2005 respectively (co-resident with radiological contamination) during the PRS 11 RA. Although it was not within the scope of the PRS 11 RA to remove VOC and mercury contamination, removal of contaminants co-resident with radiological contaminants was performed.

These removals required the construction of engineered staging areas to contain the material until further characterization could be performed for proper material disposal. These regulator-approved staging areas (approximately 30 feet by 85 feet of usable footprint) were constructed within the north central area of the Spoils Area. They consisted of earthen berms of approximately three feet in height, approximately 8 inches of sand base, a minimum of 40-mil thickness PVC liner with certified welded seams, and approximately 8 inches of sand on top of the liner material. The staged materials and staging areas were covered with tarps, extending over the berms, when not being accessed. Following characterization sampling of the staged material, removal and disposal (including removal of sand, liner, and berms) was performed followed by FIDLER walkover and soil sampling surveys to confirm the areas were not contaminated.

Various types of debris were encountered throughout the RA, ranging from general office trash, cafeteria trash, and laboratory trash (bottles and lab ware) to demolition debris (steel I-beams, wood, brick, block, glass, metal vessel with ports, and tile) and other types of debris (lead-acid battery, drums [steel, stainless, and aluminum], mercury

[in bottles and free product], stainless boxes [possibly from a laboratory decommissioning], and VOC contaminated soils). Due to the steps required to properly dispose of the debris removed, the scheduled completion date was adversely impacted.

As-left characterization was performed within PRS 11 for VOCs and mercury. Radiological characterization was performed to document the as-left condition of the landfill wall. Data from these characterization efforts were entered into the Mound Environmental Information Management System and included in Attachment A.

### 3.2 Issues of Intergovernmental Coordination

The Core Team approved an alternate approach for the Dayton Unit Historic Burial Trench (SU3) that contains buried wood ash and debris from a fire that had consumed flooring that was potentially contaminated with polonium. Due to a lack of sample data, SU3 was developed under the Pre-Excavation Survey Unit Design to obtain at depth characterization (RASS) data. The RASS data results confirmed the absence of contamination (all results were below COs) and are reported in Attachment A.

The Core Team approved an approach for verification results within a 15-foot buffer zone area with respect to the landfill wall, which contains residual contamination. Verification locations, within this buffer zone, with results above the COs were removed from the verification data set and added to the "as-left" landfill wall data set. The areas within the 15-foot buffer zone (which are represented by verification samples with results that exceeded COs) along with the landfill wall (containing residual contamination) are now considered part of OU1.

All DOE/OEPA/USEPA interactions were good. The agencies were updated informally on a regular basis, and formally at monthly Core Team meetings. The Mound 2000 Process worked well.

## 4.0 RECOMMENDATIONS

### 4.1 Means to Prevent a Recurrence

Soil sampling verified removal of radiological contamination at PRS 11 and confirmed that remediation was not required for the area. Mound Removal Actions have regulator approved work plans, each of which has a section that addresses runon/runoff controls. In addition, the site Storm Water Pollution Prevention Plan applies to the entire site and is monitored by the Environmental Compliance and Analytical Services group. As a result of the removal of contamination and runon/runoff protection, spread of contamination is mitigated. Tarpaulin material was installed to segregate the contaminated surface of the landfill wall from the verified area and afford backfill.

# ATTACHMENT A

## DATA REPORT

# PRS 11

# DATA REPORT

June 2006

Rev. 1

Department of Energy
Miamisburg Closure Project

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# Figures


Figure 1: Location of PRS 11 & Dayton Unit Area

Figure 2: Location of SUs 1-3

Figure 3: SU1 Verification Locations

Figure 4: SU2 Verification Locations

Figure 5: SU3 Characterization Locations

Figure 6: Overall Sample Frequency

Figure 7: As-Left Landfill Wall Sample Locations

Figure 8 As-Left VOC and Hg Locations


# Tables


Table 1: SU1 Offsite Verification Results

Table 2: SU2 Offsite Verification Results

Table 3: SU3 Onsite Characterization Results

Table 4: As-Left Landfill Wall Results

Table 5: As-Left VOC and Metals Data

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(continued)

## Appendices


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| Appendix C | Post-Ex SUD Excerpt |
| Appendix D | Backfill Package |
| Appendix E | Data Review & Validation |
| Appendix F | Engineering Report |


## Acronyms

| | |
|---|---|
| CO | cleanup objective |
| Ex | Excavation |
| Hg | mercury |
| pCi/g | picoCuries per gram |
| PRS | Potential Release Site |
| QC | quality control |
| R&V | review and validation |
| SUD | Survey Unit Design |
| UCL | upper confidence limit |
| VOC | volatile organic compound |
| VSAP | Verification Sampling and Analysis Plan |

# 1.0 PURPOSE

This Data Report provides documentation of sampling activities conducted in accordance with the Standard VSAP, Soils Verification Sampling & Analysis Plan [VSAP], Final, August 2004 and the Post-Ex (Excavation) Survey Unit Design (SUD); required to close out Potential Release Site 11 (PRS 11). Three Survey Units (SUs) are included; SUs 1 and 2 at PRS 11 and SU3 at the Dayton unit area.

The purposes of this Data Report are to:

- document any variances to the VSAP/Post-Ex SUD,
- present statistical and bias data (separately),
- present summary statistics and statistical analyses [as necessary] of the applicable data, including retrospective power curve, and
- provide documentation of data review and validation.

# 2.0 DOCUMENT ORGANIZATION / SUMMARY

This Data Report is for the PRS 11, which is shown on Figure 1 (Appendix A). Unless otherwise specified as a variance, sampling and analyses were generally conducted in accordance with the VSAP and Post-Ex SUD. An excerpt of the Post-Ex SUD is presented in Appendix C.

# 3.0 FIELD ACTIVITIES

## 3.1 PRS 11

PRS 11 includes SUs 1 and 2, as shown on Figure 2 (Appendix A).

Verification sampling for SU1 occurred between November and December 2005. Analyses were per the Core Team-approved Post-Ex SUD, an excerpt of which is included as Appendix C. Sample locations for SU1 are shown on Figure 3 (Appendix A) and verification results are presented in Table 1. Statistical analyses for SU1 (standard deviation, power curve, and recalculation of N) are presented in the backfill package (see Appendix D). Because two results (of Th-232) are above cleanup objective (but below hot spot criteria), a 95% upper confidence limit (UCL) calculation and Sign test are also provided in the backfill package. There were no other sample results (except

Tl-208 and Ra-224) that exceeded the CO for any analyte. Tl-208 and Ra-224 are daughter products in the Th-232 decay chain. Since Th-232 is a contaminant of concern (COC), and all Th-232 results meet the cleanup criteria, the Tl-208 and Ra-224 exceedances are not considered significant because the CO for the parent nuclide (Th-232) accounts for daughter product activity. Therefore, no further action will be taken based on the parent nuclide (Th-232+D) results.

Verification sampling for SU2 occurred between November and December 2005. Analyses were per the Core Team-approved Post-Ex SUD, an excerpt of which is included as Appendix C. Sample locations for SU2 are shown on Figure 4 (Appendix A) and verification results are presented in Table 2. Statistical analyses for SU2 (standard deviation, power curve, and recalculation of N) are presented in the backfill package (see Appendix D).

The Post-Ex SUD required a walkover survey for SUs 1 and 2. Elevated background readings from the adjacent landfill wall prevented performance of a useful radiological survey of the surface soil and is the reason why a systematic walkover survey was not performed. Figure 6 (Appendix A) shows the locations of the as-left, characterization, preverification, and verification samples for PRS 11. The frequency of samples illustrated in Figure 6 (Appendix A) supports that the source of the elevated background readings is the landfill and not the verified surface.

An engineering evaluation was required for PRS 11 to document the sufficiency of the excavation method and maximization of the extent excavated given the limitation of not breaching the adjacent landfill. This report is included in Appendix F.

## 3.2 DAYTON UNIT AREA

The Dayton unit area is SU3, which is shown on Figure 2 (Appendix A). Characterization sampling activities occurred in June and July 2005. Sample locations are shown on Figure 5 (Appendix A). The investigation was conducted in accordance with the Standard VSAP, Soils Verification Sampling & Analysis Plan, Final, August 2004 and the Post-Ex SUD. Per the Post-Ex SUD, all samples from SU3 received

onsite long count gamma spec analysis. An excerpt of the Post-Ex SUD is included in Appendix C. Results are presented in Table 3 (Appendix B). Statistical analyses and a backfill package are not required for SU3 because excavation did not occur and all results are below cleanup objective.

### 3.3 AS-LEFT LANDFILL AND BUFFER AREA DATA

As described in the Core Team-approved Post-Ex SUD, the excavation could not remove all of the contaminated materials in the area (wall) adjacent to the landfill. A 15-foot buffer to the wall was established. Verification results within this buffer area above COs were removed from the PRS 11 verification data set and added to the wall as-left data set. Documentation of the as-left condition of the wall is provided in Figure 7 (Appendix A) and Table 4 (Appendix B).

### 3.4 AS-LEFT OFFSITE VOC AND MERCURY DATA

Both volatile organic compounds (VOCs) and mercury (Hg) were found during the RA. Documentation of the as-left condition of these two areas is provided in Figure 8 (Appendix A) and Table 5 (Appendix B).

## 4.0 DATA REVIEW / VALIDATION

### 4.1 PRS 11

All data were reviewed and 10% of offsite data were validated. Field and laboratory QC (quality control) were assessed as part of the R&V process. Documentation of review and validation (and related variances) for PRS 11 is provided in Appendix E. Review and validation supports that the data are usable.

### 4.2 DAYTON UNIT AREA

Review of the RASS data by the Core Team supports that the data are usable for characterization purposes. Although not required to be validated, per Mound Laboratory procedures, onsite laboratories are required to perform QC (quality control) checks such as instrument calibration checks, source checks, background checks, and efficiency checks.

## 4.3 AS-LEFT LANDFILL/BUFFER AREA AND CHEMICAL DATA

The Core Team reviewed the as-left characterization data for the landfill wall and the as-left data related to the VOC and Hg areas. Validation of these data was not required; however the data were entered into the Mound Environmental Information Management System.

# APPENDIX A

## FIGURES

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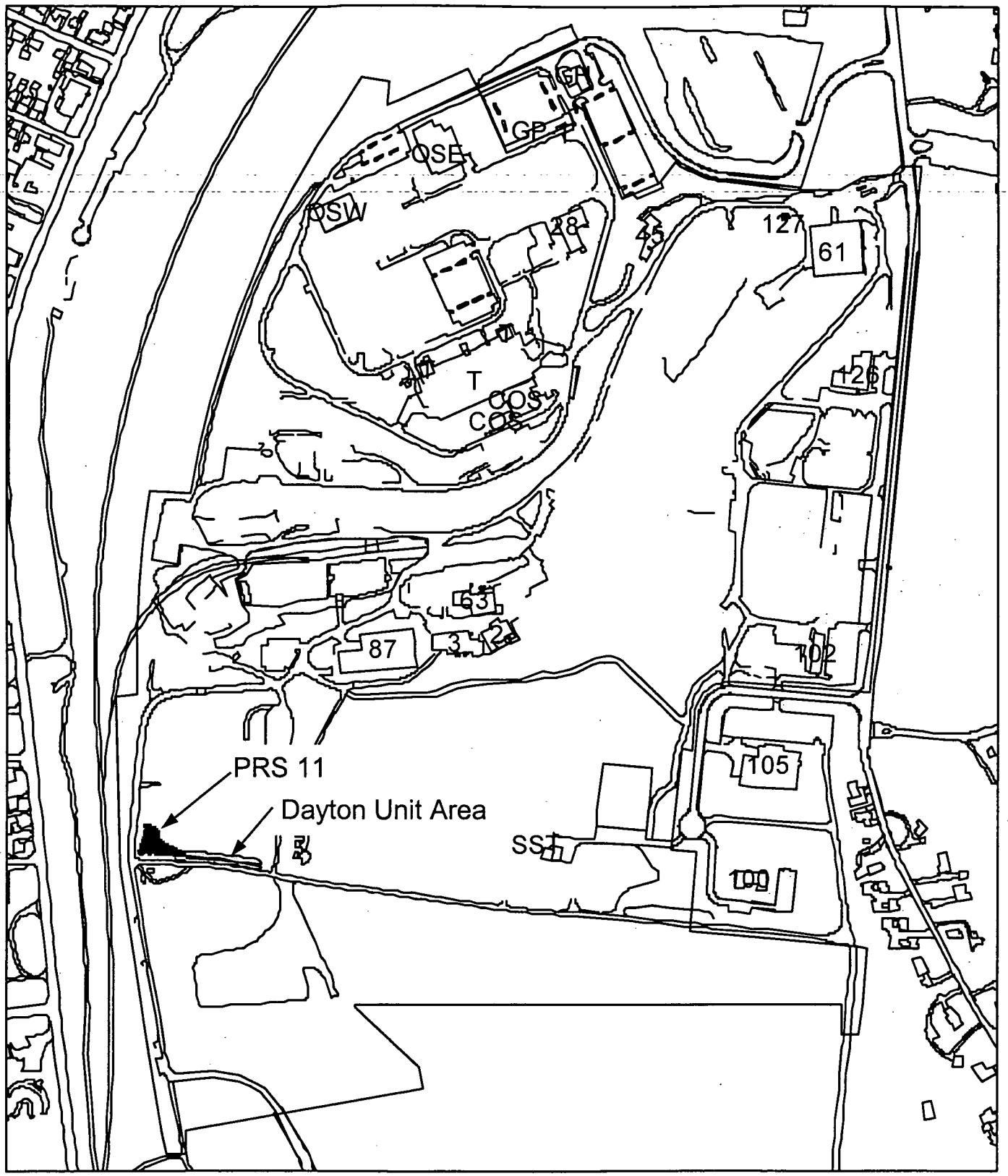


Scale in feet

0 200400 600 8001000

N

**Figure 1: Location of PRS 11 & Dayton Unit Area**

1March06KMA

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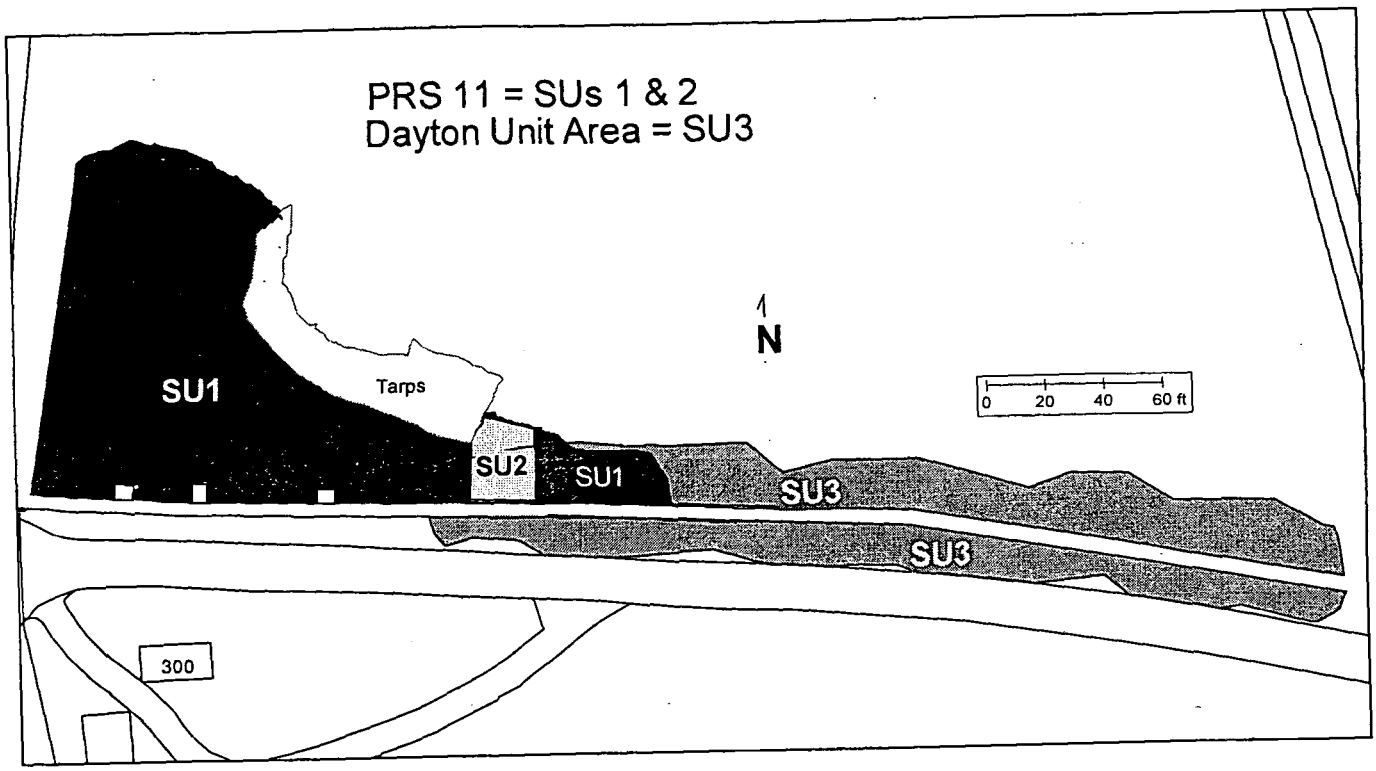


**Figure 2: Location of SUs 1-3**

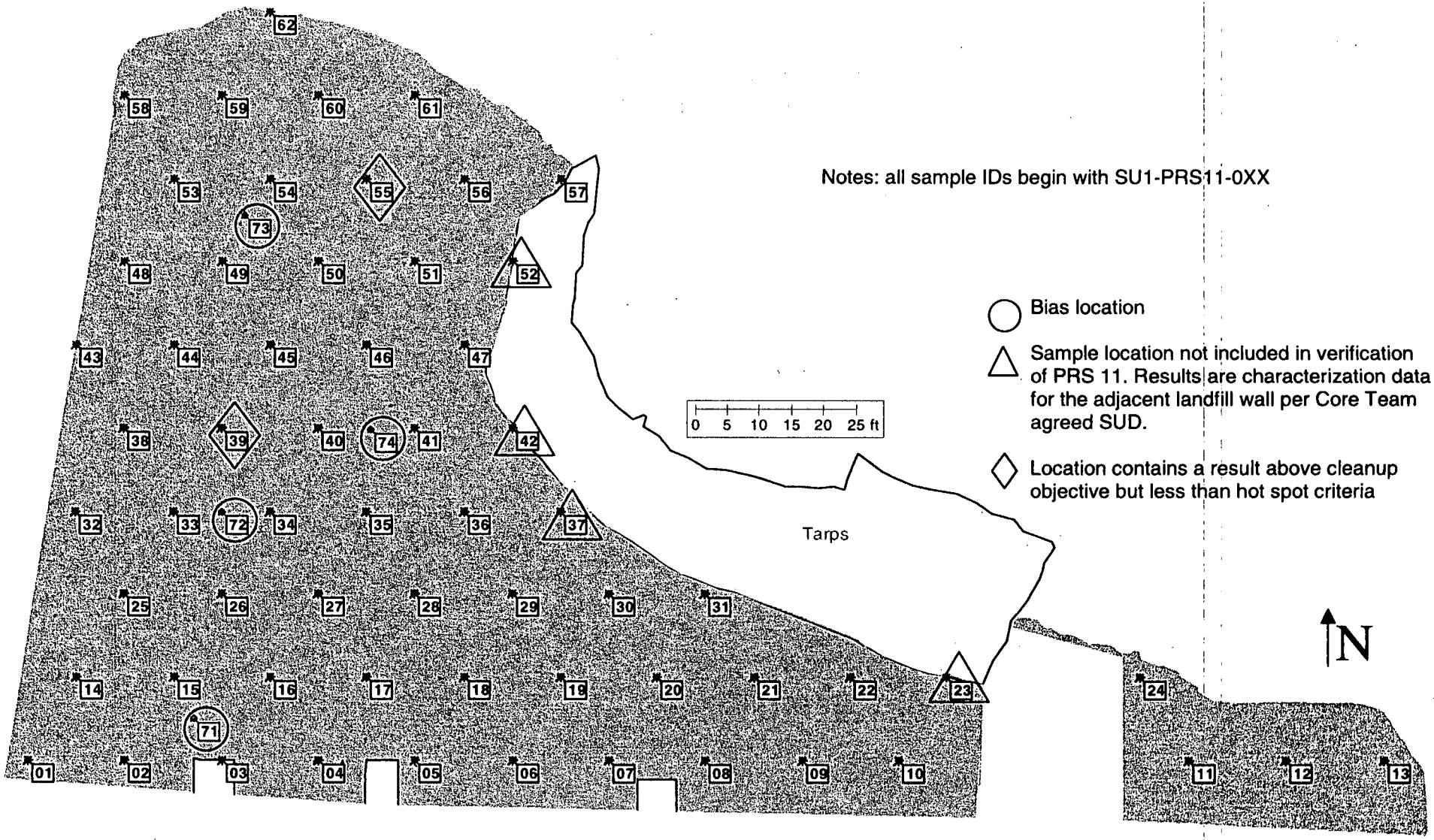


**Figure 3: SU1 Verification Locations**

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1March06kma

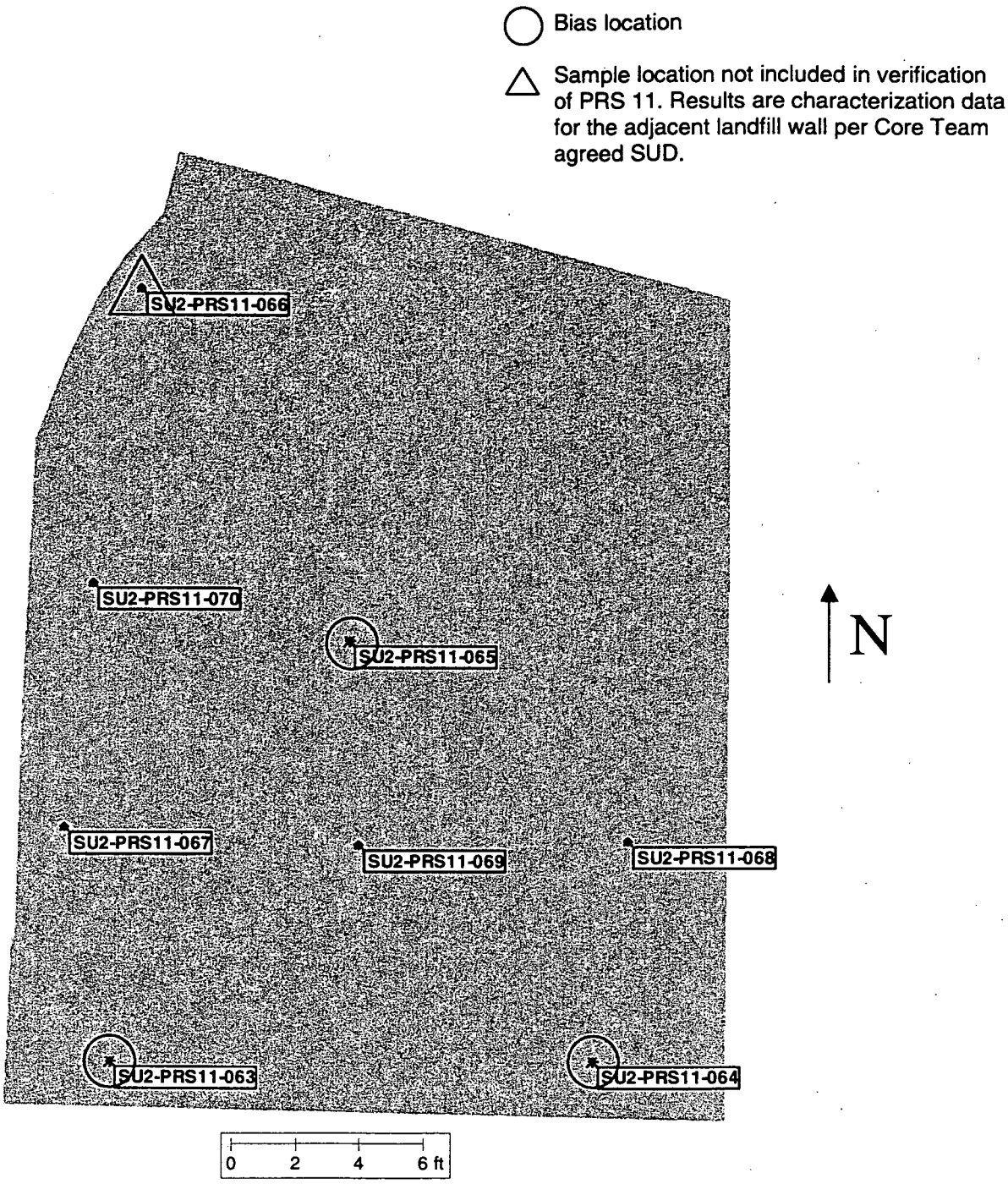
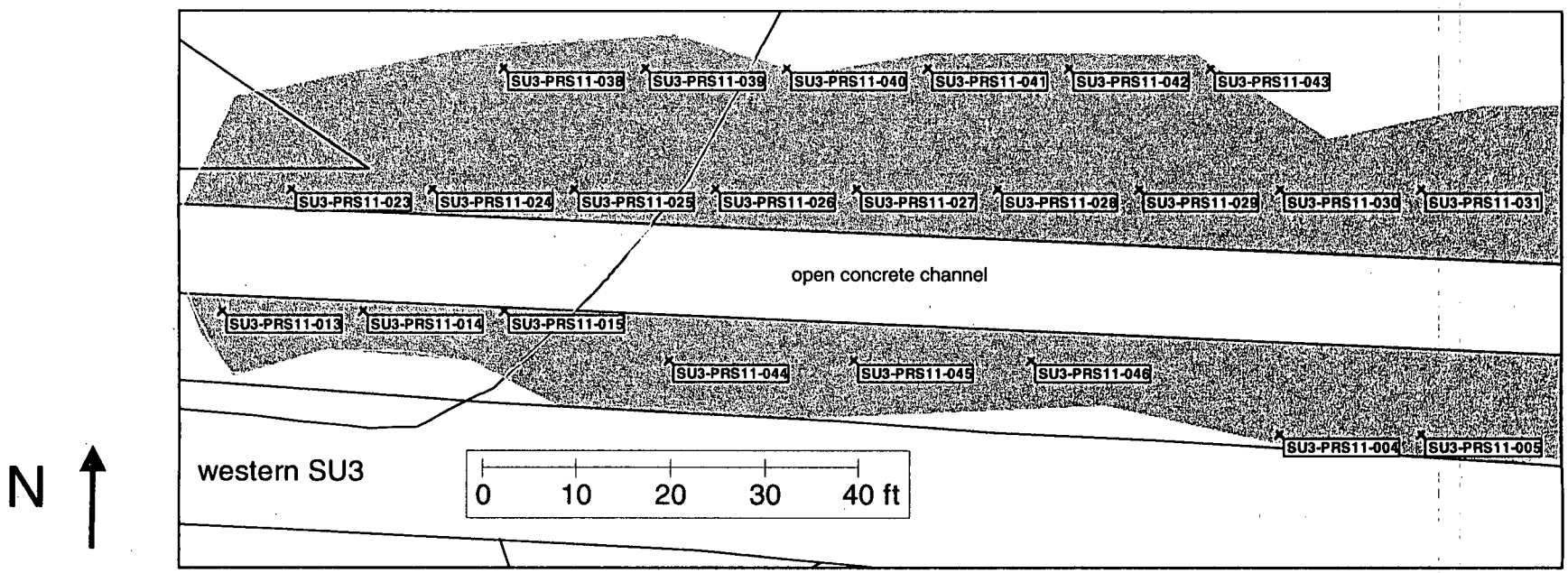



**Figure 4: SU2 Verification Locations**



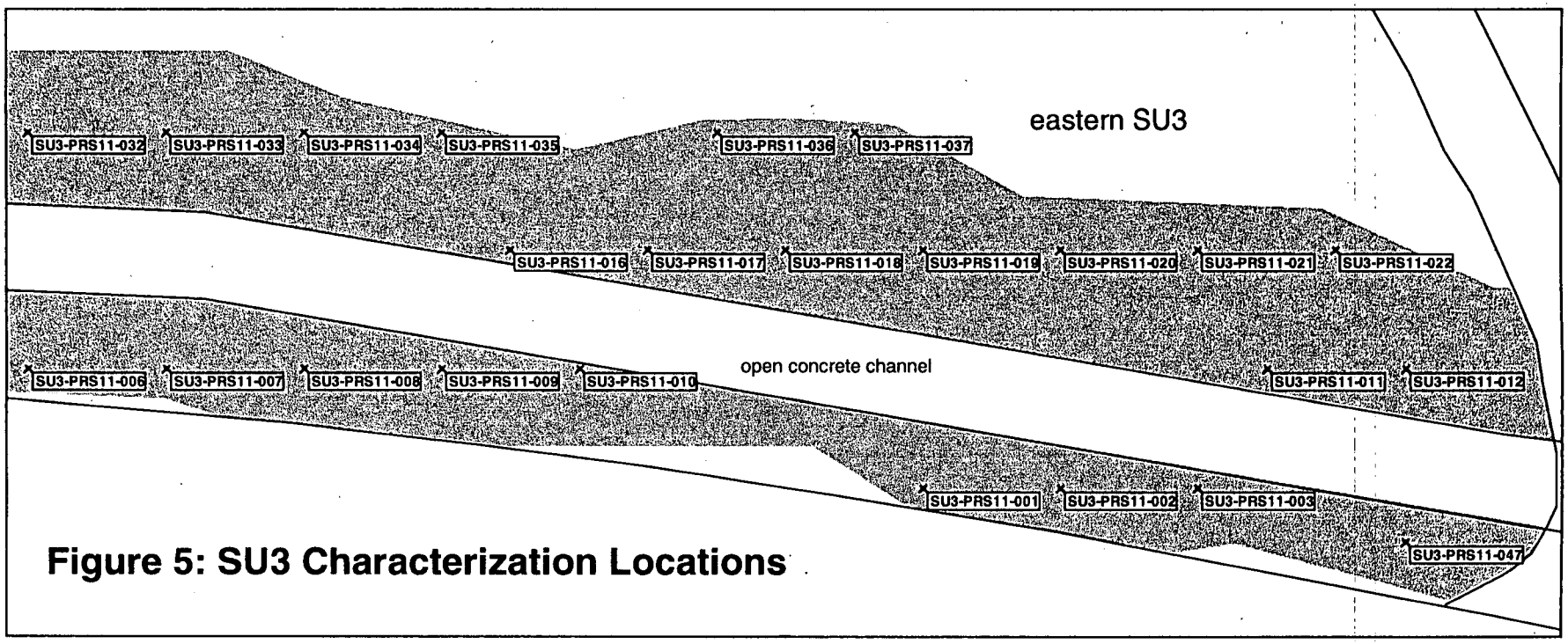




**Figure 5: SU3 Characterization Locations**

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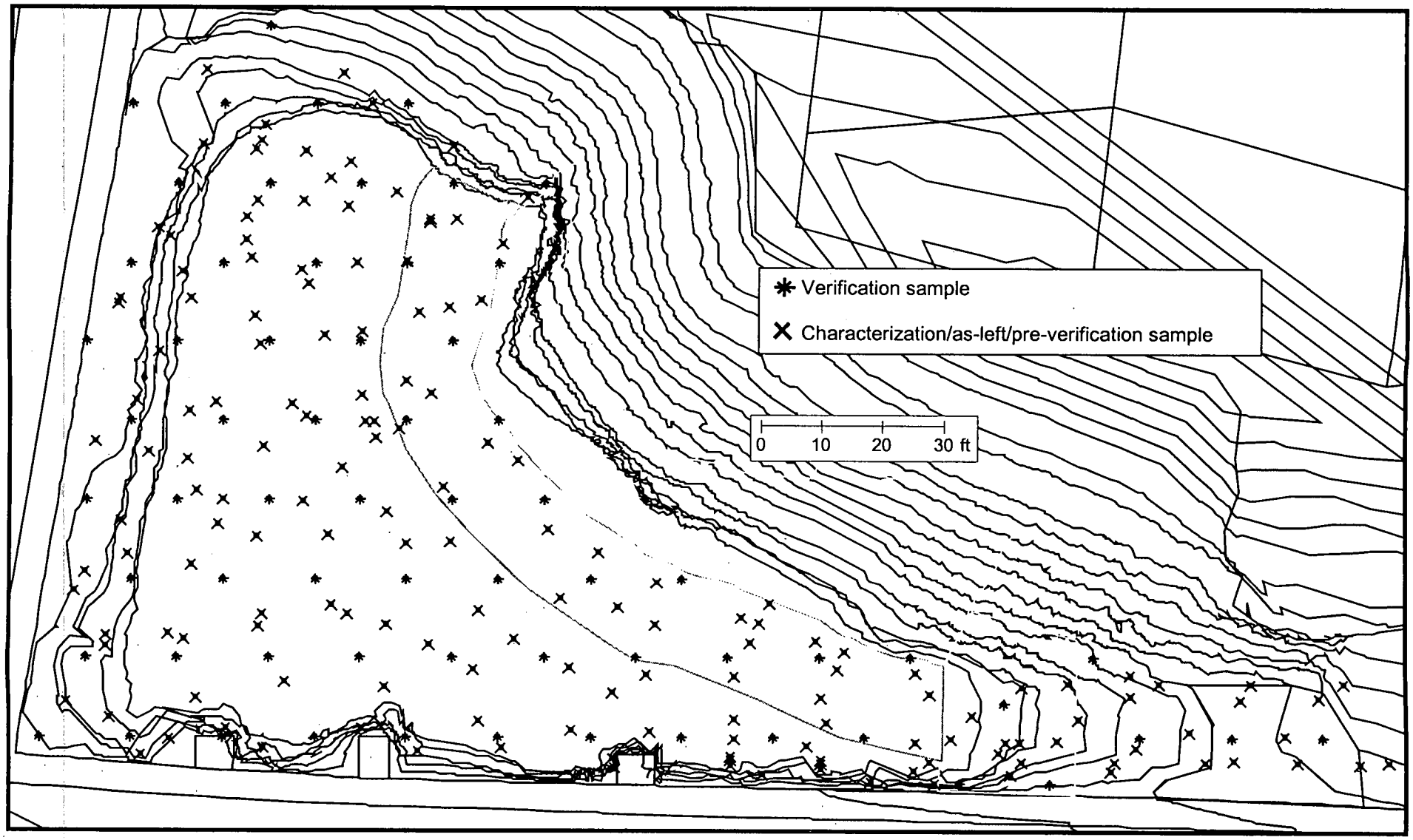


**Figure 6: Overall Sample Frequency**

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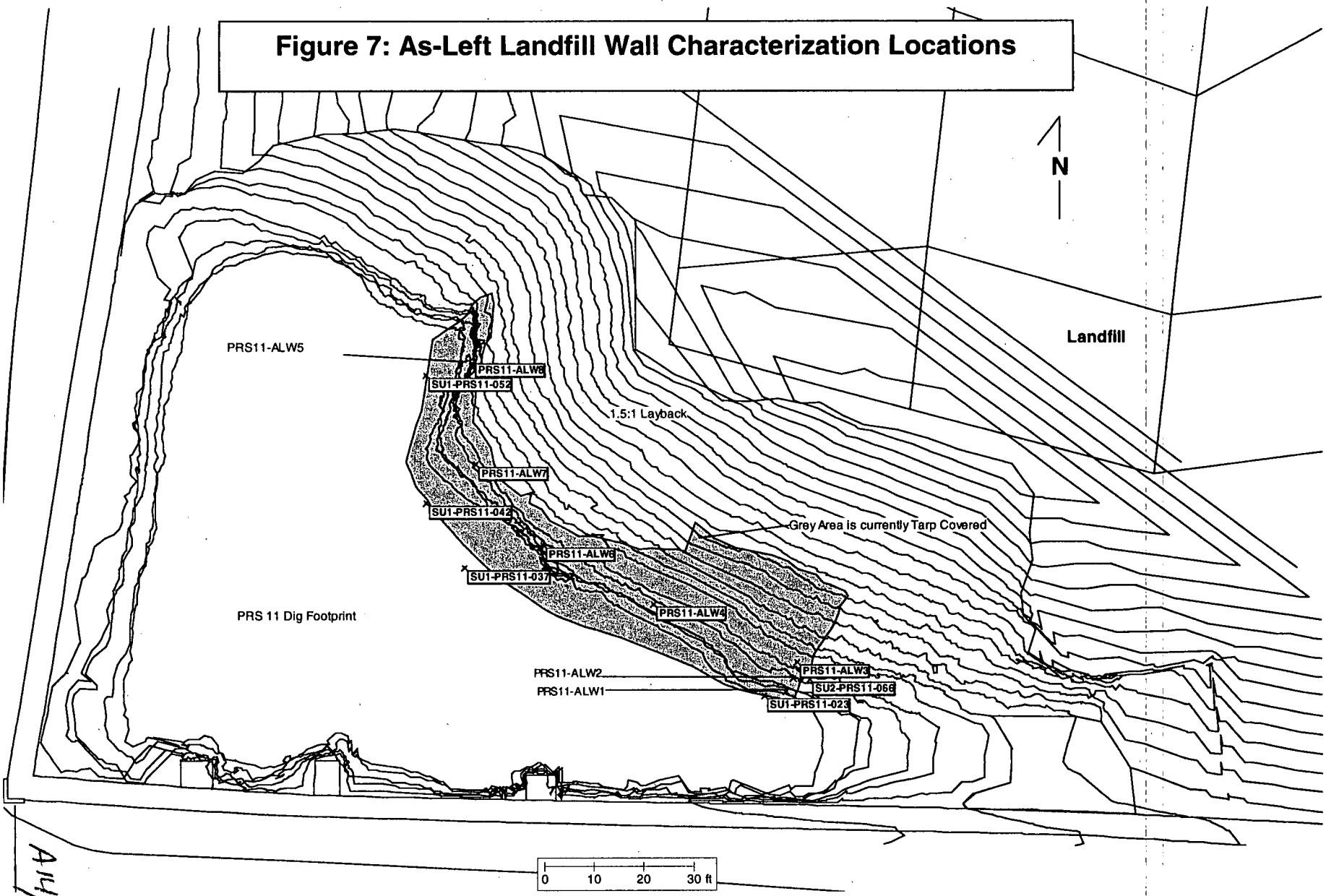
# Figure 7: As-Left Landfill Wall Characterization Locations

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# APPENDIX B

## TABLES

# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-001 | 20051129 | Actinium-227 | 4.6 | 0.26 | 0.26 | | J | 1463942.728 | 597019.783 |
| SU1-11-001 | 20051129 | Actinium-228 | 1.93 | 0.64 | 0.19 | | | 1463942.728 | 597019.783 |
| SU1-11-001 | 20051129 | Americium-241 | 63 | 0.095 | 0.095 | | U | 1463942.728 | 597019.783 |
| SU1-11-001 | 20051129 | Bismuth-207 | 1.2 | 0.039 | 0.039 | | U | 1463942.728 | 597019.783 |
| SU1-11-001 | 20051129 | Bismuth-210M | 8.3 | 0.054 | 0.054 | | U | 1463942.728 | 597019.783 |
| SU1-11-001 | 20051129 | Bismuth-214 | 1.17 | 0.65 | 0.1 | | | 1463942.728 | 597019.783 |
| SU1-11-001 | 20051129 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1463942.728 | 597019.783 |
| SU1-11-001 | 20051129 | Cobalt-60 | 0.7 | 0.053 | 0.053 | | U | 1463942.728 | 597019.783 |
| SU1-11-001 | 20051129 | Lead-210 | 7.4 | 0.97 | 0.97 | | U | 1463942.728 | 597019.783 |
| SU1-11-001 | 20051129 | Lead-212 | 16.6 | 0.528 | 0.065 | | | 1463942.728 | 597019.783 |
| SU1-11-001 | 20051129 | Lead-214 | 8.9 | 0.77 | 0.09 | | | 1463942.728 | 597019.783 |
| SU1-11-001 | 20051129 | Potassium-40 | 47.8 | 9.5 | 0.4 | | J | 1463942.728 | 597019.783 |
| SU1-11-001 | 20051129 | Protactinium-231 | 4 | 1.3 | 1.3 | | U | 1463942.728 | 597019.783 |
| SU1-11-001 | 20051129 | Radium-224 | 2.6* | 1.39 | 0.67 | J | | 1463942.728 | 597019.783 |
| SU1-11-001 | 20051129 | Radium-226 | 2.9 | 0.65 | 0.1 | J | | 1463942.728 | 597019.783 |
| SU1-11-001 | 20051129 | Radium-228 | 2.1 | 0.64 | 0.19 | | | 1463942.728 | 597019.783 |
| SU1-11-001 | 20051129 | Thallium-208 | 0.498** | 0.139 | 0.047 | | | 1463942.728 | 597019.783 |
| SU1-11-001 | 20051129 | Thorium-228 | 2.6 | 0.47 | 0.06 | | | 1463942.728 | 597019.783 |
| SU1-11-001 | 20051129 | Thorium-230 | 2.8 | 0.76 | 0.03 | | | 1463942.728 | 597019.783 |
| SU1-11-001 | 20051129 | Thorium-232 | 2.1 | 0.64 | 0.19 | | | 1463942.728 | 597019.783 |
| SU1-11-001 | 20051129 | Thorium-232 | 2.1 | 0.42 | 0.03 | | | 1463942.728 | 597019.783 |
| SU1-11-001 | 20051129 | Uranium-234 | 2 | 0.476 | 0.027 | | | 1463942.728 | 597019.783 |
| SU1-11-001 | 20051129 | Uranium-238 | 3.2 | 0.491 | 0.023 | | | 1463942.728 | 597019.783 |
| SU1-11-002 | 20051129 | Actinium-227 | 4.6 | 0.33 | 0.33 | | U | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Actinium-228 | 1.93 | 0.56 | 0.21 | | | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Americium-241 | 63 | 0.12 | 0.12 | | U | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Bismuth-207 | 1.2 | 0.046 | 0.046 | | U | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Bismuth-210M | 8.3 | 0.065 | 0.065 | | U | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Bismuth-212 | 9.87 | 0.53 | 0.47 | | | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Bismuth-214 | 1.17 | 1.12 | 0.12 | | | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Cesium-137 | 3.8 | 0.061 | 0.061 | | U | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Cobalt-60 | 0.7 | 0.061 | 0.061 | | U | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Lead-210 | 7.4 | 1.6 | 1.6 | | U | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Lead-212 | 16.6 | 0.84 | 0.09 | | | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Lead-214 | 8.9 | 1.13 | 0.12 | | | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Potassium-40 | 47.8 | 16.8 | 0.6 | | | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Protactinium-231 | 4 | 1.7 | 1.7 | | U | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Radium-224 | 2.6* | 2.6 | 0.9 | | | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Radium-226 | 2.9 | 1.12 | 0.12 | | | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Radium-228 | 2.1 | 0.56 | 0.21 | | | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Thallium-208 | 0.498** | 0.264 | 0.066 | | | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Thorium-228 | 2.6 | 0.79 | 0.03 | | | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Thorium-230 | 2.8 | 1.72 | 0.02 | | | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Thorium-232 | 2.1 | 0.56 | 0.21 | | | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Thorium-232 | 2.1 | 0.81 | 0.02 | | | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Uranium-234 | 2 | 0.65 | 0.02 | | | 1463957.728 | 597019.783 |
| SU1-11-002 | 20051129 | Uranium-238 | 3.2 | 0.7 | 0.02 | | | 1463957.728 | 597019.783 |
| SU1-11-003 | 20051201 | Actinium-227 | 4.6 | 0.23 | 0.23 | | U | 1463972.728 | 597019.783 |
| SU1-11-003 | 20051201 | Actinium-228 | 1.93 | 0.51 | 0.15 | | | 1463972.728 | 597019.783 |
| SU1-11-003 | 20051201 | Americium-241 | 63 | 0.085 | 0.085 | | U | 1463972.728 | 597019.783 |
| SU1-11-003 | 20051201 | Beryllium-7 | 41.1 | 0.35 | 0.35 | | U | 1463972.728 | 597019.783 |
| SU1-11-003 | 20051201 | Bismuth-207 | 1.2 | 0.039 | 0.039 | | U | 1463972.728 | 597019.783 |
| SU1-11-003 | 20051201 | Bismuth-210M | 8.3 | 0.048 | 0.048 | | U | 1463972.728 | 597019.783 |
| SU1-11-003 | 20051201 | Bismuth-214 | 1.17 | 0.74 | 0.08 | | | 1463972.728 | 597019.783 |
| SU1-11-003 | 20051201 | Cesium-137 | 3.8 | 0.054 | 0.054 | | U | 1463972.728 | 597019.783 |
| SU1-11-003 | 20051201 | Cobalt-60 | 0.7 | 0.055 | 0.055 | | U | 1463972.728 | 597019.783 |
| SU1-11-003 | 20051201 | Lead-210 | 7.4 | 1.1 | 1.1 | | U | 1463972.728 | 597019.783 |
| SU1-11-003 | 20051201 | Lead-212 | 16.6 | 0.55 | 0.058 | | | 1463972.728 | 597019.783 |
| SU1-11-003 | 20051201 | Lead-214 | 8.9 | 0.68 | 0.08 | | | 1463972.728 | 597019.783 |

# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-003 | 20051201 | Potassium-40 | 47.8 | 11.6 | 0.4 | | | 1463972.728 | 597019.783 |
| SU1-11-003 | 20051201 | Protactinium-231 | 4 | 1.2 | 1.2 | | U | 1463972.728 | 597019.783 |
| SU1-11-003 | 20051201 | Radium-224 | 2.6* | 1.18 | 0.61 | | | 1463972.728 | 597019.783 |
| SU1-11-003 | 20051201 | Radium-226 | 2.9 | 0.74 | 0.08 | | | 1463972.728 | 597019.783 |
| SU1-11-003 | 20051201 | Radium-228 | 2.1 | 0.51 | 0.15 | | | 1463972.728 | 597019.783 |
| SU1-11-003 | 20051201 | Thallium-208 | 0.498** | 0.168 | 0.041 | | | 1463972.728 | 597019.783 |
| SU1-11-003 | 20051201 | Thorium-228 | 2.6 | 0.59 | 0.03 | | | 1463972.728 | 597019.783 |
| SU1-11-003 | 20051201 | Thorium-230 | 2.8 | 0.97 | 0.01 | | | 1463972.728 | 597019.783 |
| SU1-11-003 | 20051201 | Thorium-232 | 2.1 | 0.73 | 0.02 | | | 1463972.728 | 597019.783 |
| SU1-11-003 | 20051201 | Thorium-232 | 2.1 | 0.51 | 0.15 | | | 1463972.728 | 597019.783 |
| SU1-11-003 | 20051201 | Uranium-234 | 2 | 0.73 | 0.03 | | | 1463972.728 | 597019.783 |
| SU1-11-003 | 20051201 | Uranium-238 | 3.2 | 0.78 | 0.02 | | | 1463972.728 | 597019.783 |
| SU1-11-004 | 20051130 | Actinium-227 | 4.6 | 0.24 | 0.24 | | U | 1463987.728 | 597019.783 |
| SU1-11-004 | 20051130 | Actinium-228 | 1.93 | 0.3 | 0.14 | | | 1463987.728 | 597019.783 |
| SU1-11-004 | 20051130 | Americium-241 | 63 | 0.085 | 0.085 | | U | 1463987.728 | 597019.783 |
| SU1-11-004 | 20051130 | Bismuth-207 | 1.2 | 0.036 | 0.036 | | U | 1463987.728 | 597019.783 |
| SU1-11-004 | 20051130 | Bismuth-210M | 8.3 | 0.052 | 0.052 | | U | 1463987.728 | 597019.783 |
| SU1-11-004 | 20051130 | Bismuth-214 | 1.17 | 0.6 | 0.08 | | | 1463987.728 | 597019.783 |
| SU1-11-004 | 20051130 | Cesium-137 | 3.8 | 0.039 | 0.039 | | U | 1463987.728 | 597019.783 |
| SU1-11-004 | 20051130 | Cobalt-60 | 0.7 | 0.046 | 0.046 | | U | 1463987.728 | 597019.783 |
| SU1-11-004 | 20051130 | Lead-210 | 7.4 | 1.1 | 1.1 | | U | 1463987.728 | 597019.783 |
| SU1-11-004 | 20051130 | Lead-212 | 16.6 | 0.294 | 0.056 | | | 1463987.728 | 597019.783 |
| SU1-11-004 | 20051130 | Lead-214 | 8.9 | 0.6 | 0.07 | | | 1463987.728 | 597019.783 |
| SU1-11-004 | 20051130 | Potassium-40 | 47.8 | 7.8 | 0.5 | | J | 1463987.728 | 597019.783 |
| SU1-11-004 | 20051130 | Protactinium-231 | 4 | 1.2 | 1.2 | | U | 1463987.728 | 597019.783 |
| SU1-11-004 | 20051130 | Radium-224 | 2.6* | 1.38 | 0.6 | | | 1463987.728 | 597019.783 |
| SU1-11-004 | 20051130 | Radium-226 | 2.9 | 0.6 | 0.08 | | | 1463987.728 | 597019.783 |
| SU1-11-004 | 20051130 | Radium-228 | 2.1 | 0.3 | 0.14 | | | 1463987.728 | 597019.783 |
| SU1-11-004 | 20051130 | Thallium-208 | 0.498** | 0.11 | 0.041 | | | 1463987.728 | 597019.783 |
| SU1-11-004 | 20051130 | Thorium-228 | 2.6 | 0.344 | 0.036 | | | 1463987.728 | 597019.783 |
| SU1-11-004 | 20051130 | Thorium-230 | 2.8 | 0.78 | 0.03 | | | 1463987.728 | 597019.783 |
| SU1-11-004 | 20051130 | Thorium-232 | 2.1 | 0.3 | 0.14 | | | 1463987.728 | 597019.783 |
| SU1-11-004 | 20051130 | Thorium-232 | 2.1 | 0.317 | 0.029 | | | 1463987.728 | 597019.783 |
| SU1-11-004 | 20051130 | Uranium-234 | 2 | 0.48 | 0.02 | | | 1463987.728 | 597019.783 |
| SU1-11-004 | 20051130 | Uranium-238 | 3.2 | 0.58 | 0.01 | | | 1463987.728 | 597019.783 |
| SU1-11-005 | 20051130 | Actinium-227 | 4.6 | 0.16 | 0.16 | | U | 1464002.728 | 597019.783 |
| SU1-11-005 | 20051130 | Actinium-228 | 1.93 | 0.25 | 0.14 | | | 1464002.728 | 597019.783 |
| SU1-11-005 | 20051130 | Americium-241 | 63 | 0.066 | 0.066 | | U | 1464002.728 | 597019.783 |
| SU1-11-005 | 20051130 | Bismuth-207 | 1.2 | 0.03 | 0.03 | | U | 1464002.728 | 597019.783 |
| SU1-11-005 | 20051130 | Bismuth-210M | 8.3 | 0.038 | 0.038 | | U | 1464002.728 | 597019.783 |
| SU1-11-005 | 20051130 | Bismuth-214 | 1.17 | 0.56 | 0.06 | | | 1464002.728 | 597019.783 |
| SU1-11-005 | 20051130 | Cesium-137 | 3.8 | 0.043 | 0.043 | | U | 1464002.728 | 597019.783 |
| SU1-11-005 | 20051130 | Cobalt-60 | 0.7 | 0.045 | 0.045 | | U | 1464002.728 | 597019.783 |
| SU1-11-005 | 20051130 | Lead-210 | 7.4 | 0.88 | 0.88 | | U | 1464002.728 | 597019.783 |
| SU1-11-005 | 20051130 | Lead-212 | 16.6 | 0.241 | 0.047 | | | 1464002.728 | 597019.783 |
| SU1-11-005 | 20051130 | Lead-214 | 8.9 | 0.496 | 0.062 | | | 1464002.728 | 597019.783 |
| SU1-11-005 | 20051130 | Potassium-40 | 47.8 | 6.9 | 0.2 | | J | 1464002.728 | 597019.783 |
| SU1-11-005 | 20051130 | Protactinium-231 | 4 | 0.93 | 0.93 | | U | 1464002.728 | 597019.783 |
| SU1-11-005 | 20051130 | Radium-224 | 2.6* | 1.09 | 0.71 | | | 1464002.728 | 597019.783 |
| SU1-11-005 | 20051130 | Radium-226 | 2.9 | 0.56 | 0.06 | | | 1464002.728 | 597019.783 |
| SU1-11-005 | 20051130 | Radium-228 | 2.1 | 0.25 | 0.14 | | | 1464002.728 | 597019.783 |
| SU1-11-005 | 20051130 | Thallium-208 | 0.498** | 0.086 | 0.035 | | | 1464002.728 | 597019.783 |
| SU1-11-005 | 20051130 | Thorium-228 | 2.6 | 0.275 | 0.039 | | | 1464002.728 | 597019.783 |
| SU1-11-005 | 20051130 | Thorium-230 | 2.8 | 0.85 | 0.02 | | | 1464002.728 | 597019.783 |
| SU1-11-005 | 20051130 | Thorium-232 | 2.1 | 0.25 | 0.14 | | | 1464002.728 | 597019.783 |
| SU1-11-005 | 20051130 | Thorium-232 | 2.1 | 0.135 | 0.035 | | | 1464002.728 | 597019.783 |
| SU1-11-005 | 20051130 | Uranium-234 | 2 | 0.391 | 0.013 | | | 1464002.728 | 597019.783 |
| SU1-11-005 | 20051130 | Uranium-238 | 3.2 | 0.417 | 0.02 | | | 1464002.728 | 597019.783 |
| SU1-11-006 | 20051130 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1464017.728 | 597019.783 |

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# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-006 | 20051130 | Actinium-228 | 1.93 | 1.04 | 0.21 | | | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Beryllium-7 | 41.1 | 0.4 | 0.4 | | U | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Bismuth-207 | 1.2 | 0.047 | 0.047 | | U | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Bismuth-210M | 8.3 | 0.061 | 0.061 | | U | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Bismuth-212 | 9.87 | 0.6 | 0.43 | | | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Bismuth-214 | 1.17 | 0.94 | 0.12 | | | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Cesium-137 | 3.8 | 0.064 | 0.064 | | U | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Cobalt-60 | 0.7 | 0.075 | 0.075 | | U | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Lead-210 | 7.4 | 1.4 | 1.4 | | U | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Lead-212 | 16.6 | 0.93 | 0.08 | | | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Lead-214 | 8.9 | 1.01 | 0.09 | | | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Potassium-40 | 47.8 | 18.4 | 0.6 | | | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Protactinium-231 | 4 | 1.82 | 1.8 | | | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Radium-224 | 2.6* | 2.1 | 0.8 | | | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Radium-226 | 2.9 | 0.94 | 0.12 | | | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Radium-228 | 2.1 | 1.04 | 0.21 | | | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Thallium-208 | 0.498** | 0.297 | 0.06 | | | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Thorium-228 | 2.6 | 1.23 | 0.05 | | | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Thorium-230 | 2.8 | 1.69 | 0.03 | | | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Thorium-232 | 2.1 | 1.04 | 0.21 | | | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Thorium-232 | 2.1 | 0.98 | 0.03 | | | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Thorium-234 | 176 | 1.2 | 0.99 | | | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Uranium-234 | 2 | 0.99 | 0.04 | | | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Uranium-238 | 3.2 | 0.85 | 0.03 | | | 1464017.728 | 597019.783 |
| SU1-11-006 | 20051130 | Uranium-238 | 3.2 | 1.2 | 0.99 | | | 1464017.728 | 597019.783 |
| SU1-11-007 | 20051201 | Actinium-227 | 4.6 | 0.21 | 0.21 | | U | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Actinium-228 | 1.93 | 0.42 | 0.13 | | | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Americium-241 | 63 | 0.083 | 0.083 | | U | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Beryllium-7 | 41.1 | 0.31 | 0.31 | | U | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Bismuth-207 | 1.2 | 0.035 | 0.035 | | U | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Bismuth-210M | 8.3 | 0.047 | 0.047 | | U | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Bismuth-212 | 9.87 | 0.4 | 0.24 | | | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Bismuth-214 | 1.17 | 0.82 | 0.08 | | | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Cobalt-60 | 0.7 | 0.061 | 0.061 | | U | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Lead-210 | 7.4 | 1 | 1 | | U | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Lead-212 | 16.6 | 0.504 | 0.058 | | | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Lead-214 | 8.9 | 0.78 | 0.08 | | | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Potassium-40 | 47.8 | 11.9 | 0.4 | | | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Protactinium-231 | 4 | 1.1 | 1.1 | | U | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Radium-224 | 2.6* | 1.9 | 0.9 | | | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Radium-226 | 2.9 | 0.82 | 0.08 | | | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Radium-228 | 2.1 | 0.42 | 0.13 | | | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Thallium-208 | 0.498** | 0.196 | 0.045 | | | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Thorium-228 | 2.6 | 0.55 | 0.03 | | | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Thorium-230 | 2.8 | 1.11 | 0.01 | | | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Thorium-232 | 2.1 | 0.42 | 0.13 | | | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Thorium-232 | 2.1 | 0.63 | 0.02 | | | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Thorium-234 | 176 | 1.16 | 0.71 | | | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Uranium-234 | 2 | 0.74 | 0.01 | | | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Uranium-238 | 3.2 | 1.16 | 0.71 | | | 1464032.728 | 597019.783 |
| SU1-11-007 | 20051201 | Uranium-238 | 3.2 | 0.79 | 0.01 | | | 1464032.728 | 597019.783 |
| SU1-11-008 | 20051130 | Actinium-227 | 4.6 | 0.29 | 0.29 | | U | 1464047.728 | 597019.783 |
| SU1-11-008 | 20051130 | Actinium-228 | 1.93 | 0.29 | 0.17 | | | 1464047.728 | 597019.783 |
| SU1-11-008 | 20051130 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1464047.728 | 597019.783 |
| SU1-11-008 | 20051130 | Beryllium-7 | 41.1 | 0.38 | 0.38 | | U | 1464047.728 | 597019.783 |
| SU1-11-008 | 20051130 | Bismuth-207 | 1.2 | 0.049 | 0.049 | | U | 1464047.728 | 597019.783 |
| SU1-11-008 | 20051130 | Bismuth-210M | 8.3 | 0.062 | 0.062 | | U | 1464047.728 | 597019.783 |

# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-008 | 20051130 | Bismuth-214 | 1.17 | 0.61 | 0.14 | | | 1464047.728 | 597019.783 |
| SU1-11-008 | 20051130 | Cesium-137 | 3.8 | 0.043 | 0.043 | | U | 1464047.728 | 597019.783 |
| SU1-11-008 | 20051130 | Cobalt-60 | 0.7 | 0.054 | 0.054 | | U | 1464047.728 | 597019.783 |
| SU1-11-008 | 20051130 | Lead-210 | 7.4 | 1.3 | 1.3 | | U | 1464047.728 | 597019.783 |
| SU1-11-008 | 20051130 | Lead-212 | 16.6 | 0.211 | 0.067 | | | 1464047.728 | 597019.783 |
| SU1-11-008 | 20051130 | Lead-214 | 8.9 | 0.54 | 0.1 | | | 1464047.728 | 597019.783 |
| SU1-11-008 | 20051130 | Potassium-40 | 47.8 | 6.3 | 0.5 | | J | 1464047.728 | 597019.783 |
| SU1-11-008 | 20051130 | Protactinium-231 | 4 | 1.6 | 1.6 | | U | 1464047.728 | 597019.783 |
| SU1-11-008 | 20051130 | Radium-224 | 2.6* | 1.6 | 1.2 | | | 1464047.728 | 597019.783 |
| SU1-11-008 | 20051130 | Radium-226 | 2.9 | 0.61 | 0.14 | | | 1464047.728 | 597019.783 |
| SU1-11-008 | 20051130 | Radium-228 | 2.1 | 0.29 | 0.17 | | | 1464047.728 | 597019.783 |
| SU1-11-008 | 20051130 | Thallium-208 | 0.498** | 0.109 | 0.05 | | | 1464047.728 | 597019.783 |
| SU1-11-008 | 20051130 | Thorium-228 | 2.6 | 0.37 | 0.05 | | | 1464047.728 | 597019.783 |
| SU1-11-008 | 20051130 | Thorium-230 | 2.8 | 0.77 | 0.04 | | | 1464047.728 | 597019.783 |
| SU1-11-008 | 20051130 | Thorium-232 | 2.1 | 0.35 | 0.03 | | | 1464047.728 | 597019.783 |
| SU1-11-008 | 20051130 | Thorium-232 | 2.1 | 0.29 | 0.17 | | | 1464047.728 | 597019.783 |
| SU1-11-008 | 20051130 | Uranium-234 | 2 | 0.56 | 0.03 | | | 1464047.728 | 597019.783 |
| SU1-11-008 | 20051130 | Uranium-238 | 3.2 | 0.68 | 0.03 | | | 1464047.728 | 597019.783 |
| SU1-11-009 | 20051130 | Actinium-227 | 4.6 | 0.31 | 0.31 | | U | 1464062.728 | 597019.783 |
| SU1-11-009 | 20051130 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1464062.728 | 597019.783 |
| SU1-11-009 | 20051130 | Beryllium-7 | 41.1 | 0.4 | 0.4 | | U | 1464062.728 | 597019.783 |
| SU1-11-009 | 20051130 | Bismuth-207 | 1.2 | 0.051 | 0.051 | | U | 1464062.728 | 597019.783 |
| SU1-11-009 | 20051130 | Bismuth-210M | 8.3 | 0.075 | 0.075 | | U | 1464062.728 | 597019.783 |
| SU1-11-009 | 20051130 | Bismuth-214 | 1.17 | 0.49 | 0.1 | | | 1464062.728 | 597019.783 |
| SU1-11-009 | 20051130 | Cesium-137 | 3.8 | 0.055 | 0.055 | | U | 1464062.728 | 597019.783 |
| SU1-11-009 | 20051130 | Cobalt-60 | 0.7 | 0.082 | 0.082 | | U | 1464062.728 | 597019.783 |
| SU1-11-009 | 20051130 | Lead-210 | 7.4 | 1.6 | 1.6 | | U | 1464062.728 | 597019.783 |
| SU1-11-009 | 20051130 | Lead-212 | 16.6 | 0.338 | 0.079 | | | 1464062.728 | 597019.783 |
| SU1-11-009 | 20051130 | Lead-214 | 8.9 | 0.65 | 0.09 | | | 1464062.728 | 597019.783 |
| SU1-11-009 | 20051130 | Potassium-40 | 47.8 | 7.6 | 0.6 | | J | 1464062.728 | 597019.783 |
| SU1-11-009 | 20051130 | Protactinium-231 | 4 | 1.8 | 1.8 | | U | 1464062.728 | 597019.783 |
| SU1-11-009 | 20051130 | Radium-224 | 2.6* | 1.41 | 1.2 | | | 1464062.728 | 597019.783 |
| SU1-11-009 | 20051130 | Radium-226 | 2.9 | 0.49 | 0.1 | | | 1464062.728 | 597019.783 |
| SU1-11-009 | 20051130 | Thallium-208 | 0.498** | 0.096 | 0.061 | | | 1464062.728 | 597019.783 |
| SU1-11-009 | 20051130 | Thorium-228 | 2.6 | 0.35 | 0.04 | | | 1464062.728 | 597019.783 |
| SU1-11-009 | 20051130 | Thorium-230 | 2.8 | 0.69 | 0.03 | | | 1464062.728 | 597019.783 |
| SU1-11-009 | 20051130 | Thorium-232 | 2.1 | 0.36 | 0.02 | | | 1464062.728 | 597019.783 |
| SU1-11-009 | 20051130 | Uranium-234 | 2 | 0.53 | 0.03 | | | 1464062.728 | 597019.783 |
| SU1-11-009 | 20051130 | Uranium-238 | 3.2 | 0.65 | 0.02 | | | 1464062.728 | 597019.783 |
| SU1-11-010 | 20051130 | Actinium-227 | 4.6 | 0.33 | 0.33 | | U | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Actinium-228 | 1.93 | 2.94 | 0.22 | | | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Americium-241 | 63 | 0.13 | 0.13 | | U | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Beryllium-7 | 41.1 | 0.47 | 0.47 | | U | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Bismuth-207 | 1.2 | 0.057 | 0.057 | | U | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Bismuth-210M | 8.3 | 0.073 | 0.073 | | U | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Bismuth-212 | 9.87 | 1.27 | 0.44 | | | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Bismuth-214 | 1.17 | 1.04 | 0.11 | | | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Cobalt-60 | 0.7 | 0.064 | 0.064 | | U | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Lead-210 | 7.4 | 1.6 | 1.6 | | U | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Lead-212 | 16.6 | 1.94 | 0.09 | | | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Lead-214 | 8.9 | 0.86 | 0.12 | | | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Potassium-40 | 47.8 | 14.1 | 0.6 | | | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Protactinium-231 | 4 | 2 | 2 | | U | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Radium-224 | 2.6* | 2.8 | 0.9 | J | | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Radium-226 | 2.9 | 1.04 | 0.11 | J | | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Radium-228 | 2.1 | 2.94 | 0.22 | | | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Thallium-208 | 0.498** | 0.72 | 0.06 | | | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Thorium-228 | 2.6 | 1.43 | 0.03 | | | 1464077.728 | 597019.783 |

# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-010 | 20051130 | Thorium-230 | 2.8 | 1.18 | 0.03 | J | | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Thorium-232 | 2.1 | 1.2 | 0.03 | | | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Thorium-232 | 2.1 | 2.94 | 0.22 | | | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Uranium-234 | 2 | 0.86 | 0.03 | | | 1464077.728 | 597019.783 |
| SU1-11-010 | 20051130 | Uranium-238 | 3.2 | 1 | 0.01 | | | 1464077.728 | 597019.783 |
| SU1-11-011 | 20051201 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Actinium-228 | 1.93 | 0.63 | 0.2 | | | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Beryllium-7 | 41.1 | 0.41 | 0.41 | | U | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Bismuth-207 | 1.2 | 0.044 | 0.044 | | U | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Bismuth-210M | 8.3 | 0.056 | 0.056 | | U | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Bismuth-212 | 9.87 | 0.55 | 0.33 | | | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Bismuth-214 | 1.17 | 0.77 | 0.09 | | | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Cesium-137 | 3.8 | 0.068 | 0.068 | | U | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Cobalt-60 | 0.7 | 0.058 | 0.058 | | U | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Lead-210 | 7.4 | 1.5 | 1.5 | | U | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Lead-212 | 16.6 | 0.73 | 0.07 | | | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Lead-214 | 8.9 | 0.82 | 0.09 | | | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Potassium-40 | 47.8 | 11.1 | 0.6 | | | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Protactinium-231 | 4 | 1.5 | 1.5 | | U | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Radium-224 | 2.6* | 1.57 | 0.75 | | | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Radium-226 | 2.9 | 0.77 | 0.09 | | | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Radium-228 | 2.1 | 0.63 | 0.2 | | | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Thallium-208 | 0.498** | 0.267 | 0.048 | | | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Thorium-228 | 2.6 | 0.75 | 0.03 | | | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Thorium-230 | 2.8 | 1.43 | 0.03 | | | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Thorium-232 | 2.1 | 0.76 | 0.02 | | | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Thorium-232 | 2.1 | 0.63 | 0.2 | | | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Uranium-234 | 2 | 0.67 | 0.02 | | | 1464122.728 | 597019.783 |
| SU1-11-011 | 20051201 | Uranium-238 | 3.2 | 0.7 | 0.01 | | | 1464122.728 | 597019.783 |
| SU1-11-012 | 20051201 | Actinium-227 | 4.6 | 0.22 | 0.22 | | U | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Actinium-228 | 1.93 | 0.64 | 0.15 | | | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Americium-241 | 63 | 0.092 | 0.092 | | U | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Beryllium-7 | 41.1 | 0.31 | 0.31 | | U | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Bismuth-207 | 1.2 | 0.037 | 0.037 | | U | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Bismuth-210M | 8.3 | 0.051 | 0.051 | | U | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Bismuth-214 | 1.17 | 0.87 | 0.08 | | | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Cesium-137 | 3.8 | 0.074 | 0.055 | | J | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Cobalt-60 | 0.7 | 0.046 | 0.046 | | U | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Lead-210 | 7.4 | 1.1 | 1.1 | | U | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Lead-212 | 16.6 | 0.7 | 0.06 | | | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Lead-214 | 8.9 | 0.84 | 0.08 | | | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Potassium-40 | 47.8 | 12.2 | 0.3 | | | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Protactinium-231 | 4 | 1.56 | 1.4 | | | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Radium-224 | 2.6* | 2.4 | 1 | | | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Radium-226 | 2.9 | 0.87 | 0.08 | | | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Radium-228 | 2.1 | 0.64 | 0.15 | | | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Thallium-208 | 0.498** | 0.256 | 0.039 | | | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Thorium-228 | 2.6 | 0.77 | 0.04 | | | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Thorium-230 | 2.8 | 1.13 | 0.03 | | | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Thorium-232 | 2.1 | 0.64 | 0.15 | | | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Thorium-232 | 2.1 | 0.81 | 0.01 | | | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Uranium-234 | 2 | 0.96 | 0.02 | | | 1464137.728 | 597019.783 |
| SU1-11-012 | 20051201 | Uranium-238 | 3.2 | 0.81 | 0.01 | | | 1464137.728 | 597019.783 |
| SU1-11-013 | 20051201 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Actinium-228 | 1.93 | 0.61 | 0.18 | | | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Beryllium-7 | 41.1 | 0.39 | 0.39 | | U | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Bismuth-207 | 1.2 | 0.041 | 0.041 | | U | 1464152.728 | 597019.783 |

# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-013 | 20051201 | Bismuth-210M | 8.3 | 0.052 | 0.052 | | U | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Bismuth-214 | 1.17 | 0.83 | 0.09 | | | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Cesium-137 | 3.8 | 0.064 | 0.064 | | U | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Lead-210 | 7.4 | 1.3 | 1.3 | | U | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Lead-212 | 16.6 | 0.619 | 0.075 | | | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Lead-214 | 8.9 | 0.95 | 0.09 | | | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Potassium-40 | 47.8 | 12.5 | 0.6 | | | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Protactinium-231 | 4 | 1.3 | 1.3 | | U | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Radium-224 | 2.6* | 3.2 | 1.2 | | | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Radium-226 | 2.9 | 0.83 | 0.09 | | | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Radium-228 | 2.1 | 0.61 | 0.18 | | | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Thallium-208 | 0.498** | 0.212 | 0.052 | | | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Thorium-228 | 2.6 | 0.71 | 0.03 | | | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Thorium-230 | 2.8 | 1.22 | 0.02 | | | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Thorium-232 | 2.1 | 0.61 | 0.18 | | | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Thorium-232 | 2.1 | 0.58 | 0.03 | | | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Thorium-234 | 176 | 0.95 | 0.87 | | | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Uranium-234 | 2 | 0.75 | 0.02 | | | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Uranium-238 | 3.2 | 0.71 | 0.01 | | | 1464152.728 | 597019.783 |
| SU1-11-013 | 20051201 | Uranium-238 | 3.2 | 0.95 | 0.87 | | | 1464152.728 | 597019.783 |
| SU1-11-014 | 20051129 | Actinium-227 | 4.6 | 0.38 | 0.31 | | J | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Actinium-228 | 1.93 | 1.24 | 0.17 | | | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Americium-241 | 63 | 0.12 | 0.12 | | U | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Bismuth-207 | 1.2 | 0.048 | 0.048 | | U | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Bismuth-210M | 8.3 | 0.067 | 0.067 | | U | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Bismuth-212 | 9.87 | 1.03 | 0.43 | | | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Bismuth-214 | 1.17 | 0.97 | 0.08 | | | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Cesium-137 | 3.8 | 0.098 | 0.064 | | J | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Cobalt-60 | 0.7 | 0.076 | 0.076 | | U | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Lead-210 | 7.4 | 1.4 | 1.4 | | U | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Lead-212 | 16.6 | 1.27 | 0.09 | | | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Lead-214 | 8.9 | 1.08 | 0.1 | | | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Potassium-40 | 47.8 | 15.2 | 0.5 | | | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Protactinium-231 | 4 | 1.7 | 1.7 | | U | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Radium-224 | 2.6* | 2.9 | 0.9 | | | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Radium-226 | 2.9 | 0.97 | 0.08 | | | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Radium-228 | 2.1 | 1.24 | 0.17 | | | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Thallium-208 | 0.498** | 0.485 | 0.06 | | | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Thorium-228 | 2.6 | 1.61 | 0.04 | | | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Thorium-230 | 2.8 | 1.38 | 0.02 | | | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Thorium-232 | 2.1 | 1.38 | 0.02 | | | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Thorium-232 | 2.1 | 1.24 | 0.17 | | | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Uranium-234 | 2 | 0.82 | 0.02 | | | 1463950.228 | 597032.774 |
| SU1-11-014 | 20051129 | Uranium-238 | 3.2 | 0.94 | 0.02 | | | 1463950.228 | 597032.774 |
| SU1-11-015 | 20051129 | Actinium-227 | 4.6 | 0.35 | 0.26 | | J | 1463965.228 | 597032.774 |
| SU1-11-015 | 20051129 | Actinium-228 | 1.93 | 0.76 | 0.15 | | | 1463965.228 | 597032.774 |
| SU1-11-015 | 20051129 | Americium-241 | 63 | 0.089 | 0.089 | | U | 1463965.228 | 597032.774 |
| SU1-11-015 | 20051129 | Bismuth-207 | 1.2 | 0.039 | 0.039 | | U | 1463965.228 | 597032.774 |
| SU1-11-015 | 20051129 | Bismuth-210M | 8.3 | 0.048 | 0.048 | | U | 1463965.228 | 597032.774 |
| SU1-11-015 | 20051129 | Bismuth-212 | 9.87 | 0.47 | 0.31 | | | 1463965.228 | 597032.774 |
| SU1-11-015 | 20051129 | Bismuth-214 | 1.17 | 0.71 | 0.07 | | | 1463965.228 | 597032.774 |
| SU1-11-015 | 20051129 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1463965.228 | 597032.774 |
| SU1-11-015 | 20051129 | Cobalt-60 | 0.7 | 0.045 | 0.045 | | U | 1463965.228 | 597032.774 |
| SU1-11-015 | 20051129 | Lead-210 | 7.4 | 0.91 | 0.91 | | U | 1463965.228 | 597032.774 |
| SU1-11-015 | 20051129 | Lead-212 | 16.6 | 0.73 | 0.06 | | | 1463965.228 | 597032.774 |
| SU1-11-015 | 20051129 | Lead-214 | 8.9 | 0.75 | 0.07 | | | 1463965.228 | 597032.774 |
| SU1-11-015 | 20051129 | Potassium-40 | 47.8 | 8.9 | 0.4 | | J | 1463965.228 | 597032.774 |
| SU1-11-015 | 20051129 | Protactinium-231 | 4 | 1.51 | 1.3 | | | 1463965.228 | 597032.774 |

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# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-015 | 20051129 | Radium-224 | 2.6* | 1.42 | 0.63 | | | 1463965.228 | 597032.774 |
| SU1-11-015 | 20051129 | Radium-226 | 2.9 | 0.71 | 0.07 | | | 1463965.228 | 597032.774 |
| SU1-11-015 | 20051129 | Radium-228 | 2.1 | 0.76 | 0.15 | | | 1463965.228 | 597032.774 |
| SU1-11-015 | 20051129 | Thallium-208 | 0.498** | 0.263 | 0.041 | | | 1463965.228 | 597032.774 |
| SU1-11-015 | 20051129 | Thorium-228 | 2.6 | 1.56 | 0.03 | | | 1463965.228 | 597032.774 |
| SU1-11-015 | 20051129 | Thorium-230 | 2.8 | 1.63 | 0.01 | | | 1463965.228 | 597032.774 |
| SU1-11-015 | 20051129 | Thorium-232 | 2.1 | 1.58 | 0.02 | | | 1463965.228 | 597032.774 |
| SU1-11-015 | 20051129 | Thorium-232 | 2.1 | 0.76 | 0.15 | | | 1463965.228 | 597032.774 |
| SU1-11-015 | 20051129 | Uranium-234 | 2 | 1.02 | 0.009 | | | 1463965.228 | 597032.774 |
| SU1-11-015 | 20051129 | Uranium-238 | 3.2 | 1.12 | 0.02 | | | 1463965.228 | 597032.774 |
| SU1-11-016 | 20051130 | Actinium-227 | 4.6 | 0.2 | 0.2 | | U | 1463980.228 | 597032.774 |
| SU1-11-016 | 20051130 | Actinium-228 | 1.93 | 0.46 | 0.14 | | | 1463980.228 | 597032.774 |
| SU1-11-016 | 20051130 | Americium-241 | 63 | 0.071 | 0.071 | | U | 1463980.228 | 597032.774 |
| SU1-11-016 | 20051130 | Bismuth-207 | 1.2 | 0.03 | 0.03 | | U | 1463980.228 | 597032.774 |
| SU1-11-016 | 20051130 | Bismuth-210M | 8.3 | 0.04 | 0.04 | | U | 1463980.228 | 597032.774 |
| SU1-11-016 | 20051130 | Bismuth-214 | 1.17 | 0.55 | 0.07 | | | 1463980.228 | 597032.774 |
| SU1-11-016 | 20051130 | Cesium-137 | 3.8 | 0.037 | 0.037 | | U | 1463980.228 | 597032.774 |
| SU1-11-016 | 20051130 | Cobalt-60 | 0.7 | 0.035 | 0.035 | | U | 1463980.228 | 597032.774 |
| SU1-11-016 | 20051130 | Lead-210 | 7.4 | 0.75 | 0.75 | | U | 1463980.228 | 597032.774 |
| SU1-11-016 | 20051130 | Lead-212 | 16.6 | 0.32 | 0.054 | | | 1463980.228 | 597032.774 |
| SU1-11-016 | 20051130 | Lead-214 | 8.9 | 0.512 | 0.056 | | | 1463980.228 | 597032.774 |
| SU1-11-016 | 20051130 | Potassium-40 | 47.8 | 7.3 | 0.3 | | J | 1463980.228 | 597032.774 |
| SU1-11-016 | 20051130 | Protactinium-231 | 4 | 1 | 1 | | U | 1463980.228 | 597032.774 |
| SU1-11-016 | 20051130 | Radium-224 | 2.6* | 2 | 0.8 | | | 1463980.228 | 597032.774 |
| SU1-11-016 | 20051130 | Radium-226 | 2.9 | 0.55 | 0.07 | | | 1463980.228 | 597032.774 |
| SU1-11-016 | 20051130 | Radium-228 | 2.1 | 0.46 | 0.14 | | | 1463980.228 | 597032.774 |
| SU1-11-016 | 20051130 | Thallium-208 | 0.498** | 0.162 | 0.033 | | | 1463980.228 | 597032.774 |
| SU1-11-016 | 20051130 | Thorium-228 | 2.6 | 0.5 | 0.05 | | | 1463980.228 | 597032.774 |
| SU1-11-016 | 20051130 | Thorium-230 | 2.8 | 1.44 | 0.04 | | | 1463980.228 | 597032.774 |
| SU1-11-016 | 20051130 | Thorium-232 | 2.1 | 0.46 | 0.14 | | | 1463980.228 | 597032.774 |
| SU1-11-016 | 20051130 | Thorium-232 | 2.1 | 0.53 | 0.04 | | | 1463980.228 | 597032.774 |
| SU1-11-016 | 20051130 | Uranium-234 | 2 | 0.65 | 0.02 | | | 1463980.228 | 597032.774 |
| SU1-11-016 | 20051130 | Uranium-238 | 3.2 | 0.7 | 0.01 | | | 1463980.228 | 597032.774 |
| SU1-11-017 | 20051130 | Actinium-227 | 4.6 | 0.21 | 0.21 | | U | 1463995.228 | 597032.774 |
| SU1-11-017 | 20051130 | Americium-241 | 63 | 0.084 | 0.084 | | U | 1463995.228 | 597032.774 |
| SU1-11-017 | 20051130 | Bismuth-207 | 1.2 | 0.042 | 0.042 | | U | 1463995.228 | 597032.774 |
| SU1-11-017 | 20051130 | Bismuth-210M | 8.3 | 0.047 | 0.047 | | U | 1463995.228 | 597032.774 |
| SU1-11-017 | 20051130 | Bismuth-214 | 1.17 | 0.49 | 0.09 | | | 1463995.228 | 597032.774 |
| SU1-11-017 | 20051130 | Cesium-137 | 3.8 | 0.061 | 0.061 | | U | 1463995.228 | 597032.774 |
| SU1-11-017 | 20051130 | Cobalt-60 | 0.7 | 0.057 | 0.057 | | U | 1463995.228 | 597032.774 |
| SU1-11-017 | 20051130 | Lead-210 | 7.4 | 1 | 1 | | U | 1463995.228 | 597032.774 |
| SU1-11-017 | 20051130 | Lead-212 | 16.6 | 0.124 | 0.093 | | | 1463995.228 | 597032.774 |
| SU1-11-017 | 20051130 | Lead-214 | 8.9 | 0.46 | 0.07 | | | 1463995.228 | 597032.774 |
| SU1-11-017 | 20051130 | Potassium-40 | 47.8 | 5.6 | 0.5 | | J | 1463995.228 | 597032.774 |
| SU1-11-017 | 20051130 | Protactinium-231 | 4 | 1.2 | 1.2 | | U | 1463995.228 | 597032.774 |
| SU1-11-017 | 20051130 | Radium-224 | 2.6* | 1.41 | 0.96 | | | 1463995.228 | 597032.774 |
| SU1-11-017 | 20051130 | Radium-226 | 2.9 | 0.49 | 0.09 | | | 1463995.228 | 597032.774 |
| SU1-11-017 | 20051130 | Thallium-208 | 0.498** | 0.049 | 0.04 | | | 1463995.228 | 597032.774 |
| SU1-11-017 | 20051130 | Thorium-228 | 2.6 | 0.264 | 0.037 | | | 1463995.228 | 597032.774 |
| SU1-11-017 | 20051130 | Thorium-230 | 2.8 | 0.77 | 0.02 | | | 1463995.228 | 597032.774 |
| SU1-11-017 | 20051130 | Thorium-232 | 2.1 | 0.209 | 0.022 | | | 1463995.228 | 597032.774 |
| SU1-11-017 | 20051130 | Uranium-234 | 2 | 0.49 | 0.02 | | | 1463995.228 | 597032.774 |
| SU1-11-017 | 20051130 | Uranium-238 | 3.2 | 0.58 | 0.01 | | | 1463995.228 | 597032.774 |
| SU1-11-017D | 20051130 | Actinium-227 | 4.6 | 0.26 | 0.26 | | U | 1463995.228 | 597032.774 |
| SU1-11-017D | 20051130 | Americium-241 | 63 | 0.096 | 0.096 | | U | 1463995.228 | 597032.774 |
| SU1-11-017D | 20051130 | Bismuth-207 | 1.2 | 0.055 | 0.055 | | U | 1463995.228 | 597032.774 |
| SU1-11-017D | 20051130 | Bismuth-210M | 8.3 | 0.055 | 0.055 | | U | 1463995.228 | 597032.774 |
| SU1-11-017D | 20051130 | Bismuth-214 | 1.17 | 0.44 | 0.07 | | | 1463995.228 | 597032.774 |
| SU1-11-017D | 20051130 | Cesium-137 | 3.8 | 0.055 | 0.055 | | U | 1463995.228 | 597032.774 |

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# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-017D | 20051130 | Cobalt-60 | 0.7 | 0.058 | 0.058 | | U | 1463995.228 | 597032.774 |
| SU1-11-017D | 20051130 | Lead-210 | 7.4 | 1.4 | 1.4 | | U | 1463995.228 | 597032.774 |
| SU1-11-017D | 20051130 | Lead-212 | 16.6 | 0.203 | 0.077 | | | 1463995.228 | 597032.774 |
| SU1-11-017D | 20051130 | Lead-214 | 8.9 | 0.47 | 0.09 | | | 1463995.228 | 597032.774 |
| SU1-11-017D | 20051130 | Potassium-40 | 47.8 | 6.1 | 0.5 | | J | 1463995.228 | 597032.774 |
| SU1-11-017D | 20051130 | Protactinium-231 | 4 | 1.4 | 1.4 | | U | 1463995.228 | 597032.774 |
| SU1-11-017D | 20051130 | Radium-226 | 2.9 | 0.44 | 0.07 | | | 1463995.228 | 597032.774 |
| SU1-11-017D | 20051130 | Radium-228 | 2.1 | 0.82 | 0.82 | | U | 1463995.228 | 597032.774 |
| SU1-11-017D | 20051130 | Thallium-208 | 0.498** | 0.089 | 0.06 | | | 1463995.228 | 597032.774 |
| SU1-11-017D | 20051130 | Thorium-228 | 2.6 | 0.34 | 0.06 | | | 1463995.228 | 597032.774 |
| SU1-11-017D | 20051130 | Thorium-230 | 2.8 | 0.93 | 0.04 | | | 1463995.228 | 597032.774 |
| SU1-11-017D | 20051130 | Thorium-232 | 2.1 | 0.33 | 0.04 | | | 1463995.228 | 597032.774 |
| SU1-11-017D | 20051130 | Uranium-234 | 2 | 0.77 | 0.02 | | | 1463995.228 | 597032.774 |
| SU1-11-017D | 20051130 | Uranium-238 | 3.2 | 0.69 | 0.02 | | | 1463995.228 | 597032.774 |
| SU1-11-018 | 20051130 | Actinium-227 | 4.6 | 0.22 | 0.22 | | U | 1464010.228 | 597032.774 |
| SU1-11-018 | 20051130 | Actinium-228 | 1.93 | 0.56 | 0.11 | | | 1464010.228 | 597032.774 |
| SU1-11-018 | 20051130 | Americium-241 | 63 | 0.085 | 0.085 | | U | 1464010.228 | 597032.774 |
| SU1-11-018 | 20051130 | Bismuth-207 | 1.2 | 0.039 | 0.039 | | U | 1464010.228 | 597032.774 |
| SU1-11-018 | 20051130 | Bismuth-210M | 8.3 | 0.051 | 0.051 | | U | 1464010.228 | 597032.774 |
| SU1-11-018 | 20051130 | Bismuth-214 | 1.17 | 0.69 | 0.09 | | | 1464010.228 | 597032.774 |
| SU1-11-018 | 20051130 | Cesium-137 | 3.8 | 0.043 | 0.043 | | U | 1464010.228 | 597032.774 |
| SU1-11-018 | 20051130 | Cobalt-60 | 0.7 | 0.047 | 0.047 | | U | 1464010.228 | 597032.774 |
| SU1-11-018 | 20051130 | Lead-210 | 7.4 | 1.2 | 1.2 | | U | 1464010.228 | 597032.774 |
| SU1-11-018 | 20051130 | Lead-212 | 16.6 | 0.548 | 0.059 | | | 1464010.228 | 597032.774 |
| SU1-11-018 | 20051130 | Lead-214 | 8.9 | 0.62 | 0.07 | | | 1464010.228 | 597032.774 |
| SU1-11-018 | 20051130 | Potassium-40 | 47.8 | 8.1 | 0.4 | | J | 1464010.228 | 597032.774 |
| SU1-11-018 | 20051130 | Protactinium-231 | 4 | 1.3 | 1.3 | | U | 1464010.228 | 597032.774 |
| SU1-11-018 | 20051130 | Radium-224 | 2.6* | 1.53 | 0.63 | | | 1464010.228 | 597032.774 |
| SU1-11-018 | 20051130 | Radium-226 | 2.9 | 0.69 | 0.09 | | | 1464010.228 | 597032.774 |
| SU1-11-018 | 20051130 | Radium-228 | 2.1 | 0.56 | 0.11 | | | 1464010.228 | 597032.774 |
| SU1-11-018 | 20051130 | Thallium-208 | 0.498** | 0.228 | 0.044 | | | 1464010.228 | 597032.774 |
| SU1-11-018 | 20051130 | Thorium-228 | 2.6 | 0.81 | 0.03 | | | 1464010.228 | 597032.774 |
| SU1-11-018 | 20051130 | Thorium-230 | 2.8 | 1.01 | 0.02 | | | 1464010.228 | 597032.774 |
| SU1-11-018 | 20051130 | Thorium-232 | 2.1 | 0.56 | 0.11 | | | 1464010.228 | 597032.774 |
| SU1-11-018 | 20051130 | Thorium-232 | 2.1 | 0.7 | 0.02 | | | 1464010.228 | 597032.774 |
| SU1-11-018 | 20051130 | Uranium-234 | 2 | 0.64 | 0.01 | | | 1464010.228 | 597032.774 |
| SU1-11-018 | 20051130 | Uranium-238 | 3.2 | 0.75 | 0.01 | | | 1464010.228 | 597032.774 |
| SU1-11-019 | 20051130 | Actinium-227 | 4.6 | 0.32 | 0.32 | | U | 1464025.228 | 597032.774 |
| SU1-11-019 | 20051130 | Actinium-228 | 1.93 | 0.62 | 0.26 | | | 1464025.228 | 597032.774 |
| SU1-11-019 | 20051130 | Americium-241 | 63 | 0.13 | 0.13 | | U | 1464025.228 | 597032.774 |
| SU1-11-019 | 20051130 | Bismuth-207 | 1.2 | 0.066 | 0.066 | | U | 1464025.228 | 597032.774 |
| SU1-11-019 | 20051130 | Bismuth-210M | 8.3 | 0.086 | 0.086 | | U | 1464025.228 | 597032.774 |
| SU1-11-019 | 20051130 | Bismuth-214 | 1.17 | 0.83 | 0.13 | | | 1464025.228 | 597032.774 |
| SU1-11-019 | 20051130 | Cesium-137 | 3.8 | 0.097 | 0.097 | | U | 1464025.228 | 597032.774 |
| SU1-11-019 | 20051130 | Cobalt-60 | 0.7 | 0.089 | 0.089 | | U | 1464025.228 | 597032.774 |
| SU1-11-019 | 20051130 | Lead-210 | 7.4 | 1.9 | 1.9 | | U | 1464025.228 | 597032.774 |
| SU1-11-019 | 20051130 | Lead-212 | 16.6 | 0.69 | 0.08 | | | 1464025.228 | 597032.774 |
| SU1-11-019 | 20051130 | Lead-214 | 8.9 | 0.9 | 0.12 | | | 1464025.228 | 597032.774 |
| SU1-11-019 | 20051130 | Potassium-40 | 47.8 | 14.6 | 0.9 | | | 1464025.228 | 597032.774 |
| SU1-11-019 | 20051130 | Protactinium-231 | 4 | 1.7 | 1.7 | | U | 1464025.228 | 597032.774 |
| SU1-11-019 | 20051130 | Radium-224 | 2.6* | 2.3 | 0.8 | | | 1464025.228 | 597032.774 |
| SU1-11-019 | 20051130 | Radium-226 | 2.9 | 0.83 | 0.13 | | | 1464025.228 | 597032.774 |
| SU1-11-019 | 20051130 | Radium-228 | 2.1 | 0.62 | 0.26 | | | 1464025.228 | 597032.774 |
| SU1-11-019 | 20051130 | Thallium-208 | 0.498** | 0.224 | 0.072 | | | 1464025.228 | 597032.774 |
| SU1-11-019 | 20051130 | Thorium-228 | 2.6 | 0.87 | 0.08 | | | 1464025.228 | 597032.774 |
| SU1-11-019 | 20051130 | Thorium-230 | 2.8 | 1 | 0.05 | | | 1464025.228 | 597032.774 |
| SU1-11-019 | 20051130 | Thorium-232 | 2.1 | 0.75 | 0.05 | | | 1464025.228 | 597032.774 |
| SU1-11-019 | 20051130 | Thorium-232 | 2.1 | 0.62 | 0.26 | | | 1464025.228 | 597032.774 |
| SU1-11-019 | 20051130 | Uranium-234 | 2 | 0.58 | 0.03 | | | 1464025.228 | 597032.774 |

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# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-019 | 20051130 | Uranium-238 | 3.2 | 0.74 | 0.02 | | | 1464025.228 | 597032.774 |
| SU1-11-020 | 20051130 | Actinium-227 | 4.6 | 0.34 | 0.34 | | U | 1464040.228 | 597032.774 |
| SU1-11-020 | 20051130 | Americium-241 | 63 | 0.13 | 0.13 | | U | 1464040.228 | 597032.774 |
| SU1-11-020 | 20051130 | Bismuth-207 | 1.2 | 0.066 | 0.066 | | U | 1464040.228 | 597032.774 |
| SU1-11-020 | 20051130 | Bismuth-210M | 8.3 | 0.085 | 0.085 | | U | 1464040.228 | 597032.774 |
| SU1-11-020 | 20051130 | Bismuth-214 | 1.17 | 0.67 | 0.12 | | | 1464040.228 | 597032.774 |
| SU1-11-020 | 20051130 | Cesium-137 | 3.8 | 0.074 | 0.074 | | U | 1464040.228 | 597032.774 |
| SU1-11-020 | 20051130 | Cobalt-60 | 0.7 | 0.093 | 0.093 | | U | 1464040.228 | 597032.774 |
| SU1-11-020 | 20051130 | Lead-210 | 7.4 | 1.9 | 1.9 | | U | 1464040.228 | 597032.774 |
| SU1-11-020 | 20051130 | Lead-212 | 16.6 | 0.45 | 0.09 | | | 1464040.228 | 597032.774 |
| SU1-11-020 | 20051130 | Lead-214 | 8.9 | 0.58 | 0.14 | | | 1464040.228 | 597032.774 |
| SU1-11-020 | 20051130 | Potassium-40 | 47.8 | 9.1 | 0.5 | | J | 1464040.228 | 597032.774 |
| SU1-11-020 | 20051130 | Protactinium-231 | 4 | 2.2 | 2.2 | | U | 1464040.228 | 597032.774 |
| SU1-11-020 | 20051130 | Radium-224 | 2.6* | 1.41 | 0.94 | | | 1464040.228 | 597032.774 |
| SU1-11-020 | 20051130 | Radium-226 | 2.9 | 0.67 | 0.12 | | | 1464040.228 | 597032.774 |
| SU1-11-020 | 20051130 | Thorium-228 | 2.6 | 0.56 | 0.05 | | | 1464040.228 | 597032.774 |
| SU1-11-020 | 20051130 | Thorium-230 | 2.8 | 1.01 | 0.03 | | | 1464040.228 | 597032.774 |
| SU1-11-020 | 20051130 | Thorium-232 | 2.1 | 0.44 | 0.01 | | | 1464040.228 | 597032.774 |
| SU1-11-020 | 20051130 | Uranium-234 | 2 | 0.69 | 0.03 | | | 1464040.228 | 597032.774 |
| SU1-11-020 | 20051130 | Uranium-238 | 3.2 | 0.66 | 0.03 | | | 1464040.228 | 597032.774 |
| SU1-11-021 | 20051130 | Actinium-227 | 4.6 | 0.19 | 0.19 | | U | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Actinium-228 | 1.93 | 0.42 | 0.13 | | | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Americium-241 | 63 | 0.074 | 0.074 | | U | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Bismuth-207 | 1.2 | 0.031 | 0.031 | | U | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Bismuth-210M | 8.3 | 0.043 | 0.043 | | U | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Bismuth-212 | 9.87 | 0.38 | 0.31 | | | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Bismuth-214 | 1.17 | 0.63 | 0.06 | | | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Cesium-137 | 3.8 | 0.048 | 0.048 | | U | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Cobalt-60 | 0.7 | 0.042 | 0.042 | | U | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Lead-210 | 7.4 | 0.7 | 0.7 | | U | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Lead-212 | 16.6 | 0.348 | 0.048 | | | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Lead-214 | 8.9 | 0.64 | 0.06 | | | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Potassium-40 | 47.8 | 8.3 | 0.4 | | J | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Protactinium-231 | 4 | 1 | 1 | | U | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Radium-224 | 2.6* | 1.45 | 0.51 | | | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Radium-226 | 2.9 | 0.63 | 0.06 | | | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Radium-228 | 2.1 | 0.42 | 0.13 | | | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Thallium-208 | 0.498** | 0.11 | 0.04 | | | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Thorium-228 | 2.6 | 0.359 | 0.041 | | | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Thorium-230 | 2.8 | 0.66 | 0.02 | | | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Thorium-232 | 2.1 | 0.5 | 0.01 | | | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Thorium-232 | 2.1 | 0.42 | 0.13 | | | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Uranium-234 | 2 | 0.57 | 0.01 | | | 1464055.228 | 597032.774 |
| SU1-11-021 | 20051130 | Uranium-238 | 3.2 | 0.58 | 0.03 | | | 1464055.228 | 597032.774 |
| SU1-11-022 | 20051130 | Actinium-227 | 4.6 | 0.23 | 0.23 | | U | 1464070.228 | 597032.774 |
| SU1-11-022 | 20051130 | Actinium-228 | 1.93 | 0.48 | 0.16 | | | 1464070.228 | 597032.774 |
| SU1-11-022 | 20051130 | Americium-241 | 63 | 0.089 | 0.089 | | U | 1464070.228 | 597032.774 |
| SU1-11-022 | 20051130 | Bismuth-207 | 1.2 | 0.035 | 0.035 | | U | 1464070.228 | 597032.774 |
| SU1-11-022 | 20051130 | Bismuth-210M | 8.3 | 0.054 | 0.054 | | U | 1464070.228 | 597032.774 |
| SU1-11-022 | 20051130 | Bismuth-214 | 1.17 | 0.62 | 0.07 | | | 1464070.228 | 597032.774 |
| SU1-11-022 | 20051130 | Cesium-137 | 3.8 | 0.051 | 0.051 | | U | 1464070.228 | 597032.774 |
| SU1-11-022 | 20051130 | Cobalt-60 | 0.7 | 0.056 | 0.056 | | U | 1464070.228 | 597032.774 |
| SU1-11-022 | 20051130 | Lead-210 | 7.4 | 1.2 | 1.2 | | U | 1464070.228 | 597032.774 |
| SU1-11-022 | 20051130 | Lead-212 | 16.6 | 0.413 | 0.092 | | | 1464070.228 | 597032.774 |
| SU1-11-022 | 20051130 | Lead-214 | 8.9 | 0.61 | 0.07 | | | 1464070.228 | 597032.774 |
| SU1-11-022 | 20051130 | Potassium-40 | 47.8 | 9.7 | 0.4 | | J | 1464070.228 | 597032.774 |
| SU1-11-022 | 20051130 | Protactinium-231 | 4 | 1.2 | 1.2 | | U | 1464070.228 | 597032.774 |
| SU1-11-022 | 20051130 | Radium-224 | 2.6* | 1.9 | 0.9 | J | | 1464070.228 | 597032.774 |
| SU1-11-022 | 20051130 | Radium-226 | 2.9 | 0.62 | 0.07 | J | | 1464070.228 | 597032.774 |

# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-022 | 20051130 | Radium-228 | 2.1 | 0.48 | 0.16 | | | 1464070.228 | 597032.774 |
| SU1-11-022 | 20051130 | Thallium-208 | 0.498** | 0.188 | 0.046 | | | 1464070.228 | 597032.774 |
| SU1-11-022 | 20051130 | Thorium-228 | 2.6 | 0.59 | 0.03 | | | 1464070.228 | 597032.774 |
| SU1-11-022 | 20051130 | Thorium-230 | 2.8 | 1.01 | 0.02 | | | 1464070.228 | 597032.774 |
| SU1-11-022 | 20051130 | Thorium-232 | 2.1 | 0.48 | 0.16 | | | 1464070.228 | 597032.774 |
| SU1-11-022 | 20051130 | Thorium-232 | 2.1 | 0.53 | 0.02 | | | 1464070.228 | 597032.774 |
| SU1-11-022 | 20051130 | Uranium-234 | 2 | 0.65 | 0.02 | | | 1464070.228 | 597032.774 |
| SU1-11-022 | 20051130 | Uranium-238 | 3.2 | 0.69 | 0.01 | | | 1464070.228 | 597032.774 |
| SU1-11-024 | 20051201 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Actinium-228 | 1.93 | 0.51 | 0.18 | | | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Beryllium-7 | 41.1 | 0.36 | 0.36 | | U | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Bismuth-207 | 1.2 | 0.04 | 0.04 | | U | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Bismuth-210M | 8.3 | 0.057 | 0.057 | | U | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Bismuth-214 | 1.17 | 0.73 | 0.09 | | | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Cesium-137 | 3.8 | 0.063 | 0.063 | | U | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Cobalt-60 | 0.7 | 0.057 | 0.057 | | U | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Lead-210 | 7.4 | 1.2 | 1.2 | | U | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Lead-212 | 16.6 | 0.69 | 0.06 | | | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Lead-214 | 8.9 | 0.75 | 0.08 | | | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Potassium-40 | 47.8 | 13.7 | 0.5 | | | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Protactinium-231 | 4 | 1.3 | 1.3 | | U | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Radium-224 | 2.6* | 2.2 | 0.7 | | | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Radium-226 | 2.9 | 0.73 | 0.09 | | | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Radium-228 | 2.1 | 0.51 | 0.18 | | | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Thallium-208 | 0.498** | 0.238 | 0.048 | | | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Thorium-228 | 2.6 | 0.8 | 0.03 | | | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Thorium-230 | 2.8 | 1.12 | 0.01 | | | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Thorium-232 | 2.1 | 0.8 | 0.02 | | | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Thorium-232 | 2.1 | 0.51 | 0.18 | | | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Thorium-234 | 176 | 1.14 | 0.91 | | | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Uranium-234 | 2 | 0.68 | 0.02 | | | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Uranium-238 | 3.2 | 0.71 | 0.02 | | | 1464115.228 | 597032.774 |
| SU1-11-024 | 20051201 | Uranium-238 | 3.2 | 1.14 | 0.91 | | | 1464115.228 | 597032.774 |
| SU1-11-025 | 20051201 | Actinium-227 | 4.6 | 0.32 | 0.32 | | U | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Actinium-228 | 1.93 | 1 | 0.17 | | | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Beryllium-7 | 41.1 | 0.38 | 0.38 | | U | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Bismuth-207 | 1.2 | 0.042 | 0.042 | | U | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Bismuth-210M | 8.3 | 0.062 | 0.062 | | U | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Bismuth-212 | 9.87 | 0.64 | 0.38 | | | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Bismuth-214 | 1.17 | 1.05 | 0.09 | | | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Cobalt-60 | 0.7 | 0.076 | 0.076 | | U | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Lead-210 | 7.4 | 1.2 | 1.2 | | U | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Lead-212 | 16.6 | 0.88 | 0.08 | | | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Lead-214 | 8.9 | 1.13 | 0.09 | | | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Potassium-40 | 47.8 | 16.9 | 0.3 | | | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Protactinium-231 | 4 | 1.5 | 1.5 | | U | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Radium-224 | 2.6* | 2.3 | 0.8 | | | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Radium-226 | 2.9 | 1.05 | 0.09 | | | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Radium-228 | 2.1 | 1 | 0.17 | | | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Thallium-208 | 0.498** | 0.336 | 0.051 | | | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Thorium-228 | 2.6 | 1.03 | 0.05 | | | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Thorium-230 | 2.8 | 1.79 | 0.03 | | | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Thorium-232 | 2.1 | 1 | 0.17 | | | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Thorium-232 | 2.1 | 0.89 | 0.03 | | | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Uranium-234 | 2 | 0.85 | 0.04 | | | 1463957.728 | 597045.764 |
| SU1-11-025 | 20051201 | Uranium-238 | 3.2 | 1.04 | 0.04 | | | 1463957.728 | 597045.764 |

# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-026 | 20051129 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Actinium-228 | 1.93 | 0.95 | 0.18 | | | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Bismuth-207 | 1.2 | 0.045 | 0.045 | | U | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Bismuth-210M | 8.3 | 0.055 | 0.055 | | U | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Bismuth-212 | 9.87 | 0.61 | 0.42 | | | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Bismuth-214 | 1.17 | 0.88 | 0.11 | | | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Cesium-137 | 3.8 | 0.058 | 0.058 | | U | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Cobalt-60 | 0.7 | 0.055 | 0.055 | | U | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Lead-210 | 7.4 | 1.3 | 1.3 | | U | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Lead-212 | 16.6 | 0.98 | 0.07 | | | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Lead-214 | 8.9 | 0.84 | 0.09 | | | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Potassium-40 | 47.8 | 12.2 | 0.5 | | | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Protactinium-231 | 4 | 1.5 | 1.5 | | U | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Radium-224 | 2.6* | 1.62 | 0.76 | | | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Radium-226 | 2.9 | 0.88 | 0.11 | | | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Radium-228 | 2.1 | 0.95 | 0.18 | | | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Thallium-208 | 0.498** | 0.325 | 0.051 | | | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Thorium-228 | 2.6 | 1.05 | 0.06 | | | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Thorium-230 | 2.8 | 1.39 | 0.02 | | | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Thorium-232 | 2.1 | 1.11 | 0.04 | | | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Thorium-232 | 2.1 | 0.95 | 0.18 | | | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Thorium-234 | 176 | 0.95 | 0.87 | | | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Uranium-234 | 2 | 0.86 | 0.02 | | | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Uranium-238 | 3.2 | 0.95 | 0.87 | | | 1463972.728 | 597045.764 |
| SU1-11-026 | 20051129 | Uranium-238 | 3.2 | 0.85 | 0.02 | | | 1463972.728 | 597045.764 |
| SU1-11-027 | 20051130 | Actinium-227 | 4.6 | 0.3 | 0.3 | | U | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Actinium-228 | 1.93 | 0.5 | 0.21 | | | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Bismuth-207 | 1.2 | 0.04 | 0.04 | | U | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Bismuth-210M | 8.3 | 0.057 | 0.057 | | U | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Bismuth-212 | 9.87 | 0.59 | 0.39 | | | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Bismuth-214 | 1.17 | 0.75 | 0.12 | | | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Cesium-137 | 3.8 | 0.072 | 0.072 | | U | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Cobalt-60 | 0.7 | 0.067 | 0.067 | | U | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Lead-210 | 7.4 | 1.3 | 1.3 | | U | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Lead-212 | 16.6 | 0.461 | 0.078 | | | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Lead-214 | 8.9 | 0.75 | 0.11 | | | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Potassium-40 | 47.8 | 9.8 | 0.1 | | J | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Protactinium-231 | 4 | 1.7 | 1.7 | | U | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Radium-224 | 2.6* | 1.9 | 1.3 | | | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Radium-226 | 2.9 | 0.75 | 0.12 | | | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Radium-228 | 2.1 | 0.5 | 0.21 | | | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Thallium-208 | 0.498** | 0.131 | 0.049 | | | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Thorium-228 | 2.6 | 0.428 | 0.031 | | | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Thorium-230 | 2.8 | 1.04 | 0.02 | | | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Thorium-232 | 2.1 | 0.5 | 0.21 | | | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Thorium-232 | 2.1 | 0.42 | 0.019 | | | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Uranium-234 | 2 | 0.61 | 0.02 | | | 1463987.728 | 597045.764 |
| SU1-11-027 | 20051130 | Uranium-238 | 3.2 | 0.63 | 0.02 | | | 1463987.728 | 597045.764 |
| SU1-11-028 | 20051130 | Actinium-227 | 4.6 | 0.34 | 0.34 | | U | 1464002.728 | 597045.764 |
| SU1-11-028 | 20051130 | Actinium-228 | 1.93 | 0.43 | 0.27 | | | 1464002.728 | 597045.764 |
| SU1-11-028 | 20051130 | Americium-241 | 63 | 0.14 | 0.14 | | U | 1464002.728 | 597045.764 |
| SU1-11-028 | 20051130 | Bismuth-207 | 1.2 | 0.069 | 0.069 | | U | 1464002.728 | 597045.764 |
| SU1-11-028 | 20051130 | Bismuth-210M | 8.3 | 0.082 | 0.082 | | U | 1464002.728 | 597045.764 |
| SU1-11-028 | 20051130 | Bismuth-214 | 1.17 | 0.69 | 0.16 | | | 1464002.728 | 597045.764 |
| SU1-11-028 | 20051130 | Cesium-137 | 3.8 | 0.074 | 0.074 | | U | 1464002.728 | 597045.764 |
| SU1-11-028 | 20051130 | Cobalt-60 | 0.7 | 0.077 | 0.077 | | U | 1464002.728 | 597045.764 |
| SU1-11-028 | 20051130 | Lead-210 | 7.4 | 1.9 | 1.9 | | U | 1464002.728 | 597045.764 |

# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-028 | 20051130 | Lead-212 | 16.6 | 0.6 | 0.1 | | | 1464002.728 | 597045.764 |
| SU1-11-028 | 20051130 | Lead-214 | 8.9 | 0.62 | 0.13 | | | 1464002.728 | 597045.764 |
| SU1-11-028 | 20051130 | Potassium-40 | 47.8 | 9.3 | 0.5 | | J | 1464002.728 | 597045.764 |
| SU1-11-028 | 20051130 | Protactinium-231 | 4 | 2.2 | 2.2 | | U | 1464002.728 | 597045.764 |
| SU1-11-028 | 20051130 | Radium-224 | 2.6* | 1.7 | 1.5 | | | 1464002.728 | 597045.764 |
| SU1-11-028 | 20051130 | Radium-226 | 2.9 | 0.69 | 0.16 | | | 1464002.728 | 597045.764 |
| SU1-11-028 | 20051130 | Radium-228 | 2.1 | 0.43 | 0.27 | | | 1464002.728 | 597045.764 |
| SU1-11-028 | 20051130 | Thallium-208 | 0.498** | 0.164 | 0.08 | | | 1464002.728 | 597045.764 |
| SU1-11-028 | 20051130 | Thorium-228 | 2.6 | 0.64 | 0.06 | | | 1464002.728 | 597045.764 |
| SU1-11-028 | 20051130 | Thorium-230 | 2.8 | 0.88 | 0.06 | | | 1464002.728 | 597045.764 |
| SU1-11-028 | 20051130 | Thorium-232 | 2.1 | 0.66 | 0.06 | | | 1464002.728 | 597045.764 |
| SU1-11-028 | 20051130 | Thorium-232 | 2.1 | 0.43 | 0.27 | | | 1464002.728 | 597045.764 |
| SU1-11-028 | 20051130 | Uranium-234 | 2 | 0.73 | 0.02 | | | 1464002.728 | 597045.764 |
| SU1-11-028 | 20051130 | Uranium-238 | 3.2 | 0.74 | 0.02 | | | 1464002.728 | 597045.764 |
| SU1-11-029 | 20051130 | Actinium-227 | 4.6 | 0.29 | 0.29 | | U | 1464017.728 | 597045.764 |
| SU1-11-029 | 20051130 | Actinium-228 | 1.93 | 0.6 | 0.24 | | | 1464017.728 | 597045.764 |
| SU1-11-029 | 20051130 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1464017.728 | 597045.764 |
| SU1-11-029 | 20051130 | Bismuth-207 | 1.2 | 0.061 | 0.061 | | U | 1464017.728 | 597045.764 |
| SU1-11-029 | 20051130 | Bismuth-210M | 8.3 | 0.063 | 0.063 | | U | 1464017.728 | 597045.764 |
| SU1-11-029 | 20051130 | Bismuth-214 | 1.17 | 0.59 | 0.12 | | | 1464017.728 | 597045.764 |
| SU1-11-029 | 20051130 | Cesium-137 | 3.8 | 0.054 | 0.054 | | U | 1464017.728 | 597045.764 |
| SU1-11-029 | 20051130 | Cobalt-60 | 0.7 | 0.072 | 0.072 | | U | 1464017.728 | 597045.764 |
| SU1-11-029 | 20051130 | Lead-210 | 7.4 | 1.5 | 1.5 | | U | 1464017.728 | 597045.764 |
| SU1-11-029 | 20051130 | Lead-212 | 16.6 | 0.415 | 0.12 | | | 1464017.728 | 597045.764 |
| SU1-11-029 | 20051130 | Lead-214 | 8.9 | 0.51 | 0.1 | | | 1464017.728 | 597045.764 |
| SU1-11-029 | 20051130 | Potassium-40 | 47.8 | 7.2 | 0.7 | | J | 1464017.728 | 597045.764 |
| SU1-11-029 | 20051130 | Protactinium-231 | 4 | 1.9 | 1.9 | | U | 1464017.728 | 597045.764 |
| SU1-11-029 | 20051130 | Radium-224 | 2.6* | 1.6 | 1.2 | | | 1464017.728 | 597045.764 |
| SU1-11-029 | 20051130 | Radium-226 | 2.9 | 0.59 | 0.12 | | | 1464017.728 | 597045.764 |
| SU1-11-029 | 20051130 | Radium-228 | 2.1 | 0.6 | 0.24 | | | 1464017.728 | 597045.764 |
| SU1-11-029 | 20051130 | Thallium-208 | 0.498** | 0.131 | 0.054 | | | 1464017.728 | 597045.764 |
| SU1-11-029 | 20051130 | Thorium-228 | 2.6 | 0.64 | 0.05 | | | 1464017.728 | 597045.764 |
| SU1-11-029 | 20051130 | Thorium-230 | 2.8 | 2 | 0.03 | | | 1464017.728 | 597045.764 |
| SU1-11-029 | 20051130 | Thorium-232 | 2.1 | 0.6 | 0.24 | | | 1464017.728 | 597045.764 |
| SU1-11-029 | 20051130 | Thorium-232 | 2.1 | 0.58 | 0.03 | | | 1464017.728 | 597045.764 |
| SU1-11-029 | 20051130 | Uranium-234 | 2 | 0.64 | 0.02 | | | 1464017.728 | 597045.764 |
| SU1-11-029 | 20051130 | Uranium-238 | 3.2 | 0.73 | 0.01 | | | 1464017.728 | 597045.764 |
| SU1-11-030 | 20051130 | Actinium-227 | 4.6 | 0.21 | 0.21 | | U | 1464032.728 | 597045.764 |
| SU1-11-030 | 20051130 | Actinium-228 | 1.93 | 0.29 | 0.15 | | | 1464032.728 | 597045.764 |
| SU1-11-030 | 20051130 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464032.728 | 597045.764 |
| SU1-11-030 | 20051130 | Bismuth-207 | 1.2 | 0.033 | 0.033 | | U | 1464032.728 | 597045.764 |
| SU1-11-030 | 20051130 | Bismuth-210M | 8.3 | 0.049 | 0.049 | | U | 1464032.728 | 597045.764 |
| SU1-11-030 | 20051130 | Bismuth-214 | 1.17 | 0.57 | 0.09 | | | 1464032.728 | 597045.764 |
| SU1-11-030 | 20051130 | Cesium-137 | 3.8 | 0.047 | 0.047 | | U | 1464032.728 | 597045.764 |
| SU1-11-030 | 20051130 | Cobalt-60 | 0.7 | 0.039 | 0.039 | | U | 1464032.728 | 597045.764 |
| SU1-11-030 | 20051130 | Lead-210 | 7.4 | 1.1 | 1.1 | | U | 1464032.728 | 597045.764 |
| SU1-11-030 | 20051130 | Lead-212 | 16.6 | 0.35 | 0.057 | | | 1464032.728 | 597045.764 |
| SU1-11-030 | 20051130 | Lead-214 | 8.9 | 0.61 | 0.08 | | | 1464032.728 | 597045.764 |
| SU1-11-030 | 20051130 | Potassium-40 | 47.8 | 6.8 | 0.5 | | J | 1464032.728 | 597045.764 |
| SU1-11-030 | 20051130 | Protactinium-231 | 4 | 1.1 | 1.1 | | U | 1464032.728 | 597045.764 |
| SU1-11-030 | 20051130 | Radium-224 | 2.6* | 1.7 | 0.9 | | | 1464032.728 | 597045.764 |
| SU1-11-030 | 20051130 | Radium-226 | 2.9 | 0.57 | 0.09 | | | 1464032.728 | 597045.764 |
| SU1-11-030 | 20051130 | Radium-228 | 2.1 | 0.29 | 0.15 | | | 1464032.728 | 597045.764 |
| SU1-11-030 | 20051130 | Thallium-208 | 0.498** | 0.149 | 0.035 | | | 1464032.728 | 597045.764 |
| SU1-11-030 | 20051130 | Thorium-228 | 2.6 | 0.77 | 0.09 | | | 1464032.728 | 597045.764 |
| SU1-11-030 | 20051130 | Thorium-230 | 2.8 | 1.03 | 0.07 | | | 1464032.728 | 597045.764 |
| SU1-11-030 | 20051130 | Thorium-232 | 2.1 | 0.59 | 0.07 | | | 1464032.728 | 597045.764 |
| SU1-11-030 | 20051130 | Thorium-232 | 2.1 | 0.29 | 0.15 | | | 1464032.728 | 597045.764 |
| SU1-11-030 | 20051130 | Uranium-234 | 2 | 0.77 | 0.02 | | | 1464032.728 | 597045.764 |

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# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-030 | 20051130 | Uranium-238 | 3.2 | 0.91 | 0.01 | | | 1464032.728 | 597045.764 |
| SU1-11-031 | 20051130 | Actinium-227 | 4.6 | 0.48 | 0.31 | | J | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Actinium-228 | 1.93 | 1.31 | 0.16 | | | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Bismuth-207 | 1.2 | 0.043 | 0.043 | | U | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Bismuth-210M | 8.3 | 0.057 | 0.057 | | U | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Bismuth-212 | 9.87 | 1.17 | 0.45 | | | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Bismuth-214 | 1.17 | 0.73 | 0.1 | | | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Cesium-137 | 3.8 | 0.054 | 0.054 | | U | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Cobalt-60 | 0.7 | 0.059 | 0.059 | | U | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Lead-210 | 7.4 | 1.47 | 1.3 | | J | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Lead-212 | 16.6 | 1.66 | 0.07 | | | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Lead-214 | 8.9 | 0.73 | 0.08 | | | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Potassium-40 | 47.8 | 10 | 0.4 | | | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Protactinium-231 | 4 | 1.82 | 1.5 | | | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Radium-224 | 2.6* | 2.1 | 0.7 | | | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Radium-226 | 2.9 | 0.73 | 0.1 | | | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Radium-228 | 2.1 | 1.31 | 0.16 | | | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Thallium-208 | 0.498** | 0.565 | 0.043 | | | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Thorium-228 | 2.6 | 1.99 | 0.04 | | | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Thorium-230 | 2.8 | 0.89 | 0.02 | | | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Thorium-232 | 2.1 | 1.31 | 0.16 | | | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Thorium-232 | 2.1 | 1.62 | 0.02 | | | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Uranium-234 | 2 | 0.77 | 0.03 | | | 1464047.728 | 597045.764 |
| SU1-11-031 | 20051130 | Uranium-238 | 3.2 | 0.78 | 0.02 | | | 1464047.728 | 597045.764 |
| SU1-11-032 | 20051129 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1463950.228 | 597058.754 |
| SU1-11-032 | 20051129 | Actinium-228 | 1.93 | 0.87 | 0.21 | | | 1463950.228 | 597058.754 |
| SU1-11-032 | 20051129 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1463950.228 | 597058.754 |
| SU1-11-032 | 20051129 | Bismuth-207 | 1.2 | 0.041 | 0.041 | | U | 1463950.228 | 597058.754 |
| SU1-11-032 | 20051129 | Bismuth-210M | 8.3 | 0.054 | 0.054 | | U | 1463950.228 | 597058.754 |
| SU1-11-032 | 20051129 | Bismuth-214 | 1.17 | 0.97 | 0.12 | | | 1463950.228 | 597058.754 |
| SU1-11-032 | 20051129 | Cesium-137 | 3.8 | 0.069 | 0.069 | | U | 1463950.228 | 597058.754 |
| SU1-11-032 | 20051129 | Cobalt-60 | 0.7 | 0.056 | 0.056 | | U | 1463950.228 | 597058.754 |
| SU1-11-032 | 20051129 | Lead-210 | 7.4 | 1.6 | 1.6 | | U | 1463950.228 | 597058.754 |
| SU1-11-032 | 20051129 | Lead-212 | 16.6 | 0.75 | 0.07 | | | 1463950.228 | 597058.754 |
| SU1-11-032 | 20051129 | Lead-214 | 8.9 | 0.91 | 0.08 | | | 1463950.228 | 597058.754 |
| SU1-11-032 | 20051129 | Potassium-40 | 47.8 | 11.9 | 0.5 | | | 1463950.228 | 597058.754 |
| SU1-11-032 | 20051129 | Protactinium-231 | 4 | 1.6 | 1.6 | | U | 1463950.228 | 597058.754 |
| SU1-11-032 | 20051129 | Radium-224 | 2.6* | 2.1 | 0.8 | | | 1463950.228 | 597058.754 |
| SU1-11-032 | 20051129 | Radium-226 | 2.9 | 0.97 | 0.12 | | | 1463950.228 | 597058.754 |
| SU1-11-032 | 20051129 | Radium-228 | 2.1 | 0.87 | 0.21 | | | 1463950.228 | 597058.754 |
| SU1-11-032 | 20051129 | Thallium-208 | 0.498** | 0.277 | 0.059 | | | 1463950.228 | 597058.754 |
| SU1-11-032 | 20051129 | Thorium-228 | 2.6 | 0.61 | 0.08 | | | 1463950.228 | 597058.754 |
| SU1-11-032 | 20051129 | Thorium-230 | 2.8 | 0.93 | 0.06 | | | 1463950.228 | 597058.754 |
| SU1-11-032 | 20051129 | Thorium-232 | 2.1 | 0.67 | 0.04 | | | 1463950.228 | 597058.754 |
| SU1-11-032 | 20051129 | Thorium-232 | 2.1 | 0.87 | 0.21 | | | 1463950.228 | 597058.754 |
| SU1-11-032 | 20051129 | Uranium-234 | 2 | 0.558 | 0.017 | | | 1463950.228 | 597058.754 |
| SU1-11-032 | 20051129 | Uranium-238 | 3.2 | 0.73 | 0.01 | | | 1463950.228 | 597058.754 |
| SU1-11-033 | 20051129 | Actinium-227 | 4.6 | 0.21 | 0.21 | | U | 1463965.228 | 597058.754 |
| SU1-11-033 | 20051129 | Actinium-228 | 1.93 | 0.36 | 0.13 | | | 1463965.228 | 597058.754 |
| SU1-11-033 | 20051129 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1463965.228 | 597058.754 |
| SU1-11-033 | 20051129 | Bismuth-207 | 1.2 | 0.036 | 0.036 | | U | 1463965.228 | 597058.754 |
| SU1-11-033 | 20051129 | Bismuth-210M | 8.3 | 0.051 | 0.051 | | U | 1463965.228 | 597058.754 |
| SU1-11-033 | 20051129 | Bismuth-214 | 1.17 | 0.59 | 0.07 | | | 1463965.228 | 597058.754 |
| SU1-11-033 | 20051129 | Cesium-137 | 3.8 | 0.039 | 0.039 | | U | 1463965.228 | 597058.754 |
| SU1-11-033 | 20051129 | Cobalt-60 | 0.7 | 0.044 | 0.044 | | U | 1463965.228 | 597058.754 |
| SU1-11-033 | 20051129 | Lead-210 | 7.4 | 1.2 | 1.2 | | U | 1463965.228 | 597058.754 |
| SU1-11-033 | 20051129 | Lead-212 | 16.6 | 0.306 | 0.052 | | | 1463965.228 | 597058.754 |
| SU1-11-033 | 20051129 | Lead-214 | 8.9 | 0.58 | 0.06 | | | 1463965.228 | 597058.754 |

# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-033 | 20051129 | Potassium-40 | 47.8 | 7.1 | 0.3 | | J | 1463965.228 | 597058.754 |
| SU1-11-033 | 20051129 | Protactinium-231 | 4 | 1.1 | 1.1 | | U | 1463965.228 | 597058.754 |
| SU1-11-033 | 20051129 | Radium-224 | 2.6* | 1.16 | 0.81 | | | 1463965.228 | 597058.754 |
| SU1-11-033 | 20051129 | Radium-226 | 2.9 | 0.59 | 0.07 | | | 1463965.228 | 597058.754 |
| SU1-11-033 | 20051129 | Radium-228 | 2.1 | 0.36 | 0.13 | | | 1463965.228 | 597058.754 |
| SU1-11-033 | 20051129 | Thallium-208 | 0.498** | 0.152 | 0.037 | | | 1463965.228 | 597058.754 |
| SU1-11-033 | 20051129 | Thorium-228 | 2.6 | 0.36 | 0.04 | | | 1463965.228 | 597058.754 |
| SU1-11-033 | 20051129 | Thorium-230 | 2.8 | 0.89 | 0.03 | | | 1463965.228 | 597058.754 |
| SU1-11-033 | 20051129 | Thorium-232 | 2.1 | 0.314 | 0.027 | | | 1463965.228 | 597058.754 |
| SU1-11-033 | 20051129 | Thorium-232 | 2.1 | 0.36 | 0.13 | | | 1463965.228 | 597058.754 |
| SU1-11-033 | 20051129 | Uranium-234 | 2 | 0.64 | 0.02 | | | 1463965.228 | 597058.754 |
| SU1-11-033 | 20051129 | Uranium-238 | 3.2 | 0.69 | 0.02 | | | 1463965.228 | 597058.754 |
| SU1-11-034 | 20051129 | Actinium-227 | 4.6 | 0.2 | 0.19 | | J | 1463980.228 | 597058.754 |
| SU1-11-034 | 20051129 | Actinium-228 | 1.93 | 0.34 | 0.12 | | | 1463980.228 | 597058.754 |
| SU1-11-034 | 20051129 | Americium-241 | 63 | 0.074 | 0.074 | | U | 1463980.228 | 597058.754 |
| SU1-11-034 | 20051129 | Bismuth-207 | 1.2 | 0.034 | 0.034 | | U | 1463980.228 | 597058.754 |
| SU1-11-034 | 20051129 | Bismuth-210M | 8.3 | 0.042 | 0.042 | | U | 1463980.228 | 597058.754 |
| SU1-11-034 | 20051129 | Bismuth-214 | 1.17 | 0.436 | 0.079 | | | 1463980.228 | 597058.754 |
| SU1-11-034 | 20051129 | Cesium-137 | 3.8 | 0.036 | 0.036 | | U | 1463980.228 | 597058.754 |
| SU1-11-034 | 20051129 | Cobalt-60 | 0.7 | 0.04 | 0.04 | | U | 1463980.228 | 597058.754 |
| SU1-11-034 | 20051129 | Lead-210 | 7.4 | 0.95 | 0.95 | | U | 1463980.228 | 597058.754 |
| SU1-11-034 | 20051129 | Lead-212 | 16.6 | 0.296 | 0.046 | | | 1463980.228 | 597058.754 |
| SU1-11-034 | 20051129 | Lead-214 | 8.9 | 0.512 | 0.062 | | | 1463980.228 | 597058.754 |
| SU1-11-034 | 20051129 | Potassium-40 | 47.8 | 5.38 | 0.35 | | J | 1463980.228 | 597058.754 |
| SU1-11-034 | 20051129 | Protactinium-231 | 4 | 0.99 | 0.99 | | U | 1463980.228 | 597058.754 |
| SU1-11-034 | 20051129 | Radium-224 | 2.6* | 1.38 | 0.49 | | | 1463980.228 | 597058.754 |
| SU1-11-034 | 20051129 | Radium-226 | 2.9 | 0.436 | 0.079 | | | 1463980.228 | 597058.754 |
| SU1-11-034 | 20051129 | Radium-228 | 2.1 | 0.34 | 0.12 | | | 1463980.228 | 597058.754 |
| SU1-11-034 | 20051129 | Thallium-208 | 0.498** | 0.138 | 0.036 | | | 1463980.228 | 597058.754 |
| SU1-11-034 | 20051129 | Thorium-228 | 2.6 | 0.51 | 0.03 | | | 1463980.228 | 597058.754 |
| SU1-11-034 | 20051129 | Thorium-230 | 2.8 | 0.8 | 0.02 | | | 1463980.228 | 597058.754 |
| SU1-11-034 | 20051129 | Thorium-232 | 2.1 | 0.34 | 0.12 | | | 1463980.228 | 597058.754 |
| SU1-11-034 | 20051129 | Thorium-232 | 2.1 | 0.45 | 0.01 | | | 1463980.228 | 597058.754 |
| SU1-11-034 | 20051129 | Uranium-234 | 2 | 0.52 | 0.008 | | | 1463980.228 | 597058.754 |
| SU1-11-034 | 20051129 | Uranium-238 | 3.2 | 0.533 | 0.014 | | | 1463980.228 | 597058.754 |
| SU1-11-035 | 20051130 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Actinium-228 | 1.93 | 0.37 | 0.19 | | | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Americium-241 | 63 | 0.096 | 0.096 | | U | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Bismuth-207 | 1.2 | 0.038 | 0.038 | | U | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Bismuth-210M | 8.3 | 0.057 | 0.057 | | U | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Bismuth-214 | 1.17 | 0.95 | 0.08 | | | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Cesium-137 | 3.8 | 0.046 | 0.046 | | U | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Cobalt-60 | 0.7 | 0.068 | 0.068 | | U | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Lead-210 | 7.4 | 1.3 | 1.3 | | U | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Lead-212 | 16.6 | 0.468 | 0.065 | | | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Lead-214 | 8.9 | 0.76 | 0.09 | | | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Potassium-40 | 47.8 | 9.2 | 0.6 | | J | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Protactinium-231 | 4 | 1.3 | 1.3 | | U | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Radium-224 | 2.6* | 2 | 0.7 | | | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Radium-226 | 2.9 | 0.95 | 0.08 | | | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Radium-228 | 2.1 | 0.37 | 0.19 | | | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Thallium-208 | 0.498** | 0.136 | 0.044 | | | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Thorium-228 | 2.6 | 0.5 | 0.05 | | | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Thorium-230 | 2.8 | 1.05 | 0.04 | | | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Thorium-232 | 2.1 | 0.37 | 0.19 | | | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Thorium-232 | 2.1 | 0.44 | 0.04 | | | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Thorium-234 | 176 | 0.96 | 0.87 | | | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Uranium-234 | 2 | 0.61 | 0.03 | | | 1463995.228 | 597058.754 |
| SU1-11-035 | 20051130 | Uranium-238 | 3.2 | 0.72 | 0.02 | | | 1463995.228 | 597058.754 |

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# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-035 | 20051130 | Uranium-238 | 3.2 | 0.96 | 0.87 | | | 1463995.228 | 597058.754 |
| SU1-11-036 | 20051130 | Actinium-227 | 4.6 | 0.2 | 0.2 | | U | 1464010.228 | 597058.754 |
| SU1-11-036 | 20051130 | Actinium-228 | 1.93 | 0.31 | 0.13 | | | 1464010.228 | 597058.754 |
| SU1-11-036 | 20051130 | Americium-241 | 63 | 0.077 | 0.077 | | U | 1464010.228 | 597058.754 |
| SU1-11-036 | 20051130 | Bismuth-207 | 1.2 | 0.028 | 0.028 | | U | 1464010.228 | 597058.754 |
| SU1-11-036 | 20051130 | Bismuth-210M | 8.3 | 0.042 | 0.042 | | U | 1464010.228 | 597058.754 |
| SU1-11-036 | 20051130 | Bismuth-214 | 1.17 | 0.67 | 0.06 | | | 1464010.228 | 597058.754 |
| SU1-11-036 | 20051130 | Cesium-137 | 3.8 | 0.042 | 0.042 | | U | 1464010.228 | 597058.754 |
| SU1-11-036 | 20051130 | Cobalt-60 | 0.7 | 0.041 | 0.041 | | U | 1464010.228 | 597058.754 |
| SU1-11-036 | 20051130 | Lead-210 | 7.4 | 0.99 | 0.99 | | U | 1464010.228 | 597058.754 |
| SU1-11-036 | 20051130 | Lead-212 | 16.6 | 0.33 | 0.05 | | | 1464010.228 | 597058.754 |
| SU1-11-036 | 20051130 | Lead-214 | 8.9 | 0.66 | 0.06 | | | 1464010.228 | 597058.754 |
| SU1-11-036 | 20051130 | Potassium-40 | 47.8 | 6.7 | 0.4 | | J | 1464010.228 | 597058.754 |
| SU1-11-036 | 20051130 | Protactinium-231 | 4 | 1 | 1 | | U | 1464010.228 | 597058.754 |
| SU1-11-036 | 20051130 | Radium-224 | 2.6* | 1.04 | 0.53 | J | | 1464010.228 | 597058.754 |
| SU1-11-036 | 20051130 | Radium-226 | 2.9 | 0.67 | 0.06 | J | | 1464010.228 | 597058.754 |
| SU1-11-036 | 20051130 | Radium-228 | 2.1 | 0.31 | 0.13 | | | 1464010.228 | 597058.754 |
| SU1-11-036 | 20051130 | Thallium-208 | 0.498** | 0.148 | 0.037 | | | 1464010.228 | 597058.754 |
| SU1-11-036 | 20051130 | Thorium-228 | 2.6 | 0.35 | 0.14 | | | 1464010.228 | 597058.754 |
| SU1-11-036 | 20051130 | Thorium-230 | 2.8 | 0.94 | 0.07 | | | 1464010.228 | 597058.754 |
| SU1-11-036 | 20051130 | Thorium-232 | 2.1 | 0.31 | 0.13 | | | 1464010.228 | 597058.754 |
| SU1-11-036 | 20051130 | Thorium-232 | 2.1 | 0.41 | 0.07 | | | 1464010.228 | 597058.754 |
| SU1-11-036 | 20051130 | Uranium-234 | 2 | 0.63 | 0.01 | | | 1464010.228 | 597058.754 |
| SU1-11-036 | 20051130 | Uranium-238 | 3.2 | 0.67 | 0.02 | | | 1464010.228 | 597058.754 |
| SU1-11-038 | 20051129 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Actinium-228 | 1.93 | 0.65 | 0.19 | | | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Bismuth-207 | 1.2 | 0.043 | 0.043 | | U | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Bismuth-210M | 8.3 | 0.055 | 0.055 | | U | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Bismuth-212 | 9.87 | 0.48 | 0.42 | | | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Bismuth-214 | 1.17 | 1.19 | 0.09 | | | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Cesium-137 | 3.8 | 0.057 | 0.057 | | U | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Cobalt-60 | 0.7 | 0.059 | 0.059 | | U | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Lead-210 | 7.4 | 1.1 | 1 | | J | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Lead-212 | 16.6 | 0.84 | 0.06 | | | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Lead-214 | 8.9 | 1.18 | 0.08 | | | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Potassium-40 | 47.8 | 16.7 | 0.5 | | | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Protactinium-231 | 4 | 1.3 | 1.3 | | U | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Radium-224 | 2.6* | 2.6 | 0.7 | | | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Radium-226 | 2.9 | 1.19 | 0.09 | | | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Radium-228 | 2.1 | 0.65 | 0.19 | | | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Thallium-208 | 0.498** | 0.241 | 0.051 | | | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Thorium-228 | 2.6 | 0.88 | 0.04 | | | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Thorium-230 | 2.8 | 1.33 | 0.03 | | | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Thorium-232 | 2.1 | 0.71 | 0.01 | | | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Thorium-232 | 2.1 | 0.65 | 0.19 | | | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Thorium-234 | 176 | 1.44 | 0.87 | | | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Uranium-234 | 2 | 0.71 | 0.02 | | | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Uranium-238 | 3.2 | 0.89 | 0.009 | | | 1463957.728 | 597071.745 |
| SU1-11-038 | 20051129 | Uranium-238 | 3.2 | 1.44 | 0.87 | | | 1463957.728 | 597071.745 |
| SU1-11-039 | 20051129 | Actinium-227 | 4.6 | 0.38 | 0.3 | | J | 1463972.728 | 597071.745 |
| SU1-11-039 | 20051129 | Actinium-228 | 1.93 | 0.89 | 0.18 | | | 1463972.728 | 597071.745 |
| SU1-11-039 | 20051129 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1463972.728 | 597071.745 |
| SU1-11-039 | 20051129 | Bismuth-207 | 1.2 | 0.045 | 0.045 | | U | 1463972.728 | 597071.745 |
| SU1-11-039 | 20051129 | Bismuth-210M | 8.3 | 0.058 | 0.058 | | U | 1463972.728 | 597071.745 |
| SU1-11-039 | 20051129 | Bismuth-212 | 9.87 | 0.96 | 0.45 | | | 1463972.728 | 597071.745 |
| SU1-11-039 | 20051129 | Bismuth-214 | 1.17 | 0.69 | 0.08 | | | 1463972.728 | 597071.745 |
| SU1-11-039 | 20051129 | Cesium-137 | 3.8 | 0.051 | 0.051 | | U | 1463972.728 | 597071.745 |
| SU1-11-039 | 20051129 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1463972.728 | 597071.745 |

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# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-039 | 20051129 | Lead-210 | 7.4 | 1.2 | 1.2 | | U | 1463972.728 | 597071.745 |
| SU1-11-039 | 20051129 | Lead-212 | 16.6 | 1.25 | 0.06 | | | 1463972.728 | 597071.745 |
| SU1-11-039 | 20051129 | Lead-214 | 8.9 | 0.71 | 0.09 | | | 1463972.728 | 597071.745 |
| SU1-11-039 | 20051129 | Potassium-40 | 47.8 | 8.3 | 0.5 | | J | 1463972.728 | 597071.745 |
| SU1-11-039 | 20051129 | Protactinium-231 | 4 | 2.39 | 1.6 | | | 1463972.728 | 597071.745 |
| SU1-11-039 | 20051129 | Radium-224 | 2.6* | 1.9 | 0.7 | | | 1463972.728 | 597071.745 |
| SU1-11-039 | 20051129 | Radium-226 | 2.9 | 0.69 | 0.08 | | | 1463972.728 | 597071.745 |
| SU1-11-039 | 20051129 | Radium-228 | 2.1 | 0.89 | 0.18 | | | 1463972.728 | 597071.745 |
| SU1-11-039 | 20051129 | Thallium-208 | 0.498** | 0.379 | 0.046 | | | 1463972.728 | 597071.745 |
| SU1-11-039 | 20051129 | Thorium-228 | 2.6 | 2.21 | 0.05 | | | 1463972.728 | 597071.745 |
| SU1-11-039 | 20051129 | Thorium-230 | 2.8 | 1.21 | 0.02 | | | 1463972.728 | 597071.745 |
| SU1-11-039 | 20051129 | Thorium-232 | 2.1 | **2.39** | 0.04 | | | 1463972.728 | 597071.745 |
| SU1-11-039 | 20051129 | Thorium-232 | 2.1 | 0.89 | 0.18 | | | 1463972.728 | 597071.745 |
| SU1-11-039 | 20051129 | Uranium-234 | 2 | 0.75 | 0.02 | | | 1463972.728 | 597071.745 |
| SU1-11-039 | 20051129 | Uranium-238 | 3.2 | 0.85 | 0.009 | | | 1463972.728 | 597071.745 |
| SU1-11-040 | 20051130 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1463987.728 | 597071.745 |
| SU1-11-040 | 20051130 | Actinium-228 | 1.93 | 0.48 | 0.2 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 20051130 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1463987.728 | 597071.745 |
| SU1-11-040 | 20051130 | Bismuth-207 | 1.2 | 0.046 | 0.046 | | U | 1463987.728 | 597071.745 |
| SU1-11-040 | 20051130 | Bismuth-210M | 8.3 | 0.057 | 0.057 | | U | 1463987.728 | 597071.745 |
| SU1-11-040 | 20051130 | Bismuth-214 | 1.17 | 0.66 | 0.1 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 20051130 | Cesium-137 | 3.8 | 0.064 | 0.064 | | U | 1463987.728 | 597071.745 |
| SU1-11-040 | 20051130 | Cobalt-60 | 0.7 | 0.072 | 0.072 | | U | 1463987.728 | 597071.745 |
| SU1-11-040 | 20051130 | Lead-210 | 7.4 | 1.4 | 1.4 | | U | 1463987.728 | 597071.745 |
| SU1-11-040 | 20051130 | Lead-212 | 16.6 | 0.463 | 0.076 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 20051130 | Lead-214 | 8.9 | 0.72 | 0.08 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 20051130 | Potassium-40 | 47.8 | 8.7 | 0.5 | | J | 1463987.728 | 597071.745 |
| SU1-11-040 | 20051130 | Protactinium-231 | 4 | 1.6 | 1.6 | | U | 1463987.728 | 597071.745 |
| SU1-11-040 | 20051130 | Radium-224 | 2.6* | 1.27 | 0.81 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 20051130 | Radium-226 | 2.9 | 0.66 | 0.1 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 20051130 | Radium-228 | 2.1 | 0.48 | 0.2 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 20051130 | Thallium-208 | 0.498** | 0.16 | 0.054 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 20051130 | Thorium-228 | 2.6 | 0.46 | 0.04 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 20051130 | Thorium-230 | 2.8 | 0.86 | 0.03 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 20051130 | Thorium-232 | 2.1 | 0.322 | 0.032 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 20051130 | Thorium-232 | 2.1 | 0.48 | 0.2 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 20051130 | Uranium-234 | 2 | 0.63 | 0.03 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 20051130 | Uranium-238 | 3.2 | 0.62 | 0.01 | | | 1463987.728 | 597071.745 |
| SU1-11-041 | 20051130 | Actinium-227 | 4.6 | 0.3 | 0.3 | | U | 1464002.728 | 597071.745 |
| SU1-11-041 | 20051130 | Americium-241 | 63 | 0.13 | 0.13 | | U | 1464002.728 | 597071.745 |
| SU1-11-041 | 20051130 | Bismuth-207 | 1.2 | 0.06 | 0.06 | | U | 1464002.728 | 597071.745 |
| SU1-11-041 | 20051130 | Bismuth-210M | 8.3 | 0.075 | 0.075 | | U | 1464002.728 | 597071.745 |
| SU1-11-041 | 20051130 | Bismuth-214 | 1.17 | 1 | 0.1 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 20051130 | Cesium-137 | 3.8 | 0.074 | 0.074 | | U | 1464002.728 | 597071.745 |
| SU1-11-041 | 20051130 | Cobalt-60 | 0.7 | 0.076 | 0.076 | | U | 1464002.728 | 597071.745 |
| SU1-11-041 | 20051130 | Lead-210 | 7.4 | 1.9 | 1.9 | | U | 1464002.728 | 597071.745 |
| SU1-11-041 | 20051130 | Lead-212 | 16.6 | 0.38 | 0.12 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 20051130 | Lead-214 | 8.9 | 0.85 | 0.12 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 20051130 | Potassium-40 | 47.8 | 8.8 | 0.8 | | J | 1464002.728 | 597071.745 |
| SU1-11-041 | 20051130 | Protactinium-231 | 4 | 1.9 | 1.9 | | U | 1464002.728 | 597071.745 |
| SU1-11-041 | 20051130 | Radium-224 | 2.6* | 1.9 | 1.4 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 20051130 | Radium-226 | 2.9 | 1 | 0.1 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 20051130 | Thallium-208 | 0.498** | 0.148 | 0.058 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 20051130 | Thorium-228 | 2.6 | 0.51 | 0.04 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 20051130 | Thorium-230 | 2.8 | 0.97 | 0.02 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 20051130 | Thorium-232 | 2.1 | 0.47 | 0.04 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 20051130 | Uranium-234 | 2 | 0.67 | 0.03 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 20051130 | Uranium-238 | 3.2 | 0.86 | 0.02 | | | 1464002.728 | 597071.745 |
| SU1-11-043 | 20051129 | Actinium-227 | 4.6 | 0.31 | 0.31 | | U | 1463950.228 | 597084.735 |

# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-043 | 20051129 | Actinium-228 | 1.93 | 0.68 | 0.2 | | | 1463950.228 | 597084.735 |
| SU1-11-043 | 20051129 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1463950.228 | 597084.735 |
| SU1-11-043 | 20051129 | Bismuth-207 | 1.2 | 0.046 | 0.046 | | U | 1463950.228 | 597084.735 |
| SU1-11-043 | 20051129 | Bismuth-210M | 8.3 | 0.061 | 0.061 | | U | 1463950.228 | 597084.735 |
| SU1-11-043 | 20051129 | Bismuth-212 | 9.87 | 1.03 | 0.45 | | | 1463950.228 | 597084.735 |
| SU1-11-043 | 20051129 | Bismuth-214 | 1.17 | 1.01 | 0.1 | | | 1463950.228 | 597084.735 |
| SU1-11-043 | 20051129 | Cesium-137 | 3.8 | 0.075 | 0.075 | | U | 1463950.228 | 597084.735 |
| SU1-11-043 | 20051129 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1463950.228 | 597084.735 |
| SU1-11-043 | 20051129 | Lead-210 | 7.4 | 1.2 | 1.2 | | U | 1463950.228 | 597084.735 |
| SU1-11-043 | 20051129 | Lead-212 | 16.6 | 0.71 | 0.08 | | | 1463950.228 | 597084.735 |
| SU1-11-043 | 20051129 | Lead-214 | 8.9 | 1.02 | 0.1 | | | 1463950.228 | 597084.735 |
| SU1-11-043 | 20051129 | Potassium-40 | 47.8 | 12.7 | 0.6 | | | 1463950.228 | 597084.735 |
| SU1-11-043 | 20051129 | Protactinium-231 | 4 | 1.7 | 1.7 | | U | 1463950.228 | 597084.735 |
| SU1-11-043 | 20051129 | Radium-224 | 2.6* | 2.2 | 0.9 | | | 1463950.228 | 597084.735 |
| SU1-11-043 | 20051129 | Radium-226 | 2.9 | 1.01 | 0.1 | | | 1463950.228 | 597084.735 |
| SU1-11-043 | 20051129 | Radium-228 | 2.1 | 0.68 | 0.2 | | | 1463950.228 | 597084.735 |
| SU1-11-043 | 20051129 | Thallium-208 | 0.498** | 0.26 | 0.059 | | | 1463950.228 | 597084.735 |
| SU1-11-043 | 20051129 | Thorium-228 | 2.6 | 0.62 | 0.03 | | | 1463950.228 | 597084.735 |
| SU1-11-043 | 20051129 | Thorium-230 | 2.8 | 1.03 | 0.03 | | | 1463950.228 | 597084.735 |
| SU1-11-043 | 20051129 | Thorium-232 | 2.1 | 0.62 | 0.03 | | | 1463950.228 | 597084.735 |
| SU1-11-043 | 20051129 | Thorium-232 | 2.1 | 0.68 | 0.2 | | | 1463950.228 | 597084.735 |
| SU1-11-043 | 20051129 | Uranium-234 | 2 | 0.57 | 0.02 | | | 1463950.228 | 597084.735 |
| SU1-11-043 | 20051129 | Uranium-238 | 3.2 | 0.71 | 0.02 | | | 1463950.228 | 597084.735 |
| SU1-11-044 | 20051129 | Actinium-227 | 4.6 | 0.2 | 0.2 | | U | 1463965.228 | 597084.735 |
| SU1-11-044 | 20051129 | Actinium-228 | 1.93 | 0.37 | 0.15 | | | 1463965.228 | 597084.735 |
| SU1-11-044 | 20051129 | Americium-241 | 63 | 0.074 | 0.074 | | U | 1463965.228 | 597084.735 |
| SU1-11-044 | 20051129 | Bismuth-207 | 1.2 | 0.034 | 0.034 | | U | 1463965.228 | 597084.735 |
| SU1-11-044 | 20051129 | Bismuth-210M | 8.3 | 0.047 | 0.047 | | U | 1463965.228 | 597084.735 |
| SU1-11-044 | 20051129 | Bismuth-214 | 1.17 | 0.73 | 0.07 | | | 1463965.228 | 597084.735 |
| SU1-11-044 | 20051129 | Cesium-137 | 3.8 | 0.044 | 0.044 | | U | 1463965.228 | 597084.735 |
| SU1-11-044 | 20051129 | Cobalt-60 | 0.7 | 0.054 | 0.054 | | U | 1463965.228 | 597084.735 |
| SU1-11-044 | 20051129 | Lead-210 | 7.4 | 0.74 | 0.74 | | U | 1463965.228 | 597084.735 |
| SU1-11-044 | 20051129 | Lead-212 | 16.6 | 0.381 | 0.054 | | | 1463965.228 | 597084.735 |
| SU1-11-044 | 20051129 | Lead-214 | 8.9 | 0.76 | 0.06 | | | 1463965.228 | 597084.735 |
| SU1-11-044 | 20051129 | Potassium-40 | 47.8 | 10 | 0.3 | | | 1463965.228 | 597084.735 |
| SU1-11-044 | 20051129 | Protactinium-231 | 4 | 0.94 | 0.94 | | U | 1463965.228 | 597084.735 |
| SU1-11-044 | 20051129 | Radium-224 | 2.6* | 1.7 | 0.8 | | | 1463965.228 | 597084.735 |
| SU1-11-044 | 20051129 | Radium-226 | 2.9 | 0.73 | 0.07 | | | 1463965.228 | 597084.735 |
| SU1-11-044 | 20051129 | Radium-228 | 2.1 | 0.37 | 0.15 | | | 1463965.228 | 597084.735 |
| SU1-11-044 | 20051129 | Thallium-208 | 0.498** | 0.129 | 0.039 | | | 1463965.228 | 597084.735 |
| SU1-11-044 | 20051129 | Thorium-228 | 2.6 | 0.49 | 0.03 | | | 1463965.228 | 597084.735 |
| SU1-11-044 | 20051129 | Thorium-230 | 2.8 | 1.12 | 0.01 | | | 1463965.228 | 597084.735 |
| SU1-11-044 | 20051129 | Thorium-232 | 2.1 | 0.52 | 0.02 | | | 1463965.228 | 597084.735 |
| SU1-11-044 | 20051129 | Thorium-232 | 2.1 | 0.37 | 0.15 | | | 1463965.228 | 597084.735 |
| SU1-11-044 | 20051129 | Uranium-234 | 2 | 0.64 | 0.02 | | | 1463965.228 | 597084.735 |
| SU1-11-044 | 20051129 | Uranium-238 | 3.2 | 0.88 | 0.01 | | | 1463965.228 | 597084.735 |
| SU1-11-045 | 20051129 | Actinium-227 | 4.6 | 0.23 | 0.23 | | U | 1463980.228 | 597084.735 |
| SU1-11-045 | 20051129 | Actinium-228 | 1.93 | 0.57 | 0.14 | | | 1463980.228 | 597084.735 |
| SU1-11-045 | 20051129 | Americium-241 | 63 | 0.088 | 0.088 | | U | 1463980.228 | 597084.735 |
| SU1-11-045 | 20051129 | Bismuth-207 | 1.2 | 0.038 | 0.038 | | U | 1463980.228 | 597084.735 |
| SU1-11-045 | 20051129 | Bismuth-210M | 8.3 | 0.048 | 0.048 | | U | 1463980.228 | 597084.735 |
| SU1-11-045 | 20051129 | Bismuth-214 | 1.17 | 0.6 | 0.08 | | | 1463980.228 | 597084.735 |
| SU1-11-045 | 20051129 | Cesium-137 | 3.8 | 0.048 | 0.048 | | U | 1463980.228 | 597084.735 |
| SU1-11-045 | 20051129 | Cobalt-60 | 0.7 | 0.051 | 0.051 | | U | 1463980.228 | 597084.735 |
| SU1-11-045 | 20051129 | Lead-210 | 7.4 | 1.1 | 1.1 | | U | 1463980.228 | 597084.735 |
| SU1-11-045 | 20051129 | Lead-212 | 16.6 | 0.512 | 0.061 | | | 1463980.228 | 597084.735 |
| SU1-11-045 | 20051129 | Lead-214 | 8.9 | 0.49 | 0.07 | | | 1463980.228 | 597084.735 |
| SU1-11-045 | 20051129 | Potassium-40 | 47.8 | 5.9 | 0.3 | | J | 1463980.228 | 597084.735 |
| SU1-11-045 | 20051129 | Protactinium-231 | 4 | 1.4 | 1.4 | | U | 1463980.228 | 597084.735 |

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# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-045 | 20051129 | Radium-224 | 2.6* | 0.99 | 0.65 | | | 1463980.228 | 597084.735 |
| SU1-11-045 | 20051129 | Radium-226 | 2.9 | 0.6 | 0.08 | | | 1463980.228 | 597084.735 |
| SU1-11-045 | 20051129 | Radium-228 | 2.1 | 0.57 | 0.14 | | | 1463980.228 | 597084.735 |
| SU1-11-045 | 20051129 | Thallium-208 | 0.498** | 0.182 | 0.043 | | | 1463980.228 | 597084.735 |
| SU1-11-045 | 20051129 | Thorium-228 | 2.6 | 1.05 | 0.02 | | | 1463980.228 | 597084.735 |
| SU1-11-045 | 20051129 | Thorium-230 | 2.8 | 1.06 | 0.03 | | | 1463980.228 | 597084.735 |
| SU1-11-045 | 20051129 | Thorium-232 | 2.1 | 0.57 | 0.14 | | | 1463980.228 | 597084.735 |
| SU1-11-045 | 20051129 | Thorium-232 | 2.1 | 0.88 | 0.01 | | | 1463980.228 | 597084.735 |
| SU1-11-045 | 20051129 | Uranium-234 | 2 | 0.64 | 0.02 | | | 1463980.228 | 597084.735 |
| SU1-11-045 | 20051129 | Uranium-238 | 3.2 | 0.69 | 0.009 | | | 1463980.228 | 597084.735 |
| SU1-11-046 | 20051130 | Actinium-227 | 4.6 | 0.42 | 0.42 | | U | 1463995.228 | 597084.735 |
| SU1-11-046 | 20051130 | Actinium-228 | 1.93 | 0.66 | 0.29 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 20051130 | Americium-241 | 63 | 0.16 | 0.16 | | U | 1463995.228 | 597084.735 |
| SU1-11-046 | 20051130 | Bismuth-207 | 1.2 | 0.053 | 0.053 | | U | 1463995.228 | 597084.735 |
| SU1-11-046 | 20051130 | Bismuth-210M | 8.3 | 0.091 | 0.091 | | U | 1463995.228 | 597084.735 |
| SU1-11-046 | 20051130 | Bismuth-214 | 1.17 | 0.9 | 0.15 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 20051130 | Cesium-137 | 3.8 | 0.083 | 0.083 | | U | 1463995.228 | 597084.735 |
| SU1-11-046 | 20051130 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1463995.228 | 597084.735 |
| SU1-11-046 | 20051130 | Lead-210 | 7.4 | 2 | 2 | | U | 1463995.228 | 597084.735 |
| SU1-11-046 | 20051130 | Lead-212 | 16.6 | 0.49 | 0.11 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 20051130 | Lead-214 | 8.9 | 1.08 | 0.13 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 20051130 | Potassium-40 | 47.8 | 10.9 | 0.7 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 20051130 | Protactinium-231 | 4 | 2.1 | 2.1 | | U | 1463995.228 | 597084.735 |
| SU1-11-046 | 20051130 | Radium-224 | 2.6* | 2.6 | 1.8 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 20051130 | Radium-226 | 2.9 | 0.9 | 0.15 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 20051130 | Radium-228 | 2.1 | 0.66 | 0.29 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 20051130 | Thallium-208 | 0.498** | 0.27 | 0.074 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 20051130 | Thorium-228 | 2.6 | 0.57 | 0.05 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 20051130 | Thorium-230 | 2.8 | 1.12 | 0.04 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 20051130 | Thorium-232 | 2.1 | 0.6 | 0.04 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 20051130 | Thorium-232 | 2.1 | 0.66 | 0.29 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 20051130 | Uranium-234 | 2 | 1.02 | 0.03 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 20051130 | Uranium-238 | 3.2 | 1.05 | 0.02 | | | 1463995.228 | 597084.735 |
| SU1-11-047 | 20051130 | Actinium-227 | 4.6 | 0.4 | 0.4 | | U | 1464010.228 | 597084.735 |
| SU1-11-047 | 20051130 | Actinium-228 | 1.93 | 0.85 | 0.25 | | | 1464010.228 | 597084.735 |
| SU1-11-047 | 20051130 | Americium-241 | 63 | 0.14 | 0.14 | | U | 1464010.228 | 597084.735 |
| SU1-11-047 | 20051130 | Bismuth-207 | 1.2 | 0.049 | 0.049 | | U | 1464010.228 | 597084.735 |
| SU1-11-047 | 20051130 | Bismuth-210M | 8.3 | 0.082 | 0.082 | | U | 1464010.228 | 597084.735 |
| SU1-11-047 | 20051130 | Bismuth-214 | 1.17 | 0.71 | 0.13 | | | 1464010.228 | 597084.735 |
| SU1-11-047 | 20051130 | Cesium-137 | 3.8 | 0.094 | 0.094 | | U | 1464010.228 | 597084.735 |
| SU1-11-047 | 20051130 | Cobalt-60 | 0.7 | 0.068 | 0.068 | | U | 1464010.228 | 597084.735 |
| SU1-11-047 | 20051130 | Lead-210 | 7.4 | 1.9 | 1.9 | | U | 1464010.228 | 597084.735 |
| SU1-11-047 | 20051130 | Lead-212 | 16.6 | 0.52 | 0.11 | | | 1464010.228 | 597084.735 |
| SU1-11-047 | 20051130 | Lead-214 | 8.9 | 0.86 | 0.12 | | | 1464010.228 | 597084.735 |
| SU1-11-047 | 20051130 | Potassium-40 | 47.8 | 11.3 | 0.6 | | | 1464010.228 | 597084.735 |
| SU1-11-047 | 20051130 | Protactinium-231 | 4 | 2 | 2 | | U | 1464010.228 | 597084.735 |
| SU1-11-047 | 20051130 | Radium-224 | 2.6* | 1.8 | 1.5 | | | 1464010.228 | 597084.735 |
| SU1-11-047 | 20051130 | Radium-226 | 2.9 | 0.71 | 0.13 | | | 1464010.228 | 597084.735 |
| SU1-11-047 | 20051130 | Radium-228 | 2.1 | 0.85 | 0.25 | | | 1464010.228 | 597084.735 |
| SU1-11-047 | 20051130 | Thallium-208 | 0.498** | 0.187 | 0.068 | | | 1464010.228 | 597084.735 |
| SU1-11-047 | 20051130 | Thorium-228 | 2.6 | 0.67 | 0.05 | | | 1464010.228 | 597084.735 |
| SU1-11-047 | 20051130 | Thorium-230 | 2.8 | 0.99 | 0.04 | | | 1464010.228 | 597084.735 |
| SU1-11-047 | 20051130 | Thorium-232 | 2.1 | 0.85 | 0.25 | | | 1464010.228 | 597084.735 |
| SU1-11-047 | 20051130 | Thorium-232 | 2.1 | 0.64 | 0.04 | | | 1464010.228 | 597084.735 |
| SU1-11-047 | 20051130 | Uranium-234 | 2 | 0.65 | 0.02 | | | 1464010.228 | 597084.735 |
| SU1-11-047 | 20051130 | Uranium-238 | 3.2 | 0.72 | 0.01 | | | 1464010.228 | 597084.735 |
| SU1-11-048 | 20051129 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Actinium-228 | 1.93 | 0.88 | 0.18 | | | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Americium-241 | 63 | 0.098 | 0.098 | | U | 1463957.728 | 597097.726 |

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# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-048 | 20051129 | Bismuth-207 | 1.2 | 0.047 | 0.047 | | U | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Bismuth-210M | 8.3 | 0.06 | 0.06 | | U | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Bismuth-212 | 9.87 | 0.75 | 0.45 | | | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Bismuth-214 | 1.17 | 1.17 | 0.09 | | | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Cesium-137 | 3.8 | 0.077 | 0.077 | | U | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Cobalt-60 | 0.7 | 0.072 | 0.072 | | U | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Lead-210 | 7.4 | 1.1 | 1.1 | | U | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Lead-212 | 16.6 | 0.81 | 0.07 | | | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Lead-214 | 8.9 | 1.04 | 0.09 | | | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Potassium-40 | 47.8 | 17.7 | 0.4 | | | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Protactinium-231 | 4 | 1.5 | 1.5 | | U | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Radium-224 | 2.6* | 2.6 | 1.2 | | | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Radium-226 | 2.9 | 1.17 | 0.09 | | | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Radium-228 | 2.1 | 0.88 | 0.18 | | | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Thallium-208 | 0.498** | 0.27 | 0.059 | | | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Thorium-228 | 2.6 | 0.82 | 0.03 | | | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Thorium-230 | 2.8 | 1.27 | 0.02 | | | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Thorium-232 | 2.1 | 0.88 | 0.18 | | | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Thorium-232 | 2.1 | 0.89 | 0.03 | | | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Thorium-234 | 176 | 1.1 | 0.9 | | | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Uranium-234 | 2 | 0.86 | 0.02 | | | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Uranium-238 | 3.2 | 1.14 | 0.9 | | | 1463957.728 | 597097.726 |
| SU1-11-048 | 20051129 | Uranium-238 | 3.2 | 1 | 0.02 | | | 1463957.728 | 597097.726 |
| SU1-11-049 | 20051129 | Actinium-227 | 4.6 | 0.19 | 0.19 | | U | 1463972.728 | 597097.726 |
| SU1-11-049 | 20051129 | Actinium-228 | 1.93 | 0.3 | 0.1 | | | 1463972.728 | 597097.726 |
| SU1-11-049 | 20051129 | Americium-241 | 63 | 0.063 | 0.063 | | U | 1463972.728 | 597097.726 |
| SU1-11-049 | 20051129 | Bismuth-207 | 1.2 | 0.028 | 0.028 | | U | 1463972.728 | 597097.726 |
| SU1-11-049 | 20051129 | Bismuth-210M | 8.3 | 0.036 | 0.036 | | U | 1463972.728 | 597097.726 |
| SU1-11-049 | 20051129 | Bismuth-214 | 1.17 | 0.41 | 0.071 | | | 1463972.728 | 597097.726 |
| SU1-11-049 | 20051129 | Cesium-137 | 3.8 | 0.037 | 0.037 | | U | 1463972.728 | 597097.726 |
| SU1-11-049 | 20051129 | Cobalt-60 | 0.7 | 0.041 | 0.041 | | U | 1463972.728 | 597097.726 |
| SU1-11-049 | 20051129 | Lead-210 | 7.4 | 0.85 | 0.85 | | U | 1463972.728 | 597097.726 |
| SU1-11-049 | 20051129 | Lead-212 | 16.6 | 0.252 | 0.044 | | | 1463972.728 | 597097.726 |
| SU1-11-049 | 20051129 | Lead-214 | 8.9 | 0.5 | 0.06 | | | 1463972.728 | 597097.726 |
| SU1-11-049 | 20051129 | Potassium-40 | 47.8 | 4.53 | 0.32 | | J | 1463972.728 | 597097.726 |
| SU1-11-049 | 20051129 | Protactinium-231 | 4 | 0.84 | 0.84 | | U | 1463972.728 | 597097.726 |
| SU1-11-049 | 20051129 | Radium-224 | 2.6* | 0.84 | 0.47 | | | 1463972.728 | 597097.726 |
| SU1-11-049 | 20051129 | Radium-226 | 2.9 | 0.41 | 0.071 | | | 1463972.728 | 597097.726 |
| SU1-11-049 | 20051129 | Radium-228 | 2.1 | 0.3 | 0.1 | | | 1463972.728 | 597097.726 |
| SU1-11-049 | 20051129 | Thallium-208 | 0.498** | 0.05 | 0.034 | | | 1463972.728 | 597097.726 |
| SU1-11-049 | 20051129 | Thorium-228 | 2.6 | 0.4 | 0.05 | | | 1463972.728 | 597097.726 |
| SU1-11-049 | 20051129 | Thorium-230 | 2.8 | 0.98 | 0.04 | | | 1463972.728 | 597097.726 |
| SU1-11-049 | 20051129 | Thorium-232 | 2.1 | 0.3 | 0.1 | | | 1463972.728 | 597097.726 |
| SU1-11-049 | 20051129 | Thorium-232 | 2.1 | 0.42 | 0.04 | | | 1463972.728 | 597097.726 |
| SU1-11-049 | 20051129 | Uranium-234 | 2 | 0.415 | 0.026 | | | 1463972.728 | 597097.726 |
| SU1-11-049 | 20051129 | Uranium-238 | 3.2 | 0.47 | 0.02 | | | 1463972.728 | 597097.726 |
| SU1-11-049D | 20051129 | Actinium-227 | 4.6 | 0.18 | 0.18 | | U | 1463972.728 | 597097.726 |
| SU1-11-049D | 20051129 | Actinium-228 | 1.93 | 0.27 | 0.11 | | | 1463972.728 | 597097.726 |
| SU1-11-049D | 20051129 | Americium-241 | 63 | 0.069 | 0.069 | | U | 1463972.728 | 597097.726 |
| SU1-11-049D | 20051129 | Bismuth-207 | 1.2 | 0.033 | 0.033 | | U | 1463972.728 | 597097.726 |
| SU1-11-049D | 20051129 | Bismuth-210M | 8.3 | 0.037 | 0.037 | | U | 1463972.728 | 597097.726 |
| SU1-11-049D | 20051129 | Bismuth-214 | 1.17 | 0.48 | 0.07 | | | 1463972.728 | 597097.726 |
| SU1-11-049D | 20051129 | Cesium-137 | 3.8 | 0.043 | 0.043 | | U | 1463972.728 | 597097.726 |
| SU1-11-049D | 20051129 | Cobalt-60 | 0.7 | 0.039 | 0.039 | | U | 1463972.728 | 597097.726 |
| SU1-11-049D | 20051129 | Lead-210 | 7.4 | 0.93 | 0.93 | | U | 1463972.728 | 597097.726 |
| SU1-11-049D | 20051129 | Lead-212 | 16.6 | 0.227 | 0.05 | | | 1463972.728 | 597097.726 |
| SU1-11-049D | 20051129 | Lead-214 | 8.9 | 0.42 | 0.07 | | | 1463972.728 | 597097.726 |
| SU1-11-049D | 20051129 | Potassium-40 | 47.8 | 4.61 | 0.41 | | J | 1463972.728 | 597097.726 |
| SU1-11-049D | 20051129 | Protactinium-231 | 4 | 0.93 | 0.93 | | U | 1463972.728 | 597097.726 |

# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-049D | 20051129 | Radium-224 | 2.6* | 1.29 | 0.77 | | | 1463972.728 | 597097.726 |
| SU1-11-049D | 20051129 | Radium-226 | 2.9 | 0.48 | 0.07 | | | 1463972.728 | 597097.726 |
| SU1-11-049D | 20051129 | Radium-228 | 2.1 | 0.27 | 0.11 | | | 1463972.728 | 597097.726 |
| SU1-11-049D | 20051129 | Thallium-208 | 0.498** | 0.082 | 0.032 | | | 1463972.728 | 597097.726 |
| SU1-11-049D | 20051129 | Thorium-228 | 2.6 | 0.38 | 0.03 | | | 1463972.728 | 597097.726 |
| SU1-11-049D | 20051129 | Thorium-230 | 2.8 | 0.92 | 0.01 | | | 1463972.728 | 597097.726 |
| SU1-11-049D | 20051129 | Thorium-232 | 2.1 | 0.27 | 0.11 | | | 1463972.728 | 597097.726 |
| SU1-11-049D | 20051129 | Thorium-232 | 2.1 | 0.329 | 0.023 | | | 1463972.728 | 597097.726 |
| SU1-11-049D | 20051129 | Uranium-234 | 2 | 0.69 | 0.03 | | | 1463972.728 | 597097.726 |
| SU1-11-049D | 20051129 | Uranium-238 | 3.2 | 0.64 | 0.03 | | | 1463972.728 | 597097.726 |
| SU1-11-050 | 20051130 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1463987.728 | 597097.726 |
| SU1-11-050 | 20051130 | Actinium-228 | 1.93 | 0.51 | 0.19 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 20051130 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1463987.728 | 597097.726 |
| SU1-11-050 | 20051130 | Bismuth-207 | 1.2 | 0.04 | 0.04 | | U | 1463987.728 | 597097.726 |
| SU1-11-050 | 20051130 | Bismuth-210M | 8.3 | 0.059 | 0.059 | | U | 1463987.728 | 597097.726 |
| SU1-11-050 | 20051130 | Bismuth-214 | 1.17 | 0.84 | 0.09 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 20051130 | Cesium-137 | 3.8 | 0.051 | 0.051 | | U | 1463987.728 | 597097.726 |
| SU1-11-050 | 20051130 | Cobalt-60 | 0.7 | 0.067 | 0.067 | | U | 1463987.728 | 597097.726 |
| SU1-11-050 | 20051130 | Lead-210 | 7.4 | 1.3 | 1.3 | | U | 1463987.728 | 597097.726 |
| SU1-11-050 | 20051130 | Lead-212 | 16.6 | 0.448 | 0.071 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 20051130 | Lead-214 | 8.9 | 0.85 | 0.09 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 20051130 | Potassium-40 | 47.8 | 9.2 | 0.5 | | J | 1463987.728 | 597097.726 |
| SU1-11-050 | 20051130 | Protactinium-231 | 4 | 1.5 | 1.5 | | U | 1463987.728 | 597097.726 |
| SU1-11-050 | 20051130 | Radium-224 | 2.6* | 1.58 | 0.76 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 20051130 | Radium-226 | 2.9 | 0.84 | 0.09 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 20051130 | Radium-228 | 2.1 | 0.51 | 0.19 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 20051130 | Thallium-208 | 0.498** | 0.192 | 0.052 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 20051130 | Thorium-228 | 2.6 | 0.48 | 0.03 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 20051130 | Thorium-230 | 2.8 | 1.01 | 0.04 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 20051130 | Thorium-232 | 2.1 | 0.59 | 0.02 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 20051130 | Thorium-232 | 2.1 | 0.51 | 0.19 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 20051130 | Uranium-234 | 2 | 0.81 | 0.03 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 20051130 | Uranium-238 | 3.2 | 0.51 | 0.03 | | | 1463987.728 | 597097.726 |
| SU1-11-051 | 20051130 | Actinium-227 | 4.6 | 0.3 | 0.3 | | U | 1464002.728 | 597097.726 |
| SU1-11-051 | 20051130 | Actinium-228 | 1.93 | 0.45 | 0.19 | | | 1464002.728 | 597097.726 |
| SU1-11-051 | 20051130 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1464002.728 | 597097.726 |
| SU1-11-051 | 20051130 | Bismuth-207 | 1.2 | 0.045 | 0.045 | | U | 1464002.728 | 597097.726 |
| SU1-11-051 | 20051130 | Bismuth-210M | 8.3 | 0.06 | 0.06 | | U | 1464002.728 | 597097.726 |
| SU1-11-051 | 20051130 | Bismuth-214 | 1.17 | 0.99 | 0.1 | | | 1464002.728 | 597097.726 |
| SU1-11-051 | 20051130 | Cesium-137 | 3.8 | 0.057 | 0.057 | | U | 1464002.728 | 597097.726 |
| SU1-11-051 | 20051130 | Cobalt-60 | 0.7 | 0.064 | 0.064 | | U | 1464002.728 | 597097.726 |
| SU1-11-051 | 20051130 | Lead-210 | 7.4 | 1.5 | 1.5 | | U | 1464002.728 | 597097.726 |
| SU1-11-051 | 20051130 | Lead-212 | 16.6 | 0.66 | 0.07 | | | 1464002.728 | 597097.726 |
| SU1-11-051 | 20051130 | Lead-214 | 8.9 | 0.93 | 0.1 | | | 1464002.728 | 597097.726 |
| SU1-11-051 | 20051130 | Potassium-40 | 47.8 | 13 | 0.5 | | | 1464002.728 | 597097.726 |
| SU1-11-051 | 20051130 | Protactinium-231 | 4 | 1.6 | 1.6 | | U | 1464002.728 | 597097.726 |
| SU1-11-051 | 20051130 | Radium-224 | 2.6* | 3.5 | 1.3 | | | 1464002.728 | 597097.726 |
| SU1-11-051 | 20051130 | Radium-226 | 2.9 | 0.99 | 0.1 | | | 1464002.728 | 597097.726 |
| SU1-11-051 | 20051130 | Radium-228 | 2.1 | 0.45 | 0.19 | | | 1464002.728 | 597097.726 |
| SU1-11-051 | 20051130 | Thallium-208 | 0.498** | 0.213 | 0.052 | | | 1464002.728 | 597097.726 |
| SU1-11-051 | 20051130 | Thorium-228 | 2.6 | 0.41 | 0.03 | | | 1464002.728 | 597097.726 |
| SU1-11-051 | 20051130 | Thorium-230 | 2.8 | 1.02 | 0.02 | | | 1464002.728 | 597097.726 |
| SU1-11-051 | 20051130 | Thorium-232 | 2.1 | 0.42 | 0.02 | | | 1464002.728 | 597097.726 |
| SU1-11-051 | 20051130 | Thorium-232 | 2.1 | 0.45 | 0.19 | | | 1464002.728 | 597097.726 |
| SU1-11-051 | 20051130 | Uranium-234 | 2 | 0.68 | 0.02 | | | 1464002.728 | 597097.726 |
| SU1-11-051 | 20051130 | Uranium-238 | 3.2 | 0.77 | 0.01 | | | 1464002.728 | 597097.726 |
| SU1-11-054 | 20051201 | Actinium-227 | 4.6 | 0.32 | 0.32 | | U | 1463980.228 | 597110.716 |
| SU1-11-054 | 20051201 | Actinium-228 | 1.93 | 0.67 | 0.23 | | | 1463980.228 | 597110.716 |
| SU1-11-054 | 20051201 | Americium-241 | 63 | 0.13 | 0.13 | | U | 1463980.228 | 597110.716 |

# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-054 | 20051201 | Bismuth-207 | 1.2 | 0.054 | 0.054 | | U | 1463980.228 | 597110.716 |
| SU1-11-054 | 20051201 | Bismuth-210M | 8.3 | 0.069 | 0.069 | | U | 1463980.228 | 597110.716 |
| SU1-11-054 | 20051201 | Bismuth-214 | 1.17 | 0.76 | 0.13 | | | 1463980.228 | 597110.716 |
| SU1-11-054 | 20051201 | Cesium-137 | 3.8 | 0.066 | 0.066 | | U | 1463980.228 | 597110.716 |
| SU1-11-054 | 20051201 | Cobalt-60 | 0.7 | 0.097 | 0.097 | | U | 1463980.228 | 597110.716 |
| SU1-11-054 | 20051201 | Lead-210 | 7.4 | 1.6 | 1.6 | | U | 1463980.228 | 597110.716 |
| SU1-11-054 | 20051201 | Lead-212 | 16.6 | 0.6 | 0.09 | | | 1463980.228 | 597110.716 |
| SU1-11-054 | 20051201 | Lead-214 | 8.9 | 0.75 | 0.09 | | | 1463980.228 | 597110.716 |
| SU1-11-054 | 20051201 | Potassium-40 | 47.8 | 8.6 | 0.7 | | J | 1463980.228 | 597110.716 |
| SU1-11-054 | 20051201 | Protactinium-231 | 4 | 2 | 2 | | U | 1463980.228 | 597110.716 |
| SU1-11-054 | 20051201 | Radium-224 | 2.6* | 1.9 | 0.9 | J | | 1463980.228 | 597110.716 |
| SU1-11-054 | 20051201 | Radium-226 | 2.9 | 0.76 | 0.13 | J | | 1463980.228 | 597110.716 |
| SU1-11-054 | 20051201 | Radium-228 | 2.1 | 0.67 | 0.23 | | | 1463980.228 | 597110.716 |
| SU1-11-054 | 20051201 | Thallium-208 | 0.498** | 0.211 | 0.067 | | | 1463980.228 | 597110.716 |
| SU1-11-054 | 20051201 | Thorium-228 | 2.6 | 0.72 | 0.05 | J | | 1463980.228 | 597110.716 |
| SU1-11-054 | 20051201 | Thorium-230 | 2.8 | 1.1 | 0.03 | J | | 1463980.228 | 597110.716 |
| SU1-11-054 | 20051201 | Thorium-232 | 2.1 | 0.74 | 0.02 | | | 1463980.228 | 597110.716 |
| SU1-11-054 | 20051201 | Thorium-232 | 2.1 | 0.67 | 0.23 | | | 1463980.228 | 597110.716 |
| SU1-11-054 | 20051201 | Uranium-234 | 2 | 0.56 | 0.02 | | | 1463980.228 | 597110.716 |
| SU1-11-054 | 20051201 | Uranium-238 | 3.2 | 0.67 | 0.04 | | | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Actinium-227 | 4.6 | 0.32 | 0.32 | | U | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Actinium-228 | 1.93 | 0.78 | 0.23 | | | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Americium-241 | 63 | 0.13 | 0.13 | | U | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Bismuth-207 | 1.2 | 0.052 | 0.052 | | U | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Bismuth-210M | 8.3 | 0.066 | 0.066 | | U | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Bismuth-214 | 1.17 | 0.79 | 0.12 | | | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Cobalt-60 | 0.7 | 0.097 | 0.097 | | U | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Lead-210 | 7.4 | 1.4 | 1.4 | | U | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Lead-212 | 16.6 | 0.82 | 0.09 | | | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Lead-214 | 8.9 | 0.9 | 0.1 | | | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Potassium-40 | 47.8 | 10.6 | 0.4 | | | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Protactinium-231 | 4 | 1.7 | 1.7 | | U | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Radium-224 | 2.6* | 2.4 | 1.4 | | | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Radium-226 | 2.9 | 0.79 | 0.12 | | | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Radium-228 | 2.1 | 0.78 | 0.23 | | | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Thallium-208 | 0.498** | 0.24 | 0.076 | | | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Thorium-228 | 2.6 | 1.26 | 0.04 | | | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Thorium-230 | 2.8 | 0.99 | 0.02 | | | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Thorium-232 | 2.1 | 0.78 | 0.23 | | | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Thorium-232 | 2.1 | 1.05 | 0.03 | | | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Uranium-234 | 2 | 0.7 | 0.03 | | | 1463980.228 | 597110.716 |
| SU1-11-054D | 20051201 | Uranium-238 | 3.2 | 0.65 | 0.02 | | | 1463980.228 | 597110.716 |
| SU1-11-055 | 20051130 | Actinium-227 | 4.6 | 0.26 | 0.26 | | U | 1463995.228 | 597110.716 |
| SU1-11-055 | 20051130 | Actinium-228 | 1.93 | 1.48 | 0.15 | | | 1463995.228 | 597110.716 |
| SU1-11-055 | 20051130 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1463995.228 | 597110.716 |
| SU1-11-055 | 20051130 | Bismuth-207 | 1.2 | 0.044 | 0.044 | | U | 1463995.228 | 597110.716 |
| SU1-11-055 | 20051130 | Bismuth-210M | 8.3 | 0.12 | 0.063 | | U | 1463995.228 | 597110.716 |
| SU1-11-055 | 20051130 | Bismuth-212 | 9.87 | 0.99 | 0.47 | | | 1463995.228 | 597110.716 |
| SU1-11-055 | 20051130 | Bismuth-214 | 1.17 | 0.74 | 0.1 | | | 1463995.228 | 597110.716 |
| SU1-11-055 | 20051130 | Cesium-137 | 3.8 | 0.053 | 0.053 | | U | 1463995.228 | 597110.716 |
| SU1-11-055 | 20051130 | Cobalt-60 | 0.7 | 0.046 | 0.046 | | U | 1463995.228 | 597110.716 |
| SU1-11-055 | 20051130 | Lead-210 | 7.4 | 1.3 | 1.3 | | U | 1463995.228 | 597110.716 |
| SU1-11-055 | 20051130 | Lead-212 | 16.6 | 1.17 | 0.11 | | | 1463995.228 | 597110.716 |
| SU1-11-055 | 20051130 | Lead-214 | 8.9 | 0.7 | 0.08 | | | 1463995.228 | 597110.716 |
| SU1-11-055 | 20051130 | Potassium-40 | 47.8 | 9.4 | 0.5 | | J | 1463995.228 | 597110.716 |
| SU1-11-055 | 20051130 | Protactinium-231 | 4 | 1.5 | 1.5 | | U | 1463995.228 | 597110.716 |
| SU1-11-055 | 20051130 | Radium-224 | 2.6* | 2.7 | 1.1 | J | | 1463995.228 | 597110.716 |
| SU1-11-055 | 20051130 | Radium-226 | 2.9 | 0.74 | 0.1 | J | | 1463995.228 | 597110.716 |

# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-055 | 20051130 | Radium-228 | 2.1 | 1.48 | 0.15 | | | 1463995.228 | 597110.716 |
| SU1-11-055 | 20051130 | Thallium-208 | 0.498** | 0.492 | 0.05 | | | 1463995.228 | 597110.716 |
| SU1-11-055 | 20051130 | Thorium-228 | 2.6 | 2.36 | 0.03 | | | 1463995.228 | 597110.716 |
| SU1-11-055 | 20051130 | Thorium-230 | 2.8 | 1.38 | 0.02 | | | 1463995.228 | 597110.716 |
| SU1-11-055 | 20051130 | Thorium-232 | 2.1 | 1.48 | 0.15 | | | 1463995.228 | 597110.716 |
| SU1-11-055 | 20051130 | Thorium-232 | 2.1 | **2.57** | 0.02 | | | 1463995.228 | 597110.716 |
| SU1-11-055 | 20051130 | Uranium-234 | 2 | 0.94 | 0.03 | | | 1463995.228 | 597110.716 |
| SU1-11-055 | 20051130 | Uranium-238 | 3.2 | 1.03 | 0.03 | | | 1463995.228 | 597110.716 |
| SU1-11-056 | 20051130 | Actinium-227 | 4.6 | 0.33 | 0.33 | | U | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Actinium-228 | 1.93 | 1.24 | 0.21 | | | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Americium-241 | 63 | 0.12 | 0.12 | | U | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Bismuth-207 | 1.2 | 0.046 | 0.046 | | U | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Bismuth-210M | 8.3 | 0.065 | 0.065 | | U | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Bismuth-212 | 9.87 | 0.56 | 0.51 | | | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Bismuth-214 | 1.17 | 1.22 | 0.11 | | | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Cesium-137 | 3.8 | 0.068 | 0.068 | | U | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Cobalt-60 | 0.7 | 0.071 | 0.071 | | U | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Lead-210 | 7.4 | 1.5 | 1.5 | | U | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Lead-212 | 16.6 | 1.34 | 0.08 | | | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Lead-214 | 8.9 | 1.07 | 0.09 | | | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Potassium-40 | 47.8 | 15.9 | 0.5 | | | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Protactinium-231 | 4 | 1.7 | 1.7 | | U | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Radium-224 | 2.6* | 2.9 | 0.8 | | | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Radium-226 | 2.9 | 1.22 | 0.11 | | | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Radium-228 | 2.1 | 1.24 | 0.21 | | | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Thallium-208 | 0.498** | 0.404 | 0.056 | | | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Thorium-228 | 2.6 | 1.01 | 0.03 | | | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Thorium-230 | 2.8 | 1.27 | 0.01 | | | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Thorium-232 | 2.1 | 1.24 | 0.21 | | | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Thorium-232 | 2.1 | 1.03 | 0.02 | | | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Thorium-234 | 176 | 1.4 | 1.1 | | | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Uranium-234 | 2 | 0.89 | 0.02 | | | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Uranium-238 | 3.2 | 0.84 | 0.02 | | | 1464010.228 | 597110.716 |
| SU1-11-056 | 20051130 | Uranium-238 | 3.2 | 1.4 | 1.1 | | | 1464010.228 | 597110.716 |
| SU1-11-057 | 20051201 | Actinium-227 | 4.6 | 0.31 | 0.31 | | U | 1464025.228 | 597110.716 |
| SU1-11-057 | 20051201 | Actinium-228 | 1.93 | 0.39 | 0.15 | | | 1464025.228 | 597110.716 |
| SU1-11-057 | 20051201 | Americium-241 | 63 | 0.12 | 0.12 | | U | 1464025.228 | 597110.716 |
| SU1-11-057 | 20051201 | Bismuth-207 | 1.2 | 0.053 | 0.053 | | U | 1464025.228 | 597110.716 |
| SU1-11-057 | 20051201 | Bismuth-210M | 8.3 | 0.069 | 0.069 | | U | 1464025.228 | 597110.716 |
| SU1-11-057 | 20051201 | Bismuth-214 | 1.17 | 0.88 | 0.12 | | | 1464025.228 | 597110.716 |
| SU1-11-057 | 20051201 | Cesium-137 | 3.8 | 0.065 | 0.065 | | U | 1464025.228 | 597110.716 |
| SU1-11-057 | 20051201 | Cobalt-60 | 0.7 | 0.087 | 0.087 | | U | 1464025.228 | 597110.716 |
| SU1-11-057 | 20051201 | Lead-210 | 7.4 | 1.6 | 1.6 | | U | 1464025.228 | 597110.716 |
| SU1-11-057 | 20051201 | Lead-212 | 16.6 | 0.468 | 0.091 | | | 1464025.228 | 597110.716 |
| SU1-11-057 | 20051201 | Lead-214 | 8.9 | 1.07 | 0.1 | | | 1464025.228 | 597110.716 |
| SU1-11-057 | 20051201 | Potassium-40 | 47.8 | 12.2 | 0.5 | | | 1464025.228 | 597110.716 |
| SU1-11-057 | 20051201 | Protactinium-231 | 4 | 1.7 | 1.7 | | U | 1464025.228 | 597110.716 |
| SU1-11-057 | 20051201 | Radium-224 | 2.6* | 2.5 | 1.4 | | | 1464025.228 | 597110.716 |
| SU1-11-057 | 20051201 | Radium-226 | 2.9 | 0.88 | 0.12 | | | 1464025.228 | 597110.716 |
| SU1-11-057 | 20051201 | Radium-228 | 2.1 | 0.39 | 0.15 | | | 1464025.228 | 597110.716 |
| SU1-11-057 | 20051201 | Thallium-208 | 0.498** | 0.191 | 0.068 | | | 1464025.228 | 597110.716 |
| SU1-11-057 | 20051201 | Thorium-228 | 2.6 | 0.41 | 0.04 | | | 1464025.228 | 597110.716 |
| SU1-11-057 | 20051201 | Thorium-230 | 2.8 | 1.16 | 0.02 | | | 1464025.228 | 597110.716 |
| SU1-11-057 | 20051201 | Thorium-232 | 2.1 | 0.39 | 0.15 | | | 1464025.228 | 597110.716 |
| SU1-11-057 | 20051201 | Thorium-232 | 2.1 | 0.374 | 0.023 | | | 1464025.228 | 597110.716 |
| SU1-11-057 | 20051201 | Uranium-234 | 2 | 0.77 | 0.03 | | | 1464025.228 | 597110.716 |
| SU1-11-057 | 20051201 | Uranium-238 | 3.2 | 0.87 | 0.03 | | | 1464025.228 | 597110.716 |
| SU1-11-058 | 20051129 | Actinium-227 | 4.6 | 0.23 | 0.23 | | U | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Actinium-228 | 1.93 | 0.37 | 0.17 | | | 1463957.728 | 597123.706 |

# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-058 | 20051129 | Americium-241 | 63 | 0.089 | 0.089 | | U | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Bismuth-207 | 1.2 | 0.038 | 0.038 | | U | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Bismuth-210M | 8.3 | 0.053 | 0.053 | | U | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Bismuth-214 | 1.17 | 0.75 | 0.08 | | | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Cesium-137 | 3.8 | 0.059 | 0.059 | | U | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Lead-210 | 7.4 | 1.1 | 1.1 | | U | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Lead-212 | 16.6 | 0.443 | 0.062 | | | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Lead-214 | 8.9 | 0.73 | 0.09 | | | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Potassium-40 | 47.8 | 11.5 | 0.3 | | | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Protactinium-231 | 4 | 1.2 | 1.2 | | U | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Radium-224 | 2.6* | 1.43 | 0.92 | | | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Radium-226 | 2.9 | 0.75 | 0.08 | | | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Radium-228 | 2.1 | 0.37 | 0.17 | | | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Thallium-208 | 0.498** | 0.169 | 0.042 | | | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Thorium-228 | 2.6 | 0.44 | 0.04 | | | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Thorium-230 | 2.8 | 0.82 | 0.02 | | | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Thorium-232 | 2.1 | 0.37 | 0.17 | | | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Thorium-232 | 2.1 | 0.49 | 0.01 | | | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Thorium-234 | 176 | 1.22 | 0.74 | | | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Uranium-234 | 2 | 0.573 | 0.015 | | | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Uranium-238 | 3.2 | 1.22 | 0.74 | | | 1463957.728 | 597123.706 |
| SU1-11-058 | 20051129 | Uranium-238 | 3.2 | 0.76 | 0.009 | | | 1463957.728 | 597123.706 |
| SU1-11-059 | 20051129 | Actinium-227 | 4.6 | 0.42 | 0.36 | | J | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Actinium-228 | 1.93 | 1.52 | 0.21 | | | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Americium-241 | 63 | 0.13 | 0.13 | | U | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Bismuth-207 | 1.2 | 0.055 | 0.055 | | U | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Bismuth-210M | 8.3 | 0.067 | 0.067 | | U | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Bismuth-212 | 9.87 | 1.23 | 0.46 | | | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Bismuth-214 | 1.17 | 1.02 | 0.13 | | | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Cesium-137 | 3.8 | 0.067 | 0.067 | | U | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Cobalt-60 | 0.7 | 0.065 | 0.065 | | U | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Lead-210 | 7.4 | 1.3 | 1.3 | | U | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Lead-212 | 16.6 | 1.53 | 0.08 | | | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Lead-214 | 8.9 | 1.25 | 0.11 | | | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Potassium-40 | 47.8 | 17.6 | 0.7 | | | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Protactinium-231 | 4 | 1.9 | 1.9 | | U | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Radium-224 | 2.6* | 2.7 | 0.9 | | | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Radium-226 | 2.9 | 1.02 | 0.13 | | | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Radium-228 | 2.1 | 1.52 | 0.21 | | | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Thallium-208 | 0.498** | 0.53 | 0.06 | | | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Thorium-228 | 2.6 | 1.31 | 0.08 | | | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Thorium-230 | 2.8 | 1.38 | 0.05 | | | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Thorium-232 | 2.1 | 1.52 | 0.21 | | | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Thorium-232 | 2.1 | 1.1 | 0.03 | | | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Thorium-234 | 176 | 1.43 | 1.2 | | | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Uranium-234 | 2 | 0.88 | 0.02 | | | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Uranium-238 | 3.2 | 1.32 | 0.009 | | | 1463972.728 | 597123.706 |
| SU1-11-059 | 20051129 | Uranium-238 | 3.2 | 1.43 | 1.2 | | | 1463972.728 | 597123.706 |
| SU1-11-060 | 20051201 | Actinium-227 | 4.6 | 0.32 | 0.32 | | U | 1463987.728 | 597123.706 |
| SU1-11-060 | 20051201 | Americium-241 | 63 | 0.15 | 0.15 | | U | 1463987.728 | 597123.706 |
| SU1-11-060 | 20051201 | Bismuth-207 | 1.2 | 0.062 | 0.062 | | U | 1463987.728 | 597123.706 |
| SU1-11-060 | 20051201 | Bismuth-210M | 8.3 | 0.072 | 0.072 | | U | 1463987.728 | 597123.706 |
| SU1-11-060 | 20051201 | Bismuth-214 | 1.17 | 0.83 | 0.13 | | | 1463987.728 | 597123.706 |
| SU1-11-060 | 20051201 | Cesium-137 | 3.8 | 0.079 | 0.079 | | U | 1463987.728 | 597123.706 |
| SU1-11-060 | 20051201 | Cobalt-60 | 0.7 | 0.093 | 0.093 | | U | 1463987.728 | 597123.706 |
| SU1-11-060 | 20051201 | Lead-210 | 7.4 | 1.9 | 1.9 | | U | 1463987.728 | 597123.706 |
| SU1-11-060 | 20051201 | Lead-212 | 16.6 | 0.51 | 0.15 | | | 1463987.728 | 597123.706 |
| SU1-11-060 | 20051201 | Lead-214 | 8.9 | 0.68 | 0.14 | | | 1463987.728 | 597123.706 |

# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-060 | 20051201 | Potassium-40 | 47.8 | 12 | 0.9 | | | 1463987.728 | 597123.706 |
| SU1-11-060 | 20051201 | Protactinium-231 | 4 | 1.9 | 1.9 | | U | 1463987.728 | 597123.706 |
| SU1-11-060 | 20051201 | Radium-224 | 2.6* | 2 | 1.6 | | | 1463987.728 | 597123.706 |
| SU1-11-060 | 20051201 | Radium-226 | 2.9 | 0.83 | 0.13 | | | 1463987.728 | 597123.706 |
| SU1-11-060 | 20051201 | Thallium-208 | 0.498** | 0.178 | 0.076 | | | 1463987.728 | 597123.706 |
| SU1-11-060 | 20051201 | Thorium-228 | 2.6 | 0.44 | 0.03 | | | 1463987.728 | 597123.706 |
| SU1-11-060 | 20051201 | Thorium-230 | 2.8 | 0.85 | 0.01 | | | 1463987.728 | 597123.706 |
| SU1-11-060 | 20051201 | Thorium-232 | 2.1 | 0.54 | 0.03 | | | 1463987.728 | 597123.706 |
| SU1-11-060 | 20051201 | Uranium-234 | 2 | 0.76 | 0.02 | | | 1463987.728 | 597123.706 |
| SU1-11-060 | 20051201 | Uranium-238 | 3.2 | 0.73 | 0.02 | | | 1463987.728 | 597123.706 |
| SU1-11-061 | 20051201 | Actinium-227 | 4.6 | 0.22 | 0.22 | | U | 1464002.728 | 597123.706 |
| SU1-11-061 | 20051201 | Actinium-228 | 1.93 | 0.65 | 0.16 | | | 1464002.728 | 597123.706 |
| SU1-11-061 | 20051201 | Americium-241 | 63 | 0.088 | 0.088 | | U | 1464002.728 | 597123.706 |
| SU1-11-061 | 20051201 | Bismuth-207 | 1.2 | 0.044 | 0.044 | | U | 1464002.728 | 597123.706 |
| SU1-11-061 | 20051201 | Bismuth-210M | 8.3 | 0.047 | 0.047 | | U | 1464002.728 | 597123.706 |
| SU1-11-061 | 20051201 | Bismuth-214 | 1.17 | 0.86 | 0.08 | | | 1464002.728 | 597123.706 |
| SU1-11-061 | 20051201 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464002.728 | 597123.706 |
| SU1-11-061 | 20051201 | Cobalt-60 | 0.7 | 0.053 | 0.053 | | U | 1464002.728 | 597123.706 |
| SU1-11-061 | 20051201 | Lead-210 | 7.4 | 1.1 | 1.1 | | U | 1464002.728 | 597123.706 |
| SU1-11-061 | 20051201 | Lead-212 | 16.6 | 0.473 | 0.065 | | | 1464002.728 | 597123.706 |
| SU1-11-061 | 20051201 | Lead-214 | 8.9 | 0.82 | 0.08 | | | 1464002.728 | 597123.706 |
| SU1-11-061 | 20051201 | Potassium-40 | 47.8 | 12.2 | 0.5 | | | 1464002.728 | 597123.706 |
| SU1-11-061 | 20051201 | Protactinium-231 | 4 | 1.2 | 1.2 | | U | 1464002.728 | 597123.706 |
| SU1-11-061 | 20051201 | Radium-224 | 2.6* | 1.15 | 0.69 | | | 1464002.728 | 597123.706 |
| SU1-11-061 | 20051201 | Radium-226 | 2.9 | 0.86 | 0.08 | | | 1464002.728 | 597123.706 |
| SU1-11-061 | 20051201 | Radium-228 | 2.1 | 0.65 | 0.16 | | | 1464002.728 | 597123.706 |
| SU1-11-061 | 20051201 | Thallium-208 | 0.498** | 0.181 | 0.036 | | | 1464002.728 | 597123.706 |
| SU1-11-061 | 20051201 | Thorium-228 | 2.6 | 0.56 | 0.08 | | | 1464002.728 | 597123.706 |
| SU1-11-061 | 20051201 | Thorium-230 | 2.8 | 0.9 | 0.03 | | | 1464002.728 | 597123.706 |
| SU1-11-061 | 20051201 | Thorium-232 | 2.1 | 0.65 | 0.16 | | | 1464002.728 | 597123.706 |
| SU1-11-061 | 20051201 | Thorium-232 | 2.1 | 0.48 | 0.04 | | | 1464002.728 | 597123.706 |
| SU1-11-061 | 20051201 | Uranium-234 | 2 | 0.83 | 0.02 | | | 1464002.728 | 597123.706 |
| SU1-11-061 | 20051201 | Uranium-238 | 3.2 | 0.65 | 0.01 | | | 1464002.728 | 597123.706 |
| SU1-11-062 | 20051129 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Actinium-228 | 1.93 | 0.37 | 0.22 | | | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Bismuth-207 | 1.2 | 0.046 | 0.046 | | U | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Bismuth-210M | 8.3 | 0.06 | 0.06 | | U | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Bismuth-214 | 1.17 | 0.83 | 0.1 | | | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Cesium-137 | 3.8 | 0.063 | 0.063 | | U | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Cobalt-60 | 0.7 | 0.054 | 0.054 | | U | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Lead-210 | 7.4 | 1.4 | 1.4 | | U | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Lead-212 | 16.6 | 0.407 | 0.077 | | | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Lead-214 | 8.9 | 0.89 | 0.09 | | | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Potassium-40 | 47.8 | 11.8 | 0.5 | | | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Protactinium-231 | 4 | 1.5 | 1.5 | | U | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Radium-224 | 2.6* | 2.1 | 1.2 | | | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Radium-226 | 2.9 | 0.83 | 0.1 | | | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Radium-228 | 2.1 | 0.37 | 0.22 | | | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Thallium-208 | 0.498** | 0.174 | 0.056 | | | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Thorium-228 | 2.6 | 0.42 | 0.07 | | | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Thorium-230 | 2.8 | 0.96 | 0.05 | | | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Thorium-232 | 2.1 | 0.49 | 0.05 | | | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Thorium-232 | 2.1 | 0.37 | 0.22 | | | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Thorium-234 | 176 | 1.62 | 0.94 | | | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Uranium-234 | 2 | 0.556 | 0.014 | | | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Uranium-238 | 3.2 | 1.62 | 0.94 | | | 1463980.228 | 597136.697 |
| SU1-11-062 | 20051129 | Uranium-238 | 3.2 | 0.571 | 0.009 | | | 1463980.228 | 597136.697 |
| SU1-11-071 | 20051130 | Actinium-227 | 4.6 | 0.4 | 0.4 | | U | 1463968.978 | 597026.278 |

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# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-071 | 20051130 | Actinium-228 | 1.93 | 0.55 | 0.24 | | | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Americium-241 | 63 | 0.13 | 0.13 | | U | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Bismuth-207 | 1.2 | 0.045 | 0.045 | | U | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Bismuth-210M | 8.3 | 0.073 | 0.073 | | U | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Bismuth-214 | 1.17 | 0.67 | 0.1 | | | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Cesium-137 | 3.8 | 0.076 | 0.076 | | U | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Cobalt-60 | 0.7 | 0.061 | 0.061 | | U | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Lead-210 | 7.4 | 1.7 | 1.7 | | U | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Lead-212 | 16.6 | 0.42 | 0.13 | | | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Lead-214 | 8.9 | 0.79 | 0.12 | | | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Plutonium-238 | 55 | 0.123 | 0.038 | | | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Plutonium-239/240 | 62 | 0.025 | 0.025 | | U | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Potassium-40 | 47.8 | 10.6 | 0.7 | | | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Protactinium-231 | 4 | 1.9 | 1.9 | | U | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Radium-224 | 2.6* | 1.6 | 1.4 | | | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Radium-226 | 2.9 | 0.67 | 0.1 | | | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Radium-228 | 2.1 | 0.55 | 0.24 | | | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Thallium-208 | 0.498** | 0.202 | 0.055 | | | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Thorium-228 | 2.6 | 0.72 | 0.06 | | | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Thorium-230 | 2.8 | 0.89 | 0.04 | | | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Thorium-232 | 2.1 | 0.63 | 0.04 | | | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Thorium-232 | 2.1 | 0.55 | 0.24 | | | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Uranium-234 | 2 | 0.69 | 0.02 | | | 1463968.978 | 597026.278 |
| SU1-11-071 | 20051130 | Uranium-238 | 3.2 | 0.65 | 0.02 | | | 1463968.978 | 597026.278 |
| SU1-11-072 | 20051129 | Actinium-227 | 4.6 | 0.15 | 0.15 | | U | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Actinium-228 | 1.93 | 0.2 | 0.11 | | | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Americium-241 | 63 | 0.055 | 0.055 | | U | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Bismuth-207 | 1.2 | 0.028 | 0.028 | | U | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Bismuth-210M | 8.3 | 0.032 | 0.032 | | U | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Bismuth-214 | 1.17 | 0.361 | 0.059 | | | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Cesium-137 | 3.8 | 0.032 | 0.032 | | U | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Cobalt-60 | 0.7 | 0.031 | 0.031 | | U | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Lead-210 | 7.4 | 0.8 | 0.8 | | U | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Lead-212 | 16.6 | 0.178 | 0.04 | | | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Lead-214 | 8.9 | 0.5 | 0.05 | | | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Plutonium-238 | 55 | 0.04 | 0.04 | | U | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Plutonium-239/240 | 62 | 0.022 | 0.022 | | U | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Potassium-40 | 47.8 | 5.96 | 0.33 | | J | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Protactinium-231 | 4 | 0.79 | 0.79 | | U | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Radium-224 | 2.6* | 1.17 | 0.62 | | | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Radium-226 | 2.9 | 0.361 | 0.059 | | | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Radium-228 | 2.1 | 0.2 | 0.11 | | | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Thallium-208 | 0.498** | 0.044 | 0.029 | | | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Thorium-228 | 2.6 | 0.328 | 0.033 | | | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Thorium-230 | 2.8 | 0.89 | 0.04 | | | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Thorium-232 | 2.1 | 0.335 | 0.024 | | | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Thorium-232 | 2.1 | 0.2 | 0.11 | | | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Uranium-234 | 2 | 0.75 | 0.02 | | | 1463972.728 | 597058.754 |
| SU1-11-072 | 20051129 | Uranium-238 | 3.2 | 0.67 | 0.009 | | | 1463972.728 | 597058.754 |
| SU1-11-073 | 20051130 | Actinium-227 | 4.6 | 0.18 | 0.18 | | U | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Actinium-228 | 1.93 | 0.49 | 0.14 | | | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Americium-241 | 63 | 0.071 | 0.071 | | U | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Bismuth-207 | 1.2 | 0.031 | 0.031 | | U | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Bismuth-210M | 8.3 | 0.041 | 0.041 | | U | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Bismuth-212 | 9.87 | 0.58 | 0.25 | | | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Bismuth-214 | 1.17 | 0.67 | 0.07 | | | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Cesium-137 | 3.8 | 0.045 | 0.045 | | U | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Cobalt-60 | 0.7 | 0.046 | 0.046 | | U | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Lead-210 | 7.4 | 0.9 | 0.9 | | U | 1463976.478 | 597104.221 |

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# Table 1: SU1 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-073 | 20051130 | Lead-212 | 16.6 | 0.491 | 0.049 | | | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Lead-214 | 8.9 | 0.59 | 0.06 | | | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Plutonium-238 | 55 | 0.1 | 0.038 | | | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Plutonium-239/240 | 62 | 0.034 | 0.034 | | U | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Potassium-40 | 47.8 | 7.3 | 0.4 | | J | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Protactinium-231 | 4 | 0.96 | 0.96 | | U | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Radium-224 | 2.6* | 1.2 | 0.52 | | | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Radium-226 | 2.9 | 0.67 | 0.07 | | | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Radium-228 | 2.1 | 0.49 | 0.14 | | | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Thallium-208 | 0.498** | 0.172 | 0.038 | | | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Thorium-228 | 2.6 | 0.75 | 0.04 | | | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Thorium-230 | 2.8 | 0.98 | 0.01 | | | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Thorium-232 | 2.1 | 1.1 | 0.02 | | | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Thorium-232 | 2.1 | 0.49 | 0.14 | | | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Uranium-234 | 2 | 1.11 | 0.07 | | | 1463976.478 | 597104.221 |
| SU1-11-073 | 20051130 | Uranium-238 | 3.2 | 1.4 | 0.03 | | | 1463976.478 | 597104.221 |
| SU1-11-53A | 20060112 | Actinium-227 | 4.6 | 0.52 | 0.52 | | U | 1463965.228 | 597110.716 |
| SU1-11-53A | 20060112 | Americium-241 | 63 | 0.2 | 0.2 | | U | 1463965.228 | 597110.716 |
| SU1-11-53A | 20060112 | Bismuth-210M | 8.3 | 0.12 | 0.12 | | U | 1463965.228 | 597110.716 |
| SU1-11-53A | 20060112 | Cesium-137 | 3.8 | 0.1 | 0.1 | | U | 1463965.228 | 597110.716 |
| SU1-11-53A | 20060112 | Cobalt-60 | 0.7 | 0.13 | 0.13 | | U | 1463965.228 | 597110.716 |
| SU1-11-53A | 20060112 | Lead-210 | 7.4 | 2.3 | 2.3 | | U | 1463965.228 | 597110.716 |
| SU1-11-53A | 20060112 | Lead-212 | 16.6 | 0.63 | 0.19 | | | 1463965.228 | 597110.716 |
| SU1-11-53A | 20060112 | Lead-214 | 8.9 | 0.75 | 0.19 | | | 1463965.228 | 597110.716 |
| SU1-11-53A | 20060112 | Potassium-40 | 47.8 | 11.6 | 1.3 | | | 1463965.228 | 597110.716 |
| SU1-11-53A | 20060112 | Protactinium-231 | 4 | 2.7 | 2.7 | | U | 1463965.228 | 597110.716 |
| SU1-11-53A | 20060112 | Radium-224 | 2.6* | 3.4 | 2.3 | | | 1463965.228 | 597110.716 |
| SU1-11-53A | 20060112 | Radium-226 | 2.9 | 0.91 | 0.46 | | J | 1463965.228 | 597110.716 |
| SU1-11-53A | 20060112 | Radium-228 | 2.1 | 0.75 | 0.75 | | U | 1463965.228 | 597110.716 |
| SU1-11-53A | 20060112 | Thallium-208 | 0.498** | 0.24 | 0.11 | | | 1463965.228 | 597110.716 |
| SU1-11-53A | 20060112 | Thorium-228 | 2.6 | 0.82 | 0.15 | | J | 1463965.228 | 597110.716 |
| SU1-11-53A | 20060112 | Thorium-230 | 2.8 | 1.21 | 0.09 | | | 1463965.228 | 597110.716 |
| SU1-11-53A | 20060112 | Thorium-232 | 2.1 | 0.73 | 0.1 | | J | 1463965.228 | 597110.716 |
| SU1-11-53A | 20060112 | Thorium-232 | 2.1 | 0.75 | 0.75 | | U | 1463965.228 | 597110.716 |
| SU1-11-53A | 20060112 | Uranium-234 | 2 | 0.5 | 0.06 | | J | 1463965.228 | 597110.716 |
| SU1-11-53A | 20060112 | Uranium-235 | 3.2 | 0.085 | 0.068 | | J | 1463965.228 | 597110.716 |
| SU1-11-53A | 20060112 | Uranium-238 | 3.2 | 0.71 | 0.05 | | J | 1463965.228 | 597110.716 |

*: Ra-224 CO value based on most conservative (Construction Worker or Site Employee) 10E-5 RBGV + BKGD and includes daughters

**: Tl-208 CO value based on most conservative (Construction Worker or Site Employee) 10E-5 RBGV (not including BKGD and daughters)

RBGV: Risk Based Guideline Value

BKGD: background

U: not detected

J: estimate

CO: cleanup objective

DQ: data qualifier

DL: detection limit

LQ: lab qualifier

D: duplicate

A: resample

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# Table 2: SU2 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU2-11-063 | 20051130 | Actinium-227 | 4.6 | 0.38 | 0.38 | | U | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Actinium-228 | 1.93 | 0.89 | 0.29 | | | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Americium-241 | 63 | 0.16 | 0.16 | | U | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Bismuth-207 | 1.2 | 0.057 | 0.057 | | U | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Bismuth-210M | 8.3 | 0.082 | 0.082 | | U | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Bismuth-214 | 1.17 | 1.07 | 0.15 | | | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Cesium-137 | 3.8 | 0.084 | 0.084 | | U | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Cobalt-60 | 0.7 | 0.083 | 0.083 | | U | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Lead-210 | 7.4 | 1.8 | 1.8 | | U | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Lead-212 | 16.6 | 0.95 | 0.11 | | | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Lead-214 | 8.9 | 1.02 | 0.13 | | | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Plutonium-238 | 55 | 0.053 | 0.022 | | J | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Plutonium-239/240 | 62 | 0.019 | 0.019 | | U | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Potassium-40 | 47.8 | 20 | 0.4 | | | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Protactinium-231 | 4 | 2.2 | 2.2 | | U | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Radium-224 | 32.4 | 2.4 | 1.6 | | | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Radium-226 | 2.9 | 1.07 | 0.15 | | | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Radium-228 | 2.1 | 0.89 | 0.29 | | | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Thallium-208 | 0.498 | 0.368 | 0.065 | | | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Thorium-228 | 2.6 | 1.14 | 0.05 | | | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Thorium-230 | 2.8 | 1.48 | 0.03 | | | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Thorium-232 | 2.1 | 1.06 | 0.03 | | | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Thorium-232 | 2.1 | 0.89 | 0.29 | | | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Uranium-234 | 2 | 0.81 | 0.03 | | | 1464093 | 597012.3 |
| SU2-11-063 | 20051130 | Uranium-238 | 3.2 | 0.84 | 0.03 | | | 1464093 | 597012.3 |
| SU2-11-064 | 20051201 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Actinium-228 | 1.93 | 0.52 | 0.16 | | | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Americium-241 | 63 | 0.084 | 0.084 | | U | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Beryllium-7 | 41.1 | 0.3 | 0.3 | | U | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Bismuth-207 | 1.2 | 0.039 | 0.039 | | U | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Bismuth-210M | 8.3 | 0.047 | 0.047 | | U | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Bismuth-214 | 1.17 | 0.73 | 0.08 | | | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Cesium-137 | 3.8 | 0.052 | 0.052 | | U | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Cobalt-60 | 0.7 | 0.056 | 0.056 | | U | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Lead-210 | 7.4 | 1.02 | 0.88 | | J | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Lead-212 | 16.6 | 0.475 | 0.06 | | | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Lead-214 | 8.9 | 0.72 | 0.08 | | | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Plutonium-238 | 55 | 0.71 | 0.03 | | | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Plutonium-239/240 | 62 | 0.024 | 0.024 | | U | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Potassium-40 | 47.8 | 10.9 | 0.4 | | | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Protactinium-231 | 4 | 1.46 | 1.3 | | | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Radium-224 | 32.4 | 1.64 | 0.64 | | | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Radium-226 | 2.9 | 0.73 | 0.08 | | | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Radium-228 | 2.1 | 0.52 | 0.16 | | | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Thallium-208 | 0.498 | 0.18 | 0.046 | | | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Thorium-228 | 2.6 | 0.4 | 0.03 | | | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Thorium-230 | 2.8 | 0.86 | 0.02 | | | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Thorium-232 | 2.1 | 0.52 | 0.16 | | | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Thorium-232 | 2.1 | 0.46 | 0.02 | | | 1464108 | 597012.3 |

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# Table 2: SU2 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU2-11-064 | 20051201 | Uranium-234 | 2 | 0.82 | 0.01 | | | 1464108 | 597012.3 |
| SU2-11-064 | 20051201 | Uranium-238 | 3.2 | 0.79 | 0.02 | | | 1464108 | 597012.3 |
| SU2-11-065 | 20051130 | Actinium-227 | 4.6 | 0.4 | 0.37 | | J | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Actinium-228 | 1.93 | 0.6 | 0.24 | | | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Americium-241 | 63 | 0.15 | 0.15 | | U | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Beryllium-7 | 41.1 | 0.54 | 0.54 | | U | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Bismuth-207 | 1.2 | 0.062 | 0.062 | | U | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Bismuth-210M | 8.3 | 0.076 | 0.076 | | U | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Bismuth-214 | 1.17 | 0.88 | 0.11 | | | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Cesium-137 | 3.8 | 0.075 | 0.075 | | U | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Cobalt-60 | 0.7 | 0.073 | 0.073 | | U | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Lead-210 | 7.4 | 1.9 | 1.9 | | U | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Lead-212 | 16.6 | 0.65 | 0.11 | | | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Lead-214 | 8.9 | 0.8 | 0.13 | | | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Plutonium-238 | 55 | 3.46 | 0.04 | | | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Plutonium-239/240 | 62 | 0.037 | 0.012 | | J | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Potassium-40 | 47.8 | 13 | 0.5 | | | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Protactinium-231 | 4 | 2 | 2 | | U | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Radium-224 | 32.4 | 2.1 | 1 | | | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Radium-226 | 2.9 | 0.88 | 0.11 | | | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Radium-228 | 2.1 | 0.6 | 0.24 | | | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Thallium-208 | 0.498 | 0.204 | 0.067 | | | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Thorium-228 | 2.6 | 0.71 | 0.04 | | | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Thorium-230 | 2.8 | 1.17 | 0.02 | | | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Thorium-232 | 2.1 | 0.69 | 0.02 | | | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Thorium-232 | 2.1 | 0.6 | 0.24 | | | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Uranium-234 | 2 | 0.81 | 0.03 | | | 1464101 | 597025.3 |
| SU2-11-065 | 20051130 | Uranium-238 | 3.2 | 1 | 0.01 | | | 1464101 | 597025.3 |
| SU2-11-067 | 20051130 | Actinium-227 | 4.6 | 0.26 | 0.26 | | U | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Actinium-228 | 1.93 | 0.74 | 0.18 | | | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Americium-241 | 63 | 0.093 | 0.093 | | U | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Beryllium-7 | 41.1 | 0.32 | 0.32 | | U | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Bismuth-207 | 1.2 | 0.04 | 0.04 | | U | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Bismuth-210M | 8.3 | 0.051 | 0.051 | | U | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Bismuth-212 | 9.87 | 0.42 | 0.39 | | | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Bismuth-214 | 1.17 | 0.73 | 0.07 | | | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Cesium-137 | 3.8 | 0.058 | 0.058 | | U | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Lead-210 | 7.4 | 1.2 | 1.2 | | U | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Lead-212 | 16.6 | 0.84 | 0.06 | | | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Lead-214 | 8.9 | 0.76 | 0.07 | | | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Plutonium-238 | 55 | 2.26 | 0.04 | | | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Plutonium-239/240 | 62 | 0.04 | 0.035 | | J | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Potassium-40 | 47.8 | 13.2 | 0.4 | | | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Protactinium-231 | 4 | 1.3 | 1.3 | | U | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Radium-224 | 32.4 | 1.8 | 0.7 | | | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Radium-226 | 2.9 | 0.73 | 0.07 | | | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Radium-228 | 2.1 | 0.74 | 0.18 | | | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Thallium-208 | 0.498 | 0.29 | 0.044 | | | 1464092 | 597019.6 |

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# Table 2: SU2 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU2-11-067 | 20051130 | Thorium-228 | 2.6 | 0.77 | 0.03 | | | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Thorium-230 | 2.8 | 1 | 0.02 | | | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Thorium-232 | 2.1 | 0.74 | 0.18 | | | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Thorium-232 | 2.1 | 0.65 | 0.03 | | | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Thorium-234 | 176 | 1.4 | 0.8 | | | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Uranium-234 | 2 | 0.64 | 0.03 | | | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Uranium-238 | 3.2 | 0.97 | 0.02 | | | 1464092 | 597019.6 |
| SU2-11-067 | 20051130 | Uranium-238 | 3.2 | 1.4 | 0.8 | | | 1464092 | 597019.6 |
| SU2-11-068 | 20051130 | Actinium-227 | 4.6 | 0.37 | 0.37 | | U | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Actinium-228 | 1.93 | 0.96 | 0.24 | | | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Americium-241 | 63 | 0.15 | 0.15 | | U | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Beryllium-7 | 41.1 | 0.59 | 0.59 | | U | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Bismuth-207 | 1.2 | 0.062 | 0.062 | | U | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Bismuth-210M | 8.3 | 0.079 | 0.079 | | U | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Bismuth-214 | 1.17 | 0.92 | 0.17 | | | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Cesium-137 | 3.8 | 0.095 | 0.095 | | U | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Cobalt-60 | 0.7 | 0.088 | 0.088 | | U | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Lead-210 | 7.4 | 1.7 | 1.7 | | U | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Lead-212 | 16.6 | 1.01 | 0.1 | | | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Lead-214 | 8.9 | 0.84 | 0.14 | | | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Plutonium-238 | 55 | 5.4 | 0.04 | J | | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Plutonium-239/240 | 62 | 0.03 | 0.028 | | J | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Potassium-40 | 47.8 | 14.7 | 0.6 | | | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Protactinium-231 | 4 | 2.1 | 2.1 | J | U | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Radium-224 | 32.4 | 1.7 | 1.1 | J | | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Radium-226 | 2.9 | 0.92 | 0.17 | J | | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Radium-228 | 2.1 | 0.96 | 0.24 | | | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Thallium-208 | 0.498 | 0.337 | 0.087 | | | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Thorium-228 | 2.6 | 0.83 | 0.04 | | | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Thorium-230 | 2.8 | 1.14 | 0.02 | J | | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Thorium-232 | 2.1 | 0.96 | 0.24 | | | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Thorium-232 | 2.1 | 0.83 | 0.01 | | | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Uranium-234 | 2 | 0.56 | 0.02 | | | 1464109 | 597019.1 |
| SU2-11-068 | 20051130 | Uranium-238 | 3.2 | 0.64 | 0.01 | | | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Actinium-228 | 1.93 | 1.15 | 0.19 | | | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Beryllium-7 | 41.1 | 0.37 | 0.37 | | U | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Bismuth-207 | 1.2 | 0.046 | 0.046 | | U | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Bismuth-210M | 8.3 | 0.057 | 0.057 | | U | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Bismuth-212 | 9.87 | 0.52 | 0.4 | | | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Bismuth-214 | 1.17 | 0.82 | 0.11 | | | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Cesium-137 | 3.8 | 0.055 | 0.055 | | U | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Cobalt-60 | 0.7 | 0.063 | 0.063 | | U | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Lead-210 | 7.4 | 1.19 | 0.99 | | J | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Lead-212 | 16.6 | 1.02 | 0.07 | | | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Lead-214 | 8.9 | 1.01 | 0.08 | | | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Plutonium-238 | 55 | 4.7 | 0.04 | | | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Plutonium-239/240 | 62 | 0.04 | 0.025 | | J | 1464109 | 597019.1 |

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# Table 2: SU2 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU2-11-068D | 20051130 | Potassium-40 | 47.8 | 15.6 | 0.5 | | | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Protactinium-231 | 4 | 1.5 | 1.5 | | U | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Radium-224 | 32.4 | 2.3 | 0.7 | | | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Radium-226 | 2.9 | 0.82 | 0.11 | | | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Radium-228 | 2.1 | 1.15 | 0.19 | | | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Thallium-208 | 0.498 | 0.311 | 0.055 | | | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Thorium-228 | 2.6 | 0.86 | 0.04 | | | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Thorium-230 | 2.8 | 1.13 | 0.01 | | | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Thorium-232 | 2.1 | 1.15 | 0.19 | | | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Thorium-232 | 2.1 | 0.82 | 0.02 | | | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Thorium-234 | 176 | 1.14 | 0.9 | | | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Uranium-234 | 2 | 0.62 | 0.02 | | | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Uranium-238 | 3.2 | 0.84 | 0.02 | | | 1464109 | 597019.1 |
| SU2-11-068D | 20051130 | Uranium-238 | 3.2 | 1.13 | 0.9 | | | 1464109 | 597019.1 |
| SU2-11-069 | 20051130 | Actinium-227 | 4.6 | 0.41 | 0.32 | | J | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Actinium-228 | 1.93 | 0.81 | 0.17 | | | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Beryllium-7 | 41.1 | 0.38 | 0.38 | | U | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Bismuth-207 | 1.2 | 0.044 | 0.044 | | U | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Bismuth-210M | 8.3 | 0.06 | 0.06 | | U | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Bismuth-214 | 1.17 | 0.87 | 0.09 | | | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Cesium-137 | 3.8 | 0.068 | 0.068 | | U | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Cobalt-60 | 0.7 | 0.058 | 0.058 | | U | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Lead-210 | 7.4 | 1.3 | 1.3 | | U | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Lead-212 | 16.6 | 0.8 | 0.09 | | | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Lead-214 | 8.9 | 0.83 | 0.09 | | | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Plutonium-238 | 55 | 2.34 | 0.04 | | | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Plutonium-239/240 | 62 | 0.027 | 0.027 | | U | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Potassium-40 | 47.8 | 11.5 | 0.6 | | | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Protactinium-231 | 4 | 1.6 | 1.6 | | U | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Radium-224 | 32.4 | 2.1 | 0.8 | | | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Radium-226 | 2.9 | 0.87 | 0.09 | | | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Radium-228 | 2.1 | 0.81 | 0.17 | | | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Thallium-208 | 0.498 | 0.255 | 0.052 | | | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Thorium-228 | 2.6 | 0.77 | 0.04 | | | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Thorium-230 | 2.8 | 1.18 | 0.03 | | | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Thorium-232 | 2.1 | 0.63 | 0.02 | | | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Thorium-232 | 2.1 | 0.81 | 0.17 | | | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Thorium-234 | 176 | 1.2 | 0.97 | | | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Uranium-234 | 2 | 0.66 | 0.03 | | | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Uranium-238 | 3.2 | 1.2 | 0.97 | | | 1464101 | 597019.6 |
| SU2-11-069 | 20051130 | Uranium-238 | 3.2 | 0.83 | 0.03 | | | 1464101 | 597019.6 |
| SU2-11-070 | 20051130 | Actinium-227 | 4.6 | 0.35 | 0.35 | | U | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Actinium-228 | 1.93 | 0.44 | 0.27 | | | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Americium-241 | 63 | 0.13 | 0.13 | | U | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Beryllium-7 | 41.1 | 0.49 | 0.49 | | U | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Bismuth-207 | 1.2 | 0.04 | 0.04 | | U | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Bismuth-210M | 8.3 | 0.072 | 0.072 | | U | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Bismuth-214 | 1.17 | 0.63 | 0.1 | | | 1464092 | 597025.3 |

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# Table 2: SU2 Offsite Verification Results (pCi/g)

[all are surface soil samples]

| Location | Date | Analyte | CO | Result | DL | DQ | LQ | Easting | Northing |
|---|---|---|---|---|---|---|---|---|---|
| SU2-11-070 | 20051130 | Cesium-137 | 3.8 | 0.08 | 0.08 | | U | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Cobalt-60 | 0.7 | 0.065 | 0.065 | | U | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Lead-210 | 7.4 | 1.7 | 1.7 | | U | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Lead-212 | 16.6 | 0.59 | 0.08 | | | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Lead-214 | 8.9 | 0.73 | 0.1 | | | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Plutonium-238 | 55 | 1.58 | 0.04 | | | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Plutonium-239/240 | 62 | 0.013 | 0.013 | | U | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Potassium-40 | 47.8 | 10.3 | 0.5 | | | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Protactinium-231 | 4 | 1.7 | 1.7 | | U | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Radium-224 | 32.4 | 1.9 | 0.9 | | | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Radium-226 | 2.9 | 0.63 | 0.1 | | | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Radium-228 | 2.1 | 0.44 | 0.27 | | | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Thallium-208 | 0.498 | 0.206 | 0.068 | | | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Thorium-228 | 2.6 | 0.53 | 0.03 | | | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Thorium-230 | 2.8 | 0.91 | 0.02 | | | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Thorium-232 | 2.1 | 0.53 | 0.02 | | | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Thorium-232 | 2.1 | 0.44 | 0.27 | | | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Uranium-234 | 2 | 0.73 | 0.03 | | | 1464092 | 597025.3 |
| SU2-11-070 | 20051130 | Uranium-238 | 3.2 | 1 | 0.02 | | | 1464092 | 597025.3 |

U: not detected
J: estimate
CO: clreanup objective
DQ: data qualifier
DL: detection limit
LQ: lab qualifier
D: duplicate

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-001 | 20050623 | 0 | 4 | Actinium-227 | 4.6 | 0.34 | 0.34 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 0 | 4 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 0 | 4 | Cesium-137 | 3.8 | 0.06 | 0.06 | | | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 0 | 4 | Cobalt-60 | 0.7 | 0.11 | 0.11 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 0 | 4 | Lead-210 | 7.4 | 0.87 | 0.87 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 0 | 4 | Plutonium-238 | 55 | 16.59 | 16.59 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 0 | 4 | Radium-226 | 2.9 | 2.59 | 0.95 | | | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 0 | 4 | Thorium-230 | 2.8* | 8.91 | 8.91 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 0 | 4 | Thorium-232 | 2.1 | 0.37 | 0.27 | | | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 4 | 8 | Actinium-227 | 4.6 | 0.43 | 0.43 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 4 | 8 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 4 | 8 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 4 | 8 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 4 | 8 | Lead-210 | 7.4 | 0.99 | 0.99 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 4 | 8 | Plutonium-238 | 55 | 18.39 | 18.39 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 4 | 8 | Radium-226 | 2.9 | 2.69 | 0.93 | | | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 4 | 8 | Thorium-230 | 2.8* | 9.15 | 9.15 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 4 | 8 | Thorium-232 | 2.1 | 0.67 | 0.17 | | | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 8 | 12 | Actinium-227 | 4.6 | 0.29 | 0.29 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 8 | 12 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 8 | 12 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 8 | 12 | Cobalt-60 | 0.7 | 0.11 | 0.11 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 8 | 12 | Lead-210 | 7.4 | 1.64 | 0.71 | | | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 8 | 12 | Plutonium-238 | 55 | 15.58 | 15.58 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 8 | 12 | Radium-226 | 2.9 | 1.76 | 0.98 | | | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 8 | 12 | Thorium-230 | 2.8* | 8.84 | 8.84 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 8 | 12 | Thorium-232 | 2.1 | 0.42 | 0.26 | | | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 12 | 16 | Actinium-227 | 4.6 | 0.38 | 0.38 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 12 | 16 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 12 | 16 | Cesium-137 | 3.8 | 0.08 | 0.08 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 12 | 16 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 12 | 16 | Lead-210 | 7.4 | 0.79 | 0.79 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 12 | 16 | Plutonium-238 | 55 | 15.48 | 15.48 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 12 | 16 | Radium-226 | 2.9 | 2.11 | 0.84 | | | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 12 | 16 | Thorium-230 | 2.8* | 8.82 | 8.82 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 12 | 16 | Thorium-232 | 2.1 | 0.38 | 0.21 | | | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 16 | 20 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 16 | 20 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 16 | 20 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 16 | 20 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 16 | 20 | Lead-210 | 7.4 | 1.01 | 0.66 | | | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 16 | 20 | Plutonium-238 | 55 | 13.42 | 13.42 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 16 | 20 | Radium-226 | 2.9 | 1.09 | 0.75 | | | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 16 | 20 | Thorium-230 | 2.8* | 8.04 | 8.04 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 16 | 20 | Thorium-232 | 2.1 | 0.43 | 0.22 | | | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 20 | 24 | Actinium-227 | 4.6 | 0.26 | 0.26 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 20 | 24 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 20 | 24 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 20 | 24 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 20 | 24 | Lead-210 | 7.4 | 1.12 | 0.62 | | | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 20 | 24 | Plutonium-238 | 55 | 13.55 | 13.55 | | U | 1464321 | 596976.6 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-001 | 20050623 | 20 | 24 | Radium-226 | 2.9 | 1.57 | 0.75 | | | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 20 | 24 | Thorium-230 | 2.8* | 7.46 | 7.46 | | U | 1464321 | 596976.6 |
| SU3-11-001 | 20050623 | 20 | 24 | Thorium-232 | 2.1 | 0.24 | 0.23 | | | 1464321 | 596976.6 |
| SU3-11-001D | 20050623 | 16 | 20 | Actinium-227 | 4.6 | 0.29 | 0.24 | | | 1464321 | 596976.6 |
| SU3-11-001D | 20050623 | 16 | 20 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464321 | 596976.6 |
| SU3-11-001D | 20050623 | 16 | 20 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464321 | 596976.6 |
| SU3-11-001D | 20050623 | 16 | 20 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464321 | 596976.6 |
| SU3-11-001D | 20050623 | 16 | 20 | Lead-210 | 7.4 | 0.78 | 0.78 | | U | 1464321 | 596976.6 |
| SU3-11-001D | 20050623 | 16 | 20 | Plutonium-238 | 55 | 13.76 | 13.76 | | U | 1464321 | 596976.6 |
| SU3-11-001D | 20050623 | 16 | 20 | Radium-226 | 2.9 | 1.61 | 0.83 | | | 1464321 | 596976.6 |
| SU3-11-001D | 20050623 | 16 | 20 | Thorium-230 | 2.8* | 7.92 | 7.92 | | U | 1464321 | 596976.6 |
| SU3-11-001D | 20050623 | 16 | 20 | Thorium-232 | 2.1 | 0.3 | 0.3 | | U | 1464321 | 596976.6 |
| SU3-11-002 | 20050622 | 0 | 4 | Actinium-227 | 4.6 | 0.3 | 0.3 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 0 | 4 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 0 | 4 | Cesium-137 | 3.8 | 0.06 | 0.06 | | | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 0 | 4 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 0 | 4 | Lead-210 | 7.4 | 1.24 | 0.79 | | | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 0 | 4 | Plutonium-238 | 55 | 17.95 | 17.95 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 0 | 4 | Radium-226 | 2.9 | 2.37 | 0.99 | | | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 0 | 4 | Thorium-230 | 2.8* | 7.65 | 7.65 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 0 | 4 | Thorium-232 | 2.1 | 0.69 | 0.32 | | | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 4 | 8 | Actinium-227 | 4.6 | 0.3 | 0.3 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 4 | 8 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 4 | 8 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 4 | 8 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 4 | 8 | Lead-210 | 7.4 | 0.85 | 0.76 | | | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 4 | 8 | Plutonium-238 | 55 | 17.37 | 17.37 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 4 | 8 | Radium-226 | 2.9 | 1.67 | 0.93 | | | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 4 | 8 | Thorium-230 | 2.8* | 7.74 | 7.74 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 4 | 8 | Thorium-232 | 2.1 | 0.76 | 0.22 | | | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 8 | 12 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 8 | 12 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 8 | 12 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 8 | 12 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 8 | 12 | Lead-210 | 7.4 | 0.75 | 0.75 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 8 | 12 | Plutonium-238 | 55 | 14.65 | 14.65 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 8 | 12 | Radium-226 | 2.9 | 2.19 | 0.77 | | | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 8 | 12 | Thorium-230 | 2.8* | 6.52 | 6.52 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 8 | 12 | Thorium-232 | 2.1 | 0.48 | 0.24 | | | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 12 | 16 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 12 | 16 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 12 | 16 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 12 | 16 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 12 | 16 | Lead-210 | 7.4 | 1.49 | 0.63 | | | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 12 | 16 | Plutonium-238 | 55 | 13.74 | 13.74 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 12 | 16 | Radium-226 | 2.9 | 1.92 | 0.74 | | | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 12 | 16 | Thorium-230 | 2.8* | 7.05 | 7.05 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 12 | 16 | Thorium-232 | 2.1 | 0.26 | 0.26 | | | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 16 | 20 | Actinium-227 | 4.6 | 0.26 | 0.26 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 16 | 20 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 16 | 20 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464336 | 596976.6 |

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# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-002 | 20050622 | 16 | 20 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 16 | 20 | Lead-210 | 7.4 | 1.09 | 0.65 | | | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 16 | 20 | Plutonium-238 | 55 | 14.69 | 14.69 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 16 | 20 | Radium-226 | 2.9 | 2.74 | 0.83 | | | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 16 | 20 | Thorium-230 | 2.8* | 7.2 | 7.2 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 16 | 20 | Thorium-232 | 2.1 | 0.48 | 0.2 | | | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 20 | 24 | Actinium-227 | 4.6 | 0.26 | 0.26 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 20 | 24 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 20 | 24 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 20 | 24 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 20 | 24 | Lead-210 | 7.4 | 1.19 | 0.7 | | | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 20 | 24 | Plutonium-238 | 55 | 15.99 | 15.99 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 20 | 24 | Radium-226 | 2.9 | 1.61 | 0.84 | | | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 20 | 24 | Thorium-230 | 2.8* | 6.84 | 6.84 | | U | 1464336 | 596976.6 |
| SU3-11-002 | 20050622 | 20 | 24 | Thorium-232 | 2.1 | 0.54 | 0.21 | | | 1464336 | 596976.6 |
| SU3-11-002D | 20050622 | 4 | 8 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464336 | 596976.6 |
| SU3-11-002D | 20050622 | 4 | 8 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464336 | 596976.6 |
| SU3-11-002D | 20050622 | 4 | 8 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464336 | 596976.6 |
| SU3-11-002D | 20050622 | 4 | 8 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464336 | 596976.6 |
| SU3-11-002D | 20050622 | 4 | 8 | Lead-210 | 7.4 | 0.95 | 0.8 | | | 1464336 | 596976.6 |
| SU3-11-002D | 20050622 | 4 | 8 | Plutonium-238 | 55 | 18.64 | 18.64 | | U | 1464336 | 596976.6 |
| SU3-11-002D | 20050622 | 4 | 8 | Radium-226 | 2.9 | 2.17 | 0.95 | | | 1464336 | 596976.6 |
| SU3-11-002D | 20050622 | 4 | 8 | Thorium-230 | 2.8* | 8.06 | 8.06 | | U | 1464336 | 596976.6 |
| SU3-11-002D | 20050622 | 4 | 8 | Thorium-232 | 2.1 | 0.52 | 0.29 | | | 1464336 | 596976.6 |
| SU3-11-003 | 20050620 | 0 | 4 | Actinium-227 | 4.6 | 0.34 | 0.32 | | | 1464351 | 596976.6 |
| SU3-11-003 | 20050620 | 0 | 4 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464351 | 596976.6 |
| SU3-11-003 | 20050620 | 0 | 4 | Cesium-137 | 3.8 | 0.08 | 0.07 | | | 1464351 | 596976.6 |
| SU3-11-003 | 20050620 | 0 | 4 | Cobalt-60 | 0.7 | 0.1 | 0.1 | | U | 1464351 | 596976.6 |
| SU3-11-003 | 20050620 | 0 | 4 | Lead-210 | 7.4 | 1.26 | 0.9 | | | 1464351 | 596976.6 |
| SU3-11-003 | 20050620 | 0 | 4 | Plutonium-238 | 55 | 17.01 | 17.01 | | U | 1464351 | 596976.6 |
| SU3-11-003 | 20050620 | 0 | 4 | Radium-226 | 2.9 | 2.27 | 0.97 | | | 1464351 | 596976.6 |
| SU3-11-003 | 20050620 | 0 | 4 | Thorium-230 | 2.8* | 9.73 | 9.73 | | U | 1464351 | 596976.6 |
| SU3-11-003 | 20050620 | 0 | 4 | Thorium-232 | 2.1 | 0.64 | 0.28 | | | 1464351 | 596976.6 |
| SU3-11-003 | 20050622 | 4 | 8 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464351 | 596976.6 |
| SU3-11-003 | 20050622 | 4 | 8 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464351 | 596976.6 |
| SU3-11-003 | 20050622 | 4 | 8 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464351 | 596976.6 |
| SU3-11-003 | 20050622 | 4 | 8 | Cobalt-60 | 0.7 | 0.04 | 0.04 | | | 1464351 | 596976.6 |
| SU3-11-003 | 20050622 | 4 | 8 | Lead-210 | 7.4 | 0.96 | 0.57 | | | 1464351 | 596976.6 |
| SU3-11-003 | 20050622 | 4 | 8 | Plutonium-238 | 55 | 14.74 | 14.74 | | U | 1464351 | 596976.6 |
| SU3-11-003 | 20050622 | 4 | 8 | Radium-226 | 2.9 | 2.08 | 0.78 | | | 1464351 | 596976.6 |
| SU3-11-003 | 20050622 | 4 | 8 | Thorium-230 | 2.8* | 6.89 | 6.89 | | U | 1464351 | 596976.6 |
| SU3-11-003 | 20050622 | 4 | 8 | Thorium-232 | 2.1 | 0.38 | 0.2 | | | 1464351 | 596976.6 |
| SU3-11-003 | 20050622 | 8 | 12 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1464351 | 596976.6 |
| SU3-11-003 | 20050622 | 8 | 12 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464351 | 596976.6 |
| SU3-11-003 | 20050622 | 8 | 12 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464351 | 596976.6 |
| SU3-11-003 | 20050622 | 8 | 12 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464351 | 596976.6 |
| SU3-11-003 | 20050622 | 8 | 12 | Lead-210 | 7.4 | 0.95 | 0.67 | | | 1464351 | 596976.6 |
| SU3-11-003 | 20050622 | 8 | 12 | Plutonium-238 | 55 | 16.03 | 16.03 | | U | 1464351 | 596976.6 |
| SU3-11-003 | 20050622 | 8 | 12 | Radium-226 | 2.9 | 1.59 | 0.77 | | | 1464351 | 596976.6 |
| SU3-11-003 | 20050622 | 8 | 12 | Thorium-230 | 2.8* | 7.14 | 7.14 | | U | 1464351 | 596976.6 |
| SU3-11-003 | 20050622 | 8 | 12 | Thorium-232 | 2.1 | 0.56 | 0.19 | | | 1464351 | 596976.6 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-004 | 20050629 | 0 | 4 | Actinium-227 | 4.6 | 0.31 | 0.31 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 0 | 4 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 0 | 4 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 0 | 4 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 0 | 4 | Lead-210 | 7.4 | 1.6 | 0.79 | | | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 0 | 4 | Plutonium-238 | 55 | 17.09 | 17.09 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 0 | 4 | Radium-226 | 2.9 | 2.02 | 1.05 | | | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 0 | 4 | Thorium-230 | 2.8* | 7.8 | 7.8 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 0 | 4 | Thorium-232 | 2.1 | 0.52 | 0.3 | | | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 4 | 8 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 4 | 8 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 4 | 8 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 4 | 8 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 4 | 8 | Lead-210 | 7.4 | 0.72 | 0.7 | | | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 4 | 8 | Plutonium-238 | 55 | 15.69 | 15.69 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 4 | 8 | Radium-226 | 2.9 | 2.08 | 0.89 | | | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 4 | 8 | Thorium-230 | 2.8* | 7.36 | 7.36 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 4 | 8 | Thorium-232 | 2.1 | 0.48 | 0.21 | | | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 8 | 12 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 8 | 12 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 8 | 12 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 8 | 12 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 8 | 12 | Lead-210 | 7.4 | 0.81 | 0.68 | | | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 8 | 12 | Plutonium-238 | 55 | 15.62 | 15.62 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 8 | 12 | Radium-226 | 2.9 | 1.17 | 0.85 | | | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 8 | 12 | Thorium-230 | 2.8* | 6.77 | 6.77 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 8 | 12 | Thorium-232 | 2.1 | 0.37 | 0.24 | | | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 12 | 16 | Actinium-227 | 4.6 | 0.21 | 0.21 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 12 | 16 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 12 | 16 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 12 | 16 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 12 | 16 | Lead-210 | 7.4 | 0.61 | 0.61 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 12 | 16 | Plutonium-238 | 55 | 13.59 | 13.59 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 12 | 16 | Radium-226 | 2.9 | 0.99 | 0.7 | | | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 12 | 16 | Thorium-230 | 2.8* | 5.83 | 5.83 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 12 | 16 | Thorium-232 | 2.1 | 0.37 | 0.17 | | | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 16 | 20 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 16 | 20 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 16 | 20 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 16 | 20 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 16 | 20 | Lead-210 | 7.4 | 0.56 | 0.56 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 16 | 20 | Plutonium-238 | 55 | 12.02 | 12.02 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 16 | 20 | Radium-226 | 2.9 | 0.76 | 0.76 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 16 | 20 | Thorium-230 | 2.8* | 6.4 | 6.4 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 16 | 20 | Thorium-232 | 2.1 | 0.2 | 0.2 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 20 | 24 | Actinium-227 | 4.6 | 0.24 | 0.24 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 20 | 24 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 20 | 24 | Cesium-137 | 3.8 | 0.02 | 0.02 | | | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 20 | 24 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 20 | 24 | Lead-210 | 7.4 | 0.63 | 0.59 | | | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 20 | 24 | Plutonium-238 | 55 | 11.46 | 11.46 | | U | 1464193 | 596989.6 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-004 | 20050629 | 20 | 24 | Radium-226 | 2.9 | 1.41 | 0.58 | | | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 20 | 24 | Thorium-230 | 2.8* | 5.77 | 5.77 | | U | 1464193 | 596989.6 |
| SU3-11-004 | 20050629 | 20 | 24 | Thorium-232 | 2.1 | 0.29 | 0.2 | | | 1464193 | 596989.6 |
| SU3-11-005 | 20050629 | 0 | 4 | Actinium-227 | 4.6 | 0.38 | 0.38 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 0 | 4 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 0 | 4 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 0 | 4 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 0 | 4 | Lead-210 | 7.4 | 1.2 | 0.87 | | | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 0 | 4 | Plutonium-238 | 55 | 19.06 | 19.06 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 0 | 4 | Radium-226 | 2.9 | 1.67 | 1.19 | | | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 0 | 4 | Thorium-230 | 2.8* | 8.75 | 8.75 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 0 | 4 | Thorium-232 | 2.1 | 0.33 | 0.33 | | | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 4 | 8 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 4 | 8 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 4 | 8 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 4 | 8 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 4 | 8 | Lead-210 | 7.4 | 0.94 | 0.73 | | | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 4 | 8 | Plutonium-238 | 55 | 17.15 | 17.15 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 4 | 8 | Radium-226 | 2.9 | 1.91 | 0.72 | | | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 4 | 8 | Thorium-230 | 2.8* | 7.49 | 7.49 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 4 | 8 | Thorium-232 | 2.1 | 0.59 | 0.22 | | | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 8 | 12 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 8 | 12 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 8 | 12 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 8 | 12 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 8 | 12 | Lead-210 | 7.4 | 0.69 | 0.69 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 8 | 12 | Plutonium-238 | 55 | 16.7 | 16.7 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 8 | 12 | Radium-226 | 2.9 | 1.54 | 0.81 | | | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 8 | 12 | Thorium-230 | 2.8* | 7.17 | 7.17 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 8 | 12 | Thorium-232 | 2.1 | 0.46 | 0.24 | | | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 12 | 16 | Actinium-227 | 4.6 | 0.2 | 0.2 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 12 | 16 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 12 | 16 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 12 | 16 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 12 | 16 | Lead-210 | 7.4 | 0.64 | 0.64 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 12 | 16 | Plutonium-238 | 55 | 12.63 | 12.63 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 12 | 16 | Radium-226 | 2.9 | 1.73 | 0.64 | | | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 12 | 16 | Thorium-230 | 2.8* | 5.97 | 5.97 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 12 | 16 | Thorium-232 | 2.1 | 0.4 | 0.19 | | | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 16 | 20 | Actinium-227 | 4.6 | 0.23 | 0.23 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 16 | 20 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 16 | 20 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 16 | 20 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 16 | 20 | Lead-210 | 7.4 | 0.62 | 0.56 | | | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 16 | 20 | Plutonium-238 | 55 | 14.78 | 14.78 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 16 | 20 | Radium-226 | 2.9 | 1.08 | 0.72 | | | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 16 | 20 | Thorium-230 | 2.8* | 6.23 | 6.23 | | U | 1464208 | 596989.6 |
| SU3-11-005 | 20050629 | 16 | 20 | Thorium-232 | 2.1 | 0.29 | 0.22 | | | 1464208 | 596989.6 |
| SU3-11-006 | 20050628 | 0 | 4 | Actinium-227 | 4.6 | 0.31 | 0.31 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 0 | 4 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 0 | 4 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464223 | 596989.6 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-006 | 20050628 | 0 | 4 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 0 | 4 | Lead-210 | 7.4 | 0.79 | 0.79 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 0 | 4 | Plutonium-238 | 55 | 19.71 | 19.71 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 0 | 4 | Radium-226 | 2.9 | 2.02 | 1.01 | | | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 0 | 4 | Thorium-230 | 2.8* | 8.61 | 8.61 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 0 | 4 | Thorium-232 | 2.1 | 0.62 | 0.26 | | | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 4 | 8 | Actinium-227 | 4.6 | 0.32 | 0.32 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 4 | 8 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 4 | 8 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 4 | 8 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 4 | 8 | Lead-210 | 7.4 | 1.07 | 0.8 | | | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 4 | 8 | Plutonium-238 | 55 | 20.84 | 20.84 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 4 | 8 | Radium-226 | 2.9 | 1.83 | 1.01 | | | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 4 | 8 | Thorium-230 | 2.8* | 7.89 | 7.89 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 4 | 8 | Thorium-232 | 2.1 | 0.59 | 0.24 | | | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 8 | 12 | Actinium-227 | 4.6 | 0.33 | 0.33 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 8 | 12 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 8 | 12 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 8 | 12 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 8 | 12 | Lead-210 | 7.4 | 0.77 | 0.77 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 8 | 12 | Plutonium-238 | 55 | 17.85 | 17.85 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 8 | 12 | Radium-226 | 2.9 | 1.86 | 0.93 | | | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 8 | 12 | Thorium-230 | 2.8* | 7.76 | 7.76 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050628 | 8 | 12 | Thorium-232 | 2.1 | 0.66 | 0.22 | | | 1464223 | 596989.6 |
| SU3-11-006 | 20050629 | 12 | 16 | Actinium-227 | 4.6 | 0.32 | 0.32 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050629 | 12 | 16 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050629 | 12 | 16 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050629 | 12 | 16 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050629 | 12 | 16 | Lead-210 | 7.4 | 0.79 | 0.79 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050629 | 12 | 16 | Plutonium-238 | 55 | 16.21 | 16.21 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050629 | 12 | 16 | Radium-226 | 2.9 | 2.05 | 0.92 | | | 1464223 | 596989.6 |
| SU3-11-006 | 20050629 | 12 | 16 | Thorium-230 | 2.8* | 8.16 | 8.16 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050629 | 12 | 16 | Thorium-232 | 2.1 | 0.4 | 0.25 | | | 1464223 | 596989.6 |
| SU3-11-006 | 20050629 | 16 | 20 | Actinium-227 | 4.6 | 0.34 | 0.34 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050629 | 16 | 20 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050629 | 16 | 20 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050629 | 16 | 20 | Cobalt-60 | 0.7 | 0.12 | 0.12 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050629 | 16 | 20 | Lead-210 | 7.4 | 1.38 | 0.83 | | | 1464223 | 596989.6 |
| SU3-11-006 | 20050629 | 16 | 20 | Plutonium-238 | 55 | 19.43 | 19.43 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050629 | 16 | 20 | Radium-226 | 2.9 | 1.8 | 1.02 | | | 1464223 | 596989.6 |
| SU3-11-006 | 20050629 | 16 | 20 | Thorium-230 | 2.8* | 8.22 | 8.22 | | U | 1464223 | 596989.6 |
| SU3-11-006 | 20050629 | 16 | 20 | Thorium-232 | 2.1 | 0.63 | 0.17 | | | 1464223 | 596989.6 |
| SU3-11-006D | 20050628 | 0 | 4 | Actinium-227 | 4.6 | 0.33 | 0.33 | | U | 1464223 | 596989.6 |
| SU3-11-006D | 20050628 | 0 | 4 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464223 | 596989.6 |
| SU3-11-006D | 20050628 | 0 | 4 | Cesium-137 | 3.8 | 0.05 | 0.05 | | | 1464223 | 596989.6 |
| SU3-11-006D | 20050628 | 0 | 4 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464223 | 596989.6 |
| SU3-11-006D | 20050628 | 0 | 4 | Lead-210 | 7.4 | 0.93 | 0.76 | | | 1464223 | 596989.6 |
| SU3-11-006D | 20050628 | 0 | 4 | Plutonium-238 | 55 | 20.64 | 20.64 | | U | 1464223 | 596989.6 |
| SU3-11-006D | 20050628 | 0 | 4 | Radium-226 | 2.9 | 1.12 | 0.93 | | | 1464223 | 596989.6 |
| SU3-11-006D | 20050628 | 0 | 4 | Thorium-230 | 2.8* | 7.33 | 7.33 | | U | 1464223 | 596989.6 |
| SU3-11-006D | 20050628 | 0 | 4 | Thorium-232 | 2.1 | 0.51 | 0.21 | | | 1464223 | 596989.6 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-007 | 20050627 | 0 | 4 | Actinium-227 | 4.6 | 0.39 | 0.39 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050627 | 0 | 4 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050627 | 0 | 4 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050627 | 0 | 4 | Cobalt-60 | 0.7 | 0.12 | 0.12 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050627 | 0 | 4 | Lead-210 | 7.4 | 1.44 | 0.85 | | | 1464238 | 596989.6 |
| SU3-11-007 | 20050627 | 0 | 4 | Plutonium-238 | 55 | 20.54 | 20.54 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050627 | 0 | 4 | Radium-226 | 2.9 | 2.03 | 1.01 | | | 1464238 | 596989.6 |
| SU3-11-007 | 20050627 | 0 | 4 | Thorium-230 | 2.8* | 8.46 | 8.46 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050627 | 0 | 4 | Thorium-232 | 2.1 | 0.8 | 0.22 | | | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 4 | 8 | Actinium-227 | 4.6 | 0.34 | 0.34 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 4 | 8 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 4 | 8 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 4 | 8 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 4 | 8 | Lead-210 | 7.4 | 0.95 | 0.79 | | | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 4 | 8 | Plutonium-238 | 55 | 19.06 | 19.06 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 4 | 8 | Radium-226 | 2.9 | 1.8 | 0.98 | | | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 4 | 8 | Thorium-230 | 2.8* | 7.53 | 7.53 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 4 | 8 | Thorium-232 | 2.1 | 0.27 | 0.27 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 8 | 12 | Actinium-227 | 4.6 | 0.31 | 0.31 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 8 | 12 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 8 | 12 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 8 | 12 | Cobalt-60 | 0.7 | 0.04 | 0.04 | | | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 8 | 12 | Lead-210 | 7.4 | 0.75 | 0.75 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 8 | 12 | Plutonium-238 | 55 | 17.8 | 17.8 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 8 | 12 | Radium-226 | 2.9 | 2.51 | 0.98 | | | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 8 | 12 | Thorium-230 | 2.8* | 7.26 | 7.26 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 8 | 12 | Thorium-232 | 2.1 | 0.36 | 0.24 | | | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 12 | 16 | Actinium-227 | 4.6 | 0.34 | 0.34 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 12 | 16 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 12 | 16 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 12 | 16 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 12 | 16 | Lead-210 | 7.4 | 0.91 | 0.75 | | | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 12 | 16 | Plutonium-238 | 55 | 16.93 | 16.93 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 12 | 16 | Radium-226 | 2.9 | 1.58 | 0.94 | | | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 12 | 16 | Thorium-230 | 2.8* | 7.45 | 7.45 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 12 | 16 | Thorium-232 | 2.1 | 0.29 | 0.26 | | | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 16 | 20 | Actinium-227 | 4.6 | 0.34 | 0.34 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 16 | 20 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 16 | 20 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 16 | 20 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 16 | 20 | Lead-210 | 7.4 | 0.77 | 0.77 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 16 | 20 | Plutonium-238 | 55 | 18.34 | 18.34 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 16 | 20 | Radium-226 | 2.9 | 1.62 | 0.97 | | | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 16 | 20 | Thorium-230 | 2.8* | 7.33 | 7.33 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 16 | 20 | Thorium-232 | 2.1 | 0.36 | 0.26 | | | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 20 | 24 | Actinium-227 | 4.6 | 0.31 | 0.31 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 20 | 24 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 20 | 24 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 20 | 24 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 20 | 24 | Lead-210 | 7.4 | 0.81 | 0.81 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 20 | 24 | Plutonium-238 | 55 | 19.94 | 19.94 | | U | 1464238 | 596989.6 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-007 | 20050628 | 20 | 24 | Radium-226 | 2.9 | 1.22 | 1.02 | | | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 20 | 24 | Thorium-230 | 2.8* | 8.06 | 8.06 | | U | 1464238 | 596989.6 |
| SU3-11-007 | 20050628 | 20 | 24 | Thorium-232 | 2.1 | 0.59 | 0.26 | | | 1464238 | 596989.6 |
| SU3-11-008 | 20050627 | 0 | 4 | Actinium-227 | 4.6 | 0.35 | 0.35 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 0 | 4 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 0 | 4 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 0 | 4 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 0 | 4 | Lead-210 | 7.4 | 0.82 | 0.82 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 0 | 4 | Plutonium-238 | 55 | 14.68 | 14.68 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 0 | 4 | Radium-226 | 2.9 | 2.14 | 0.89 | | | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 0 | 4 | Thorium-230 | 2.8* | 8.18 | 8.18 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 0 | 4 | Thorium-232 | 2.1 | 0.48 | 0.19 | | | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 4 | 8 | Actinium-227 | 4.6 | 0.35 | 0.35 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 4 | 8 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 4 | 8 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 4 | 8 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 4 | 8 | Lead-210 | 7.4 | 0.75 | 0.75 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 4 | 8 | Plutonium-238 | 55 | 15.12 | 15.12 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 4 | 8 | Radium-226 | 2.9 | 1.67 | 0.84 | | | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 4 | 8 | Thorium-230 | 2.8* | 7.42 | 7.42 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 4 | 8 | Thorium-232 | 2.1 | 0.3 | 0.23 | | | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 8 | 12 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 8 | 12 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 8 | 12 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 8 | 12 | Cobalt-60 | 0.7 | 0.04 | 0.04 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 8 | 12 | Lead-210 | 7.4 | 0.78 | 0.78 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 8 | 12 | Plutonium-238 | 55 | 12.65 | 12.65 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 8 | 12 | Radium-226 | 2.9 | 1.75 | 0.87 | | | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 8 | 12 | Thorium-230 | 2.8* | 8.03 | 8.03 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 8 | 12 | Thorium-232 | 2.1 | 0.26 | 0.25 | | | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 12 | 16 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 12 | 16 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 12 | 16 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 12 | 16 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 12 | 16 | Lead-210 | 7.4 | 1.09 | 0.76 | | | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 12 | 16 | Plutonium-238 | 55 | 14.2 | 14.2 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 12 | 16 | Radium-226 | 2.9 | 1.56 | 0.88 | | | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 12 | 16 | Thorium-230 | 2.8* | 7.69 | 7.69 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 12 | 16 | Thorium-232 | 2.1 | 0.38 | 0.23 | | | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 16 | 20 | Actinium-227 | 4.6 | 0.23 | 0.23 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 16 | 20 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 16 | 20 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 16 | 20 | Cobalt-60 | 0.7 | 0.04 | 0.04 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 16 | 20 | Lead-210 | 7.4 | 0.65 | 0.65 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 16 | 20 | Plutonium-238 | 55 | 12.24 | 12.24 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 16 | 20 | Radium-226 | 2.9 | 1.32 | 0.73 | | | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 16 | 20 | Thorium-230 | 2.8* | 7.23 | 7.23 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 16 | 20 | Thorium-232 | 2.1 | 0.5 | 0.16 | | | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 20 | 24 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 20 | 24 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 20 | 24 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464253 | 596989.6 |

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# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-008 | 20050627 | 20 | 24 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 20 | 24 | Lead-210 | 7.4 | 1.21 | 0.63 | | | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 20 | 24 | Plutonium-238 | 55 | 12.81 | 12.81 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 20 | 24 | Radium-226 | 2.9 | 1.26 | 0.84 | | | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 20 | 24 | Thorium-230 | 2.8* | 7.57 | 7.57 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 20 | 24 | Thorium-232 | 2.1 | 0.56 | 0.17 | | | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 24 | 28 | Actinium-227 | 4.6 | 0.32 | 0.32 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 24 | 28 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 24 | 28 | Cesium-137 | 3.8 | 0.09 | 0.09 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 24 | 28 | Cobalt-60 | 0.7 | 0.06 | 0.05 | | | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 24 | 28 | Lead-210 | 7.4 | 0.89 | 0.89 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 24 | 28 | Plutonium-238 | 55 | 15.88 | 15.88 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 24 | 28 | Radium-226 | 2.9 | 1.16 | 0.97 | | | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 24 | 28 | Thorium-230 | 2.8* | 8.59 | 8.59 | | U | 1464253 | 596989.6 |
| SU3-11-008 | 20050627 | 24 | 28 | Thorium-232 | 2.1 | 0.59 | 0.24 | | | 1464253 | 596989.6 |
| SU3-11-008D | 20050627 | 12 | 16 | Actinium-227 | 4.6 | 0.32 | 0.24 | | | 1464253 | 596989.6 |
| SU3-11-008D | 20050627 | 12 | 16 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464253 | 596989.6 |
| SU3-11-008D | 20050627 | 12 | 16 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464253 | 596989.6 |
| SU3-11-008D | 20050627 | 12 | 16 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464253 | 596989.6 |
| SU3-11-008D | 20050627 | 12 | 16 | Lead-210 | 7.4 | 1.15 | 0.71 | | | 1464253 | 596989.6 |
| SU3-11-008D | 20050627 | 12 | 16 | Plutonium-238 | 55 | 13.34 | 13.34 | | U | 1464253 | 596989.6 |
| SU3-11-008D | 20050627 | 12 | 16 | Radium-226 | 2.9 | 1.25 | 0.95 | | | 1464253 | 596989.6 |
| SU3-11-008D | 20050627 | 12 | 16 | Thorium-230 | 2.8* | 8.04 | 8.04 | | U | 1464253 | 596989.6 |
| SU3-11-008D | 20050627 | 12 | 16 | Thorium-232 | 2.1 | 0.34 | 0.23 | | | 1464253 | 596989.6 |
| SU3-11-009 | 20050627 | 0 | 4 | Actinium-227 | 4.6 | 0.34 | 0.34 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 0 | 4 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 0 | 4 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 0 | 4 | Cobalt-60 | 0.7 | 0.1 | 0.1 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 0 | 4 | Lead-210 | 7.4 | 0.96 | 0.96 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 0 | 4 | Plutonium-238 | 55 | 20.06 | 20.06 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 0 | 4 | Radium-226 | 2.9 | 2.23 | 1.03 | | | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 0 | 4 | Thorium-230 | 2.8* | 8.83 | 8.83 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 0 | 4 | Thorium-232 | 2.1 | 0.7 | 0.19 | | | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 4 | 8 | Actinium-227 | 4.6 | 0.39 | 0.39 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 4 | 8 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 4 | 8 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 4 | 8 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 4 | 8 | Lead-210 | 7.4 | 1.61 | 0.81 | | | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 4 | 8 | Plutonium-238 | 55 | 21.24 | 21.24 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 4 | 8 | Radium-226 | 2.9 | 1.97 | 1.11 | | | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 4 | 8 | Thorium-230 | 2.8* | 7.63 | 7.63 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 4 | 8 | Thorium-232 | 2.1 | 0.51 | 0.27 | | | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 8 | 12 | Actinium-227 | 4.6 | 0.35 | 0.35 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 8 | 12 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 8 | 12 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 8 | 12 | Cobalt-60 | 0.7 | 0.1 | 0.1 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 8 | 12 | Lead-210 | 7.4 | 1.17 | 0.83 | | | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 8 | 12 | Plutonium-238 | 55 | 20.13 | 20.13 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 8 | 12 | Radium-226 | 2.9 | 2.2 | 1.02 | | | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 8 | 12 | Thorium-230 | 2.8* | 8.83 | 8.83 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 8 | 12 | Thorium-232 | 2.1 | 0.44 | 0.27 | | | 1464268 | 596989.6 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-009 | 20050627 | 12 | 16 | Actinium-227 | 4.6 | 0.3 | 0.3 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 12 | 16 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 12 | 16 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 12 | 16 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 12 | 16 | Lead-210 | 7.4 | 0.73 | 0.73 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 12 | 16 | Plutonium-238 | 55 | 17.58 | 17.58 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 12 | 16 | Radium-226 | 2.9 | 1.49 | 0.9 | | | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 12 | 16 | Thorium-230 | 2.8* | 6.92 | 6.92 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 12 | 16 | Thorium-232 | 2.1 | 0.45 | 0.13 | | | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 16 | 20 | Actinium-227 | 4.6 | 0.3 | 0.3 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 16 | 20 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 16 | 20 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 16 | 20 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 16 | 20 | Lead-210 | 7.4 | 1.1 | 0.74 | | | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 16 | 20 | Plutonium-238 | 55 | 17.96 | 17.96 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 16 | 20 | Radium-226 | 2.9 | 1.41 | 0.99 | | | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 16 | 20 | Thorium-230 | 2.8* | 7.13 | 7.13 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 16 | 20 | Thorium-232 | 2.1 | 0.39 | 0.2 | | | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 20 | 24 | Actinium-227 | 4.6 | 0.29 | 0.29 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 20 | 24 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 20 | 24 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 20 | 24 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 20 | 24 | Lead-210 | 7.4 | 0.68 | 0.68 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 20 | 24 | Plutonium-238 | 55 | 17.73 | 17.73 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 20 | 24 | Radium-226 | 2.9 | 1.42 | 0.89 | | | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 20 | 24 | Thorium-230 | 2.8* | 6.97 | 6.97 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 20 | 24 | Thorium-232 | 2.1 | 0.51 | 0.18 | | | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 24 | 28 | Actinium-227 | 4.6 | 0.44 | 0.44 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 24 | 28 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 24 | 28 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 24 | 28 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 24 | 28 | Lead-210 | 7.4 | 1.43 | 0.88 | | | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 24 | 28 | Plutonium-238 | 55 | 24.02 | 24.02 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 24 | 28 | Radium-226 | 2.9 | 2.55 | 1.31 | | | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 24 | 28 | Thorium-230 | 2.8* | 8.92 | 8.92 | | U | 1464268 | 596989.6 |
| SU3-11-009 | 20050627 | 24 | 28 | Thorium-232 | 2.1 | 0.48 | 0.26 | | | 1464268 | 596989.6 |
| SU3-11-009D | 20050627 | 8 | 12 | Actinium-227 | 4.6 | 0.32 | 0.32 | | U | 1464268 | 596989.6 |
| SU3-11-009D | 20050627 | 8 | 12 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464268 | 596989.6 |
| SU3-11-009D | 20050627 | 8 | 12 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464268 | 596989.6 |
| SU3-11-009D | 20050627 | 8 | 12 | Cobalt-60 | 0.7 | 0.04 | 0.04 | | U | 1464268 | 596989.6 |
| SU3-11-009D | 20050627 | 8 | 12 | Lead-210 | 7.4 | 0.85 | 0.85 | | U | 1464268 | 596989.6 |
| SU3-11-009D | 20050627 | 8 | 12 | Plutonium-238 | 55 | 22.66 | 22.66 | | U | 1464268 | 596989.6 |
| SU3-11-009D | 20050627 | 8 | 12 | Radium-226 | 2.9 | 2.05 | 1.14 | | | 1464268 | 596989.6 |
| SU3-11-009D | 20050627 | 8 | 12 | Thorium-230 | 2.8* | 8.21 | 8.21 | | U | 1464268 | 596989.6 |
| SU3-11-009D | 20050627 | 8 | 12 | Thorium-232 | 2.1 | 0.6 | 0.2 | | | 1464268 | 596989.6 |
| SU3-11-010 | 20050623 | 0 | 4 | Actinium-227 | 4.6 | 0.26 | 0.26 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 0 | 4 | Americium-241 | 63 | 0.1 | 0.1 | U | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 0 | 4 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 0 | 4 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 0 | 4 | Lead-210 | 7.4 | 0.87 | 0.87 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 0 | 4 | Plutonium-238 | 55 | 15.53 | 15.53 | | U | 1464283 | 596989.6 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-010 | 20050623 | 0 | 4 | Radium-226 | 2.9 | 1.81 | 0.94 | | | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 0 | 4 | Thorium-230 | 2.8* | 8.45 | 8.45 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 0 | 4 | Thorium-232 | 2.1 | 0.38 | 0.21 | | | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 4 | 8 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 4 | 8 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 4 | 8 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 4 | 8 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 4 | 8 | Lead-210 | 7.4 | 0.95 | 0.95 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 4 | 8 | Plutonium-238 | 55 | 17 | 17 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 4 | 8 | Radium-226 | 2.9 | 2.53 | 0.95 | | | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 4 | 8 | Thorium-230 | 2.8* | 9.28 | 9.28 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 4 | 8 | Thorium-232 | 2.1 | 0.61 | 0.19 | | | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 8 | 12 | Actinium-227 | 4.6 | 0.37 | 0.25 | | | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 8 | 12 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 8 | 12 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 8 | 12 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 8 | 12 | Lead-210 | 7.4 | 0.96 | 0.77 | | | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 8 | 12 | Plutonium-238 | 55 | 15.87 | 15.87 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 8 | 12 | Radium-226 | 2.9 | 1.49 | 0.95 | | | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 8 | 12 | Thorium-230 | 2.8* | 8.85 | 8.85 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 8 | 12 | Thorium-232 | 2.1 | 0.26 | 0.26 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 12 | 16 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 12 | 16 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 12 | 16 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 12 | 16 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 12 | 16 | Lead-210 | 7.4 | 0.76 | 0.65 | | | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 12 | 16 | Plutonium-238 | 55 | 12.73 | 12.73 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 12 | 16 | Radium-226 | 2.9 | 1.52 | 0.8 | | | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 12 | 16 | Thorium-230 | 2.8* | 7.2 | 7.2 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 12 | 16 | Thorium-232 | 2.1 | 0.41 | 0.19 | | | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 16 | 20 | Actinium-227 | 4.6 | 0.24 | 0.24 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 16 | 20 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 16 | 20 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 16 | 20 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 16 | 20 | Lead-210 | 7.4 | 0.73 | 0.68 | | | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 16 | 20 | Plutonium-238 | 55 | 13.46 | 13.46 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 16 | 20 | Radium-226 | 2.9 | 0.85 | 0.81 | | | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 16 | 20 | Thorium-230 | 2.8* | 7.18 | 7.18 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050623 | 16 | 20 | Thorium-232 | 2.1 | 0.29 | 0.18 | | | 1464283 | 596989.6 |
| SU3-11-010 | 20050627 | 20 | 24 | Actinium-227 | 4.6 | 0.26 | 0.26 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050627 | 20 | 24 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050627 | 20 | 24 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050627 | 20 | 24 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050627 | 20 | 24 | Lead-210 | 7.4 | 1.09 | 0.62 | | | 1464283 | 596989.6 |
| SU3-11-010 | 20050627 | 20 | 24 | Plutonium-238 | 55 | 15.14 | 15.14 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050627 | 20 | 24 | Radium-226 | 2.9 | 1.06 | 0.72 | | | 1464283 | 596989.6 |
| SU3-11-010 | 20050627 | 20 | 24 | Thorium-230 | 2.8* | 6.54 | 6.54 | | U | 1464283 | 596989.6 |
| SU3-11-010 | 20050627 | 20 | 24 | Thorium-232 | 2.1 | 0.32 | 0.2 | | | 1464283 | 596989.6 |
| SU3-11-011 | 20050719 | 0 | 4 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 0 | 4 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 0 | 4 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464358 | 596989.6 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-011 | 20050719 | 0 | 4 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 0 | 4 | Lead-210 | 7.4 | 1.2 | 0.76 | | | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 0 | 4 | Plutonium-238 | 55 | 18.14 | 18.14 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 0 | 4 | Radium-226 | 2.9 | 1.92 | 0.86 | | | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 0 | 4 | Thorium-230 | 2.8* | 7.47 | 7.47 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 0 | 4 | Thorium-232 | 2.1 | 1.04 | 0.23 | | | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 4 | 8 | Actinium-227 | 4.6 | 0.22 | 0.22 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 4 | 8 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 4 | 8 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 4 | 8 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 4 | 8 | Lead-210 | 7.4 | 0.91 | 0.57 | | | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 4 | 8 | Plutonium-238 | 55 | 15.57 | 15.57 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 4 | 8 | Radium-226 | 2.9 | 1.77 | 0.79 | | | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 4 | 8 | Thorium-230 | 2.8* | 6.34 | 6.34 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 4 | 8 | Thorium-232 | 2.1 | 0.33 | 0.24 | | | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 8 | 12 | Actinium-227 | 4.6 | 0.33 | 0.33 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 8 | 12 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 8 | 12 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 8 | 12 | Cobalt-60 | 0.7 | 0.1 | 0.1 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 8 | 12 | Lead-210 | 7.4 | 1.63 | 0.65 | | | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 8 | 12 | Plutonium-238 | 55 | 13.5 | 13.5 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 8 | 12 | Radium-226 | 2.9 | 1.55 | 0.87 | | | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 8 | 12 | Thorium-230 | 2.8* | 7.82 | 7.82 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 8 | 12 | Thorium-232 | 2.1 | 0.61 | 0.14 | | | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 12 | 16 | Actinium-227 | 4.6 | 0.23 | 0.23 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 12 | 16 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 12 | 16 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 12 | 16 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 12 | 16 | Lead-210 | 7.4 | 0.73 | 0.73 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 12 | 16 | Plutonium-238 | 55 | 12.59 | 12.59 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 12 | 16 | Radium-226 | 2.9 | 1.52 | 0.74 | | | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 12 | 16 | Thorium-230 | 2.8* | 7.27 | 7.27 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 12 | 16 | Thorium-232 | 2.1 | 0.33 | 0.19 | | | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 16 | 20 | Actinium-227 | 4.6 | 0.32 | 0.32 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 16 | 20 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 16 | 20 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 16 | 20 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 16 | 20 | Lead-210 | 7.4 | 0.7 | 0.68 | | | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 16 | 20 | Plutonium-238 | 55 | 13.4 | 13.4 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 16 | 20 | Radium-226 | 2.9 | 1.84 | 0.73 | | | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 16 | 20 | Thorium-230 | 2.8* | 6.84 | 6.84 | | U | 1464358 | 596989.6 |
| SU3-11-011 | 20050719 | 16 | 20 | Thorium-232 | 2.1 | 0.47 | 0.13 | | | 1464358 | 596989.6 |
| SU3-11-011D | 20050719 | 4 | 8 | Actinium-227 | 4.6 | 0.24 | 0.24 | | U | 1464358 | 596989.6 |
| SU3-11-011D | 20050719 | 4 | 8 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464358 | 596989.6 |
| SU3-11-011D | 20050719 | 4 | 8 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464358 | 596989.6 |
| SU3-11-011D | 20050719 | 4 | 8 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464358 | 596989.6 |
| SU3-11-011D | 20050719 | 4 | 8 | Lead-210 | 7.4 | 0.91 | 0.61 | | | 1464358 | 596989.6 |
| SU3-11-011D | 20050719 | 4 | 8 | Plutonium-238 | 55 | 12.84 | 12.84 | | U | 1464358 | 596989.6 |
| SU3-11-011D | 20050719 | 4 | 8 | Radium-226 | 2.9 | 2.19 | 0.74 | | | 1464358 | 596989.6 |
| SU3-11-011D | 20050719 | 4 | 8 | Thorium-230 | 2.8* | 5.99 | 5.99 | | U | 1464358 | 596989.6 |
| SU3-11-011D | 20050719 | 4 | 8 | Thorium-232 | 2.1 | 0.37 | 0.24 | | | 1464358 | 596989.6 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-013 | 20050706 | 0 | 4 | Actinium-227 | 4.6 | 0.37 | 0.37 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 0 | 4 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 0 | 4 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 0 | 4 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 0 | 4 | Lead-210 | 7.4 | 1.23 | 0.77 | | | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 0 | 4 | Plutonium-238 | 55 | 15.47 | 15.47 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 0 | 4 | Radium-226 | 2.9 | 1.62 | 0.89 | | | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 0 | 4 | Thorium-230 | 2.8* | 8.06 | 8.06 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 0 | 4 | Thorium-232 | 2.1 | 0.49 | 0.25 | | | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 4 | 8 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 4 | 8 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 4 | 8 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 4 | 8 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 4 | 8 | Lead-210 | 7.4 | 1.34 | 0.72 | | | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 4 | 8 | Plutonium-238 | 55 | 16.82 | 16.82 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 4 | 8 | Radium-226 | 2.9 | 2.46 | 0.81 | | | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 4 | 8 | Thorium-230 | 2.8* | 7.73 | 7.73 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 4 | 8 | Thorium-232 | 2.1 | 0.97 | 0.25 | | | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 8 | 12 | Actinium-227 | 4.6 | 0.42 | 0.42 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 8 | 12 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 8 | 12 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 8 | 12 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 8 | 12 | Lead-210 | 7.4 | 0.99 | 0.89 | | | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 8 | 12 | Plutonium-238 | 55 | 16.51 | 16.51 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 8 | 12 | Radium-226 | 2.9 | 1.92 | 0.97 | | | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 8 | 12 | Thorium-230 | 2.8* | 9.72 | 9.72 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 8 | 12 | Thorium-232 | 2.1 | 0.89 | 0.21 | | | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 12 | 16 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 12 | 16 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 12 | 16 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 12 | 16 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 12 | 16 | Lead-210 | 7.4 | 1.18 | 0.75 | | | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 12 | 16 | Plutonium-238 | 55 | 19.46 | 19.46 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 12 | 16 | Radium-226 | 2.9 | 2.26 | 0.93 | | | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 12 | 16 | Thorium-230 | 2.8* | 8.37 | 8.37 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 12 | 16 | Thorium-232 | 2.1 | 0.84 | 0.29 | | | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 16 | 28 | Actinium-227 | 4.6 | 0.24 | 0.24 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 16 | 28 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 16 | 28 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 16 | 28 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 16 | 28 | Lead-210 | 7.4 | 0.82 | 0.59 | | | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 16 | 28 | Plutonium-238 | 55 | 13.92 | 13.92 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 16 | 28 | Radium-226 | 2.9 | 1.11 | 0.71 | | | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 16 | 28 | Thorium-230 | 2.8* | 6.71 | 6.71 | | U | 1464081 | 597002.6 |
| SU3-11-013 | 20050706 | 16 | 28 | Thorium-232 | 2.1 | 0.32 | 0.14 | | | 1464081 | 597002.6 |
| SU3-11-013D | 20050706 | 8 | 12 | Actinium-227 | 4.6 | 0.41 | 0.41 | | U | 1464081 | 597002.6 |
| SU3-11-013D | 20050706 | 8 | 12 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464081 | 597002.6 |
| SU3-11-013D | 20050706 | 8 | 12 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464081 | 597002.6 |
| SU3-11-013D | 20050706 | 8 | 12 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464081 | 597002.6 |
| SU3-11-013D | 20050706 | 8 | 12 | Lead-210 | 7.4 | 1.01 | 0.88 | | | 1464081 | 597002.6 |
| SU3-11-013D | 20050706 | 8 | 12 | Plutonium-238 | 55 | 16.27 | 16.27 | | U | 1464081 | 597002.6 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-013D | 20050706 | 8 | 12 | Radium-226 | 2.9 | 2.21 | 0.9 | | | 1464081 | 597002.6 |
| SU3-11-013D | 20050706 | 8 | 12 | Thorium-230 | 2.8* | 9.3 | 9.3 | | U | 1464081 | 597002.6 |
| SU3-11-013D | 20050706 | 8 | 12 | Thorium-232 | 2.1 | 0.59 | 0.31 | | | 1464081 | 597002.6 |
| SU3-11-014 | 20050706 | 0 | 4 | Actinium-227 | 4.6 | 0.24 | 0.24 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 0 | 4 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 0 | 4 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 0 | 4 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 0 | 4 | Lead-210 | 7.4 | 0.91 | 0.61 | | | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 0 | 4 | Plutonium-238 | 55 | 12.01 | 12.01 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 0 | 4 | Radium-226 | 2.9 | 1.53 | 0.74 | | | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 0 | 4 | Thorium-230 | 2.8* | 6.43 | 6.43 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 0 | 4 | Thorium-232 | 2.1 | 0.65 | 0.14 | | | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 4 | 8 | Actinium-227 | 4.6 | 0.39 | 0.39 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 4 | 8 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 4 | 8 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 4 | 8 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 4 | 8 | Lead-210 | 7.4 | 0.93 | 0.93 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 4 | 8 | Plutonium-238 | 55 | 16.87 | 16.87 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 4 | 8 | Radium-226 | 2.9 | 1.81 | 0.9 | | | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 4 | 8 | Thorium-230 | 2.8* | 8.14 | 8.14 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 4 | 8 | Thorium-232 | 2.1 | 0.74 | 0.25 | | | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 8 | 12 | Actinium-227 | 4.6 | 0.4 | 0.4 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 8 | 12 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 8 | 12 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 8 | 12 | Cobalt-60 | 0.7 | 0.04 | 0.04 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 8 | 12 | Lead-210 | 7.4 | 1.53 | 0.75 | | | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 8 | 12 | Plutonium-238 | 55 | 13.8 | 13.8 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 8 | 12 | Radium-226 | 2.9 | 1.81 | 0.91 | | | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 8 | 12 | Thorium-230 | 2.8* | 8.16 | 8.16 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 8 | 12 | Thorium-232 | 2.1 | 0.72 | 0.22 | | | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 12 | 16 | Actinium-227 | 4.6 | 0.33 | 0.33 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 12 | 16 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 12 | 16 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 12 | 16 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 12 | 16 | Lead-210 | 7.4 | 0.74 | 0.74 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 12 | 16 | Plutonium-238 | 55 | 13.27 | 13.27 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 12 | 16 | Radium-226 | 2.9 | 1.67 | 0.8 | | | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 12 | 16 | Thorium-230 | 2.8* | 8.09 | 8.09 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 12 | 16 | Thorium-232 | 2.1 | 0.81 | 0.12 | | | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 16 | 24 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 16 | 24 | Americium-241 | 63 | 0.05 | 0.05 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 16 | 24 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 16 | 24 | Cobalt-60 | 0.7 | 0.03 | 0.03 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 16 | 24 | Lead-210 | 7.4 | 0.5 | 0.5 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 16 | 24 | Plutonium-238 | 55 | 9.45 | 9.45 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 16 | 24 | Radium-226 | 2.9 | 0.94 | 0.57 | | | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 16 | 24 | Thorium-230 | 2.8* | 5.35 | 5.35 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 16 | 24 | Thorium-232 | 2.1 | 0.23 | 0.11 | | | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 24 | 32 | Actinium-227 | 4.6 | 0.22 | 0.22 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 24 | 32 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 24 | 32 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464096 | 597002.6 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-014 | 20050706 | 24 | 32 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 24 | 32 | Lead-210 | 7.4 | 0.68 | 0.68 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 24 | 32 | Plutonium-238 | 55 | 14.19 | 14.19 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 24 | 32 | Radium-226 | 2.9 | 1.32 | 0.75 | | | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 24 | 32 | Thorium-230 | 2.8* | 6.28 | 6.28 | | U | 1464096 | 597002.6 |
| SU3-11-014 | 20050706 | 24 | 32 | Thorium-232 | 2.1 | 0.19 | 0.17 | | | 1464096 | 597002.6 |
| SU3-11-015 | 20050706 | 0 | 4 | Actinium-227 | 4.6 | 0.3 | 0.3 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 0 | 4 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 0 | 4 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 0 | 4 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 0 | 4 | Lead-210 | 7.4 | 0.97 | 0.65 | | | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 0 | 4 | Plutonium-238 | 55 | 15.24 | 15.24 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 0 | 4 | Radium-226 | 2.9 | 1.86 | 0.7 | | | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 0 | 4 | Thorium-230 | 2.8* | 6.77 | 6.77 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 0 | 4 | Thorium-232 | 2.1 | 0.48 | 0.21 | | | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 4 | 6 | Actinium-227 | 4.6 | 0.25 | 0.18 | | | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 4 | 6 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 4 | 6 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 4 | 6 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 4 | 6 | Lead-210 | 7.4 | 0.76 | 0.59 | | | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 4 | 6 | Plutonium-238 | 55 | 13.8 | 13.8 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 4 | 6 | Radium-226 | 2.9 | 2.21 | 0.72 | | | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 4 | 6 | Thorium-230 | 2.8* | 6.06 | 6.06 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 4 | 6 | Thorium-232 | 2.1 | 0.75 | 0.16 | | | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 6 | 8 | Actinium-227 | 4.6 | 0.35 | 0.35 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 6 | 8 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 6 | 8 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 6 | 8 | Cobalt-60 | 0.7 | 0.11 | 0.11 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 6 | 8 | Lead-210 | 7.4 | 1.47 | 0.89 | | | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 6 | 8 | Plutonium-238 | 55 | 18.69 | 18.69 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 6 | 8 | Radium-226 | 2.9 | 2.8 | 1.01 | | | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 6 | 8 | Thorium-230 | 2.8* | 8.64 | 8.64 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 6 | 8 | Thorium-232 | 2.1 | 1.14 | 0.23 | | | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 8 | 12 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 8 | 12 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 8 | 12 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 8 | 12 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 8 | 12 | Lead-210 | 7.4 | 1.54 | 0.66 | | | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 8 | 12 | Plutonium-238 | 55 | 16.35 | 16.35 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 8 | 12 | Radium-226 | 2.9 | 2.25 | 0.88 | | | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 8 | 12 | Thorium-230 | 2.8* | 7.54 | 7.54 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 8 | 12 | Thorium-232 | 2.1 | 0.72 | 0.25 | | | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 12 | 20 | Actinium-227 | 4.6 | 0.21 | 0.21 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 12 | 20 | Americium-241 | 63 | 0.05 | 0.05 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 12 | 20 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 12 | 20 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 12 | 20 | Lead-210 | 7.4 | 1.2 | 0.49 | | | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 12 | 20 | Plutonium-238 | 55 | 11.78 | 11.78 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 12 | 20 | Radium-226 | 2.9 | 1 | 0.6 | | | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 12 | 20 | Thorium-230 | 2.8* | 5.59 | 5.59 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 12 | 20 | Thorium-232 | 2.1 | 0.32 | 0.2 | | | 1464111 | 597002.6 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-015 | 20050706 | 20 | 24 | Actinium-227 | 4.6 | 0.31 | 0.31 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 20 | 24 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 20 | 24 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 20 | 24 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 20 | 24 | Lead-210 | 7.4 | 0.73 | 0.73 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 20 | 24 | Plutonium-238 | 55 | 17.05 | 17.05 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 20 | 24 | Radium-226 | 2.9 | 1.17 | 0.87 | | | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 20 | 24 | Thorium-230 | 2.8* | 7.17 | 7.17 | | U | 1464111 | 597002.6 |
| SU3-11-015 | 20050706 | 20 | 24 | Thorium-232 | 2.1 | 0.47 | 0.18 | | | 1464111 | 597002.6 |
| SU3-11-015D | 20050706 | 8 | 12 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1464111 | 597002.6 |
| SU3-11-015D | 20050706 | 8 | 12 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464111 | 597002.6 |
| SU3-11-015D | 20050706 | 8 | 12 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464111 | 597002.6 |
| SU3-11-015D | 20050706 | 8 | 12 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464111 | 597002.6 |
| SU3-11-015D | 20050706 | 8 | 12 | Lead-210 | 7.4 | 1.42 | 0.69 | | | 1464111 | 597002.6 |
| SU3-11-015D | 20050706 | 8 | 12 | Plutonium-238 | 55 | 15.89 | 15.89 | | U | 1464111 | 597002.6 |
| SU3-11-015D | 20050706 | 8 | 12 | Radium-226 | 2.9 | 2.08 | 0.82 | | | 1464111 | 597002.6 |
| SU3-11-015D | 20050706 | 8 | 12 | Thorium-230 | 2.8* | 7.49 | 7.49 | | U | 1464111 | 597002.6 |
| SU3-11-015D | 20050706 | 8 | 12 | Thorium-232 | 2.1 | 0.96 | 0.23 | | | 1464111 | 597002.6 |
| SU3-11-016 | 20050728 | 0 | 4 | Actinium-227 | 4.6 | 0.31 | 0.31 | | U | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 0 | 4 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 0 | 4 | Cesium-137 | 3.8 | 0.07 | 0.06 | | | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 0 | 4 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 0 | 4 | Lead-210 | 7.4 | 1.21 | 0.76 | | | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 0 | 4 | Plutonium-238 | 55 | 17.07 | 17.07 | | U | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 0 | 4 | Radium-226 | 2.9 | 2.19 | 0.84 | | | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 0 | 4 | Thorium-230 | 2.8* | 7.33 | 7.33 | | U | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 0 | 4 | Thorium-232 | 2.1 | 0.68 | 0.22 | | | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 4 | 8 | Actinium-227 | 4.6 | 0.22 | 0.22 | | U | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 4 | 8 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 4 | 8 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 4 | 8 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 4 | 8 | Lead-210 | 7.4 | 0.98 | 0.69 | | | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 4 | 8 | Plutonium-238 | 55 | 15.04 | 15.04 | | U | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 4 | 8 | Radium-226 | 2.9 | 2.07 | 0.71 | | | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 4 | 8 | Thorium-230 | 2.8* | 6.44 | 6.44 | | U | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 4 | 8 | Thorium-232 | 2.1 | 0.53 | 0.21 | | | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 8 | 12 | Actinium-227 | 4.6 | 0.24 | 0.24 | | U | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 8 | 12 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 8 | 12 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 8 | 12 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 8 | 12 | Lead-210 | 7.4 | 0.6 | 0.6 | | U | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 8 | 12 | Plutonium-238 | 55 | 13.45 | 13.45 | | U | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 8 | 12 | Radium-226 | 2.9 | 1.75 | 0.72 | | | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 8 | 12 | Thorium-230 | 2.8* | 6.12 | 6.12 | | U | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 8 | 12 | Thorium-232 | 2.1 | 0.36 | 0.23 | | | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 12 | 16 | Actinium-227 | 4.6 | 0.22 | 0.22 | | U | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 12 | 16 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 12 | 16 | Cesium-137 | 3.8 | 0.03 | 0.03 | | | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 12 | 16 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 12 | 16 | Lead-210 | 7.4 | 0.92 | 0.51 | | | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 12 | 16 | Plutonium-238 | 55 | 12.22 | 12.22 | | U | 1464276 | 597002.6 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-016 | 20050728 | 12 | 16 | Radium-226 | 2.9 | 2.12 | 0.66 | | | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 12 | 16 | Thorium-230 | 2.8* | 5.67 | 5.67 | | U | 1464276 | 597002.6 |
| SU3-11-016 | 20050728 | 12 | 16 | Thorium-232 | 2.1 | 0.48 | 0.19 | | | 1464276 | 597002.6 |
| SU3-11-017 | 20050719 | 0 | 4 | Actinium-227 | 4.6 | 0.24 | 0.24 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 0 | 4 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 0 | 4 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 0 | 4 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 0 | 4 | Lead-210 | 7.4 | 0.91 | 0.62 | | | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 0 | 4 | Plutonium-238 | 55 | 14.47 | 14.47 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 0 | 4 | Radium-226 | 2.9 | 1.92 | 0.68 | | | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 0 | 4 | Thorium-230 | 2.8* | 6.36 | 6.36 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 0 | 4 | Thorium-232 | 2.1 | 0.57 | 0.16 | | | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 4 | 8 | Actinium-227 | 4.6 | 0.22 | 0.22 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 4 | 8 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 4 | 8 | Cesium-137 | 3.8 | 0.05 | 0.04 | | | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 4 | 8 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 4 | 8 | Lead-210 | 7.4 | 0.62 | 0.62 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 4 | 8 | Plutonium-238 | 55 | 13.42 | 13.42 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 4 | 8 | Radium-226 | 2.9 | 1.75 | 0.69 | | | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 4 | 8 | Thorium-230 | 2.8* | 6.15 | 6.15 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 4 | 8 | Thorium-232 | 2.1 | 0.51 | 0.19 | | | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 8 | 12 | Actinium-227 | 4.6 | 0.34 | 0.34 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 8 | 12 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 8 | 12 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 8 | 12 | Cobalt-60 | 0.7 | 0.7 | 0.7 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 8 | 12 | Lead-210 | 7.4 | 0.79 | 0.68 | | | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 8 | 12 | Plutonium-238 | 55 | 13.68 | 13.68 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 8 | 12 | Radium-226 | 2.9 | 1.49 | 0.85 | | | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 8 | 12 | Thorium-230 | 2.8* | 7.24 | 7.24 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 8 | 12 | Thorium-232 | 2.1 | 0.3 | 0.2 | | | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 12 | 16 | Actinium-227 | 4.6 | 0.26 | 0.26 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 12 | 16 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 12 | 16 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 12 | 16 | Cobalt-60 | 0.7 | 0.04 | 0.04 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 12 | 16 | Lead-210 | 7.4 | 0.86 | 0.7 | | | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 12 | 16 | Plutonium-238 | 55 | 12.92 | 12.92 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 12 | 16 | Radium-226 | 2.9 | 1.37 | 0.85 | | | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 12 | 16 | Thorium-230 | 2.8* | 7.01 | 7.01 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 12 | 16 | Thorium-232 | 2.1 | 0.4 | 0.17 | | | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 16 | 20 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 16 | 20 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 16 | 20 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 16 | 20 | Cobalt-60 | 0.7 | 0.04 | 0.04 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 16 | 20 | Lead-210 | 7.4 | 1.29 | 0.67 | | | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 16 | 20 | Plutonium-238 | 55 | 13.67 | 13.67 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 16 | 20 | Radium-226 | 2.9 | 1.93 | 0.83 | | | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 16 | 20 | Thorium-230 | 2.8* | 7.46 | 7.46 | | U | 1464291 | 597002.6 |
| SU3-11-017 | 20050719 | 16 | 20 | Thorium-232 | 2.1 | 0.57 | 0.19 | | | 1464291 | 597002.6 |
| SU3-11-018 | 20050720 | 0 | 8 | Actinium-227 | 4.6 | 0.22 | 0.22 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 0 | 8 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 0 | 8 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464306 | 597002.6 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-018 | 20050720 | 0 | 8 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 0 | 8 | Lead-210 | 7.4 | 0.87 | 0.58 | | | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 0 | 8 | Plutonium-238 | 55 | 13.54 | 13.54 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 0 | 8 | Radium-226 | 2.9 | 2.2 | 0.65 | | | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 0 | 8 | Thorium-230 | 2.8* | 6.34 | 6.34 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 0 | 8 | Thorium-232 | 2.1 | 0.39 | 0.21 | | | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 8 | 12 | Actinium-227 | 4.6 | 0.23 | 0.23 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 8 | 12 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 8 | 12 | Cesium-137 | 3.8 | 0.03 | 0.03 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 8 | 12 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 8 | 12 | Lead-210 | 7.4 | 0.57 | 0.57 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 8 | 12 | Plutonium-238 | 55 | 13.12 | 13.12 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 8 | 12 | Radium-226 | 2.9 | 1.69 | 0.59 | | | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 8 | 12 | Thorium-230 | 2.8* | 5.58 | 5.58 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 8 | 12 | Thorium-232 | 2.1 | 0.46 | 0.18 | | | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 12 | 16 | Actinium-227 | 4.6 | 0.21 | 0.21 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 12 | 16 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 12 | 16 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 12 | 16 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 12 | 16 | Lead-210 | 7.4 | 0.58 | 0.58 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 12 | 16 | Plutonium-238 | 55 | 12.91 | 12.91 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 12 | 16 | Radium-226 | 2.9 | 1.73 | 0.67 | | | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 12 | 16 | Thorium-230 | 2.8* | 5.86 | 5.86 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 12 | 16 | Thorium-232 | 2.1 | 0.41 | 0.18 | | | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 24 | 28 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 24 | 28 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 24 | 28 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 24 | 28 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 24 | 28 | Lead-210 | 7.4 | 1.14 | 0.72 | | | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 24 | 28 | Plutonium-238 | 55 | 16.08 | 16.08 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 24 | 28 | Radium-226 | 2.9 | 2.41 | 0.88 | | | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 24 | 28 | Thorium-230 | 2.8* | 7.37 | 7.37 | | U | 1464306 | 597002.6 |
| SU3-11-018 | 20050720 | 24 | 28 | Thorium-232 | 2.1 | 0.96 | 0.17 | | | 1464306 | 597002.6 |
| SU3-11-018D | 20050720 | 12 | 16 | Actinium-227 | 4.6 | 0.24 | 0.24 | | U | 1464306 | 597002.6 |
| SU3-11-018D | 20050720 | 12 | 16 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464306 | 597002.6 |
| SU3-11-018D | 20050720 | 12 | 16 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464306 | 597002.6 |
| SU3-11-018D | 20050720 | 12 | 16 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464306 | 597002.6 |
| SU3-11-018D | 20050720 | 12 | 16 | Lead-210 | 7.4 | 0.58 | 0.57 | | | 1464306 | 597002.6 |
| SU3-11-018D | 20050720 | 12 | 16 | Plutonium-238 | 55 | 11.8 | 11.8 | | U | 1464306 | 597002.6 |
| SU3-11-018D | 20050720 | 12 | 16 | Radium-226 | 2.9 | 1.77 | 0.71 | | | 1464306 | 597002.6 |
| SU3-11-018D | 20050720 | 12 | 16 | Thorium-230 | 2.8* | 5.84 | 5.84 | | U | 1464306 | 597002.6 |
| SU3-11-018D | 20050720 | 12 | 16 | Thorium-232 | 2.1 | 0.49 | 0.17 | | | 1464306 | 597002.6 |
| SU3-11-019 | 20050720 | 0 | 4 | Actinium-227 | 4.6 | 0.22 | 0.22 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 0 | 4 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 0 | 4 | Cesium-137 | 3.8 | 0.04 | 0.04 | | | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 0 | 4 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 0 | 4 | Lead-210 | 7.4 | 0.77 | 0.54 | | | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 0 | 4 | Plutonium-238 | 55 | 12.91 | 12.91 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 0 | 4 | Radium-226 | 2.9 | 0.99 | 0.76 | | | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 0 | 4 | Thorium-230 | 2.8* | 6.5 | 6.5 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 0 | 4 | Thorium-232 | 2.1 | 0.42 | 0.23 | | | 1464321 | 597002.6 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-019 | 20050720 | 4 | 8 | Actinium-227 | 4.6 | 0.22 | 0.22 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 4 | 8 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 4 | 8 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 4 | 8 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 4 | 8 | Lead-210 | 7.4 | 0.62 | 0.62 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 4 | 8 | Plutonium-238 | 55 | 12.8 | 12.8 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 4 | 8 | Radium-226 | 2.9 | 1.62 | 0.65 | | | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 4 | 8 | Thorium-230 | 2.8* | 6.01 | 6.01 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 4 | 8 | Thorium-232 | 2.1 | 0.53 | 0.21 | | | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 8 | 12 | Actinium-227 | 4.6 | 0.21 | 0.21 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 8 | 12 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 8 | 12 | Cesium-137 | 3.8 | 0.03 | 0.03 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 8 | 12 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 8 | 12 | Lead-210 | 7.4 | 1.08 | 0.52 | | | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 8 | 12 | Plutonium-238 | 55 | 12.07 | 12.07 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 8 | 12 | Radium-226 | 2.9 | 1.71 | 0.67 | | | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 8 | 12 | Thorium-230 | 2.8* | 5.83 | 5.83 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 8 | 12 | Thorium-232 | 2.1 | 0.29 | 0.22 | | | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 12 | 16 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 12 | 16 | Americium-241 | 63 | 0.05 | 0.05 | | | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 12 | 16 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 12 | 16 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 12 | 16 | Lead-210 | 7.4 | 1.08 | 0.55 | | | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 12 | 16 | Plutonium-238 | 55 | 12.47 | 12.47 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 12 | 16 | Radium-226 | 2.9 | 1.47 | 0.68 | | | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 12 | 16 | Thorium-230 | 2.8* | 6.09 | 6.09 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 12 | 16 | Thorium-232 | 2.1 | 0.5 | 0.17 | | | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 16 | 20 | Actinium-227 | 4.6 | 0.21 | 0.21 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 16 | 20 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 16 | 20 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 16 | 20 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 16 | 20 | Lead-210 | 7.4 | 0.7 | 0.56 | | | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 16 | 20 | Plutonium-238 | 55 | 12.83 | 12.83 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 16 | 20 | Radium-226 | 2.9 | 1.8 | 0.66 | | | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 16 | 20 | Thorium-230 | 2.8* | 5.89 | 5.89 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 16 | 20 | Thorium-232 | 2.1 | 0.33 | 0.2 | | | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 20 | 24 | Actinium-227 | 4.6 | 0.2 | 0.2 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 20 | 24 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 20 | 24 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 20 | 24 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 20 | 24 | Lead-210 | 7.4 | 0.58 | 0.58 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 20 | 24 | Plutonium-238 | 55 | 12.49 | 12.49 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 20 | 24 | Radium-226 | 2.9 | 1.64 | 0.63 | | | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 20 | 24 | Thorium-230 | 2.8* | 5.68 | 5.68 | | U | 1464321 | 597002.6 |
| SU3-11-019 | 20050720 | 20 | 24 | Thorium-232 | 2.1 | 0.29 | 0.2 | | | 1464321 | 597002.6 |
| SU3-11-020 | 20050706 | 0 | 4 | Actinium-227 | 4.6 | 0.67 | 0.67 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 0 | 4 | Americium-241 | 63 | 0.15 | 0.15 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 0 | 4 | Cesium-137 | 3.8 | 0.13 | 0.13 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 0 | 4 | Cobalt-60 | 0.7 | 0.11 | 0.11 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 0 | 4 | Lead-210 | 7.4 | 1.6 | 1.6 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 0 | 4 | Plutonium-238 | 55 | 30.9 | 30.9 | | U | 1464336 | 597002.6 |

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# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-020 | 20050706 | 0 | 4 | Radium-226 | 2.9 | 2.33 | 1.71 | | | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 0 | 4 | Thorium-230 | 2.8* | 14.4 | 14.4 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 0 | 4 | Thorium-232 | 2.1 | 0.6 | 0.6 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 4 | 8 | Actinium-227 | 4.6 | 0.33 | 0.33 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 4 | 8 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 4 | 8 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 4 | 8 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 4 | 8 | Lead-210 | 7.4 | 0.97 | 0.65 | | | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 4 | 8 | Plutonium-238 | 55 | 20.89 | 20.89 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 4 | 8 | Radium-226 | 2.9 | 0.89 | 0.78 | | | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 4 | 8 | Thorium-230 | 2.8* | 7.01 | 7.01 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 4 | 8 | Thorium-232 | 2.1 | 0.32 | 0.17 | | | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 8 | 12 | Actinium-227 | 4.6 | 0.22 | 0.22 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 8 | 12 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 8 | 12 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 8 | 12 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 8 | 12 | Lead-210 | 7.4 | 0.91 | 0.6 | | | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 8 | 12 | Plutonium-238 | 55 | 14.1 | 14.1 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 8 | 12 | Radium-226 | 2.9 | 1.82 | 0.79 | | | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 8 | 12 | Thorium-230 | 2.8* | 6.46 | 6.46 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 8 | 12 | Thorium-232 | 2.1 | 0.43 | 0.23 | | | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 12 | 16 | Actinium-227 | 4.6 | 0.23 | 0.23 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 12 | 16 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 12 | 16 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 12 | 16 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 12 | 16 | Lead-210 | 7.4 | 0.84 | 0.66 | | | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 12 | 16 | Plutonium-238 | 55 | 14.77 | 14.77 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 12 | 16 | Radium-226 | 2.9 | 1.89 | 0.77 | | | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 12 | 16 | Thorium-230 | 2.8* | 6.45 | 6.45 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 12 | 16 | Thorium-232 | 2.1 | 0.56 | 0.21 | | | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 16 | 20 | Actinium-227 | 4.6 | 0.25 | 0.23 | | | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 16 | 20 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 16 | 20 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 16 | 20 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 16 | 20 | Lead-210 | 7.4 | 0.98 | 0.62 | | | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 16 | 20 | Plutonium-238 | 55 | 15.82 | 15.82 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 16 | 20 | Radium-226 | 2.9 | 1.36 | 0.82 | | | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 16 | 20 | Thorium-230 | 2.8* | 6.44 | 6.44 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 16 | 20 | Thorium-232 | 2.1 | 0.33 | 0.26 | | | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 20 | 24 | Actinium-227 | 4.6 | 0.26 | 0.26 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 20 | 24 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 20 | 24 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 20 | 24 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 20 | 24 | Lead-210 | 7.4 | 0.95 | 0.55 | | | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 20 | 24 | Plutonium-238 | 55 | 14.74 | 14.74 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 20 | 24 | Radium-226 | 2.9 | 2.22 | 0.81 | | | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 20 | 24 | Thorium-230 | 2.8* | 6.11 | 6.11 | | U | 1464336 | 597002.6 |
| SU3-11-020 | 20050706 | 20 | 24 | Thorium-232 | 2.1 | 0.31 | 0.2 | | | 1464336 | 597002.6 |
| SU3-11-021 | 20050706 | 0 | 4 | Actinium-227 | 4.6 | 0.39 | 0.39 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 0 | 4 | Americium-241 | 63 | 0.12 | 0.12 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 0 | 4 | Cesium-137 | 3.8 | 0.1 | 0.1 | | U | 1464351 | 597002.6 |

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# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-021 | 20050706 | 0 | 4 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 0 | 4 | Lead-210 | 7.4 | 1.25 | 1.25 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 0 | 4 | Plutonium-238 | 55 | 19.78 | 19.78 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 0 | 4 | Radium-226 | 2.9 | 1.46 | 1.32 | | | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 0 | 4 | Thorium-230 | 2.8* | 9.61 | 9.61 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 0 | 4 | Thorium-232 | 2.1 | 0.88 | 0.03 | | | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 4 | 8 | Actinium-227 | 4.6 | 0.29 | 0.29 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 4 | 8 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 4 | 8 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 4 | 8 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 4 | 8 | Lead-210 | 7.4 | 0.89 | 0.89 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 4 | 8 | Plutonium-238 | 55 | 15.77 | 15.77 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 4 | 8 | Radium-226 | 2.9 | 1.81 | 0.92 | | | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 4 | 8 | Thorium-230 | 2.8* | 8.55 | 8.55 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 4 | 8 | Thorium-232 | 2.1 | 0.34 | 0.26 | | | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 8 | 12 | Actinium-227 | 4.6 | 0.31 | 0.31 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 8 | 12 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 8 | 12 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 8 | 12 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 8 | 12 | Lead-210 | 7.4 | 0.84 | 0.77 | | | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 8 | 12 | Plutonium-238 | 55 | 14.91 | 14.91 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 8 | 12 | Radium-226 | 2.9 | 1.85 | 0.83 | | | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 8 | 12 | Thorium-230 | 2.8* | 7.85 | 7.85 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 8 | 12 | Thorium-232 | 2.1 | 0.26 | 0.23 | | | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 12 | 16 | Actinium-227 | 4.6 | 0.32 | 0.32 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 12 | 16 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 12 | 16 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 12 | 16 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 12 | 16 | Lead-210 | 7.4 | 0.85 | 0.85 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 12 | 16 | Plutonium-238 | 55 | 16.51 | 16.51 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 12 | 16 | Radium-226 | 2.9 | 1.93 | 0.98 | | | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 12 | 16 | Thorium-230 | 2.8* | 8.74 | 8.74 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 12 | 16 | Thorium-232 | 2.1 | 0.44 | 0.26 | | | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 16 | 20 | Actinium-227 | 4.6 | 0.4 | 0.4 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 16 | 20 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 16 | 20 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 16 | 20 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 16 | 20 | Lead-210 | 7.4 | 0.9 | 0.9 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 16 | 20 | Plutonium-238 | 55 | 14.6 | 14.6 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 16 | 20 | Radium-226 | 2.9 | 1.56 | 0.95 | | | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 16 | 20 | Thorium-230 | 2.8* | 8.94 | 8.94 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 16 | 20 | Thorium-232 | 2.1 | 0.36 | 0.26 | | | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 20 | 24 | Actinium-227 | 4.6 | 0.36 | 0.36 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 20 | 24 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 20 | 24 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 20 | 24 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 20 | 24 | Lead-210 | 7.4 | 0.94 | 0.78 | | | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 20 | 24 | Plutonium-238 | 55 | 19.94 | 19.94 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 20 | 24 | Radium-226 | 2.9 | 0.88 | 0.88 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 20 | 24 | Thorium-230 | 2.8* | 7.89 | 7.89 | | U | 1464351 | 597002.6 |
| SU3-11-021 | 20050706 | 20 | 24 | Thorium-232 | 2.1 | 0.38 | 0.14 | | | 1464351 | 597002.6 |

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# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-021D | 20050706 | 16 | 20 | Actinium-227 | 4.6 | 0.45 | 0.44 | | | 1464351 | 597002.6 |
| SU3-11-021D | 20050706 | 16 | 20 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1464351 | 597002.6 |
| SU3-11-021D | 20050706 | 16 | 20 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464351 | 597002.6 |
| SU3-11-021D | 20050706 | 16 | 20 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464351 | 597002.6 |
| SU3-11-021D | 20050706 | 16 | 20 | Lead-210 | 7.4 | 1.45 | 0.88 | | | 1464351 | 597002.6 |
| SU3-11-021D | 20050706 | 16 | 20 | Plutonium-238 | 55 | 26.29 | 26.29 | | U | 1464351 | 597002.6 |
| SU3-11-021D | 20050706 | 16 | 20 | Radium-226 | 2.9 | 2.12 | 0.97 | | | 1464351 | 597002.6 |
| SU3-11-021D | 20050706 | 16 | 20 | Thorium-230 | 2.8* | 9.3 | 9.3 | | U | 1464351 | 597002.6 |
| SU3-11-021D | 20050706 | 16 | 20 | Thorium-232 | 2.1 | 0.6 | 0.18 | | | 1464351 | 597002.6 |
| SU3-11-022 | 20050706 | 0 | 4 | Actinium-227 | 4.6 | 0.5 | 0.5 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 0 | 4 | Americium-241 | 63 | 0.12 | 0.12 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 0 | 4 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 0 | 4 | Cobalt-60 | 0.7 | 0.1 | 0.1 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 0 | 4 | Lead-210 | 7.4 | 1.29 | 1.07 | | | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 0 | 4 | Plutonium-238 | 55 | 20.01 | 20.01 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 0 | 4 | Radium-226 | 2.9 | 1.87 | 1.19 | | | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 0 | 4 | Thorium-230 | 2.8* | 9.65 | 9.65 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 0 | 4 | Thorium-232 | 2.1 | 0.45 | 0.45 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 4 | 8 | Actinium-227 | 4.6 | 0.31 | 0.31 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 4 | 8 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 4 | 8 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 4 | 8 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 4 | 8 | Lead-210 | 7.4 | 0.83 | 0.83 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 4 | 8 | Plutonium-238 | 55 | 15.28 | 15.28 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 4 | 8 | Radium-226 | 2.9 | 1.8 | 0.96 | | | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 4 | 8 | Thorium-230 | 2.8* | 9.24 | 9.24 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 4 | 8 | Thorium-232 | 2.1 | 0.43 | 0.28 | | | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 8 | 12 | Actinium-227 | 4.6 | 0.31 | 0.31 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 8 | 12 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 8 | 12 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 8 | 12 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 8 | 12 | Lead-210 | 7.4 | 0.92 | 0.72 | | | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 8 | 12 | Plutonium-238 | 55 | 15.37 | 15.37 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 8 | 12 | Radium-226 | 2.9 | 2.01 | 0.84 | | | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 8 | 12 | Thorium-230 | 2.8* | 7.76 | 7.76 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 8 | 12 | Thorium-232 | 2.1 | 0.28 | 0.25 | | | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 12 | 16 | Actinium-227 | 4.6 | 0.34 | 0.34 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 12 | 16 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 12 | 16 | Cesium-137 | 3.8 | 0.08 | 0.08 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 12 | 16 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 12 | 16 | Lead-210 | 7.4 | 1.03 | 0.94 | | | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 12 | 16 | Plutonium-238 | 55 | 17.03 | 17.03 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 12 | 16 | Radium-226 | 2.9 | 1.87 | 1.12 | | | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 12 | 16 | Thorium-230 | 2.8* | 9.53 | 9.53 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 12 | 16 | Thorium-232 | 2.1 | 0.64 | 0.22 | | | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 16 | 20 | Actinium-227 | 4.6 | 0.34 | 0.34 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 16 | 20 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 16 | 20 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 16 | 20 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 16 | 20 | Lead-210 | 7.4 | 0.79 | 0.79 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 16 | 20 | Plutonium-238 | 55 | 14.52 | 14.52 | | U | 1464366 | 597002.6 |

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# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-022 | 20050706 | 16 | 20 | Radium-226 | 2.9 | 1.52 | 0.84 | | | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 16 | 20 | Thorium-230 | 2.8* | 7.51 | 7.51 | | U | 1464366 | 597002.6 |
| SU3-11-022 | 20050706 | 16 | 20 | Thorium-232 | 2.1 | 0.28 | 0.25 | | | 1464366 | 597002.6 |
| SU3-11-022D | 20050706 | 4 | 8 | Actinium-227 | 4.6 | 0.39 | 0.39 | | U | 1464366 | 597002.6 |
| SU3-11-022D | 20050706 | 4 | 8 | Americium-241 | 63 | 0.13 | 0.13 | | U | 1464366 | 597002.6 |
| SU3-11-022D | 20050706 | 4 | 8 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464366 | 597002.6 |
| SU3-11-022D | 20050706 | 4 | 8 | Cobalt-60 | 0.7 | 0.1 | 0.1 | | U | 1464366 | 597002.6 |
| SU3-11-022D | 20050706 | 4 | 8 | Lead-210 | 7.4 | 1.09 | 1.09 | | U | 1464366 | 597002.6 |
| SU3-11-022D | 20050706 | 4 | 8 | Plutonium-238 | 55 | 19.88 | 19.88 | | U | 1464366 | 597002.6 |
| SU3-11-022D | 20050706 | 4 | 8 | Radium-226 | 2.9 | 1.56 | 1.15 | | | 1464366 | 597002.6 |
| SU3-11-022D | 20050706 | 4 | 8 | Thorium-230 | 2.8* | 9.8 | 9.8 | | U | 1464366 | 597002.6 |
| SU3-11-022D | 20050706 | 4 | 8 | Thorium-232 | 2.1 | 0.51 | 0.28 | | | 1464366 | 597002.6 |
| SU3-11-025 | 20050728 | 0 | 4 | Actinium-227 | 4.6 | 0.26 | 0.26 | | U | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 0 | 4 | Americium-241 | 63 | 0.08 | 0.07 | | | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 0 | 4 | Cesium-137 | 3.8 | 0.09 | 0.05 | | | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 0 | 4 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 0 | 4 | Lead-210 | 7.4 | 1.14 | 0.65 | | | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 0 | 4 | Plutonium-238 | 55 | 15.48 | 15.48 | | U | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 0 | 4 | Radium-226 | 2.9 | 1.77 | 0.8 | | | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 0 | 4 | Thorium-230 | 2.8* | 7.27 | 7.27 | | U | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 0 | 4 | Thorium-232 | 2.1 | 0.68 | 0.25 | | | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 4 | 8 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 4 | 8 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 4 | 8 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 4 | 8 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 4 | 8 | Lead-210 | 7.4 | 1.09 | 0.68 | | | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 4 | 8 | Plutonium-238 | 55 | 15.58 | 15.58 | | U | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 4 | 8 | Radium-226 | 2.9 | 1.86 | 0.79 | | | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 4 | 8 | Thorium-230 | 2.8* | 7.17 | 7.17 | | U | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 4 | 8 | Thorium-232 | 2.1 | 0.89 | 0.26 | | | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 8 | 12 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 8 | 12 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 8 | 12 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 8 | 12 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 8 | 12 | Lead-210 | 7.4 | 1.53 | 0.68 | | | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 8 | 12 | Plutonium-238 | 55 | 16.5 | 16.5 | | U | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 8 | 12 | Radium-226 | 2.9 | 2.6 | 0.88 | | | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 8 | 12 | Thorium-230 | 2.8* | 7.64 | 7.64 | | U | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 8 | 12 | Thorium-232 | 2.1 | 1.1 | 0.22 | | | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 12 | 16 | Actinium-227 | 4.6 | 0.24 | 0.24 | | U | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 12 | 16 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 12 | 16 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 12 | 16 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 12 | 16 | Lead-210 | 7.4 | 1.17 | 0.62 | | | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 12 | 16 | Plutonium-238 | 55 | 14.58 | 14.58 | | U | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 12 | 16 | Radium-226 | 2.9 | 2.21 | 0.82 | | | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 12 | 16 | Thorium-230 | 2.8* | 6.75 | 6.75 | | U | 1464118 | 597015.6 |
| SU3-11-025 | 20050728 | 12 | 16 | Thorium-232 | 2.1 | 0.9 | 0.18 | | | 1464118 | 597015.6 |
| SU3-11-025D | 20050728 | 8 | 12 | Actinium-227 | 4.6 | 0.26 | 0.26 | | U | 1464118 | 597015.6 |
| SU3-11-025D | 20050728 | 8 | 12 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464118 | 597015.6 |
| SU3-11-025D | 20050728 | 8 | 12 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464118 | 597015.6 |

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# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-025D | 20050728 | 8 | 12 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464118 | 597015.6 |
| SU3-11-025D | 20050728 | 8 | 12 | Lead-210 | 7.4 | 1.31 | 0.67 | | | 1464118 | 597015.6 |
| SU3-11-025D | 20050728 | 8 | 12 | Plutonium-238 | 55 | 14.56 | 14.56 | | U | 1464118 | 597015.6 |
| SU3-11-025D | 20050728 | 8 | 12 | Radium-226 | 2.9 | 1.39 | 0.75 | | | 1464118 | 597015.6 |
| SU3-11-025D | 20050728 | 8 | 12 | Thorium-230 | 2.8* | 7.06 | 7.06 | | U | 1464118 | 597015.6 |
| SU3-11-025D | 20050728 | 8 | 12 | Thorium-232 | 2.1 | 1.06 | 0.23 | | | 1464118 | 597015.6 |
| SU3-11-026 | 20050728 | 0 | 4 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464133 | 597015.6 |
| SU3-11-026 | 20050728 | 0 | 4 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464133 | 597015.6 |
| SU3-11-026 | 20050728 | 0 | 4 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464133 | 597015.6 |
| SU3-11-026 | 20050728 | 0 | 4 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464133 | 597015.6 |
| SU3-11-026 | 20050728 | 0 | 4 | Lead-210 | 7.4 | 1.18 | 0.62 | | | 1464133 | 597015.6 |
| SU3-11-026 | 20050728 | 0 | 4 | Plutonium-238 | 55 | 13.84 | 13.84 | | U | 1464133 | 597015.6 |
| SU3-11-026 | 20050728 | 0 | 4 | Radium-226 | 2.9 | 1.92 | 0.81 | | | 1464133 | 597015.6 |
| SU3-11-026 | 20050728 | 0 | 4 | Thorium-230 | 2.8* | 6.87 | 6.87 | | U | 1464133 | 597015.6 |
| SU3-11-026 | 20050728 | 0 | 4 | Thorium-232 | 2.1 | 0.73 | 0.23 | | | 1464133 | 597015.6 |
| SU3-11-026 | 20050728 | 4 | 8 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464133 | 597015.6 |
| SU3-11-026 | 20050728 | 4 | 8 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464133 | 597015.6 |
| SU3-11-026 | 20050728 | 4 | 8 | Cesium-137 | 3.8 | 0.05 | 0.04 | | | 1464133 | 597015.6 |
| SU3-11-026 | 20050728 | 4 | 8 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464133 | 597015.6 |
| SU3-11-026 | 20050728 | 4 | 8 | Lead-210 | 7.4 | 0.81 | 0.64 | | | 1464133 | 597015.6 |
| SU3-11-026 | 20050728 | 4 | 8 | Plutonium-238 | 55 | 13.93 | 13.93 | | U | 1464133 | 597015.6 |
| SU3-11-026 | 20050728 | 4 | 8 | Radium-226 | 2.9 | 1.05 | 0.76 | | | 1464133 | 597015.6 |
| SU3-11-026 | 20050728 | 4 | 8 | Thorium-230 | 2.8* | 6.97 | 6.97 | | U | 1464133 | 597015.6 |
| SU3-11-026 | 20050728 | 4 | 8 | Thorium-232 | 2.1 | 0.84 | 0.2 | | | 1464133 | 597015.6 |
| SU3-11-027 | 20050707 | 0 | 4 | Actinium-227 | 4.6 | 0.32 | 0.32 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 0 | 4 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 0 | 4 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 0 | 4 | Cobalt-60 | 0.7 | 0.11 | 0.11 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 0 | 4 | Lead-210 | 7.4 | 1.13 | 0.77 | | | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 0 | 4 | Plutonium-238 | 55 | 17.66 | 17.66 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 0 | 4 | Radium-226 | 2.9 | 2.06 | 0.91 | | | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 0 | 4 | Thorium-230 | 2.8* | 7.56 | 7.56 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 0 | 4 | Thorium-232 | 2.1 | 0.55 | 0.36 | | | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 4 | 8 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 4 | 8 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 4 | 8 | Cesium-137 | 3.8 | 0.06 | 0.05 | | | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 4 | 8 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 4 | 8 | Lead-210 | 7.4 | 0.79 | 0.79 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 4 | 8 | Plutonium-238 | 55 | 15.94 | 15.94 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 4 | 8 | Radium-226 | 2.9 | 2.03 | 0.87 | | | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 4 | 8 | Thorium-230 | 2.8* | 7.96 | 7.96 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 4 | 8 | Thorium-232 | 2.1 | 0.71 | 0.27 | | | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 8 | 12 | Actinium-227 | 4.6 | 0.47 | 0.47 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 8 | 12 | Americium-241 | 63 | 0.12 | 0.12 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 8 | 12 | Cesium-137 | 3.8 | 0.06 | 0.05 | | | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 8 | 12 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 8 | 12 | Lead-210 | 7.4 | 1.21 | 0.96 | | | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 8 | 12 | Plutonium-238 | 55 | 17.68 | 17.68 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 8 | 12 | Radium-226 | 2.9 | 1.75 | 1.1 | | | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 8 | 12 | Thorium-230 | 2.8* | 9.66 | 9.66 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 8 | 12 | Thorium-232 | 2.1 | 0.65 | 0.34 | | | 1464148 | 597015.6 |

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# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-027 | 20050707 | 12 | 16 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 12 | 16 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 12 | 16 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 12 | 16 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 12 | 16 | Lead-210 | 7.4 | 0.76 | 0.76 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 12 | 16 | Plutonium-238 | 55 | 12.22 | 12.22 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 12 | 16 | Radium-226 | 2.9 | 1.79 | 0.85 | | | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 12 | 16 | Thorium-230 | 2.8* | 7.57 | 7.57 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 12 | 16 | Thorium-232 | 2.1 | 0.58 | 0.19 | | | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 16 | 20 | Actinium-227 | 4.6 | 0.24 | 0.24 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 16 | 20 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 16 | 20 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 16 | 20 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 16 | 20 | Lead-210 | 7.4 | 0.67 | 0.67 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 16 | 20 | Plutonium-238 | 55 | 12.74 | 12.74 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 16 | 20 | Radium-226 | 2.9 | 1.44 | 0.75 | | | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 16 | 20 | Thorium-230 | 2.8* | 7.03 | 7.03 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 16 | 20 | Thorium-232 | 2.1 | 0.53 | 0.16 | | | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 20 | 24 | Actinium-227 | 4.6 | 0.26 | 0.26 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 20 | 24 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 20 | 24 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 20 | 24 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 20 | 24 | Lead-210 | 7.4 | 0.97 | 0.6 | | | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 20 | 24 | Plutonium-238 | 55 | 12.2 | 12.2 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 20 | 24 | Radium-226 | 2.9 | 1.21 | 0.73 | | | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 20 | 24 | Thorium-230 | 2.8* | 6.68 | 6.68 | | U | 1464148 | 597015.6 |
| SU3-11-027 | 20050707 | 20 | 24 | Thorium-232 | 2.1 | 0.33 | 0.13 | | | 1464148 | 597015.6 |
| SU3-11-027D | 20050707 | 4 | 8 | Actinium-227 | 4.6 | 0.29 | 0.29 | | U | 1464148 | 597015.6 |
| SU3-11-027D | 20050707 | 4 | 8 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464148 | 597015.6 |
| SU3-11-027D | 20050707 | 4 | 8 | Cesium-137 | 3.8 | 0.07 | 0.05 | | | 1464148 | 597015.6 |
| SU3-11-027D | 20050707 | 4 | 8 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464148 | 597015.6 |
| SU3-11-027D | 20050707 | 4 | 8 | Lead-210 | 7.4 | 0.86 | 0.76 | | | 1464148 | 597015.6 |
| SU3-11-027D | 20050707 | 4 | 8 | Plutonium-238 | 55 | 15.83 | 15.83 | | U | 1464148 | 597015.6 |
| SU3-11-027D | 20050707 | 4 | 8 | Radium-226 | 2.9 | 1.3 | 0.9 | | | 1464148 | 597015.6 |
| SU3-11-027D | 20050707 | 4 | 8 | Thorium-230 | 2.8* | 7.15 | 7.15 | | U | 1464148 | 597015.6 |
| SU3-11-027D | 20050707 | 4 | 8 | Thorium-232 | 2.1 | 0.85 | 0.22 | | | 1464148 | 597015.6 |
| SU3-11-028 | 20050711 | 0 | 4 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 0 | 4 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 0 | 4 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 0 | 4 | Cobalt-60 | 0.7 | 0.01 | 0.01 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 0 | 4 | Lead-210 | 7.4 | 1.17 | 0.8 | | | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 0 | 4 | Plutonium-238 | 55 | 17.69 | 17.69 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 0 | 4 | Radium-226 | 2.9 | 1.64 | 0.87 | | | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 0 | 4 | Thorium-230 | 2.8* | 7.63 | 7.63 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 0 | 4 | Thorium-232 | 2.1 | 0.7 | 0.25 | | | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 4 | 8 | Actinium-227 | 4.6 | 0.43 | 0.43 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 4 | 8 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 4 | 8 | Cesium-137 | 3.8 | 0.08 | 0.06 | | | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 4 | 8 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 4 | 8 | Lead-210 | 7.4 | 0.89 | 0.89 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 4 | 8 | Plutonium-238 | 55 | 15.44 | 15.44 | | U | 1464163 | 597015.6 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-028 | 20050711 | 4 | 8 | Radium-226 | 2.9 | 1.93 | 0.95 | | | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 4 | 8 | Thorium-230 | 2.8* | 9.07 | 9.07 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 4 | 8 | Thorium-232 | 2.1 | 0.37 | 0.29 | | | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 8 | 12 | Actinium-227 | 4.6 | 0.34 | 0.34 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 8 | 12 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 8 | 12 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 8 | 12 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 8 | 12 | Lead-210 | 7.4 | 0.76 | 0.72 | | | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 8 | 12 | Plutonium-238 | 55 | 14.53 | 14.53 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 8 | 12 | Radium-226 | 2.9 | 2.06 | 0.8 | | | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 8 | 12 | Thorium-230 | 2.8* | 8.01 | 8.01 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 8 | 12 | Thorium-232 | 2.1 | 0.84 | 0.15 | | | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 12 | 16 | Actinium-227 | 4.6 | 0.24 | 0.24 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 12 | 16 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 12 | 16 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 12 | 16 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 12 | 16 | Lead-210 | 7.4 | 0.67 | 0.67 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 12 | 16 | Plutonium-238 | 55 | 12.63 | 12.63 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 12 | 16 | Radium-226 | 2.9 | 1.44 | 0.77 | | | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 12 | 16 | Thorium-230 | 2.8* | 7.08 | 7.08 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 12 | 16 | Thorium-232 | 2.1 | 0.61 | 0.12 | | | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 16 | 20 | Actinium-227 | 4.6 | 0.29 | 0.29 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 16 | 20 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 16 | 20 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 16 | 20 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 16 | 20 | Lead-210 | 7.4 | 0.64 | 0.64 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 16 | 20 | Plutonium-238 | 55 | 11.09 | 11.09 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 16 | 20 | Radium-226 | 2.9 | 1.37 | 0.62 | | | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 16 | 20 | Thorium-230 | 2.8* | 6.44 | 6.44 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 16 | 20 | Thorium-232 | 2.1 | 0.19 | 0.19 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 20 | 24 | Actinium-227 | 4.6 | 0.21 | 0.21 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 20 | 24 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 20 | 24 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 20 | 24 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 20 | 24 | Lead-210 | 7.4 | 0.69 | 0.51 | | | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 20 | 24 | Plutonium-238 | 55 | 11.46 | 11.46 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 20 | 24 | Radium-226 | 2.9 | 0.72 | 0.72 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 20 | 24 | Thorium-230 | 2.8* | 6.65 | 6.65 | | U | 1464163 | 597015.6 |
| SU3-11-028 | 20050711 | 20 | 24 | Thorium-232 | 2.1 | 0.3 | 0.15 | | | 1464163 | 597015.6 |
| SU3-11-028D | 20050711 | 4 | 8 | Actinium-227 | 4.6 | 0.39 | 0.39 | | U | 1464163 | 597015.6 |
| SU3-11-028D | 20050711 | 4 | 8 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464163 | 597015.6 |
| SU3-11-028D | 20050711 | 4 | 8 | Cesium-137 | 3.8 | 0.06 | 0.06 | | | 1464163 | 597015.6 |
| SU3-11-028D | 20050711 | 4 | 8 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464163 | 597015.6 |
| SU3-11-028D | 20050711 | 4 | 8 | Lead-210 | 7.4 | 0.94 | 0.94 | | U | 1464163 | 597015.6 |
| SU3-11-028D | 20050711 | 4 | 8 | Plutonium-238 | 55 | 15.63 | 15.63 | | U | 1464163 | 597015.6 |
| SU3-11-028D | 20050711 | 4 | 8 | Radium-226 | 2.9 | 1.64 | 0.92 | | | 1464163 | 597015.6 |
| SU3-11-028D | 20050711 | 4 | 8 | Thorium-230 | 2.8* | 8.94 | 8.94 | | U | 1464163 | 597015.6 |
| SU3-11-028D | 20050711 | 4 | 8 | Thorium-232 | 2.1 | 0.44 | 0.28 | | | 1464163 | 597015.6 |
| SU3-11-029 | 20050711 | 0 | 4 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 0 | 4 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 0 | 4 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464178 | 597015.6 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-029 | 20050711 | 0 | 4 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 0 | 4 | Lead-210 | 7.4 | 0.95 | 0.65 | | | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 0 | 4 | Plutonium-238 | 55 | 15.2 | 15.2 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 0 | 4 | Radium-226 | 2.9 | 2.29 | 0.74 | | | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 0 | 4 | Thorium-230 | 2.8* | 7.21 | 7.21 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 0 | 4 | Thorium-232 | 2.1 | 0.67 | 0.2 | | | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 4 | 8 | Actinium-227 | 4.6 | 0.3 | 0.3 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 4 | 8 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 4 | 8 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 4 | 8 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 4 | 8 | Lead-210 | 7.4 | 0.86 | 0.86 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 4 | 8 | Plutonium-238 | 55 | 15.14 | 15.14 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 4 | 8 | Radium-226 | 2.9 | 1.76 | 0.9 | | | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 4 | 8 | Thorium-230 | 2.8* | 8.39 | 8.39 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 4 | 8 | Thorium-232 | 2.1 | 0.9 | 0.2 | | | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 8 | 12 | Actinium-227 | 4.6 | 0.24 | 0.24 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 8 | 12 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 8 | 12 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 8 | 12 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 8 | 12 | Lead-210 | 7.4 | 0.65 | 0.65 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 8 | 12 | Plutonium-238 | 55 | 12.17 | 12.17 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 8 | 12 | Radium-226 | 2.9 | 0.98 | 0.76 | | | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 8 | 12 | Thorium-230 | 2.8* | 6.71 | 6.71 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 8 | 12 | Thorium-232 | 2.1 | 0.21 | 0.17 | | | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 12 | 16 | Actinium-227 | 4.6 | 0.22 | 0.22 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 12 | 16 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 12 | 16 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 12 | 16 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 12 | 16 | Lead-210 | 7.4 | 0.58 | 0.58 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 12 | 16 | Plutonium-238 | 55 | 11.88 | 11.88 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 12 | 16 | Radium-226 | 2.9 | 1.29 | 0.67 | | | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 12 | 16 | Thorium-230 | 2.8* | 6.8 | 6.8 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050711 | 12 | 16 | Thorium-232 | 2.1 | 0.42 | 0.16 | | | 1464178 | 597015.6 |
| SU3-11-029 | 20050712 | 16 | 20 | Actinium-227 | 4.6 | 0.22 | 0.22 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050712 | 16 | 20 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050712 | 16 | 20 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050712 | 16 | 20 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050712 | 16 | 20 | Lead-210 | 7.4 | 0.58 | 0.58 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050712 | 16 | 20 | Plutonium-238 | 55 | 11.01 | 11.01 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050712 | 16 | 20 | Radium-226 | 2.9 | 1.44 | 0.63 | | | 1464178 | 597015.6 |
| SU3-11-029 | 20050712 | 16 | 20 | Thorium-230 | 2.8* | 6.22 | 6.22 | | U | 1464178 | 597015.6 |
| SU3-11-029 | 20050712 | 16 | 20 | Thorium-232 | 2.1 | 0.35 | 0.14 | | | 1464178 | 597015.6 |
| SU3-11-030 | 20050712 | 0 | 4 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 0 | 4 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 0 | 4 | Cesium-137 | 3.8 | 0.05 | 0.03 | | | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 0 | 4 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 0 | 4 | Lead-210 | 7.4 | 0.9 | 0.69 | | | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 0 | 4 | Plutonium-238 | 55 | 14.46 | 14.46 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 0 | 4 | Radium-226 | 2.9 | 2.05 | 0.79 | | | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 0 | 4 | Thorium-230 | 2.8* | 7.2 | 7.2 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 0 | 4 | Thorium-232 | 2.1 | 0.69 | 0.22 | | | 1464193 | 597015.6 |

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# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-030 | 20050712 | 4 | 8 | Actinium-227 | 4.6 | 0.39 | 0.39 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 4 | 8 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 4 | 8 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 4 | 8 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 4 | 8 | Lead-210 | 7.4 | 0.8 | 0.8 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 4 | 8 | Plutonium-238 | 55 | 14.71 | 14.71 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 4 | 8 | Radium-226 | 2.9 | 1.86 | 0.86 | | | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 4 | 8 | Thorium-230 | 2.8* | 8.19 | 8.19 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 4 | 8 | Thorium-232 | 2.1 | 0.59 | 0.22 | | | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 8 | 12 | Actinium-227 | 4.6 | 0.24 | 0.24 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 8 | 12 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 8 | 12 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 8 | 12 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 8 | 12 | Lead-210 | 7.4 | 1.06 | 0.64 | | | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 8 | 12 | Plutonium-238 | 55 | 11.28 | 11.28 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 8 | 12 | Radium-226 | 2.9 | 1.23 | 0.77 | | | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 8 | 12 | Thorium-230 | 2.8* | 7.27 | 7.27 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 8 | 12 | Thorium-232 | 2.1 | 0.34 | 0.17 | | | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 12 | 16 | Actinium-227 | 4.6 | 0.22 | 0.22 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 12 | 16 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 12 | 16 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 12 | 16 | Cobalt-60 | 0.7 | 0.04 | 0.04 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 12 | 16 | Lead-210 | 7.4 | 0.54 | 0.54 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 12 | 16 | Plutonium-238 | 55 | 10.35 | 10.35 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 12 | 16 | Radium-226 | 2.9 | 1.32 | 0.63 | | | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 12 | 16 | Thorium-230 | 2.8* | 6.4 | 6.4 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 12 | 16 | Thorium-232 | 2.1 | 0.36 | 0.13 | | | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 16 | 20 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 16 | 20 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 16 | 20 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 16 | 20 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 16 | 20 | Lead-210 | 7.4 | 0.55 | 0.55 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 16 | 20 | Plutonium-238 | 55 | 10.46 | 10.46 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 16 | 20 | Radium-226 | 2.9 | 0.94 | 0.45 | | | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 16 | 20 | Thorium-230 | 2.8* | 5.74 | 5.74 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 16 | 20 | Thorium-232 | 2.1 | 0.4 | 0.14 | | | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 20 | 24 | Actinium-227 | 4.6 | 0.18 | 0.18 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 20 | 24 | Americium-241 | 63 | 0.04 | 0.04 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 20 | 24 | Cesium-137 | 3.8 | 0.02 | 0.02 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 20 | 24 | Cobalt-60 | 0.7 | 0.04 | 0.04 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 20 | 24 | Lead-210 | 7.4 | 0.6 | 0.43 | | | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 20 | 24 | Plutonium-238 | 55 | 10.13 | 10.13 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 20 | 24 | Radium-226 | 2.9 | 1.04 | 0.48 | | | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 20 | 24 | Thorium-230 | 2.8* | 4.69 | 4.69 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 20 | 24 | Thorium-232 | 2.1 | 0.36 | 0.11 | | | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 24 | 28 | Actinium-227 | 4.6 | 0.18 | 0.18 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 24 | 28 | Americium-241 | 63 | 0.05 | 0.05 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 24 | 28 | Cesium-137 | 3.8 | 0.02 | 0.02 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 24 | 28 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 24 | 28 | Lead-210 | 7.4 | 0.61 | 0.43 | | | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 24 | 28 | Plutonium-238 | 55 | 10.04 | 10.04 | | U | 1464193 | 597015.6 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-030 | 20050712 | 24 | 28 | Radium-226 | 2.9 | 1.47 | 0.49 | | | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 24 | 28 | Thorium-230 | 2.8* | 4.79 | 4.79 | | U | 1464193 | 597015.6 |
| SU3-11-030 | 20050712 | 24 | 28 | Thorium-232 | 2.1 | 0.37 | 0.1 | | | 1464193 | 597015.6 |
| SU3-11-030D | 20050712 | 0 | 4 | Actinium-227 | 4.6 | 0.23 | 0.23 | | U | 1464193 | 597015.6 |
| SU3-11-030D | 20050712 | 0 | 4 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464193 | 597015.6 |
| SU3-11-030D | 20050712 | 0 | 4 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464193 | 597015.6 |
| SU3-11-030D | 20050712 | 0 | 4 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464193 | 597015.6 |
| SU3-11-030D | 20050712 | 0 | 4 | Lead-210 | 7.4 | 0.81 | 0.69 | | | 1464193 | 597015.6 |
| SU3-11-030D | 20050712 | 0 | 4 | Plutonium-238 | 55 | 14.6 | 14.6 | | U | 1464193 | 597015.6 |
| SU3-11-030D | 20050712 | 0 | 4 | Radium-226 | 2.9 | 1.59 | 0.85 | | | 1464193 | 597015.6 |
| SU3-11-030D | 20050712 | 0 | 4 | Thorium-230 | 2.8* | 6.69 | 6.69 | | U | 1464193 | 597015.6 |
| SU3-11-030D | 20050712 | 0 | 4 | Thorium-232 | 2.1 | 0.43 | 0.27 | | | 1464193 | 597015.6 |
| SU3-11-031 | 20050727 | 0 | 8 | Actinium-227 | 4.6 | 0.23 | 0.23 | | U | 1464208 | 597015.6 |
| SU3-11-031 | 20050727 | 0 | 8 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464208 | 597015.6 |
| SU3-11-031 | 20050727 | 0 | 8 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464208 | 597015.6 |
| SU3-11-031 | 20050727 | 0 | 8 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464208 | 597015.6 |
| SU3-11-031 | 20050727 | 0 | 8 | Lead-210 | 7.4 | 0.74 | 0.59 | | | 1464208 | 597015.6 |
| SU3-11-031 | 20050727 | 0 | 8 | Plutonium-238 | 55 | 12.53 | 12.53 | | U | 1464208 | 597015.6 |
| SU3-11-031 | 20050727 | 0 | 8 | Radium-226 | 2.9 | 1.95 | 0.7 | | | 1464208 | 597015.6 |
| SU3-11-031 | 20050727 | 0 | 8 | Thorium-230 | 2.8* | 5.9 | 5.9 | | U | 1464208 | 597015.6 |
| SU3-11-031 | 20050727 | 0 | 8 | Thorium-232 | 2.1 | 0.52 | 0.23 | | | 1464208 | 597015.6 |
| SU3-11-031 | 20050727 | 8 | 12 | Actinium-227 | 4.6 | 0.24 | 0.24 | | U | 1464208 | 597015.6 |
| SU3-11-031 | 20050727 | 8 | 12 | Americium-241 | 63 | 0.05 | 0.05 | | U | 1464208 | 597015.6 |
| SU3-11-031 | 20050727 | 8 | 12 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464208 | 597015.6 |
| SU3-11-031 | 20050727 | 8 | 12 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464208 | 597015.6 |
| SU3-11-031 | 20050727 | 8 | 12 | Lead-210 | 7.4 | 0.57 | 0.57 | | U | 1464208 | 597015.6 |
| SU3-11-031 | 20050727 | 8 | 12 | Plutonium-238 | 55 | 12.45 | 12.45 | | U | 1464208 | 597015.6 |
| SU3-11-031 | 20050727 | 8 | 12 | Radium-226 | 2.9 | 1.28 | 0.66 | | | 1464208 | 597015.6 |
| SU3-11-031 | 20050727 | 8 | 12 | Thorium-230 | 2.8* | 5.2 | 5.2 | | U | 1464208 | 597015.6 |
| SU3-11-031 | 20050727 | 8 | 12 | Thorium-232 | 2.1 | 0.67 | 0.11 | | | 1464208 | 597015.6 |
| SU3-11-032 | 20050727 | 0 | 4 | Actinium-227 | 4.6 | 0.22 | 0.22 | | U | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 0 | 4 | Americium-241 | 63 | 0.05 | 0.05 | | U | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 0 | 4 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 0 | 4 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 0 | 4 | Lead-210 | 7.4 | 0.92 | 0.5 | | | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 0 | 4 | Plutonium-238 | 55 | 13.59 | 13.59 | | U | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 0 | 4 | Radium-226 | 2.9 | 0.78 | 0.58 | | | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 0 | 4 | Thorium-230 | 2.8* | 5.45 | 5.45 | | U | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 0 | 4 | Thorium-232 | 2.1 | 0.5 | 0.15 | | | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 4 | 8 | Actinium-227 | 4.6 | 0.19 | 0.19 | | U | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 4 | 8 | Americium-241 | 63 | 0.05 | 0.05 | | U | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 4 | 8 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 4 | 8 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 4 | 8 | Lead-210 | 7.4 | 0.55 | 0.55 | | U | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 4 | 8 | Plutonium-238 | 55 | 12.24 | 12.24 | | U | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 4 | 8 | Radium-226 | 2.9 | 1.78 | 0.64 | | | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 4 | 8 | Thorium-230 | 2.8* | 5.93 | 5.93 | | U | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 4 | 8 | Thorium-232 | 2.1 | 0.51 | 0.12 | | | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 8 | 12 | Actinium-227 | 4.6 | 0.26 | 0.26 | | U | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 8 | 12 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 8 | 12 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464223 | 597015.6 |

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# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-032 | 20050727 | 8 | 12 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 8 | 12 | Lead-210 | 7.4 | 0.88 | 0.68 | | | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 8 | 12 | Plutonium-238 | 55 | 13.6 | 13.6 | | U | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 8 | 12 | Radium-226 | 2.9 | 1.73 | 0.8 | | | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 8 | 12 | Thorium-230 | 2.8* | 7.26 | 7.26 | | U | 1464223 | 597015.6 |
| SU3-11-032 | 20050727 | 8 | 12 | Thorium-232 | 2.1 | 0.25 | 0.25 | | U | 1464223 | 597015.6 |
| SU3-11-032D | 20050727 | 4 | 8 | Actinium-227 | 4.6 | 0.21 | 0.21 | | U | 1464223 | 597015.6 |
| SU3-11-032D | 20050727 | 4 | 8 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464223 | 597015.6 |
| SU3-11-032D | 20050727 | 4 | 8 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464223 | 597015.6 |
| SU3-11-032D | 20050727 | 4 | 8 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464223 | 597015.6 |
| SU3-11-032D | 20050727 | 4 | 8 | Lead-210 | 7.4 | 0.6 | 0.6 | | U | 1464223 | 597015.6 |
| SU3-11-032D | 20050727 | 4 | 8 | Plutonium-238 | 55 | 11.26 | 11.26 | | U | 1464223 | 597015.6 |
| SU3-11-032D | 20050727 | 4 | 8 | Radium-226 | 2.9 | 1.02 | 0.67 | | | 1464223 | 597015.6 |
| SU3-11-032D | 20050727 | 4 | 8 | Thorium-230 | 2.8* | 5.95 | 5.95 | | U | 1464223 | 597015.6 |
| SU3-11-032D | 20050727 | 4 | 8 | Thorium-232 | 2.1 | 0.3 | 0.19 | | | 1464223 | 597015.6 |
| SU3-11-033 | 20050727 | 0 | 4 | Actinium-227 | 4.6 | 0.34 | 0.34 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 0 | 4 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 0 | 4 | Cesium-137 | 3.8 | 0.08 | 0.08 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 0 | 4 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 0 | 4 | Lead-210 | 7.4 | 0.99 | 0.75 | | | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 0 | 4 | Plutonium-238 | 55 | 12.94 | 12.94 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 0 | 4 | Radium-226 | 2.9 | 1.7 | 0.78 | | | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 0 | 4 | Thorium-230 | 2.8* | 7.13 | 7.13 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 0 | 4 | Thorium-232 | 2.1 | 0.41 | 0.19 | | | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 4 | 8 | Actinium-227 | 4.6 | 0.24 | 0.24 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 4 | 8 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 4 | 8 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 4 | 8 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 4 | 8 | Lead-210 | 7.4 | 0.77 | 0.7 | | | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 4 | 8 | Plutonium-238 | 55 | 13.38 | 13.38 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 4 | 8 | Radium-226 | 2.9 | 1.9 | 0.73 | | | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 4 | 8 | Thorium-230 | 2.8* | 7.07 | 7.07 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 4 | 8 | Thorium-232 | 2.1 | 0.33 | 0.23 | | | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 8 | 12 | Actinium-227 | 4.6 | 0.23 | 0.23 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 8 | 12 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 8 | 12 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 8 | 12 | Cobalt-60 | 0.7 | 0.05 | 0.04 | | | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 8 | 12 | Lead-210 | 7.4 | 0.71 | 0.71 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 8 | 12 | Plutonium-238 | 55 | 12.9 | 12.9 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 8 | 12 | Radium-226 | 2.9 | 1.65 | 0.81 | | | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 8 | 12 | Thorium-230 | 2.8* | 7.12 | 7.12 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 8 | 12 | Thorium-232 | 2.1 | 0.37 | 0.21 | | | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 12 | 16 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 12 | 16 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 12 | 16 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 12 | 16 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 12 | 16 | Lead-210 | 7.4 | 0.64 | 0.63 | | | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 12 | 16 | Plutonium-238 | 55 | 12.7 | 12.7 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 12 | 16 | Radium-226 | 2.9 | 1.11 | 0.56 | | | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 12 | 16 | Thorium-230 | 2.8* | 6.5 | 6.5 | | U | 1464238 | 597015.6 |
| SU3-11-033 | 20050727 | 12 | 16 | Thorium-232 | 2.1 | 0.55 | 0.15 | | | 1464238 | 597015.6 |

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# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-034 | 20050725 | 0 | 4 | Actinium-227 | 4.6 | 0.08 | 0.34 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 0 | 4 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 0 | 4 | Cesium-137 | 3.8 | 0.08 | 0.08 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 0 | 4 | Cobalt-60 | 0.7 | 0.11 | 0.11 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 0 | 4 | Lead-210 | 7.4 | 1.21 | 0.86 | | | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 0 | 4 | Plutonium-238 | 55 | 17.35 | 17.35 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 0 | 4 | Radium-226 | 2.9 | 1.85 | 1.14 | | | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 0 | 4 | Thorium-230 | 2.8* | 9.51 | 9.51 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 0 | 4 | Thorium-232 | 2.1 | 0.4 | 0.33 | | | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 4 | 8 | Actinium-227 | 4.6 | 0.42 | 0.42 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 4 | 8 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 4 | 8 | Cesium-137 | 3.8 | 0.08 | 0.08 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 4 | 8 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 4 | 8 | Lead-210 | 7.4 | 1.35 | 0.85 | | | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 4 | 8 | Plutonium-238 | 55 | 15.84 | 15.84 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 4 | 8 | Radium-226 | 2.9 | 2.41 | 0.99 | | | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 4 | 8 | Thorium-230 | 2.8* | 9.4 | 9.4 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 4 | 8 | Thorium-232 | 2.1 | 0.85 | 0.15 | | | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 8 | 12 | Actinium-227 | 4.6 | 0.29 | 0.29 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 8 | 12 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 8 | 12 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 8 | 12 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 8 | 12 | Lead-210 | 7.4 | 0.72 | 0.72 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 8 | 12 | Plutonium-238 | 55 | 14.14 | 14.14 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 8 | 12 | Radium-226 | 2.9 | 2.24 | 0.77 | | | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 8 | 12 | Thorium-230 | 2.8* | 7.31 | 7.31 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 8 | 12 | Thorium-232 | 2.1 | 0.45 | 0.17 | | | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 12 | 16 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 12 | 16 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 12 | 16 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 12 | 16 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 12 | 16 | Lead-210 | 7.4 | 0.81 | 0.73 | | | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 12 | 16 | Plutonium-238 | 55 | 13.68 | 13.68 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 12 | 16 | Radium-226 | 2.9 | 1.74 | 0.81 | | | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 12 | 16 | Thorium-230 | 2.8* | 7.67 | 7.67 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 12 | 16 | Thorium-232 | 2.1 | 0.53 | 0.18 | | | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 16 | 20 | Actinium-227 | 4.6 | 0.21 | 0.21 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 16 | 20 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 16 | 20 | Cesium-137 | 3.8 | 0.03 | 0.03 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 16 | 20 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 16 | 20 | Lead-210 | 7.4 | 1.18 | 0.54 | | | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 16 | 20 | Plutonium-238 | 55 | 14.47 | 14.47 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 16 | 20 | Radium-226 | 2.9 | 1.79 | 0.68 | | | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 16 | 20 | Thorium-230 | 2.8* | 6.04 | 6.04 | | U | 1464253 | 597015.6 |
| SU3-11-034 | 20050725 | 16 | 20 | Thorium-232 | 2.1 | 0.49 | 0.16 | | | 1464253 | 597015.6 |
| SU3-11-034D | 20050725 | 8 | 12 | Actinium-227 | 4.6 | 0.3 | 0.3 | | U | 1464253 | 597015.6 |
| SU3-11-034D | 20050725 | 8 | 12 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464253 | 597015.6 |
| SU3-11-034D | 20050725 | 8 | 12 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464253 | 597015.6 |
| SU3-11-034D | 20050725 | 8 | 12 | Cobalt-60 | 0.7 | 0.1 | 0.1 | | U | 1464253 | 597015.6 |
| SU3-11-034D | 20050725 | 8 | 12 | Lead-210 | 7.4 | 1.15 | 0.66 | | | 1464253 | 597015.6 |
| SU3-11-034D | 20050725 | 8 | 12 | Plutonium-238 | 55 | 14.06 | 14.06 | | U | 1464253 | 597015.6 |

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# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-034D | 20050725 | 8 | 12 | Radium-226 | 2.9 | 2.13 | 0.73 | | | 1464253 | 597015.6 |
| SU3-11-034D | 20050725 | 8 | 12 | Thorium-230 | 2.8* | 7.49 | 7.49 | | U | 1464253 | 597015.6 |
| SU3-11-034D | 20050725 | 8 | 12 | Thorium-232 | 2.1 | 0.25 | 0.24 | | | 1464253 | 597015.6 |
| SU3-11-035 | 20050725 | 0 | 4 | Actinium-227 | 4.6 | 0.24 | 0.24 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050725 | 0 | 4 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050725 | 0 | 4 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050725 | 0 | 4 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050725 | 0 | 4 | Lead-210 | 7.4 | 0.76 | 0.61 | | | 1464268 | 597015.6 |
| SU3-11-035 | 20050725 | 0 | 4 | Plutonium-238 | 55 | 14.73 | 14.73 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050725 | 0 | 4 | Radium-226 | 2.9 | 1.7 | 0.75 | | | 1464268 | 597015.6 |
| SU3-11-035 | 20050725 | 0 | 4 | Thorium-230 | 2.8* | 6.45 | 6.45 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050725 | 0 | 4 | Thorium-232 | 2.1 | 0.68 | 0.22 | | | 1464268 | 597015.6 |
| SU3-11-035 | 20050725 | 4 | 8 | Actinium-227 | 4.6 | 0.3 | 0.3 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050725 | 4 | 8 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050725 | 4 | 8 | Cesium-137 | 3.8 | 0.11 | 0.07 | | | 1464268 | 597015.6 |
| SU3-11-035 | 20050725 | 4 | 8 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050725 | 4 | 8 | Lead-210 | 7.4 | 0.92 | 0.77 | | | 1464268 | 597015.6 |
| SU3-11-035 | 20050725 | 4 | 8 | Plutonium-238 | 55 | 17.6 | 17.6 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050725 | 4 | 8 | Radium-226 | 2.9 | 1.37 | 0.9 | | | 1464268 | 597015.6 |
| SU3-11-035 | 20050725 | 4 | 8 | Thorium-230 | 2.8* | 7.86 | 7.86 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050725 | 4 | 8 | Thorium-232 | 2.1 | 0.89 | 0.25 | | | 1464268 | 597015.6 |
| SU3-11-035 | 20050727 | 8 | 12 | Actinium-227 | 4.6 | 0.23 | 0.23 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050727 | 8 | 12 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050727 | 8 | 12 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050727 | 8 | 12 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050727 | 8 | 12 | Lead-210 | 7.4 | 0.79 | 0.54 | | | 1464268 | 597015.6 |
| SU3-11-035 | 20050727 | 8 | 12 | Plutonium-238 | 55 | 11.12 | 11.12 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050727 | 8 | 12 | Radium-226 | 2.9 | 1.43 | 0.63 | | | 1464268 | 597015.6 |
| SU3-11-035 | 20050727 | 8 | 12 | Thorium-230 | 2.8* | 5.93 | 5.93 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050727 | 8 | 12 | Thorium-232 | 2.1 | 0.26 | 0.21 | | | 1464268 | 597015.6 |
| SU3-11-035 | 20050727 | 12 | 16 | Actinium-227 | 4.6 | 0.24 | 0.24 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050727 | 12 | 16 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050727 | 12 | 16 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050727 | 12 | 16 | Cobalt-60 | 0.7 | 0.04 | 0.04 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050727 | 12 | 16 | Lead-210 | 7.4 | 0.95 | 0.7 | | | 1464268 | 597015.6 |
| SU3-11-035 | 20050727 | 12 | 16 | Plutonium-238 | 55 | 14.62 | 14.62 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050727 | 12 | 16 | Radium-226 | 2.9 | 2.42 | 0.7 | | | 1464268 | 597015.6 |
| SU3-11-035 | 20050727 | 12 | 16 | Thorium-230 | 2.8* | 7.73 | 7.73 | | U | 1464268 | 597015.6 |
| SU3-11-035 | 20050727 | 12 | 16 | Thorium-232 | 2.1 | 0.41 | 0.16 | | | 1464268 | 597015.6 |
| SU3-11-035D | 20050727 | 0 | 4 | Actinium-227 | 4.6 | 0.29 | 0.29 | | U | 1464268 | 597015.6 |
| SU3-11-035D | 20050727 | 0 | 4 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464268 | 597015.6 |
| SU3-11-035D | 20050727 | 0 | 4 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464268 | 597015.6 |
| SU3-11-035D | 20050727 | 0 | 4 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464268 | 597015.6 |
| SU3-11-035D | 20050727 | 0 | 4 | Lead-210 | 7.4 | 1.49 | 0.78 | | | 1464268 | 597015.6 |
| SU3-11-035D | 20050727 | 0 | 4 | Plutonium-238 | 55 | 18.8 | 18.8 | | U | 1464268 | 597015.6 |
| SU3-11-035D | 20050727 | 0 | 4 | Radium-226 | 2.9 | 1.93 | 0.87 | | | 1464268 | 597015.6 |
| SU3-11-035D | 20050727 | 0 | 4 | Thorium-230 | 2.8* | 8.21 | 8.21 | | U | 1464268 | 597015.6 |
| SU3-11-035D | 20050727 | 0 | 4 | Thorium-232 | 2.1 | 0.81 | 0.25 | | | 1464268 | 597015.6 |
| SU3-11-036 | 20050706 | 0 | 4 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 0 | 4 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 0 | 4 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464298 | 597015.6 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-036 | 20050706 | 0 | 4 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 0 | 4 | Lead-210 | 7.4 | 0.75 | 0.75 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 0 | 4 | Plutonium-238 | 55 | 14.93 | 14.93 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 0 | 4 | Radium-226 | 2.9 | 1.89 | 0.8 | | | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 0 | 4 | Thorium-230 | 2.8* | 7.4 | 7.4 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 0 | 4 | Thorium-232 | 2.1 | 0.34 | 0.24 | | | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 4 | 8 | Actinium-227 | 4.6 | 0.31 | 0.31 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 4 | 8 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 4 | 8 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 4 | 8 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 4 | 8 | Lead-210 | 7.4 | 0.87 | 0.87 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 4 | 8 | Plutonium-238 | 55 | 16.04 | 16.04 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 4 | 8 | Radium-226 | 2.9 | 2.06 | 0.84 | | | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 4 | 8 | Thorium-230 | 2.8* | 8.15 | 8.15 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 4 | 8 | Thorium-232 | 2.1 | 0.6 | 0.23 | | | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 8 | 12 | Actinium-227 | 4.6 | 0.42 | 0.42 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 8 | 12 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 8 | 12 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 8 | 12 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 8 | 12 | Lead-210 | 7.4 | 1.04 | 0.87 | | | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 8 | 12 | Plutonium-238 | 55 | 16.71 | 16.71 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 8 | 12 | Radium-226 | 2.9 | 2.36 | 0.91 | | | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 8 | 12 | Thorium-230 | 2.8* | 8.47 | 8.47 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 8 | 12 | Thorium-232 | 2.1 | 0.49 | 0.22 | | | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 12 | 16 | Actinium-227 | 4.6 | 0.29 | 0.29 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 12 | 16 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 12 | 16 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 12 | 16 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 12 | 16 | Lead-210 | 7.4 | 0.99 | 0.73 | | | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 12 | 16 | Plutonium-238 | 55 | 14.48 | 14.48 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 12 | 16 | Radium-226 | 2.9 | 1.94 | 0.81 | | | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 12 | 16 | Thorium-230 | 2.8* | 7.68 | 7.68 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 12 | 16 | Thorium-232 | 2.1 | 0.43 | 0.23 | | | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 16 | 20 | Actinium-227 | 4.6 | 0.34 | 0.34 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 16 | 20 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 16 | 20 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 16 | 20 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 16 | 20 | Lead-210 | 7.4 | 0.96 | 0.75 | | | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 16 | 20 | Plutonium-238 | 55 | 12.86 | 12.86 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 16 | 20 | Radium-226 | 2.9 | 1.64 | 0.87 | | | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 16 | 20 | Thorium-230 | 2.8* | 7.65 | 7.65 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 16 | 20 | Thorium-232 | 2.1 | 0.55 | 0.19 | | | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 20 | 24 | Actinium-227 | 4.6 | 0.24 | 0.24 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 20 | 24 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 20 | 24 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 20 | 24 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 20 | 24 | Lead-210 | 7.4 | 1.08 | 0.7 | | | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 20 | 24 | Plutonium-238 | 55 | 14.92 | 14.92 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 20 | 24 | Radium-226 | 2.9 | 2.09 | 0.82 | | | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 20 | 24 | Thorium-230 | 2.8* | 7.61 | 7.61 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 20 | 24 | Thorium-232 | 2.1 | 0.55 | 0.14 | | | 1464298 | 597015.6 |

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# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-036 | 20050706 | 24 | 28 | Actinium-227 | 4.6 | 0.18 | 0.18 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 24 | 28 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 24 | 28 | Cesium-137 | 3.8 | 0.03 | 0.03 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 24 | 28 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 24 | 28 | Lead-210 | 7.4 | 0.78 | 0.47 | | | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 24 | 28 | Plutonium-238 | 55 | 11.43 | 11.43 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 24 | 28 | Radium-226 | 2.9 | 1.24 | 0.54 | | | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 24 | 28 | Thorium-230 | 2.8* | 5.57 | 5.57 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 24 | 28 | Thorium-232 | 2.1 | 0.27 | 0.16 | | | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 28 | 32 | Actinium-227 | 4.6 | 0.23 | 0.23 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 28 | 32 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 28 | 32 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 28 | 32 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 28 | 32 | Lead-210 | 7.4 | 0.58 | 0.58 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 28 | 32 | Plutonium-238 | 55 | 12.18 | 12.18 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 28 | 32 | Radium-226 | 2.9 | 1.76 | 0.66 | | | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 28 | 32 | Thorium-230 | 2.8* | 5.51 | 5.51 | | U | 1464298 | 597015.6 |
| SU3-11-036 | 20050706 | 28 | 32 | Thorium-232 | 2.1 | 0.38 | 0.2 | | | 1464298 | 597015.6 |
| SU3-11-037 | 20050706 | 0 | 4 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 0 | 4 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 0 | 4 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 0 | 4 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 0 | 4 | Lead-210 | 7.4 | 1.21 | 0.79 | | | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 0 | 4 | Plutonium-238 | 55 | 20.36 | 20.36 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 0 | 4 | Radium-226 | 2.9 | 1.88 | 0.81 | | | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 0 | 4 | Thorium-230 | 2.8* | 7.34 | 7.34 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 0 | 4 | Thorium-232 | 2.1 | 0.55 | 0.25 | | | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 4 | 8 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 4 | 8 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 4 | 8 | Cesium-137 | 3.8 | 0.08 | 0.05 | | | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 4 | 8 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 4 | 8 | Lead-210 | 7.4 | 1.16 | 0.7 | | | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 4 | 8 | Plutonium-238 | 55 | 15.04 | 15.04 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 4 | 8 | Radium-226 | 2.9 | 1.96 | 0.78 | | | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 4 | 8 | Thorium-230 | 2.8* | 7.11 | 7.11 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 4 | 8 | Thorium-232 | 2.1 | 0.78 | 0.25 | | | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 8 | 12 | Actinium-227 | 4.6 | 0.3 | 0.3 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 8 | 12 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 8 | 12 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 8 | 12 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 8 | 12 | Lead-210 | 7.4 | 1.22 | 0.69 | | | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 8 | 12 | Plutonium-238 | 55 | 15.36 | 15.36 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 8 | 12 | Radium-226 | 2.9 | 2.01 | 0.79 | | | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 8 | 12 | Thorium-230 | 2.8* | 7.77 | 7.77 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 8 | 12 | Thorium-232 | 2.1 | 0.71 | 0.18 | | | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 12 | 16 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 12 | 16 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 12 | 16 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 12 | 16 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 12 | 16 | Lead-210 | 7.4 | 1.32 | 0.71 | | | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 12 | 16 | Plutonium-238 | 55 | 18.37 | 18.37 | | U | 1464313 | 597015.6 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-037 | 20050706 | 12 | 16 | Radium-226 | 2.9 | 1.48 | 0.85 | | | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 12 | 16 | Thorium-230 | 2.8* | 7.19 | 7.19 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 12 | 16 | Thorium-232 | 2.1 | 0.51 | 0.26 | | | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 16 | 20 | Actinium-227 | 4.6 | 0.31 | 0.31 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 16 | 20 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 16 | 20 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 16 | 20 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 16 | 20 | Lead-210 | 7.4 | 1.92 | 0.7 | | | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 16 | 20 | Plutonium-238 | 55 | 21.64 | 21.64 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 16 | 20 | Radium-226 | 2.9 | 1.88 | 0.95 | | | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 16 | 20 | Thorium-230 | 2.8* | 8.94 | 8.94 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 16 | 20 | Thorium-232 | 2.1 | 0.35 | 0.33 | | | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 20 | 24 | Actinium-227 | 4.6 | 0.22 | 0.22 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 20 | 24 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 20 | 24 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 20 | 24 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 20 | 24 | Lead-210 | 7.4 | 1.24 | 0.55 | | | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 20 | 24 | Plutonium-238 | 55 | 13.69 | 13.69 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 20 | 24 | Radium-226 | 2.9 | 1.46 | 0.68 | | | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 20 | 24 | Thorium-230 | 2.8* | 6.06 | 6.06 | | U | 1464313 | 597015.6 |
| SU3-11-037 | 20050706 | 20 | 24 | Thorium-232 | 2.1 | 0.29 | 0.21 | | | 1464313 | 597015.6 |
| SU3-11-037D | 20050706 | 12 | 16 | Actinium-227 | 4.6 | 0.32 | 0.32 | | U | 1464313 | 597015.6 |
| SU3-11-037D | 20050706 | 12 | 16 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464313 | 597015.6 |
| SU3-11-037D | 20050706 | 12 | 16 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464313 | 597015.6 |
| SU3-11-037D | 20050706 | 12 | 16 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464313 | 597015.6 |
| SU3-11-037D | 20050706 | 12 | 16 | Lead-210 | 7.4 | 1.26 | 0.8 | | | 1464313 | 597015.6 |
| SU3-11-037D | 20050706 | 12 | 16 | Plutonium-238 | 55 | 17.23 | 17.23 | | U | 1464313 | 597015.6 |
| SU3-11-037D | 20050706 | 12 | 16 | Radium-226 | 2.9 | 2.21 | 1 | | | 1464313 | 597015.6 |
| SU3-11-037D | 20050706 | 12 | 16 | Thorium-230 | 2.8* | 8 | 8 | | U | 1464313 | 597015.6 |
| SU3-11-037D | 20050706 | 12 | 16 | Thorium-232 | 2.1 | 0.53 | 0.23 | | | 1464313 | 597015.6 |
| SU3-11-039 | 20050728 | 0 | 4 | Actinium-227 | 4.6 | 0.32 | 0.32 | | U | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 0 | 4 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 0 | 4 | Cesium-137 | 3.8 | 0.08 | 0.06 | | | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 0 | 4 | Cobalt-60 | 0.7 | 0.04 | 0.04 | | | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 0 | 4 | Lead-210 | 7.4 | 0.87 | 0.87 | | U | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 0 | 4 | Plutonium-238 | 55 | 15.09 | 15.09 | | U | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 0 | 4 | Radium-226 | 2.9 | 2.48 | 0.93 | | | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 0 | 4 | Thorium-230 | 2.8* | 9.34 | 9.34 | | U | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 0 | 4 | Thorium-232 | 2.1 | 0.79 | 0.25 | | | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 4 | 8 | Actinium-227 | 4.6 | 0.36 | 0.36 | | U | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 4 | 8 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 4 | 8 | Cesium-137 | 3.8 | 0.05 | 0.05 | | | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 4 | 8 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 4 | 8 | Lead-210 | 7.4 | 0.77 | 0.75 | | | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 4 | 8 | Plutonium-238 | 55 | 14.1 | 14.1 | | U | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 4 | 8 | Radium-226 | 2.9 | 1.44 | 0.71 | | | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 4 | 8 | Thorium-230 | 2.8* | 8.87 | 8.87 | | U | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 4 | 8 | Thorium-232 | 2.1 | 0.66 | 0.23 | | | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 8 | 12 | Actinium-227 | 4.6 | 0.46 | 0.46 | | U | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 8 | 12 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 8 | 12 | Cesium-137 | 3.8 | 0.08 | 0.08 | | U | 1464126 | 597028.6 |

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# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-039 | 20050728 | 8 | 12 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 8 | 12 | Lead-210 | 7.4 | 1.18 | 1.03 | | | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 8 | 12 | Plutonium-238 | 55 | 16.3 | 16.3 | | U | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 8 | 12 | Radium-226 | 2.9 | 2.74 | 1.04 | | | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 8 | 12 | Thorium-230 | 2.8* | 9.93 | 9.93 | | U | 1464126 | 597028.6 |
| SU3-11-039 | 20050728 | 8 | 12 | Thorium-232 | 2.1 | 0.9 | 0.25 | | | 1464126 | 597028.6 |
| SU3-11-040 | 20050728 | 0 | 4 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 0 | 4 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 0 | 4 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 0 | 4 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 0 | 4 | Lead-210 | 7.4 | 0.76 | 0.76 | | U | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 0 | 4 | Plutonium-238 | 55 | 15.72 | 15.72 | | U | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 0 | 4 | Radium-226 | 2.9 | 1.44 | 0.9 | | | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 0 | 4 | Thorium-230 | 2.8* | 7.67 | 7.67 | | U | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 0 | 4 | Thorium-232 | 2.1 | 0.49 | 0.2 | | | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 4 | 8 | Actinium-227 | 4.6 | 0.29 | 0.29 | | U | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 4 | 8 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 4 | 8 | Cesium-137 | 3.8 | 0.06 | 0.05 | | | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 4 | 8 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 4 | 8 | Lead-210 | 7.4 | 1.4 | 0.68 | | | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 4 | 8 | Plutonium-238 | 55 | 17.07 | 17.07 | | U | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 4 | 8 | Radium-226 | 2.9 | 1.92 | 0.94 | | | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 4 | 8 | Thorium-230 | 2.8* | 7.89 | 7.89 | | U | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 4 | 8 | Thorium-232 | 2.1 | 0.73 | 0.23 | | | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 8 | 12 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 8 | 12 | Americium-241 | 63 | 0.07 | 0.07 | | | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 8 | 12 | Cesium-137 | 3.8 | 0.06 | 0.04 | | | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 8 | 12 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 8 | 12 | Lead-210 | 7.4 | 0.83 | 0.7 | | | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 8 | 12 | Plutonium-238 | 55 | 16 | 16 | | U | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 8 | 12 | Radium-226 | 2.9 | 1.33 | 0.97 | | | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 8 | 12 | Thorium-230 | 2.8* | 7.17 | 7.17 | | U | 1464141 | 597028.6 |
| SU3-11-040 | 20050728 | 8 | 12 | Thorium-232 | 2.1 | 0.97 | 0.19 | | | 1464141 | 597028.6 |
| SU3-11-040D | 20050728 | 0 | 4 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1464141 | 597028.6 |
| SU3-11-040D | 20050728 | 0 | 4 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464141 | 597028.6 |
| SU3-11-040D | 20050728 | 0 | 4 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464141 | 597028.6 |
| SU3-11-040D | 20050728 | 0 | 4 | Cobalt-60 | 0.7 | 0.1 | 0.1 | | U | 1464141 | 597028.6 |
| SU3-11-040D | 20050728 | 0 | 4 | Lead-210 | 7.4 | 1.27 | 0.64 | | | 1464141 | 597028.6 |
| SU3-11-040D | 20050728 | 0 | 4 | Plutonium-238 | 55 | 15.72 | 15.72 | | U | 1464141 | 597028.6 |
| SU3-11-040D | 20050728 | 0 | 4 | Radium-226 | 2.9 | 1.72 | 0.95 | | | 1464141 | 597028.6 |
| SU3-11-040D | 20050728 | 0 | 4 | Thorium-230 | 2.8* | 7.13 | 7.13 | | U | 1464141 | 597028.6 |
| SU3-11-040D | 20050728 | 0 | 4 | Thorium-232 | 2.1 | 0.49 | 0.23 | | | 1464141 | 597028.6 |
| SU3-11-041 | 20050720 | 0 | 4 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 0 | 4 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 0 | 4 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 0 | 4 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 0 | 4 | Lead-210 | 7.4 | 0.68 | 0.68 | | | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 0 | 4 | Plutonium-238 | 55 | 12.53 | 12.53 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 0 | 4 | Radium-226 | 2.9 | 1.41 | 0.68 | | | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 0 | 4 | Thorium-230 | 2.8* | 6.86 | 6.86 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 0 | 4 | Thorium-232 | 2.1 | 0.53 | 0.16 | | | 1464156 | 597028.6 |

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# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-041 | 20050720 | 4 | 8 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 4 | 8 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 4 | 8 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 4 | 8 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 4 | 8 | Lead-210 | 7.4 | 0.76 | 0.76 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 4 | 8 | Plutonium-238 | 55 | 13.28 | 13.28 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 4 | 8 | Radium-226 | 2.9 | 1.63 | 0.79 | | | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 4 | 8 | Thorium-230 | 2.8* | 7.36 | 7.36 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 4 | 8 | Thorium-232 | 2.1 | 0.35 | 0.22 | | | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 8 | 12 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 8 | 12 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 8 | 12 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 8 | 12 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 8 | 12 | Lead-210 | 7.4 | 0.76 | 0.76 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 8 | 12 | Plutonium-238 | 55 | 15.09 | 15.09 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 8 | 12 | Radium-226 | 2.9 | 1.86 | 0.82 | | | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 8 | 12 | Thorium-230 | 2.8* | 8.67 | 8.67 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 8 | 12 | Thorium-232 | 2.1 | 0.61 | 0.15 | | | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 12 | 16 | Actinium-227 | 4.6 | 0.31 | 0.31 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 12 | 16 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 12 | 16 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 12 | 16 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 12 | 16 | Lead-210 | 7.4 | 1.02 | 0.77 | | | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 12 | 16 | Plutonium-238 | 55 | 17.14 | 17.14 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 12 | 16 | Radium-226 | 2.9 | 2.57 | 0.85 | | | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 12 | 16 | Thorium-230 | 2.8* | 9.04 | 9.04 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 12 | 16 | Thorium-232 | 2.1 | 0.69 | 0.21 | | | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 16 | 20 | Actinium-227 | 4.6 | 0.29 | 0.29 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 16 | 20 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 16 | 20 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 16 | 20 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 16 | 20 | Lead-210 | 7.4 | 0.87 | 0.87 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 16 | 20 | Plutonium-238 | 55 | 15.25 | 15.25 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 16 | 20 | Radium-226 | 2.9 | 1.2 | 0.92 | | | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 16 | 20 | Thorium-230 | 2.8* | 9.05 | 9.05 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 16 | 20 | Thorium-232 | 2.1 | 0.72 | 0.25 | | | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 20 | 24 | Actinium-227 | 4.6 | 0.29 | 0.29 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 20 | 24 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 20 | 24 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 20 | 24 | Cobalt-60 | 0.7 | 0.04 | 0.04 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 20 | 24 | Lead-210 | 7.4 | 0.6 | 0.6 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 20 | 24 | Plutonium-238 | 55 | 11.43 | 11.43 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 20 | 24 | Radium-226 | 2.9 | 1.28 | 0.61 | | | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 20 | 24 | Thorium-230 | 2.8* | 5.89 | 5.89 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050720 | 20 | 24 | Thorium-232 | 2.1 | 0.29 | 0.15 | | | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 24 | 28 | Actinium-227 | 4.6 | 0.23 | 0.23 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 24 | 28 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 24 | 28 | Cesium-137 | 3.8 | 0.03 | 0.03 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 24 | 28 | Cobalt-60 | 0.7 | 0.04 | 0.04 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 24 | 28 | Lead-210 | 7.4 | 0.67 | 0.67 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 24 | 28 | Plutonium-238 | 55 | 12.54 | 12.54 | | U | 1464156 | 597028.6 |

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# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-041 | 20050721 | 24 | 28 | Radium-226 | 2.9 | 0.81 | 0.7 | | | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 24 | 28 | Thorium-230 | 2.8* | 6.2 | 6.2 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 24 | 28 | Thorium-232 | 2.1 | 0.38 | 0.12 | | | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 28 | 32 | Actinium-227 | 4.6 | 0.21 | 0.21 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 28 | 32 | Americium-241 | 63 | 0.05 | 0.05 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 28 | 32 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 28 | 32 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 28 | 32 | Lead-210 | 7.4 | 0.7 | 0.53 | | | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 28 | 32 | Plutonium-238 | 55 | 12.36 | 12.36 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 28 | 32 | Radium-226 | 2.9 | 1.14 | 0.62 | | | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 28 | 32 | Thorium-230 | 2.8* | 5.13 | 5.13 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 28 | 32 | Thorium-232 | 2.1 | 0.24 | 0.24 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 32 | 36 | Actinium-227 | 4.6 | 0.24 | 0.24 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 32 | 36 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 32 | 36 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 32 | 36 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 32 | 36 | Lead-210 | 7.4 | 0.69 | 0.69 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 32 | 36 | Plutonium-238 | 55 | 12.08 | 12.08 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 32 | 36 | Radium-226 | 2.9 | 0.81 | 0.81 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 32 | 36 | Thorium-230 | 2.8* | 7.04 | 7.04 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 32 | 36 | Thorium-232 | 2.1 | 0.19 | 0.16 | | | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 36 | 40 | Actinium-227 | 4.6 | 0.2 | 0.2 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 36 | 40 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 36 | 40 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 36 | 40 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 36 | 40 | Lead-210 | 7.4 | 0.91 | 0.54 | | | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 36 | 40 | Plutonium-238 | 55 | 10.43 | 10.43 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 36 | 40 | Radium-226 | 2.9 | 1.01 | 0.69 | | | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 36 | 40 | Thorium-230 | 2.8* | 5.4 | 5.4 | | U | 1464156 | 597028.6 |
| SU3-11-041 | 20050721 | 36 | 40 | Thorium-232 | 2.1 | 0.23 | 0.13 | | | 1464156 | 597028.6 |
| SU3-11-041D | 20050721 | 28 | 32 | Actinium-227 | 4.6 | 0.2 | 0.2 | | U | 1464156 | 597028.6 |
| SU3-11-041D | 20050721 | 28 | 32 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464156 | 597028.6 |
| SU3-11-041D | 20050721 | 28 | 32 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464156 | 597028.6 |
| SU3-11-041D | 20050721 | 28 | 32 | Cobalt-60 | 0.7 | 0.04 | 0.04 | | U | 1464156 | 597028.6 |
| SU3-11-041D | 20050721 | 28 | 32 | Lead-210 | 7.4 | 0.74 | 0.59 | | | 1464156 | 597028.6 |
| SU3-11-041D | 20050721 | 28 | 32 | Plutonium-238 | 55 | 10.87 | 10.87 | | U | 1464156 | 597028.6 |
| SU3-11-041D | 20050721 | 28 | 32 | Radium-226 | 2.9 | 1.17 | 0.65 | | | 1464156 | 597028.6 |
| SU3-11-041D | 20050721 | 28 | 32 | Thorium-230 | 2.8* | 6.46 | 6.46 | | U | 1464156 | 597028.6 |
| SU3-11-041D | 20050721 | 28 | 32 | Thorium-232 | 2.1 | 0.22 | 0.17 | | | 1464156 | 597028.6 |
| SU3-11-042 | 20050721 | 0 | 4 | Actinium-227 | 4.6 | 0.33 | 0.33 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 0 | 4 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 0 | 4 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 0 | 4 | Cobalt-60 | 0.7 | 0.11 | 0.11 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 0 | 4 | Lead-210 | 7.4 | 0.71 | 0.71 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 0 | 4 | Plutonium-238 | 55 | 13.77 | 13.77 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 0 | 4 | Radium-226 | 2.9 | 0.91 | 0.91 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 0 | 4 | Thorium-230 | 2.8* | 7.49 | 7.49 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 0 | 4 | Thorium-232 | 2.1 | 0.46 | 0.19 | | | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 4 | 8 | Actinium-227 | 4.6 | 0.31 | 0.31 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 4 | 8 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 4 | 8 | Cesium-137 | 3.8 | 0.05 | 0.05 | | | 1464171 | 597028.6 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-042 | 20050721 | 4 | 8 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 4 | 8 | Lead-210 | 7.4 | 0.94 | 0.81 | | | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 4 | 8 | Plutonium-238 | 55 | 16.03 | 16.03 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 4 | 8 | Radium-226 | 2.9 | 1.79 | 0.92 | | | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 4 | 8 | Thorium-230 | 2.8* | 8.4 | 8.4 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 4 | 8 | Thorium-232 | 2.1 | 0.36 | 0.26 | | | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 8 | 12 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 8 | 12 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 8 | 12 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 8 | 12 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 8 | 12 | Lead-210 | 7.4 | 1.16 | 0.8 | | | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 8 | 12 | Plutonium-238 | 55 | 14.27 | 14.27 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 8 | 12 | Radium-226 | 2.9 | 2.22 | 0.84 | | | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 8 | 12 | Thorium-230 | 2.8* | 8.52 | 8.52 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 8 | 12 | Thorium-232 | 2.1 | 0.43 | 0.21 | | | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 12 | 16 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 12 | 16 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 12 | 16 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 12 | 16 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 12 | 16 | Lead-210 | 7.4 | 1.09 | 0.73 | | | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 12 | 16 | Plutonium-238 | 55 | 14 | 14 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 12 | 16 | Radium-226 | 2.9 | 2.17 | 0.85 | | | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 12 | 16 | Thorium-230 | 2.8* | 8.23 | 8.23 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 12 | 16 | Thorium-232 | 2.1 | 0.75 | 0.17 | | | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 16 | 20 | Actinium-227 | 4.6 | 0.3 | 0.3 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 16 | 20 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 16 | 20 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 16 | 20 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 16 | 20 | Lead-210 | 7.4 | 0.99 | 0.71 | | | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 16 | 20 | Plutonium-238 | 55 | 14.3 | 14.3 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 16 | 20 | Radium-226 | 2.9 | 2 | 0.77 | | | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 16 | 20 | Thorium-230 | 2.8* | 7.64 | 7.64 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 16 | 20 | Thorium-232 | 2.1 | 0.76 | 0.19 | | | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 20 | 24 | Actinium-227 | 4.6 | 0.21 | 0.21 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 20 | 24 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 20 | 24 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 20 | 24 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 20 | 24 | Lead-210 | 7.4 | 1.1 | 0.55 | | | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 20 | 24 | Plutonium-238 | 55 | 11.44 | 11.44 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 20 | 24 | Radium-226 | 2.9 | 0.73 | 0.73 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 20 | 24 | Thorium-230 | 2.8* | 6.81 | 6.81 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 20 | 24 | Thorium-232 | 2.1 | 0.29 | 0.18 | | | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 24 | 28 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 24 | 28 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 24 | 28 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 24 | 28 | Cobalt-60 | 0.7 | 0.04 | 0.01 | | | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 24 | 28 | Lead-210 | 7.4 | 0.74 | 0.74 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 24 | 28 | Plutonium-238 | 55 | 15.3 | 15.3 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 24 | 28 | Radium-226 | 2.9 | 0.9 | 0.9 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 24 | 28 | Thorium-230 | 2.8* | 7.89 | 7.89 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 24 | 28 | Thorium-232 | 2.1 | 0.23 | 0.23 | | U | 1464171 | 597028.6 |

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# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-042 | 20050721 | 28 | 32 | Actinium-227 | 4.6 | 0.31 | 0.31 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 28 | 32 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 28 | 32 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 28 | 32 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 28 | 32 | Lead-210 | 7.4 | 0.69 | 0.69 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 28 | 32 | Plutonium-238 | 55 | 15.23 | 15.23 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 28 | 32 | Radium-226 | 2.9 | 1.1 | 0.8 | | | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 28 | 32 | Thorium-230 | 2.8* | 7.18 | 7.18 | | U | 1464171 | 597028.6 |
| SU3-11-042 | 20050721 | 28 | 32 | Thorium-232 | 2.1 | 0.36 | 0.11 | | | 1464171 | 597028.6 |
| SU3-11-042D | 20050721 | 8 | 12 | Actinium-227 | 4.6 | 0.38 | 0.38 | | U | 1464171 | 597028.6 |
| SU3-11-042D | 20050721 | 8 | 12 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464171 | 597028.6 |
| SU3-11-042D | 20050721 | 8 | 12 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464171 | 597028.6 |
| SU3-11-042D | 20050721 | 8 | 12 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464171 | 597028.6 |
| SU3-11-042D | 20050721 | 8 | 12 | Lead-210 | 7.4 | 0.89 | 0.89 | | U | 1464171 | 597028.6 |
| SU3-11-042D | 20050721 | 8 | 12 | Plutonium-238 | 55 | 15.5 | 15.5 | | U | 1464171 | 597028.6 |
| SU3-11-042D | 20050721 | 8 | 12 | Radium-226 | 2.9 | 1.29 | 0.97 | | | 1464171 | 597028.6 |
| SU3-11-042D | 20050721 | 8 | 12 | Thorium-230 | 2.8* | 8.98 | 8.98 | | U | 1464171 | 597028.6 |
| SU3-11-042D | 20050721 | 8 | 12 | Thorium-232 | 2.1 | 0.73 | 0.23 | | | 1464171 | 597028.6 |
| SU3-11-043 | 20050721 | 0 | 4 | Actinium-227 | 4.6 | 0.23 | 0.23 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 0 | 4 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 0 | 4 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 0 | 4 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 0 | 4 | Lead-210 | 7.4 | 0.78 | 0.72 | | | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 0 | 4 | Plutonium-238 | 55 | 13.23 | 13.23 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 0 | 4 | Radium-226 | 2.9 | 1.78 | 0.8 | | | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 0 | 4 | Thorium-230 | 2.8* | 7.62 | 7.62 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 0 | 4 | Thorium-232 | 2.1 | 0.25 | 0.25 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 4 | 8 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 4 | 8 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 4 | 8 | Cesium-137 | 3.8 | 0.07 | 0.04 | | | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 4 | 8 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 4 | 8 | Lead-210 | 7.4 | 1.06 | 0.72 | | | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 4 | 8 | Plutonium-238 | 55 | 14.58 | 14.58 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 4 | 8 | Radium-226 | 2.9 | 1.6 | 0.89 | | | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 4 | 8 | Thorium-230 | 2.8* | 8.09 | 8.09 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 4 | 8 | Thorium-232 | 2.1 | 0.38 | 0.21 | | | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 8 | 12 | Actinium-227 | 4.6 | 0.41 | 0.41 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 8 | 12 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 8 | 12 | Cesium-137 | 3.8 | 0.09 | 0.04 | | | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 8 | 12 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 8 | 12 | Lead-210 | 7.4 | 1.02 | 0.8 | | | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 8 | 12 | Plutonium-238 | 55 | 15.06 | 15.06 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 8 | 12 | Radium-226 | 2.9 | 1.16 | 0.94 | | | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 8 | 12 | Thorium-230 | 2.8* | 8.26 | 8.26 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 8 | 12 | Thorium-232 | 2.1 | 0.65 | 0.21 | | | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 12 | 16 | Actinium-227 | 4.6 | 0.29 | 0.29 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 12 | 16 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 12 | 16 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 12 | 16 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 12 | 16 | Lead-210 | 7.4 | 0.83 | 0.83 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 12 | 16 | Plutonium-238 | 55 | 15.02 | 15.02 | | U | 1464186 | 597028.6 |

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# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-043 | 20050721 | 12 | 16 | Radium-226 | 2.9 | 1.82 | 0.88 | | | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 12 | 16 | Thorium-230 | 2.8* | 8.68 | 8.68 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 12 | 16 | Thorium-232 | 2.1 | 0.87 | 0.14 | | | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 16 | 20 | Actinium-227 | 4.6 | 0.38 | 0.38 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 16 | 20 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 16 | 20 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 16 | 20 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 16 | 20 | Lead-210 | 7.4 | 0.83 | 0.83 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 16 | 20 | Plutonium-238 | 55 | 12.4 | 12.4 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 16 | 20 | Radium-226 | 2.9 | 2.1 | 0.84 | | | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 16 | 20 | Thorium-230 | 2.8* | 8.46 | 8.46 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 16 | 20 | Thorium-232 | 2.1 | 0.7 | 0.21 | | | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 20 | 24 | Actinium-227 | 4.6 | 0.31 | 0.31 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 20 | 24 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 20 | 24 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 20 | 24 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 20 | 24 | Lead-210 | 7.4 | 0.83 | 0.62 | | | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 20 | 24 | Plutonium-238 | 55 | 12.21 | 12.21 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 20 | 24 | Radium-226 | 2.9 | 1.4 | 0.69 | | | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 20 | 24 | Thorium-230 | 2.8* | 6.85 | 6.85 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 20 | 24 | Thorium-232 | 2.1 | 0.43 | 0.12 | | | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 24 | 28 | Actinium-227 | 4.6 | 0.22 | 0.22 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 24 | 28 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 24 | 28 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 24 | 28 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 24 | 28 | Lead-210 | 7.4 | 0.78 | 0.65 | | | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 24 | 28 | Plutonium-238 | 55 | 13.85 | 13.85 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 24 | 28 | Radium-226 | 2.9 | 1.16 | 0.78 | | | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 24 | 28 | Thorium-230 | 2.8* | 6.57 | 6.57 | | U | 1464186 | 597028.6 |
| SU3-11-043 | 20050721 | 24 | 28 | Thorium-232 | 2.1 | 0.29 | 0.17 | | | 1464186 | 597028.6 |
| SU3-11-043D | 20050721 | 4 | 8 | Actinium-227 | 4.6 | 0.26 | 0.26 | | U | 1464186 | 597028.6 |
| SU3-11-043D | 20050721 | 4 | 8 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464186 | 597028.6 |
| SU3-11-043D | 20050721 | 4 | 8 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464186 | 597028.6 |
| SU3-11-043D | 20050721 | 4 | 8 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464186 | 597028.6 |
| SU3-11-043D | 20050721 | 4 | 8 | Lead-210 | 7.4 | 0.97 | 0.86 | | | 1464186 | 597028.6 |
| SU3-11-043D | 20050721 | 4 | 8 | Plutonium-238 | 55 | 16.81 | 16.81 | | U | 1464186 | 597028.6 |
| SU3-11-043D | 20050721 | 4 | 8 | Radium-226 | 2.9 | 1.78 | 0.9 | | | 1464186 | 597028.6 |
| SU3-11-043D | 20050721 | 4 | 8 | Thorium-230 | 2.8* | 8.3 | 8.3 | | U | 1464186 | 597028.6 |
| SU3-11-043D | 20050721 | 4 | 8 | Thorium-232 | 2.1 | 0.7 | 0.14 | | | 1464186 | 597028.6 |
| SU3-11-044 | 20050630 | 0 | 4 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 0 | 4 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 0 | 4 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 0 | 4 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 0 | 4 | Lead-210 | 7.4 | 0.91 | 0.68 | | | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 0 | 4 | Plutonium-238 | 55 | 15.23 | 15.23 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 0 | 4 | Radium-226 | 2.9 | 1.66 | 0.82 | | | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 0 | 4 | Thorium-230 | 2.8* | 7.05 | 7.05 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 0 | 4 | Thorium-232 | 2.1 | 0.63 | 0.23 | | | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 4 | 8 | Actinium-227 | 4.6 | 0.34 | 0.34 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 4 | 8 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 4 | 8 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464129 | 596997.3 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-044 | 20050630 | 4 | 8 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 4 | 8 | Lead-210 | 7.4 | 1.41 | 0.89 | | | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 4 | 8 | Plutonium-238 | 55 | 19.74 | 19.74 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 4 | 8 | Radium-226 | 2.9 | 2.76 | 1.02 | | | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 4 | 8 | Thorium-230 | 2.8* | 9.2 | 9.2 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 4 | 8 | Thorium-232 | 2.1 | 0.74 | 0.35 | | | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 8 | 12 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 8 | 12 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 8 | 12 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 8 | 12 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 8 | 12 | Lead-210 | 7.4 | 1.34 | 0.78 | | | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 8 | 12 | Plutonium-238 | 55 | 16.32 | 16.32 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 8 | 12 | Radium-226 | 2.9 | 2.32 | 0.94 | | | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 8 | 12 | Thorium-230 | 2.8* | 8.44 | 8.44 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 8 | 12 | Thorium-232 | 2.1 | 1.14 | 0.22 | | | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 12 | 16 | Actinium-227 | 4.6 | 0.27 | 0.27 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 12 | 16 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 12 | 16 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 12 | 16 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 12 | 16 | Lead-210 | 7.4 | 1.41 | 0.76 | | | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 12 | 16 | Plutonium-238 | 55 | 17.61 | 17.61 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 12 | 16 | Radium-226 | 2.9 | 2.44 | 0.85 | | | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 12 | 16 | Thorium-230 | 2.8* | 8.02 | 8.02 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 12 | 16 | Thorium-232 | 2.1 | 1.19 | 0.19 | | | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 16 | 20 | Actinium-227 | 4.6 | 0.3 | 0.3 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 16 | 20 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 16 | 20 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 16 | 20 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 16 | 20 | Lead-210 | 7.4 | 1.15 | 0.74 | | | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 16 | 20 | Plutonium-238 | 55 | 16.3 | 16.3 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 16 | 20 | Radium-226 | 2.9 | 1.89 | 0.82 | | | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 16 | 20 | Thorium-230 | 2.8* | 7.3 | 7.3 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 16 | 20 | Thorium-232 | 2.1 | 0.64 | 0.24 | | | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 20 | 24 | Actinium-227 | 4.6 | 0.21 | 0.21 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 20 | 24 | Americium-241 | 63 | 0.05 | 0.05 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 20 | 24 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 20 | 24 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 20 | 24 | Lead-210 | 7.4 | 0.83 | 0.54 | | | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 20 | 24 | Plutonium-238 | 55 | 13.19 | 13.19 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 20 | 24 | Radium-226 | 2.9 | 1.06 | 0.61 | | | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 20 | 24 | Thorium-230 | 2.8* | 5.63 | 5.63 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 20 | 24 | Thorium-232 | 2.1 | 0.31 | 0.15 | | | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 24 | 28 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 24 | 28 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 24 | 28 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 24 | 28 | Cobalt-60 | 0.7 | 0.1 | 0.1 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 24 | 28 | Lead-210 | 7.4 | 0.75 | 0.61 | | | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 24 | 28 | Plutonium-238 | 55 | 15.42 | 15.42 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 24 | 28 | Radium-226 | 2.9 | 1.38 | 0.74 | | | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 24 | 28 | Thorium-230 | 2.8* | 5.6 | 5.6 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 24 | 28 | Thorium-232 | 2.1 | 0.46 | 0.13 | | | 1464129 | 596997.3 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-044 | 20050630 | 28 | 32 | Actinium-227 | 4.6 | 0.28 | 0.28 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 28 | 32 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 28 | 32 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 28 | 32 | Cobalt-60 | 0.7 | 0.1 | 0.1 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 28 | 32 | Lead-210 | 7.4 | 1.15 | 0.64 | | | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 28 | 32 | Plutonium-238 | 55 | 16.42 | 16.42 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 28 | 32 | Radium-226 | 2.9 | 1.42 | 0.82 | | | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 28 | 32 | Thorium-230 | 2.8* | 6.74 | 6.74 | | U | 1464129 | 596997.3 |
| SU3-11-044 | 20050630 | 28 | 32 | Thorium-232 | 2.1 | 0.28 | 0.28 | | U | 1464129 | 596997.3 |
| SU3-11-045 | 20050630 | 0 | 4 | Actinium-227 | 4.6 | 0.31 | 0.31 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 0 | 4 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 0 | 4 | Cesium-137 | 3.8 | 0.06 | 0.04 | | | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 0 | 4 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 0 | 4 | Lead-210 | 7.4 | 1.16 | 0.69 | | | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 0 | 4 | Plutonium-238 | 55 | 17.23 | 17.23 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 0 | 4 | Radium-226 | 2.9 | 1.74 | 0.82 | | | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 0 | 4 | Thorium-230 | 2.8* | 7.45 | 7.45 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 0 | 4 | Thorium-232 | 2.1 | 0.69 | 0.19 | | | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 4 | 8 | Actinium-227 | 4.6 | 0.53 | 0.53 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 4 | 8 | Americium-241 | 63 | 0.12 | 0.12 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 4 | 8 | Cesium-137 | 3.8 | 0.1 | 0.1 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 4 | 8 | Cobalt-60 | 0.7 | 0.1 | 0.1 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 4 | 8 | Lead-210 | 7.4 | 1.19 | 1.19 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 4 | 8 | Plutonium-238 | 55 | 20.06 | 20.06 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 4 | 8 | Radium-226 | 2.9 | 2.01 | 1.25 | | | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 4 | 8 | Thorium-230 | 2.8* | 9.74 | 9.74 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 4 | 8 | Thorium-232 | 2.1 | 0.73 | 0.38 | | | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 8 | 12 | Actinium-227 | 4.6 | 0.43 | 0.43 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 8 | 12 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 8 | 12 | Cesium-137 | 3.8 | 0.09 | 0.09 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 8 | 12 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 8 | 12 | Lead-210 | 7.4 | 1.05 | 0.91 | | | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 8 | 12 | Plutonium-238 | 55 | 19.4 | 19.4 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 8 | 12 | Radium-226 | 2.9 | 2.52 | 0.98 | | | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 8 | 12 | Thorium-230 | 2.8* | 9.77 | 9.77 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 8 | 12 | Thorium-232 | 2.1 | 0.79 | 0.25 | | | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 12 | 16 | Actinium-227 | 4.6 | 0.37 | 0.37 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 12 | 16 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 12 | 16 | Cesium-137 | 3.8 | 0.08 | 0.08 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 12 | 16 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 12 | 16 | Lead-210 | 7.4 | 0.82 | 0.82 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 12 | 16 | Plutonium-238 | 55 | 16.16 | 16.16 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 12 | 16 | Radium-226 | 2.9 | 2.14 | 0.87 | | | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 12 | 16 | Thorium-230 | 2.8* | 8.75 | 8.75 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 12 | 16 | Thorium-232 | 2.1 | 0.59 | 0.25 | | | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 16 | 20 | Actinium-227 | 4.6 | 0.34 | 0.34 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 16 | 20 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 16 | 20 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 16 | 20 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 16 | 20 | Lead-210 | 7.4 | 0.84 | 0.74 | | | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 16 | 20 | Plutonium-238 | 55 | 19.79 | 19.79 | | U | 1464148 | 596997.3 |

# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-045 | 20050630 | 16 | 20 | Radium-226 | 2.9 | 1.23 | 0.86 | | | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 16 | 20 | Thorium-230 | 2.8* | 7.92 | 7.92 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 16 | 20 | Thorium-232 | 2.1 | 0.34 | 0.24 | | | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 20 | 28 | Actinium-227 | 4.6 | 0.23 | 0.23 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 20 | 28 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 20 | 28 | Cesium-137 | 3.8 | 0.03 | 0.02 | | | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 20 | 28 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 20 | 28 | Lead-210 | 7.4 | 1.03 | 0.51 | | | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 20 | 28 | Plutonium-238 | 55 | 13.79 | 13.79 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 20 | 28 | Radium-226 | 2.9 | 1.23 | 0.66 | | | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 20 | 28 | Thorium-230 | 2.8* | 6.1 | 6.1 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 20 | 28 | Thorium-232 | 2.1 | 0.34 | 0.15 | | | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 28 | 32 | Actinium-227 | 4.6 | 0.44 | 0.44 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 28 | 32 | Americium-241 | 63 | 0.11 | 0.11 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 28 | 32 | Cesium-137 | 3.8 | 0.08 | 0.08 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 28 | 32 | Cobalt-60 | 0.7 | 0.1 | 0.1 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 28 | 32 | Lead-210 | 7.4 | 0.95 | 0.95 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 28 | 32 | Plutonium-238 | 55 | 21.96 | 21.96 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 28 | 32 | Radium-226 | 2.9 | 1.85 | 1.05 | | | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 28 | 32 | Thorium-230 | 2.8* | 9.68 | 9.68 | | U | 1464148 | 596997.3 |
| SU3-11-045 | 20050630 | 28 | 32 | Thorium-232 | 2.1 | 0.33 | 0.33 | | | 1464148 | 596997.3 |
| SU3-11-045D | 20050630 | 4 | 8 | Actinium-227 | 4.6 | 0.53 | 0.53 | | U | 1464148 | 596997.3 |
| SU3-11-045D | 20050630 | 4 | 8 | Americium-241 | 63 | 0.12 | 0.12 | | U | 1464148 | 596997.3 |
| SU3-11-045D | 20050630 | 4 | 8 | Cesium-137 | 3.8 | 0.08 | 0.08 | | U | 1464148 | 596997.3 |
| SU3-11-045D | 20050630 | 4 | 8 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464148 | 596997.3 |
| SU3-11-045D | 20050630 | 4 | 8 | Lead-210 | 7.4 | 1.17 | 1.1 | | | 1464148 | 596997.3 |
| SU3-11-045D | 20050630 | 4 | 8 | Plutonium-238 | 55 | 20.93 | 20.93 | | U | 1464148 | 596997.3 |
| SU3-11-045D | 20050630 | 4 | 8 | Radium-226 | 2.9 | 2.12 | 1.26 | | | 1464148 | 596997.3 |
| SU3-11-045D | 20050630 | 4 | 8 | Thorium-230 | 2.8* | 9.73 | 9.73 | | U | 1464148 | 596997.3 |
| SU3-11-045D | 20050630 | 4 | 8 | Thorium-232 | 2.1 | 0.8 | 0.31 | | | 1464148 | 596997.3 |
| SU3-11-046 | 20050629 | 0 | 4 | Actinium-227 | 4.6 | 0.43 | 0.43 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 0 | 4 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 0 | 4 | Cesium-137 | 3.8 | 0.08 | 0.08 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 0 | 4 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 0 | 4 | Lead-210 | 7.4 | 0.86 | 0.86 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 0 | 4 | Plutonium-238 | 55 | 21.38 | 21.38 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 0 | 4 | Radium-226 | 2.9 | 1.56 | 0.73 | | | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 0 | 4 | Thorium-230 | 2.8* | 8.49 | 8.49 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 0 | 4 | Thorium-232 | 2.1 | 0.52 | 0.24 | | | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 4 | 8 | Actinium-227 | 4.6 | 0.31 | 0.31 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 4 | 8 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 4 | 8 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 4 | 8 | Cobalt-60 | 0.7 | 0.09 | 0.09 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 4 | 8 | Lead-210 | 7.4 | 1.26 | 0.82 | | | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 4 | 8 | Plutonium-238 | 55 | 20.3 | 20.3 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 4 | 8 | Radium-226 | 2.9 | 2.41 | 0.98 | | | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 4 | 8 | Thorium-230 | 2.8* | 8.48 | 8.48 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 4 | 8 | Thorium-232 | 2.1 | 1.04 | 0.3 | | | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 8 | 12 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 8 | 12 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 8 | 12 | Cesium-137 | 3.8 | 0.03 | 0.03 | | U | 1464167 | 596997.3 |

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# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-046 | 20050629 | 8 | 12 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 8 | 12 | Lead-210 | 7.4 | 0.88 | 0.64 | | | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 8 | 12 | Plutonium-238 | 55 | 15.5 | 15.5 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 8 | 12 | Radium-226 | 2.9 | 1.44 | 0.79 | | | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 8 | 12 | Thorium-230 | 2.8* | 6.59 | 6.59 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 8 | 12 | Thorium-232 | 2.1 | 0.51 | 0.23 | | | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 12 | 20 | Actinium-227 | 4.6 | 0.19 | 0.19 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 12 | 20 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 12 | 20 | Cesium-137 | 3.8 | 0.03 | 0.03 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 12 | 20 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 12 | 20 | Lead-210 | 7.4 | 0.56 | 0.55 | | | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 12 | 20 | Plutonium-238 | 55 | 13.23 | 13.23 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 12 | 20 | Radium-226 | 2.9 | 1.51 | 0.63 | | | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 12 | 20 | Thorium-230 | 2.8* | 5.87 | 5.87 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 12 | 20 | Thorium-232 | 2.1 | 0.62 | 0.15 | | | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 20 | 24 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 20 | 24 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 20 | 24 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 20 | 24 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 20 | 24 | Lead-210 | 7.4 | 0.93 | 0.55 | | | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 20 | 24 | Plutonium-238 | 55 | 12.76 | 12.76 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 20 | 24 | Radium-226 | 2.9 | 1.44 | 0.64 | | | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 20 | 24 | Thorium-230 | 2.8* | 6.13 | 6.13 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 20 | 24 | Thorium-232 | 2.1 | 0.35 | 0.14 | | | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 24 | 28 | Actinium-227 | 4.6 | 0.3 | 0.3 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 24 | 28 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 24 | 28 | Cesium-137 | 3.8 | 0.05 | 0.05 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 24 | 28 | Cobalt-60 | 0.7 | 0.11 | 0.11 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 24 | 28 | Lead-210 | 7.4 | 0.73 | 0.73 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 24 | 28 | Plutonium-238 | 55 | 19.41 | 19.41 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 24 | 28 | Radium-226 | 2.9 | 1.93 | 0.84 | | | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 24 | 28 | Thorium-230 | 2.8* | 7.66 | 7.66 | | U | 1464167 | 596997.3 |
| SU3-11-046 | 20050629 | 24 | 28 | Thorium-232 | 2.1 | 0.26 | 0.26 | | U | 1464167 | 596997.3 |
| SU3-11-046D | 20050629 | 4 | 8 | Actinium-227 | 4.6 | 0.31 | 0.31 | | U | 1464167 | 596997.3 |
| SU3-11-046D | 20050629 | 4 | 8 | Americium-241 | 63 | 0.09 | 0.09 | | U | 1464167 | 596997.3 |
| SU3-11-046D | 20050629 | 4 | 8 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464167 | 596997.3 |
| SU3-11-046D | 20050629 | 4 | 8 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464167 | 596997.3 |
| SU3-11-046D | 20050629 | 4 | 8 | Lead-210 | 7.4 | 0.88 | 0.88 | | U | 1464167 | 596997.3 |
| SU3-11-046D | 20050629 | 4 | 8 | Plutonium-238 | 55 | 18.85 | 18.85 | | U | 1464167 | 596997.3 |
| SU3-11-046D | 20050629 | 4 | 8 | Radium-226 | 2.9 | 2.29 | 0.97 | | | 1464167 | 596997.3 |
| SU3-11-046D | 20050629 | 4 | 8 | Thorium-230 | 2.8* | 8.58 | 8.58 | | U | 1464167 | 596997.3 |
| SU3-11-046D | 20050629 | 4 | 8 | Thorium-232 | 2.1 | 0.83 | 0.29 | | | 1464167 | 596997.3 |
| SU3-11-047 | 20050620 | 0 | 4 | Actinium-227 | 4.6 | 0.33 | 0.33 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050620 | 0 | 4 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050620 | 0 | 4 | Cesium-137 | 3.8 | 0.15 | 0.05 | | | 1464374 | 596970.7 |
| SU3-11-047 | 20050620 | 0 | 4 | Cobalt-60 | 0.7 | 0.05 | 0.05 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050620 | 0 | 4 | Lead-210 | 7.4 | 1.3 | 0.86 | | | 1464374 | 596970.7 |
| SU3-11-047 | 20050620 | 0 | 4 | Plutonium-238 | 55 | 18.97 | 18.97 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050620 | 0 | 4 | Radium-226 | 2.9 | 2.45 | 0.86 | | | 1464374 | 596970.7 |
| SU3-11-047 | 20050620 | 0 | 4 | Thorium-230 | 2.8* | 8.06 | 8.06 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050620 | 0 | 4 | Thorium-232 | 2.1 | 1.2 | 0.22 | | | 1464374 | 596970.7 |

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# Table 3: SU3 Onsite Characterization Results (pCi/g)

| Location | Date | Depth (feet) start | Depth (feet) end | Analyte | CO | Result | DL | DQ | LQ | Coordinates easting | Coordinates northing |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SU3-11-047 | 20050621 | 4 | 8 | Actinium-227 | 4.6 | 0.23 | 0.23 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 4 | 8 | Americium-241 | 63 | 0.06 | 0.06 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 4 | 8 | Cesium-137 | 3.8 | 0.03 | 0.03 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 4 | 8 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 4 | 8 | Lead-210 | 7.4 | 1 | 0.57 | | | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 4 | 8 | Plutonium-238 | 55 | 13.92 | 13.92 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 4 | 8 | Radium-226 | 2.9 | 1.03 | 0.69 | | | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 4 | 8 | Thorium-230 | 2.8* | 6.3 | 6.3 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 4 | 8 | Thorium-232 | 2.1 | 0.69 | 0.18 | | | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 8 | 12 | Actinium-227 | 4.6 | 0.25 | 0.25 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 8 | 12 | Americium-241 | 63 | 0.07 | 0.07 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 8 | 12 | Cesium-137 | 3.8 | 0.04 | 0.04 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 8 | 12 | Cobalt-60 | 0.7 | 0.06 | 0.06 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 8 | 12 | Lead-210 | 7.4 | 1.23 | 0.59 | | | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 8 | 12 | Plutonium-238 | 55 | 14.41 | 14.41 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 8 | 12 | Radium-226 | 2.9 | 2.39 | 0.73 | | | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 8 | 12 | Thorium-230 | 2.8* | 6.34 | 6.34 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 8 | 12 | Thorium-232 | 2.1 | 0.29 | 0.2 | | | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 12 | 16 | Actinium-227 | 4.6 | 0.29 | 0.29 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 12 | 16 | Americium-241 | 63 | 0.08 | 0.08 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 12 | 16 | Cesium-137 | 3.8 | 0.07 | 0.07 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 12 | 16 | Cobalt-60 | 0.7 | 0.07 | 0.07 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 12 | 16 | Lead-210 | 7.4 | 1.09 | 0.72 | | | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 12 | 16 | Plutonium-238 | 55 | 14.5 | 14.5 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 12 | 16 | Radium-226 | 2.9 | 1.64 | 0.88 | | | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 12 | 16 | Thorium-230 | 2.8* | 8.32 | 8.32 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 12 | 16 | Thorium-232 | 2.1 | 0.32 | 0.21 | | | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 16 | 20 | Actinium-227 | 4.6 | 0.29 | 0.29 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 16 | 20 | Americium-241 | 63 | 0.1 | 0.1 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 16 | 20 | Cesium-137 | 3.8 | 0.06 | 0.06 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 16 | 20 | Cobalt-60 | 0.7 | 0.08 | 0.08 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 16 | 20 | Lead-210 | 7.4 | 1.09 | 0.71 | | | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 16 | 20 | Plutonium-238 | 55 | 12.72 | 12.72 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 16 | 20 | Radium-226 | 2.9 | 1.89 | 0.84 | | | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 16 | 20 | Thorium-230 | 2.8* | 8.78 | 8.78 | | U | 1464374 | 596970.7 |
| SU3-11-047 | 20050621 | 16 | 20 | Thorium-232 | 2.1 | 0.56 | 0.16 | | | 1464374 | 596970.7 |

CO: cleanup objective
DL: detection limit
DQ: data qualifier
LQ: lab qualifier
U: not detetced
D: duplicate
*: in order to be usable, Th-230 DL must be below 10 pCi/g and the activity must be at or below the DL

# Table 4: As-Left Landfill Wall Results (pCi/g)

| Location | Date | Analyte | CO | Result | DL | Northing | Easting | Elevation |
|---|---|---|---|---|---|---|---|---|
| PRS11-ALW1 | 20050608 | Actinium-227 | 4.6 | 0.36 | 0.36 | 597033.534 | 1464089.66 | 694.889 |
| PRS11-ALW1 | 20050608 | Americium-241 | 63 | 0.11 | 0.11 | 597033.534 | 1464089.66 | 694.889 |
| PRS11-ALW1 | 20050608 | Cesium-137 | 3.8 | 0.05 | 0.05 | 597033.534 | 1464089.66 | 694.889 |
| PRS11-ALW1 | 20050608 | Cobalt-60 | 0.7 | 0.09 | 0.09 | 597033.534 | 1464089.66 | 694.889 |
| PRS11-ALW1 | 20050608 | Lead-210 | 7.4 | 2.39 | 0.96 | 597033.534 | 1464089.66 | 694.889 |
| PRS11-ALW1 | 20050608 | Plutonium-238 | 55 | 22.85 | 22.85 | 597033.534 | 1464089.66 | 694.889 |
| PRS11-ALW1 | 20050608 | Radium-226 | 2.9 | 2.95 | 1.10 | 597033.534 | 1464089.66 | 694.889 |
| PRS11-ALW1 | 20050608 | Thorium-230 | 2.8 | 9.78 | 9.78 | 597033.534 | 1464089.66 | 694.889 |
| PRS11-ALW1 | 20050608 | Thorium-232 | 2.1 | 2.20 | 0.26 | 597033.534 | 1464089.66 | 694.889 |
| PRS11-ALW1 | 20050608 | Uranium-238 | 2.2 | 2.99 | 1.06 | 597033.534 | 1464089.66 | 694.889 |
| PRS11-ALW2 | 20050608 | Actinium-227 | 4.6 | 0.97 | 0.97 | 597036.373 | 1464090.94 | 699.896 |
| PRS11-ALW2 | 20050608 | Americium-241 | 63 | 0.24 | 0.24 | 597036.373 | 1464090.94 | 699.896 |
| PRS11-ALW2 | 20050608 | Cesium-137 | 3.8 | 0.14 | 0.14 | 597036.373 | 1464090.94 | 699.896 |
| PRS11-ALW2 | 20050608 | Cobalt-60 | 0.7 | 0.13 | 0.13 | 597036.373 | 1464090.94 | 699.896 |
| PRS11-ALW2 | 20050608 | Lead-210 | 7.4 | 1.84 | 1.84 | 597036.373 | 1464090.94 | 699.896 |
| PRS11-ALW2 | 20050608 | Plutonium-238 | 55 | 36.90 | 36.90 | 597036.373 | 1464090.94 | 699.896 |
| PRS11-ALW2 | 20050608 | Radium-226 | 2.9 | 7.73 | 2.03 | 597036.373 | 1464090.94 | 699.896 |
| PRS11-ALW2 | 20050608 | Thorium-230 | 2.8 | 21.63 | 21.63 | 597036.373 | 1464090.94 | 699.896 |
| PRS11-ALW2 | 20050608 | Thorium-232 | 2.1 | 8.96 | 0.44 | 597036.373 | 1464090.94 | 699.896 |
| PRS11-ALW2 | 20050608 | Uranium-238 | 2.2 | 35.95 | 2.95 | 597036.373 | 1464090.94 | 699.896 |
| PRS11-ALW3 | 20050608 | Actinium-227 | 4.6 | 1.14 | 1.14 | 597039.496 | 1464091.93 | 704.073 |
| PRS11-ALW3 | 20050608 | Americium-241 | 63 | 0.27 | 0.27 | 597039.496 | 1464091.93 | 704.073 |
| PRS11-ALW3 | 20050608 | Cesium-137 | 3.8 | 0.14 | 0.14 | 597039.496 | 1464091.93 | 704.073 |
| PRS11-ALW3 | 20050608 | Cobalt-60 | 0.7 | 0.15 | 0.15 | 597039.496 | 1464091.93 | 704.073 |
| PRS11-ALW3 | 20050608 | Lead-210 | 7.4 | 2.11 | 2.11 | 597039.496 | 1464091.93 | 704.073 |
| PRS11-ALW3 | 20050608 | Plutonium-238 | 55 | 43.33 | 43.33 | 597039.496 | 1464091.93 | 704.073 |
| PRS11-ALW3 | 20050608 | Radium-226 | 2.9 | 12.38 | 2.28 | 597039.496 | 1464091.93 | 704.073 |
| PRS11-ALW3 | 20050608 | Thorium-230 | 2.8 | 24.17 | 24.17 | 597039.496 | 1464091.93 | 704.073 |
| PRS11-ALW3 | 20050608 | Thorium-232 | 2.1 | 7.76 | 0.54 | 597039.496 | 1464091.93 | 704.073 |
| PRS11-ALW3 | 20050608 | Uranium-238 | 2.2 | 49.23 | 3.22 | 597039.496 | 1464091.93 | 704.073 |
| PRS11-ALW4 | 20050621 | Actinium-227 | 4.6 | 0.47 | 0.47 | 597051.355 | 1464063.02 | 698.756 |
| PRS11-ALW4 | 20050621 | Americium-241 | 63 | 0.16 | 0.16 | 597051.355 | 1464063.02 | 698.756 |
| PRS11-ALW4 | 20050621 | Cesium-137 | 3.8 | 0.09 | 0.09 | 597051.355 | 1464063.02 | 698.756 |
| PRS11-ALW4 | 20050621 | Cobalt-60 | 0.7 | 0.10 | 0.10 | 597051.355 | 1464063.02 | 698.756 |
| PRS11-ALW4 | 20050621 | Lead-210 | 7.4 | 8.83 | 1.35 | 597051.355 | 1464063.02 | 698.756 |
| PRS11-ALW4 | 20050621 | Plutonium-238 | 55 | 28.09 | 28.09 | 597051.355 | 1464063.02 | 698.756 |
| PRS11-ALW4 | 20050621 | Radium-226 | 2.9 | 5.06 | 1.74 | 597051.355 | 1464063.02 | 698.756 |
| PRS11-ALW4 | 20050621 | Thorium-230 | 2.8 | 15.73 | 15.73 | 597051.355 | 1464063.02 | 698.756 |
| PRS11-ALW4 | 20050621 | Thorium-232 | 2.1 | 9.04 | 0.33 | 597051.355 | 1464063.02 | 698.756 |
| PRS11-ALW5 | 20050815 | Actinium-227 | 4.6 | 95.64 | 95.64 | 597100.256 | 1464027.36 | 704.646 |
| PRS11-ALW5 | 20050815 | Americium-241 | 63 | 20.29 | 20.29 | 597100.256 | 1464027.36 | 704.646 |
| PRS11-ALW5 | 20050815 | Cesium-137 | 3.8 | 15.97 | 15.97 | 597100.256 | 1464027.36 | 704.646 |
| PRS11-ALW5 | 20050815 | Cobalt-60 | 0.7 | 13.41 | 13.41 | 597100.256 | 1464027.36 | 704.646 |
| PRS11-ALW5 | 20050815 | Lead-210 | 7.4 | 209.60 | 209.60 | 597100.256 | 1464027.36 | 704.646 |
| PRS11-ALW5 | 20050815 | Plutonium-238 | 55 | 4035.00 | 4035.00 | 597100.256 | 1464027.36 | 704.646 |
| PRS11-ALW5 | 20050815 | Radium-226 | 2.9 | 669.60 | 251.90 | 597100.256 | 1464027.36 | 704.646 |
| PRS11-ALW5 | 20050815 | Thorium-230 | 2.8 | 2015.00 | 2015.00 | 597100.256 | 1464027.36 | 704.646 |
| PRS11-ALW5 | 20050815 | Thorium-232 | 2.1 | 13149.00 | 46.32 | 597100.256 | 1464027.36 | 704.646 |
| PRS11-ALW6 | 20050816 | Actinium-227 | 4.6 | 1.82 | 1.82 | 597063.422 | 1464041.01 | 699.166 |
| PRS11-ALW6 | 20050816 | Americium-241 | 63 | 0.47 | 0.47 | 597063.422 | 1464041.01 | 699.166 |
| PRS11-ALW6 | 20050816 | Cesium-137 | 3.8 | 0.33 | 0.33 | 597063.422 | 1464041.01 | 699.166 |
| PRS11-ALW6 | 20050816 | Cobalt-60 | 0.7 | 0.28 | 0.28 | 597063.422 | 1464041.01 | 699.166 |

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# Table 4: As-Left Landfill Wall Results (pCi/g)

| Location | Date | Analyte | CO | Result | DL | Northing | Easting | Elevation |
|---|---|---|---|---|---|---|---|---|
| PRS11-ALW6 | 20050816 | Lead-210 | 7.4 | 21.58 | 3.96 | 597063.422 | 1464041.01 | 699.166 |
| PRS11-ALW6 | 20050816 | Plutonium-238 | 55 | 81.71 | 81.71 | 597063.422 | 1464041.01 | 699.166 |
| PRS11-ALW6 | 20050816 | Radium-226 | 2.9 | 8.78 | 3.52 | 597063.422 | 1464041.01 | 699.166 |
| PRS11-ALW6 | 20050816 | Thorium-230 | 2.8 | 44.76 | 44.76 | 597063.422 | 1464041.01 | 699.166 |
| PRS11-ALW6 | 20050816 | Thorium-232 | 2.1 | 63.06 | 0.96 | 597063.422 | 1464041.01 | 699.166 |
| PRS11-ALW6 | 20050816 | Uranium-238 | 2.2 | 11.92 | 5.03 | 597063.422 | 1464041.01 | 699.166 |
| PRS11-ALW7 | 20050817 | Actinium-227 | 4.6 | 1.79 | 1.79 | 597079.605 | 1464027.53 | 700.022 |
| PRS11-ALW7 | 20050817 | Americium-241 | 63 | 0.47 | 0.47 | 597079.605 | 1464027.53 | 700.022 |
| PRS11-ALW7 | 20050817 | Cesium-137 | 3.8 | 0.27 | 0.27 | 597079.605 | 1464027.53 | 700.022 |
| PRS11-ALW7 | 20050817 | Cobalt-60 | 0.7 | 0.23 | 0.23 | 597079.605 | 1464027.53 | 700.022 |
| PRS11-ALW7 | 20050817 | Lead-210 | 7.4 | 3.62 | 3.62 | 597079.605 | 1464027.53 | 700.022 |
| PRS11-ALW7 | 20050817 | Plutonium-238 | 55 | 71.10 | 71.10 | 597079.605 | 1464027.53 | 700.022 |
| PRS11-ALW7 | 20050817 | Radium-226 | 2.9 | 11.85 | 4.55 | 597079.605 | 1464027.53 | 700.022 |
| PRS11-ALW7 | 20050817 | Thorium-230 | 2.8 | 43.98 | 43.98 | 597079.605 | 1464027.53 | 700.022 |
| PRS11-ALW7 | 20050817 | Thorium-232 | 2.1 | 40.69 | 0.81 | 597079.605 | 1464027.53 | 700.022 |
| PRS11-ALW7 | 20050817 | Uranium-238 | 2.2 | 8.39 | 4.26 | 597079.605 | 1464027.53 | 700.022 |
| PRS11-ALW8 | 20050818 | Actinium-227 | 4.6 | 0.75 | 0.75 | 597100.509 | 1464026.98 | 700.859 |
| PRS11-ALW8 | 20050818 | Americium-241 | 63 | 0.23 | 0.23 | 597100.509 | 1464026.98 | 700.859 |
| PRS11-ALW8 | 20050818 | Cesium-137 | 3.8 | 0.15 | 0.15 | 597100.509 | 1464026.98 | 700.859 |
| PRS11-ALW8 | 20050818 | Cobalt-60 | 0.7 | 0.16 | 0.16 | 597100.509 | 1464026.98 | 700.859 |
| PRS11-ALW8 | 20050818 | Lead-210 | 7.4 | 1.92 | 1.92 | 597100.509 | 1464026.98 | 700.859 |
| PRS11-ALW8 | 20050818 | Plutonium-238 | 55 | 46.93 | 46.93 | 597100.509 | 1464026.98 | 700.859 |
| PRS11-ALW8 | 20050818 | Radium-226 | 2.9 | 3.24 | 2.30 | 597100.509 | 1464026.98 | 700.859 |
| PRS11-ALW8 | 20050818 | Thorium-230 | 2.8 | 23.24 | 23.24 | 597100.509 | 1464026.98 | 700.859 |
| PRS11-ALW8 | 20050818 | Thorium-232 | 2.1 | 25.58 | 0.53 | 597100.509 | 1464026.98 | 700.859 |
| PRS11-ALW8 | 20050818 | Uranium-238 | 2.2 | 3.34 | 2.27 | 597100.509 | 1464026.98 | 700.859 |
| SU1-11-023 | 20051130 | Actinium-227 | 4.6 | 0.38 | 0.38 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-023 | 20051130 | Americium-241 | 63 | 0.15 | 0.15 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-023 | 20051130 | Beryllium-7 | 41.1 | 0.49 | 0.49 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-023 | 20051130 | Bismuth-207 | 1.2 | 0.06 | 0.06 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-023 | 20051130 | Bismuth-210M | 8.3 | 0.08 | 0.08 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-023 | 20051130 | Bismuth-214 | 1.17 | 0.68 | 0.13 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-023 | 20051130 | Cesium-137 | 3.8 | 0.08 | 0.08 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-023 | 20051130 | Cobalt-60 | 0.7 | 0.09 | 0.09 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-023 | 20051130 | Lead-210 | 7.4 | 1.70 | 1.70 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-023 | 20051130 | Lead-212 | 16.6 | 0.54 | 0.09 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-023 | 20051130 | Lead-214 | 8.9 | 0.70 | 0.11 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-023 | 20051130 | Potassium-40 | 47.8 | 9.60 | 0.70 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-023 | 20051130 | Protactinium-231 | 4 | 2.00 | 2.00 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-023 | 20051130 | Radium-224 | 32.4 | 1.50 | 1.00 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-023 | 20051130 | Radium-226 | 2.9 | 0.68 | 0.13 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-023 | 20051130 | Thallium-208 | 0.498 | 0.25 | 0.06 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-023 | 20051130 | Thorium-228 | 2.6 | 0.59 | 0.07 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-023 | 20051130 | Thorium-230 | 2.8 | 1.17 | 0.04 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-023 | 20051130 | Thorium-232 | 2.1 | 0.60 | 0.04 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-023 | 20051130 | Thorium-234 | 176 | 3.20 | 1.30 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-023 | 20051130 | Uranium-234 | 176 | 0.71 | 0.02 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-023 | 20051130 | Uranium-238 | 2.2 | 3.20 | 1.30 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-023 | 20051130 | Uranium-238 | 2.2 | 2.21 | 0.02 | 597032.774 | 1464085.23 | 691.746 |
| SU1-11-037 | 20051130 | Actinium-227 | 4.6 | 0.63 | 0.63 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Actinium-228 | 1.93 | 11.80 | 0.30 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Americium-241 | 63 | 0.23 | 0.23 | 597058.754 | 1464025.23 | 686.418 |

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# Table 4: As-Left Landfill Wall Results (pCi/g)

| Location | Date | Analyte | CO | Result | DL | Northing | Easting | Elevation |
|---|---|---|---|---|---|---|---|---|
| SU1-11-037 | 20051130 | Bismuth-207 | 1.2 | 0.10 | 0.10 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Bismuth-210M | 8.3 | 0.12 | 0.12 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Bismuth-212 | 9.87 | 8.00 | 0.80 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Bismuth-214 | 1.17 | 1.67 | 0.21 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Cesium-137 | 3.8 | 0.12 | 0.12 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Cobalt-60 | 0.7 | 0.11 | 0.11 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Lead-210 | 7.4 | 2.30 | 2.30 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Lead-212 | 16.6 | 12.90 | 0.20 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Lead-214 | 8.9 | 1.87 | 0.18 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Plutonium-238 | 55 | 2.60 | 0.04 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Plutonium-239/240 | 62 | 0.03 | 0.03 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Potassium-40 | 47.8 | 13.20 | 0.80 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Protactinium-231 | 4 | 13.50 | 3.90 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Radium-224 | 32.4 | 14.10 | 1.70 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Radium-226 | 2.9 | 1.67 | 0.21 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Radium-228 | 2.1 | 11.80 | 0.30 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Thallium-208 | 0.498 | 4.37 | 0.11 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Thorium-228 | 2.6 | 13.00 | 0.02 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Thorium-230 | 2.8 | 5.18 | 0.01 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Thorium-232 | 2.1 | 14.80 | 0.02 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Thorium-232 | 2.1 | 11.80 | 0.30 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Thorium-234 | 176 | 3.30 | 2.20 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Uranium-234 | 176 | 2.86 | 0.01 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Uranium-238 | 2.2 | 2.88 | 0.02 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-037 | 20051130 | Uranium-238 | 2.2 | 3.30 | 2.20 | 597058.754 | 1464025.23 | 686.418 |
| SU1-11-042 | 20051130 | Actinium-227 | 4.6 | 0.41 | 0.41 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Actinium-228 | 1.93 | 1.89 | 0.15 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Americium-241 | 63 | 0.14 | 0.14 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Bismuth-207 | 1.2 | 0.06 | 0.06 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Bismuth-210M | 8.3 | 0.09 | 0.09 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Bismuth-212 | 9.87 | 1.09 | 0.57 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Bismuth-214 | 1.17 | 0.74 | 0.14 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Cesium-137 | 3.8 | 0.08 | 0.08 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Cobalt-60 | 0.7 | 0.06 | 0.06 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Lead-210 | 7.4 | 1.70 | 1.70 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Lead-212 | 16.6 | 2.18 | 0.10 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Lead-214 | 8.9 | 0.64 | 0.12 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Potassium-40 | 47.8 | 8.00 | 0.50 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Protactinium-231 | 4 | 2.80 | 2.50 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Radium-224 | 32.4 | 2.80 | 1.10 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Radium-226 | 2.9 | 0.74 | 0.14 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Radium-228 | 2.1 | 1.89 | 0.15 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Thallium-208 | 0.498 | 0.82 | 0.06 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Thorium-228 | 2.6 | 4.22 | 0.05 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Thorium-230 | 2.8 | 2.50 | 0.02 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Thorium-232 | 2.1 | 4.63 | 0.04 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Thorium-232 | 2.1 | 1.89 | 0.15 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Uranium-234 | 176 | 1.54 | 0.02 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-042 | 20051130 | Uranium-238 | 2.2 | 1.63 | 0.02 | 597071.745 | 1464017.73 | 689.412 |
| SU1-11-052 | 20051130 | Actinium-227 | 4.6 | 0.42 | 0.42 | 597097.726 | 1464017.73 | 691.99 |
| SU1-11-052 | 20051130 | Actinium-228 | 1.93 | 3.44 | 0.20 | 597097.726 | 1464017.73 | 691.99 |
| SU1-11-052 | 20051130 | Americium-241 | 63 | 0.17 | 0.17 | 597097.726 | 1464017.73 | 691.99 |

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# Table 4: As-Left Landfill Wall Results (pCi/g)

| Location | Date | Analyte | CO | Result | DL | Northing | Easting | Elevation |
|---|---|---|---|---|---|---|---|---|
| SU1-11-052 | 20051130 | Bismuth-207 | 1.2 | 0.06 | 0.06 | 597097.726 | 1464017.73 | 691.99 |
| SU1-11-052 | 20051130 | Bismuth-210M | 8.3 | 0.09 | 0.09 | 597097.726 | 1464017.73 | 691.99 |
| SU1-11-052 | 20051130 | Bismuth-212 | 9.87 | 2.10 | 0.61 | 597097.726 | 1464017.73 | 691.99 |
| SU1-11-052 | 20051130 | Bismuth-214 | 1.17 | 0.92 | 0.14 | 597097.726 | 1464017.73 | 691.99 |
| SU1-11-052 | 20051130 | Cesium-137 | 3.8 | 0.08 | 0.08 | 597097.726 | 1464017.73 | 691.99 |
| SU1-11-052 | 20051130 | Cobalt-60 | 0.7 | 0.07 | 0.07 | 597097.726 | 1464017.73 | 691.99 |
| SU1-11-052 | 20051130 | Lead-210 | 7.4 | 1.80 | 1.80 | 597097.726 | 1464017.73 | 691.99 |
| SU1-11-052 | 20051130 | Lead-212 | 16.6 | 3.43 | 0.10 | 597097.726 | 1464017.73 | 691.99 |
| SU1-11-052 | 20051130 | Lead-214 | 8.9 | 0.82 | 0.13 | 597097.726 | 1464017.73 | 691.99 |
| SU1-11-052 | 20051130 | Potassium-40 | 47.8 | 10.50 | 0.60 | 597097.726 | 1464017.73 | 691.99 |
| SU1-11-052 | 20051130 | Protactinium-231 | 4 | 3.90 | 2.60 | 597097.726 | 1464017.73 | 691.99 |
| SU1-11-052 | 20051130 | Radium-224 | 32.4 | 4.00 | 1.10 | 597097.726 | 1464017.73 | 691.99 |
| SU1-11-052 | 20051130 | Radium-226 | 2.9 | 0.92 | 0.14 | 597097.726 | 1464017.73 | 691.99 |
| SU1-11-052 | 20051130 | Radium-228 | 2.1 | 3.44 | 0.20 | 597097.726 | 1464017.73 | 691.99 |
| SU1-11-052 | 20051130 | Thallium-208 | 0.498 | 1.23 | 0.07 | 597097.726 | 1464017.73 | 691.99 |
| SU1-11-052 | 20051130 | Thorium-228 | 2.6 | 5.21 | 0.02 | 597097.726 | 1464017.73 | 691.99 |
| SU1-11-052 | 20051130 | Thorium-230 | 2.8 | 1.69 | 0.03 | 597097.726 | 1464017.73 | 691.99 |
| SU1-11-052 | 20051130 | Thorium-232 | 2.1 | 5.16 | 0.01 | 597097.726 | 1464017.73 | 691.99 |
| SU1-11-052 | 20051130 | Thorium-232 | 2.1 | 3.44 | 0.20 | 597097.726 | 1464017.73 | 691.99 |
| SU1-11-052 | 20051130 | Uranium-234 | 176 | 1.07 | 0.02 | 597097.726 | 1464017.73 | 691.99 |
| SU1-11-052 | 20051130 | Uranium-238 | 2.2 | 1.01 | 0.01 | 597097.726 | 1464017.73 | 691.99 |
| SU2-11-066 | 20051201 | Actinium-227 | 4.6 | 0.43 | 0.43 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Actinium-228 | 1.93 | 3.61 | 0.25 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Americium-241 | 63 | 0.20 | 0.20 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Beryllium-7 | 41.1 | 0.63 | 0.63 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Bismuth-207 | 1.2 | 0.08 | 0.08 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Bismuth-210M | 8.3 | 0.09 | 0.09 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Bismuth-212 | 9.87 | 2.21 | 0.68 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Bismuth-214 | 1.17 | 1.13 | 0.16 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Cesium-137 | 3.8 | 0.10 | 0.10 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Cobalt-60 | 0.7 | 0.09 | 0.09 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Lead-210 | 7.4 | 2.00 | 2.00 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Lead-212 | 16.6 | 3.67 | 0.11 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Lead-214 | 8.9 | 1.29 | 0.13 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Plutonium-238 | 55 | 34.00 | 0.03 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Plutonium-239/240 | 62 | 0.32 | 0.01 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Potassium-40 | 47.8 | 19.10 | 0.80 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Protactinium-231 | 4 | 4.40 | 2.80 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Radium-224 | 32.4 | 4.30 | 1.20 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Radium-226 | 2.9 | 1.13 | 0.16 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Radium-228 | 2.1 | 3.61 | 0.25 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Thallium-208 | 0.498 | 1.21 | 0.08 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Thorium-228 | 2.6 | 3.18 | 0.02 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Thorium-230 | 2.8 | 1.41 | 0.03 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Thorium-232 | 2.1 | 2.96 | 0.01 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Thorium-232 | 2.1 | 3.61 | 0.25 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Uranium-234 | 176 | 0.79 | 0.02 | 597036.159 | 1464094.24 | 701.163 |
| SU2-11-066 | 20051201 | Uranium-238 | 2.2 | 0.96 | 0.01 | 597036.159 | 1464094.24 | 701.163 |

CO: cleanup objective
DL: detection limit

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# Table 5: As-Left Offsite VOC and Metals Data (mg/kg)

| Location | Date | Analyte | CO | Result | Detection Limit | Lab Qual | Data Qual | X Coord | Y Coord |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-035 | 11/30/2005 | Aluminum | 232000 | 4740.000 | 22.50 | N | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Antimony | 85.2 | 1.100 | 1.10 | UN | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Arsenic | 72.5 | 6.100 | 1.10 | | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Barium | 15100 | 27.800 | 22.50 | | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Beryllium | 422 | 0.320 | 0.56 | B | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Cadmium | 215 | 0.560 | 0.56 | U | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Calcium | na | 124000.000 | 2810.00 | N | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Chromium | 319000 | 6.700 | 1.10 | | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Cobalt | 12800 | 4.400 | 5.60 | B | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Copper | 8540 | 10.600 | 2.80 | | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Iron | na | 11100.000 | 11.30 | N | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Lead | na | 5.700 | 0.34 | | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Magnesium | na | 53800.000 | 2810.00 | N | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Manganese | 24200 | 241.000 | 1.70 | NE | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Mercury | 63.9 | 0.038 | 0.04 | UN | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Molybdenum | 1090 | 1.900 | 4.50 | B | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Nickel | 4290 | 11.900 | 4.50 | | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Potassium | na | 1610.000 | 563.00 | | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Selenium | 1060 | 0.560 | 0.56 | U | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Silver | 1070 | 1.100 | 1.10 | U | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Sodium | na | 163.000 | 563.00 | B | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Thallium | 17.5 | 0.660 | 1.10 | B | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Vanadium | 1520 | 11.600 | 2.30 | | | 1463995.228 | 597058.754 |
| SU1-11-035 | 11/30/2005 | Zinc | 64000 | 37.500 | 2.30 | | | 1463995.228 | 597058.754 |
| SU1-11-039 | 11/29/2005 | 1,1,1-Trichloroethane | 3310.00 | 0.006 | 6.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | 1,1,2,2-Tetrachloroethane | 8.88 | 0.006 | 6.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | 1,1,2-Trichloroethane | 19 | 0.006 | 6.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | 1,1-Dichloroethane | 10600 | 0.006 | 6.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | 1,1-Dichloroethene | 102000 | 0.006 | 6.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | 1,2-cis-Dichloroethene (DCE) | 2130 | 0.080 | 6.00 | | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | 1,2-Dichloroethane | 7.61 | 0.006 | 6.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | 1,2-Dichloropropane | 21.6 | 0.006 | 6.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | 1,2-trans-Dichloroethene | 4260 | 0.006 | 6.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | 1,3-cis-Dichloropropene | na | 0.006 | 6.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | 1,3-trans-Dichloropropene | na | 0.006 | 6.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | 2-Butanone | 9300 | 0.012 | 12.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | 2-Hexanone | na | 0.012 | 12.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | 4-Methyl-2-pentanone | na | 0.012 | 12.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | Acetone | 192000 | 0.012 | 12.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | Benzene | 490 | 0.006 | 6.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | Bromodichloromethane | 481 | 0.006 | 6.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | Bromoform | 3770 | 0.006 | 6.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | Bromomethane | 12.6 | 0.012 | 12.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | Carbon Disulfide | 1160 | 0.006 | 6.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | Carbon Tetrachloride | 5.38 | 0.006 | 6.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | Chlorobenzene | 489 | 0.006 | 6.00 | U | | 1463972.728 | 597071.745 |

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# Table 5: As-Left Offsite VOC and Metals Data (mg/kg)

| Location | Date | Analyte | CO | Result | Detection Limit | Lab Qual | Data Qual | X Coord | Y Coord |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-039 | 11/29/2005 | Chloroethane | 160 | 0.012 | 12.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | Chloromethane | 27.1 | 0.012 | 12.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | Dibromochloromethane | 355 | 0.006 | 6.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | Dichloromethane (Methylene Chloride) | 203 | 0.012 | 12.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | Ethylbenzene | 0.48 | 0.006 | 6.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | mp-Xylene | na | 0.006 | 6.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | o-Xylene | 426000 | 0.006 | 6.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | Styrene | 14500 | 0.006 | 6.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | Tetrachloroethene (PCE) | 2130 | 0.020 | 6.00 | | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | Toluene | 250 | 0.006 | 6.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | Trichloroethylene (TCE) | na | 0.590 | 30.00 | | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | Trichloromethane (Cholorform) | 1500 | 0.006 | 6.00 | | | 1463972.728 | 597071.745 |
| SU1-11-039 | 11/29/2005 | Vinyl Chloride | 4.14 | 0.012 | 12.00 | U | | 1463972.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | 1,1,1-Trichloroethane | 3310.00 | 0.055 | 55.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | 1,1,2,2-Tetrachloroethane | 8.88 | 0.055 | 55.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | 1,1,2-Trichloroethane | 19 | 0.055 | 55.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | 1,1-Dichloroethane | 10600 | 0.055 | 55.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | 1,1-Dichloroethene | 102000 | 0.100 | 55.00 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | 1,2-cis-Dichloroethene (DCE) | 2130 | 26.000 | 28000.00 | J | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | 1,2-Dichloroethane | 7.61 | 0.055 | 55.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | 1,2-Dichloropropane | 21.6 | 0.055 | 55.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | 1,2-trans-Dichloroethene | 4260 | 0.055 | 55.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | 1,3-cis-Dichloropropene | na | 0.055 | 55.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | 1,3-trans-Dichloropropene | na | 0.055 | 55.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | 2-Butanone | 9300 | 0.110 | 110.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | 2-Hexanone | na | 0.110 | 110.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | 4-Methyl-2-pentanone | na | 0.110 | 110.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Acetone | 192000 | 0.110 | 110.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Aluminum | 232000 | 3240.000 | 22.90 | N | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Antimony | 85.2 | 1.200 | 1.20 | UN | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Arsenic | 72.5 | 4.500 | 1.20 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Barium | 15100 | 15.500 | 22.90 | B | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Benzene | 490 | 28.000 | 28000.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Beryllium | 422 | 0.230 | 0.57 | B | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Bromodichloromethane | 481 | 0.055 | 55.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Bromoform | 3770 | 0.055 | 55.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Bromomethane | 12.6 | 0.110 | 110.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Cadmium | 215 | 0.570 | 0.57 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Calcium | na | 88100.000 | 2870.00 | N | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Carbon Disulfide | 1160 | 0.055 | 55.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Carbon Tetrachloride | 5.38 | 0.055 | 55.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Chlorobenzene | 489 | 0.055 | 55.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Chloroethane | 160 | 0.110 | 110.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Chloromethane | 27.1 | 0.110 | 110.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Chromium | 319000 | 5.700 | 1.20 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Cobalt | 12800 | 3.300 | 5.70 | B | | 1463987.728 | 597071.745 |

11/9001 H

# Table 5: As-Left Offsite VOC and Metals Data (mg/kg)

| Location | Date | Analyte | CO | Result | Detection Limit | Lab Qual | Data Qual | X Coord | Y Coord |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-040 | 11/30/2005 | Copper | 8540 | 10.500 | 2.90 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Dibromochloromethane | 355 | 0.055 | 55.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Dichloromethane (Methylene Chloride) | 203 | 0.110 | 110.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Ethylbenzene | 0.48 | 9.600 | 28000.00 | J | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Iron | na | 8250.000 | 11.50 | N | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Lead | na | 4.200 | 0.34 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Magnesium | na | 36400.000 | 2870.00 | N | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Manganese | 24200 | 226.000 | 1.70 | NE | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Mercury | 63.9 | 0.038 | 0.04 | UN | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Molybdenum | 1090 | 1.600 | 4.60 | B | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | mp-Xylene | na | 25.000 | 28000.00 | J | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Nickel | 4290 | 9.800 | 4.60 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | o-Xylene | 426000 | 7.500 | 28000.00 | J | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Potassium | na | 894.000 | 573.00 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Selenium | 1060 | 0.570 | 0.57 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Silver | 1070 | 1.200 | 1.20 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Sodium | na | 123.000 | 573.00 | B | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Styrene | 14500 | 0.055 | 55.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Tetrachloroethene (PCE) | 2130 | 230.000 | 28000.00 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Thallium | 17.5 | 1.200 | 1.20 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Toluene | 250 | 3800.000 | 280000.00 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Trichloroethylene (TCE) | na | 5400.000 | 280000.00 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Trichloromethane (Cholorform) | 1500 | 53.000 | 28000.00 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Vanadium | 1520 | 8.900 | 2.30 | | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Vinyl Chloride | 4.14 | 0.110 | 110.00 | U | | 1463987.728 | 597071.745 |
| SU1-11-040 | 11/30/2005 | Zinc | 64000 | 30.900 | 2.30 | | | 1463987.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | 1,1,1-Trichloroethane | 3310.00 | 0.006 | 5.60 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | 1,1,2,2-Tetrachloroethane | 8.88 | 0.006 | 5.60 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | 1,1,2-Trichloroethane | 19 | 0.002 | 5.60 | J | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | 1,1-Dichloroethane | 10600 | 0.006 | 5.60 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | 1,1-Dichloroethene | 102000 | 0.002 | 5.60 | J | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | 1,2-cis-Dichloroethene (DCE) | 2130 | 8.800 | 700.00 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | 1,2-Dichloroethane | 7.61 | 0.009 | 5.60 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | 1,2-Dichloropropane | 21.6 | 0.006 | 5.60 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | 1,2-trans-Dichloroethene | 4260 | 0.055 | 5.60 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | 1,3-cis-Dichloropropene | na | 0.006 | 5.60 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | 1,3-trans-Dichloropropene | na | 0.006 | 5.60 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | 2-Butanone | 9300 | 0.011 | 11.00 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | 2-Hexanone | na | 0.011 | 11.00 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | 4-Methyl-2-pentanone | na | 0.055 | 11.00 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Acetone | 192000 | 0.011 | 11.00 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Aluminum | 232000 | 4970.000 | 23.40 | N | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Antimony | 85.2 | 1.200 | 1.20 | UN | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Arsenic | 72.5 | 3.600 | 1.20 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Barium | 15100 | 22.800 | 23.40 | B | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Benzene | 490 | 0.036 | 5.60 | | | 1464002.728 | 597071.745 |

121/300/4

# Table 5: As-Left Offsite VOC and Metals Data (mg/kg)

| Location | Date | Analyte | CO | Result | Detection Limit | Lab Qual | Data Qual | X Coord | Y Coord |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-041 | 11/30/2005 | Beryllium | 422 | 0.320 | 0.59 | B | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Bromodichloromethane | 481 | 0.006 | 5.60 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Bromoform | 3770 | 0.006 | 5.60 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Bromomethane | 12.6 | 0.011 | 11.00 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Cadmium | 215 | 0.590 | 0.59 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Calcium | na | 123000.000 | 2930.00 | N | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Carbon Disulfide | 1160 | 0.006 | 5.60 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Carbon Tetrachloride | 5.38 | 0.006 | 5.60 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Chlorobenzene | 489 | 0.006 | 5.60 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Chloroethane | 160 | 0.011 | 11.00 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Chloromethane | 27.1 | 0.011 | 11.00 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Chromium | 319000 | 6.900 | 1.20 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Cobalt | 12800 | 3.900 | 5.90 | B | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Copper | 8540 | 11.100 | 2.90 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Dibromochloromethane | 355 | 0.006 | 5.60 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Dichloromethane (Methylene Chloride) | 203 | 0.016 | 11.00 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Ethylbenzene | 0.48 | 0.006 | 5.60 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Iron | na | 9960.000 | 11.70 | N | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Lead | na | 5.500 | 0.35 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Magnesium | na | 57200.000 | 2930.00 | N | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Manganese | 24200 | 191.000 | 1.80 | NE | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Mercury | 63.9 | 0.039 | 0.04 | UN | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Molybdenum | 1090 | 2.000 | 4.70 | B | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | mp-Xylene | na | 0.006 | 5.60 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Nickel | 4290 | 11.400 | 4.70 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | o-Xylene | 426000 | 0.006 | 5.60 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Potassium | na | 1480.000 | 585.00 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Selenium | 1060 | 0.590 | 0.59 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Silver | 1070 | 1.200 | 1.20 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Sodium | na | 150.000 | 585.00 | B | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Styrene | 14500 | 0.006 | 5.60 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Tetrachloroethene (PCE) | 2130 | 0.062 | 5.60 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Thallium | 17.5 | 1.200 | 1.20 | U | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Toluene | 250 | 46.000 | 5600.00 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Trichloroethylene (TCE) | na | 120.000 | 5600.00 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Trichloromethane (Cholorform) | 1500 | 0.091 | 5.60 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Vanadium | 1520 | 11.500 | 2.30 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Vinyl Chloride | 4.14 | 0.048 | 11.00 | | | 1464002.728 | 597071.745 |
| SU1-11-041 | 11/30/2005 | Zinc | 64000 | 34.100 | 2.30 | | | 1464002.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | 1,1,1-Trichloroethane | 3310.00 | 0.006 | 5.50 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | 1,1,2,2-Tetrachloroethane | 8.88 | 0.006 | 5.50 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | 1,1,2-Trichloroethane | 19 | 0.006 | 5.50 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | 1,1-Dichloroethane | 10600 | 0.006 | 5.50 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | 1,1-Dichloroethene | 102000 | 0.006 | 5.50 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | 1,2-cis-Dichloroethene (DCE) | 2130 | 0.037 | 5.50 | | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | 1,2-Dichloroethane | 7.61 | 0.006 | 5.50 | U | | 1464017.728 | 597071.745 |

121/p001 H

# Table 5: As-Left Offsite VOC and Metals Data (mg/kg)

| Location | Date | Analyte | CO | Result | Detection Limit | Lab Qual | Data Qual | X Coord | Y Coord |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-042 | 11/30/2005 | 1,2-Dichloropropane | 21.6 | 0.006 | 5.50 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | 1,2-trans-Dichloroethene | 4260 | 0.006 | 5.50 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | 1,3-cis-Dichloropropene | na | 0.006 | 5.50 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | 1,3-trans-Dichloropropene | na | 0.006 | 5.50 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | 2-Butanone | 9300 | 0.011 | 11.00 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | 2-Hexanone | na | 0.011 | 11.00 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | 4-Methyl-2-pentanone | na | 0.002 | 11.00 | J | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | Acetone | 192000 | 0.011 | 11.00 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | Benzene | 490 | 0.006 | 5.50 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | Bromodichloromethane | 481 | 0.006 | 5.50 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | Bromoform | 3770 | 0.006 | 5.50 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | Bromomethane | 12.6 | 0.011 | 11.00 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | Carbon Disulfide | 1160 | 0.006 | 5.50 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | Carbon Tetrachloride | 5.38 | 0.006 | 5.50 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | Chlorobenzene | 489 | 0.006 | 5.50 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | Chloroethane | 160 | 0.011 | 11.00 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | Chloromethane | 27.1 | 0.011 | 11.00 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | Dibromochloromethane | 355 | 0.006 | 5.50 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | Dichloromethane (Methylene Chloride) | 203 | 0.011 | 11.00 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | Ethylbenzene | 0.48 | 0.006 | 5.50 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | mp-Xylene | na | 0.006 | 5.50 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | o-Xylene | 426000 | 0.006 | 5.50 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | Styrene | 14500 | 0.006 | 5.50 | U | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | Tetrachloroethene (PCE) | 2130 | 0.007 | 5.50 | | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | Toluene | 250 | 0.170 | 5.50 | | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | Trichloroethylene (TCE) | na | 0.760 | 55.00 | | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | Trichloromethane (Cholorform) | 1500 | 0.048 | 5.50 | | | 1464017.728 | 597071.745 |
| SU1-11-042 | 11/30/2005 | Vinyl Chloride | 4.14 | 0.011 | 11.00 | U | | 1464017.728 | 597071.745 |
| SU1-11-044 | 11/29/2005 | 1,1,1-Trichloroethane | 3310.00 | 0.006 | 5.50 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | 1,1,2,2-Tetrachloroethane | 8.88 | 0.006 | 5.50 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | 1,1,2-Trichloroethane | 19 | 0.006 | 5.50 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | 1,1-Dichloroethane | 10600 | 0.006 | 5.50 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | 1,1-Dichloroethene | 102000 | 0.006 | 5.50 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | 1,2-cis-Dichloroethene (DCE) | 2130 | 0.005 | 5.50 | J | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | 1,2-Dichloroethane | 7.61 | 0.006 | 5.50 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | 1,2-Dichloropropane | 21.6 | 0.006 | 5.50 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | 1,2-trans-Dichloroethene | 4260 | 0.006 | 5.50 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | 1,3-cis-Dichloropropene | na | 0.006 | 5.50 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | 1,3-trans-Dichloropropene | na | 0.006 | 5.50 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | 2-Butanone | 9300 | 0.011 | 11.00 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | 2-Hexanone | na | 0.011 | 11.00 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | 4-Methyl-2-pentanone | na | 0.011 | 11.00 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | Acetone | 192000 | 0.011 | 11.00 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | Benzene | 490 | 0.006 | 5.50 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | Bromodichloromethane | 481 | 0.006 | 5.50 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | Bromoform | 3770 | 0.006 | 5.50 | U | | 1463965.228 | 597084.735 |

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# Table 5: As-Left Offsite VOC and Metals Data (mg/kg)

| Location | Date | Analyte | CO | Result | Detection Limit | Lab Qual | Data Qual | X Coord | Y Coord |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-044 | 11/29/2005 | Bromomethane | 12.6 | 0.011 | 11.00 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | Carbon Disulfide | 1160 | 0.006 | 5.50 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | Carbon Tetrachloride | 5.38 | 0.006 | 5.50 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | Chlorobenzene | 489 | 0.006 | 5.50 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | Chloroethane | 160 | 0.011 | 11.00 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | Chloromethane | 27.1 | 0.011 | 11.00 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | Dibromochloromethane | 355 | 0.006 | 5.50 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | Dichloromethane (Methylene Chloride) | 203 | 0.011 | 11.00 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | Ethylbenzene | 0.48 | 0.006 | 5.50 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | mp-Xylene | na | 0.006 | 5.50 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | o-Xylene | 426000 | 0.006 | 5.50 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | Styrene | 14500 | 0.006 | 5.50 | U | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | Tetrachloroethene (PCE) | 2130 | 0.003 | 5.50 | J | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | Toluene | 250 | 0.110 | 5.50 | | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | Trichloroethylene (TCE) | na | 0.230 | 5.50 | E | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | Trichloromethane (Cholorform) | 1500 | 0.009 | 5.50 | | | 1463965.228 | 597084.735 |
| SU1-11-044 | 11/29/2005 | Vinyl Chloride | 4.14 | 0.011 | 11.00 | U | | 1463965.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | 1,1,1-Trichloroethane | 3310.00 | 0.005 | 5.30 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | 1,1,2,2-Tetrachloroethane | 8.88 | 0.005 | 5.30 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | 1,1,2-Trichloroethane | 19 | 0.005 | 5.30 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | 1,1-Dichloroethane | 10600 | 0.005 | 5.30 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | 1,1-Dichloroethene | 102000 | 0.005 | 5.30 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | 1,2-cis-Dichloroethene (DCE) | 2130 | 0.006 | 5.30 | | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | 1,2-Dichloroethane | 7.61 | 0.005 | 5.30 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | 1,2-Dichloropropane | 21.6 | 0.005 | 5.30 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | 1,2-trans-Dichloroethene | 4260 | 0.005 | 5.30 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | 1,3-cis-Dichloropropene | na | 0.005 | 5.30 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | 1,3-trans-Dichloropropene | na | 0.005 | 5.30 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | 2-Butanone | 9300 | 0.011 | 11.00 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | 2-Hexanone | na | 0.011 | 11.00 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | 4-Methyl-2-pentanone | na | 0.011 | 11.00 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | Acetone | 192000 | 0.011 | 11.00 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | Benzene | 490 | 0.005 | 5.30 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | Bromodichloromethane | 481 | 0.005 | 5.30 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | Bromoform | 3770 | 0.005 | 5.30 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | Bromomethane | 12.6 | 0.011 | 11.00 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | Carbon Disulfide | 1160 | 0.005 | 5.30 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | Carbon Tetrachloride | 5.38 | 0.005 | 5.30 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | Chlorobenzene | 489 | 0.005 | 5.30 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | Chloroethane | 160 | 0.011 | 11.00 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | Chloromethane | 27.1 | 0.011 | 11.00 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | Dibromochloromethane | 355 | 0.005 | 5.30 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | Dichloromethane (Methylene Chloride) | 203 | 0.011 | 11.00 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | Ethylbenzene | 0.48 | 0.005 | 5.30 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | mp-Xylene | na | 0.005 | 5.30 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | o-Xylene | 426000 | 0.005 | 5.30 | U | | 1463980.228 | 597084.735 |

# Table 5: As-Left Offsite VOC and Metals Data (mg/kg)

| Location | Date | Analyte | CO | Result | Detection Limit | Lab Qual | Data Qual | X Coord | Y Coord |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-045 | 11/29/2005 | Styrene | 14500 | 0.005 | 5.30 | U | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | Tetrachloroethene (PCE) | 2130 | 0.003 | 5.30 | J | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | Toluene | 250 | 0.024 | 5.30 | | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | Trichloroethylene (TCE) | na | 0.260 | 5.30 | E | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | Trichloromethane (Cholorform) | 1500 | 0.010 | 5.30 | | | 1463980.228 | 597084.735 |
| SU1-11-045 | 11/29/2005 | Vinyl Chloride | 4.14 | 0.011 | 11.00 | U | | 1463980.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | 1,1,1-Trichloroethane | 3310.00 | 0.006 | 5.70 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | 1,1,2,2-Tetrachloroethane | 8.88 | 0.006 | 5.70 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | 1,1,2-Trichloroethane | 19 | 0.006 | 5.70 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | 1,1-Dichloroethane | 10600 | 0.006 | 5.70 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | 1,1-Dichloroethene | 102000 | 0.006 | 5.70 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | 1,2-cis-Dichloroethene (DCE) | 2130 | 2.200 | 710.00 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | 1,2-Dichloroethane | 7.61 | 0.011 | 5.70 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | 1,2-Dichloropropane | 21.6 | 0.006 | 5.70 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | 1,2-trans-Dichloroethene | 4260 | 0.024 | 5.70 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | 1,3-cis-Dichloropropene | na | 0.006 | 5.70 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | 1,3-trans-Dichloropropene | na | 0.006 | 5.70 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | 2-Butanone | 9300 | 0.011 | 11.00 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | 2-Hexanone | na | 0.011 | 11.00 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | 4-Methyl-2-pentanone | na | 0.011 | 11.00 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Acetone | 192000 | 0.011 | 11.00 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Aluminum | 232000 | 4890.000 | 23.60 | N | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Antimony | 85.2 | 1.200 | 1.20 | UN | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Arsenic | 72.5 | 5.100 | 1.20 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Barium | 15100 | 29.100 | 23.60 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Benzene | 490 | 0.025 | 5.70 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Beryllium | 422 | 0.360 | 0.59 | B | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Bromodichloromethane | 481 | 0.006 | 5.70 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Bromoform | 3770 | 0.006 | 5.70 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Bromomethane | 12.6 | 0.011 | 11.00 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Cadmium | 215 | 0.590 | 0.59 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Calcium | na | 112000.000 | 2950.00 | N | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Carbon Disulfide | 1160 | 0.019 | 5.70 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Carbon Tetrachloride | 5.38 | 0.006 | 5.70 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Chlorobenzene | 489 | 0.006 | 5.70 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Chloroethane | 160 | 0.011 | 11.00 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Chloromethane | 27.1 | 0.011 | 11.00 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Chromium | 319000 | 7.400 | 1.20 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Cobalt | 12800 | 4.600 | 5.90 | B | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Copper | 8540 | 13.600 | 3.00 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Dibromochloromethane | 355 | 0.006 | 5.70 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Dichloromethane (Methylene Chloride) | 203 | 0.046 | 11.00 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Ethylbenzene | 0.48 | 0.006 | 5.70 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Iron | na | 11000.000 | 11.80 | N | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Lead | na | 6.500 | 0.35 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Magnesium | na | 46900.000 | 2950.00 | N | | 1463995.228 | 597084.735 |

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# Table 5: As-Left Offsite VOC and Metals Data (mg/kg)

| Location | Date | Analyte | CO | Result | Detection Limit | Lab Qual | Data Qual | X Coord | Y Coord |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-046 | 11/30/2005 | Manganese | 24200 | 213.000 | 1.80 | NE | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Mercury | 63.9 | 0.027 | 0.04 | BN | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Molybdenum | 1090 | 2.800 | 4.70 | B | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | mp-Xylene | na | 0.006 | 5.70 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Nickel | 4290 | 12.400 | 4.70 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | o-Xylene | 426000 | 0.006 | 5.70 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Potassium | na | 1590.000 | 589.00 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Selenium | 1060 | 0.590 | 0.59 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Silver | 1070 | 1.200 | 1.20 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Sodium | na | 146.000 | 589.00 | B | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Styrene | 14500 | 0.006 | 5.70 | U | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Tetrachloroethene (PCE) | 2130 | 0.120 | 5.70 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Thallium | 17.5 | 0.780 | 1.20 | B | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Toluene | 250 | 30.000 | 5700.00 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Trichloroethylene (TCE) | na | 72.000 | 5700.00 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Trichloromethane (Cholorform) | 1500 | 0.670 | 710.00 | J | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Vanadium | 1520 | 12.400 | 2.40 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Vinyl Chloride | 4.14 | 0.031 | 11.00 | | | 1463995.228 | 597084.735 |
| SU1-11-046 | 11/30/2005 | Zinc | 64000 | 35.000 | 2.40 | | | 1463995.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | 1,1,1-Trichloroethane | 3310.00 | 0.006 | 5.50 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | 1,1,2,2-Tetrachloroethane | 8.88 | 0.006 | 5.50 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | 1,1,2-Trichloroethane | 19 | 0.006 | 5.50 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | 1,1-Dichloroethane | 10600 | 0.006 | 5.50 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | 1,1-Dichloroethene | 102000 | 0.006 | 5.50 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | 1,2-cis-Dichloroethene (DCE) | 2130 | 0.120 | 5.50 | | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | 1,2-Dichloroethane | 7.61 | 0.006 | 5.50 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | 1,2-Dichloropropane | 21.6 | 0.006 | 5.50 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | 1,2-trans-Dichloroethene | 4260 | 0.006 | 5.50 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | 1,3-cis-Dichloropropene | na | 0.006 | 5.50 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | 1,3-trans-Dichloropropene | na | 0.006 | 5.50 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | 2-Butanone | 9300 | 0.011 | 11.00 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | 2-Hexanone | na | 0.011 | 11.00 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | 4-Methyl-2-pentanone | na | 0.011 | 11.00 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | Acetone | 192000 | 0.011 | 11.00 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | Benzene | 490 | 0.001 | 5.50 | J | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | Bromodichloromethane | 481 | 0.006 | 5.50 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | Bromoform | 3770 | 0.006 | 5.50 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | Bromomethane | 12.6 | 0.011 | 11.00 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | Carbon Disulfide | 1160 | 0.006 | 5.50 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | Carbon Tetrachloride | 5.38 | 0.006 | 5.50 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | Chlorobenzene | 489 | 0.006 | 5.50 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | Chloroethane | 160 | 0.011 | 11.00 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | Chloromethane | 27.1 | 0.011 | 11.00 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | Dibromochloromethane | 355 | 0.006 | 5.50 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | Dichloromethane (Methylene Chloride) | 203 | 0.006 | 11.00 | J | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | Ethylbenzene | 0.48 | 0.002 | 5.50 | J | | 1464010.228 | 597084.735 |

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# Table 5: As-Left Offsite VOC and Metals Data (mg/kg)

| Location | Date | Analyte | CO | Result | Detection Limit | Lab Qual | Data Qual | X Coord | Y Coord |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-047 | 11/30/2005 | mp-Xylene | na | 0.006 | 5.50 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | o-Xylene | 426000 | 0.002 | 5.50 | J | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | Styrene | 14500 | 0.006 | 5.50 | U | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | Tetrachloroethene (PCE) | 2130 | 0.130 | 5.50 | | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | Toluene | 250 | 3.800 | 690.00 | | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | Trichloroethylene (TCE) | na | 7.800 | 690.00 | | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | Trichloromethane (Cholorform) | 1500 | 0.120 | 5.50 | | | 1464010.228 | 597084.735 |
| SU1-11-047 | 11/30/2005 | Vinyl Chloride | 4.14 | 0.011 | 11.00 | U | | 1464010.228 | 597084.735 |
| SU1-11-048 | 11/29/2005 | 1,1,1-Trichloroethane | 3310.00 | 0.008 | 7.90 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | 1,1,2,2-Tetrachloroethane | 8.88 | 0.008 | 7.90 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | 1,1,2-Trichloroethane | 19 | 0.008 | 7.90 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | 1,1-Dichloroethane | 10600 | 0.008 | 7.90 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | 1,1-Dichloroethene | 102000 | 0.008 | 7.90 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | 1,2-cis-Dichloroethene (DCE) | 2130 | 0.190 | 7.90 | | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | 1,2-Dichloroethane | 7.61 | 0.008 | 7.90 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | 1,2-Dichloropropane | 21.6 | 0.008 | 7.90 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | 1,2-trans-Dichloroethene | 4260 | 0.008 | 7.90 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | 1,3-cis-Dichloropropene | na | 0.008 | 7.90 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | 1,3-trans-Dichloropropene | na | 0.008 | 7.90 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | 2-Butanone | 9300 | 0.016 | 16.00 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | 2-Hexanone | na | 0.016 | 16.00 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | 4-Methyl-2-pentanone | na | 0.016 | 16.00 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | Acetone | 192000 | 0.016 | 16.00 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | Benzene | 490 | 0.003 | 7.90 | J | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | Bromodichloromethane | 481 | 0.008 | 7.90 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | Bromoform | 3770 | 0.008 | 7.90 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | Bromomethane | 12.6 | 0.016 | 16.00 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | Carbon Disulfide | 1160 | 0.008 | 7.90 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | Carbon Tetrachloride | 5.38 | 0.008 | 7.90 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | Chlorobenzene | 489 | 0.008 | 7.90 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | Chloroethane | 160 | 0.016 | 16.00 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | Chloromethane | 27.1 | 0.016 | 16.00 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | Dibromochloromethane | 355 | 0.008 | 7.90 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | Dichloromethane (Methylene Chloride) | 203 | 0.011 | 16.00 | J | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | Ethylbenzene | 0.48 | 0.008 | 7.90 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | mp-Xylene | na | 0.008 | 7.90 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | o-Xylene | 426000 | 0.008 | 7.90 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | Styrene | 14500 | 0.008 | 7.90 | U | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | Tetrachloroethene (PCE) | 2130 | 0.008 | 7.90 | J | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | Toluene | 250 | 1.200 | 79.00 | | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | Trichloroethylene (TCE) | na | 4.500 | 79.00 | E | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | Trichloromethane (Cholorform) | 1500 | 0.160 | 7.90 | | | 1463957.728 | 597097.726 |
| SU1-11-048 | 11/29/2005 | Vinyl Chloride | 4.14 | 0.016 | 16.00 | U | | 1463957.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | 1,1,1-Trichloroethane | 3310.00 | 0.005 | 5.30 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | 1,1,2,2-Tetrachloroethane | 8.88 | 0.005 | 5.30 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | 1,1,2-Trichloroethane | 19 | 0.005 | 5.30 | U | | 1463972.728 | 597097.726 |

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# Table 5: As-Left Offsite VOC and Metals Data (mg/kg)

| Location | Date | Analyte | CO | Result | Detection Limit | Lab Qual | Data Qual | X Coord | Y Coord |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-049 | 11/29/2005 | 1,1-Dichloroethane | 10600 | 0.005 | 5.30 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | 1,1-Dichloroethene | 102000 | 0.005 | 5.30 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | 1,2-cis-Dichloroethene (DCE) | 2130 | 0.002 | 5.30 | J | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | 1,2-Dichloroethane | 7.61 | 0.005 | 5.30 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | 1,2-Dichloropropane | 21.6 | 0.005 | 5.30 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | 1,2-trans-Dichloroethene | 4260 | 0.005 | 5.30 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | 1,3-cis-Dichloropropene | na | 0.005 | 5.30 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | 1,3-trans-Dichloropropene | na | 0.005 | 5.30 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | 2-Butanone | 9300 | 0.011 | 11.00 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | 2-Hexanone | na | 0.011 | 11.00 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | 4-Methyl-2-pentanone | na | 0.011 | 11.00 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | Acetone | 192000 | 0.011 | 11.00 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | Benzene | 490 | 0.005 | 5.30 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | Bromodichloromethane | 481 | 0.005 | 5.30 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | Bromoform | 3770 | 0.005 | 5.30 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | Bromomethane | 12.6 | 0.011 | 11.00 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | Carbon Disulfide | 1160 | 0.005 | 5.30 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | Carbon Tetrachloride | 5.38 | 0.005 | 5.30 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | Chlorobenzene | 489 | 0.005 | 5.30 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | Chloroethane | 160 | 0.011 | 11.00 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | Chloromethane | 27.1 | 0.011 | 11.00 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | Dibromochloromethane | 355 | 0.005 | 5.30 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | Dichloromethane (Methylene Chloride) | 203 | 0.011 | 11.00 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | Ethylbenzene | 0.48 | 0.005 | 5.30 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | mp-Xylene | na | 0.005 | 5.30 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | o-Xylene | 426000 | 0.005 | 5.30 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | Styrene | 14500 | 0.005 | 5.30 | U | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | Tetrachloroethene (PCE) | 2130 | 0.002 | 5.30 | J | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | Toluene | 250 | 0.030 | 5.30 | | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | Trichloroethylene (TCE) | na | 0.120 | 5.30 | | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | Trichloromethane (Cholorform) | 1500 | 0.006 | 5.30 | | | 1463972.728 | 597097.726 |
| SU1-11-049 | 11/29/2005 | Vinyl Chloride | 4.14 | 0.011 | 11.00 | U | | 1463972.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | 1,1,1-Trichloroethane | 3310.00 | 0.006 | 5.70 | U | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | 1,1,2,2-Tetrachloroethane | 8.88 | 0.006 | 5.70 | U | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | 1,1,2-Trichloroethane | 19 | 0.003 | 5.70 | J | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | 1,1-Dichloroethane | 10600 | 0.006 | 5.70 | U | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | 1,1-Dichloroethene | 102000 | 0.006 | 5.70 | U | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | 1,2-cis-Dichloroethene (DCE) | 2130 | 0.520 | 710.00 | J | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | 1,2-Dichloroethane | 7.61 | 0.009 | 5.70 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | 1,2-Dichloropropane | 21.6 | 0.006 | 5.70 | U | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | 1,2-trans-Dichloroethene | 4260 | 0.007 | 5.70 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | 1,3-cis-Dichloropropene | na | 0.006 | 5.70 | U | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | 1,3-trans-Dichloropropene | na | 0.006 | 5.70 | U | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | 2-Butanone | 9300 | 0.011 | 11.00 | U | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | 2-Hexanone | na | 0.011 | 11.00 | U | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | 4-Methyl-2-pentanone | na | 0.011 | 11.00 | U | | 1463987.728 | 597097.726 |

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# Table 5: As-Left Offsite VOC and Metals Data (mg/kg)

| Location | Date | Analyte | CO | Result | Detection Limit | Lab Qual | Data Qual | X Coord | Y Coord |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-050 | 11/30/2005 | Acetone | 192000 | 0.011 | 11.00 | U | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | Benzene | 490 | 0.028 | 5.70 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | Bromodichloromethane | 481 | 0.006 | 5.70 | U | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | Bromoform | 3770 | 0.006 | 5.70 | U | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | Bromomethane | 12.6 | 0.011 | 11.00 | U | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | Carbon Disulfide | 1160 | 0.006 | 5.70 | U | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | Carbon Tetrachloride | 5.38 | 0.006 | 5.70 | U | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | Chlorobenzene | 489 | 0.006 | 5.70 | U | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | Chloroethane | 160 | 0.011 | 11.00 | U | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | Chloromethane | 27.1 | 0.011 | 11.00 | U | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | Dibromochloromethane | 355 | 0.006 | 5.70 | U | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | Dichloromethane (Methylene Chloride) | 203 | 0.036 | 11.00 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | Ethylbenzene | 0.48 | 0.031 | 5.70 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | mp-Xylene | na | 0.054 | 5.70 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | o-Xylene | 426000 | 0.025 | 5.70 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | Styrene | 14500 | 0.006 | 5.70 | U | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | Tetrachloroethene (PCE) | 2130 | 7.200 | 710.00 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | Toluene | 250 | 84.000 | 5700.00 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | Trichloroethylene (TCE) | na | 80.000 | 5700.00 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | Trichloromethane (Cholorform) | 1500 | 0.970 | 710.00 | | | 1463987.728 | 597097.726 |
| SU1-11-050 | 11/30/2005 | Vinyl Chloride | 4.14 | 0.011 | 11.00 | U | | 1463987.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | 1,1,1-Trichloroethane | 3310.00 | 0.006 | 5.50 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | 1,1,2,2-Tetrachloroethane | 8.88 | 0.006 | 5.50 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | 1,1,2-Trichloroethane | 19 | 0.006 | 5.50 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | 1,1-Dichloroethane | 10600 | 0.006 | 5.50 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | 1,1-Dichloroethene | 102000 | 0.006 | 5.50 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | 1,2-cis-Dichloroethene (DCE) | 2130 | 0.690 | 690.00 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | 1,2-Dichloroethane | 7.61 | 0.006 | 5.50 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | 1,2-Dichloropropane | 21.6 | 0.006 | 5.50 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | 1,2-trans-Dichloroethene | 4260 | 0.002 | 5.50 | J | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | 1,3-cis-Dichloropropene | na | 0.006 | 5.50 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | 1,3-trans-Dichloropropene | na | 0.006 | 5.50 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | 2-Butanone | 9300 | 0.011 | 11.00 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | 2-Hexanone | na | 0.011 | 11.00 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | 4-Methyl-2-pentanone | na | 0.011 | 11.00 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | Acetone | 192000 | 0.011 | 11.00 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | Benzene | 490 | 0.003 | 5.50 | J | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | Bromodichloromethane | 481 | 0.006 | 5.50 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | Bromoform | 3770 | 0.006 | 5.50 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | Bromomethane | 12.6 | 0.011 | 11.00 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | Carbon Disulfide | 1160 | 0.006 | 5.50 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | Carbon Tetrachloride | 5.38 | 0.006 | 5.50 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | Chlorobenzene | 489 | 0.006 | 5.50 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | Chloroethane | 160 | 0.011 | 11.00 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | Chloromethane | 27.1 | 0.011 | 11.00 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | Dibromochloromethane | 355 | 0.006 | 5.50 | U | | 1464002.728 | 597097.726 |

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# Table 5: As-Left Offsite VOC and Metals Data (mg/kg)

| Location | Date | Analyte | CO | Result | Detection Limit | Lab Qual | Data Qual | X Coord | Y Coord |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-051 | 11/30/2005 | Dichloromethane (Methylene Chloride) | 203 | 0.004 | 11.00 | J | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | Ethylbenzene | 0.48 | 0.006 | 5.50 | | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | mp-Xylene | na | 0.004 | 5.50 | J | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | o-Xylene | 426000 | 0.012 | 5.50 | | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | Styrene | 14500 | 0.006 | 5.50 | U | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | Tetrachloroethene (PCE) | 2130 | 0.083 | 5.50 | | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | Toluene | 250 | 3.000 | 690.00 | | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | Trichloroethylene (TCE) | na | 9.000 | 690.00 | | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | Trichloromethane (Cholorform) | 1500 | 0.600 | 690.00 | J | | 1464002.728 | 597097.726 |
| SU1-11-051 | 11/30/2005 | Vinyl Chloride | 4.14 | 0.011 | 11.00 | U | | 1464002.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | 1,1,1-Trichloroethane | 3310.00 | 0.006 | 5.70 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | 1,1,2,2-Tetrachloroethane | 8.88 | 0.006 | 5.70 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | 1,1,2-Trichloroethane | 19 | 0.006 | 5.70 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | 1,1-Dichloroethane | 10600 | 0.006 | 5.70 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | 1,1-Dichloroethene | 102000 | 0.006 | 5.70 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | 1,2-cis-Dichloroethene (DCE) | 2130 | 0.013 | 5.70 | | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | 1,2-Dichloroethane | 7.61 | 0.006 | 5.70 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | 1,2-Dichloropropane | 21.6 | 0.006 | 5.70 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | 1,2-trans-Dichloroethene | 4260 | 0.006 | 5.70 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | 1,3-cis-Dichloropropene | na | 0.006 | 5.70 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | 1,3-trans-Dichloropropene | na | 0.006 | 5.70 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | 2-Butanone | 9300 | 0.011 | 11.00 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | 2-Hexanone | na | 0.011 | 11.00 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | 4-Methyl-2-pentanone | na | 0.011 | 11.00 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | Acetone | 192000 | 0.011 | 11.00 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | Benzene | 490 | 0.006 | 5.70 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | Bromodichloromethane | 481 | 0.006 | 5.70 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | Bromoform | 3770 | 0.006 | 5.70 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | Bromomethane | 12.6 | 0.011 | 11.00 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | Carbon Disulfide | 1160 | 0.006 | 5.70 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | Carbon Tetrachloride | 5.38 | 0.006 | 5.70 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | Chlorobenzene | 489 | 0.006 | 5.70 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | Chloroethane | 160 | 0.011 | 11.00 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | Chloromethane | 27.1 | 0.011 | 11.00 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | Dibromochloromethane | 355 | 0.006 | 5.70 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | Dichloromethane (Methylene Chloride) | 203 | 0.011 | 11.00 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | Ethylbenzene | 0.48 | 0.006 | 5.70 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | mp-Xylene | na | 0.006 | 5.70 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | o-Xylene | 426000 | 0.006 | 5.70 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | Styrene | 14500 | 0.006 | 5.70 | U | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | Tetrachloroethene (PCE) | 2130 | 0.005 | 5.70 | J | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | Toluene | 250 | 0.080 | 5.70 | | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | Trichloroethylene (TCE) | na | 0.800 | 57.00 | | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | Trichloromethane (Cholorform) | 1500 | 0.028 | 5.70 | | | 1464017.728 | 597097.726 |
| SU1-11-052 | 11/30/2005 | Vinyl Chloride | 4.14 | 0.011 | 11.00 | U | | 1464017.728 | 597097.726 |
| SU1-11-053 | 11/29/2005 | 1,1,1-Trichloroethane | 3310.00 | 0.008 | 7.50 | U | | 1463965.228 | 597110.716 |

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# Table 5: As-Left Offsite VOC and Metals Data (mg/kg)

| Location | Date | Analyte | CO | Result | Detection Limit | Lab Qual | Data Qual | X Coord | Y Coord |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-053 | 11/29/2005 | 1,1,2,2-Tetrachloroethane | 8.88 | 0.008 | 7.50 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | 1,1,2-Trichloroethane | 19 | 0.008 | 7.50 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | 1,1-Dichloroethane | 10600 | 0.008 | 7.50 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | 1,1-Dichloroethene | 102000 | 0.008 | 7.50 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | 1,2-cis-Dichloroethene (DCE) | 2130 | 0.140 | 7.50 | | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | 1,2-Dichloroethane | 7.61 | 0.008 | 7.50 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | 1,2-Dichloropropane | 21.6 | 0.008 | 7.50 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | 1,2-trans-Dichloroethene | 4260 | 0.008 | 7.50 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | 1,3-cis-Dichloropropene | na | 0.008 | 7.50 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | 1,3-trans-Dichloropropene | na | 0.008 | 7.50 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | 2-Butanone | 9300 | 0.015 | 15.00 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | 2-Hexanone | na | 0.015 | 15.00 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | 4-Methyl-2-pentanone | na | 0.015 | 15.00 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | Acetone | 192000 | 0.015 | 15.00 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | Benzene | 490 | 0.002 | 7.50 | J | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | Bromodichloromethane | 481 | 0.008 | 7.50 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | Bromoform | 3770 | 0.008 | 7.50 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | Bromomethane | 12.6 | 0.015 | 15.00 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | Carbon Disulfide | 1160 | 0.008 | 7.50 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | Carbon Tetrachloride | 5.38 | 0.008 | 7.50 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | Chlorobenzene | 489 | 0.008 | 7.50 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | Chloroethane | 160 | 0.015 | 15.00 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | Chloromethane | 27.1 | 0.015 | 15.00 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | Dibromochloromethane | 355 | 0.008 | 7.50 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | Dichloromethane (Methylene Chloride) | 203 | 0.006 | 15.00 | J | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | Ethylbenzene | 0.48 | 0.008 | 7.50 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | mp-Xylene | na | 0.008 | 7.50 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | o-Xylene | 426000 | 0.008 | 7.50 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | Styrene | 14500 | 0.008 | 7.50 | U | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | Tetrachloroethene (PCE) | 2130 | 0.008 | 7.50 | | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | Toluene | 250 | 1.200 | 75.00 | | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | Trichloroethylene (TCE) | na | 3.600 | 75.00 | E | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | Trichloromethane (Cholorform) | 1500 | 0.120 | 7.50 | | | 1463965.228 | 597110.716 |
| SU1-11-053 | 11/29/2005 | Vinyl Chloride | 4.14 | 0.015 | 15.00 | U | | 1463965.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | 1,1,1-Trichloroethane | 3310.00 | 0.006 | 5.50 | U | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | 1,1,2,2-Tetrachloroethane | 8.88 | 0.006 | 5.50 | U | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | 1,1,2-Trichloroethane | 19 | 0.002 | 5.50 | J | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | 1,1-Dichloroethane | 10600 | 0.006 | 5.50 | U | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | 1,1-Dichloroethene | 102000 | 0.006 | 5.50 | U | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | 1,2-cis-Dichloroethene (DCE) | 2130 | 0.350 | 690.00 | J | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | 1,2-Dichloroethane | 7.61 | 0.008 | 5.50 | | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | 1,2-Dichloropropane | 21.6 | 0.004 | 5.50 | J | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | 1,2-trans-Dichloroethene | 4260 | 0.006 | 5.50 | U | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | 1,3-cis-Dichloropropene | na | 0.006 | 5.50 | U | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | 1,3-trans-Dichloropropene | na | 0.006 | 5.50 | U | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | 2-Butanone | 9300 | 0.011 | 11.00 | U | | 1463980.228 | 597110.716 |

12/1/06 OCH

# Table 5: As-Left Offsite VOC and Metals Data (mg/kg)

| Location | Date | Analyte | CO | Result | Detection Limit | Lab Qual | Data Qual | X Coord | Y Coord |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-054 | 12/01/2005 | 2-Hexanone | na | 0.011 | 11.00 | U | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | 4-Methyl-2-pentanone | na | 0.034 | 11.00 | | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | Acetone | 192000 | 0.038 | 11.00 | | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | Benzene | 490 | 0.022 | 5.50 | | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | Bromodichloromethane | 481 | 0.006 | 5.50 | U | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | Bromoform | 3770 | 0.006 | 5.50 | U | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | Bromomethane | 12.6 | 0.011 | 11.00 | U | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | Carbon Disulfide | 1160 | 0.006 | 5.50 | U | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | Carbon Tetrachloride | 5.38 | 0.006 | 5.50 | U | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | Chlorobenzene | 489 | 0.006 | 5.50 | U | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | Chloroethane | 160 | 0.011 | 11.00 | U | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | Chloromethane | 27.1 | 0.011 | 11.00 | U | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | Dibromochloromethane | 355 | 0.006 | 5.50 | U | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | Dichloromethane (Methylene Chloride) | 203 | 0.028 | 11.00 | | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | Ethylbenzene | 0.48 | 0.024 | 5.50 | | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | mp-Xylene | na | 0.062 | 5.50 | | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | o-Xylene | 426000 | 0.028 | 5.50 | | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | Styrene | 14500 | 0.006 | 5.50 | U | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | Tetrachloroethene (PCE) | 2130 | 4.000 | 690.00 | | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | Toluene | 250 | 17.000 | 690.00 | | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | Trichloroethylene (TCE) | na | 28.000 | 690.00 | E | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | Trichloromethane (Cholorform) | 1500 | 0.490 | 690.00 | J | | 1463980.228 | 597110.716 |
| SU1-11-054 | 12/01/2005 | Vinyl Chloride | 4.14 | 0.011 | 11.00 | U | | 1463980.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | 1,1,1-Trichloroethane | 3310.00 | 0.006 | 5.80 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | 1,1,2,2-Tetrachloroethane | 8.88 | 0.006 | 5.80 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | 1,1,2-Trichloroethane | 19 | 0.006 | 5.80 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | 1,1-Dichloroethane | 10600 | 0.006 | 5.80 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | 1,1-Dichloroethene | 102000 | 0.006 | 5.80 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | 1,2-cis-Dichloroethene (DCE) | 2130 | 0.039 | 5.80 | | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | 1,2-Dichloroethane | 7.61 | 0.006 | 5.80 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | 1,2-Dichloropropane | 21.6 | 0.006 | 5.80 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | 1,2-trans-Dichloroethene | 4260 | 0.006 | 5.80 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | 1,3-cis-Dichloropropene | na | 0.006 | 5.80 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | 1,3-trans-Dichloropropene | na | 0.006 | 5.80 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | 2-Butanone | 9300 | 0.012 | 12.00 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | 2-Hexanone | na | 0.012 | 12.00 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | 4-Methyl-2-pentanone | na | 0.012 | 12.00 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | Acetone | 192000 | 0.012 | 12.00 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | Benzene | 490 | 0.006 | 5.80 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | Bromodichloromethane | 481 | 0.006 | 5.80 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | Bromoform | 3770 | 0.006 | 5.80 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | Bromomethane | 12.6 | 0.012 | 12.00 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | Carbon Disulfide | 1160 | 0.006 | 5.80 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | Carbon Tetrachloride | 5.38 | 0.006 | 5.80 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | Chlorobenzene | 489 | 0.006 | 5.80 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | Chloroethane | 160 | 0.012 | 12.00 | U | | 1463995.228 | 597110.716 |

H 100/4 col 1/1

# Table 5: As-Left Offsite VOC and Metals Data (mg/kg)

| Location | Date | Analyte | CO | Result | Detection Limit | Lab Qual | Data Qual | X Coord | Y Coord |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-055 | 11/30/2005 | Chloromethane | 27.1 | 0.012 | 12.00 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | Dibromochloromethane | 355 | 0.006 | 5.80 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | Dichloromethane (Methylene Chloride) | 203 | 0.012 | 12.00 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | Ethylbenzene | 0.48 | 0.006 | 5.80 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | mp-Xylene | na | 0.006 | 5.80 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | o-Xylene | 426000 | 0.006 | 5.80 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | Styrene | 14500 | 0.006 | 5.80 | U | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | Tetrachloroethene (PCE) | 2130 | 0.004 | 5.80 | J | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | Toluene | 250 | 0.057 | 5.80 | | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | Trichloroethylene (TCE) | na | 0.440 | 58.00 | | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | Trichloromethane (Cholorform) | 1500 | 0.050 | 5.80 | | | 1463995.228 | 597110.716 |
| SU1-11-055 | 11/30/2005 | Vinyl Chloride | 4.14 | 0.012 | 12.00 | U | | 1463995.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | 1,1,1-Trichloroethane | 3310.00 | 0.006 | 5.90 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | 1,1,2,2-Tetrachloroethane | 8.88 | 0.006 | 5.90 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | 1,1,2-Trichloroethane | 19 | 0.006 | 5.90 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | 1,1-Dichloroethane | 10600 | 0.006 | 5.90 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | 1,1-Dichloroethene | 102000 | 0.006 | 5.90 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | 1,2-cis-Dichloroethene (DCE) | 2130 | 0.017 | 5.90 | | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | 1,2-Dichloroethane | 7.61 | 0.006 | 5.90 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | 1,2-Dichloropropane | 21.6 | 0.006 | 5.90 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | 1,2-trans-Dichloroethene | 4260 | 0.006 | 5.90 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | 1,3-cis-Dichloropropene | na | 0.006 | 5.90 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | 1,3-trans-Dichloropropene | na | 0.006 | 5.90 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | 2-Butanone | 9300 | 0.012 | 12.00 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | 2-Hexanone | na | 0.012 | 12.00 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | 4-Methyl-2-pentanone | na | 0.012 | 12.00 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | Acetone | 192000 | 0.012 | 12.00 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | Benzene | 490 | 0.006 | 5.90 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | Bromodichloromethane | 481 | 0.006 | 5.90 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | Bromoform | 3770 | 0.006 | 5.90 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | Bromomethane | 12.6 | 0.012 | 12.00 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | Carbon Disulfide | 1160 | 0.006 | 5.90 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | Carbon Tetrachloride | 5.38 | 0.006 | 5.90 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | Chlorobenzene | 489 | 0.006 | 5.90 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | Chloroethane | 160 | 0.012 | 12.00 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | Chloromethane | 27.1 | 0.012 | 12.00 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | Dibromochloromethane | 355 | 0.006 | 5.90 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | Dichloromethane (Methylene Chloride) | 203 | 0.012 | 12.00 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | Ethylbenzene | 0.48 | 0.006 | 5.90 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | mp-Xylene | na | 0.006 | 5.90 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | o-Xylene | 426000 | 0.006 | 5.90 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | Styrene | 14500 | 0.006 | 5.90 | U | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | Tetrachloroethene (PCE) | 2130 | 0.004 | 5.90 | J | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | Toluene | 250 | 0.180 | 5.90 | | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | Trichloroethylene (TCE) | na | 0.410 | 5.90 | E | | 1464010.228 | 597110.716 |
| SU1-11-056 | 11/30/2005 | Trichloromethane (Cholorform) | 1500 | 0.015 | 5.90 | | | 1464010.228 | 597110.716 |

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# Table 5: As-Left Offsite VOC and Metals Data (mg/kg)

| Location | Date | Analyte | CO | Result | Detection Limit | Lab Qual | Data Qual | X Coord | Y Coord |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-056 | 11/30/2005 | Vinyl Chloride | 4.14 | 0.012 | 12.00 | U | | 1464010.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | 1,1,1-Trichloroethane | 3310.00 | 0.006 | 5.70 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | 1,1,2,2-Tetrachloroethane | 8.88 | 0.006 | 5.70 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | 1,1,2-Trichloroethane | 19 | 0.006 | 5.70 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | 1,1-Dichloroethane | 10600 | 0.006 | 5.70 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | 1,1-Dichloroethene | 102000 | 0.006 | 5.70 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | 1,2-cis-Dichloroethene (DCE) | 2130 | 0.005 | 5.70 | J | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | 1,2-Dichloroethane | 7.61 | 0.006 | 5.70 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | 1,2-Dichloropropane | 21.6 | 0.006 | 5.70 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | 1,2-trans-Dichloroethene | 4260 | 0.006 | 5.70 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | 1,3-cis-Dichloropropene | na | 0.006 | 5.70 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | 1,3-trans-Dichloropropene | na | 0.006 | 5.70 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | 2-Butanone | 9300 | 0.011 | 11.00 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | 2-Hexanone | na | 0.011 | 11.00 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | 4-Methyl-2-pentanone | na | 0.011 | 11.00 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | Acetone | 192000 | 0.011 | 11.00 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | Benzene | 490 | 0.006 | 5.70 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | Bromodichloromethane | 481 | 0.006 | 5.70 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | Bromoform | 3770 | 0.006 | 5.70 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | Bromomethane | 12.6 | 0.011 | 11.00 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | Carbon Disulfide | 1160 | 0.006 | 5.70 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | Carbon Tetrachloride | 5.38 | 0.006 | 5.70 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | Chlorobenzene | 489 | 0.006 | 5.70 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | Chloroethane | 160 | 0.011 | 11.00 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | Chloromethane | 27.1 | 0.011 | 11.00 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | Dibromochloromethane | 355 | 0.006 | 5.70 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | Dichloromethane (Methylene Chloride) | 203 | 0.011 | 11.00 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | Ethylbenzene | 0.48 | 0.006 | 5.70 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | mp-Xylene | na | 0.006 | 5.70 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | o-Xylene | 426000 | 0.006 | 5.70 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | Styrene | 14500 | 0.006 | 5.70 | U | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | Tetrachloroethene (PCE) | 2130 | 0.003 | 5.70 | J | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | Toluene | 250 | 0.110 | 5.70 | | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | Trichloroethylene (TCE) | na | 0.240 | 5.70 | E | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | Trichloromethane (Cholorform) | 1500 | 0.010 | 5.70 | | | 1464025.228 | 597110.716 |
| SU1-11-057 | 12/01/2005 | Vinyl Chloride | 4.14 | 0.011 | 11.00 | U | | 1464025.228 | 597110.716 |
| SU1-11-058 | 11/29/2005 | 1,1,1-Trichloroethane | 3310.00 | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | 1,1,2,2-Tetrachloroethane | 8.88 | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | 1,1,2-Trichloroethane | 19 | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | 1,1-Dichloroethane | 10600 | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | 1,1-Dichloroethene | 102000 | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | 1,2-cis-Dichloroethene (DCE) | 2130 | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | 1,2-Dichloroethane | 7.61 | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | 1,2-Dichloropropane | 21.6 | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | 1,2-trans-Dichloroethene | 4260 | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | 1,3-cis-Dichloropropene | na | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |

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# Table 5: As-Left Offsite VOC and Metals Data (mg/kg)

| Location | Date | Analyte | CO | Result | Detection Limit | Lab Qual | Data Qual | X Coord | Y Coord |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-058 | 11/29/2005 | 1,3-trans-Dichloropropene | na | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | 2-Butanone | 9300 | 0.015 | 15.00 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | 2-Hexanone | na | 0.015 | 15.00 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | 4-Methyl-2-pentanone | na | 0.015 | 15.00 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | Acetone | 192000 | 0.015 | 15.00 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | Benzene | 490 | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | Bromodichloromethane | 481 | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | Bromoform | 3770 | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | Bromomethane | 12.6 | 0.015 | 15.00 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | Carbon Disulfide | 1160 | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | Carbon Tetrachloride | 5.38 | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | Chlorobenzene | 489 | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | Chloroethane | 160 | 0.015 | 15.00 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | Chloromethane | 27.1 | 0.015 | 15.00 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | Dibromochloromethane | 355 | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | Dichloromethane (Methylene Chloride) | 203 | 0.015 | 15.00 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | Ethylbenzene | 0.48 | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | mp-Xylene | na | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | o-Xylene | 426000 | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | Styrene | 14500 | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | Tetrachloroethene (PCE) | 2130 | 0.056 | 7.60 | | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | Toluene | 250 | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | Trichloroethylene (TCE) | na | 0.041 | 7.60 | | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | Trichloromethane (Cholorform) | 1500 | 0.008 | 7.60 | U | | 1463957.728 | 597123.706 |
| SU1-11-058 | 11/29/2005 | Vinyl Chloride | 4.14 | 0.015 | 15.00 | U | | 1463957.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | 1,1,1-Trichloroethane | 3310.00 | 0.007 | 7.30 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | 1,1,2,2-Tetrachloroethane | 8.88 | 0.007 | 7.30 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | 1,1,2-Trichloroethane | 19 | 0.007 | 7.30 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | 1,1-Dichloroethane | 10600 | 0.007 | 7.30 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | 1,1-Dichloroethene | 102000 | 0.007 | 7.30 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | 1,2-cis-Dichloroethene (DCE) | 2130 | 0.041 | 7.30 | | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | 1,2-Dichloroethane | 7.61 | 0.007 | 7.30 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | 1,2-Dichloropropane | 21.6 | 0.007 | 7.30 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | 1,2-trans-Dichloroethene | 4260 | 0.007 | 7.30 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | 1,3-cis-Dichloropropene | na | 0.007 | 7.30 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | 1,3-trans-Dichloropropene | na | 0.007 | 7.30 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | 2-Butanone | 9300 | 0.015 | 15.00 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | 2-Hexanone | na | 0.015 | 15.00 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | 4-Methyl-2-pentanone | na | 0.015 | 15.00 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | Acetone | 192000 | 0.015 | 15.00 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | Benzene | 490 | 0.007 | 7.30 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | Bromodichloromethane | 481 | 0.007 | 7.30 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | Bromoform | 3770 | 0.007 | 7.30 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | Bromomethane | 12.6 | 0.015 | 15.00 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | Carbon Disulfide | 1160 | 0.007 | 7.30 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | Carbon Tetrachloride | 5.38 | 0.007 | 7.30 | U | | 1463972.728 | 597123.706 |

12/1/2 cc H

# Table 5: As-Left Offsite VOC and Metals Data (mg/kg)

| Location | Date | Analyte | CO | Result | Detection Limit | Lab Qual | Data Qual | X Coord | Y Coord |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-059 | 11/29/2005 | Chlorobenzene | 489 | 0.007 | 7.30 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | Chloroethane | 160 | 0.015 | 15.00 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | Chloromethane | 27.1 | 0.015 | 15.00 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | Dibromochloromethane | 355 | 0.007 | 7.30 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | Dichloromethane (Methylene Chloride) | 203 | 0.015 | 15.00 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | Ethylbenzene | 0.48 | 0.007 | 7.30 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | mp-Xylene | na | 0.007 | 7.30 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | o-Xylene | 426000 | 0.007 | 7.30 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | Styrene | 14500 | 0.007 | 7.30 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | Tetrachloroethene (PCE) | 2130 | 0.150 | 7.30 | | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | Toluene | 250 | 0.007 | 7.30 | U | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | Trichloroethylene (TCE) | na | 2.300 | 73.00 | | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | Trichloromethane (Cholorform) | 1500 | 0.022 | 7.30 | | | 1463972.728 | 597123.706 |
| SU1-11-059 | 11/29/2005 | Vinyl Chloride | 4.14 | 0.015 | 15.00 | U | | 1463972.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | 1,1,1-Trichloroethane | 3310.00 | 0.006 | 5.50 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | 1,1,2,2-Tetrachloroethane | 8.88 | 0.006 | 5.50 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | 1,1,2-Trichloroethane | 19 | 0.006 | 5.50 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | 1,1-Dichloroethane | 10600 | 0.006 | 5.50 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | 1,1-Dichloroethene | 102000 | 0.006 | 5.50 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | 1,2-cis-Dichloroethene (DCE) | 2130 | 0.007 | 5.50 | | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | 1,2-Dichloroethane | 7.61 | 0.006 | 5.50 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | 1,2-Dichloropropane | 21.6 | 0.006 | 5.50 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | 1,2-trans-Dichloroethene | 4260 | 0.006 | 5.50 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | 1,3-cis-Dichloropropene | na | 0.006 | 5.50 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | 1,3-trans-Dichloropropene | na | 0.006 | 5.50 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | 2-Butanone | 9300 | 0.011 | 11.00 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | 2-Hexanone | na | 0.011 | 11.00 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | 4-Methyl-2-pentanone | na | 0.011 | 11.00 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | Acetone | 192000 | 0.011 | 11.00 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | Benzene | 490 | 0.006 | 5.50 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | Bromodichloromethane | 481 | 0.006 | 5.50 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | Bromoform | 3770 | 0.006 | 5.50 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | Bromomethane | 12.6 | 0.011 | 11.00 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | Carbon Disulfide | 1160 | 0.006 | 5.50 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | Carbon Tetrachloride | 5.38 | 0.006 | 5.50 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | Chlorobenzene | 489 | 0.006 | 5.50 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | Chloroethane | 160 | 0.011 | 11.00 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | Chloromethane | 27.1 | 0.011 | 11.00 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | Dibromochloromethane | 355 | 0.006 | 5.50 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | Dichloromethane (Methylene Chloride) | 203 | 0.011 | 11.00 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | Ethylbenzene | 0.48 | 0.006 | 5.50 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | mp-Xylene | na | 0.006 | 5.50 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | o-Xylene | 426000 | 0.006 | 5.50 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | Styrene | 14500 | 0.006 | 5.50 | U | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | Tetrachloroethene (PCE) | 2130 | 0.003 | 5.50 | J | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | Toluene | 250 | 0.098 | 5.50 | | | 1463987.728 | 597123.706 |

# Table 5: As-Left Offsite VOC and Metals Data (mg/kg)

| Location | Date | Analyte | CO | Result | Detection Limit | Lab Qual | Data Qual | X Coord | Y Coord |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-060 | 12/01/2005 | Trichloroethylene (TCE) | na | 0.170 | 5.50 | | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | Trichloromethane (Cholorform) | 1500 | 0.008 | 5.50 | | | 1463987.728 | 597123.706 |
| SU1-11-060 | 12/01/2005 | Vinyl Chloride | 4.14 | 0.011 | 11.00 | U | | 1463987.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | 1,1,1-Trichloroethane | 3310.00 | 0.006 | 5.50 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | 1,1,2,2-Tetrachloroethane | 8.88 | 0.006 | 5.50 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | 1,1,2-Trichloroethane | 19 | 0.006 | 5.50 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | 1,1-Dichloroethane | 10600 | 0.006 | 5.50 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | 1,1-Dichloroethene | 102000 | 0.006 | 5.50 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | 1,2-cis-Dichloroethene (DCE) | 2130 | 0.018 | 5.50 | | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | 1,2-Dichloroethane | 7.61 | 0.006 | 5.50 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | 1,2-Dichloropropane | 21.6 | 0.006 | 5.50 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | 1,2-trans-Dichloroethene | 4260 | 0.006 | 5.50 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | 1,3-cis-Dichloropropene | na | 0.006 | 5.50 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | 1,3-trans-Dichloropropene | na | 0.006 | 5.50 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | 2-Butanone | 9300 | 0.011 | 11.00 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | 2-Hexanone | na | 0.011 | 11.00 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | 4-Methyl-2-pentanone | na | 0.011 | 11.00 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | Acetone | 192000 | 0.011 | 11.00 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | Benzene | 490 | 0.006 | 5.50 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | Bromodichloromethane | 481 | 0.006 | 5.50 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | Bromoform | 3770 | 0.006 | 5.50 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | Bromomethane | 12.6 | 0.011 | 11.00 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | Carbon Disulfide | 1160 | 0.006 | 5.50 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | Carbon Tetrachloride | 5.38 | 0.006 | 5.50 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | Chlorobenzene | 489 | 0.006 | 5.50 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | Chloroethane | 160 | 0.011 | 11.00 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | Chloromethane | 27.1 | 0.011 | 11.00 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | Dibromochloromethane | 355 | 0.006 | 5.50 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | Dichloromethane (Methylene Chloride) | 203 | 0.011 | 11.00 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | Ethylbenzene | 0.48 | 0.006 | 5.50 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | mp-Xylene | na | 0.006 | 5.50 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | o-Xylene | 426000 | 0.006 | 5.50 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | Styrene | 14500 | 0.006 | 5.50 | U | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | Tetrachloroethene (PCE) | 2130 | 0.003 | 5.50 | J | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | Toluene | 250 | 0.170 | 5.50 | | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | Trichloroethylene (TCE) | na | 0.130 | 27.00 | | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | Trichloromethane (Cholorform) | 1500 | 0.021 | 5.50 | | | 1464002.728 | 597123.706 |
| SU1-11-061 | 12/01/2005 | Vinyl Chloride | 4.14 | 0.011 | 11.00 | U | | 1464002.728 | 597123.706 |
| SU1-11-074 | 12/01/2005 | Aluminum | 232000 | 5200.000 | 24.20 | N | | 1463995.867 | 597071.419 |
| SU1-11-074 | 12/01/2005 | Antimony | 85.2 | 1.200 | 1.20 | UN | | 1463995.867 | 597071.419 |
| SU1-11-074 | 12/01/2005 | Arsenic | 72.5 | 4.700 | 1.20 | | | 1463995.867 | 597071.419 |
| SU1-11-074 | 12/01/2005 | Barium | 15100 | 28.800 | 24.20 | | | 1463995.867 | 597071.419 |
| SU1-11-074 | 12/01/2005 | Beryllium | 422 | 0.360 | 0.61 | B | | 1463995.867 | 597071.419 |
| SU1-11-074 | 12/01/2005 | Cadmium | 215 | 0.610 | 0.61 | U | | 1463995.867 | 597071.419 |
| SU1-11-074 | 12/01/2005 | Calcium | na | 103000.000 | 3030.00 | N | | 1463995.867 | 597071.419 |
| SU1-11-074 | 12/01/2005 | Chromium | 319000 | 7.100 | 1.20 | | | 1463995.867 | 597071.419 |

1/1/5 ccj

# Table 5: As-Left Offsite VOC and Metals Data (mg/kg)

| Location | Date | Analyte | CO | Result | Detection Limit | Lab Qual | Data Qual | X Coord | Y Coord |
|---|---|---|---|---|---|---|---|---|---|
| SU1-11-074 | 12/01/2005 | Cobalt | 12800 | 4.900 | 6.10 | B | | 1463995.867 | 597071.419 |
| SU1-11-074 | 12/01/2005 | Copper | 8540 | 12.400 | 3.00 | | | 1463995.867 | 597071.419 |
| SU1-11-074 | 12/01/2005 | Iron | na | 11500.000 | 12.10 | N | | 1463995.867 | 597071.419 |
| SU1-11-074 | 12/01/2005 | Lead | na | 5.700 | 0.36 | | | 1463995.867 | 597071.419 |
| SU1-11-074 | 12/01/2005 | Magnesium | na | 44900.000 | 3030.00 | N | | 1463995.867 | 597071.419 |
| SU1-11-074 | 12/01/2005 | Manganese | 24200 | 236.000 | 1.80 | NE | | 1463995.867 | 597071.419 |
| SU1-11-074 | 12/01/2005 | Mercury | 63.9 | 0.024 | 0.04 | BN | | 1463995.867 | 597071.419 |
| SU1-11-074 | 12/01/2005 | Molybdenum | 1090 | 2.600 | 4.80 | B | | 1463995.867 | 597071.419 |
| SU1-11-074 | 12/01/2005 | Nickel | 4290 | 13.200 | 4.80 | | | 1463995.867 | 597071.419 |
| SU1-11-074 | 12/01/2005 | Potassium | na | 1540.000 | 606.00 | | | 1463995.867 | 597071.419 |
| SU1-11-074 | 12/01/2005 | Selenium | 1060 | 0.610 | 0.61 | U | | 1463995.867 | 597071.419 |
| SU1-11-074 | 12/01/2005 | Silver | 1070 | 1.200 | 1.20 | U | | 1463995.867 | 597071.419 |
| SU1-11-074 | 12/01/2005 | Sodium | na | 153.000 | 606.00 | B | | 1463995.867 | 597071.419 |
| SU1-11-074 | 12/01/2005 | Thallium | 17.5 | 1.200 | 1.20 | U | | 1463995.867 | 597071.419 |
| SU1-11-074 | 12/01/2005 | Vanadium | 1520 | 12.300 | 2.40 | | | 1463995.867 | 597071.419 |
| SU1-11-074 | 12/01/2005 | Zinc | 64000 | 36.600 | 2.40 | | | 1463995.867 | 597071.419 |
| SU1-11-53M | 01/12/2006 | Aluminum | 232000 | 10800.000 | 26.40 | N | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Antimony | 85.2 | 1.300 | 1.30 | UN | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Arsenic | 72.5 | 8.700 | 1.30 | | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Barium | 15100 | 103.000 | 26.40 | | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Beryllium | 422 | 0.570 | 0.66 | B | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Cadmium | 215 | 0.660 | 0.66 | U | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Calcium | na | 30700.000 | 3300.00 | N | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Chromium | 319000 | 17.000 | 1.30 | E | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Cobalt | 12800 | 8.100 | 6.60 | | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Copper | 8540 | 72.300 | 3.30 | N | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Iron | na | 18900.000 | 13.20 | N | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Lead | na | 28.200 | 0.66 | | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Magnesium | na | 15000.000 | 3300.00 | N | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Manganese | 24200 | 524.000 | 2.00 | N | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Mercury | 63.9 | 10.400 | 2.20 | N | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Molybdenum | 1090 | 1.900 | 5.30 | B | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Nickel | 4290 | 23.400 | 5.30 | | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Potassium | na | 1270.000 | 659.00 | | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Selenium | 1060 | 0.660 | 0.66 | U | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Silver | 1070 | 1.300 | 1.30 | U | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Sodium | na | 149.000 | 659.00 | B | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Thallium | 17.5 | 1.200 | 1.30 | B | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Vanadium | 1520 | 26.900 | 2.60 | | | 1463960.228 | 597110.716 |
| SU1-11-53M | 01/12/2006 | Zinc | 64000 | 267.000 | 2.60 | N | | 1463960.228 | 597110.716 |

N: spike recovery not within QC limits
U: not detetced
B: result was > instrument detection limit but below reporting limit
J: estimate
E: estimated due to interference
CO: cleanup objective

14 1/2 col H

# Table 5: As-Left Offsite VOC and Metals Data (mg/kg)

| Location | Date | Analyte | CO | Result | Detection Limit | Lab Qual | Data Qual | X Coord | Y Coord |
|---|---|---|---|---|---|---|---|---|---|

qual: qualifier na: not available
VOC: volatile organic compound

A100/21

# APPENDIX C

## POST-EX SUD EXCERPT

A101/171

# Additional Information

Radium-224 (Ra-224) was added as a Contaminant of Concern (COC), as a conservative approach, during the development of the Post-Excavation Survey Unit Design (SUD). This action was taken due to that isotope being reported on two Remedial Action Support Survey (RASS) samples. Subsequently, during the development of the On Scene Coordinator Report and Data Report it was determined that Ra-224 is a daughter product in the Th-232 decay chain. Since Th-232 is a contaminant of concern (COC), and all Th-232 results meet the cleanup criteria, the Ra-224 exceedances are not considered significant because the CO for the parent nuclide (Th-232) accounts for the daughter product presence. A Cleanup Objective (CO) of 2.6 pCi/g and Hot Spot (HS) criteria of 4.8 pCi/g were developed for Ra-224, for the Data Report, based upon the most conservative $10^{-5}$ Risk Based Guideline Value (for Construction Worker or Site Employee scenario) plus background and inclusive of daughter products.

# Survey Unit Design (SUD)

Project: **PRS 11**

**Review & Approval**

Project Engineer: Mark Spivey _____

Reviewer: James Fontaine _____

Reviewer: _____

| Document | Title |
|---|---|
| Fact Sheet | PRS 11: Thorium and Polonium – Contaminated Waste Area, Final, March 2005 |
| AM EE/CA CRA | Action Memorandum Engineering Evaluation/Cost Analysis<br>Contingent Removal Action for Contaminated Soil, Final, June 2002 |
| WP | PRS 11 Work Plan, Final, February 2005, ER/ST-04-011 |
| VSAP | Standard Verification Sampling & Analysis Plan, Final, August 2004 |

☐ **Pre-Excavation** or **X Post-Excavation**?

| **Summary of Changes**<br>**(for Post-Excavation SUDs ONLY)**<br>(see following pages for details) | YES | NO | Comments |
|---|---|---|---|
| 1. Did the COC(s) change? | X | | Additional |
| 2. Did the grid size or N change? | X | | Grid & N |
| 3. Did the classification change? | | X | |
| 4. Were bias/judgmental samples collected? | | X | |
| 5. Other significant change? | X | | Number of SUs |

A10/21

# SUD Worksheet

Changes if any, from Pre-Ex SUD: **Acronyms**

| | |
|---|---|
| Ac | Actinium |
| AM | Action Memorandum |
| Bi | Bismuth |
| CO | Cleanup Objective |
| COC | Contaminant of Concern |
| Chem | Chemical |
| dev | deviation |
| Iso | Isotopic |
| EPA | Environmental Protection Agency |
| FSS | Final Status Survey |
| HS | Hot Spot |
| MARSSIM | Multi – Agency Radiation Survey and Site Investigation Manual |
| MD | Mound Document |
| MDC | Minimum Detectable Concentration |
| MEIMS | Mound Environmental Information Management System |
| NA or N/A | Non-applicable |
| NC | No Change |
| Pa | Protactinium |
| Pb | Lead |
| pCi/g | Pico-Curie(s) per gram |
| PRS | Potential Release Site |
| Pu | Plutonium |
| QA/QC | Quality Assurance/Quality Control |
| Ra | Radium |
| RA | Remedial Action/Removal Action |
| RadCon | Radiological Control |
| RASS | Remedial Action Support Survey |
| RP | Removal Plan |
| SPF | Survey Plan Form |
| RSDS | Radiological Survey Data Sheet |
| (s) or s | effective standard deviation (MARSSIM) |
| std | standard |
| SU | Survey Unit |
| SUD | Survey Unit Design |
| TBD | To Be Determined |
| Th | Thorium |
| U | Uranium |
| VOC | Volatile Organic Compound |
| VSAP | Verification Sampling and Analysis Plan |
| VSP | Visual Sample Plan |
| WP | Work Package/Work Plan |

A/03/121

Item 1

Summary of historic **information** relevant to SU:

PRS 11, also known as Area 2 and the Crushed Drum Area, is located in the southwest portion of the site (within the boundary of CERCLA OU-1). Approximately 2,500 empty drums were crushed in place and covered with soil. These drums had previously contained thorium process materials used for thorium projects in the 1960s. Thorium-232 was found during installation of drainage features and wells in support of the OU-1 ROD remedy and subsequent augmentations. This location (along the southern side to the east) also contains buried wood ash and debris from a fire that had consumed the polonium-contaminated flooring from the Dayton units (Area 13). Since Polonium-210 has a half-life of 138 days, it is no longer detectable. However, Lead-210 (half-life of 22-years) was used in one of the processes to produce the Polonium-210 and therefore identified as a contaminant of concern (COC) to account for potential presence of contamination resulting from Dayton Unit debris.

The Removal Action associated with this SUD addressed identified contamination areas with a single COC **above the cleanup objective** (CO). Detailed task-by-task work instructions for work and health and safety are addressed in the Work Package (Detailed Work Instructions) and its associated HASP.

**Changes if any, from Pre-Ex SUD:**

During excavation activities, a discrete area of Pu-238 contamination was encountered in the southeast portion of the excavation in the area of the historic burial trench. In addition, this area contained what appeared to be general trash, lab trash including a number of clear and amber glass bottles (which some were intact with lids), and a lead acid battery. The contents of the intact bottles were analyzed and found to not be pure product but rather Volatile Organic Compound (VOC) contaminated liquids. Additional intact bottles were also discovered toward the central portion of the excavation with the contents results being the same as previously mentioned.

Based upon observations of the exhumed debris, it is possible that the area in which the Dayton Unit Debris was disposed of extends west and north further than depicted by historical documentation. Also, in the north central area of the excavation mercury was encountered. It appeared that a cardboard case of eight 1-liter plastic bottles had been buried and the containers breached shortly after burial (based upon the mercury contamination pattern and depth of contamination). Additionally, three 1-liter plastic bottles containing mercury were discovered intact and had been buried in close proximity (within 10 to 20 feet) to the aforementioned case of bottles.

Additionally, whole (not crushed but punctured) or lidless stainless steel drums and rectangular stainless steel boxes with legs were discovered in the east central portion of the excavation. One partially crushed drum contained what appeared to be old floor tile that contained asbestos. Plastic with grey residue was also found intermixed with the thorium drums. The grey residue has high levels of Thorium-232 associated with it and it is therefore concluded that the plastic is liner material was previously inside of the drums as a liner. Remedial Action Support Survey (RASS) samples taken during and following the excavation activities (in process samples from materials taken to the rail spur, as left samples taken as the excavation proceeded, soil staging holding areas characterization sampling) evidenced that multiple COCs need to be considered. RASS samples taken from materials taken to the rail spur (dump truck in process monitoring samples) and soil staging holding areas characterization sampling data were not used to generate the post-ex SUD other than to assist in identifying additional COCs.

Item 2

Summary of historic **data** relevant to SU:

The depth of contamination varies from the surface, approximately 707 above mean sea level (amsl), to a maximum depth elevation of approximately 690 feet amsl. Concentrations of Thorium-232 found varied from background levels to 561.7 pCi/g. The other listed radiological COC (Lead-210) has not been found/confirmed to be above the CO.

Historic sampling in MEIMS are in Attachment A. Additional historic data obtained from installation of the OU-1 Pump-and-Treat is in Appendix I of the PRS 11 Work Package.

**Changes if any, from Pre-Ex SUD:**

Historic sampling data are in Appendix I Attachment A (no content changes from Pre-Excavation SUD).

The upper elevations (707 feet amsl) of thorium-232 contamination is associated with well installation locations in which an auger was used for drilling and installation of the wells which penetrated the contamination layer transporting contaminants upward and plating them on the side of the well hole. For the most part the contamination was found to not extend above 705 feet amsl. The maximum depth (elevation) that the excavation extended to was 684.6 feet amsl however the average depth (elevation) within the majority of the excavation was 689.1 feet amsl. The water table elevation during the excavation activity ranged from approximately 681 feet amsl at the maximum upper elevation in May 2005 down to approximately 677.9 feet amsl elevation in August 2005.

Contamination concentrations are heterogeneous in distribution and ranged from approximately background levels up to: 13,149 pCi/g Th-232; 7,109 pCi/g Pu-238; 680.5 pCi/g Th-230; 669.6 pCi/g Ra-226; 188.6 pCi/g Ra-224; 109.2 pCi/g Pb-210; 103.23 pCi/g U-238; 58.6 pCi/g Ac-227; and 30.14 pCi/g Pa-231. Bi-210m was not detected in any of the RASS samples.

Item 3a

RASS data collected during the RA will be used as appropriate to update the COC list in the Post-Excavation SUD.

| COC | BASIS | (pCi/g) CO | HS | MAX | Offsite Analysis & Compendium Method: gamma (A-015) | Iso Pu (A-012) | Iso Th (A-012) | Iso U (A-012) |
|---|---|---|---|---|---|---|---|---|
| Th-232 | Public Fact Sheet for PRS 11 | 2.1 | 3.5 | 561.7 | | | X | |
| Pb-210 | Public Fact Sheet for PRS 11 | 7.4 | 19.8 | NA | X | | | |
| Bi-210m | Technical Review Comment | 8.3 | 24.9 | NA | X | | | |

Analyses are to be performed per Mound Methods Compendium and COs (for surface samples/analysis i.e., bedrock, asphalt, concrete) as applicable. Compendium Method A-012 is Isotopic Uranium, Isotopic Plutonium, and Isotopic Thorium by Alpha Spectrometry and Compendium Method A-015 is Gamma Spectrometry. Surface samples/analysis are to be in accordance with MD-80036 OP 30005, 30007, and 30040. Hard surfaces will be swiped and gross alpha and beta measurements will be performed and compared to the most restrictive COC in Mound 2000 Work Plan Appendix A Table 1 (NUREG 1.86 Regulatory Guide). If the location fails to meet the most restrictive criteria then it will be sent to alpha spec for determination of the COC so the applicable, instead of the most restrictive, criteria can be applied.

4/05/21

Item 3a Con

**Changes if any, from Pre-Ex SUD:**

| COC | BASIS | (pCi/g) CO | HS | MAX | Offsite Analysis & Compendium Method: gamma (A-015) | Iso Pu (A-012) | Iso Th (A-012) | Iso U (A-012) |
|---|---|---|---|---|---|---|---|---|
| U-238+D | RASS data | 2.2 | 4.2 | 103.2 | | | | X |
| Th-232+D | RASS data | 2.1 | 3.5 | 13,149 | | | X | |
| Th-230+D | RASS data | 2.8 | 4.6 | 680.5 | | | X | |
| Pu-238 | RASS data (SU2 only) | 55 | 165 | 7,109 | | X | | |
| Ra-226+D | RASS data | 2.9 | 4.7 | 669.6 | X | | | |
| Ra-224 | RASS data (SU1 only) | 32.4 | 97.1 | 188.6 | X | | | |
| Ac-227+D | RASS data | 4.6 | 13.6 | 58.6 | X | | | |
| Pa-231+D | RASS data | 4.0 | 11.8 | 30.1 | X | | | |
| Pb-210+D | RASS data | 7.4 | 19.8 | 109.2 | X | | | |
| Bi-210m | Technical Review Comment | 8.3 | 24.9 | ND | X | | | |

ND = Not Detected (During Characterization or RASS sampling)

Item 3b

| | |
|---|---|
| Chem basis for std dev, AM COCs/New COCs | NA |

**Changes if any, from Pre-Ex SUD:**

None. Due to the unique nature of this PRS falling within Operable Unit One of a Comprehensive Environmental Response, Compensation, and Liability Act area, chemicals found during the remedial action are not considered under this SUD. This PRS only addresses radiological contaminants per the Work Package Scope, which states "removal of known radiological contamination."

A106/11

| Item 4 | Classify Areas & provide justification | Selection | Class | Scan Coverage guidelines |
|---|---|---|---|---|
| | The Area is Class 1 due to it being a removal action greater than CO. | X | 1 | 100% |
| | Note: Given the geometry of the SU it may not be physically possible to achieve 100% scan coverage, therefore, a best effort will be given utilizing the standard VSAP, Final, August 2004, Section 4.4 Special Considerations. SU3 was developed based upon the contingency of finding contamination associated with the historic Dayton Unit fire debris burial trench. SU3 Pre-Ex SUD design will be used to collect RASS data during the buried drum remediation. | | 2 | 10-90% |
| | | | 3 | Judgmental |

**Changes if any, from Pre-Ex SUD:**

SU3 was characterized by on site gamma spec (per Regulators agreement) from Geo Probe sampling during the removal action and all results were less than COs. Results have been previously provided electronically to the Regulators and a summary of the results is reported in Appendix II Attachment D. Three of the west most sample locations in SU3 were inaccessible at the time of sampling however, SU1 has expanded further to the east past the three previously inaccessible SU3 locations. It is therefore concluded that no further action is required with respect to SU3 and it is withdrawn from further consideration in this SUD. SU1 and SU2 remain classified as Class 1 Survey Units due to having remedial actions performed to remove known contamination.

| Item 5 | Subdivide areas into SUs | See Attachment B for SUs |
|---|---|---|
| | See Attachment A for Historic Data | This SUD consists of three SUs: SU1 is the irregularly shaped footprint of the removal area and is approximately 7,117 sq. ft. SU2 is an irregularly shaped sidewall area approximately 11,754 sq. ft. SU3 is the historical burial trench containing Dayton Unit fire debris and SU3 was developed based upon the contingency of finding contamination associated with the historic Dayton Unit fire debris burial trench. SU3 Pre-Ex SUD design will be used to collect RASS data during the buried thorium drum remediation and encompasses an area of approximately 8,282 sq. ft. There has been no data collected to date to suggest that SU3 has Pb-210 or Bi-210m contamination present. The work/loading area will be added to the post-excavation SUD if it falls outside of the defined SU areas. |

Item 5 Con

**Changes If any, from Pre-Ex SUD:**

See Appendix I Attachment A for Historic Data (no content changes from Pre-Excavation SUD).

See Appendix II Attachment B for SUs.

This Post-Excavation SUD consists of two SUs: SU1 is the irregularly shaped main excavation area, footprint and sides that are not adjacent to the landfill and covered with tarps, and has an area of approximately 11,659 sq. ft. (1,083 sq. meters). SU2 is defined in the area in which the Pu-238 contamination was removed and has an area of approximately 592 sq. ft. (55 sq. meters). SU3 was removed from further consideration, see Change section of Item 4 of this Post-Ex SUD. SU1 will have on-site gamma spec data assessed for Pu-238 and shall have a Pu-238 MDA equal to or less than 20 pCi/g.

Item 6a

Calculations / Rad

1. Calculate the (s) for each COC listed above: See Attachment B.

2. Number of Samples (N): See Attachment B.

Spreadsheet Calculated = 9 samples based upon the existing data.

SU1 Scanning MDC (Area Factor) corrected = NA, Th-232 Scan MDC = 1.0 and CO=2.1

SU2 Scanning MDC (Area Factor) corrected = NA, Th-232 Scan MDC = 1.0 and CO=2.1

SU3 Scanning MDC (Area Factor) corrected = NA (Sampling at depth)

Visual Sample Plan (VSP) triangular grid:

SU1 Calculated = 9, Selected Samples (on Map) = 9

SU2 Calculated = 9, Selected Samples (on Map) = 13 (4 bias samples)

SU3 Calculated = 43 (15' triangular grid), Selected Samples (on Map) = 47 (4 bias samples) Note: 40 samples provides a 100% probability of hitting a hot spot with a 10 foot semi-major axis with a 0.8 elliptical shape

Sample locations were selected by VSP with sampling goal of compare average to a fixed threshold, data not normally distributed (nonparametric), systematic triangular grid with a random starting point, and Sign Test – MARSSIM version. Sample locations will be surveyed.

<u>A total of 22 Final Status Survey (FSS) samples</u> are anticipated to be required (SU1=9 and SU2=13 (4 bias samples)).

Note: Due to safety concerns of placing an individual in some areas of the excavation, some FSS sampling may be accomplished with an excavator bucket and subsequent sampling of the material in the bucket in accordance with the procedures established the standard VSAP, Final, August 2004, Section 4.4 Special Considerations.

A108/11

| | |
|---|---|
| Item 6a Con | **Changes if any, from Pre-Ex SUD:**<br><br>SU3 removed from further consideration.<br><br>1. Calculate the (s) for each COC listed above: See Appendix II Attachment B.<br><br>2. Number of Samples (N): See Appendix II Attachment B.<br><br>Spreadsheet Calculated = 8 samples based upon simulated "As Left" data from R/SW.<br><br>SU1 Scanning MDC (Area Factor) corrected = 400, Default 15-foot Triangular Grid to be used<br><br>SU2 Scanning MDC (Area Factor) corrected = 20, Default 15-footTriangular Grid to be used<br><br>Visual Sample Plan (VSP):<br><br>SU1 Calculated = 60, Selected Samples (on Map) = 62, based on a 15' triangular grid<br><br>SU2 Calculated = 4, Selected Samples (on Map) = 6, 3 sample locations based on a 15' triangular grid plus 3 randomly selected sample locations, also Section 3.5.1, Special Considerations for Small Survey Units, of the Standard VSAP applies to the SU<br><br>Sample locations will be surveyed and are provided in Appendix II Attachment B.<br><br>**A total of 68 Final Status Survey (FSS) samples** are anticipated to be required (SU1=62 and SU2=6). |
| Item 6b | Calculations/Chem, Std dev, Number of Samples NA |
| | **Changes if any, from Pre-Ex SUD:**<br><br>Chemicals are not a consideration for this PRS. Refer to Item 3b Changes section. |
| Item 7 | Grid spacing<br><br>SU1 and SU2: 22.7 feet high by 26.2 feet long<br><br>SU3: 15 foot triangular<br><br>From Attachment B. |
| | **Changes if any, from Pre-Ex SUD:**<br><br>SU1 and SU2 shall have a 15-foot triangular grid based upon a review of the scanning MDCs for the COCs. Refer to Appendix II Attachment B. SU3 has been removed from further consideration. |

4109/17

Item 8

QA/QC:

1/20 via field duplicate in accordance with Mound Methods Compendium.

Q-002 Chain-of-Custody Procedures

Q-003 Documentation Requirements

Q-004 Laboratory Data Reduction

Q-006 Validation of Laboratory Data Packages

Q-007 Data Assessment

Q-008 Data Integrity Verification

Q-010 Electronic Data Deliverable Format Specifications – MEIMS Std. ...

S-001 General Instructions for Field Personnel

S-002 Soil Sampling With a Spade and Scoop

S-028 Sample Control and Documentation

S-029 Guide to Handling, Packaging, and Shipping of Samples and Method Q-002

**Changes if any, from Pre-Ex SUD:**

No Changes

12/01/07

| | | |
|---|---|---|
| Item 9 | Bias/judgement samples<br><br>(Additional regulator bias samples may be collected but are not currently planned.) | SU1: Zero (0) bias samples are planned by CH2M Hill at this time.<br><br>SU2: Four (4) bias samples are planned by CH2M Hill at this time.<br><br>SU3: Four (4) bias samples are planned by CH2M Hill at this time. |

**Changes if any, from Pre-Ex SUD:**

SU1: Zero (0) bias samples are planned by CH2M Hill at this time.

SU2: Zero (0) bias samples are planned by CH2M Hill at this time.

SU3: Removed from further consideration.

Item 10

Not otherwise covered.../ comments

Site policy requires performance and evaluation of onsite long count gamma spec analysis prior to offsite shipment.

If there is an insufficient volume of material to fill an EPA dish within a 1m x 1m square centered on the proposed sample location, due to bedrock or obstruction (such as a structure, foundation, concrete, pavement/asphalt, large rock formations, utility bank, etc. which is not to be removed), then sediment/soil analysis will not be performed. In lieu of a sediment/soil analysis result, RadCon will survey the surface per COs and provide documentation thereof in an RSDS.

Potentially impacted work areas atop the excavation, where excavated sediment/material was loaded into haulers, and are not hard surfaces (e.g., concrete and asphalt) are assumed included within the SUs. Should actual conditions vary from the assumption, changes will be made and reflected in the Post-Excavation SUD submission. Potentially impacted work area atop the excavation, where excavated materials will be loaded into haulers, and are hard surfaces (e.g., concrete and asphalt) will be surveyed and released per RadCon procedures in accordance **with DOE Order 5400.5 and Mound 2000 Work Plan Appendix A Table 1.**

Accessibility for sampling is a constraining factor due to safety concerns with placing an individual in some areas of the excavation. FSS sampling of these areas may be accomplished with an excavator bucket and subsequent sampling of the material in the bucket in accordance with the procedures established the standard VSAP, Final, August 2004, Section 4.4 Special Considerations. Where sufficient volume of soil exists and is accessible with an excavator a soil sample will be taken otherwise a surface survey (swipe and direct) will be performed utilizing methods available from outside of the constraining area in accordance RadCon procedures and DOE Order 5400.5 and Mound 2000 Work Plan Appendix A Table 1.

In-process sampling events (Characterization and/or Remedial Action Support Survey (RASS) samples) will be conducted during the entire PRS remediation. Those samples will undergo gamma spectrometry analysis to guide actions. RASS sampling of the remediated areas will be used to determine if the FSS (verification) sampling can be conducted. RASS sampling results will be used to add or remove COCs from the Post-Excavation SUD submission.

If visible debris below COs exists on the face of the excavation, the need for additional sampling will be addressed in the Post Ex SUD.

**Changes if any, from Pre-Ex SUD:**

On site gamma spec typically provides results for: Co-60, Cs-137, Pb-210, Ra-226, Ac-227 (D), Th-230, Th-232 (D), Pu-238, and Am-241. In addition, any isotopes identified to be greater than their MDA (e.g., U-238, Bi-210m, etc.) will be reported on the analytical results sheet. Any exceedances of the CO associated with any isotope will constitute disposal as contaminated waste and evaluation for inclusion as a COC.

During the overburden removal several piles taken to the overburden staging area, within in the Spoils Area (also known as PRS 282), exhibited elevated FIDLER readings. A summary of these events is included in Appendix II Attachment C.

Survey Unit 3, The historic burial trench that is documented to contain debris from the Dayton Unit, was Geo Probe sampled for characterization as part of the Pre-Excavation SUD and PRS 11 Work Package. No contaminants above CO were observed. The summary of results can be found in Appendix II Attachment D.

The excavation could not remove all of the contaminated materials in the area (wall) adjacent to the landfill. Appendix II Attachment E summarizes the As Left condition of the wall. The wall with remaining contamination was covered tarps per the Work Plan. A 15-foot buffer to the wall has been established within SU1. If FSS results within this buffer area are above COs then the associated sample location data will be removed from the verification data set and added to the wall As Left data set.

Per the request of the Regulators, the final round of RASS sampling, previously known as Pre-Verification Sampling, is included in Appendix II Appendix F exhibiting the excavation is ready for a Final Status Survey.

Visible debris remains in sporadic locations within the excavation walls. RadCon Technicians have surveyed the excavation and down posted the area to a Soil Contamination Area due to debris behind the tarp on the wall adjacent to the landfill.

# APPENDIX D

## BACKFILL PACKAGE

A113/71

# STD VSAP BACKFILL INFO

This information will be represented in the Data Report.

For: PRS 11 - Thorium Drum Removal

## Checklist:

(per Section 5.6 of Std VSAP, Final, Aug 04)

- ☒ final Graphic
  (show sample locations & note any >CO and/or >HS)
- ☒ sample results
  (show DLs, HS, COs, and COC std deviation(s))
- ☒ recalc of N
- ☒ preliminary data were reviewed
  (Data Review & Validation Report will be submitted with the Data Report)
- ☒ Sign test & 95%UCL (per SU)
  (not required if all results <CO, see pg 19/21 of VSAP)
- ☒ retro curve

From: (sign/date) *Mark R. Spivey*

Mark R. Spivey

A114/171

Backfill of PRS 11 commenced with concurrence on December 13, 2006. Refer to the following e-mail correspondences and e-mail attachment associated with the aforementioned:

E-mail from Fischer.Timothy@epamail.epa.gov on 12/8/05 at 2:47 P.M.:

Mark,

You have US EPA concurrence to backfill at PRS 11.

Thanks,
Tim

E-mail from Brian.Nickel@epa.state.oh.us on 12/8/05 at 3:59 P.M.:

Paul,

Ohio EPA does not object to CH2MHill initiating the backfill of PRS 11 considering the instability of excavation walls and OU1 extraction wells with the understanding that it is at DOE/CH2MHill's risk. As discussed today, if the verification data does not pass the statistical tests, etc. required pursuant to the Standard VSAP, CH2MHill will re-excavate and remove the contamination.

Ohio noted that there have recently been several instances where upon the receipt of the off-property verification data, additional excavation was needed due to elevated levels even though onsite data had indicated it met the clean up objectives.

We also discussed the use of a tarp or some other means to mark the dig face of the excavation. Ohio EPA was assured that the excavation was accurately surveyed and that if needed, there would be no problem exposing the current surface.

Ohio EPA also supports DOE's need to understand the backfilling approach and would request that only enough backfill be placed in the excavation to stabilize the situation.

Thank you.

Brian Nickel
OFFO

E-mail from SPIVMR@doe-md.gov to the Core Team on 12/8/2005 12:12 P.M.:

Please see the attachment for CH2M Hill Mound's intent to backfill PRS 11. This will be discussed during the meeting being held today at 1400 hours.

Mark R. Spivey
CH2M Hill Mound, Inc.
Environmental Restoration
Project Engineer/Senior Coordinator
(937) 608-8233

Based upon the On Site Gamma Spectrometry data CH2M Hill Mound is planning to initiate backfilling at risk due to the instability of the excavation walls. Figure 1 illustrates PRS 11 Final Status Survey (Verification) sample locations. On Site Gamma Spectrometry was performed on EPA dish split samples taken from these locations. The Pu-238 results are contained within Figures 2 and 3 and the Th-232 results are contained within Figures 4 and 5.

Location 37 had an elevated Th-232 value, which is within the 15-foot buffer area however; the elevated value precluded obtaining a Pu-238 MDA less than 20 pCi/g. This is being remedied by off site Iso-Pu being performed on this sample.

In addition, location 66 has an elevated Th-232 value and an elevated Pu-238 value (below CO) that precluded obtaining a Pu-238 MDA less than 20 pCi/g. This is also being remedied by off site Iso-Pu being performed.

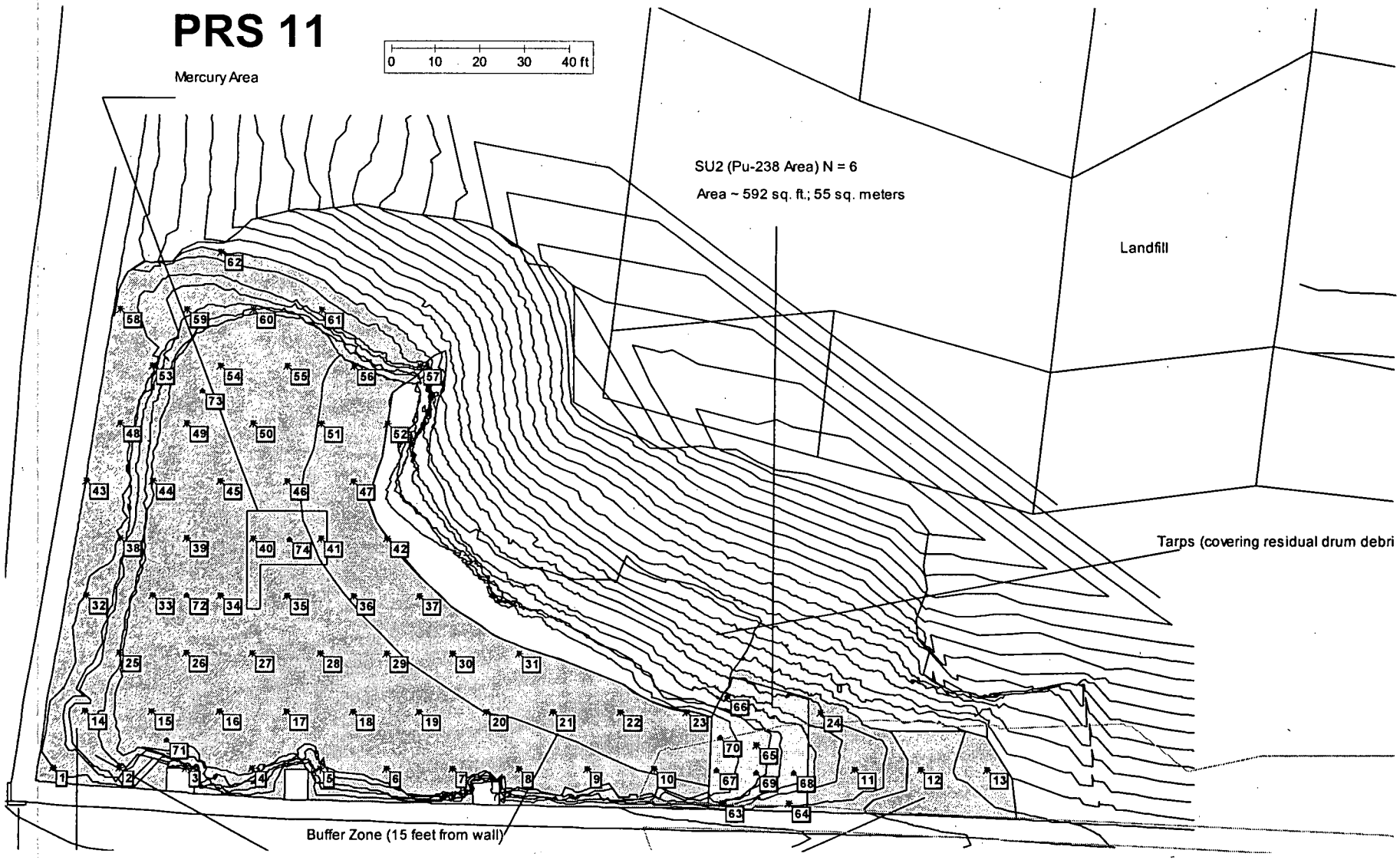


Figure 1

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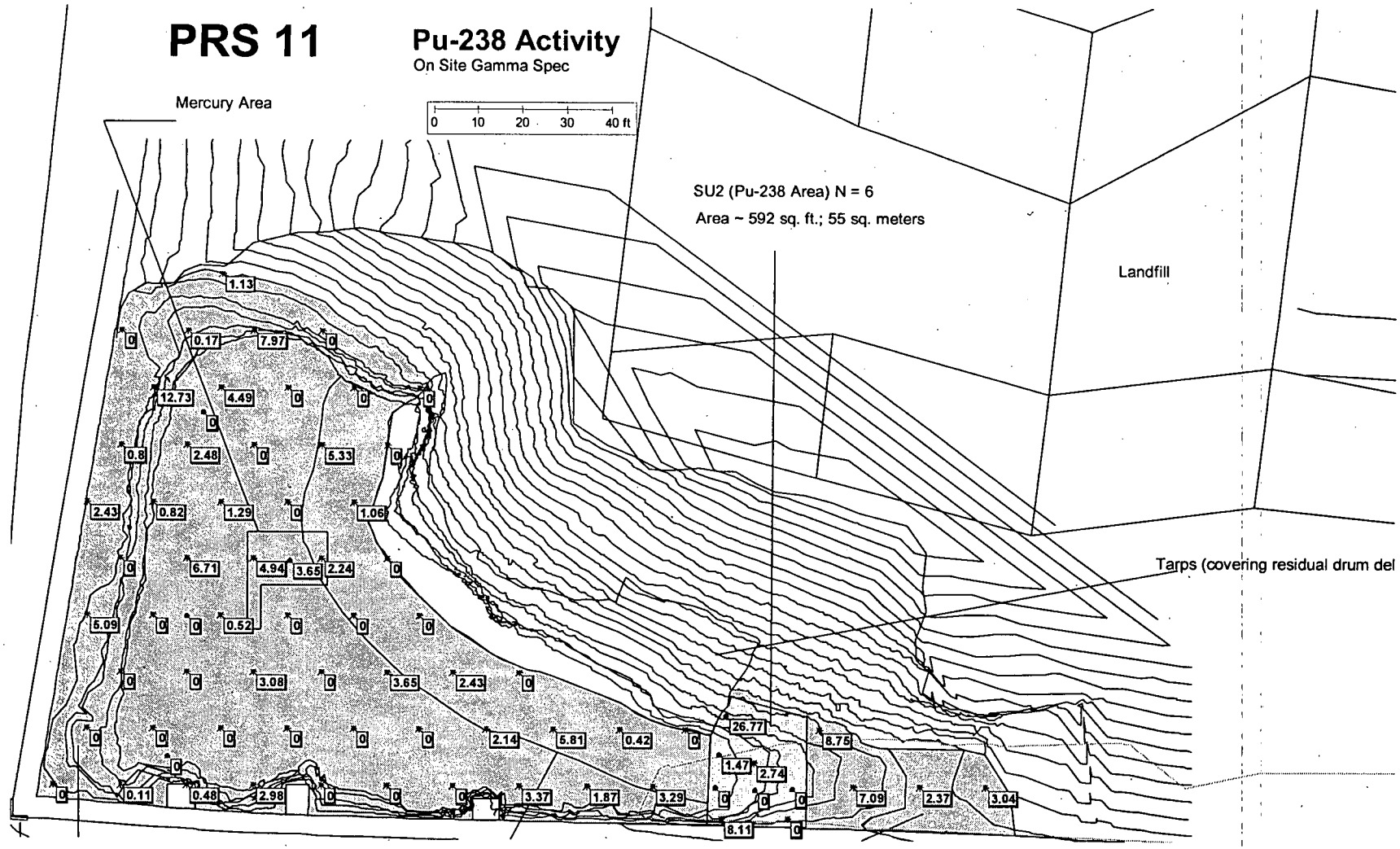


Figure 2

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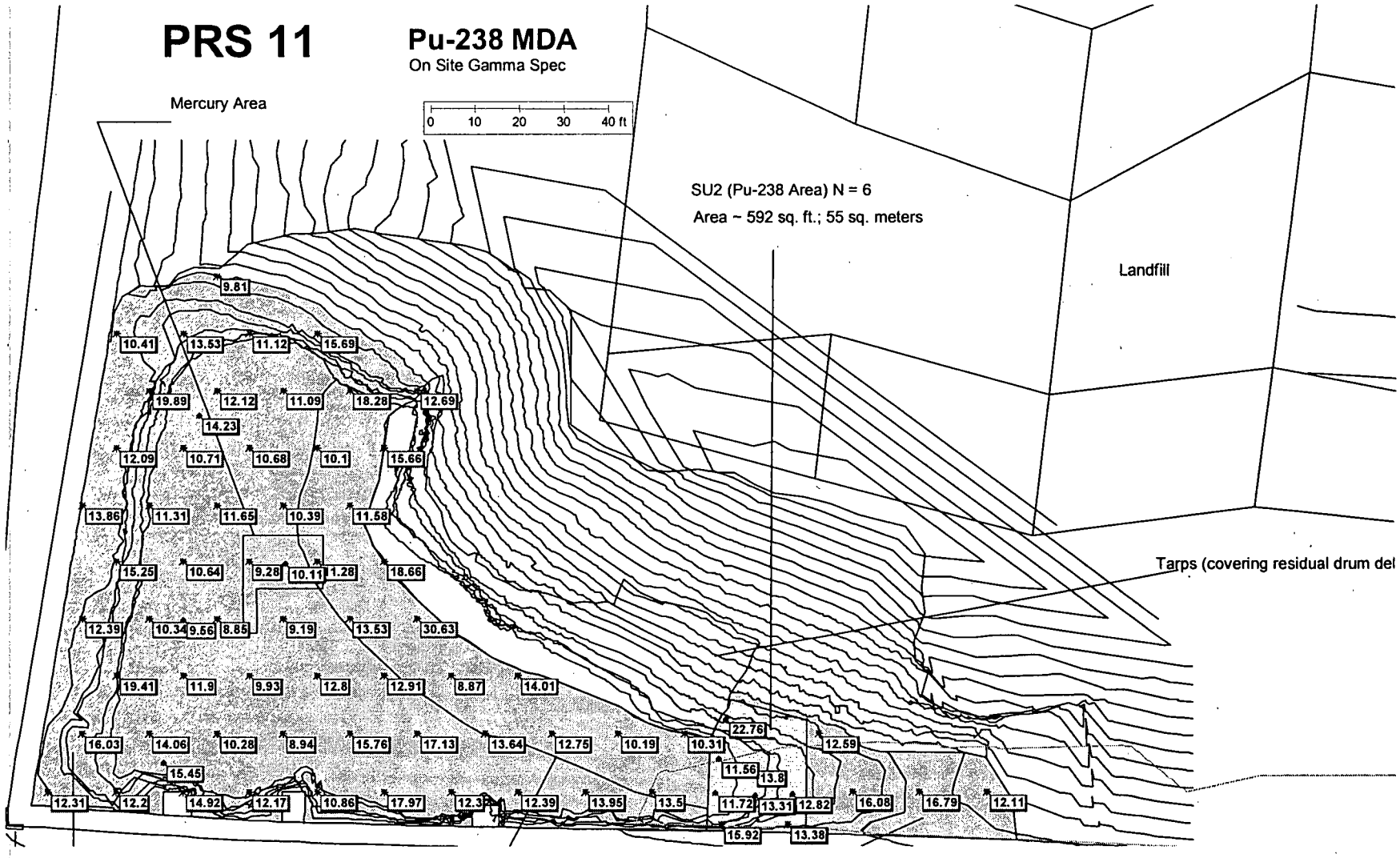
PRS 11
Pu-238 MDA
On Site Gamma Spec
Mercury Area
0 10 20 30 40 ft
SU2 (Pu-238 Area) N = 6
Area ~ 592 sq. ft.; 55 sq. meters
Landfill
Tarps (covering residual drum del
9.81
10.41
13.53
11.12
15.69
19.89
12.12
11.09
18.28
12.69
14.23
12.09
10.71
10.68
10.1
15.66
13.86
11.31
11.65
10.39
11.58
15.25
10.64
9.28
10.11
11.28
18.66
12.39
10.34
9.56
8.85
9.19
13.53
30.63
19.41
11.9
9.93
12.8
12.91
8.87
14.01
16.03
14.06
10.28
8.94
15.76
17.13
13.64
12.75
10.19
10.31
22.76
12.59
15.45
11.56
13.8
12.31
12.2
14.92
12.17
10.86
17.97
12.39
13.95
13.5
11.72
13.31
12.82
16.08
16.79
12.11
15.92
13.38

Figure 3

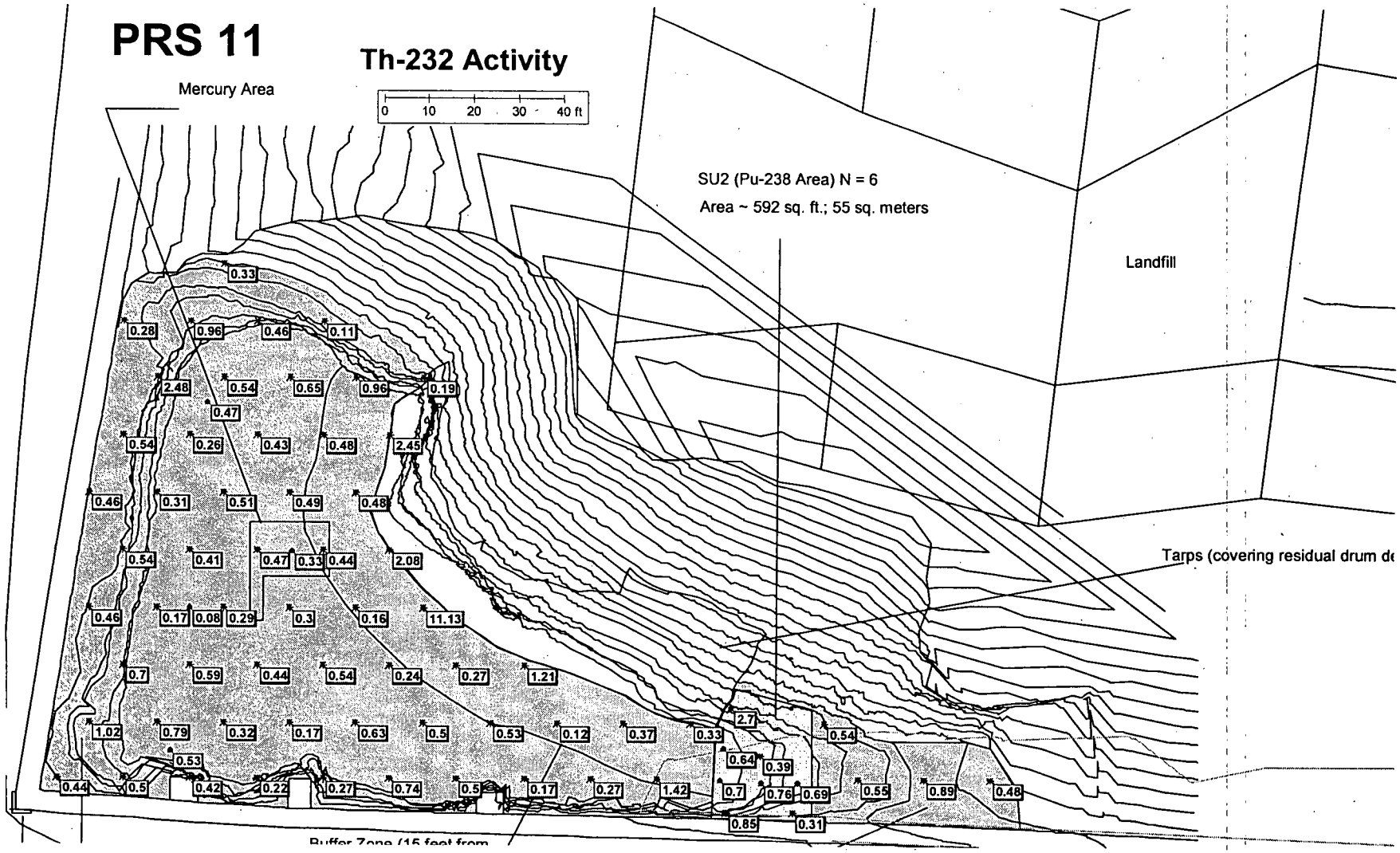


Figure 4

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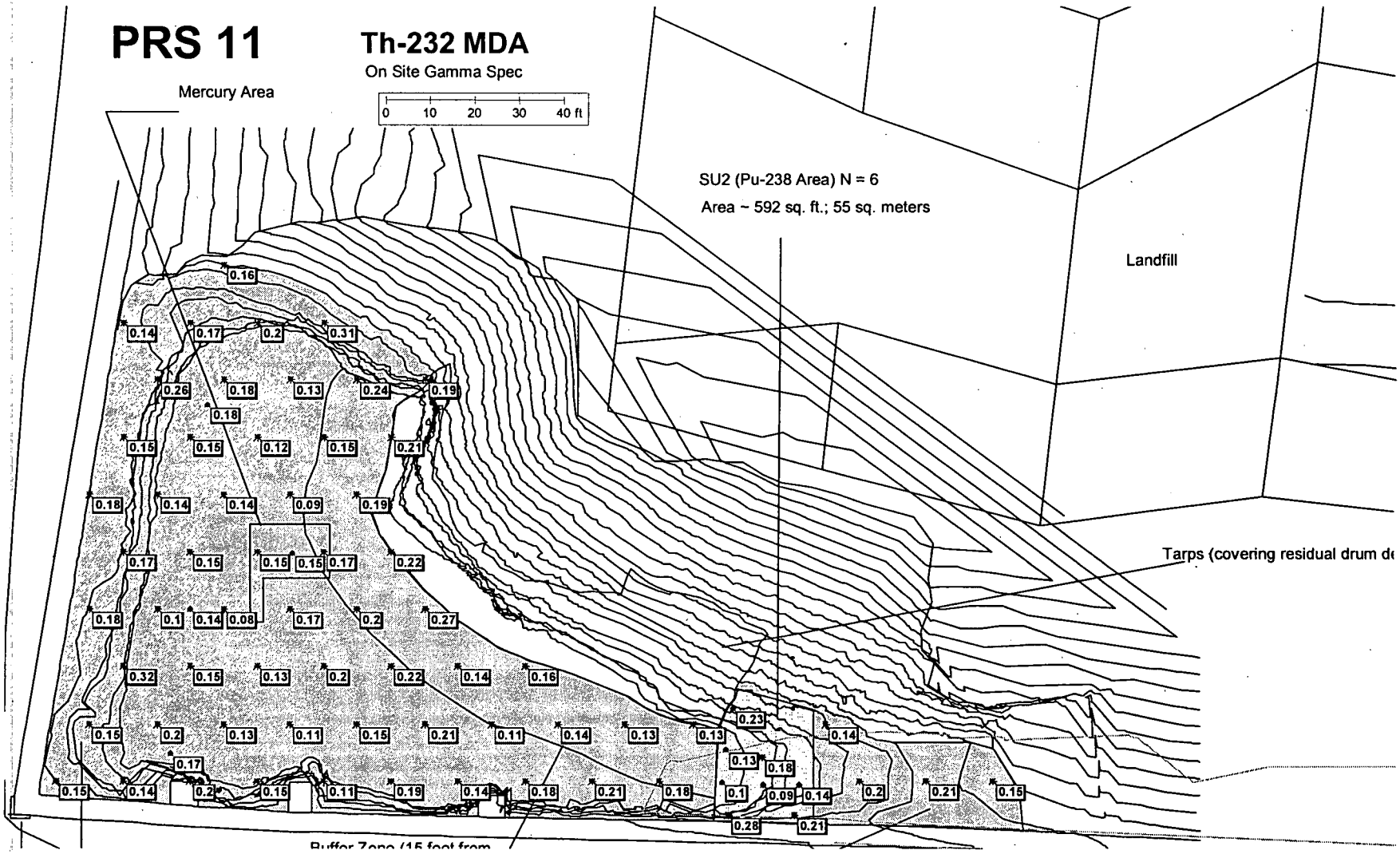


Figure 5

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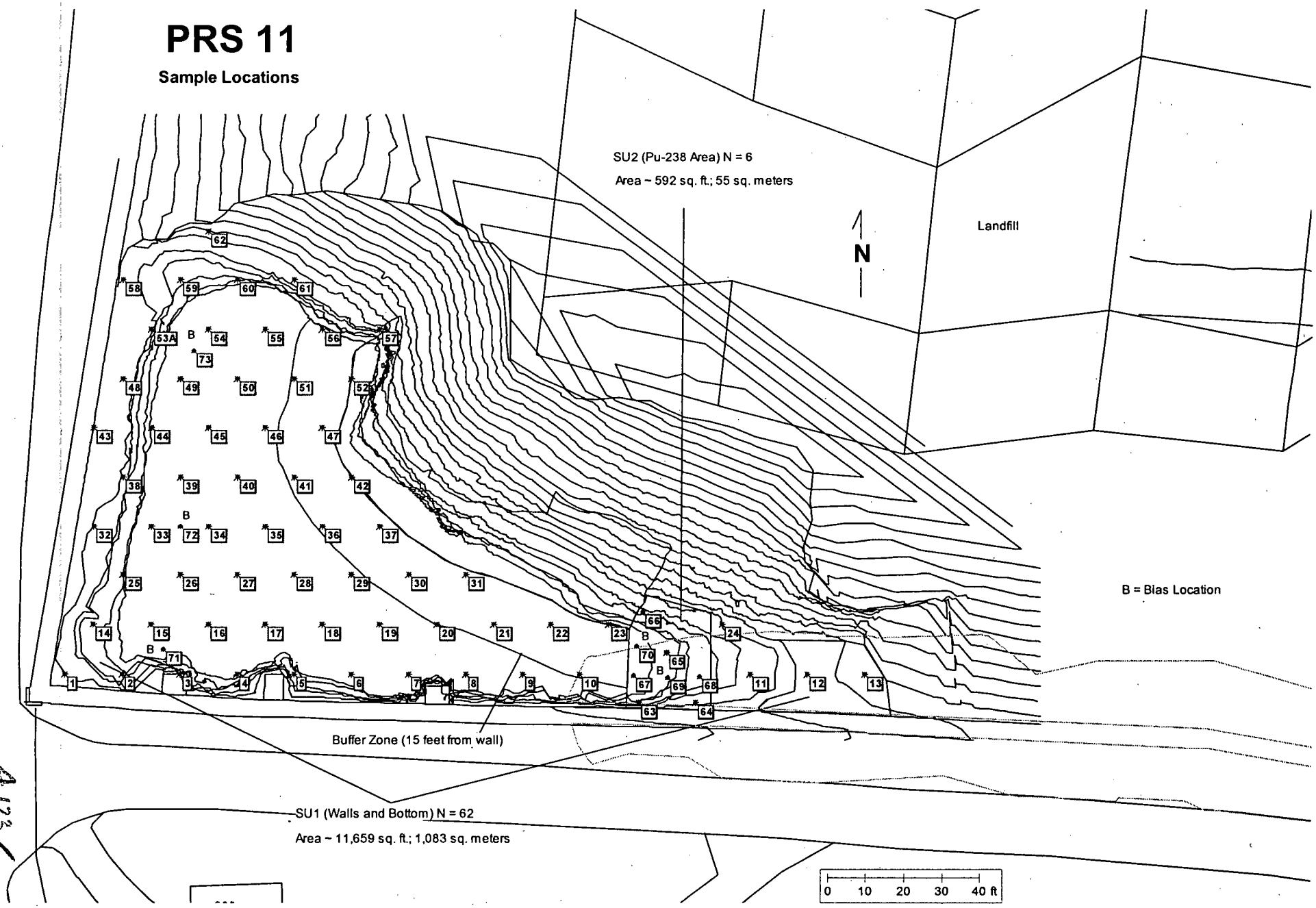
# PRS 11
# Off Site Data, Data Analysis, and Backfill Information Package

A122/171

# PRS 11

**Sample Locations**

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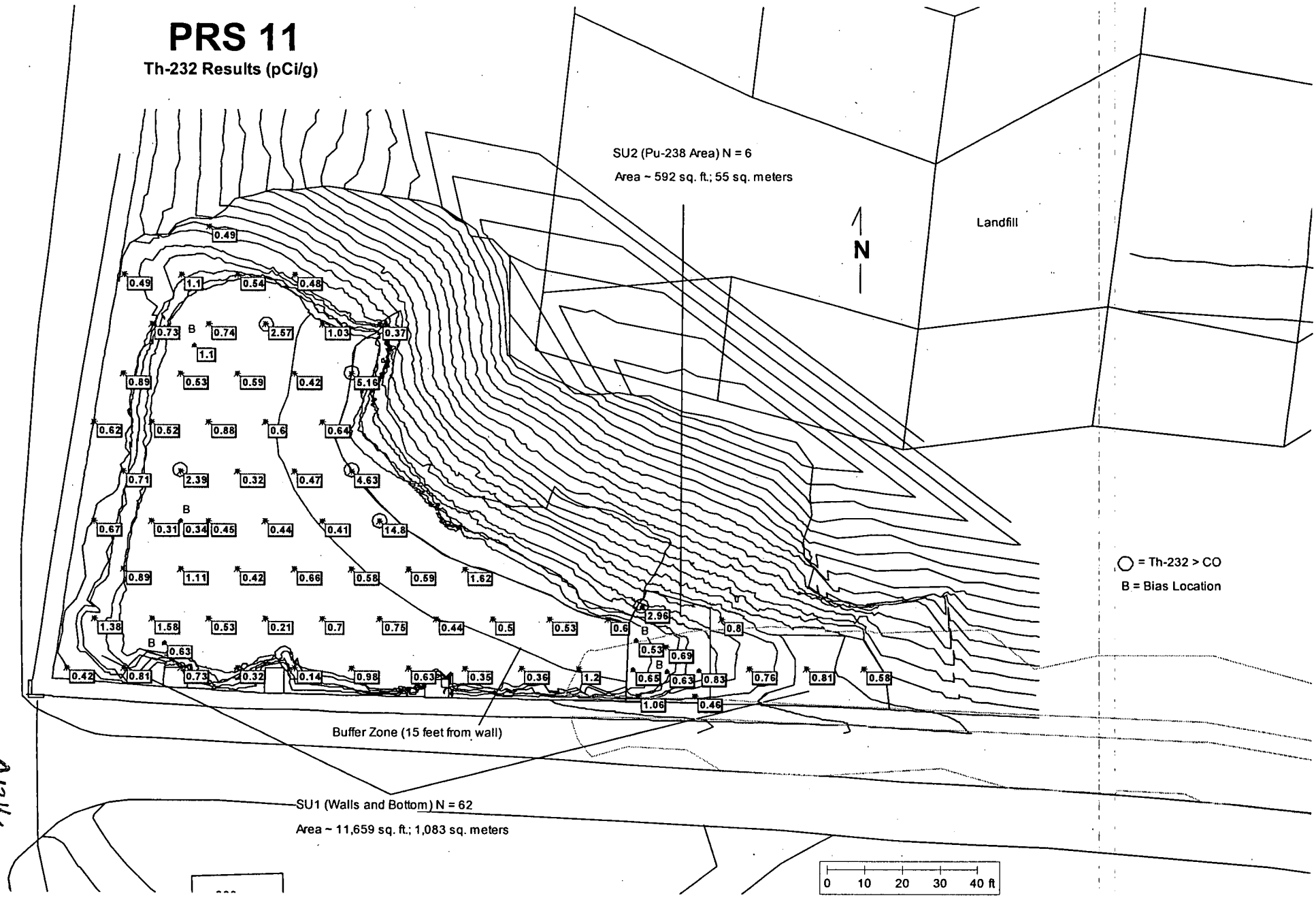
# PRS 11

**Th-232 Results (pCi/g)**



# PRS 11 Off Site Data from STL St. Louis

**SU1:**

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11/29/2005 | 1463942.728 | 597019.783 | 702.064 | | 0.26 | 0.26 | 0.260 | PCI/G | Actinium-227 |
| 2 | 11/29/2005 | 1463957.728 | 597019.783 | 697.004 | | 0.26 | 0.33 | 0.260 | PCI/G | Actinium-227 |
| 3 | 12/1/2005 | 1463972.728 | 597019.783 | 703.747 | | 0.09 | 0.23 | 0.090 | PCI/G | Actinium-227 |
| 4 | 11/30/2005 | 1463987.728 | 597019.783 | 693.035 | | 0.10 | 0.24 | 0.100 | PCI/G | Actinium-227 |
| 5 | 11/30/2005 | 1464002.728 | 597019.783 | 697.010 | | -0.03 | 0.16 | 0.080 | PCI/G | Actinium-227 |
| 6 | 11/30/2005 | 1464017.728 | 597019.783 | 690.383 | | 0.11 | 0.28 | 0.110 | PCI/G | Actinium-227 |
| 7 | 12/1/2005 | 1464032.728 | 597019.783 | 689.652 | | 0.10 | 0.21 | 0.100 | PCI/G | Actinium-227 |
| 8 | 11/30/2005 | 1464047.728 | 597019.783 | 690.374 | | 0.19 | 0.29 | 0.190 | PCI/G | Actinium-227 |
| 9 | 11/30/2005 | 1464062.728 | 597019.783 | 690.599 | | 0.05 | 0.31 | 0.050 | PCI/G | Actinium-227 |
| 10 | 11/30/2005 | 1464077.728 | 597019.783 | 691.445 | | 0.19 | 0.33 | 0.190 | PCI/G | Actinium-227 |
| 11 | 12/1/2005 | 1464122.728 | 597019.783 | 703.183 | | 0.05 | 0.27 | 0.050 | PCI/G | Actinium-227 |
| 12 | 12/1/2005 | 1464137.728 | 597019.783 | 708.625 | | -0.03 | 0.22 | 0.110 | PCI/G | Actinium-227 |
| 13 | 12/1/2005 | 1464152.728 | 597019.783 | 710.754 | | 0.20 | 0.28 | 0.200 | PCI/G | Actinium-227 |
| 14 | 11/29/2005 | 1463950.228 | 597032.774 | 697.324 | | 0.38 | 0.31 | 0.380 | PCI/G | Actinium-227 |
| 15 | 11/29/2005 | 1463965.228 | 597032.774 | 691.986 | | 0.35 | 0.26 | 0.350 | PCI/G | Actinium-227 |
| 16 | 11/30/2005 | 1463980.228 | 597032.774 | 691.857 | | 0.08 | 0.20 | 0.080 | PCI/G | Actinium-227 |
| 17 | 11/30/2005 | 1463995.228 | 597032.774 | 690.031 | | -0.06 | 0.21 | 0.105 | PCI/G | Actinium-227 |
| 18 | 11/30/2005 | 1464010.228 | 597032.774 | 689.241 | | 0.03 | 0.22 | 0.030 | PCI/G | Actinium-227 |
| 19 | 11/30/2005 | 1464025.228 | 597032.774 | 688.075 | | -0.10 | 0.32 | 0.160 | PCI/G | Actinium-227 |
| 20 | 11/30/2005 | 1464040.228 | 597032.774 | 688.067 | | 0.08 | 0.34 | 0.080 | PCI/G | Actinium-227 |
| 21 | 11/30/2005 | 1464055.228 | 597032.774 | 688.910 | | 0.06 | 0.19 | 0.060 | PCI/G | Actinium-227 |
| 22 | 11/30/2005 | 1464070.228 | 597032.774 | 689.867 | | -0.03 | 0.23 | 0.115 | PCI/G | Actinium-227 |
| 23 | 11/30/2005 | 1464085.228 | 597032.774 | 691.746 | 0.21 | | 0.38 | | PCI/G | Actinium-227 |
| 24 | 12/1/2005 | 1464115.228 | 597032.774 | 705.731 | | 0.14 | 0.27 | 0.140 | PCI/G | Actinium-227 |
| 25 | 12/1/2005 | 1463957.728 | 597045.764 | 695.221 | | 0.22 | 0.32 | 0.220 | PCI/G | Actinium-227 |
| 26 | 11/29/2005 | 1463972.728 | 597045.764 | 690.465 | | 0.18 | 0.28 | 0.180 | PCI/G | Actinium-227 |
| 27 | 11/30/2005 | 1463987.728 | 597045.764 | 688.818 | | 0.23 | 0.30 | 0.230 | PCI/G | Actinium-227 |
| 28 | 11/30/2005 | 1464002.728 | 597045.764 | 688.753 | | 0.00 | 0.34 | 0.170 | PCI/G | Actinium-227 |
| 29 | 11/30/2005 | 1464017.728 | 597045.764 | 687.060 | | -0.08 | 0.29 | 0.145 | PCI/G | Actinium-227 |
| 30 | 11/30/2005 | 1464032.728 | 597045.764 | 686.441 | | -0.04 | 0.21 | 0.105 | PCI/G | Actinium-227 |
| 31 | 11/30/2005 | 1464047.728 | 597045.764 | 687.006 | | 0.48 | 0.31 | 0.480 | PCI/G | Actinium-227 |
| 32 | 11/29/2005 | 1463950.228 | 597058.754 | 701.904 | | -0.08 | 0.28 | 0.140 | PCI/G | Actinium-227 |
| 33 | 11/29/2005 | 1463965.228 | 597058.754 | 690.914 | | 0.01 | 0.21 | 0.010 | PCI/G | Actinium-227 |
| 34 | 11/29/2005 | 1463980.228 | 597058.754 | 690.065 | | 0.20 | 0.19 | 0.200 | PCI/G | Actinium-227 |
| 35 | 11/30/2005 | 1463995.228 | 597058.754 | 689.196 | | 0.22 | 0.27 | 0.220 | PCI/G | Actinium-227 |
| 36 | 11/30/2005 | 1464010.228 | 597058.754 | 687.800 | | 0.04 | 0.20 | 0.040 | PCI/G | Actinium-227 |
| 37 | 11/30/2005 | 1464025.228 | 597058.754 | 686.418 | 0.63 | | 0.63 | | PCI/G | Actinium-227 |
| 38 | 11/29/2005 | 1463957.728 | 597071.745 | 701.617 | | 0.14 | 0.28 | 0.140 | PCI/G | Actinium-227 |
| 39 | 11/29/2005 | 1463972.728 | 597071.745 | 690.465 | | 0.38 | 0.30 | 0.380 | PCI/G | Actinium-227 |
| 40 | 11/30/2005 | 1463987.728 | 597071.745 | 689.570 | | 0.20 | 0.28 | 0.200 | PCI/G | Actinium-227 |
| 41 | 11/30/2005 | 1464002.728 | 597071.745 | 689.209 | | -0.01 | 0.30 | 0.150 | PCI/G | Actinium-227 |
| 42 | 11/30/2005 | 1464017.728 | 597071.745 | 689.412 | 0.14 | | 0.41 | | PCI/G | Actinium-227 |
| 43 | 11/29/2005 | 1463950.228 | 597084.735 | 703.634 | | 0.06 | 0.31 | 0.060 | PCI/G | Actinium-227 |
| 44 | 11/29/2005 | 1463965.228 | 597084.735 | 693.712 | | -0.01 | 0.20 | 0.100 | PCI/G | Actinium-227 |
| 45 | 11/29/2005 | 1463980.228 | 597084.735 | 691.713 | | 0.05 | 0.23 | 0.050 | PCI/G | Actinium-227 |
| 46 | 11/30/2005 | 1463995.228 | 597084.735 | 689.195 | | 0.16 | 0.42 | 0.160 | PCI/G | Actinium-227 |
| 47 | 11/30/2005 | 1464010.228 | 597084.735 | 692.378 | | 0.25 | 0.40 | 0.250 | PCI/G | Actinium-227 |
| 48 | 11/29/2005 | 1463957.728 | 597097.726 | 702.713 | | 0.07 | 0.28 | 0.070 | PCI/G | Actinium-227 |
| 49 | 11/29/2005 | 1463972.728 | 597097.726 | 692.705 | | 0.13 | 0.19 | 0.130 | PCI/G | Actinium-227 |
| 50 | 11/30/2005 | 1463987.728 | 597097.726 | 690.608 | | 0.23 | 0.28 | 0.230 | PCI/G | Actinium-227 |
| 51 | 11/30/2005 | 1464002.728 | 597097.726 | 690.764 | | 0.00 | 0.30 | 0.150 | PCI/G | Actinium-227 |
| 52 | 11/30/2005 | 1464017.728 | 597097.726 | 691.990 | 0.01 | | 0.42 | | PCI/G | Actinium-227 |
| 53A | 1/12/2005 | 1463965.228 | 597110.716 | 699.585 | | 0.05 | 0.52 | 0.050 | PCI/G | Actinium-227 |
| 54 | 12/1/2005 | 1463980.228 | 597110.716 | 689.535 | | 0.09 | 0.32 | 0.090 | PCI/G | Actinium-227 |

A125/171

# PRS 11 Off Site Data from STL St. Louis

**SU1:**

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 55 | 11/30/2005 | 1463995.228 | 597110.716 | 691.604 | | 0.06 | 0.26 | 0.060 | PCI/G | Actinium-227 |
| 56 | 11/30/2005 | 1464010.228 | 597110.716 | 693.807 | | 0.28 | 0.33 | 0.280 | PCI/G | Actinium-227 |
| 57 | 12/1/2005 | 1464025.228 | 597110.716 | 702.228 | | -0.01 | 0.31 | 0.155 | PCI/G | Actinium-227 |
| 58 | 11/29/2005 | 1463957.728 | 597123.706 | 704.129 | | 0.12 | 0.23 | 0.120 | PCI/G | Actinium-227 |
| 59 | 11/29/2005 | 1463972.728 | 597123.706 | 699.094 | | 0.42 | 0.36 | 0.420 | PCI/G | Actinium-227 |
| 60 | 12/1/2005 | 1463987.728 | 597123.706 | 696.134 | | -0.13 | 0.32 | 0.160 | PCI/G | Actinium-227 |
| 61 | 12/1/2005 | 1464002.728 | 597123.706 | 703.952 | | 0.06 | 0.22 | 0.060 | PCI/G | Actinium-227 |
| 62 | 11/29/2005 | 1463980.228 | 597136.697 | 707.998 | | 0.02 | 0.27 | 0.020 | PCI/G | Actinium-227 |
| | | | | | | | **Max** | **0.480** | **PCI/G** | **Actinium-227** |
| | | | | | | | **Std. Dev.** | **0.102** | **PCI/G** | **Actinium-227** |
| | | | | | | | **CO** | **4.600** | **PCI/G** | **Actinium-227** |
| | | | | | | | **HS** | **13.610** | **PCI/G** | **Actinium-227** |

**SU1:**

Duplicates:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17 | 11/30/2005 | 1463995.228 | 597032.774 | 690.031 | | 0.06 | 0.26 | 0.060 | PCI/G | Actinium-227 |
| 49 | 11/29/2005 | 1463972.728 | 597097.726 | 692.705 | | 0.07 | 0.18 | 0.070 | PCI/G | Actinium-227 |
| 53A | 1/12/2005 | 1463965.228 | 597110.716 | 699.585 | | -0.11 | 0.49 | 0.245 | PCI/G | Actinium-227 |
| 54 | 12/1/2005 | 1463980.228 | 597110.716 | 689.535 | | 0.14 | 0.32 | 0.140 | PCI/G | Actinium-227 |

**SU1:**

Bias Locations:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 11/30/2005 | 1463968.419 | 597026.146 | 697.866 | | 0.32 | 0.40 | 0.320 | PCI/G | Actinium-227 |
| 72 | 11/29/2005 | 1463972.694 | 597058.672 | 690.490 | | 0.13 | 0.15 | 0.134 | PCI/G | Actinium-227 |
| 73 | 11/30/2005 | 1463976.359 | 597105.094 | 691.120 | | -0.04 | 0.18 | 0.090 | PCI/G | Actinium-227 |

**SU2:**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 63 | 11/30/2005 | 1464093.226 | 597012.324 | 696.566 | | 0.06 | 0.38 | 0.060 | PCI/G | Actinium-227 |
| 64 | 12/1/2005 | 1464108.226 | 597012.324 | 705.189 | | 0.20 | 0.25 | 0.200 | PCI/G | Actinium-227 |
| 65 | 11/30/2005 | 1464100.726 | 597025.315 | 695.267 | | 0.40 | 0.37 | 0.400 | PCI/G | Actinium-227 |
| 66 | 12/1/2005 | 1464094.238 | 597036.159 | 701.163 | 0.25 | | 0.43 | | PCI/G | Actinium-227 |
| 67 | 11/30/2005 | 1464091.835 | 597019.553 | 692.932 | | 0.21 | 0.26 | 0.210 | PCI/G | Actinium-227 |
| 68 | 11/30/2005 | 1464109.333 | 597019.104 | 698.411 | | 0.00 | 0.37 | 0.003 | PCI/G | Actinium-227 |
| | | | | | | | **Max** | **0.400** | **PCI/G** | **Actinium-227** |
| | | | | | | | **Std. Dev.** | **0.154** | **PCI/G** | **Actinium-227** |
| | | | | | | | **CO** | **4.600** | **PCI/G** | **Actinium-227** |
| | | | | | | | **HS** | **13.610** | **PCI/G** | **Actinium-227** |

**SU2:**

Duplicates:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 68 | 11/30/2005 | 1464109.333 | 597019.104 | 698.411 | | -0.05 | 0.25 | 0.125 | PCI/G | Actinium-227 |

**SU2:**

Bias Locations:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 69 | 11/30/2005 | 1464100.965 | 597018.969 | 692.932 | | 0.41 | 0.32 | 0.410 | PCI/G | Actinium-227 |
| 70 | 11/30/2005 | 1464092.719 | 597027.063 | 695.267 | | -0.08 | 0.35 | 0.175 | PCI/G | Actinium-227 |

# PRS 11 Off Site Data from STL St. Louis

**SU1:**

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11/29/2005 | 1463942.728 | 597019.783 | 702.064 | | -0.04 | 0.05 | 0.027 | PCI/G | Bismuth-210m |
| 2 | 11/29/2005 | 1463957.728 | 597019.783 | 697.004 | | -0.06 | 0.07 | 0.033 | PCI/G | Bismuth-210m |
| 3 | 12/1/2005 | 1463972.728 | 597019.783 | 703.747 | | -0.02 | 0.05 | 0.024 | PCI/G | Bismuth-210m |
| 4 | 11/30/2005 | 1463987.728 | 597019.783 | 693.035 | | 0.00 | 0.05 | 0.026 | PCI/G | Bismuth-210m |
| 5 | 11/30/2005 | 1464002.728 | 597019.783 | 697.010 | | -0.01 | 0.04 | 0.019 | PCI/G | Bismuth-210m |
| 6 | 11/30/2005 | 1464017.728 | 597019.783 | 690.383 | | -0.03 | 0.06 | 0.031 | PCI/G | Bismuth-210m |
| 7 | 12/1/2005 | 1464032.728 | 597019.783 | 689.652 | | -0.01 | 0.05 | 0.024 | PCI/G | Bismuth-210m |
| 8 | 11/30/2005 | 1464047.728 | 597019.783 | 690.374 | | 0.00 | 0.06 | 0.001 | PCI/G | Bismuth-210m |
| 9 | 11/30/2005 | 1464062.728 | 597019.783 | 690.599 | | 0.02 | 0.08 | 0.023 | PCI/G | Bismuth-210m |
| 10 | 11/30/2005 | 1464077.728 | 597019.783 | 691.445 | | -0.02 | 0.07 | 0.037 | PCI/G | Bismuth-210m |
| 11 | 12/1/2005 | 1464122.728 | 597019.783 | 703.183 | | -0.02 | 0.06 | 0.028 | PCI/G | Bismuth-210m |
| 12 | 12/1/2005 | 1464137.728 | 597019.783 | 708.625 | | -0.02 | 0.05 | 0.026 | PCI/G | Bismuth-210m |
| 13 | 12/1/2005 | 1464152.728 | 597019.783 | 710.754 | | -0.05 | 0.05 | 0.026 | PCI/G | Bismuth-210m |
| 14 | 11/29/2005 | 1463950.228 | 597032.774 | 697.324 | | 0.03 | 0.07 | 0.032 | PCI/G | Bismuth-210m |
| 15 | 11/29/2005 | 1463965.228 | 597032.774 | 691.986 | | -0.04 | 0.05 | 0.024 | PCI/G | Bismuth-210m |
| 16 | 11/30/2005 | 1463980.228 | 597032.774 | 691.857 | | -0.02 | 0.04 | 0.020 | PCI/G | Bismuth-210m |
| 17 | 11/30/2005 | 1463995.228 | 597032.774 | 690.031 | | -0.01 | 0.05 | 0.024 | PCI/G | Bismuth-210m |
| 18 | 11/30/2005 | 1464010.228 | 597032.774 | 689.241 | | -0.01 | 0.05 | 0.026 | PCI/G | Bismuth-210m |
| 19 | 11/30/2005 | 1464025.228 | 597032.774 | 688.075 | | -0.06 | 0.09 | 0.043 | PCI/G | Bismuth-210m |
| 20 | 11/30/2005 | 1464040.228 | 597032.774 | 688.067 | | 0.02 | 0.09 | 0.017 | PCI/G | Bismuth-210m |
| 21 | 11/30/2005 | 1464055.228 | 597032.774 | 688.910 | | -0.01 | 0.04 | 0.022 | PCI/G | Bismuth-210m |
| 22 | 11/30/2005 | 1464070.228 | 597032.774 | 689.867 | | 0.01 | 0.05 | 0.010 | PCI/G | Bismuth-210m |
| 23 | 11/30/2005 | 1464085.228 | 597032.774 | 691.746 | -0.05 | | 0.08 | | PCI/G | Bismuth-210m |
| 24 | 12/1/2005 | 1464115.228 | 597032.774 | 705.731 | | -0.04 | 0.06 | 0.029 | PCI/G | Bismuth-210m |
| 25 | 12/1/2005 | 1463957.728 | 597045.764 | 695.221 | | 0.04 | 0.06 | 0.039 | PCI/G | Bismuth-210m |
| 26 | 11/29/2005 | 1463972.728 | 597045.764 | 690.465 | | 0.01 | 0.06 | 0.007 | PCI/G | Bismuth-210m |
| 27 | 11/30/2005 | 1463987.728 | 597045.764 | 688.818 | | -0.03 | 0.06 | 0.029 | PCI/G | Bismuth-210m |
| 28 | 11/30/2005 | 1464002.728 | 597045.764 | 688.753 | | -0.01 | 0.08 | 0.041 | PCI/G | Bismuth-210m |
| 29 | 11/30/2005 | 1464017.728 | 597045.764 | 687.060 | | -0.02 | 0.06 | 0.032 | PCI/G | Bismuth-210m |
| 30 | 11/30/2005 | 1464032.728 | 597045.764 | 686.441 | | -0.01 | 0.05 | 0.025 | PCI/G | Bismuth-210m |
| 31 | 11/30/2005 | 1464047.728 | 597045.764 | 687.006 | | 0.01 | 0.06 | 0.009 | PCI/G | Bismuth-210m |
| 32 | 11/29/2005 | 1463950.228 | 597058.754 | 701.904 | | -0.01 | 0.05 | 0.027 | PCI/G | Bismuth-210m |
| 33 | 11/29/2005 | 1463965.228 | 597058.754 | 690.914 | | 0.02 | 0.05 | 0.021 | PCI/G | Bismuth-210m |
| 34 | 11/29/2005 | 1463980.228 | 597058.754 | 690.065 | | 0.00 | 0.04 | 0.001 | PCI/G | Bismuth-210m |
| 35 | 11/30/2005 | 1463995.228 | 597058.754 | 689.196 | | -0.01 | 0.06 | 0.029 | PCI/G | Bismuth-210m |
| 36 | 11/30/2005 | 1464010.228 | 597058.754 | 687.800 | | -0.02 | 0.04 | 0.021 | PCI/G | Bismuth-210m |
| 37 | 11/30/2005 | 1464025.228 | 597058.754 | 686.418 | -0.02 | | 0.12 | | PCI/G | Bismuth-210m |
| 38 | 11/29/2005 | 1463957.728 | 597071.745 | 701.617 | | -0.02 | 0.06 | 0.028 | PCI/G | Bismuth-210m |
| 39 | 11/29/2005 | 1463972.728 | 597071.745 | 690.465 | | -0.02 | 0.06 | 0.029 | PCI/G | Bismuth-210m |
| 40 | 11/30/2005 | 1463987.728 | 597071.745 | 689.570 | | -0.04 | 0.06 | 0.029 | PCI/G | Bismuth-210m |
| 41 | 11/30/2005 | 1464002.728 | 597071.745 | 689.209 | | 0.03 | 0.08 | 0.030 | PCI/G | Bismuth-210m |
| 42 | 11/30/2005 | 1464017.728 | 597071.745 | 689.412 | -0.01 | | 0.09 | | PCI/G | Bismuth-210m |
| 43 | 11/29/2005 | 1463950.228 | 597084.735 | 703.634 | | -0.01 | 0.06 | 0.031 | PCI/G | Bismuth-210m |
| 44 | 11/29/2005 | 1463965.228 | 597084.735 | 693.712 | | 0.02 | 0.05 | 0.017 | PCI/G | Bismuth-210m |
| 45 | 11/29/2005 | 1463980.228 | 597084.735 | 691.713 | | -0.01 | 0.05 | 0.024 | PCI/G | Bismuth-210m |
| 46 | 11/30/2005 | 1463995.228 | 597084.735 | 689.195 | | -0.05 | 0.09 | 0.046 | PCI/G | Bismuth-210m |
| 47 | 11/30/2005 | 1464010.228 | 597084.735 | 692.378 | | -0.04 | 0.08 | 0.041 | PCI/G | Bismuth-210m |
| 48 | 11/29/2005 | 1463957.728 | 597097.726 | 702.713 | | -0.01 | 0.06 | 0.030 | PCI/G | Bismuth-210m |
| 49 | 11/29/2005 | 1463972.728 | 597097.726 | 692.705 | | -0.01 | 0.04 | 0.018 | PCI/G | Bismuth-210m |
| 50 | 11/30/2005 | 1463987.728 | 597097.726 | 690.608 | | 0.00 | 0.06 | 0.030 | PCI/G | Bismuth-210m |
| 51 | 11/30/2005 | 1464002.728 | 597097.726 | 690.764 | | -0.06 | 0.06 | 0.030 | PCI/G | Bismuth-210m |
| 52 | 11/30/2005 | 1464017.728 | 597097.726 | 691.990 | 0.01 | | 0.09 | | PCI/G | Bismuth-210m |
| 53A | 1/12/2005 | 1463965.228 | 597110.716 | 699.585 | | 0.03 | 0.12 | 0.029 | PCI/G | Bismuth-210m |
| 54 | 12/1/2005 | 1463980.228 | 597110.716 | 689.535 | | -0.04 | 0.07 | 0.035 | PCI/G | Bismuth-210m |

# PRS 11 Off Site Data from STL St. Louis

**SU1:**

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 55 | 11/30/2005 | 1463995.228 | 597110.716 | 691.604 | | 0.01 | 0.06 | 0.012 | PCI/G | Bismuth-210m |
| 56 | 11/30/2005 | 1464010.228 | 597110.716 | 693.807 | | -0.01 | 0.07 | 0.033 | PCI/G | Bismuth-210m |
| 57 | 12/1/2005 | 1464025.228 | 597110.716 | 702.228 | | -0.01 | 0.07 | 0.035 | PCI/G | Bismuth-210m |
| 58 | 11/29/2005 | 1463957.728 | 597123.706 | 704.129 | | 0.00 | 0.05 | 0.027 | PCI/G | Bismuth-210m |
| 59 | 11/29/2005 | 1463972.728 | 597123.706 | 699.094 | | 0.00 | 0.07 | 0.003 | PCI/G | Bismuth-210m |
| 60 | 12/1/2005 | 1463987.728 | 597123.706 | 696.134 | | -0.04 | 0.07 | 0.036 | PCI/G | Bismuth-210m |
| 61 | 12/1/2005 | 1464002.728 | 597123.706 | 703.952 | | -0.02 | 0.05 | 0.024 | PCI/G | Bismuth-210m |
| 62 | 11/29/2005 | 1463980.228 | 597136.697 | 707.998 | | -0.01 | 0.06 | 0.030 | PCI/G | Bismuth-210m |
| | | | | | | | **Max** | **0.046** | **PCI/G** | **Bismuth-210m** |
| | | | | | | | **Std. Dev.** | **0.010** | **PCI/G** | **Bismuth-210m** |
| | | | | | | | **CO** | **8.300** | **PCI/G** | **Bismuth-210m** |
| | | | | | | | **HS** | **24.900** | **PCI/G** | **Bismuth-210m** |

**SU1:**

Duplicates:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 17 | 11/30/2005 | 1463995.228 | 597032.774 | 690.031 | | -0.03 | 0.06 | 0.028 | PCI/G | Bismuth-210m |
| 49 | 11/29/2005 | 1463972.728 | 597097.726 | 692.705 | | -0.02 | 0.04 | 0.019 | PCI/G | Bismuth-210m |
| 53A | 1/12/2005 | 1463965.228 | 597110.716 | 699.585 | | 0.04 | 0.14 | 0.041 | PCI/G | Bismuth-210m |
| 54 | 12/1/2005 | 1463980.228 | 597110.716 | 689.535 | | -0.02 | 0.07 | 0.033 | PCI/G | Bismuth-210m |

**SU1:**

Bias Locations:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 11/30/2005 | 1463968.419 | 597026.146 | 697.866 | | -0.07 | 0.07 | 0.037 | PCI/G | Bismuth-210m |
| 72 | 11/29/2005 | 1463972.694 | 597058.672 | 690.490 | | -0.01 | 0.03 | 0.016 | PCI/G | Bismuth-210m |
| 73 | 11/30/2005 | 1463976.359 | 597105.094 | 691.120 | | 0.01 | 0.04 | 0.011 | PCI/G | Bismuth-210m |

**SU2:**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 63 | 11/30/2005 | 1464093.226 | 597012.324 | 696.566 | | 0.00 | 0.08 | 0.002 | PCI/G | Bismuth-210m |
| 64 | 12/1/2005 | 1464108.226 | 597012.324 | 705.189 | | -0.04 | 0.05 | 0.024 | PCI/G | Bismuth-210m |
| 65 | 11/30/2005 | 1464100.726 | 597025.315 | 695.267 | | -0.03 | 0.08 | 0.038 | PCI/G | Bismuth-210m |
| 66 | 12/1/2005 | 1464094.238 | 597036.159 | 701.163 | -0.03 | | 0.09 | | PCI/G | Bismuth-210m |
| 67 | 11/30/2005 | 1464091.835 | 597019.553 | 692.932 | | -0.01 | 0.05 | 0.026 | PCI/G | Bismuth-210m |
| 68 | 11/30/2005 | 1464109.333 | 597019.104 | 698.411 | | -0.04 | 0.08 | 0.040 | PCI/G | Bismuth-210m |
| | | | | | | | **Max** | **0.040** | **PCI/G** | **Bismuth-210m** |
| | | | | | | | **Std. Dev.** | **0.015** | **PCI/G** | **Bismuth-210m** |
| | | | | | | | **CO** | **8.300** | **PCI/G** | **Bismuth-210m** |
| | | | | | | | **HS** | **24.900** | **PCI/G** | **Bismuth-210m** |

**SU2:**

Duplicates:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 68 | 11/30/2005 | 1464109.333 | 597019.104 | 698.411 | | -0.04 | 0.06 | 0.029 | PCI/G | Bismuth-210m |

**SU2:**

Bias Locations:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 69 | 11/30/2005 | 1464100.965 | 597018.969 | 692.932 | | -0.01 | 0.06 | 0.030 | PCI/G | Bismuth-210m |
| 70 | 11/30/2005 | 1464092.719 | 597027.063 | 695.267 | | -0.03 | 0.07 | 0.036 | PCI/G | Bismuth-210m |

# PRS 11 Off Site Data from STL St. Louis

**SU1:**

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11/29/2005 | 1463942.728 | 597019.783 | 702.064 | | 0.95 | 0.97 | 0.950 | PCI/G | Lead-210 |
| 2 | 11/29/2005 | 1463957.728 | 597019.783 | 697.004 | | 0.74 | 1.60 | 0.740 | PCI/G | Lead-210 |
| 3 | 12/1/2005 | 1463972.728 | 597019.783 | 703.747 | | 0.52 | 1.10 | 0.520 | PCI/G | Lead-210 |
| 4 | 11/30/2005 | 1463987.728 | 597019.783 | 693.035 | | 0.59 | 1.10 | 0.590 | PCI/G | Lead-210 |
| 5 | 11/30/2005 | 1464002.728 | 597019.783 | 697.010 | | 0.38 | 0.88 | 0.380 | PCI/G | Lead-210 |
| 6 | 11/30/2005 | 1464017.728 | 597019.783 | 690.383 | | 1.29 | 1.40 | 1.290 | PCI/G | Lead-210 |
| 7 | 12/1/2005 | 1464032.728 | 597019.783 | 689.652 | | 0.37 | 1.00 | 0.370 | PCI/G | Lead-210 |
| 8 | 11/30/2005 | 1464047.728 | 597019.783 | 690.374 | | -0.55 | 1.30 | 0.650 | PCI/G | Lead-210 |
| 9 | 11/30/2005 | 1464062.728 | 597019.783 | 690.599 | | 1.34 | 1.60 | 1.340 | PCI/G | Lead-210 |
| 10 | 11/30/2005 | 1464077.728 | 597019.783 | 691.445 | | 0.41 | 1.60 | 0.410 | PCI/G | Lead-210 |
| 11 | 12/1/2005 | 1464122.728 | 597019.783 | 703.183 | | 1.37 | 1.50 | 1.370 | PCI/G | Lead-210 |
| 12 | 12/1/2005 | 1464137.728 | 597019.783 | 708.625 | | 0.42 | 1.10 | 0.420 | PCI/G | Lead-210 |
| 13 | 12/1/2005 | 1464152.728 | 597019.783 | 710.754 | | 0.58 | 1.30 | 0.580 | PCI/G | Lead-210 |
| 14 | 11/29/2005 | 1463950.228 | 597032.774 | 697.324 | | -0.01 | 1.40 | 0.700 | PCI/G | Lead-210 |
| 15 | 11/29/2005 | 1463965.228 | 597032.774 | 691.986 | | 0.45 | 0.91 | 0.450 | PCI/G | Lead-210 |
| 16 | 11/30/2005 | 1463980.228 | 597032.774 | 691.857 | | 0.48 | 0.75 | 0.480 | PCI/G | Lead-210 |
| 17 | 11/30/2005 | 1463995.228 | 597032.774 | 690.031 | | -0.03 | 1.00 | 0.500 | PCI/G | Lead-210 |
| 18 | 11/30/2005 | 1464010.228 | 597032.774 | 689.241 | | 0.62 | 1.20 | 0.620 | PCI/G | Lead-210 |
| 19 | 11/30/2005 | 1464025.228 | 597032.774 | 688.075 | | 1.40 | 1.90 | 1.400 | PCI/G | Lead-210 |
| 20 | 11/30/2005 | 1464040.228 | 597032.774 | 688.067 | | -0.24 | 1.90 | 0.950 | PCI/G | Lead-210 |
| 21 | 11/30/2005 | 1464055.228 | 597032.774 | 688.910 | | 0.64 | 0.70 | 0.640 | PCI/G | Lead-210 |
| 22 | 11/30/2005 | 1464070.228 | 597032.774 | 689.867 | | 0.58 | 1.20 | 0.580 | PCI/G | Lead-210 |
| 23 | 11/30/2005 | 1464085.228 | 597032.774 | 691.746 | 0.68 | | 1.70 | | PCI/G | Lead-210 |
| 24 | 12/1/2005 | 1464115.228 | 597032.774 | 705.731 | | 0.60 | 1.20 | 0.600 | PCI/G | Lead-210 |
| 25 | 12/1/2005 | 1463957.728 | 597045.764 | 695.221 | | 0.70 | 1.20 | 0.700 | PCI/G | Lead-210 |
| 26 | 11/29/2005 | 1463972.728 | 597045.764 | 690.465 | | 0.93 | 1.30 | 0.930 | PCI/G | Lead-210 |
| 27 | 11/30/2005 | 1463987.728 | 597045.764 | 688.818 | | 1.07 | 1.30 | 1.070 | PCI/G | Lead-210 |
| 28 | 11/30/2005 | 1464002.728 | 597045.764 | 688.753 | | 0.52 | 1.90 | 0.520 | PCI/G | Lead-210 |
| 29 | 11/30/2005 | 1464017.728 | 597045.764 | 687.060 | | 0.28 | 1.50 | 0.280 | PCI/G | Lead-210 |
| 30 | 11/30/2005 | 1464032.728 | 597045.764 | 686.441 | | 0.42 | 1.10 | 0.420 | PCI/G | Lead-210 |
| 31 | 11/30/2005 | 1464047.728 | 597045.764 | 687.006 | | 1.47 | 1.30 | 1.470 | PCI/G | Lead-210 |
| 32 | 11/29/2005 | 1463950.228 | 597058.754 | 701.904 | | 1.41 | 1.60 | 1.410 | PCI/G | Lead-210 |
| 33 | 11/29/2005 | 1463965.228 | 597058.754 | 690.914 | | 1.01 | 1.20 | 1.010 | PCI/G | Lead-210 |
| 34 | 11/29/2005 | 1463980.228 | 597058.754 | 690.065 | | 0.77 | 0.95 | 0.770 | PCI/G | Lead-210 |
| 35 | 11/30/2005 | 1463995.228 | 597058.754 | 689.196 | | 0.72 | 1.30 | 0.720 | PCI/G | Lead-210 |
| 36 | 11/30/2005 | 1464010.228 | 597058.754 | 687.800 | | 0.66 | 0.99 | 0.660 | PCI/G | Lead-210 |
| 37 | 11/30/2005 | 1464025.228 | 597058.754 | 686.418 | 1.70 | | 2.30 | | PCI/G | Lead-210 |
| 38 | 11/29/2005 | 1463957.728 | 597071.745 | 701.617 | | 1.10 | 1.00 | 1.100 | PCI/G | Lead-210 |
| 39 | 11/29/2005 | 1463972.728 | 597071.745 | 690.465 | | 0.23 | 1.20 | 0.230 | PCI/G | Lead-210 |
| 40 | 11/30/2005 | 1463987.728 | 597071.745 | 689.570 | | 0.73 | 1.40 | 0.730 | PCI/G | Lead-210 |
| 41 | 11/30/2005 | 1464002.728 | 597071.745 | 689.209 | | 1.39 | 1.90 | 1.390 | PCI/G | Lead-210 |
| 42 | 11/30/2005 | 1464017.728 | 597071.745 | 689.412 | 1.04 | | 1.70 | | PCI/G | Lead-210 |
| 43 | 11/29/2005 | 1463950.228 | 597084.735 | 703.634 | | 1.06 | 1.20 | 1.060 | PCI/G | Lead-210 |
| 44 | 11/29/2005 | 1463965.228 | 597084.735 | 693.712 | | 0.46 | 0.74 | 0.460 | PCI/G | Lead-210 |
| 45 | 11/29/2005 | 1463980.228 | 597084.735 | 691.713 | | 0.08 | 1.10 | 0.080 | PCI/G | Lead-210 |
| 46 | 11/30/2005 | 1463995.228 | 597084.735 | 689.195 | | 0.90 | 2.00 | 0.900 | PCI/G | Lead-210 |
| 47 | 11/30/2005 | 1464010.228 | 597084.735 | 692.378 | | 0.80 | 1.90 | 0.800 | PCI/G | Lead-210 |
| 48 | 11/29/2005 | 1463957.728 | 597097.726 | 702.713 | | 0.71 | 1.10 | 0.710 | PCI/G | Lead-210 |
| 49 | 11/29/2005 | 1463972.728 | 597097.726 | 692.705 | | 0.54 | 0.85 | 0.540 | PCI/G | Lead-210 |
| 50 | 11/30/2005 | 1463987.728 | 597097.726 | 690.608 | | 0.61 | 1.30 | 0.610 | PCI/G | Lead-210 |
| 51 | 11/30/2005 | 1464002.728 | 597097.726 | 690.764 | | 0.65 | 1.50 | 0.650 | PCI/G | Lead-210 |
| 52 | 11/30/2005 | 1464017.728 | 597097.726 | 691.990 | -0.30 | | 1.80 | | PCI/G | Lead-210 |
| 53A | 1/12/2005 | 1463965.228 | 597110.716 | 699.585 | | -0.10 | 2.30 | 1.150 | PCI/G | Lead-210 |
| 54 | 12/1/2005 | 1463980.228 | 597110.716 | 689.535 | | 0.16 | 1.60 | 0.160 | PCI/G | Lead-210 |

11/29/05

# PRS 11 Off Site Data from STL St. Louis

**SU1:**

Short

| ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 55 | 11/30/2005 | 1463995.228 | 597110.716 | 691.604 | 0.09 | 1.30 | 0.090 | | PCI/G | Lead-210 |
| 56 | 11/30/2005 | 1464010.228 | 597110.716 | 693.807 | 0.73 | 1.50 | 0.730 | | PCI/G | Lead-210 |
| 57 | 12/1/2005 | 1464025.228 | 597110.716 | 702.228 | 0.98 | 1.60 | 0.980 | | PCI/G | Lead-210 |
| 58 | 11/29/2005 | 1463957.728 | 597123.706 | 704.129 | 0.17 | 1.10 | 0.170 | | PCI/G | Lead-210 |
| 59 | 11/29/2005 | 1463972.728 | 597123.706 | 699.094 | 1.02 | 1.30 | 1.020 | | PCI/G | Lead-210 |
| 60 | 12/1/2005 | 1463987.728 | 597123.706 | 696.134 | -0.30 | 1.90 | 0.950 | | PCI/G | Lead-210 |
| 61 | 12/1/2005 | 1464002.728 | 597123.706 | 703.952 | 0.01 | 1.10 | 0.007 | | PCI/G | Lead-210 |
| 62 | 11/29/2005 | 1463980.228 | 597136.697 | 707.998 | 0.76 | 1.40 | 0.760 | | PCI/G | Lead-210 |
| | | | | | | **Max** | **1.470** | | **PCI/G** | **Lead-210** |
| | | | | | | **Std. Dev.** | **0.362** | | **PCI/G** | **Lead-210** |
| | | | | | | **CO** | **7.400** | | **PCI/G** | **Lead-210** |
| | | | | | | **HS** | **19.800** | | **PCI/G** | **Lead-210** |

**SU1:**

Duplicates:

Short

| ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 17 | 11/30/2005 | 1463995.228 | 597032.774 | 690.031 | | 0.40 | 1.40 | 0.400 | PCI/G | Lead-210 |
| 49 | 11/29/2005 | 1463972.728 | 597097.726 | 692.705 | | 0.56 | 0.93 | 0.560 | PCI/G | Lead-210 |
| 53A | 1/12/2005 | 1463965.228 | 597110.716 | 699.585 | | 0.30 | 2.40 | 0.300 | PCI/G | Lead-210 |
| 54 | 12/1/2005 | 1463980.228 | 597110.716 | 689.535 | | 0.41 | 1.40 | 0.410 | PCI/G | Lead-210 |

**SU1:**

Bias Locations:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 11/30/2005 | 1463968.419 | 597026.146 | 697.866 | | 0.26 | 1.70 | 0.260 | PCI/G | Lead-210 |
| 72 | 11/29/2005 | 1463972.694 | 597058.672 | 690.490 | | 0.51 | 0.80 | 0.510 | PCI/G | Lead-210 |
| 73 | 11/30/2005 | 1463976.359 | 597105.094 | 691.120 | | 0.63 | 0.90 | 0.630 | PCI/G | Lead-210 |

**SU2:**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 63 | 11/30/2005 | 1464093.226 | 597012.324 | 696.566 | | 0.60 | 1.80 | 0.600 | PCI/G | Lead-210 |
| 64 | 12/1/2005 | 1464108.226 | 597012.324 | 705.189 | | 1.02 | 0.88 | 1.020 | PCI/G | Lead-210 |
| 65 | 11/30/2005 | 1464100.726 | 597025.315 | 695.267 | | 0.40 | 1.90 | 0.400 | PCI/G | Lead-210 |
| 66 | 12/1/2005 | 1464094.238 | 597036.159 | 701.163 | 0.80 | | 2.00 | | PCI/G | Lead-210 |
| 67 | 11/30/2005 | 1464091.835 | 597019.553 | 692.932 | | 0.71 | 1.20 | 0.710 | PCI/G | Lead-210 |
| 68 | 11/30/2005 | 1464109.333 | 597019.104 | 698.411 | | 0.47 | 1.70 | 0.470 | PCI/G | Lead-210 |
| | | | | | | | **Max** | **1.020** | **PCI/G** | **Lead-210** |
| | | | | | | | **Std. Dev.** | **0.244** | **PCI/G** | **Lead-210** |
| | | | | | | | **CO** | **7.400** | **PCI/G** | **Lead-210** |
| | | | | | | | **HS** | **19.800** | **PCI/G** | **Lead-210** |

**SU2:**

Duplicates:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 68 | 11/30/2005 | 1464109.333 | 597019.104 | 698.411 | | 1.19 | 0.99 | 1.190 | PCI/G | Lead-210 |

**SU2:**

Bias Locations:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 69 | 11/30/2005 | 1464100.965 | 597018.969 | 692.932 | | 0.31 | 1.30 | 0.310 | PCI/G | Lead-210 |
| 70 | 11/30/2005 | 1464092.719 | 597027.063 | 695.267 | | 1.32 | 1.70 | 1.320 | PCI/G | Lead-210 |

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# PRS 11 Off Site Data from STL St. Louis

**SU2:**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 63 | 11/30/2005 | 1464093.226 | 597012.324 | 696.566 | 0.05 | 0.02 | 0.053 | PCI/G | Plutonium-238 |
| 64 | 12/1/2005 | 1464108.226 | 597012.324 | 705.189 | 0.71 | 0.03 | 0.710 | PCI/G | Plutonium-238 |
| 65 | 11/30/2005 | 1464100.726 | 597025.315 | 695.267 | 3.46 | 0.04 | 3.460 | PCI/G | Plutonium-238 |
| 66 | 12/1/2005 | 1464094.238 | 597036.159 | 701.163 | 34.00 | 0.03 | | PCI/G | Plutonium-238 |
| 67 | 11/30/2005 | 1464091.835 | 597019.553 | 692.932 | 2.26 | 0.04 | 2.260 | PCI/G | Plutonium-238 |
| 68 | 11/30/2005 | 1464109.333 | 597019.104 | 698.411 | 5.40 | 0.04 | 5.400 | PCI/G | Plutonium-238 |
| | | | | | | **Max** | **5.400** | **PCI/G** | **Plutonium-238** |
| | | | | | | **Std. Dev.** | **2.151** | **PCI/G** | **Plutonium-238** |
| | | | | | | **CO** | **55.000** | **PCI/G** | **Plutonium-238** |
| | | | | | | **HS** | **165.000** | **PCI/G** | **Plutonium-238** |

**SU2:**

Duplicates:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 68 | 11/30/2005 | 1464109.333 | 597019.104 | 698.411 | 4.70 | 0.04 | 4.700 | PCI/G | Plutonium-238 |

**SU2:**

Bias Locations:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 69 | 11/30/2005 | 1464100.965 | 597018.969 | 692.932 | 2.34 | 0.04 | 2.340 | PCI/G | Plutonium-238 |
| 70 | 11/30/2005 | 1464092.719 | 597027.063 | 695.267 | 1.58 | 0.04 | 1.580 | PCI/G | Plutonium-238 |

**SU1:**

Bias Locations:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 37 | 11/30/2005 | 1464025.228 | 597058.754 | 686.418 | 2.60 | 0.04 | 2.600 | PCI/G | Plutonium-238 |
| 71 | 11/30/2005 | 1463968.419 | 597026.146 | 697.866 | 0.12 | 0.04 | 0.123 | PCI/G | Plutonium-238 |
| 72 | 11/29/2005 | 1463972.694 | 597058.672 | 690.490 | 0.02 | 0.04 | 0.020 | PCI/G | Plutonium-238 |
| 73 | 11/30/2005 | 1463976.359 | 597105.094 | 691.120 | 0.10 | 0.04 | 0.100 | PCI/G | Plutonium-238 |

# PRS 11 Off Site Data from STL St. Louis

**SU1:**

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11/29/2005 | 1463942.728 | 597019.783 | 702.064 | | 0.65 | 0.10 | 0.650 | PCI/G | Radium-226 |
| 2 | 11/29/2005 | 1463957.728 | 597019.783 | 697.004 | | 1.12 | 0.12 | 1.120 | PCI/G | Radium-226 |
| 3 | 12/1/2005 | 1463972.728 | 597019.783 | 703.747 | | 0.74 | 0.08 | 0.740 | PCI/G | Radium-226 |
| 4 | 11/30/2005 | 1463987.728 | 597019.783 | 693.035 | | 0.60 | 0.08 | 0.600 | PCI/G | Radium-226 |
| 5 | 11/30/2005 | 1464002.728 | 597019.783 | 697.010 | | 0.56 | 0.06 | 0.560 | PCI/G | Radium-226 |
| 6 | 11/30/2005 | 1464017.728 | 597019.783 | 690.383 | | 0.94 | 0.12 | 0.940 | PCI/G | Radium-226 |
| 7 | 12/1/2005 | 1464032.728 | 597019.783 | 689.652 | | 0.82 | 0.08 | 0.820 | PCI/G | Radium-226 |
| 8 | 11/30/2005 | 1464047.728 | 597019.783 | 690.374 | | 0.61 | 0.14 | 0.610 | PCI/G | Radium-226 |
| 9 | 11/30/2005 | 1464062.728 | 597019.783 | 690.599 | | 0.49 | 0.10 | 0.490 | PCI/G | Radium-226 |
| 10 | 11/30/2005 | 1464077.728 | 597019.783 | 691.445 | | 1.04 | 0.11 | 1.040 | PCI/G | Radium-226 |
| 11 | 12/1/2005 | 1464122.728 | 597019.783 | 703.183 | | 0.77 | 0.09 | 0.770 | PCI/G | Radium-226 |
| 12 | 12/1/2005 | 1464137.728 | 597019.783 | 708.625 | | 0.87 | 0.08 | 0.870 | PCI/G | Radium-226 |
| 13 | 12/1/2005 | 1464152.728 | 597019.783 | 710.754 | | 0.83 | 0.09 | 0.830 | PCI/G | Radium-226 |
| 14 | 11/29/2005 | 1463950.228 | 597032.774 | 697.324 | | 0.97 | 0.08 | 0.970 | PCI/G | Radium-226 |
| 15 | 11/29/2005 | 1463965.228 | 597032.774 | 691.986 | | 0.71 | 0.07 | 0.710 | PCI/G | Radium-226 |
| 16 | 11/30/2005 | 1463980.228 | 597032.774 | 691.857 | | 0.55 | 0.07 | 0.550 | PCI/G | Radium-226 |
| 17 | 11/30/2005 | 1463995.228 | 597032.774 | 690.031 | | 0.49 | 0.09 | 0.490 | PCI/G | Radium-226 |
| 18 | 11/30/2005 | 1464010.228 | 597032.774 | 689.241 | | 0.69 | 0.09 | 0.690 | PCI/G | Radium-226 |
| 19 | 11/30/2005 | 1464025.228 | 597032.774 | 688.075 | | 0.83 | 0.13 | 0.830 | PCI/G | Radium-226 |
| 20 | 11/30/2005 | 1464040.228 | 597032.774 | 688.067 | | 0.67 | 0.12 | 0.670 | PCI/G | Radium-226 |
| 21 | 11/30/2005 | 1464055.228 | 597032.774 | 688.910 | | 0.63 | 0.06 | 0.630 | PCI/G | Radium-226 |
| 22 | 11/30/2005 | 1464070.228 | 597032.774 | 689.867 | | 0.62 | 0.07 | 0.620 | PCI/G | Radium-226 |
| 23 | 11/30/2005 | 1464085.228 | 597032.774 | 691.746 | 0.68 | | 0.13 | | PCI/G | Radium-226 |
| 24 | 12/1/2005 | 1464115.228 | 597032.774 | 705.731 | | 0.73 | 0.09 | 0.730 | PCI/G | Radium-226 |
| 25 | 12/1/2005 | 1463957.728 | 597045.764 | 695.221 | | 1.05 | 0.09 | 1.050 | PCI/G | Radium-226 |
| 26 | 11/29/2005 | 1463972.728 | 597045.764 | 690.465 | | 0.88 | 0.11 | 0.880 | PCI/G | Radium-226 |
| 27 | 11/30/2005 | 1463987.728 | 597045.764 | 688.818 | | 0.75 | 0.12 | 0.750 | PCI/G | Radium-226 |
| 28 | 11/30/2005 | 1464002.728 | 597045.764 | 688.753 | | 0.69 | 0.16 | 0.690 | PCI/G | Radium-226 |
| 29 | 11/30/2005 | 1464017.728 | 597045.764 | 687.060 | | 0.59 | 0.12 | 0.590 | PCI/G | Radium-226 |
| 30 | 11/30/2005 | 1464032.728 | 597045.764 | 686.441 | | 0.57 | 0.09 | 0.570 | PCI/G | Radium-226 |
| 31 | 11/30/2005 | 1464047.728 | 597045.764 | 687.006 | | 0.73 | 0.10 | 0.730 | PCI/G | Radium-226 |
| 32 | 11/29/2005 | 1463950.228 | 597058.754 | 701.904 | | 0.97 | 0.12 | 0.970 | PCI/G | Radium-226 |
| 33 | 11/29/2005 | 1463965.228 | 597058.754 | 690.914 | | 0.59 | 0.07 | 0.590 | PCI/G | Radium-226 |
| 34 | 11/29/2005 | 1463980.228 | 597058.754 | 690.065 | | 0.44 | 0.08 | 0.436 | PCI/G | Radium-226 |
| 35 | 11/30/2005 | 1463995.228 | 597058.754 | 689.196 | | 0.95 | 0.08 | 0.950 | PCI/G | Radium-226 |
| 36 | 11/30/2005 | 1464010.228 | 597058.754 | 687.800 | | 0.67 | 0.06 | 0.670 | PCI/G | Radium-226 |
| 37 | 11/30/2005 | 1464025.228 | 597058.754 | 686.418 | 1.67 | | 0.21 | | PCI/G | Radium-226 |
| 38 | 11/29/2005 | 1463957.728 | 597071.745 | 701.617 | | 1.19 | 0.09 | 1.190 | PCI/G | Radium-226 |
| 39 | 11/29/2005 | 1463972.728 | 597071.745 | 690.465 | | 0.69 | 0.08 | 0.690 | PCI/G | Radium-226 |
| 40 | 11/30/2005 | 1463987.728 | 597071.745 | 689.570 | | 0.66 | 0.10 | 0.660 | PCI/G | Radium-226 |
| 41 | 11/30/2005 | 1464002.728 | 597071.745 | 689.209 | | 1.00 | 0.10 | 1.000 | PCI/G | Radium-226 |
| 42 | 11/30/2005 | 1464017.728 | 597071.745 | 689.412 | 0.74 | | 0.14 | | PCI/G | Radium-226 |
| 43 | 11/29/2005 | 1463950.228 | 597084.735 | 703.634 | | 1.01 | 0.10 | 1.010 | PCI/G | Radium-226 |
| 44 | 11/29/2005 | 1463965.228 | 597084.735 | 693.712 | | 0.73 | 0.07 | 0.730 | PCI/G | Radium-226 |
| 45 | 11/29/2005 | 1463980.228 | 597084.735 | 691.713 | | 0.60 | 0.08 | 0.600 | PCI/G | Radium-226 |
| 46 | 11/30/2005 | 1463995.228 | 597084.735 | 689.195 | | 0.90 | 0.15 | 0.900 | PCI/G | Radium-226 |
| 47 | 11/30/2005 | 1464010.228 | 597084.735 | 692.378 | | 0.71 | 0.13 | 0.710 | PCI/G | Radium-226 |
| 48 | 11/29/2005 | 1463957.728 | 597097.726 | 702.713 | | 1.17 | 0.09 | 1.170 | PCI/G | Radium-226 |
| 49 | 11/29/2005 | 1463972.728 | 597097.726 | 692.705 | | 0.41 | 0.07 | 0.410 | PCI/G | Radium-226 |
| 50 | 11/30/2005 | 1463987.728 | 597097.726 | 690.608 | | 0.84 | 0.09 | 0.840 | PCI/G | Radium-226 |
| 51 | 11/30/2005 | 1464002.728 | 597097.726 | 690.764 | | 0.99 | 0.10 | 0.990 | PCI/G | Radium-226 |
| 52 | 11/30/2005 | 1464017.728 | 597097.726 | 691.990 | 0.92 | | 0.14 | | PCI/G | Radium-226 |
| 53A | 1/12/2005 | 1463965.228 | 597110.716 | 699.585 | | 0.91 | 0.46 | 0.910 | PCI/G | Radium-226 |
| 54 | 12/1/2005 | 1463980.228 | 597110.716 | 689.535 | | 0.76 | 0.13 | 0.760 | PCI/G | Radium-226 |

# PRS 11 Off Site Data from STL St. Louis

**SU1:**

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 55 | 11/30/2005 | 1463995.228 | 597110.716 | 691.604 | | 0.74 | 0.10 | 0.740 | PCI/G | Radium-226 |
| 56 | 11/30/2005 | 1464010.228 | 597110.716 | 693.807 | | 1.22 | 0.11 | 1.220 | PCI/G | Radium-226 |
| 57 | 12/1/2005 | 1464025.228 | 597110.716 | 702.228 | | 0.88 | 0.12 | 0.880 | PCI/G | Radium-226 |
| 58 | 11/29/2005 | 1463957.728 | 597123.706 | 704.129 | | 0.75 | 0.08 | 0.750 | PCI/G | Radium-226 |
| 59 | 11/29/2005 | 1463972.728 | 597123.706 | 699.094 | | 1.02 | 0.13 | 1.020 | PCI/G | Radium-226 |
| 60 | 12/1/2005 | 1463987.728 | 597123.706 | 696.134 | | 0.83 | 0.13 | 0.830 | PCI/G | Radium-226 |
| 61 | 12/1/2005 | 1464002.728 | 597123.706 | 703.952 | | 0.86 | 0.08 | 0.860 | PCI/G | Radium-226 |
| 62 | 11/29/2005 | 1463980.228 | 597136.697 | 707.998 | | 0.83 | 0.10 | 0.830 | PCI/G | Radium-226 |
| | | | | | | | **Max** | **1.220** | **PCI/G** | **Radium-226** |
| | | | | | | | **Std. Dev.** | **0.190** | **PCI/G** | **Radium-226** |
| | | | | | | | **CO** | **2.900** | **PCI/G** | **Radium-226** |
| | | | | | | | **HS** | **4.700** | **PCI/G** | **Radium-226** |

**SU1:**

Duplicates:

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 17 | 11/30/2005 | 1463995.228 | 597032.774 | 690.031 | | 0.44 | 0.07 | 0.440 | PCI/G | Radium-226 |
| 49 | 11/29/2005 | 1463972.728 | 597097.726 | 692.705 | | 0.48 | 0.07 | 0.480 | PCI/G | Radium-226 |
| 53A | 1/12/2005 | 1463965.228 | 597110.716 | 699.585 | | 0.93 | 0.13 | 0.930 | PCI/G | Radium-226 |
| 54 | 12/1/2005 | 1463980.228 | 597110.716 | 689.535 | | 0.79 | 0.12 | 0.790 | PCI/G | Radium-226 |

**SU1:**

Bias Locations:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 11/30/2005 | 1463968.419 | 597026.146 | 697.866 | | 0.67 | 0.10 | 0.670 | PCI/G | Radium-226 |
| 72 | 11/29/2005 | 1463972.694 | 597058.672 | 690.490 | | 0.36 | 0.06 | 0.361 | PCI/G | Radium-226 |
| 73 | 11/30/2005 | 1463976.359 | 597105.094 | 691.120 | | 0.67 | 0.07 | 0.670 | PCI/G | Radium-226 |

**SU2:**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 63 | 11/30/2005 | 1464093.226 | 597012.324 | 696.566 | | 1.07 | 0.15 | 1.070 | PCI/G | Radium-226 |
| 64 | 12/1/2005 | 1464108.226 | 597012.324 | 705.189 | | 0.73 | 0.08 | 0.730 | PCI/G | Radium-226 |
| 65 | 11/30/2005 | 1464100.726 | 597025.315 | 695.267 | | 0.88 | 0.11 | 0.880 | PCI/G | Radium-226 |
| 66 | 12/1/2005 | 1464094.238 | 597036.159 | 701.163 | 1.13 | | 0.16 | | PCI/G | Radium-226 |
| 67 | 11/30/2005 | 1464091.835 | 597019.553 | 692.932 | | 0.73 | 0.07 | 0.730 | PCI/G | Radium-226 |
| 68 | 11/30/2005 | 1464109.333 | 597019.104 | 698.411 | | 0.92 | 0.17 | 0.920 | PCI/G | Radium-226 |
| | | | | | | | **Max** | **1.070** | **PCI/G** | **Radium-226** |
| | | | | | | | **Std. Dev.** | **0.143** | **PCI/G** | **Radium-226** |
| | | | | | | | **CO** | **2.900** | **PCI/G** | **Radium-226** |
| | | | | | | | **HS** | **4.700** | **PCI/G** | **Radium-226** |

**SU2:**

Duplicates:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 68 | 11/30/2005 | 1464109.333 | 597019.104 | 698.411 | | 0.82 | 0.11 | 0.820 | PCI/G | Radium-226 |

**SU2:**

Bias Locations:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 69 | 11/30/2005 | 1464100.965 | 597018.969 | 692.932 | | 0.87 | 0.09 | 0.870 | PCI/G | Radium-226 |
| 70 | 11/30/2005 | 1464092.719 | 597027.063 | 695.267 | | 0.63 | 0.10 | 0.630 | PCI/G | Radium-226 |

# PRS 11 Off Site Data from STL St. Louis

**SU1:**

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11/29/2005 | 1463942.728 | 597019.783 | 702.064 | | 1.39 | 0.67 | 1.390 | PCI/G | Radium-224 |
| 2 | 11/29/2005 | 1463957.728 | 597019.783 | 697.004 | | 2.60 | 0.90 | 2.600 | PCI/G | Radium-224 |
| 3 | 12/1/2005 | 1463972.728 | 597019.783 | 703.747 | | 1.18 | 0.61 | 1.180 | PCI/G | Radium-224 |
| 4 | 11/30/2005 | 1463987.728 | 597019.783 | 693.035 | | 1.38 | 0.60 | 1.380 | PCI/G | Radium-224 |
| 5 | 11/30/2005 | 1464002.728 | 597019.783 | 697.010 | | 1.09 | 0.71 | 1.090 | PCI/G | Radium-224 |
| 6 | 11/30/2005 | 1464017.728 | 597019.783 | 690.383 | | 2.10 | 0.80 | 2.100 | PCI/G | Radium-224 |
| 7 | 12/1/2005 | 1464032.728 | 597019.783 | 689.652 | | 1.90 | 0.90 | 1.900 | PCI/G | Radium-224 |
| 8 | 11/30/2005 | 1464047.728 | 597019.783 | 690.374 | | 1.60 | 1.20 | 1.600 | PCI/G | Radium-224 |
| 9 | 11/30/2005 | 1464062.728 | 597019.783 | 690.599 | | 1.41 | 1.20 | 1.410 | PCI/G | Radium-224 |
| 10 | 11/30/2005 | 1464077.728 | 597019.783 | 691.445 | | 2.80 | 0.90 | 2.800 | PCI/G | Radium-224 |
| 11 | 12/1/2005 | 1464122.728 | 597019.783 | 703.183 | | 1.57 | 0.75 | 1.570 | PCI/G | Radium-224 |
| 12 | 12/1/2005 | 1464137.728 | 597019.783 | 708.625 | | 2.40 | 1.00 | 2.400 | PCI/G | Radium-224 |
| 13 | 12/1/2005 | 1464152.728 | 597019.783 | 710.754 | | 3.20 | 1.20 | 3.200 | PCI/G | Radium-224 |
| 14 | 11/29/2005 | 1463950.228 | 597032.774 | 697.324 | | 2.90 | 0.90 | 2.900 | PCI/G | Radium-224 |
| 15 | 11/29/2005 | 1463965.228 | 597032.774 | 691.986 | | 1.42 | 0.63 | 1.420 | PCI/G | Radium-224 |
| 16 | 11/30/2005 | 1463980.228 | 597032.774 | 691.857 | | 2.00 | 0.80 | 2.000 | PCI/G | Radium-224 |
| 17 | 11/30/2005 | 1463995.228 | 597032.774 | 690.031 | | 1.41 | 0.96 | 1.410 | PCI/G | Radium-224 |
| 18 | 11/30/2005 | 1464010.228 | 597032.774 | 689.241 | | 1.53 | 0.63 | 1.530 | PCI/G | Radium-224 |
| 19 | 11/30/2005 | 1464025.228 | 597032.774 | 688.075 | | 2.30 | 0.80 | 2.300 | PCI/G | Radium-224 |
| 20 | 11/30/2005 | 1464040.228 | 597032.774 | 688.067 | | 1.41 | 0.94 | 1.410 | PCI/G | Radium-224 |
| 21 | 11/30/2005 | 1464055.228 | 597032.774 | 688.910 | | 1.45 | 0.51 | 1.450 | PCI/G | Radium-224 |
| 22 | 11/30/2005 | 1464070.228 | 597032.774 | 689.867 | | 1.90 | 0.90 | 1.900 | PCI/G | Radium-224 |
| 23 | 11/30/2005 | 1464085.228 | 597032.774 | 691.746 | 1.50 | | 1.00 | | PCI/G | Radium-224 |
| 24 | 12/1/2005 | 1464115.228 | 597032.774 | 705.731 | | 2.20 | 0.70 | 2.200 | PCI/G | Radium-224 |
| 25 | 12/1/2005 | 1463957.728 | 597045.764 | 695.221 | | 2.30 | 0.80 | 2.300 | PCI/G | Radium-224 |
| 26 | 11/29/2005 | 1463972.728 | 597045.764 | 690.465 | | 1.62 | 0.76 | 1.620 | PCI/G | Radium-224 |
| 27 | 11/30/2005 | 1463987.728 | 597045.764 | 688.818 | | 1.90 | 1.30 | 1.900 | PCI/G | Radium-224 |
| 28 | 11/30/2005 | 1464002.728 | 597045.764 | 688.753 | | 1.70 | 1.50 | 1.700 | PCI/G | Radium-224 |
| 29 | 11/30/2005 | 1464017.728 | 597045.764 | 687.060 | | 1.60 | 1.20 | 1.600 | PCI/G | Radium-224 |
| 30 | 11/30/2005 | 1464032.728 | 597045.764 | 686.441 | | 1.70 | 0.90 | 1.700 | PCI/G | Radium-224 |
| 31 | 11/30/2005 | 1464047.728 | 597045.764 | 687.006 | | 2.10 | 0.70 | 2.100 | PCI/G | Radium-224 |
| 32 | 11/29/2005 | 1463950.228 | 597058.754 | 701.904 | | 2.10 | 0.80 | 2.100 | PCI/G | Radium-224 |
| 33 | 11/29/2005 | 1463965.228 | 597058.754 | 690.914 | | 1.16 | 0.81 | 1.160 | PCI/G | Radium-224 |
| 34 | 11/29/2005 | 1463980.228 | 597058.754 | 690.065 | | 1.38 | 0.49 | 1.380 | PCI/G | Radium-224 |
| 35 | 11/30/2005 | 1463995.228 | 597058.754 | 689.196 | | 2.00 | 0.70 | 2.000 | PCI/G | Radium-224 |
| 36 | 11/30/2005 | 1464010.228 | 597058.754 | 687.800 | | 1.04 | 0.53 | 1.040 | PCI/G | Radium-224 |
| 37 | 11/30/2005 | 1464025.228 | 597058.754 | 686.418 | 14.10 | | 1.70 | | PCI/G | Radium-224 |
| 38 | 11/29/2005 | 1463957.728 | 597071.745 | 701.617 | | 2.60 | 0.70 | 2.600 | PCI/G | Radium-224 |
| 39 | 11/29/2005 | 1463972.728 | 597071.745 | 690.465 | | 1.90 | 0.70 | 1.900 | PCI/G | Radium-224 |
| 40 | 11/30/2005 | 1463987.728 | 597071.745 | 689.570 | | 1.27 | 0.81 | 1.270 | PCI/G | Radium-224 |
| 41 | 11/30/2005 | 1464002.728 | 597071.745 | 689.209 | | 1.90 | 1.40 | 1.900 | PCI/G | Radium-224 |
| 42 | 11/30/2005 | 1464017.728 | 597071.745 | 689.412 | 2.80 | | 1.10 | | PCI/G | Radium-224 |
| 43 | 11/29/2005 | 1463950.228 | 597084.735 | 703.634 | | 2.20 | 0.90 | 2.200 | PCI/G | Radium-224 |
| 44 | 11/29/2005 | 1463965.228 | 597084.735 | 693.712 | | 1.70 | 0.80 | 1.700 | PCI/G | Radium-224 |
| 45 | 11/29/2005 | 1463980.228 | 597084.735 | 691.713 | | 0.99 | 0.65 | 0.990 | PCI/G | Radium-224 |
| 46 | 11/30/2005 | 1463995.228 | 597084.735 | 689.195 | | 2.60 | 1.80 | 2.600 | PCI/G | Radium-224 |
| 47 | 11/30/2005 | 1464010.228 | 597084.735 | 692.378 | | 1.80 | 1.50 | 1.800 | PCI/G | Radium-224 |
| 48 | 11/29/2005 | 1463957.728 | 597097.726 | 702.713 | | 2.60 | 1.20 | 2.600 | PCI/G | Radium-224 |
| 49 | 11/29/2005 | 1463972.728 | 597097.726 | 692.705 | | 0.84 | 0.47 | 0.840 | PCI/G | Radium-224 |
| 50 | 11/30/2005 | 1463987.728 | 597097.726 | 690.608 | | 1.58 | 0.76 | 1.580 | PCI/G | Radium-224 |
| 51 | 11/30/2005 | 1464002.728 | 597097.726 | 690.764 | | 3.50 | 1.30 | 3.500 | PCI/G | Radium-224 |
| 52 | 11/30/2005 | 1464017.728 | 597097.726 | 691.990 | 4.00 | | 1.10 | | PCI/G | Radium-224 |
| 53A | 1/12/2005 | 1463965.228 | 597110.716 | 699.585 | | 3.40 | 2.30 | 3.400 | PCI/G | Radium-224 |
| 54 | 12/1/2005 | 1463980.228 | 597110.716 | 689.535 | | 1.90 | 0.90 | 1.900 | PCI/G | Radium-224 |

# PRS 11 Off Site Data from STL St. Louis

**SU1:**

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 55 | 11/30/2005 | 1463995.228 | 597110.716 | 691.604 | | 2.70 | 1.10 | 2.700 | PCI/G | Radium-224 |
| 56 | 11/30/2005 | 1464010.228 | 597110.716 | 693.807 | | 2.90 | 0.80 | 2.900 | PCI/G | Radium-224 |
| 57 | 12/1/2005 | 1464025.228 | 597110.716 | 702.228 | | 2.50 | 1.40 | 2.500 | PCI/G | Radium-224 |
| 58 | 11/29/2005 | 1463957.728 | 597123.706 | 704.129 | | 1.43 | 0.92 | 1.430 | PCI/G | Radium-224 |
| 59 | 11/29/2005 | 1463972.728 | 597123.706 | 699.094 | | 2.70 | 0.90 | 2.700 | PCI/G | Radium-224 |
| 60 | 12/1/2005 | 1463987.728 | 597123.706 | 696.134 | | 2.00 | 1.60 | 2.000 | PCI/G | Radium-224 |
| 61 | 12/1/2005 | 1464002.728 | 597123.706 | 703.952 | | 1.15 | 0.69 | 1.150 | PCI/G | Radium-224 |
| 62 | 11/29/2005 | 1463980.228 | 597136.697 | 707.998 | | 2.10 | 1.20 | 2.100 | PCI/G | Radium-224 |
| | | | | | | | **Max** | **3.500** | **PCI/G** | **Radium-224** |
| | | | | | | | **Std. Dev.** | **0.622** | **PCI/G** | **Radium-224** |
| | | | | | | | **CO** | **32.400** | **PCI/G** | **Radium-224** |
| | | | | | | | **HS** | **97.100** | **PCI/G** | **Radium-224** |

**SU1:**

Duplicates:

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 17 | 11/30/2005 | 1463995.228 | 597032.774 | 690.031 | | 0.74 | 0.82 | 0.740 | PCI/G | Radium-224 |
| 49 | 11/29/2005 | 1463972.728 | 597097.726 | 692.705 | | 1.29 | 0.77 | 1.290 | PCI/G | Radium-224 |
| 53A | 1/12/2005 | 1463965.228 | 597110.716 | 699.585 | | 3.80 | 2.30 | 3.800 | PCI/G | Radium-224 |
| 54 | 12/1/2005 | 1463980.228 | 597110.716 | 689.535 | | 2.40 | 1.40 | 2.400 | PCI/G | Radium-224 |

**SU1:**

Bias Locations:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 11/30/2005 | 1463968.419 | 597026.146 | 697.866 | | 1.60 | 1.40 | 1.600 | PCI/G | Radium-224 |
| 72 | 11/29/2005 | 1463972.694 | 597058.672 | 690.490 | | 1.17 | 0.62 | 1.170 | PCI/G | Radium-224 |
| 73 | 11/30/2005 | 1463976.359 | 597105.094 | 691.120 | | 1.20 | 0.52 | 1.200 | PCI/G | Radium-224 |

# PRS 11 Off Site Data from STL St. Louis

**SU1:**

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11/29/2005 | 1463942.728 | 597019.783 | 702.064 | | 0.76 | 0.03 | 0.760 | PCI/G | Thorium-230 |
| 2 | 11/29/2005 | 1463957.728 | 597019.783 | 697.004 | | 1.72 | 0.02 | 1.720 | PCI/G | Thorium-230 |
| 3 | 12/1/2005 | 1463972.728 | 597019.783 | 703.747 | | 0.97 | 0.01 | 0.970 | PCI/G | Thorium-230 |
| 4 | 11/30/2005 | 1463987.728 | 597019.783 | 693.035 | | 0.78 | 0.03 | 0.780 | PCI/G | Thorium-230 |
| 5 | 11/30/2005 | 1464002.728 | 597019.783 | 697.010 | | 0.85 | 0.02 | 0.850 | PCI/G | Thorium-230 |
| 6 | 11/30/2005 | 1464017.728 | 597019.783 | 690.383 | | 1.69 | 0.03 | 1.690 | PCI/G | Thorium-230 |
| 7 | 12/1/2005 | 1464032.728 | 597019.783 | 689.652 | | 1.11 | 0.01 | 1.110 | PCI/G | Thorium-230 |
| 8 | 11/30/2005 | 1464047.728 | 597019.783 | 690.374 | | 0.77 | 0.04 | 0.770 | PCI/G | Thorium-230 |
| 9 | 11/30/2005 | 1464062.728 | 597019.783 | 690.599 | | 0.69 | 0.03 | 0.690 | PCI/G | Thorium-230 |
| 10 | 11/30/2005 | 1464077.728 | 597019.783 | 691.445 | | 1.18 | 0.03 | 1.180 | PCI/G | Thorium-230 |
| 11 | 12/1/2005 | 1464122.728 | 597019.783 | 703.183 | | 1.43 | 0.03 | 1.430 | PCI/G | Thorium-230 |
| 12 | 12/1/2005 | 1464137.728 | 597019.783 | 708.625 | | 1.13 | 0.03 | 1.130 | PCI/G | Thorium-230 |
| 13 | 12/1/2005 | 1464152.728 | 597019.783 | 710.754 | | 1.22 | 0.02 | 1.220 | PCI/G | Thorium-230 |
| 14 | 11/29/2005 | 1463950.228 | 597032.774 | 697.324 | | 1.38 | 0.02 | 1.380 | PCI/G | Thorium-230 |
| 15 | 11/29/2005 | 1463965.228 | 597032.774 | 691.986 | | 1.63 | 0.01 | 1.630 | PCI/G | Thorium-230 |
| 16 | 11/30/2005 | 1463980.228 | 597032.774 | 691.857 | | 1.44 | 0.04 | 1.440 | PCI/G | Thorium-230 |
| 17 | 11/30/2005 | 1463995.228 | 597032.774 | 690.031 | | 0.77 | 0.02 | 0.770 | PCI/G | Thorium-230 |
| 18 | 11/30/2005 | 1464010.228 | 597032.774 | 689.241 | | 1.01 | 0.02 | 1.010 | PCI/G | Thorium-230 |
| 19 | 11/30/2005 | 1464025.228 | 597032.774 | 688.075 | | 1.00 | 0.05 | 1.000 | PCI/G | Thorium-230 |
| 20 | 11/30/2005 | 1464040.228 | 597032.774 | 688.067 | | 1.01 | 0.03 | 1.010 | PCI/G | Thorium-230 |
| 21 | 11/30/2005 | 1464055.228 | 597032.774 | 688.910 | | 0.66 | 0.02 | 0.660 | PCI/G | Thorium-230 |
| 22 | 11/30/2005 | 1464070.228 | 597032.774 | 689.867 | | 1.01 | 0.02 | 1.010 | PCI/G | Thorium-230 |
| 23 | 11/30/2005 | 1464085.228 | 597032.774 | 691.746 | 1.17 | | 0.04 | | PCI/G | Thorium-230 |
| 24 | 12/1/2005 | 1464115.228 | 597032.774 | 705.731 | | 1.12 | 0.01 | 1.120 | PCI/G | Thorium-230 |
| 25 | 12/1/2005 | 1463957.728 | 597045.764 | 695.221 | | 1.79 | 0.03 | 1.790 | PCI/G | Thorium-230 |
| 26 | 11/29/2005 | 1463972.728 | 597045.764 | 690.465 | | 1.39 | 0.02 | 1.390 | PCI/G | Thorium-230 |
| 27 | 11/30/2005 | 1463987.728 | 597045.764 | 688.818 | | 1.04 | 0.02 | 1.040 | PCI/G | Thorium-230 |
| 28 | 11/30/2005 | 1464002.728 | 597045.764 | 688.753 | | 0.88 | 0.06 | 0.880 | PCI/G | Thorium-230 |
| 29 | 11/30/2005 | 1464017.728 | 597045.764 | 687.060 | | 2.00 | 0.03 | 2.000 | PCI/G | Thorium-230 |
| 30 | 11/30/2005 | 1464032.728 | 597045.764 | 686.441 | | 1.03 | 0.07 | 1.030 | PCI/G | Thorium-230 |
| 31 | 11/30/2005 | 1464047.728 | 597045.764 | 687.006 | | 0.89 | 0.02 | 0.890 | PCI/G | Thorium-230 |
| 32 | 11/29/2005 | 1463950.228 | 597058.754 | 701.904 | | 0.93 | 0.06 | 0.930 | PCI/G | Thorium-230 |
| 33 | 11/29/2005 | 1463965.228 | 597058.754 | 690.914 | | 0.89 | 0.03 | 0.890 | PCI/G | Thorium-230 |
| 34 | 11/29/2005 | 1463980.228 | 597058.754 | 690.065 | | 0.80 | 0.02 | 0.800 | PCI/G | Thorium-230 |
| 35 | 11/30/2005 | 1463995.228 | 597058.754 | 689.196 | | 1.05 | 0.04 | 1.050 | PCI/G | Thorium-230 |
| 36 | 11/30/2005 | 1464010.228 | 597058.754 | 687.800 | | 0.94 | 0.07 | 0.940 | PCI/G | Thorium-230 |
| 37 | 11/30/2005 | 1464025.228 | 597058.754 | 686.418 | 5.18 | | 0.01 | | PCI/G | Thorium-230 |
| 38 | 11/29/2005 | 1463957.728 | 597071.745 | 701.617 | | 1.33 | 0.03 | 1.330 | PCI/G | Thorium-230 |
| 39 | 11/29/2005 | 1463972.728 | 597071.745 | 690.465 | | 1.21 | 0.02 | 1.210 | PCI/G | Thorium-230 |
| 40 | 11/30/2005 | 1463987.728 | 597071.745 | 689.570 | | 0.86 | 0.03 | 0.860 | PCI/G | Thorium-230 |
| 41 | 11/30/2005 | 1464002.728 | 597071.745 | 689.209 | | 0.97 | 0.02 | 0.970 | PCI/G | Thorium-230 |
| 42 | 11/30/2005 | 1464017.728 | 597071.745 | 689.412 | 2.50 | | 0.02 | | PCI/G | Thorium-230 |
| 43 | 11/29/2005 | 1463950.228 | 597084.735 | 703.634 | | 1.03 | 0.03 | 1.030 | PCI/G | Thorium-230 |
| 44 | 11/29/2005 | 1463965.228 | 597084.735 | 693.712 | | 1.12 | 0.01 | 1.120 | PCI/G | Thorium-230 |
| 45 | 11/29/2005 | 1463980.228 | 597084.735 | 691.713 | | 1.06 | 0.03 | 1.060 | PCI/G | Thorium-230 |
| 46 | 11/30/2005 | 1463995.228 | 597084.735 | 689.195 | | 1.12 | 0.04 | 1.120 | PCI/G | Thorium-230 |
| 47 | 11/30/2005 | 1464010.228 | 597084.735 | 692.378 | | 0.99 | 0.04 | 0.990 | PCI/G | Thorium-230 |
| 48 | 11/29/2005 | 1463957.728 | 597097.726 | 702.713 | | 1.27 | 0.02 | 1.270 | PCI/G | Thorium-230 |
| 49 | 11/29/2005 | 1463972.728 | 597097.726 | 692.705 | | 1.02 | 0.01 | 1.020 | PCI/G | Thorium-230 |
| 50 | 11/30/2005 | 1463987.728 | 597097.726 | 690.608 | | 1.01 | 0.04 | 1.010 | PCI/G | Thorium-230 |
| 51 | 11/30/2005 | 1464002.728 | 597097.726 | 690.764 | | 1.02 | 0.02 | 1.020 | PCI/G | Thorium-230 |
| 52 | 11/30/2005 | 1464017.728 | 597097.726 | 691.990 | 1.69 | | 0.03 | | PCI/G | Thorium-230 |
| 53A | 1/12/2005 | 1463965.228 | 597110.716 | 699.585 | | 1.21 | 0.09 | 1.210 | PCI/G | Thorium-230 |
| 54 | 12/1/2005 | 1463980.228 | 597110.716 | 689.535 | | 1.10 | 0.03 | 1.100 | PCI/G | Thorium-230 |

# PRS 11 Off Site Data from STL St. Louis

**SU1:**

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 55 | 11/30/2005 | 1463995.228 | 597110.716 | 691.604 | | 1.38 | 0.02 | 1.380 | PCI/G | Thorium-230 |
| 56 | 11/30/2005 | 1464010.228 | 597110.716 | 693.807 | | 1.27 | 0.01 | 1.270 | PCI/G | Thorium-230 |
| 57 | 12/1/2005 | 1464025.228 | 597110.716 | 702.228 | | 1.16 | 0.02 | 1.160 | PCI/G | Thorium-230 |
| 58 | 11/29/2005 | 1463957.728 | 597123.706 | 704.129 | | 0.82 | 0.02 | 0.820 | PCI/G | Thorium-230 |
| 59 | 11/29/2005 | 1463972.728 | 597123.706 | 699.094 | | 1.38 | 0.05 | 1.380 | PCI/G | Thorium-230 |
| 60 | 12/1/2005 | 1463987.728 | 597123.706 | 696.134 | | 0.85 | 0.01 | 0.850 | PCI/G | Thorium-230 |
| 61 | 12/1/2005 | 1464002.728 | 597123.706 | 703.952 | | 0.90 | 0.03 | 0.900 | PCI/G | Thorium-230 |
| 62 | 11/29/2005 | 1463980.228 | 597136.697 | 707.998 | | 0.96 | 0.05 | 0.960 | PCI/G | Thorium-230 |
| | | | | | | | **Max** | **2.000** | **PCI/G** | **Thorium-230** |
| | | | | | | | **Std. Dev.** | **0.282** | **PCI/G** | **Thorium-230** |
| | | | | | | | **CO** | **2.800** | **PCI/G** | **Thorium-230** |
| | | | | | | | **HS** | **4.600** | **PCI/G** | **Thorium-230** |

**SU1:**

Duplicates:

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 17 | 11/30/2005 | 1463995.228 | 597032.774 | 690.031 | | 0.93 | 0.04 | 0.930 | PCI/G | Thorium-230 |
| 49 | 11/29/2005 | 1463972.728 | 597097.726 | 692.705 | | 0.92 | 0.01 | 0.920 | PCI/G | Thorium-230 |
| 53A | 1/12/2005 | 1463965.228 | 597110.716 | 699.585 | | 1.63 | 0.05 | 1.630 | PCI/G | Thorium-230 |
| 54 | 12/1/2005 | 1463980.228 | 597110.716 | 689.535 | | 0.99 | 0.02 | 0.990 | PCI/G | Thorium-230 |

**SU1:**

Bias Locations:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 11/30/2005 | 1463968.419 | 597026.146 | 697.866 | | 0.89 | 0.04 | 0.890 | PCI/G | Thorium-230 |
| 72 | 11/29/2005 | 1463972.694 | 597058.672 | 690.490 | | 0.89 | 0.04 | 0.890 | PCI/G | Thorium-230 |
| 73 | 11/30/2005 | 1463976.359 | 597105.094 | 691.120 | | 0.98 | 0.01 | 0.980 | PCI/G | Thorium-230 |

**SU2:**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 63 | 11/30/2005 | 1464093.226 | 597012.324 | 696.566 | | 1.48 | 0.03 | 1.480 | PCI/G | Thorium-230 |
| 64 | 12/1/2005 | 1464108.226 | 597012.324 | 705.189 | | 0.86 | 0.02 | 0.860 | PCI/G | Thorium-230 |
| 65 | 11/30/2005 | 1464100.726 | 597025.315 | 695.267 | | 1.17 | 0.02 | 1.170 | PCI/G | Thorium-230 |
| 66 | 12/1/2005 | 1464094.238 | 597036.159 | 701.163 | 1.41 | | 0.03 | | PCI/G | Thorium-230 |
| 67 | 11/30/2005 | 1464091.835 | 597019.553 | 692.932 | | 1.00 | 0.02 | 1.000 | PCI/G | Thorium-230 |
| 68 | 11/30/2005 | 1464109.333 | 597019.104 | 698.411 | | 1.14 | 0.02 | 1.140 | PCI/G | Thorium-230 |
| | | | | | | | **Max** | **1.480** | **PCI/G** | **Thorium-230** |
| | | | | | | | **Std. Dev.** | **0.231** | **PCI/G** | **Thorium-230** |
| | | | | | | | **CO** | **2.800** | **PCI/G** | **Thorium-230** |
| | | | | | | | **HS** | **4.600** | **PCI/G** | **Thorium-230** |

**SU2:**

Duplicates:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 68 | 11/30/2005 | 1464109.333 | 597019.104 | 698.411 | | 1.13 | 0.01 | 1.130 | PCI/G | Thorium-230 |

**SU2:**

Bias Locations:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 69 | 11/30/2005 | 1464100.965 | 597018.969 | 692.932 | | 1.18 | 0.03 | 1.180 | PCI/G | Thorium-230 |
| 70 | 11/30/2005 | 1464092.719 | 597027.063 | 695.267 | | 0.91 | 0.02 | 0.910 | PCI/G | Thorium-230 |

# PRS 11 Off Site Data from STL St. Louis

**SU1:**

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11/29/2005 | 1463942.728 | 597019.783 | 702.064 | | 0.42 | 0.03 | 0.420 | PCI/G | Thorium-232 |
| 2 | 11/29/2005 | 1463957.728 | 597019.783 | 697.004 | | 0.81 | 0.02 | 0.810 | PCI/G | Thorium-232 |
| 3 | 12/1/2005 | 1463972.728 | 597019.783 | 703.747 | | 0.73 | 0.02 | 0.730 | PCI/G | Thorium-232 |
| 4 | 11/30/2005 | 1463987.728 | 597019.783 | 693.035 | | 0.32 | 0.03 | 0.317 | PCI/G | Thorium-232 |
| 5 | 11/30/2005 | 1464002.728 | 597019.783 | 697.010 | | 0.14 | 0.04 | 0.135 | PCI/G | Thorium-232 |
| 6 | 11/30/2005 | 1464017.728 | 597019.783 | 690.383 | | 0.98 | 0.03 | 0.980 | PCI/G | Thorium-232 |
| 7 | 12/1/2005 | 1464032.728 | 597019.783 | 689.652 | | 0.63 | 0.02 | 0.630 | PCI/G | Thorium-232 |
| 8 | 11/30/2005 | 1464047.728 | 597019.783 | 690.374 | | 0.35 | 0.03 | 0.350 | PCI/G | Thorium-232 |
| 9 | 11/30/2005 | 1464062.728 | 597019.783 | 690.599 | | 0.36 | 0.02 | 0.360 | PCI/G | Thorium-232 |
| 10 | 11/30/2005 | 1464077.728 | 597019.783 | 691.445 | | 1.20 | 0.03 | 1.200 | PCI/G | Thorium-232 |
| 11 | 12/1/2005 | 1464122.728 | 597019.783 | 703.183 | | 0.76 | 0.02 | 0.760 | PCI/G | Thorium-232 |
| 12 | 12/1/2005 | 1464137.728 | 597019.783 | 708.625 | | 0.81 | 0.01 | 0.810 | PCI/G | Thorium-232 |
| 13 | 12/1/2005 | 1464152.728 | 597019.783 | 710.754 | | 0.58 | 0.03 | 0.580 | PCI/G | Thorium-232 |
| 14 | 11/29/2005 | 1463950.228 | 597032.774 | 697.324 | | 1.38 | 0.02 | 1.380 | PCI/G | Thorium-232 |
| 15 | 11/29/2005 | 1463965.228 | 597032.774 | 691.986 | | 1.58 | 0.02 | 1.580 | PCI/G | Thorium-232 |
| 16 | 11/30/2005 | 1463980.228 | 597032.774 | 691.857 | | 0.53 | 0.04 | 0.530 | PCI/G | Thorium-232 |
| 17 | 11/30/2005 | 1463995.228 | 597032.774 | 690.031 | | 0.21 | 0.02 | 0.209 | PCI/G | Thorium-232 |
| 18 | 11/30/2005 | 1464010.228 | 597032.774 | 689.241 | | 0.70 | 0.02 | 0.700 | PCI/G | Thorium-232 |
| 19 | 11/30/2005 | 1464025.228 | 597032.774 | 688.075 | | 0.75 | 0.05 | 0.750 | PCI/G | Thorium-232 |
| 20 | 11/30/2005 | 1464040.228 | 597032.774 | 688.067 | | 0.44 | 0.01 | 0.440 | PCI/G | Thorium-232 |
| 21 | 11/30/2005 | 1464055.228 | 597032.774 | 688.910 | | 0.50 | 0.01 | 0.500 | PCI/G | Thorium-232 |
| 22 | 11/30/2005 | 1464070.228 | 597032.774 | 689.867 | | 0.53 | 0.02 | 0.530 | PCI/G | Thorium-232 |
| 23 | 11/30/2005 | 1464085.228 | 597032.774 | 691.746 | 0.60 | | 0.04 | | PCI/G | Thorium-232 |
| 24 | 12/1/2005 | 1464115.228 | 597032.774 | 705.731 | | 0.80 | 0.02 | 0.800 | PCI/G | Thorium-232 |
| 25 | 12/1/2005 | 1463957.728 | 597045.764 | 695.221 | | 0.89 | 0.03 | 0.890 | PCI/G | Thorium-232 |
| 26 | 11/29/2005 | 1463972.728 | 597045.764 | 690.465 | | 1.11 | 0.04 | 1.110 | PCI/G | Thorium-232 |
| 27 | 11/30/2005 | 1463987.728 | 597045.764 | 688.818 | | 0.42 | 0.02 | 0.420 | PCI/G | Thorium-232 |
| 28 | 11/30/2005 | 1464002.728 | 597045.764 | 688.753 | | 0.66 | 0.06 | 0.660 | PCI/G | Thorium-232 |
| 29 | 11/30/2005 | 1464017.728 | 597045.764 | 687.060 | | 0.58 | 0.03 | 0.580 | PCI/G | Thorium-232 |
| 30 | 11/30/2005 | 1464032.728 | 597045.764 | 686.441 | | 0.59 | 0.07 | 0.590 | PCI/G | Thorium-232 |
| 31 | 11/30/2005 | 1464047.728 | 597045.764 | 687.006 | | 1.62 | 0.02 | 1.620 | PCI/G | Thorium-232 |
| 32 | 11/29/2005 | 1463950.228 | 597058.754 | 701.904 | | 0.67 | 0.04 | 0.670 | PCI/G | Thorium-232 |
| 33 | 11/29/2005 | 1463965.228 | 597058.754 | 690.914 | | 0.31 | 0.03 | 0.314 | PCI/G | Thorium-232 |
| 34 | 11/29/2005 | 1463980.228 | 597058.754 | 690.065 | | 0.45 | 0.01 | 0.450 | PCI/G | Thorium-232 |
| 35 | 11/30/2005 | 1463995.228 | 597058.754 | 689.196 | | 0.44 | 0.04 | 0.440 | PCI/G | Thorium-232 |
| 36 | 11/30/2005 | 1464010.228 | 597058.754 | 687.800 | | 0.41 | 0.07 | 0.410 | PCI/G | Thorium-232 |
| 37 | 11/30/2005 | 1464025.228 | 597058.754 | 686.418 | 14.80 | | 0.02 | | PCI/G | Thorium-232 |
| 38 | 11/29/2005 | 1463957.728 | 597071.745 | 701.617 | | 0.71 | 0.01 | 0.710 | PCI/G | Thorium-232 |
| 39 | 11/29/2005 | 1463972.728 | 597071.745 | 690.465 | | **2.39** | 0.04 | **2.390** | PCI/G | Thorium-232 |
| 40 | 11/30/2005 | 1463987.728 | 597071.745 | 689.570 | | 0.32 | 0.03 | 0.322 | PCI/G | Thorium-232 |
| 41 | 11/30/2005 | 1464002.728 | 597071.745 | 689.209 | | 0.47 | 0.04 | 0.470 | PCI/G | Thorium-232 |
| 42 | 11/30/2005 | 1464017.728 | 597071.745 | 689.412 | 4.63 | | 0.04 | | PCI/G | Thorium-232 |
| 43 | 11/29/2005 | 1463950.228 | 597084.735 | 703.634 | | 0.62 | 0.03 | 0.620 | PCI/G | Thorium-232 |
| 44 | 11/29/2005 | 1463965.228 | 597084.735 | 693.712 | | 0.52 | 0.02 | 0.520 | PCI/G | Thorium-232 |
| 45 | 11/29/2005 | 1463980.228 | 597084.735 | 691.713 | | 0.88 | 0.01 | 0.880 | PCI/G | Thorium-232 |
| 46 | 11/30/2005 | 1463995.228 | 597084.735 | 689.195 | | 0.60 | 0.04 | 0.600 | PCI/G | Thorium-232 |
| 47 | 11/30/2005 | 1464010.228 | 597084.735 | 692.378 | | 0.64 | 0.04 | 0.640 | PCI/G | Thorium-232 |
| 48 | 11/29/2005 | 1463957.728 | 597097.726 | 702.713 | | 0.89 | 0.03 | 0.890 | PCI/G | Thorium-232 |
| 49 | 11/29/2005 | 1463972.728 | 597097.726 | 692.705 | | 0.53 | 0.02 | 0.530 | PCI/G | Thorium-232 |
| 50 | 11/30/2005 | 1463987.728 | 597097.726 | 690.608 | | 0.59 | 0.02 | 0.590 | PCI/G | Thorium-232 |
| 51 | 11/30/2005 | 1464002.728 | 597097.726 | 690.764 | | 0.42 | 0.02 | 0.420 | PCI/G | Thorium-232 |
| 52 | 11/30/2005 | 1464017.728 | 597097.726 | 691.990 | 5.16 | | 0.01 | | PCI/G | Thorium-232 |
| 53A | 1/12/2005 | 1463965.228 | 597110.716 | 699.585 | | 0.73 | 0.10 | 0.730 | PCI/G | Thorium-232 |
| 54 | 12/1/2005 | 1463980.228 | 597110.716 | 689.535 | | 0.74 | 0.02 | 0.740 | PCI/G | Thorium-232 |

# PRS 11 Off Site Data from STL St. Louis

**SU1:**

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 55 | 11/30/2005 | 1463995.228 | 597110.716 | 691.604 | | **2.57** | 0.02 | **2.570** | PCI/G | Thorium-232 |
| 56 | 11/30/2005 | 1464010.228 | 597110.716 | 693.807 | | 1.03 | 0.02 | 1.030 | PCI/G | Thorium-232 |
| 57 | 12/1/2005 | 1464025.228 | 597110.716 | 702.228 | | 0.37 | 0.02 | 0.374 | PCI/G | Thorium-232 |
| 58 | 11/29/2005 | 1463957.728 | 597123.706 | 704.129 | | 0.49 | 0.01 | 0.490 | PCI/G | Thorium-232 |
| 59 | 11/29/2005 | 1463972.728 | 597123.706 | 699.094 | | 1.10 | 0.03 | 1.100 | PCI/G | Thorium-232 |
| 60 | 12/1/2005 | 1463987.728 | 597123.706 | 696.134 | | 0.54 | 0.03 | 0.540 | PCI/G | Thorium-232 |
| 61 | 12/1/2005 | 1464002.728 | 597123.706 | 703.952 | | 0.48 | 0.04 | 0.480 | PCI/G | Thorium-232 |
| 62 | 11/29/2005 | 1463980.228 | 597136.697 | 707.998 | | 0.49 | 0.05 | 0.490 | PCI/G | Thorium-232 |
| | | | | | | | **Max** | **2.570** | **PCI/G** | **Thorium-232** |
| | | | | | | | **Std. Dev.** | **0.452** | **PCI/G** | **Thorium-232** |
| | | | | | | | **CO** | **2.100** | **PCI/G** | **Thorium-232** |
| | | | | | | | **HS** | **3.500** | **PCI/G** | **Thorium-232** |

**SU1:**

Duplicates:

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 17 | 11/30/2005 | 1463995.228 | 597032.774 | 690.031 | | 0.33 | 0.04 | 0.330 | PCI/G | Thorium-232 |
| 49 | 11/29/2005 | 1463972.728 | 597097.726 | 692.705 | | 0.33 | 0.02 | 0.329 | PCI/G | Thorium-232 |
| 53A | 1/12/2005 | 1463965.228 | 597110.716 | 699.585 | | 0.84 | 0.07 | 0.840 | PCI/G | Thorium-232 |
| 54 | 12/1/2005 | 1463980.228 | 597110.716 | 689.535 | | 1.05 | 0.03 | 1.050 | PCI/G | Thorium-232 |

**SU1:**

Bias Locations:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 11/30/2005 | 1463968.419 | 597026.146 | 697.866 | | 0.63 | 0.04 | 0.630 | PCI/G | Thorium-232 |
| 72 | 11/29/2005 | 1463972.694 | 597058.672 | 690.490 | | 0.34 | 0.02 | 0.335 | PCI/G | Thorium-232 |
| 73 | 11/30/2005 | 1463976.359 | 597105.094 | 691.120 | | 1.10 | 0.02 | 1.100 | PCI/G | Thorium-232 |

**SU2:**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 63 | 11/30/2005 | 1464093.226 | 597012.324 | 696.566 | | 1.06 | 0.03 | 1.060 | PCI/G | Thorium-232 |
| 64 | 12/1/2005 | 1464108.226 | 597012.324 | 705.189 | | 0.46 | 0.02 | 0.460 | PCI/G | Thorium-232 |
| 65 | 11/30/2005 | 1464100.726 | 597025.315 | 695.267 | | 0.69 | 0.02 | 0.690 | PCI/G | Thorium-232 |
| 66 | 12/1/2005 | 1464094.238 | 597036.159 | 701.163 | 2.96 | | 0.01 | | PCI/G | Thorium-232 |
| 67 | 11/30/2005 | 1464091.835 | 597019.553 | 692.932 | | 0.65 | 0.03 | 0.650 | PCI/G | Thorium-232 |
| 68 | 11/30/2005 | 1464109.333 | 597019.104 | 698.411 | | 0.83 | 0.01 | 0.830 | PCI/G | Thorium-232 |
| | | | | | | | **Max** | **1.060** | **PCI/G** | **Thorium-232** |
| | | | | | | | **Std. Dev.** | **0.223** | **PCI/G** | **Thorium-232** |
| | | | | | | | **CO** | **2.100** | **PCI/G** | **Thorium-232** |
| | | | | | | | **HS** | **3.500** | **PCI/G** | **Thorium-232** |

**SU2:**

Duplicates:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 68 | 11/30/2005 | 1464109.333 | 597019.104 | 698.411 | | 0.82 | 0.02 | 0.820 | PCI/G | Thorium-232 |

**SU2:**

Bias Locations:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 69 | 11/30/2005 | 1464100.965 | 597018.969 | 692.932 | | 0.63 | 0.02 | 0.630 | PCI/G | Thorium-232 |
| 70 | 11/30/2005 | 1464092.719 | 597027.063 | 695.267 | | 0.53 | 0.02 | 0.530 | PCI/G | Thorium-232 |

# PRS 11 Off Site Data from STL St. Louis

SU1:

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11/29/2005 | 1463942.728 | 597019.783 | 702.064 | | 0.49 | 0.02 | 0.491 | PCI/G | Uranium-238 |
| 2 | 11/29/2005 | 1463957.728 | 597019.783 | 697.004 | | 0.70 | 0.02 | 0.700 | PCI/G | Uranium-238 |
| 3 | 12/1/2005 | 1463972.728 | 597019.783 | 703.747 | | 0.78 | 0.02 | 0.780 | PCI/G | Uranium-238 |
| 4 | 11/30/2005 | 1463987.728 | 597019.783 | 693.035 | | 0.58 | 0.01 | 0.580 | PCI/G | Uranium-238 |
| 5 | 11/30/2005 | 1464002.728 | 597019.783 | 697.010 | | 0.42 | 0.02 | 0.417 | PCI/G | Uranium-238 |
| 6 | 11/30/2005 | 1464017.728 | 597019.783 | 690.383 | | 0.85 | 0.03 | 0.850 | PCI/G | Uranium-238 |
| 7 | 12/1/2005 | 1464032.728 | 597019.783 | 689.652 | | 0.79 | 0.01 | 0.790 | PCI/G | Uranium-238 |
| 8 | 11/30/2005 | 1464047.728 | 597019.783 | 690.374 | | 0.68 | 0.03 | 0.680 | PCI/G | Uranium-238 |
| 9 | 11/30/2005 | 1464062.728 | 597019.783 | 690.599 | | 0.65 | 0.02 | 0.650 | PCI/G | Uranium-238 |
| 10 | 11/30/2005 | 1464077.728 | 597019.783 | 691.445 | | 1.00 | 0.01 | 1.000 | PCI/G | Uranium-238 |
| 11 | 12/1/2005 | 1464122.728 | 597019.783 | 703.183 | | 0.70 | 0.01 | 0.700 | PCI/G | Uranium-238 |
| 12 | 12/1/2005 | 1464137.728 | 597019.783 | 708.625 | | 0.81 | 0.01 | 0.810 | PCI/G | Uranium-238 |
| 13 | 12/1/2005 | 1464152.728 | 597019.783 | 710.754 | | 0.71 | 0.01 | 0.710 | PCI/G | Uranium-238 |
| 14 | 11/29/2005 | 1463950.228 | 597032.774 | 697.324 | | 0.94 | 0.02 | 0.940 | PCI/G | Uranium-238 |
| 15 | 11/29/2005 | 1463965.228 | 597032.774 | 691.986 | | 1.12 | 0.02 | 1.120 | PCI/G | Uranium-238 |
| 16 | 11/30/2005 | 1463980.228 | 597032.774 | 691.857 | | 0.70 | 0.01 | 0.700 | PCI/G | Uranium-238 |
| 17 | 11/30/2005 | 1463995.228 | 597032.774 | 690.031 | | 0.58 | 0.01 | 0.580 | PCI/G | Uranium-238 |
| 18 | 11/30/2005 | 1464010.228 | 597032.774 | 689.241 | | 0.75 | 0.01 | 0.750 | PCI/G | Uranium-238 |
| 19 | 11/30/2005 | 1464025.228 | 597032.774 | 688.075 | | 0.74 | 0.02 | 0.740 | PCI/G | Uranium-238 |
| 20 | 11/30/2005 | 1464040.228 | 597032.774 | 688.067 | | 0.66 | 0.03 | 0.660 | PCI/G | Uranium-238 |
| 21 | 11/30/2005 | 1464055.228 | 597032.774 | 688.910 | | 0.58 | 0.03 | 0.580 | PCI/G | Uranium-238 |
| 22 | 11/30/2005 | 1464070.228 | 597032.774 | 689.867 | | 0.69 | 0.01 | 0.690 | PCI/G | Uranium-238 |
| 23 | 11/30/2005 | 1464085.228 | 597032.774 | 691.746 | 2.21 | | 0.02 | | PCI/G | Uranium-238 |
| 24 | 12/1/2005 | 1464115.228 | 597032.774 | 705.731 | | 0.71 | 0.02 | 0.710 | PCI/G | Uranium-238 |
| 25 | 12/1/2005 | 1463957.728 | 597045.764 | 695.221 | | 1.04 | 0.04 | 1.040 | PCI/G | Uranium-238 |
| 26 | 11/29/2005 | 1463972.728 | 597045.764 | 690.465 | | 0.85 | 0.02 | 0.850 | PCI/G | Uranium-238 |
| 27 | 11/30/2005 | 1463987.728 | 597045.764 | 688.818 | | 0.63 | 0.02 | 0.630 | PCI/G | Uranium-238 |
| 28 | 11/30/2005 | 1464002.728 | 597045.764 | 688.753 | | 0.74 | 0.02 | 0.740 | PCI/G | Uranium-238 |
| 29 | 11/30/2005 | 1464017.728 | 597045.764 | 687.060 | | 0.73 | 0.01 | 0.730 | PCI/G | Uranium-238 |
| 30 | 11/30/2005 | 1464032.728 | 597045.764 | 686.441 | | 0.91 | 0.01 | 0.910 | PCI/G | Uranium-238 |
| 31 | 11/30/2005 | 1464047.728 | 597045.764 | 687.006 | | 0.78 | 0.02 | 0.780 | PCI/G | Uranium-238 |
| 32 | 11/29/2005 | 1463950.228 | 597058.754 | 701.904 | | 0.73 | 0.01 | 0.730 | PCI/G | Uranium-238 |
| 33 | 11/29/2005 | 1463965.228 | 597058.754 | 690.914 | | 0.69 | 0.02 | 0.690 | PCI/G | Uranium-238 |
| 34 | 11/29/2005 | 1463980.228 | 597058.754 | 690.065 | | 0.53 | 0.01 | 0.533 | PCI/G | Uranium-238 |
| 35 | 11/30/2005 | 1463995.228 | 597058.754 | 689.196 | | 0.72 | 0.02 | 0.720 | PCI/G | Uranium-238 |
| 36 | 11/30/2005 | 1464010.228 | 597058.754 | 687.800 | | 0.67 | 0.02 | 0.670 | PCI/G | Uranium-238 |
| 37 | 11/30/2005 | 1464025.228 | 597058.754 | 686.418 | 2.88 | | 0.02 | | PCI/G | Uranium-238 |
| 38 | 11/29/2005 | 1463957.728 | 597071.745 | 701.617 | | 0.89 | 0.01 | 0.890 | PCI/G | Uranium-238 |
| 39 | 11/29/2005 | 1463972.728 | 597071.745 | 690.465 | | 0.85 | 0.01 | 0.850 | PCI/G | Uranium-238 |
| 40 | 11/30/2005 | 1463987.728 | 597071.745 | 689.570 | | 0.62 | 0.01 | 0.620 | PCI/G | Uranium-238 |
| 41 | 11/30/2005 | 1464002.728 | 597071.745 | 689.209 | | 0.86 | 0.02 | 0.860 | PCI/G | Uranium-238 |
| 42 | 11/30/2005 | 1464017.728 | 597071.745 | 689.412 | 1.63 | | 0.02 | | PCI/G | Uranium-238 |
| 43 | 11/29/2005 | 1463950.228 | 597084.735 | 703.634 | | 0.71 | 0.02 | 0.710 | PCI/G | Uranium-238 |
| 44 | 11/29/2005 | 1463965.228 | 597084.735 | 693.712 | | 0.88 | 0.01 | 0.880 | PCI/G | Uranium-238 |
| 45 | 11/29/2005 | 1463980.228 | 597084.735 | 691.713 | | 0.69 | 0.01 | 0.690 | PCI/G | Uranium-238 |
| 46 | 11/30/2005 | 1463995.228 | 597084.735 | 689.195 | | 1.05 | 0.02 | 1.050 | PCI/G | Uranium-238 |
| 47 | 11/30/2005 | 1464010.228 | 597084.735 | 692.378 | | 0.72 | 0.01 | 0.720 | PCI/G | Uranium-238 |
| 48 | 11/29/2005 | 1463957.728 | 597097.726 | 702.713 | | 1.00 | 0.02 | 1.000 | PCI/G | Uranium-238 |
| 49 | 11/29/2005 | 1463972.728 | 597097.726 | 692.705 | | 0.60 | 0.02 | 0.600 | PCI/G | Uranium-238 |
| 50 | 11/30/2005 | 1463987.728 | 597097.726 | 690.608 | | 0.51 | 0.03 | 0.510 | PCI/G | Uranium-238 |
| 51 | 11/30/2005 | 1464002.728 | 597097.726 | 690.764 | | 0.77 | 0.01 | 0.770 | PCI/G | Uranium-238 |
| 52 | 11/30/2005 | 1464017.728 | 597097.726 | 691.990 | 1.01 | | 0.01 | | PCI/G | Uranium-238 |
| 53A | 1/12/2005 | 1463965.228 | 597110.716 | 699.585 | | 0.71 | 0.05 | 0.710 | PCI/G | Uranium-238 |
| 54 | 12/1/2005 | 1463980.228 | 597110.716 | 689.535 | | 0.67 | 0.04 | 0.670 | PCI/G | Uranium-238 |

# PRS 11 Off Site Data from STL St. Louis

**SU1:**

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 55 | 11/30/2005 | 1463995.228 | 597110.716 | 691.604 | | 1.03 | 0.03 | 1.030 | PCI/G | Uranium-238 |
| 56 | 11/30/2005 | 1464010.228 | 597110.716 | 693.807 | | 0:84 | 0.02 | 0.840 | PCI/G | Uranium-238 |
| 57 | 12/1/2005 | 1464025.228 | 597110.716 | 702.228 | | 0.87 | 0.03 | 0.870 | PCI/G | Uranium-238 |
| 58 | 11/29/2005 | 1463957.728 | 597123.706 | 704.129 | | 0.76 | 0.01 | 0.760 | PCI/G | Uranium-238 |
| 59 | 11/29/2005 | 1463972.728 | 597123.706 | 699.094 | | 1.32 | 0.01 | 1.320 | PCI/G | Uranium-238 |
| 60 | 12/1/2005 | 1463987.728 | 597123.706 | 696.134 | | 0.73 | 0.02 | 0.730 | PCI/G | Uranium-238 |
| 61 | 12/1/2005 | 1464002.728 | 597123.706 | 703.952 | | 0.65 | 0.01 | 0.650 | PCI/G | Uranium-238 |
| 62 | 11/29/2005 | 1463980.228 | 597136.697 | 707.998 | | 0.57 | 0.01 | 0.571 | PCI/G | Uranium-238 |
| | | | | | | | **Max** | **1.320** | **PCI/G** | **Uranium-238** |
| | | | | | | | **Std. Dev.** | **0.164** | **PCI/G** | **Uranium-238** |
| | | | | | | | **CO** | **2.200** | **PCI/G** | **Uranium-238** |
| | | | | | | | **HS** | **4.200** | **PCI/G** | **Uranium-238** |

**SU1:**

Duplicates:

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 17 | 11/30/2005 | 1463995.228 | 597032.774 | 690.031 | | 0.69 | 0.02 | 0.690 | PCI/G | Uranium-238 |
| 49 | 11/29/2005 | 1463972.728 | 597097.726 | 692.705 | | 0.64 | 0.03 | 0.640 | PCI/G | Uranium-238 |
| 53A | 1/12/2005 | 1463965.228 | 597110.716 | 699.585 | | 0.72 | 0.02 | 0.720 | PCI/G | Uranium-238 |
| 54 | 12/1/2005 | 1463980.228 | 597110.716 | 689.535 | | 0.65 | 0.02 | 0.650 | PCI/G | Uranium-238 |

**SU1:**

Bias Locations:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 11/30/2005 | 1463968.419 | 597026.146 | 697.866 | | 0.65 | 0.02 | 0.650 | PCI/G | Uranium-238 |
| 72 | 11/29/2005 | 1463972.694 | 597058.672 | 690.490 | | 0.67 | 0.01 | 0.670 | PCI/G | Uranium-238 |
| 73 | 11/30/2005 | 1463976.359 | 597105.094 | 691.120 | | 1.40 | 0.03 | 1.400 | PCI/G | Uranium-238 |

**SU2:**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 63 | 11/30/2005 | 1464093.226 | 597012.324 | 696.566 | | 0.84 | 0.03 | 0.840 | PCI/G | Uranium-238 |
| 64 | 12/1/2005 | 1464108.226 | 597012.324 | 705.189 | | 0.79 | 0.02 | 0.790 | PCI/G | Uranium-238 |
| 65 | 11/30/2005 | 1464100.726 | 597025.315 | 695.267 | | 1.00 | 0.01 | 1.000 | PCI/G | Uranium-238 |
| 66 | 12/1/2005 | 1464094.238 | 597036.159 | 701.163 | 0.96 | | 0.01 | | PCI/G | Uranium-238 |
| 67 | 11/30/2005 | 1464091.835 | 597019.553 | 692.932 | | 0.97 | 0.02 | 0.970 | PCI/G | Uranium-238 |
| 68 | 11/30/2005 | 1464109.333 | 597019.104 | 698.411 | | 0.64 | 0.01 | 0.640 | PCI/G | Uranium-238 |
| | | | | | | | **Max** | **1.000** | **PCI/G** | **Uranium-238** |
| | | | | | | | **Std. Dev.** | **0.145** | **PCI/G** | **Uranium-238** |
| | | | | | | | **CO** | **2.200** | **PCI/G** | **Uranium-238** |
| | | | | | | | **HS** | **4.200** | **PCI/G** | **Uranium-238** |

**SU2:**

Duplicates:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 68 | 11/30/2005 | 1464109.333 | 597019.104 | 698.411 | | 0.84 | 0.02 | 0.840 | PCI/G | Uranium-238 |

**SU2:**

Bias Locations:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 69 | 11/30/2005 | 1464100.965 | 597018.969 | 692.932 | | 0.83 | 0.03 | 0.830 | PCI/G | Uranium-238 |
| 70 | 11/30/2005 | 1464092.719 | 597027.063 | 695.267 | | 1.00 | 0.02 | 1.000 | PCI/G | Uranium-238 |

A141/171

# PRS 11 Off Site Data from STL St. Louis

SU1:

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 11/29/2005 | 1463942.728 | 597019.783 | 702.064 | | 0.59 | 1.30 | 0.590 | PCI/G | Protactinium-231 |
| 2 | 11/29/2005 | 1463957.728 | 597019.783 | 697.004 | | 0.85 | 1.70 | 0.850 | PCI/G | Protactinium-231 |
| 3 | 12/1/2005 | 1463972.728 | 597019.783 | 703.747 | | 0.89 | 1.20 | 0.890 | PCI/G | Protactinium-231 |
| 4 | 11/30/2005 | 1463987.728 | 597019.783 | 693.035 | | 0.52 | 1.20 | 0.520 | PCI/G | Protactinium-231 |
| 5 | 11/30/2005 | 1464002.728 | 597019.783 | 697.010 | | 0.40 | 0.93 | 0.400 | PCI/G | Protactinium-231 |
| 6 | 11/30/2005 | 1464017.728 | 597019.783 | 690.383 | | 1.82 | 1.80 | 1.820 | PCI/G | Protactinium-231 |
| 7 | 12/1/2005 | 1464032.728 | 597019.783 | 689.652 | | 0.17 | 1.10 | 0.170 | PCI/G | Protactinium-231 |
| 8 | 11/30/2005 | 1464047.728 | 597019.783 | 690.374 | | 0.64 | 1.60 | 0.640 | PCI/G | Protactinium-231 |
| 9 | 11/30/2005 | 1464062.728 | 597019.783 | 690.599 | | 1.54 | 1.80 | 1.540 | PCI/G | Protactinium-231 |
| 10 | 11/30/2005 | 1464077.728 | 597019.783 | 691.445 | | 2.00 | 2.00 | 2.000 | PCI/G | Protactinium-231 |
| 11 | 12/1/2005 | 1464122.728 | 597019.783 | 703.183 | | 0.74 | 1.50 | 0.740 | PCI/G | Protactinium-231 |
| 12 | 12/1/2005 | 1464137.728 | 597019.783 | 708.625 | | 1.56 | 1.40 | 1.560 | PCI/G | Protactinium-231 |
| 13 | 12/1/2005 | 1464152.728 | 597019.783 | 710.754 | | 0.85 | 1.30 | 0.850 | PCI/G | Protactinium-231 |
| 14 | 11/29/2005 | 1463950.228 | 597032.774 | 697.324 | | 1.30 | 1.70 | 1.300 | PCI/G | Protactinium-231 |
| 15 | 11/29/2005 | 1463965.228 | 597032.774 | 691.986 | | 1.51 | 1.30 | 1.510 | PCI/G | Protactinium-231 |
| 16 | 11/30/2005 | 1463980.228 | 597032.774 | 691.857 | | 0.82 | 1.00 | 0.820 | PCI/G | Protactinium-231 |
| 17 | 11/30/2005 | 1463995.228 | 597032.774 | 690.031 | | 0.35 | 1.20 | 0.350 | PCI/G | Protactinium-231 |
| 18 | 11/30/2005 | 1464010.228 | 597032.774 | 689.241 | | 0.83 | 1.30 | 0.830 | PCI/G | Protactinium-231 |
| 19 | 11/30/2005 | 1464025.228 | 597032.774 | 688.075 | | 0.56 | 1.70 | 0.560 | PCI/G | Protactinium-231 |
| 20 | 11/30/2005 | 1464040.228 | 597032.774 | 688.067 | | 1.30 | 2.20 | 1.300 | PCI/G | Protactinium-231 |
| 21 | 11/30/2005 | 1464055.228 | 597032.774 | 688.910 | | 0.72 | 1.00 | 0.720 | PCI/G | Protactinium-231 |
| 22 | 11/30/2005 | 1464070.228 | 597032.774 | 689.867 | | 0.33 | 1.20 | 0.330 | PCI/G | Protactinium-231 |
| 23 | 11/30/2005 | 1464085.228 | 597032.774 | 691.746 | 1.20 | | 2.00 | | PCI/G | Protactinium-231 |
| 24 | 12/1/2005 | 1464115.228 | 597032.774 | 705.731 | | 0.18 | 1.30 | 0.180 | PCI/G | Protactinium-231 |
| 25 | 12/1/2005 | 1463957.728 | 597045.764 | 695.221 | | 1.24 | 1.50 | 1.240 | PCI/G | Protactinium-231 |
| 26 | 11/29/2005 | 1463972.728 | 597045.764 | 690.465 | | 1.50 | 1.50 | 1.500 | PCI/G | Protactinium-231 |
| 27 | 11/30/2005 | 1463987.728 | 597045.764 | 688.818 | | 0.95 | 1.70 | 0.950 | PCI/G | Protactinium-231 |
| 28 | 11/30/2005 | 1464002.728 | 597045.764 | 688.753 | | 1.30 | 2.20 | 1.300 | PCI/G | Protactinium-231 |
| 29 | 11/30/2005 | 1464017.728 | 597045.764 | 687.060 | | 1.40 | 1.90 | 1.400 | PCI/G | Protactinium-231 |
| 30 | 11/30/2005 | 1464032.728 | 597045.764 | 686.441 | | 0.45 | 1.10 | 0.450 | PCI/G | Protactinium-231 |
| 31 | 11/30/2005 | 1464047.728 | 597045.764 | 687.006 | | 1.82 | 1.50 | 1.820 | PCI/G | Protactinium-231 |
| 32 | 11/29/2005 | 1463950.228 | 597058.754 | 701.904 | | 0.30 | 1.60 | 0.300 | PCI/G | Protactinium-231 |
| 33 | 11/29/2005 | 1463965.228 | 597058.754 | 690.914 | | 0.42 | 1.10 | 0.420 | PCI/G | Protactinium-231 |
| 34 | 11/29/2005 | 1463980.228 | 597058.754 | 690.065 | | 0.53 | 0.99 | 0.530 | PCI/G | Protactinium-231 |
| 35 | 11/30/2005 | 1463995.228 | 597058.754 | 689.196 | | 1.16 | 1.30 | 1.160 | PCI/G | Protactinium-231 |
| 36 | 11/30/2005 | 1464010.228 | 597058.754 | 687.800 | | 0.72 | 1.00 | 0.720 | PCI/G | Protactinium-231 |
| 37 | 11/30/2005 | 1464025.228 | 597058.754 | 686.418 | 13.50 | | 3.90 | | PCI/G | Protactinium-231 |
| 38 | 11/29/2005 | 1463957.728 | 597071.745 | 701.617 | | 0.18 | 1.30 | 0.180 | PCI/G | Protactinium-231 |
| 39 | 11/29/2005 | 1463972.728 | 597071.745 | 690.465 | | 2.39 | 1.60 | 2.390 | PCI/G | Protactinium-231 |
| 40 | 11/30/2005 | 1463987.728 | 597071.745 | 689.570 | | 1.30 | 1.60 | 1.300 | PCI/G | Protactinium-231 |
| 41 | 11/30/2005 | 1464002.728 | 597071.745 | 689.209 | | 0.70 | 1.90 | 0.700 | PCI/G | Protactinium-231 |
| 42 | 11/30/2005 | 1464017.728 | 597071.745 | 689.412 | 2.80 | | 2.50 | | PCI/G | Protactinium-231 |
| 43 | 11/29/2005 | 1463950.228 | 597084.735 | 703.634 | | 1.11 | 1.70 | 1.110 | PCI/G | Protactinium-231 |
| 44 | 11/29/2005 | 1463965.228 | 597084.735 | 693.712 | | 0.19 | 0.94 | 0.190 | PCI/G | Protactinium-231 |
| 45 | 11/29/2005 | 1463980.228 | 597084.735 | 691.713 | | 0.98 | 1.40 | 0.980 | PCI/G | Protactinium-231 |
| 46 | 11/30/2005 | 1463995.228 | 597084.735 | 689.195 | | 0.40 | 2.10 | 0.400 | PCI/G | Protactinium-231 |
| 47 | 11/30/2005 | 1464010.228 | 597084.735 | 692.378 | | 0.20 | 2.00 | 0.200 | PCI/G | Protactinium-231 |
| 48 | 11/29/2005 | 1463957.728 | 597097.726 | 702.713 | | 1.32 | 1.50 | 1.320 | PCI/G | Protactinium-231 |
| 49 | 11/29/2005 | 1463972.728 | 597097.726 | 692.705 | | 0.24 | 0.84 | 0.240 | PCI/G | Protactinium-231 |
| 50 | 11/30/2005 | 1463987.728 | 597097.726 | 690.608 | | 0.80 | 1.50 | 0.800 | PCI/G | Protactinium-231 |
| 51 | 11/30/2005 | 1464002.728 | 597097.726 | 690.764 | | 1.32 | 1.60 | 1.320 | PCI/G | Protactinium-231 |
| 52 | 11/30/2005 | 1464017.728 | 597097.726 | 691.990 | 3.90 | | 2.60 | | PCI/G | Protactinium-231 |
| 53A | 1/12/2005 | 1463965.228 | 597110.716 | 699.585 | | 0.70 | 2.70 | 0.700 | PCI/G | Protactinium-231 |
| 54 | 12/1/2005 | 1463980.228 | 597110.716 | 689.535 | | 1.10 | 2.00 | 1.100 | PCI/G | Protactinium-231 |

# PRS 11 Off Site Data from STL St. Louis

**SU1:**

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 55 | 11/30/2005 | 1463995.228 | 597110.716 | 691.604 | | 1.20 | 1.50 | 1.200 | PCI/G | Protactinium-231 |
| 56 | 11/30/2005 | 1464010.228 | 597110.716 | 693.807 | | 1.40 | 1.70 | 1.400 | PCI/G | Protactinium-231 |
| 57 | 12/1/2005 | 1464025.228 | 597110.716 | 702.228 | | 0.97 | 1.70 | 0.970 | PCI/G | Protactinium-231 |
| 58 | 11/29/2005 | 1463957.728 | 597123.706 | 704.129 | | 0.36 | 1.20 | 0.360 | PCI/G | Protactinium-231 |
| 59 | 11/29/2005 | 1463972.728 | 597123.706 | 699.094 | | 1.80 | 1.90 | 1.800 | PCI/G | Protactinium-231 |
| 60 | 12/1/2005 | 1463987.728 | 597123.706 | 696.134 | | 0.40 | 1.90 | 0.400 | PCI/G | Protactinium-231 |
| 61 | 12/1/2005 | 1464002.728 | 597123.706 | 703.952 | | 0.63 | 1.20 | 0.630 | PCI/G | Protactinium-231 |
| 62 | 11/29/2005 | 1463980.228 | 597136.697 | 707.998 | | 0.06 | 1.50 | 0.060 | PCI/G | Protactinium-231 |
| | | | | | | | **Max** | **2.390** | **PCI/G** | **Protactinium-231** |
| | | | | | | | **Std. Dev.** | **0.536** | **PCI/G** | **Protactinium-231** |
| | | | | | | | **CO** | **4.000** | **PCI/G** | **Protactinium-231** |
| | | | | | | | **HS** | **11.810** | **PCI/G** | **Protactinium-231** |

**SU1:**

Duplicates:

| Short ID | Date Taken | X Coord | Y Coord | Elev. | Buffer Zone Result | Result | MDC | Used | Unit | Isotope |
|---|---|---|---|---|---|---|---|---|---|---|
| 17 | 11/30/2005 | 1463995.228 | 597032.774 | 690.031 | | 0.21 | 1.40 | 0.210 | PCI/G | Protactinium-231 |
| 49 | 11/29/2005 | 1463972.728 | 597097.726 | 692.705 | | 0.15 | 0.93 | 0.150 | PCI/G | Protactinium-231 |
| 53A | 1/12/2005 | 1463965.228 | 597110.716 | 699.585 | | 1.60 | 2.90 | 1.600 | PCI/G | Protactinium-231 |
| 54 | 12/1/2005 | 1463980.228 | 597110.716 | 689.535 | | 1.44 | 1.70 | 1.440 | PCI/G | Protactinium-231 |

**SU1:**

Bias Locations:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 71 | 11/30/2005 | 1463968.419 | 597026.146 | 697.866 | | 0.90 | 1.90 | 0.900 | PCI/G | Protactinium-231 |
| 72 | 11/29/2005 | 1463972.694 | 597058.672 | 690.490 | | 0.13 | 0.79 | 0.130 | PCI/G | Protactinium-231 |
| 73 | 11/30/2005 | 1463976.359 | 597105.094 | 691.120 | | 0.15 | 0.96 | 0.150 | PCI/G | Protactinium-231 |

**SU2:**

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 63 | 11/30/2005 | 1464093.226 | 597012.324 | 696.566 | | 1.80 | 2.20 | 1.800 | PCI/G | Protactinium-231 |
| 64 | 12/1/2005 | 1464108.226 | 597012.324 | 705.189 | | 1.46 | 1.30 | 1.460 | PCI/G | Protactinium-231 |
| 65 | 11/30/2005 | 1464100.726 | 597025.315 | 695.267 | | 1.20 | 2.00 | 1.200 | PCI/G | Protactinium-231 |
| 66 | 12/1/2005 | 1464094.238 | 597036.159 | 701.163 | 4.40 | | 2.80 | | PCI/G | Protactinium-231 |
| 67 | 11/30/2005 | 1464091.835 | 597019.553 | 692.932 | | 1.14 | 1.30 | 1.140 | PCI/G | Protactinium-231 |
| 68 | 11/30/2005 | 1464109.333 | 597019.104 | 698.411 | | 0.90 | 2.10 | 0.900 | PCI/G | Protactinium-231 |
| | | | | | | | **Max** | **1.800** | **PCI/G** | **Protactinium-231** |
| | | | | | | | **Std. Dev.** | **0.343** | **PCI/G** | **Protactinium-231** |
| | | | | | | | **CO** | **4.000** | **PCI/G** | **Protactinium-231** |
| | | | | | | | **HS** | **11.810** | **PCI/G** | **Protactinium-231** |

**SU2:**

Duplicates:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 68 | 11/30/2005 | 1464109.333 | 597019.104 | 698.411 | | 1.00 | 1.50 | 1.000 | PCI/G | Protactinium-231 |

**SU2:**

Bias Locations:

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 69 | 11/30/2005 | 1464100.965 | 597018.969 | 692.932 | | 0.92 | 1.60 | 0.920 | PCI/G | Protactinium-231 |
| 70 | 11/30/2005 | 1464092.719 | 597027.063 | 695.267 | | 0.39 | 1.70 | 0.390 | PCI/G | Protactinium-231 |

| Sample Standard Deviation (s) | Radionuclide | Cleanup Objective | Units |
|---|---|---|---|
| 0.102 | Ac-227+D | 4.6 | (pCi/g) |
| | Am-241 | 63 | (pCi/g) |
| | Ce-141 | 38 | (pCi/g) |
| | Cs-137+D | 3.8 | (pCi/g) |
| | Co-60 | 0.7 | (pCi/g) |
| | Cu-244 | 92 | (pCi/g) |
| 0.362 | Pb-210+D | 7.4 | (pCi/g) |
| | Np-237+D | 10.4 | (pCi/g) |
| | Ni-95 | 2.5 | (pCi/g) |
| | Pu-238 | 55 | (pCi/g) |
| | Pu-239/240 | 62 | (pCi/g) |
| 0.536 | Pa-231+D | 4 | (pCi/g) |
| 0.622 | Ra-224 | 32.38 | (pCi/g) |
| 0.190 | Ra-226+D | 2.9 | (pCi/g) |
| | Ra-228 | 2.1 | (pCi/g) |
| | Th-228+D | 2.6 | (pCi/g) |
| 0.282 | Th-230+D | 2.8 | (pCi/g) |
| 0.452 | Th-232+D | 2.1 | (pCi/g) |
| | U-233+D | 4.8 | (pCi/g) |
| | U-234 | 106.1 | (pCi/g) |
| | U-234+D | 2 | (pCi/g) |
| | U-235 | 16.11 | (pCi/g) |
| | U-235+D | 3.2 | (pCi/g) |
| | U-238 | 121.2 | (pCi/g) |
| 0.164 | U-238+D | 2.2 | (pCi/g) |
| | Bi-207 | 1.2 | (pCi/g) |
| 0.010 | Bi-210m | 8.3 | (pCi/g) |
| | Tc-99 | 2140 | (pCi/g) |
| | Sr-90 | 94.72 | (pCi/g) |

| | |
|---|---|
| Type I Error | 0.05 |
| $Z_{1-alpha}$ | 1.645 |
| Type II Error | 0.2 |
| $Z_{1-beta}$ | 0.842 |
| Effective | 0.30 *(s)* |
| Sign p | 0.945201 |

Calculate the Total Effective (s)

***Estimate (N) - Sign Test***

| | |
|---|---|
| DCGL | 1 |
| LBGR | 0.50 |
| Delta | 0.50 |
| *(s)* | 0.30 |
| Rel Shift | 1.690 |
| *(N)* | 10.00 |

Th-230 Area Factor (N) 400

(Main Contributor)

Table D in Std. VSAP not available to obtain area for N calculation for Th-230 (SMDC 461.7)
Area for N calculation based upon Pu-238 (SMDC 350), which is the best match

**Sample Grid Spacing**

| | | |
|---|---|---|
| SU Area | 1,084.25 | $m^2$ |
| Grid Length | 9.7 | m |
| Grid Height | 8.4 | m |

**Sample Grid Spacing**

| | | |
|---|---|---|
| SU Area | 11,658.61 | $ft^2$ |
| Grid Length | 31.8 | ft |
| Grid Height | 27.5 | ft |

**Default 15-foot Triangular Grid to be used**

| | |
|---|---|
| PRS | 11 |
| Survey Unit | SU1 |

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# PRS 11 SU1 Th-232 Sign Test

| ID | X (Easting) | Y (Northing) | Activity (pCi/g) Th-232 | CO-Meas | Sign Test |
|---|---|---|---|---|---|
| SU1-PRS11-001 | 1463942.728 | 597019.783 | 0.42 | 1.680 | 1 |
| SU1-PRS11-002 | 1463957.728 | 597019.783 | 0.81 | 1.290 | 1 |
| SU1-PRS11-003 | 1463972.728 | 597019.783 | 0.73 | 1.370 | 1 |
| SU1-PRS11-004 | 1463987.728 | 597019.783 | 0.32 | 1.783 | 1 |
| SU1-PRS11-005 | 1464002.728 | 597019.783 | 0.14 | 1.965 | 1 |
| SU1-PRS11-006 | 1464017.728 | 597019.783 | 0.98 | 1.120 | 1 |
| SU1-PRS11-007 | 1464032.728 | 597019.783 | 0.63 | 1.470 | 1 |
| SU1-PRS11-008 | 1464047.728 | 597019.783 | 0.35 | 1.750 | 1 |
| SU1-PRS11-009 | 1464062.728 | 597019.783 | 0.36 | 1.740 | 1 |
| SU1-PRS11-010 | 1464077.728 | 597019.783 | 1.20 | 0.900 | 1 |
| SU1-PRS11-011 | 1464122.728 | 597019.783 | 0.76 | 1.340 | 1 |
| SU1-PRS11-012 | 1464137.728 | 597019.783 | 0.81 | 1.290 | 1 |
| SU1-PRS11-013 | 1464152.728 | 597019.783 | 0.58 | 1.520 | 1 |
| SU1-PRS11-014 | 1463950.228 | 597032.774 | 1.38 | 0.720 | 1 |
| SU1-PRS11-015 | 1463965.228 | 597032.774 | 1.58 | 0.520 | 1 |
| SU1-PRS11-016 | 1463980.228 | 597032.774 | 0.53 | 1.570 | 1 |
| SU1-PRS11-017 | 1463995.228 | 597032.774 | 0.21 | 1.891 | 1 |
| SU1-PRS11-018 | 1464010.228 | 597032.774 | 0.70 | 1.400 | 1 |
| SU1-PRS11-019 | 1464025.228 | 597032.774 | 0.75 | 1.350 | 1 |
| SU1-PRS11-020 | 1464040.228 | 597032.774 | 0.44 | 1.660 | 1 |
| SU1-PRS11-021 | 1464055.228 | 597032.774 | 0.50 | 1.600 | 1 |
| SU1-PRS11-022 | 1464070.228 | 597032.774 | 0.53 | 1.570 | 1 |
| SU1-PRS11-023 | 1464085.228 | 597032.774 | Buffer Sample Th-232 > CO, Omitted from data set | | |
| SU1-PRS11-024 | 1464115.228 | 597032.774 | 0.80 | 1.300 | 1 |
| SU1-PRS11-025 | 1463957.728 | 597045.764 | 0.89 | 1.210 | 1 |
| SU1-PRS11-026 | 1463972.728 | 597045.764 | 1.11 | 0.990 | 1 |
| SU1-PRS11-027 | 1463987.728 | 597045.764 | 0.42 | 1.680 | 1 |
| SU1-PRS11-028 | 1464002.728 | 597045.764 | 0.66 | 1.440 | 1 |
| SU1-PRS11-029 | 1464017.728 | 597045.764 | 0.58 | 1.520 | 1 |
| SU1-PRS11-030 | 1464032.728 | 597045.764 | 0.59 | 1.510 | 1 |
| SU1-PRS11-031 | 1464047.728 | 597045.764 | 1.62 | 0.480 | 1 |
| SU1-PRS11-032 | 1463950.228 | 597058.754 | 0.67 | 1.430 | 1 |
| SU1-PRS11-033 | 1463965.228 | 597058.754 | 0.31 | 1.786 | 1 |
| SU1-PRS11-034 | 1463980.228 | 597058.754 | 0.45 | 1.650 | 1 |
| SU1-PRS11-035 | 1463995.228 | 597058.754 | 0.44 | 1.660 | 1 |
| SU1-PRS11-036 | 1464010.228 | 597058.754 | 0.41 | 1.690 | 1 |
| SU1-PRS11-037 | 1464025.228 | 597058.754 | Buffer Sample Th-232 > CO, Omitted from data set | | |
| SU1-PRS11-038 | 1463957.728 | 597071.745 | 0.71 | 1.390 | 1 |
| SU1-PRS11-039 | 1463972.728 | 597071.745 | **2.39** | -0.290 | Negative |
| SU1-PRS11-040 | 1463987.728 | 597071.745 | 0.32 | 1.778 | 1 |
| SU1-PRS11-041 | 1464002.728 | 597071.745 | 0.47 | 1.630 | 1 |
| SU1-PRS11-042 | 1464017.728 | 597071.745 | Buffer Sample Th-232 > CO, Omitted from data set | | |
| SU1-PRS11-043 | 1463950.228 | 597084.735 | 0.62 | 1.480 | 1 |
| SU1-PRS11-044 | 1463965.228 | 597084.735 | 0.52 | 1.580 | 1 |
| SU1-PRS11-045 | 1463980.228 | 597084.735 | 0.88 | 1.220 | 1 |
| SU1-PRS11-046 | 1463995.228 | 597084.735 | 0.60 | 1.500 | 1 |
| SU1-PRS11-047 | 1464010.228 | 597084.735 | 0.64 | 1.460 | 1 |
| SU1-PRS11-048 | 1463957.728 | 597097.726 | 0.89 | 1.210 | 1 |
| SU1-PRS11-049 | 1463972.728 | 597097.726 | 0.53 | 1.570 | 1 |
| SU1-PRS11-050 | 1463987.728 | 597097.726 | 0.59 | 1.510 | 1 |

# PRS 11 SU1 Th-232 Sign Test (Cont.)

| ID | X (Easting) | Y (Northing) | Activity (pCi/g) Th-232 | CO-Meas | Sign Test |
|---|---|---|---|---|---|
| SU1-PRS11-051 | 1464002.728 | 597097.726 | 0.42 | 1.680 | 1 |
| SU1-PRS11-052 | 1464017.728 | 597097.726 | Buffer Sample Th-232 > CO, Omitted from data set | | |
| SU1-PRS11-053A | 1463965.228 | 597110.716 | 0.73 | 1.370 | 1 |
| SU1-PRS11-054 | 1463980.228 | 597110.716 | 0.74 | 1.360 | 1 |
| SU1-PRS11-055 | 1463995.228 | 597110.716 | **2.57** | -0.470 | Negative |
| SU1-PRS11-056 | 1464010.228 | 597110.716 | 1.03 | 1.070 | 1 |
| SU1-PRS11-057 | 1464025.228 | 597110.716 | 0.37 | 1.726 | 1 |
| SU1-PRS11-058 | 1463957.728 | 597123.706 | 0.49 | 1.610 | 1 |
| SU1-PRS11-059 | 1463972.728 | 597123.706 | 1.10 | 1.000 | 1 |
| SU1-PRS11-060 | 1463987.728 | 597123.706 | 0.54 | 1.560 | 1 |
| SU1-PRS11-061 | 1464002.728 | 597123.706 | 0.48 | 1.620 | 1 |
| SU1-PRS11-062 | 1463980.228 | 597136.697 | 0.49 | 1.610 | 1 |

| | |
|---|---|
| Average: | 0.72 |
| Std. Deviation: | 0.45 |
| Median: | 0.60 |
| Maximum: | 2.57 |
| Cleanup Obj.: | 2.10 |
| Hot Spot: | 3.5 |
| N: | 58 |
| Sum: | 56 |
| k Crit | 36 |
| P/F | **PASS** |

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# PRS 11 SU1 Th-232 Pro UCL

Data File PRS 11 Variable: SU1 Th-232

| Raw Statistics | |
|---|---|
| Number of Valid Samples | 58 |
| Number of Unique Samples | 46 |
| Minimum | 0.14 |
| Maximum | 2.57 |
| Mean | 0.720345 |
| Median | 0.595 |
| Standard Deviation | 0.451881 |
| Variance | 0.204196 |
| Coefficient of Variation | 0.627312 |
| Skewness | 2.356255 |

| Gamma Statistics | |
|---|---|
| k hat | 3.643029 |
| k star (bias corrected) | 3.466091 |
| Theta hat | 0.197732 |
| Theta star | 0.207826 |
| nu hat | 422.5914 |
| nu star | 402.0665 |
| Approx.Chi Square Value (.05) | 356.5781 |
| Adjusted Level of Significance | 0.045862 |
| Adjusted Chi Square Value | 355.4923 |

| Log-transformed Statistics | |
|---|---|
| Minimum of log data | -1.96611 |
| Maximum of log data | 0.943906 |
| Mean of log data | -0.47151 |
| Standard Deviation of log data | 0.524494 |
| Variance of log data | 0.275094 |

**PASS - 95% UCL < CO (2.1 pCi/g)**

**RECOMMENDATION**
**Data are lognormal (0.05)**

**Use H-UCL**

| Normal Distribution Test | |
|---|---|
| Lilliefors Test Statisitic | 0.197226 |
| Lilliefors 5% Critical Value | 0.116337 |
| Data not normal at 5% significance level | |

| 95% UCL (Assuming Normal Distribution) | |
|---|---|
| Student's-t UCL | 0.819554 |

| Gamma Distribution Test | |
|---|---|
| A-D Test Statistic | 1.141368 |
| A-D 5% Critical Value | 0.755066 |
| K-S Test Statistic | 0.11959 |
| K-S 5% Critical Value | 0.117399 |
| Data do not follow gamma distribution at 5% significance level | |

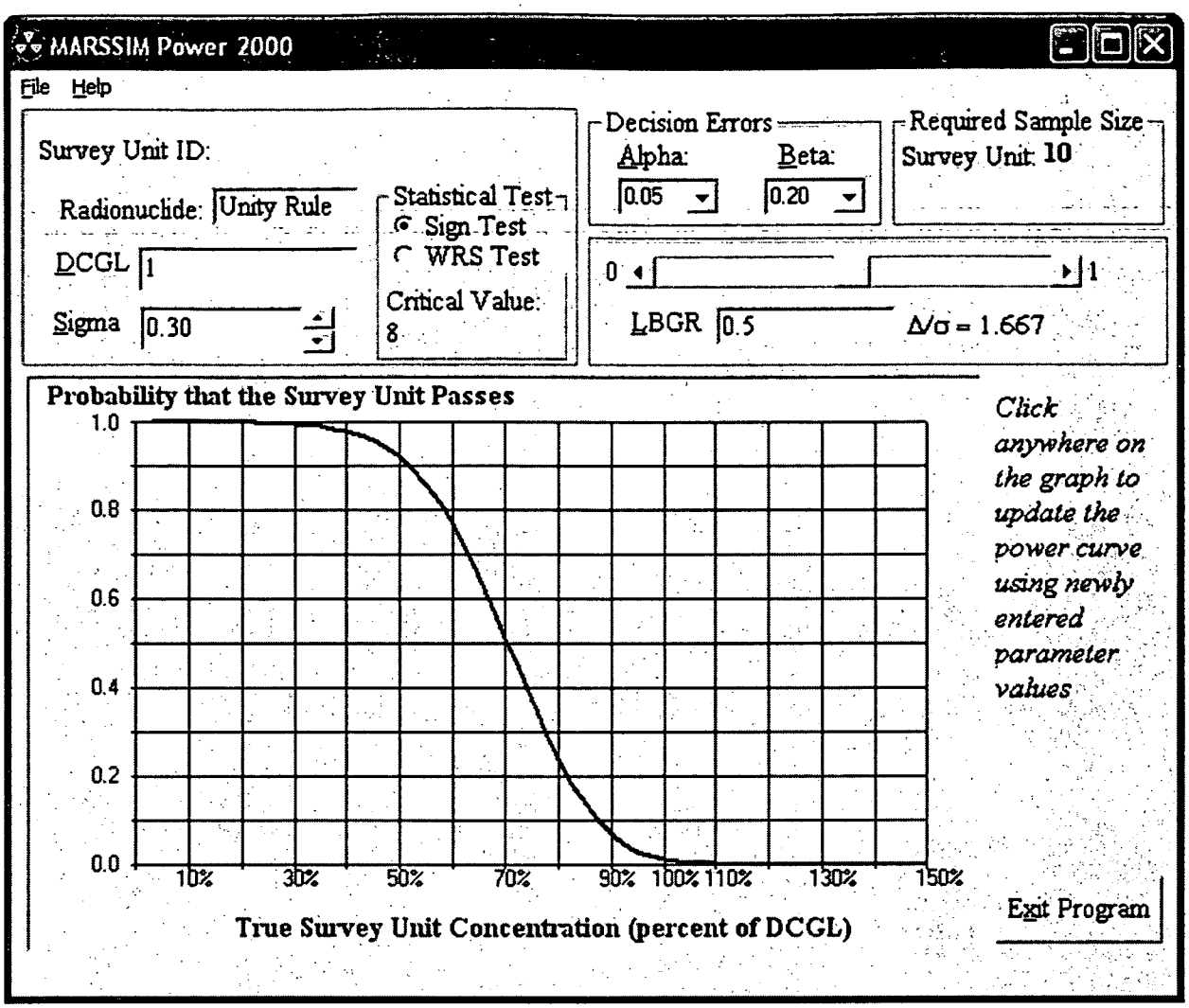
| 95% UCLs (Assuming Gamma Distribution) | |
|---|---|
| Approximate Gamma UCL | 0.812239 |
| Adjusted Gamma UCL | 0.81472 |

| Lognormal Distribution Test | |
|---|---|
| Lilliefors Test Statisitic | 0.085381 |
| Lilliefors 5% Critical Value | 0.116337 |
| Data are lognormal at 5% significance level | |

| 95% UCLs (Assuming Lognormal Distribution) | |
|---|---|
| **95% H-UCL** | **0.816075** |
| 95% Chebyshev (MVUE) UCL | 0.940692 |
| 97.5% Chebyshev (MVUE) UCL | 1.03871 |
| 99% Chebyshev (MVUE) UCL | 1.231247 |

| 95% Non-parametric UCLs | |
|---|---|
| CLT UCL | 0.817942 |
| Adj-CLT UCL (Adjusted for skewness) | 0.837557 |
| Mod-t UCL (Adjusted for skewness) | 0.822614 |
| Jackknife UCL | 0.819554 |
| Standard Bootstrap UCL | 0.81811 |
| Bootstrap-t UCL | 0.848629 |
| Hall's Bootstrap UCL | 0.857227 |
| Percentile Bootstrap UCL | 0.822759 |
| BCA Bootstrap UCL | 0.826207 |
| 95% Chebyshev (Mean, Sd) UCL | 0.97898 |
| 97.5% Chebyshev (Mean, Sd) UCL | 1.090891 |
| 99% Chebyshev (Mean, Sd) UCL | 1.310719 |

# PRS11 SU1 Retrospective Power Curve

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| Sample Standard Deviation (s) | Radionuclide | Cleanup Objective | Units |
|---|---|---|---|
| 0.154 | Ac-227+D | 4.6 | (pCi/g) |
| | Am-241 | 63 | (pCi/g) |
| | Ce-141 | 38 | (pCi/g) |
| | Cs-137+D | 3.8 | (pCi/g) |
| | Co-60 | 0.7 | (pCi/g) |
| | Cu-244 | 92 | (pCi/g) |
| 0.244 | Pb-210+D | 7.4 | (pCi/g) |
| | Np-237+D | 10.4 | (pCi/g) |
| | Ni-95 | 2.5 | (pCi/g) |
| 2.151 | Pu-238 | 55 | (pCi/g) |
| | Pu-239/240 | 62 | (pCi/g) |
| 0.343 | Pa-231+D | 4 | (pCi/g) |
| | Ra-224 | 32.38 | (pCi/g) |
| 0.143 | Ra-226+D | 2.9 | (pCi/g) |
| | Ra-228 | 2.1 | (pCi/g) |
| | Th-228+D | 2.6 | (pCi/g) |
| 0.231 | Th-230+D | 2.8 | (pCi/g) |
| 0.223 | Th-232+D | 2.1 | (pCi/g) |
| | U-233+D | 4.8 | (pCi/g) |
| | U-234 | 106.1 | (pCi/g) |
| | U-234+D | 2 | (pCi/g) |
| | U-235 | 16.11 | (pCi/g) |
| | U-235+D | 3.2 | (pCi/g) |
| | U-238 | 121.2 | (pCi/g) |
| 0.145 | U-238+D | 2.2 | (pCi/g) |
| | Bi-207 | 1.2 | (pCi/g) |
| 0.015 | Bi-210m | 8.3 | (pCi/g) |
| | Tc-99 | 2140 | (pCi/g) |
| | Sr-90 | 94.72 | (pCi/g) |

| | | |
|---|---|---|
| Type I Error | 0.05 | |
| $Z_{1\text{-alpha}}$ | 1.645 | |
| Type II Error | 0.2 | |
| $Z_{1\text{-beta}}$ | 0.842 | |
| Effective | 0.19 | *(s)* |
| Sign p | 0.993790 | |

Calculate the Total Effective (s)

***Estimate (N) - Sign Test***

| | |
|---|---|
| DCGL | 1 |
| LBGR | 0.50 |
| Delta | 0.50 |
| *(s)* | 0.19 |
| Rel Shift | 2.637 |
| *(N)* | 8.00 |

Pu-238 Area Factor (N) 20

(Main Contributor)

**Special Considerations for Small Area (<100 m²) - Six (6) Locations**

**Sample Grid Spacing**

| | | |
|---|---|---|
| SU Area | 55.01 | $m^2$ |
| Grid Length | 2.4 | m |
| Grid Height | 2.1 | m |

**Sample Grid Spacing**

| | | |
|---|---|---|
| SU Area | 591.49 | $ft^2$ |
| Grid Length | 8.0 | ft |
| Grid Height | 6.9 | ft |

**Default 15-foot Triangular Grid to be used**

PRS 11

Survey Unit SU2

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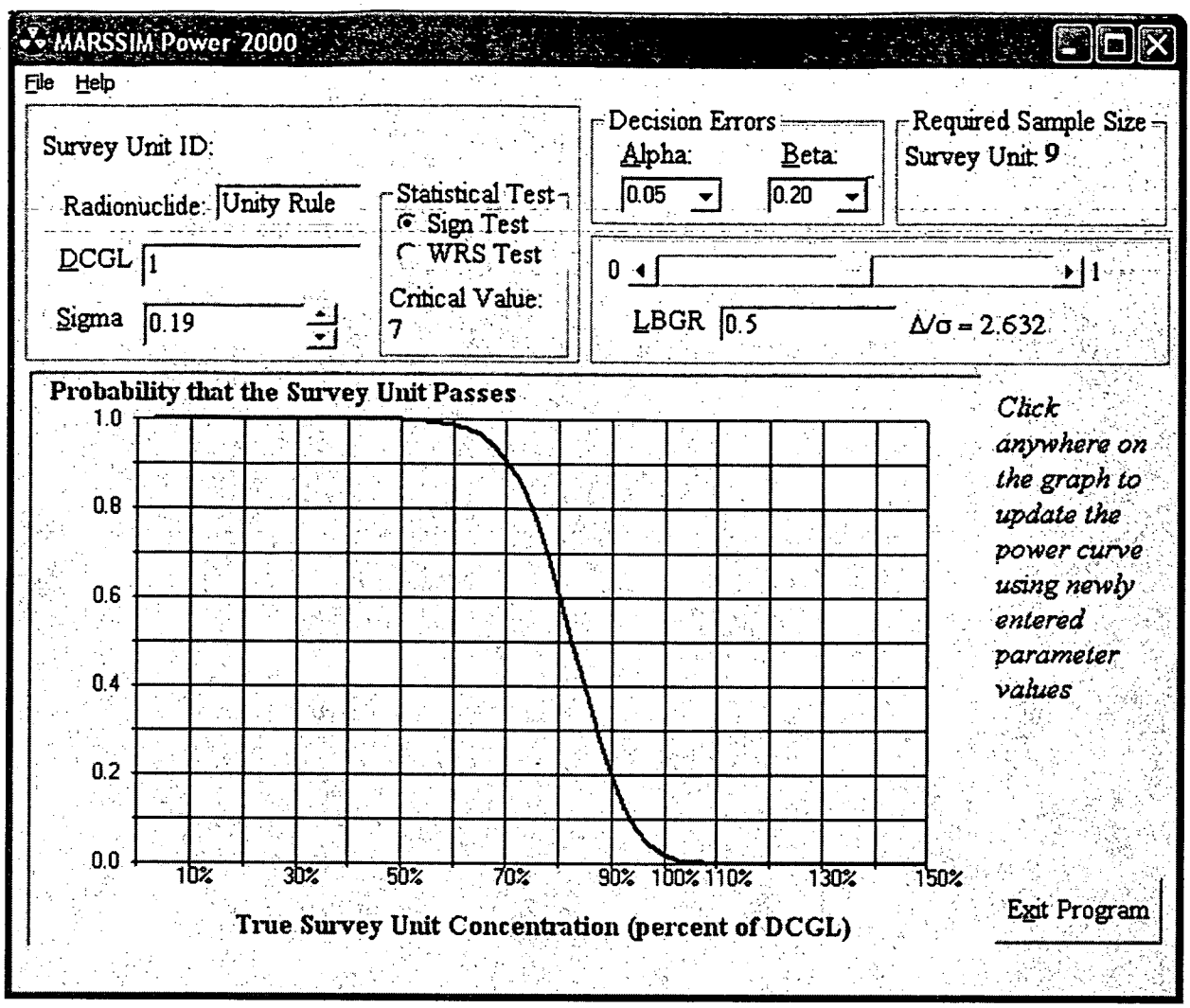
# PRS11 SU2 Retrospective Power Curve

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# APPENDIX E

## DATA REVIEW & VALIDATION

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# Review & Validation Report

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# Acronyms and Abbreviations

| | |
|---|---|
| DOE | U.S. Department of Energy |
| EPA | U.S. Environmental Protection Agency |
| FDRPD | Field Duplicate Relative Percent Difference |
| LDRPD | Laboratory Duplicate Relative Percent Difference |
| MDA | minimum detectable activity |
| MDC | minimum detectable concentration |
| MEIMS | Mound Environmental Information Management System |
| MS | matrix spike |
| MSD | Matrix spike duplicate |
| PRS | potential release site |
| RPD | relative percent difference |
| SOW | Statement of Work |
| SUD | survey unit design |
| USEPA | United States Environmental Protection Agency |
| VSAP | Verification Sampling and Analysis Plan |

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# 1.0 Introduction

## *1.1 Introduction*

This data assessment report has been prepared to describe the data quality for Potential Release Site (PRS) 11 Verification data. Data assessment encompasses two types of quality control reviews on the data: data review and data validation. Data review involves a review of the basic quality control data included in the laboratory data package, e.g., laboratory blanks, surrogate recoveries, matrix spike recoveries, and field duplicates. Data validation is a detailed review of the laboratory data packages, which include all of the data review elements plus verification of such things as proper instrument calibration, instrument calibration validity during sample analysis, identification of target analytes, and proper treatment and quantification of the data. Data validation was performed on 10% of the samples. The results of the data validation are assessed to identify whether any systemic problems are apparent.

# 2.0 Field Work Quality Assurance

## *2.1 Work Plan Compliance*

Work was generally performed in compliance with the Survey Unit Design (SUD) received by email on 14 November 2005 and the Mound Method Compendium. The following exceptions to the work plan compliance occurred during the field sampling events (Table 1).

**Table 1 — List of Variances**

| Variance | Description |
|---|---|
| 1 | **Field Sampling — December 2005**<br>The original SUD projected 68 samples for gamma spectrometry, isotopic thorium, and isotopic uranium analysis, and 6 samples for isotopic plutonium analysis. During the field event, 73 samples were collected for gamma spectrometry, isotopic thorium, and isotopic plutonium analysis, and 12 samples were collected for isotopic plutonium analysis. The additional samples were the results of OEPA bias samples specified in the field during sample collection. |
| 2 | **Laboratory Reporting — January 2006**<br>The laboratory did not originally report Pa-231. Pa-231 was added as an analyte of concern per the SUD submitted by Mark Spivey to Weston on 11/14/05. The laboratory was requested to report the analyte on 4 January 06. The data was re-processed and |

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| Table 1 — List of Variances | |
|---|---|
| **Variance** | **Description** |
| | reported by the laboratory with Pa-231 on 1/11/06. All results were less than 4 pCi/g – the site action limit, except for samples PRS11-0-01-037-000003 and PRS11-0-01-066-000006. No re-analyses were requested. |
| 3 | **Re-sampling – January 2006**<br>One grid in PRS 11 failed to meet criteria. The grid was further remediated, and CH2M Hill collected two verification samples and a field duplicate from the remediated grid on 12 January 2006. The data from the re-verification sample has also been incorporated into this report. |
| 4 | **Missing Gamma Replicate Data – January 2006**<br>Per the gamma spectrometry method (A-015), a sample specified as MS/MSD must be analyzed in replicate by the laboratory. The laboratory is not required to perform an MS/MSD on the gamma fraction. The laboratory failed to provide the replicate data and was notified to correct the deficiency. The missing data were received on 23 January 2006. |
| 5 | **Deficient Plutonium Matrix Spike/Matrix Spike Duplicate – January 2006**<br>The matrix spike/matrix spike duplicate results for plutonium-238 in sample 000062 were far below the acceptance limit. The laboratory attributed the low recovery to the sample matrix. The laboratory was requested to re-prepare and re-analyze the plutonium matrix spikes on sample 000062 to demonstrate the deficiency could be attributed to matrix interference. The re-analysis data was received on 23 January 2006 and did not confirm the matrix interference. The laboratory was ordered to evaluate the deficiency and then to analyze several samples in replicate. |

## *2.2 Field Quality Control Frequency – Verification Sampling*

The field sampling team is responsible for introducing or specifying field quality control samples, e.g., field rinsates, field duplicates, matrix spike/matrix spike duplicates, and trip blanks. There were two field sampling events during the PRS 11 field verification project. The first round of samples was collected by Weston Solutions, Inc. between 29 November 2005 and 1 December 2005, inclusively. A second, hot spot remediation verification sampling event occurred on 12 January 2006 with the samples collected by CH2M Hill. The results of both sampling events are discussed in this report. The field quality control frequencies required for PRS 11 are as follows:

- Field rinsates will be collected at a frequency of 1 per 20 samples.

  *Dedicated sampling equipment was used for the collection of the soil samples and no field rinsates were required.*

- Field duplicates will be collected at a frequency of 1 per 20 samples.

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- Matrix spike/matrix spike duplicates will be collected at a frequency of 1 per 20 samples.

The compliance with field quality control frequencies is assessed in the following subsections.

### 2.2.1 December Sampling Event

The field quality assurance frequencies (Table 2) were met or exceeded for the project.

**Table 2 — December Sampling Event Quality Control Sample Frequency**

| Analysis | Number of Samples | Field Rinsates | Field Duplicates | Matrix Spikes | Trip Blanks |
|---|---|---|---|---|---|
| Isotopic Thorium | 73 | NA | 4 | 4 | NA |
| Isotopic Uranium | 73 | NA | 4 | 4 | NA |
| Isotopic Plutonium | 12 | NA | 1 | 1 | NA |
| Gamma Spectrometry | 73 | NA | 4 | 4 | NA |

NA: not applicable

### 2.2.2 January Sampling Event

Samples PRS 11 SU1-53A and PRS 11 SU1-53AFD were submitted as verification samples for radiological analysis. The field quality control frequency (Table 3) was met or exceeded.

**Table 3 — January Sampling Event Quality Control Sample Frequency**

| Analysis | Number of Samples | Field Rinsates | Field Duplicates | Matrix Spikes[1] | Trip Blanks |
|---|---|---|---|---|---|
| Isotopic Thorium | 1 | NA | 1 | 0 | NA |
| Isotopic Uranium | 1 | NA | 1 | 0 | NA |
| Gamma Spectrometry | 1 | NA | 1 | 0 | NA |

[1] Matrix spike frequency met as part of the first sampling event.

# 3.0 Data Review and Data Validation

## *3.1 Data Review*

The quality control data submitted with the analytical data packages were reviewed and assessed. The results of the assessment are presented in this section. The following qualifications (Table 4) were used to indicate data quality problems identified during the

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data review process. The qualifications are essentially the same as those used for data validation.

**Table 4 — Data Review Qualifications**

| Qualification | Description |
|---|---|
| J | The associated positive sample result is estimated. |
| J/UJ | The associated positive and not-detected sample results are qualified estimated. |
| R | The associated sample result is rejected and unusable. |
| U | The associated sample result is qualified not detected. |
| UJ | The associated not-detected sample result is qualified estimated. |

### 3.1.1 Radiological Analysis

The field team submitted samples for isotopic thorium analysis. Table 5 shows the number of samples submitted for analysis.

**Table 5 — Radiological Sample Quantities**

| Analysis | Number of Samples (Dec.) | Number of Samples (Jan.) |
|---|---|---|
| Isotopic Thorium | 73 | 1 |
| Isotopic Uranium | 73 | 1 |
| Isotopic Plutonium | 12 | 0 |
| Gamma Spectrometry | 73 | 1 |

Data review elements, including yields, matrix spikes, laboratory blanks, laboratory duplicates, field rinsates, and field duplicates, are evaluated in the following subsections.

#### *3.1.1.1 Yields*

Yields were determined for isotopic thorium, isotopic uranium, and isotopic plutonium analyses by alpha spectrometry, and are used to assess and adjust for analytical inefficiencies that occur during sample preparation and analysis. The thorium yields ranged from 32% in sample 000036 to 102% in sample 000002, with an average recovery of 76%. The uranium yields ranged from 37% in samples 000009 and 000028 to 110% in sample 000022, with an average recovery of 95%. The plutonium yields ranged from 90% in sample 000015 to 103% in sample 000009, with an average recovery of 97%. These recoveries were all within the acceptance range of 20 – 120%.

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### *3.1.1.2 Matrix Spikes*

Matrix spikes (MSs) are prepared to verify that the sample matrix is not interfering with the accurate and precise determination of target parameters. Four matrix spike samples were specified by the field team: 000020, 000041, 000066, and 000077. Only sample 000062 was submitted for isotopic plutonium MS/MSD analysis. Table 6 lists by spike compound the number of spikes, the lowest recovery, the highest recovery, and the average.

**Table 6 — Radiological Matrix Spike Results**

| Sample | No. of Spikes | Low Recovery (%) | High Recovery (%) | Average (%) |
|---|---|---|---|---|
| Plutonium-238 | 1 | -20 | -18 | -19 |
| Plutonium-239 | 1 | 99 | 114 | 106 |
| Thorium-228 | 4 | 81 | 110 | 100 |
| Thorium-230 | 4 | 66 | 106 | 83 |
| Thorium-232 | 4 | 86 | 117 | 108 |
| Uranium-234 | 4 | 92 | 104 | 97 |
| Uranium-238 | 4 | 87 | 99 | 95 |

The laboratory reported a matrix interference problem that impacted the plutonium-238 results. The laboratory was requested to re-prepare and re-analyze the matrix spike sample for plutonium-238 to confirm the matrix spike interference. The result of the re-analysis (67%, 80%) did not support that the low plutonium-238 recovery was due to matrix interference. An examination of the plutonium spike data showed the following:

- The spike activity was not significantly greater than the sample activity, e.g., 1.49 pCi/g was spiked into a sample concentration of 5.4 pCi/g. Because the spike activity is much smaller than the sample activity, the possibility of erratic spike results is greater.

- The re-analysis of the sample, matrix spike, and matrix spike duplicate identified that the sample activity for plutonium-238 is probably less than 5.40 pCi/g and contributed to the calculated low recovery.

As a result of the matrix spike and the re-analyzed matrix spike results not matching, the laboratory was requested to re-analyze 000062 a third time and also re-analyze two

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other samples submitted for plutonium (10%). The re-analyses were assessed for comparability of the data as shown in Table 7.

**Table 7 — Plutonium Comparability**

| Sample ID | Plutonium-238 | | |
|---|---|---|---|
| | Original (pCi/g) | Re-analysis (pCi/g) | RPD (%) |
| 000062 | 5.4 | 3.17 | 26.02 |
| 000063 | 4.7 | 3.51 | 14.49 |
| 000069 | 34 | 44.8 | 13.71 |

RPD: relative percent difference

The re-analysis indicates that the original and re-analyzed samples are comparable (RPD <50%). The poor matrix spike recoveries in the original analysis are attributed to the low spike activity relative to the sample activity. The plutonium-238 data are qualified estimated (J) due to the second low recovery (<80%) of plutonium-238 of 67%. The data were considered usable for two reasons:

- The sample results were not near the site action limit.
- The low recoveries are still partially attributable to the selection of a spiking solution activity that is the sample activity.

The thorium-228 and thorium-232 spike results were within 80 – 120% recovery range. These recoveries were judged good, and the thorium-228 and thorium-232 data are usable without qualification. The thorium-230 recoveries included 4 of the 8 spike results below 80%. The lower spike recoveries indicate a slight potential negative bias. Because no thorium-230 results closely approached the cleanup objective, the slight bias has no impact on the data usability; however, the recoveries do indicate a possible systemic low bias, and the positive results for thorium-230 should be treated as estimated (J). The thorium data are usable. The uranium spike results were within the 80 – 120% recovery range. These recoveries were judged good, and the data are usable without qualification.

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### *3.1.1.3 Laboratory Blanks*

Laboratory blanks are used to verify that laboratory handling and procedures are not contaminating samples with target parameters. Two laboratory blanks were introduced during the isotopic plutonium analyses. No target parameters were detected in the blanks.

Five laboratory blanks were introduced during isotopic uranium analyses of the December samples. Uranium-234 was detected in two blanks at 0.022 and 0.027 pCi/g. Since only two of the five blanks contained contamination, the contamination was not systemic. The blank result, blank ID F5L120000-015B, of 0.022 pCi/g occurred in batch F5L070176. The blank result, blank ID F5L120000-14B, of 0.027 pCi/g occurred in batch F5L070157. The presence of the trace contaminant may introduce a very slight positive bias in the sample results from these two batches. Uranium-234 was not a parameter of interest, and the SUD contained no cleanup objective for this isotope. Because uranium-234 is not a parameter of interest and bias is very small, the data usability is not affected.

Six laboratory blanks were introduced during the isotopic thorium analyses of the December samples. Thorium-230 was detected in four of the blanks at activities of 0.032 pCi/g, 0.039 pCi/g, 0.035 pCi/g, and 0.034 pCi/g. The frequency of detection indicates that systemic low level contamination occurred in the laboratory. Since the blank results for thorium-230 are very similar and the contamination is systemic, all of the thorium-230 data should be treated as estimated (J) with a very slight positive bias. The qualification has no impact on data usability. Thorium-230 only exceeded the cleanup objective, in one sample, 000038. The thorium-230 result is nearly twice the cleanup objective and the slight positive bias has no impact on this data usability. *[note; this result is not a part of the PRS 11 verification data set].*

Six laboratory blanks were introduced during the gamma spectrometry analyses of the December samples. No target parameters were detected in any of the gamma spectrometry blanks.

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Laboratory blanks were introduced for thorium, uranium, and gamma spectrometry analysis of the January samples. Only thorium-230 was detected in the laboratory blanks. Thorium-230 was reported at 0.44 pCi/g in blank F6A170000-269B. The detected activity is sufficient to indicate a possible positive bias. The associate thorium-230 result should be treated as estimated (J) with a positive bias. Because the thorium-230 results in both the original and duplicate sample were below the cleanup objective, the positive bias has no impact on the data usability.

### *3.1.1.4 Laboratory Duplicates*

**December Sampling Event**

Laboratory duplicates are used to assess the sample analysis precision. Table 8 lists the analysis, the number of samples submitted, and the number of laboratory duplicate analyses. For the isotopic analyses, Method A-012, the laboratory must either analyze a matrix spike and replicate (laboratory duplicate) or a matrix spike/matrix spike duplicate. Matrix spike/matrix spike duplicate analyses were performed for the isotopic analyses; thus, the lack of laboratory duplicates for these analyses does not impact the data quality.

**Table 8 — Laboratory Duplicate Quantities**

| Analysis | Number of Samples | Number of Lab Duplicates |
|---|---|---|
| Isotopic Thorium | 73 | 1 |
| Isotopic Uranium | 73 | 0 |
| Isotopic Plutonium | 12 | 0 |
| Gamma Spectrometry | 73 | 5 |

The laboratory duplicate samples were evaluated by calculating the relative percent differences (RPDs). Relative percent differences were not calculated for duplicate pairs where both results were not detected or less than 2x the MDA (minimum detectable activity). If one result was greater than 2x the MDA and the other result was not detected, a 200% relative percent difference was used. If one result was greater than 2x the MDA and the other result was detected at less than 2x the MDA, the RPD was calculated. After calculating the relative percent differences, an average of relative percent differences for each analyte was calculated.

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Sample 000076 was analyzed in replicate by the laboratory for isotopic thorium. The relative percent differences for this replicate analysis were very good at less than 10%. Because only one replicate was analyzed, it is not possible to use this information to make a systemic evaluation. No qualifications or usability impacts to the isotopic thorium data were made on the basis of the replicate results.

Samples 000001, 000020, 000021, 000025, 000041, 000049, 000052, 000062, and 000073 were analyzed in replicate by gamma spectrometry. The only target parameters in the samples and replicate samples identified at activities sufficiently above the Minimum Detectable Concentration (MDC) were lead-210, potassium-40, radium-226, and radium-224. Except for lead-210, the calculated RPDs for these parameters were very good and less than 15%. The one lead-210 replicate pair that exceeded acceptance criteria included a not detected result and a result 3 times the MDC. Because the detected activity for lead was so near the MDC, the variance was attributed to an anomaly and was not judged to be significant. Table 9 lists the average RPDs for these parameters.

**Table 9 — Lab Duplicate RPDs for Radioisotopes**

| Analyte | All Detections | |
|---|---|---|
| | Frequency of Detection | Average RPD (%) |
| Thorium-228 | 1 | 7 |
| Thorium-230 | 1 | 0 |
| Thorium-232 | 1 | 3 |
| Lead-210 | 1 | 200 |
| Potassium-40 | 10 | 5 |
| Radium-226 | 9 | 7 |
| Radium-224 | 7 | 16.4 |

## January Sampling Event

Sample PRS 11 SU1-53A was analyzed in duplicate by the laboratory for thorium, uranium, and gamma spectrometry analysis. The relative percent differences for isotopic thorium and isotopic uranium analysis were all acceptable. The laboratory did not report the laboratory duplicate results for Pa-231, Bi-210, or Ra-224, and these were not evaluated. Because the results for all gamma spectrometry results in the sample,

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and the associated field duplicate were less than 2x the MDC, no relative percent differences could be calculated. The data are unqualified. Because only one sample was collected for radiological analysis during the January sampling event, the sample was submitted as a field duplicate, and the field duplicate precision results were acceptable; the absence of the laboratory duplicate data is not significant and does not impact the usability of the data.

#### *3.1.1.5 Field Rinsates*

Field rinsates are introduced to determine whether field decontamination procedures and field handling procedures could be contaminating sample results with target parameters. Dedicated equipment was used during this project, and no field rinsates were needed.

#### *3.1.1.6 Field Duplicates*

**December Sampling Event**

Field duplicates are used to assess the sample collection and sample analysis precision. Table 10 lists the analysis, the number of samples submitted, and the number of field duplicates submitted.

**Table 10 — Field Duplicate Quantities**

| Analysis | Number of Samples | Number of Field Duplicates |
|---|---|---|
| Isotopic Thorium | 73 | 4 |
| Isotopic Uranium | 73 | 4 |
| Isotopic Plutonium | 12 | 1 |
| Gamma Spectrometry | 73 | 4 |

The field duplicate samples were evaluated by calculating the relative percent differences. Relative percent differences were not calculated for duplicate pairs where both results were not detected or less than 2x the MDA. If one result was greater than 2x the MDA and the other result was not detected, a 200% relative percent difference was used. If one result was greater than 2x the MDA and the other result was detected at less than 2x the MDA, the RPD was calculated. After calculating the relative percent

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differences, an average of relative percent differences for each analyte was calculated. Samples 000020/000021, 000041/000042, 000062/000063, and 000073/000074 were submitted as field duplicates. The results are shown in Table 11.

**Table 11 — Field Duplicate RPDs for Radioisotopes**

| Analyte | All Detections | |
|---|---|---|
| | Frequency of Detection | Average RPD (%) |
| Thorium-228 (54%) | 4 | 23 |
| Thorium-230 | 4 | 10 |
| Thorium-232 | 4 | 32 |
| Uranium-234 | 4 | 23 |
| Uranium-238 | 4 | 14 |
| Plutonium-238 | 1 | 14 |
| Potassium-40 | 4 | 9 |
| Radium-226 | 4 | 10 |
| Radium-224 | 2 | 27 |

The average relative percent differences were all less than 50%. Only thorium-230 in sample pair 000073/000074 exceeded the field replicate criteria of 50% at 54%. The high relative percent difference indicates a potential inaccuracy in the reported activities for thorium-230. Because the other three field duplicates were acceptable, there was only a single exceedance, and the exceedance was by only 4%, the issue was not judged to be systemic.

**January Sampling Event**

One field duplicate of sample PRS 11 SU1-53A was submitted during the January sampling event. Only isotopic uranium and isotopic thorium results were reported at activities sufficiently above the MDC to evaluate. The relative percent differences were calculated for uranium-234, uranium-238, thorium-228, thorium-230, and thorium-232. All of the calculated relative percent differences were acceptable (<50%).

## *3.2 Data Validation*

Data validation was subcontracted to TechLaw, Inc. Table 12 shows the number of samples submitted by analysis and the number of samples validated.

**Table 12 — Data Validation Frequency Chart**

| Analysis | Number of Samples | Number of Samples Validated |
|---|---|---|
| Isotopic Thorium | 73 | 8 |
| Isotopic Uranium | 73 | 8 |
| Isotopic Plutonium | 12 | 2 |
| Gamma Spectrometry | 73 | 8 |

Table 13 shows the specific samples that were submitted for data validation and which analyses were validated.

**Table 13 – Validated Samples**

| Sample ID | Isotopic Plutonium | Isotopic Thorium | Isotopic Uranium | Gamma Spectrometry |
|---|---|---|---|---|
| 000001 | | X | X | X |
| 000023 | | X | X | X |
| 000034 | | X | X | X |
| 000051 | | X | X | X |
| 000056 | | X | X | X |
| 000062 | X | X | X | X |
| 000069 | X | X | X | X |
| 000073 | | X | X | X |

During data validation, four types of problems were identified:

- Precision for a laboratory duplicate analysis, relative percent difference, greater than acceptance limits.
- Precision for a field duplicate analysis, relative percent difference, greater than acceptance limits.
- A matrix spike recovery below acceptance limits.
- A gamma spectrometry analysis performed without sufficient ingrowth time.

Each of the problems identified above is discussed in the following subsections and assessed for impact to the data usability. The qualified results are summarized at the end of this section in Table 14.

### 3.2.1 Laboratory Duplicate

Laboratory duplicates are used to assess the precision of the laboratory analysis. The laboratory duplicate samples were evaluated by calculating the relative percent differences. In sample 000062, Pa-231 was qualified estimated (J) due to a calculated RPD of 136%. During data review, the same sample was not qualified because the results were within 2x the MDC. The high RPD is due to increased uncertainty of sample activities that are near the instrument limit. The qualification does not impact the usability of the data. Th-228 was qualified estimated (J) in sample 000073 with a calculated RPD of 55%.

### 3.2.2 Field Duplicates

Field duplicates are used to assess the sample collection and sample analysis precision. The field duplicate samples were evaluated by calculating the relative percent differences. A Th-228 result was qualified estimated (J) in sample 000073/000074 with a calculated RPD of 55%. The calculated RPD was just slightly above the guidance value of 50%. The high RPD indicates variability in the sample result. The issue was also identified during data review. The data are usable with this qualification.

### 3.2.3 Matrix Spikes

Matrix spikes are prepared to verify the sample matrix is not interfering with the accurate and precise determination of target parameters. The plutonium-238 result was qualified in sample 000062 due to a low matrix spike recovery of 67%. In the data review section, a more detailed assessment of the spike recovery is presented. The low recovery was judged systemic, and all positive plutonium-238 results should be treated as estimated (J). The qualification should not impact the usability of the data.

Four samples were qualified estimated (J) due to poor thorium-230 matrix spike recoveries: 000056, 000062, 000069, and 000073. The frequency of qualifications indicates a potential systemic low bias, and all positive thorium-230 results should be treated as estimated (J). The qualification should not impact the usability of the data.

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### 3.2.4 Inadequate Time for Ingrowth

In some cases, more than one isotope will emit energy in a specific energy region. In order to be able to separate and accurately measure the activity of a select isotope in one of these overlapping ranges, samples need to be counted, set aside for a period of time (ingrowth), and re-counted. Because the samples were processed on an accelerated turn around time, the laboratory could not allow adequate ingrowth time. By not allowing the appropriate ingrowth time, the results for radium-224 and radium-226 could be reported with a slight bias. The bias was qualified by the validator, and the results of all radium-224 and radium-226 samples should be treated as estimated (J) due to the possible slight bias. Because the radium results used to support verification were significantly less than the site action limit, the bias and associated qualification should not impact the data usability.

### 3.2.5 Data Qualifications Table

Table 14 lists the qualifications assigned during data validation.

**Table 14 – Validated Samples/Qualifications**

| Sample ID | Isotope | Reason for Qualification | Qual. |
|---|---|---|---|
| 000062 | Pu-238 | MSR (67%) | J-S (-) |
| 000062 | Pa-231 | LDRPD (136%) | J |
| 000062 | Ra-226 | Equilibrium w/Bi-214 | J (-) |
| 000056 | Ra-226 | Equilibrium w/Bi-214 | J (-) |
| 000069 | Ra-226 | Equilibrium w/Bi-214 | J (-) |
| 000062 | Ra-224 | Equilibrium w/Pb-214 | J (+) |
| 000056 | Ra-224 | Equilibrium w/Pb-214 | J (+) |
| 000069 | Ra-224 | Equilibrium w/Pb-214 | J (+) |
| 000056 | Th-230 | MSR (72%) | J (-) |
| 000062 | Th-230 | MSR (72%) | J (-) |
| 000069 | Th-230 | MSR (72%) | J (-) |
| 000023 | Ra-226 | Equilibrium w/Bi-214 | J (-) |
| 000023 | Ra-224 | Equilibrium w/Pb-214 | J (+) |
| 000001 | Ra-226 | Equilibrium w/Bi-214 | J (-) |
| 000001 | Ra-224 | Equilibrium w/Pb-214 | J (+) |
| 000034 | Ra-226 | Equilibrium w/Bi-214 | J (-) |
| 000034 | Ra-224 | Equilibrium w/Pb-214 | J (+) |
| 000051 | Ra-226 | Equilibrium w/Bi-214 | J (-) |
| 000051 | Ra-224 | Equilibrium w/Pb-214 | J (+) |
| 000073 | Ra-226 | Equilibrium w/Bi-214 | J (-) |
| 000073 | Ra-224 | Equilibrium w/Pb-214 | J (+) |
| 000073 | Th-230 | MSR (71%) | J-S(-) |
| 000073 | Th-228 | FDRPD (55%) | J |

**Codes:**

MSR – Matrix Spike Recovery

LDRPD – Laboratory Duplicate Relative Percent Difference

FDRPD – Field Duplicate Relative Percent Difference

J – Estimated

S – Spike

(-) – Negative bias

(+) – Positive bias

# 4.0 References


DOE (U.S. Department of Energy). 22 January 2002. *Methods Compendium.* Mound Plant, Miamisburg OH. Technical Manual MD-80045, Issue 2.

EPA (U.S. Environmental Protection Agency). July 1999. *Data Validation Standard Operating Procedures for Contract Laboratory Program Routine Analytical Services.* Region IV, Science and Ecosystem Support Division, Office of Quality Assurance, Athens GA. Revision 2.1.


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# APPENDIX F

## ENGINEERING REPORT

BOWSER MORNER®

Recommendations for Soil Removal Project, The Mound
Miamisburg, Ohio

For

CH2M Hill, Mound, Inc.
P.O. Box 3030
Miamisburg, Ohio 45343-3030

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Recommendations for Soil Removal Project, The Mound
Miamisburg, Ohio

For

CH2M Hill, Mound, Inc.
P.O. Box 3030
Miamisburg, Ohio 45343-3030

Report No. 134305-0705-198

July 15, 2005

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**ENGINEERING REPORT**

**REPORT TO:** CH2M Hill Mound, Inc.
1 Mound Road
P.O. Box 3030
Miamisburg, Ohio 45343-3030

Attn: Mr. Mark Spivey

**REPORT DATE:** July 15, 2005

**REPORT NO:** 134305-0705-198

**REPORT ON:** Recommendations for Soil Removal Project, The Mound, Miamisburg, Ohio

## 1.0 INTRODUCTION

This project consists of the removal of soil fill and crushed drums from a triangular area in the Mound complex in Miamisburg, Ohio. Based on a site topographic map provided by the client, each side of the triangular area is about 150 feet to 220 feet long. An old, unspecified landfill area is next to the east side of this study area. The top of the fill area is at an elevation of 732 feet while the street level next to this study area is at an elevation of 702 feet.

Excavation to remove the soil fill was in progress at the time this report was prepared. The contractor created a southwesterly cut slope at a grade of 1-1/2 (horizontal) to 1 (vertical). The toe of the excavation was at an approximate elevation of 702 feet in front of the cut slope. The bottom of the excavation will extend to an elevation of 692 feet to allow the safe removal of as many of the crushed metal drums as possible. Based on the contract with the contractor, the side slope will be maintained at 1-1/2 (horizontal) to 1 (vertical) for safety and to prevent disturbances of the embankment between the area with buried drums and the unspecified landfill area to the east.

The purposes of our study were to provide consultation for maximizing the bottom of the excavation area to remove as many crushed drums as possible, to determine the maximum safe slope in the excavation, and to provide the estimated excavation volume for each of the proposed excavation methods.


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The following methods were formulated during this study and discussed with Mr. Mark Spivey with CH2M Hill Mound, Inc.:

1) Install tie-back sheet piles from the top of the slope to lower the top of the excavation and increase the exposed area at the bottom of the excavation.

2) Perform soil borings to verify the fill and original soil conditions so that the grade of the cut slope could be increased.

3) Provide other excavation methods to increase the exposure at the bottom of the excavation.

The first method was discussed with Mr. Spivey during our first site visit about one week before the excavation operation began on the site. Mr. Spivey said that while this method could have been considered earlier, it was no longer possible since a contract had been finalized with the earthwork contractor. Since any change in the original design with a 1-1/2 (horizontal) to 1 (vertical) cut slope could delay the project, which is unacceptable, no further consideration of the first method was needed. The remaining methods are discussed below.

## 2.0 WORK PERFORMED

For the second and the third methods, four borings were proposed to be made from the top of the cut slope. These borings were intended to provide information on the fill and original soil conditions. However, due to the limited area at the top of the cut slope, only two soil borings were made at the locations shown on the boring location plan (Figure 2). The borings were made with a boring rig mounted on a track vehicle using hollow-stem augers and standard penetration resistance methods. The standard penetration tests were performed in accordance with ASTM D1586, which includes a 140-pound hammer, 30-inch drops, and two-inch-O.D. split-spoon samplers driven at maximum depth intervals of five feet or at major changes in stratum, whichever occurred first. The disturbed split-spoon samples were visually classified, logged, sealed in moisture-proof jars, and taken to the Bowser-Morner laboratory for study. The depths

where these "A"-type split-spoon samples were collected are noted on the corresponding boring logs.

## 3.0 SOIL AND GROUNDWATER CONDITIONS

Based on the information from the two borings made for this study, the subgrade soil conditions are described in descending order below:

- 23 to 24 feet of undocumented and uncontrolled fill consisting of topsoil; brown lean clay; brown and gray, sandy lean clay; and brown and gray sandy clay and silt.
- Below the fill layer, four to 20 feet of medium-stiff-to-very-stiff, brown or gray, sandy lean clay.
- In Boring 1 and below the gray, sandy, lean clay layer, five feet of very stiff, brown lean clay with sand.
- In Boring 2 and below the brown, sandy, lean clay layer, stiff, olive-gray lean clay with sand extending to the bottom of this boring at a depth of 45 feet.
- In Boring 1 and below the brown lean clay with sand layer, three feet of very dense, brown silty sand.
- Auger refusal on apparent bedrock occurred at the bottom of Boring 1 at a depth of 36 feet.

Groundwater was not encountered during the boring operations. Free groundwater is defined as water that seeps into an open borehole before it is backfilled. Groundwater observations were made during the boring operations by noting the depth of water on the boring tools and in the open boreholes following withdrawal of the boring augers. However, it should be noted that short-term water level readings are not necessarily a reliable indication of the groundwater level and that significant fluctuations may occur due to variations in rainfall and other factors. For specific questions on the soil conditions, please refer to the individual boring logs in Appendix A.

## 4.0 EVALUATION OF SOIL STRENGTH PARAMETER

The strength parameters of the existing fill over the buried metal drums and the original soil layer were evaluated based on the conditions of the fill and the soil layers

indicated in the two borings made for this study. These strength parameters are discussed below.

## 4.1 UNDOCUMENTED AND UNCONTROLLED FILL

The angle of friction for the undocumented and uncontrolled fill was estimated based on correlations with the Standard Penetration Test (SPT-N) results indicated in the borings made for this study.

Figure 1 below was reproduced from *Soils and Foundations Handbook*, State of Florida Department of Transportation, 1974. Based on Figure 1 and the average "N" value of 25, the strength parameter "ϕ" is 30 degrees. Based on our experience with similar materials, a cohesion of 250 psf and a unit weight of 125 pcf were assumed for the existing fill.

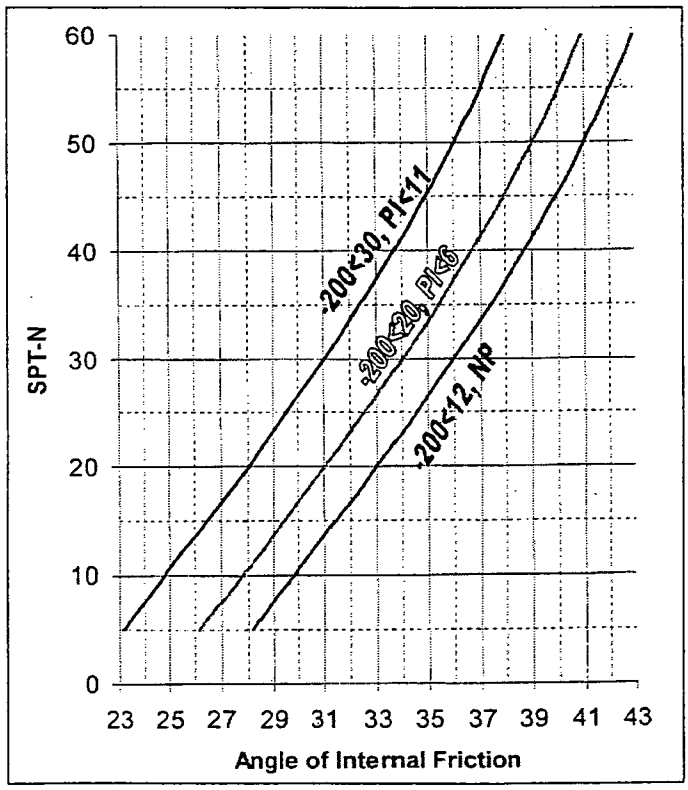


Figure 1. Angle of Internal Friction vs. SPT-N (from Peck, 1974).

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### 4.2 ORIGINAL LEAN CLAY

The strength parameter "ϕ" for the original, lean clay layer was also determined to be about 30 degrees, with the average "N" value of 25. Again, based on our experience with similar types of soil, a cohesion of 250 psf and a unit weight of 125 pcf were assumed for the original, lean clay layer.

## 5.0 DISCUSSION AND RECOMMENDATIONS

### 5.1 CONSIDERATION OF STEEPER CUT SLOPE AND SHEAR WALLS

Based on the soil conditions indicated in the two borings made for this study, the grade of the cut slope may be increased from 1-1/2 (horizontal) to 1 (vertical) to a slope of 1 (horizontal) to 1 (vertical). Additionally, a near-vertical shear wall may be considered at the toe of the cut slope to increase the excavation area at the bottom of the excavation. Evaluations of these methods are discussed below.

### 5.2 SUBGRADE SOIL CLASSIFICATION FOR EXCAVATION

Based on the Occupational Safety and Health Administration's (OSHA's) Subpart P-Excavations (29 CFR PART 1926), cohesive soil with an unconfined compressive strength of 3,000 pounds per square foot (psf) or greater can be classified as Type "A" soil. Cohesive soil with an unconfined compressive strength greater than 1,000 psf but less than 3,000 psf can be classified as Type "B" soil, and cohesive soil with an unconfined compressive strength of 1,000 psf or less can be classified as Type "C" soil. Dense or very dense granular soil with no water can be classified as Type "B" soil; the other granular soils should be classified as Type "C" soil. Previously disturbed soil (fill) should not be classified as Type "A" soil.

Based on the standard penetration test (SPT) results from this study, the subgrade soils at the site are classified as shown in Table 1.

TABLE 1. Subgrade Soil Classification (OSHA)

| Boring No. | Depth (ft.) | OSHA Soil Type |
|---|---|---|
| 1 | 0.0 – 24.0 | B |
| | 24.0 – 33.0 | A |
| | 33.0 – 36.0 | B |
| 2 | 0.0 – 23.0 | B |
| | 23.0 – 38.0 | A |
| | 38.0 – 45.0 | B |

If weaker soil is encountered below stronger soil, the excavations in the stronger soil above the weaker soil layer have to be designed or prepared in accordance with the weaker soil type. At the time of our study, free groundwater was not encountered during the boring operations. Any groundwater encountered at the site should be lowered to at least three feet below the bottom of the maximum. Otherwise, the bottoms of the excavation will be very soft due to the groundwater seepage. All submerged soil or soil from which water is freely seeping should be classified as Type "C" soil.

Based on the OSHA subgrade soil classifications outlined in Table 3 and from the results of the standard penetration tests (SPT), the cut slope for the excavation of the soil at the site can be maintained at 1 (horizontal) to 1 (vertical).

## 5.3 SHEAR WALL METHOD

The present cut slope is at a grade of 1-1/2 (horizontal) to 1 (vertical). The cut slope can be increased to a slope of 1 (horizontal) to 1 (vertical). Additionally, the near-vertical shear wall may be able to extend from an elevation of 702 feet (even with the street level) to the proposed bottom of the excavation at an elevation of 692 feet to increase the area at the bottom of the excavation. Based on the soil strength parameters determined in the previous sections and the cut slope of 1 (horizontal) to 1 (vertical), and with the near-vertical shear wall extending from an elevation of 702 feet to an elevation of 692 feet at the toe of the cut slope, the slope stability analyses were performed based on short-term and long-term conditions.

The short-term conditions depend on the cohesion only of the soil to resist the sliding failure. The long-term conditions depend on the combination of the cohesion and the internal friction between soil particles. The long-term conditions of the cut slope also apply to the slope if it becomes saturated with surface water runoff during construction.

The slope-stability analyses were performed using the computer program STABL6H. This program was developed at Purdue University in cooperation with the Federal Highway Administration. The program is capable of determining the factor of safety for potential failure surfaces of given configurations and includes a search routine that locates the surface that gives a minimum factor of safety. The Simplified Bishop method was used for circular failure surfaces (rotational stability analysis). The program uses a limited equilibrium procedure applied to the method of slices. A plotting subroutine provides graphical representation of the analyzed slope sections, including pertinent analysis information such as the most-critical failure surfaces and the factors of safety for these most-critical surfaces.

Based on information from the two borings made for this study and existing information for similar materials, the input parameters for the subgrade materials were selected for use in the slope-stability analyses. The slope-stability analyses were performed under static conditions using both short-term and long-term, effective strength parameters. An overall side slope of 1 (horizontal) to 1 (vertical) was used in the analyses. Table 2 summarizes the strength parameters used for the analyses.

TABLE 2. Strength Parameters for Slope Stability Analyses

| Material | Test Condition | Dry Unit Weight (pcf) | Effective Strength $\phi'$ (°) | Cohesion C' (psf) |
|---|---|---|---|---|
| Fill | Short-term | 125 | 0 | 1000 |
| | Long-term | 125 | 30 | 250 |
| Lean Clay | Short-term | 125 | 0 | 1000 |
| | Long-term | 125 | 30 | 250 |

## 5.4 RESULTS OF SLOPE STABILITY ANALYSES

The results of the slope stability analyses are summarized in Table 3. The computer printouts and calculations are included in Appendix B of this report.

TABLE 3. Results of Slope Stability Analyses

| Analysis Condition | Vertical Shear Wall | Minimum Factor of Safety |
|---|---|---|
| Short-term | No Shear Wall | 1.26 |
| Short-term | Full face shear wall | 1.12 |
| Long-term | No Shear Wall | 1.21 |
| Long-term | Full face shear wall | 1.02 |

Based on the results of the slope-stability analyses, the minimum factors of safety of the 1 (horizontal) to 1 (vertical) cut slope are between 1.21 and 1.26 for long-term and short-term conditions.

The 1 (horizontal) to 1 (vertical) cut slope with a full-face shear wall at the toe may become unstable after a few months or if the slope is fully saturated with water due to rain. As a result, we do not recommend that a full-face shear wall be excavated at the toe of the 1 (horizontal) to 1 (vertical) cut slope.

## 5.5 SOIL REMOVAL RECOMMENDATIONS

To maintain a safe slope and to increase the amount of excavation below the existing flat level, we recommend that alternating 10-foot-wide sections of excavation be performed from the top of the flat area at an elevation of 702 feet to reach the buried, crushed-drums at an elevation of 692 feet. The trench excavations should be perpendicular to the toe of the slope. No worker should be allowed to enter the 10-foot-wide excavations. After all of the crushed drums have been removed from each alternating 10-foot-wide trench, the trench should be backfilled with compacted soil fill. The remaining alternating sections of 10-foot-wide soil then can be removed, and the crushed drums can be removed from those sections. The overall side slope in front of the landfill can be maintained at 1 (horizontal) to 1 (vertical), not to exceed a total height of

28 feet.

Performing the full-face, open, vertical-cut excavation at the toe of the slope may cause failure of the slope. The failure of the slope would jeopardize the integrity of the landfill to contain the undesirable materials. If failure of the slope were to occur, the failed material would need to be excavated, opening up the protected landfill and increasing the chances of breaking the landfill seal.

## 5.6 VOLUME OF EXCAVATION

Based on the topographic map provided by the client, the excavation volumes have been determined between elevations of 702 feet and 692 feet.

If the side slope will be maintained at a 1-1/2 (horizontal) to 1 (vertical) slope, the amount of excavation of the material below an elevation of 702 feet will be 4,483 cubic yards. The amount of surface area of excavation will be 8,466 square feet. For the 1-1/2 (horizontal) to 1 (vertical) cut slope with the vertical shear wall, the excavation of the material will be 5,915 cubic yards, an increase of 1,432 cubic yards. The amount of surface area of excavation for the 1-1/2 (horizontal) to 1 (vertical) cut slope with the vertical shear wall will be 15,970 square feet, an increase of 7,504 square feet.

The total amount of excavation with a 1 (horizontal) to 1 (vertical) cut slope with no vertical shear wall will be about 5,198 cubic yards, which increases the cut volume by 715 cubic yards from the 1-1/2 (horizontal) to 1 (vertical) cut slope with no vertical shear wall. The amount of surface area of excavation for the 1 (horizontal) to 1 (vertical) cut slope with no vertical shear wall will be about 10,718 square feet, which increases the surface area of excavation by 2,252 square feet from the 1-1/2 (horizontal) to 1 (vertical) cut slope with no vertical shear wall. The total amount of excavation with a 1 (horizontal) to 1 (vertical) cut slope with the vertical shear wall will be about 6,512 cubic yards, an increase in cut volume of 2,029 cubic yards from the 1-1/2 (horizontal) to 1 (vertical) cut slope with no vertical shear wall. The amount of surface area of excavation for the 1 (horizontal) to 1 (vertical) cut slope with the vertical shear wall will be about 17,582 square feet, which increases the surface area of excavation by 9,116 square feet

from the 1-1/2 (horizontal) to 1 (vertical) cut slope with no vertical shear wall.

If you have any questions, please contact us.

Respectfully Submitted
BOWSER-MORNER, INC.

Chris R. Ryan, M.S., E.I.T.
Geotechnical Engineer

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CRR/RJYT/kmw
3-Addressee
2-File

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# APPENDIX A

# BORING LOGS AND PRINTS

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# Important Information About Your

# Geotechnical Engineering Report

*Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.*

*The following information is provided to help you manage your risks.*

## Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. *No one except you* should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one—not even you*—should apply the report for any purpose or project except the one originally contemplated.

## Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

## A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, *do not rely on a geotechnical engineering report* that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

## Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

## Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions *only* at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an *opinion* about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

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## A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual subsurface conditions revealed during construction. *The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.*

## A Geotechnical Engineering Report Is Subject To Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

## Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

## Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time* to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

## Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce such risks, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations", many of these provisions indicate where geotechnical engineers responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

## Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

## Rely on Your Geotechnical Engineer for Additional Assistance

Membership in ASFE exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your ASFE-member geotechnical engineer for more information.

ASFE
The Best People on Earth
8811 Colesville Road Suite G106 Silver Spring, MD 20910
Telephone: 301-565-2733 Facsimile: 301-589-2017
email: info@asfe.org www.asfe.org

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# BORING LOG TERMINOLOGY

**Stratum Depth:**

Distance in feet and/or inches below ground surface.

**Stratum Elevation:**

Elevation in feet below ground surface elevation.

**Description of Materials:**

Major types of soil material existing at boring location. Soil classification based on one of the following systems: Unified Soil Classification System., Ohio State Highway Classification System. Highway Research Board Classification System. Federal Aviation Authority Classification System. Visual Classification.

**Sample No.:**

Sample numbers are designated consecutively, increasing with depth for each boring.

**Sample Type:**

"A" Split spoon. 2" O.D., 1-3/8" I.D., 18" in length.

"B" Rock Core

"C" Shelby Tube 3" O.D. except where noted

"D" Soil Probe

"E" Auger Cuttings

"F" Sonic

**Sample Depth:**

Depth below top of ground at which appropriate sample was taken.

**Blows per 6" on Sampler:**

The number of blows required to drive a 2" O.D., 1-3/8" I.D., split spoon sampler. using a 140 pound hammer with a 30-inch free fall, is recorded for 6" drive increments. (Example: 3/8/9).

**"N" Blows/Ft.:**

Standard penetration resistance. This value is based on the total number of blows required for the last 12" of penetration. (Example: 3/8/9: N = 8 + 9 = 17)

BOWSER MORNER

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**Water Observations:**

Depth of water recorded in test boring is measured from top of ground to top of water level. Initial depth indicates water level during boring, completion depth indicates water level immediately after boring, and depth after "X" number hours indicates water level after letting water rise or fall over a time period. Water observations in pervious soil are considered reliable ground water levels for that date. Water observations in impervious soils can not be considered accurate ground water measurements for that date unless records are made over several days' time. Factors such as weather, soil porosity, etc., will cause the ground water level to fluctuate for both pervious and impervious soils.

## SOIL DESCRIPTION

**Color:**

When the color of the soil is uniform throughout, the color recorded will be such as brown, gray, or black and may be modified by adjectives such as light and dark. If the soil's predominant color is shaded by a secondary color, the secondary color precedes the primary color, such as: gray-brown, yellow-brown. If two major and distinct colors are swirled throughout the soil, the colors will be modified by the term mottled, such as: mottled brown and gray.

| Particle Size | | Visual |
|---|---|---|
| Boulders | | Larger than 8" |
| Cobbles | | 8" to 3" |
| Gravel | – Coarse | 3" to 3/4" |
| | – Fine | 2 mm. To 3/4" |
| Sand | – Coarse | 2 mm. – 0.6 mm. (Pencil lead size) |
| | – Medium | 0.6 mm. – 0.2mm. Table sugar and salt size) |
| | – Fine | 0.2 mm. – 0.06 mm. (Powdered sugar and human hair size) |
| Silt | | 0.06 mm. – 0.002 mm. |
| Clay | | 0.002 and smaller (Particle size of both Silt and Clay not visible To naked eye |

**Soil Components**

| Major Component: | Minor Component Term |
|---|---|
| Gravel | Trace 1-10% |
| Sand | Some 11-35% |
| Silt | And 36-50% |
| Clay | |

**Moisture Content**

| Term | Relative Moisture |
|---|---|
| Dry | Powdery |
| Damp | Moisture content below plastic limit |
| Moist | Moisture content above plastic limit but below liquid limit |
| Wet | Moisture content Above liquid limit |

**Condition of Soil Relative to Compactness Granular Material**

| | |
|---|---|
| Very Loose | 5 blows/ft. or less |
| Loose | 6 to 10 blows/ft. |
| Medium Dense | 11 to 30 blows/ft. |
| Dense | 30 to 50 blows/ft. |
| Very Dense | 51 blows/ft. or more |

**Condition of Soil Relative to Consistency Cohesive Material**

| | |
|---|---|
| Very Soft | 3 blows/ft. or less |
| Soft | 4 to 5 blows/ft. |
| Medium Stiff | 6 to 10 blows/ft. |
| Stiff | 11 to 15 blows/ft. |
| Very stiff | 16 to 30 blows/ft. |
| Hard | 31 blows/ft. or more |

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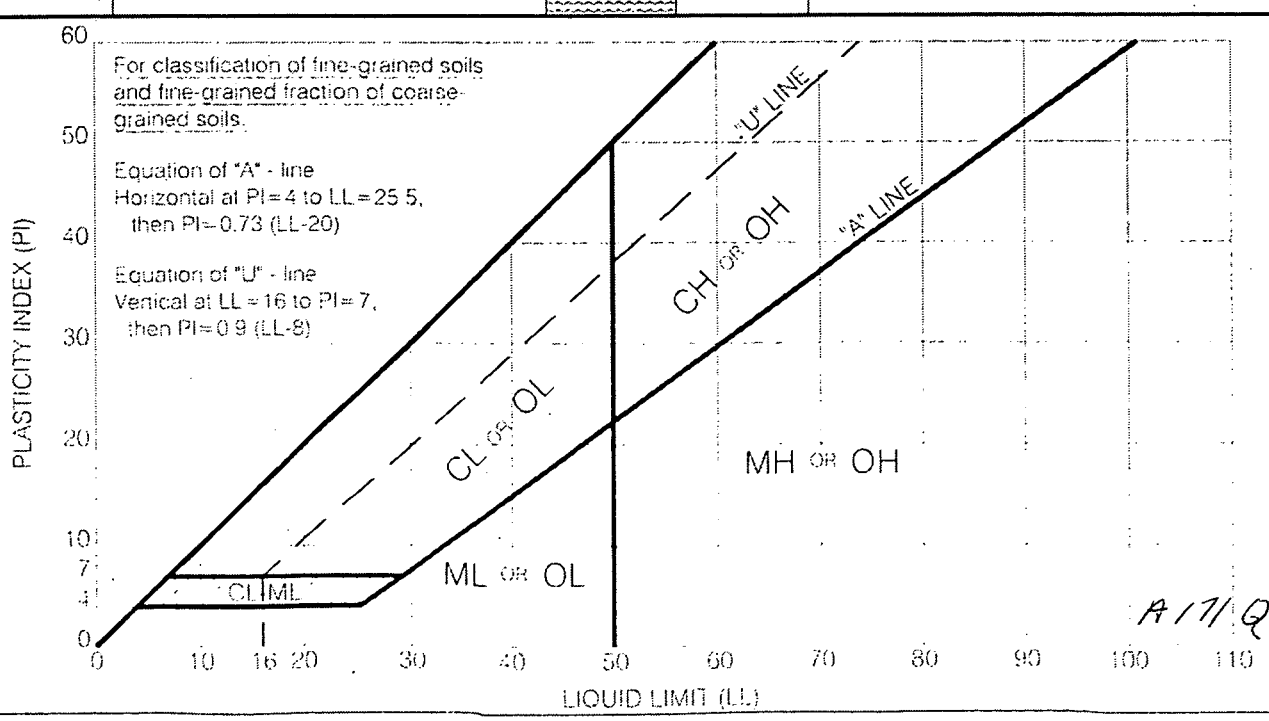
# UNIFIED CLASSIFICATION SYSTEM

| MAJOR DIVISIONS | | | GRAPH SYMBOL | LETTER SYMBOL | TYPICAL DESCRIPTIONS |
|---|---|---|---|---|---|
| COARSE GRAINED SOILS<br>MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE | GRAVEL AND GRAVELLY SOILS<br>MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE | CLEAN GRAVELS (LITTLE OR NO FINES) | | GW | WELL-GRADED GRAVEL<br>WELL-GRADED GRAVEL WITH SAND |
| | | | | GP | POORLY GRADED GRAVEL<br>POORLY GRADED GRAVEL WITH SAND |
| | | GRAVELS WITH FINES APPRECIABLE AMT. OF FINES) | | GM | SILTY GRAVEL<br>SILTY GRAVEL WITH SAND |
| | | | | GC | CLAYEY GRAVEL<br>CLAYEY GRAVEL WITH SAND |
| | SAND AND SANDY SOILS | CLEAN SAND (LITTLE OR NO FINES) | | SW | WELL-GRADED SAND<br>WELL-GRADED SAND WITH GRAVEL |
| | | | | SP | POORLY GRADED SAND<br>POORLY GRADED SAND WITH GRAVEL |
| | MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE | SANDS WITH FINES (APPRECIABLE AMT. OF FINES) | | SM | SILTY SAND<br>SILTY SAND WITH GRAVEL |
| | | | | SC | CLAYEY SAND<br>CLAYEY SAND WITH GRAVEL |
| FINE GRAINED SOILS<br>MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE | SILT AND CLAYS | LIQUID LIMIT LESS THAN 50 | | ML | SILT, SILT WITH SAND, SANDY SILT<br>GRAVELLY SILT, GRAVELLY SILT WITH SAND |
| | | | | CL | LEAN CLAY WITH SAND, SANDY LEAN CLAY<br>GRAVELLY LEAN CLAY WITH SAND |
| | | | | OL | ORGANIC CLAY, SANDY ORGANIC CLAY<br>ORGANIC SILT, SANDY ORGANIC SILT WITH GRAVEL |
| | SILT AND CLAYS | LIQUID LIMIT GREATER THAN 50 | | MH | ELASTIC SILT WITH SAND, SANDY ELASTIC SILT<br>GRAVELLY ELASTIC SILT WITH SAND |
| | | | | CH | FAT CLAY WITH SAND, SANDY FAT CLAY<br>GRAVELLY FAT CLAY WITH SAND |
| | | | | OH | ORGANIC CLAY WITH SAND, SANDY ORGANIC CLAY, ORGANIC SILT, SANDY ORGANIC SILT |
| | HIGHLY ORGANIC SOILS | | | PT | PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS |

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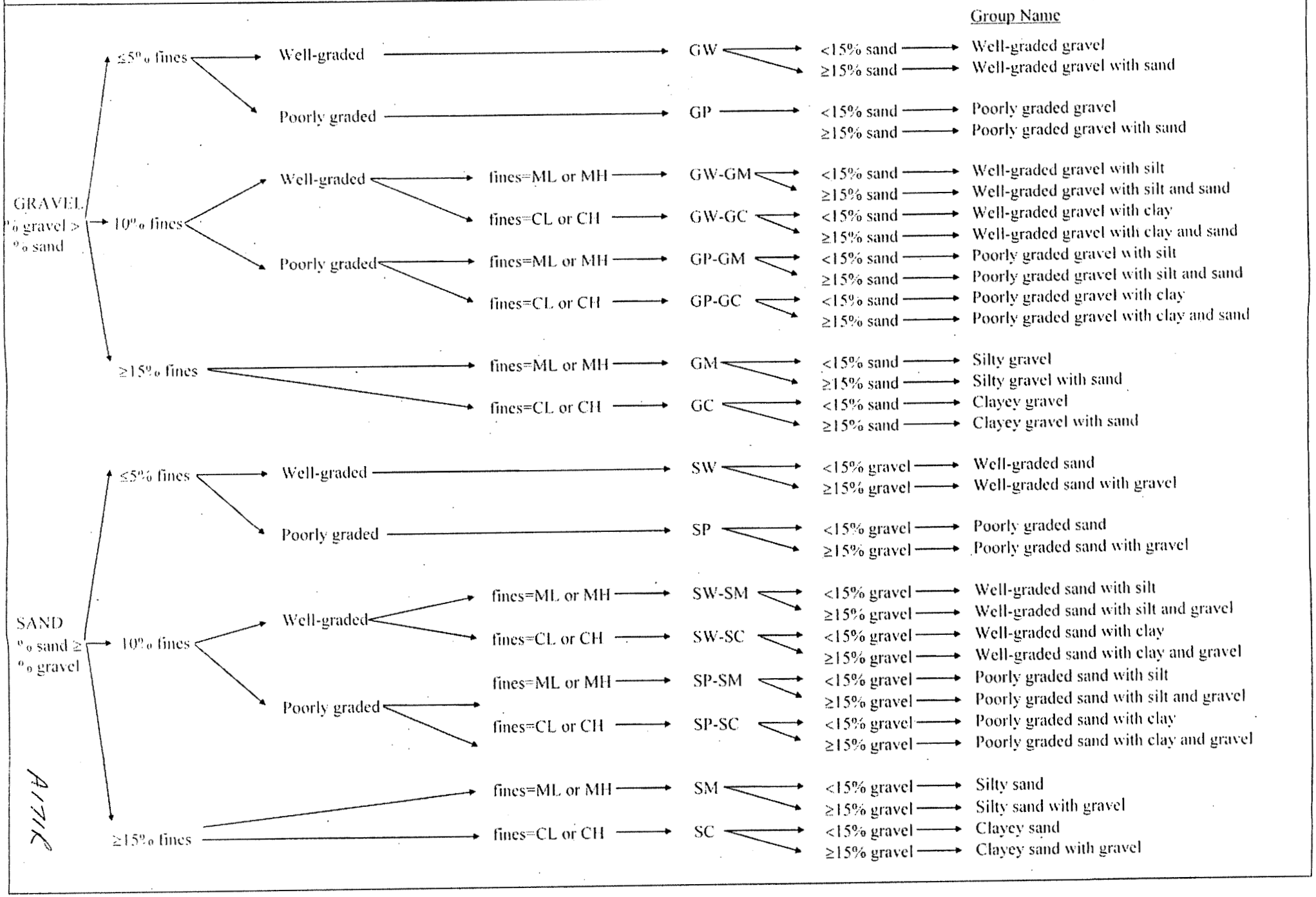
# Flow Chart for Visually Identifying Soils Based on ASTM D-2488

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# Flow Chart for Visually Identifying Soils Based on ASTM D-2488

| | | | | Group Name |
|---|---|---|---|---|
| CL | <30% plus No. 200 | <15% plus No. 200 | | Lean clay |
| | | 15-25% plus No. 200 | % sand ≥% gravel | Lean clay with sand |
| | | | % sand <% gravel | Lean clay with gravel |
| | ≥30% plus No. 200 | % sand ≥% gravel | <15% sand | Sandy lean clay |
| | | | ≥15% sand | Sandy lean clay with gravel |
| | | % sand <% gravel | <15% sand | Gravelly lean clay |
| | | | ≥15% sand | Gravelly lean clay with sand |
| ML | <30% plus No. 200 | <15% plus No. 200 | | Silt |
| | | 15-25% plus No. 200 | % sand ≥% gravel | Silt with sand |
| | | | % sand <% gravel | Silt with gravel |
| | ≥30% plus No. 200 | % sand ≥% gravel | <15% sand | Sandy silt |
| | | | ≥15% sand | Sandy silt with gravel |
| | | % sand <% gravel | <15% sand | Gravelly silt |
| | | | ≥15% sand | Gravelly silt with sand |
| CH | <30% plus No. 200 | <15% plus No. 200 | | Fat clay |
| | | 15-25% plus No. 200 | % sand ≥% gravel | Fat clay with sand |
| | | | % sand <% gravel | Fat clay with gravel |
| | ≥30% plus No. 200 | % sand ≥% gravel | <15% sand | Sandy fat clay |
| | | | ≥15% sand | Sandy fat clay with gravel |
| | | % sand <% gravel | <15% sand | Gravelly fat clay |
| | | | ≥15% sand | Gravelly fat clay with sand |
| MH | <30% plus No. 200 | <15% plus No. 200 | | Elastic silt |
| | | 15-25% plus No. 200 | % sand ≥% gravel | Elastic silt with sand |
| | | | % sand <% gravel | Elastic silt with gravel |
| | ≥30% plus No. 200 | % sand ≥% gravel | <15% sand | Sandy elastic silt |
| | | | ≥15% sand | Sandy elastic silt with gravel |
| | | % sand <% gravel | <15% sand | Gravelly elastic silt |
| | | | ≥15% sand | Gravelly elastic silt with sand |

SILTS

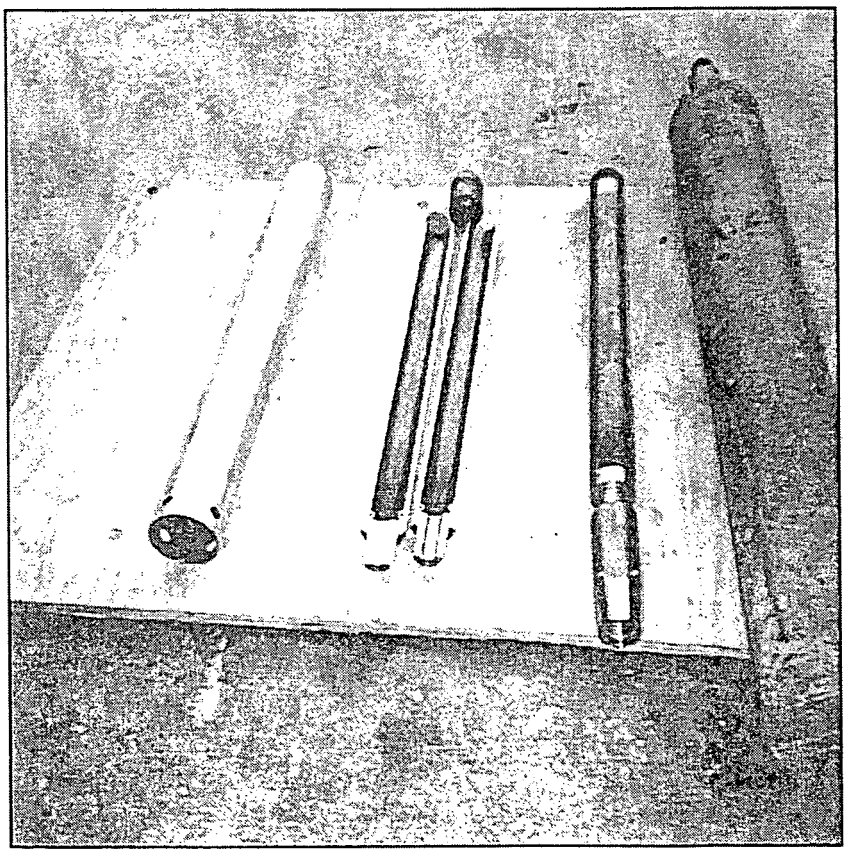
## STANDARD PENETRATION RESISTANCE (ASTM D1586)

The purpose of this test is to determine the relative consistency of the soils in a boring, or from boring over the site. This method consists of making a hole in the ground and driving a 2-inch O.D., split spoon sampler into the soil with a 140-pound hammer dropped from a height of 30 inches. The sampler is driven 18 inches and the number of blows recorded for each 6 inches of penetration. Values of standard penetration (N) are determined in blows per foot, summarizing the flows required for the last two 6-inche increments of penetration.

Example : 2-6-8; N = 14

## THIN-WALLED SAMPLER (ASTM D1587)

The purpose of the thin-walled sampler is to recover a relatively undisturbed soil sample for laboratory tests. The sampler is a thin-walled seamless tube with a 3-inch outside diameter, which is hydraulically pressed into the ground, at a constant rate. The ends are then sealed to prevent soil moisture loss, and the tube is returned to the laboratory for tests.



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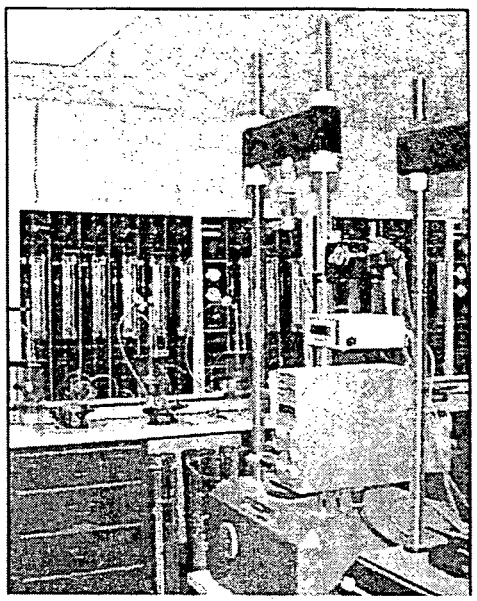
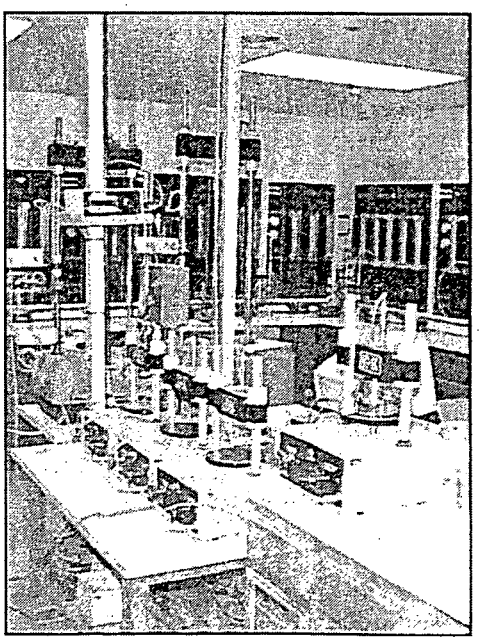
## UNCONFINED COMPRESSION OR TRIAXIAL TESTS (ASTM D 2166)



The unconfined compression test and the triaxial tests are performed to determine the shearing strength of the soil, to use in establishing its safe bearing capacity. In order to perform the unconfined compression test, it is necessary that the soil exhibit sufficient cohesion to stand in an unsupported cylinder. These tests are normally performed on samples which are 6.0 inches in height and 2.85 inches in diameter. In the triaxial test, various lateral stresses can be applied to more closely simulate the actual field conditions. There are several different types of triaxial tests. These are, however, normally performed on constant strain apparatus with a deformation rate of 0.05 inches per minute.

## CONSOLIDATION TEST (ASTM D 2435)



The purpose of this test is to determine the compressibility of the soil. This test is performed on a sample of soil which is 2.5 inches in diameter and 1.0 inch in height, and has been trimmed from relatively "undisturbed" samples. The test is performed with a lever system or an air activated piston for applying load. The loads are applied in increments and allowed to remain on the sample for a period of 24 hours. The consolidation of the sample under each individual load is measured and a curve of void ratio vs. Pressure is obtained. From the information obtained in this manner and the column loads of the structure, it is possible to calculate the settlement of each individual building column. This information, together with the shearing strength of the soil, is used to determine the safe bearing capacity for a particular structure.

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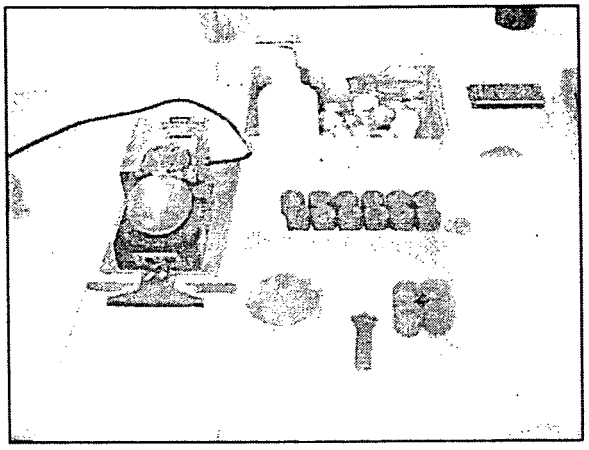
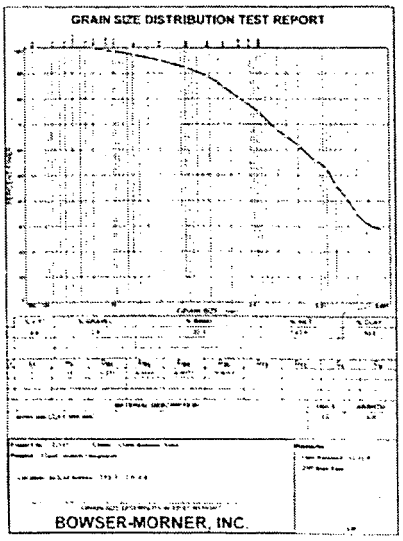
## REVISED TO ASTM D4318
## ATTERBERG LIMITS (ASTM D423 AND D424)

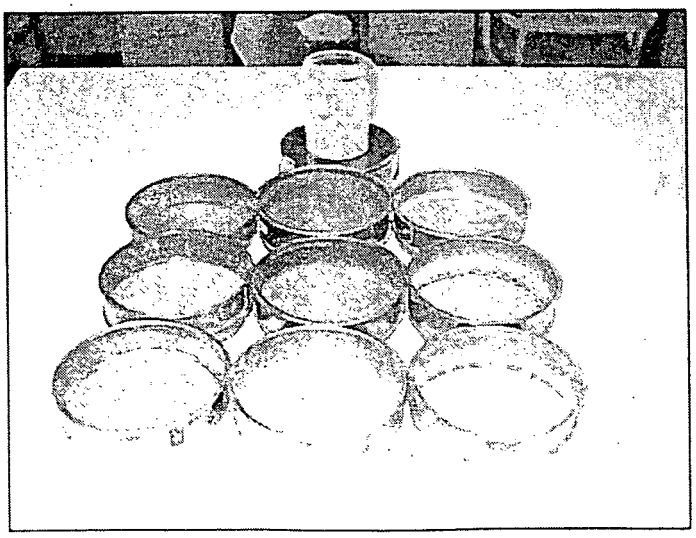
These tests determine the liquid and plastic limits of soils having a predominant percentage of fine particle (silt and clay) sizes. The liquid limit of a soil is the moisture content expressed as a percent at which the soil changes from a liquid to a plastic state, and the plastic limit is the moisture content at which the soil changes from a plastic to a semi-solid state. Their difference is defined as the plasticity index (P.I. = L.L. - P.L.), which is the change in moisture content required to change the soil from a "semi-solid" to a liquid. These tests furnish information about the soil properties which is important in determining their relative swelling potential and their classifications.



## MECHANICAL ANALYSIS (ASTM D422)

This test determines the percent of each particle size of a soil. A sieve analysis is conducted on particle sizes greater than a No. 200 sieve (0.074 mm), and a hydrometer test on particles smaller than the No.200 sieve. The gradation curve is drawn through the points of cumulative percent of particle size, and plotted on semi-logarithmic paper for the combined sieve and hydrometer analysis. This test, together with the Atterberg Limits tests, is used to classify a soil.



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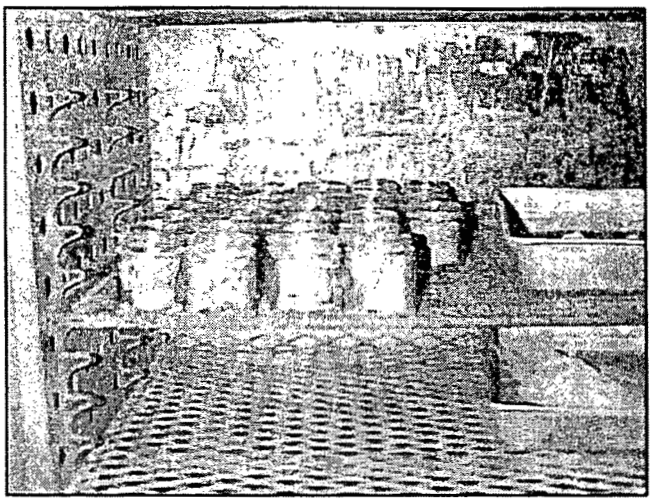
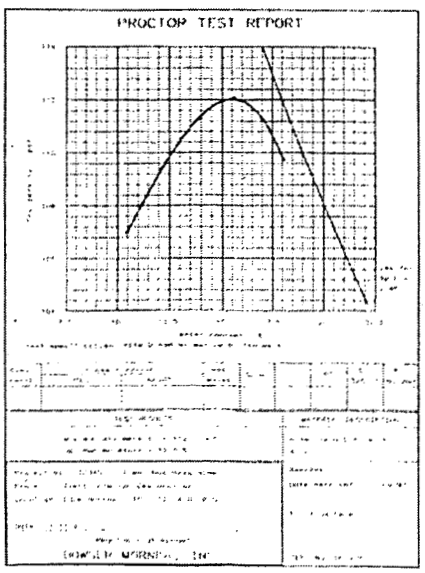
## NATURAL MOISTURE CONTENT (ASTM D2216)

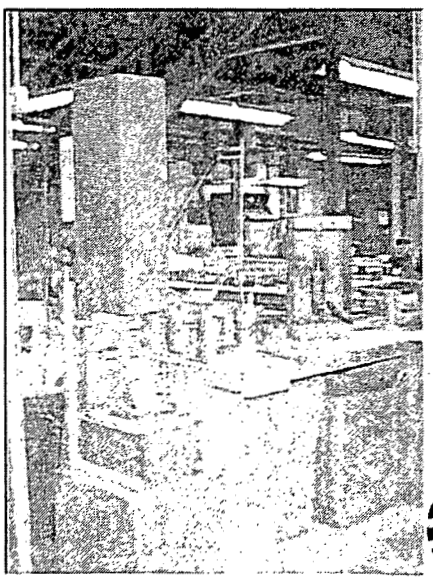
The purpose of this test is to indicate the range of moisture contents present in the soil. A wet sample is weighed, placed in the constant temperature oven at 105° for 24 hours, and re-weighed. The moisture content is the change in weight divided by the dry weight.



## PROCTOR TESTS

The purpose of these tests is to determine the maximum density and optimum moisture content of a soil. The Modified Proctor test is performed in accordance with ASTM D1557-70. The test is performed by dropping a 10-pound hammer 25 times from an 18-inch height on each of 5 equal layers of soil in a 1/30 cubic foot mold, which represents a compaction effort of 56,250 foot pounds per cubic foot. The moisture content is then raised, and this procedure is repeated. A moisture density curve is then plotted, with the density on the ordinate axis and the moisture on the abscissa axis. The moisture content at which the maximum density requirement can be achieved with a minimum compactive effort is designated as the optimum moisture content (O.M.C.). The Standard Proctor test is performed in accordance with ASTM D698-70. This test is similar to the Modified Proctor test and is performed by dropping a 5.5 pound hammer 25 times from a height of 12 inches on 3 equal layers of soil in a 1/30 cubic foot mold, which represents a compaction effort of 12,375 foot pounds per cubic foot. This test gives proportionately lower results than the Modified Proctor test.



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# BORING LOG TERMINOLOGY

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"B" Rock Core

"C" Shelby Tube 3" O.D. except where noted

"D" Soil Probe

"E" Auger Cuttings

"F" Sonic

**Sample Depth:**

Depth below top of ground at which appropriate sample was taken.

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## SOIL DESCRIPTION

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| Very stiff | 16 to 30 blows/ft. |
| Hard | 31 blows/ft. or more |

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BOWSER MORNER

# UNIFIED CLASSIFICATION SYSTEM

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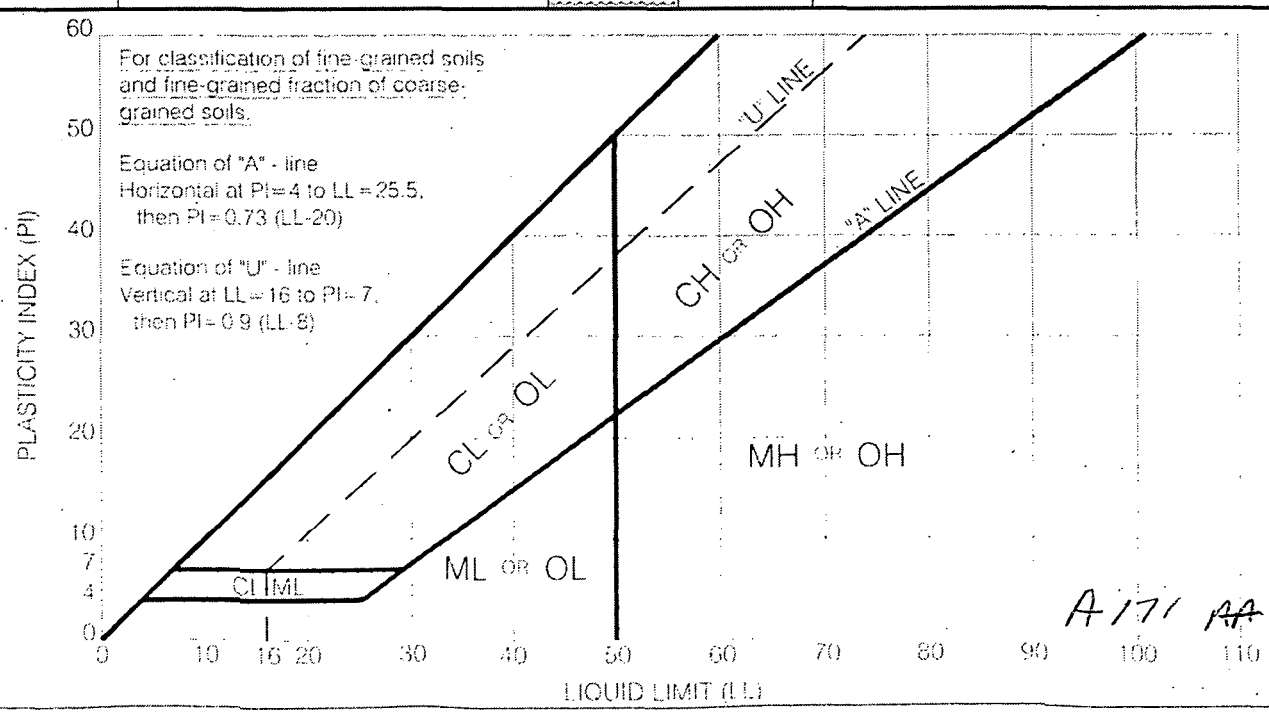
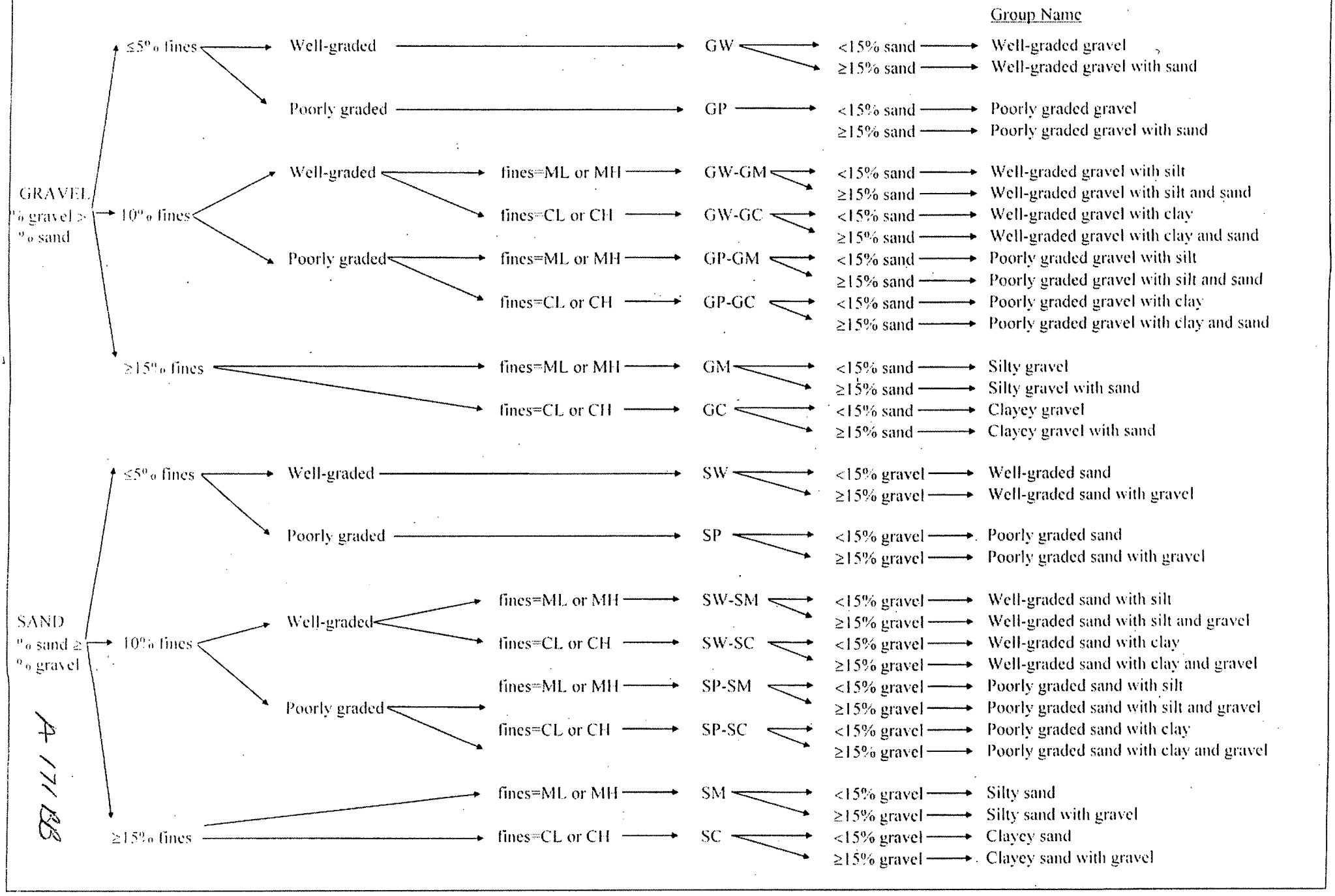
| | | | | GP | POORLY GRADED GRAVEL<br>POORLY GRADED GRAVEL WITH SAND |
| | MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE | GRAVELS WITH FINES APPRECIABLE AMT. OF FINES) | | GM | SILTY GRAVEL<br>SILTY GRAVEL WITH SAND |
| | | | | GC | CLAYEY GRAVEL<br>CLAYEY GRAVEL WITH SAND |
| | SAND AND SANDY SOILS | CLEAN SAND (LITTLE OR NO FINES) | | SW | WELL-GRADED SAND<br>WELL-GRADED SAND WITH GRAVEL |
| | | | | SP | POORLY GRADED SAND<br>POORLY GRADED SAND WITH GRAVEL |
| | MORE THAN 50% OF COARSE FRACTION PASSING NO. 4 SIEVE | SANDS WITH FINES (APPRECIABLE AMT. OF FINES) | | SM | SILTY SAND<br>SILTY SAND WITH GRAVEL |
| | | | | SC | CLAYEY SAND<br>CLAYEY SAND WITH GRAVEL |
| FINE GRAINED SOILS<br>MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE | SILT AND CLAYS | LIQUID LIMIT LESS THAN 50 | | ML | SILT, SILT WITH SAND, SANDY SILT<br>GRAVELLY SILT, GRAVELLY SILT WITH SAND |
| | | | | CL | LEAN CLAY WITH SAND, SANDY LEAN CLAY<br>GRAVELLY LEAN CLAY WITH SAND |
| | | | | OL | ORGANIC CLAY, SANDY ORGANIC CLAY<br>ORGANIC SILT, SANDY ORGANIC SILT WITH GRAVEL |
| | SILT AND CLAYS | LIQUID LIMIT GREATER THAN 50 | | MH | ELASTIC SILT WITH SAND, SANDY ELASTIC SILT<br>GRAVELLY ELASTIC SILT WITH SAND |
| | | | | CH | FAT CLAY WITH SAND, SANDY FAT CLAY<br>GRAVELLY FAT CLAY WITH SAND |
| | | | | OH | ORGANIC CLAY WITH SAND, SANDY ORGANIC CLAY, ORGANIC SILT, SANDY ORGANIC SILT |
| | HIGHLY ORGANIC SOILS | | | PT | PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS |




A171 AA

# Flow Chart for Visually Identifying Soils Based on ASTM D-2488




A 171 B8

# Flow Chart for Visually Identifying Soils Based on ASTM D-2488

| | | | | | Group Name |
|---|---|---|---|---|---|
| CL | <30% plus No. 200 | <15% plus No. 200 | | | Lean clay |
| | | 15-25% plus No. 200 | % sand ≥% gravel | | Lean clay with sand |
| | | | % sand <% gravel | | Lean clay with gravel |
| | ≥30% plus No. 200 | % sand ≥% gravel | <15% sand | | Sandy lean clay |
| | | | ≥15% sand | | Sandy lean clay with gravel |
| | | % sand <% gravel | <15% sand | | Gravelly lean clay |
| | | | ≥15% sand | | Gravelly lean clay with sand |
| ML | <30% plus No. 200 | <15% plus No. 200 | | | Silt |
| | | 15-25% plus No. 200 | % sand ≥% gravel | | Silt with sand |
| | | | % sand <% gravel | | Silt with gravel |
| | ≥30% plus No. 200 | % sand ≥% gravel | <15% sand | | Sandy silt |
| | | | ≥15% sand | | Sandy silt with gravel |
| | | % sand <% gravel | <15% sand | | Gravelly silt |
| | | | ≥15% sand | | Gravelly silt with sand |
| CH | <30% plus No. 200 | <15% plus No. 200 | | | Fat clay |
| | | 15-25% plus No. 200 | % sand ≥% gravel | | Fat clay with sand |
| | | | % sand <% gravel | | Fat clay with gravel |
| | ≥30% plus No. 200 | % sand ≥% gravel | <15% sand | | Sandy fat clay |
| | | | ≥15% sand | | Sandy fat clay with gravel |
| | | % sand <% gravel | <15% sand | | Gravelly fat clay |
| | | | ≥15% sand | | Gravelly fat clay with sand |
| MH | <30% plus No. 200 | <15% plus No. 200 | | | Elastic silt |
| | | 15-25% plus No. 200 | % sand ≥% gravel | | Elastic silt with sand |
| | | | % sand <% gravel | | Elastic silt with gravel |
| | ≥30% plus No. 200 | % sand ≥% gravel | <15% sand | | Sandy elastic silt |
| | | | ≥15% sand | | Sandy elastic silt with gravel |
| | | % sand <% gravel | <15% sand | | Gravelly elastic silt |
| | | | ≥15% sand | | Gravelly elastic silt with sand |

A171 C4

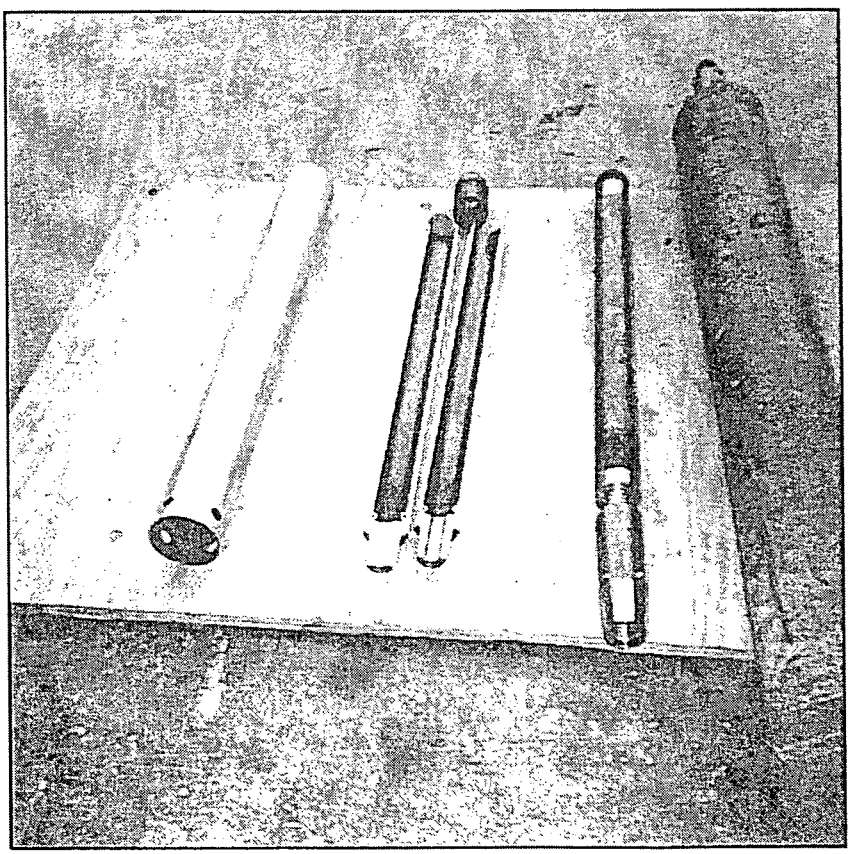
## STANDARD PENETRATION RESISTANCE (ASTM D1586)

The purpose of this test is to determine the relative consistency of the soils in a boring, or from boring over the site. This method consists of making a hole in the ground and driving a 2-inch O.D. split spoon sampler into the soil with a 140-pound hammer dropped from a height of 30 inches. The sampler is driven 18 inches and the number of blows recorded for each 6 inches of penetration. Values of standard penetration (N) are determined in blows per foot, summarizing the flows required for the last two 6-inche increments of penetration.

Example : 2-6-8; N = 14

## THIN-WALLED SAMPLER (ASTM D1587)

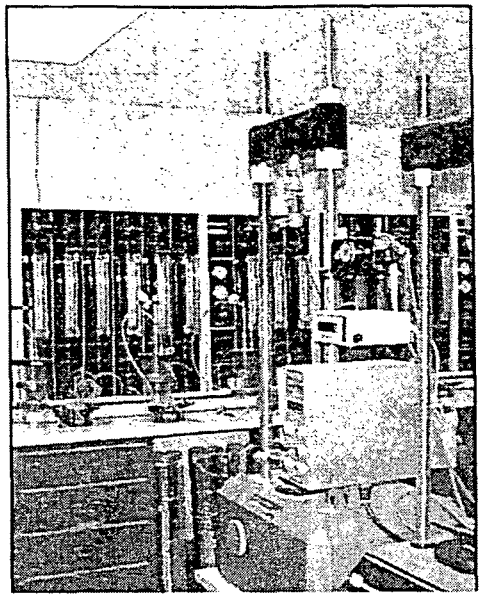
The purpose of the thin-walled sampler is to recover a relatively undisturbed soil sample for laboratory tests. The sampler is a thin-walled seamless tube with a 3-inch outside diameter, which is hydraulically pressed into the ground, at a constant rate. The ends are then sealed to prevent soil moisture loss, and the tube is returned to the laboratory for tests.



A171 DD

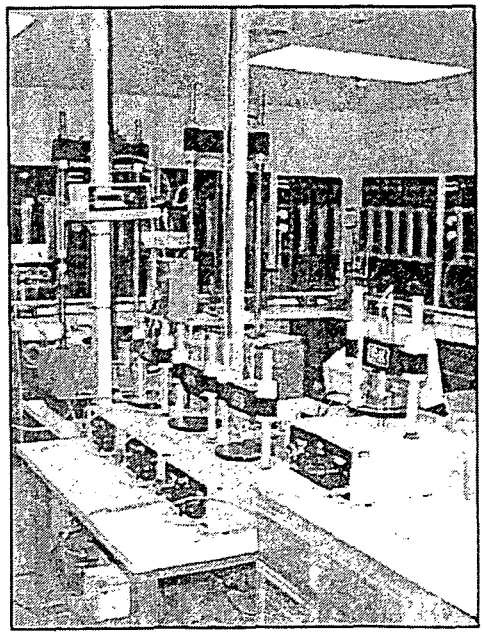
BOWSER MORNER

## UNCONFINED COMPRESSION OR TRIAXIAL TESTS (ASTM D 2166)



The unconfined compression test and the triaxial tests are performed to determine the shearing strength of the soil, to use in establishing its safe bearing capacity. In order to perform the unconfined compression test, it is necessary that the soil exhibit sufficient cohesion to stand in an unsupported cylinder. These tests are normally performed on samples which are 6.0 inches in height and 2.85 inches in diameter. In the triaxial test, various lateral stresses can be applied to more closely simulate the actual field conditions. There are several different types of triaxial tests. These are, however, normally performed on constant strain apparatus with a deformation rate of 0.05 inches per minute.

## CONSOLIDATION TEST (ASTM D 2435)



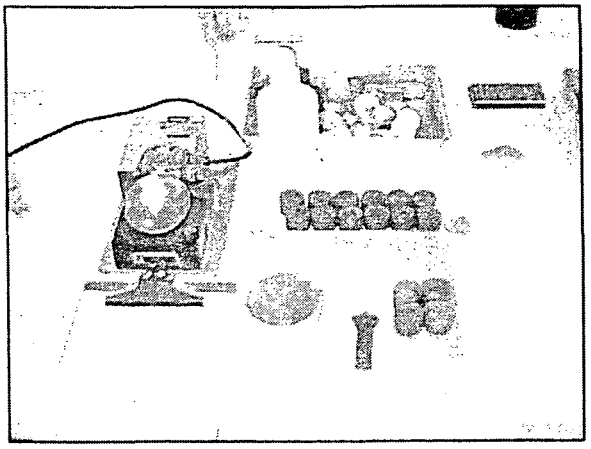
The purpose of this test is to determine the compressibility of the soil. This test is performed on a sample of soil which is 2.5 inches in diameter and 1.0 inch in height, and has been trimmed from relatively "undisturbed" samples. The test is performed with a lever system or an air activated piston for applying load. The loads are applied in increments and allowed to remain on the sample for a period of 24 hours. The consolidation of the sample under each individual load is measured and a curve of void ratio vs. Pressure is obtained. From the information obtained in this manner and the column loads of the structure, it is possible to calculate the settlement of each individual building column. This information, together with the shearing strength of the soil, is used to determine the safe bearing capacity for a particular structure.

A 171 EE

BOWSER MORNER

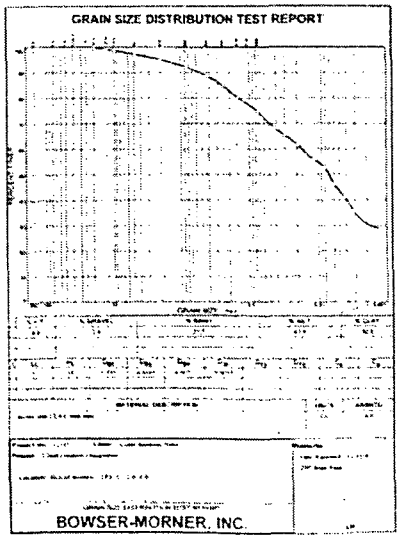
## REVISED TO ASTM D4318
## ATTERBERG LIMITS (ASTM D423 AND D424)

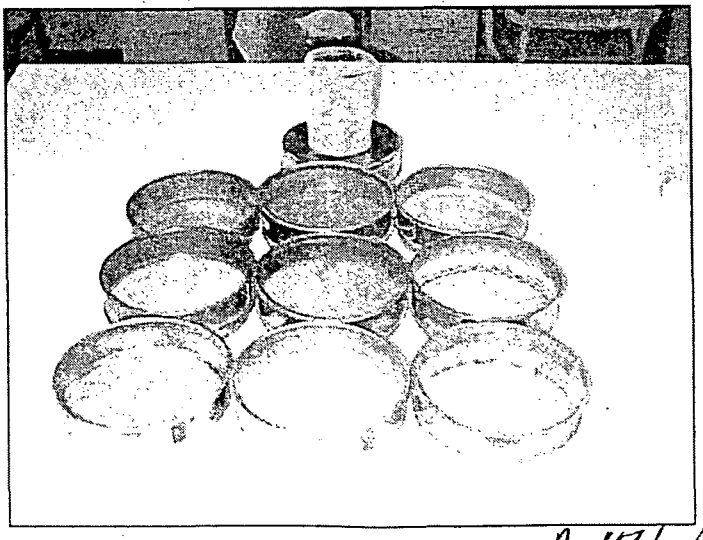
These tests determine the liquid and plastic limits of soils having a predominant percentage of fine particle (silt and clay) sizes. The liquid limit of a soil is the moisture content expressed as a percent at which the soil changes from a liquid to a plastic state, and the plastic limit is the moisture content at which the soil changes from a plastic to a semi-solid state. Their difference is defined as the plasticity index (P.I. = L.L. - P.L.), which is the change in moisture content required to change the soil from a "semi-solid" to a liquid. These tests furnish information about the soil properties which is important in determining their relative swelling potential and their classifications.



## MECHANICAL ANALYSIS (ASTM D422)

This test determines the percent of each particle size of a soil. A sieve analysis is conducted on particle sizes greater than a No. 200 sieve (0.074 mm), and a hydrometer test on particles smaller than the No.200 sieve. The gradation curve is drawn through the points of cumulative percent of particle size, and plotted on semi-logarithmic paper for the combined sieve and hydrometer analysis. This test, together with the Atterberg Limits tests, is used to classify a soil.



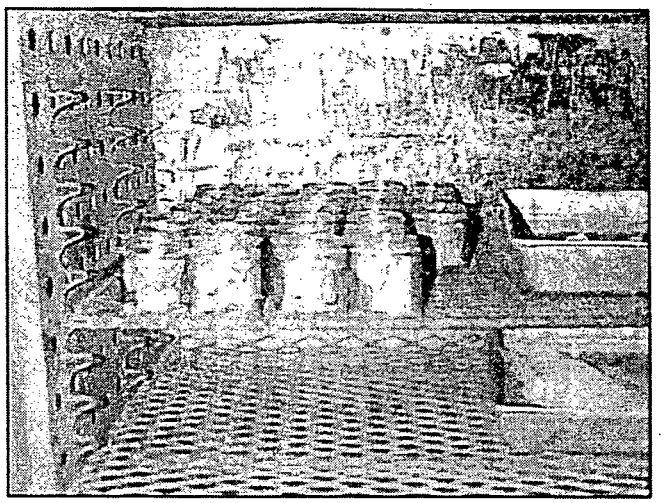



A 171 FF

BOWSER MORNER

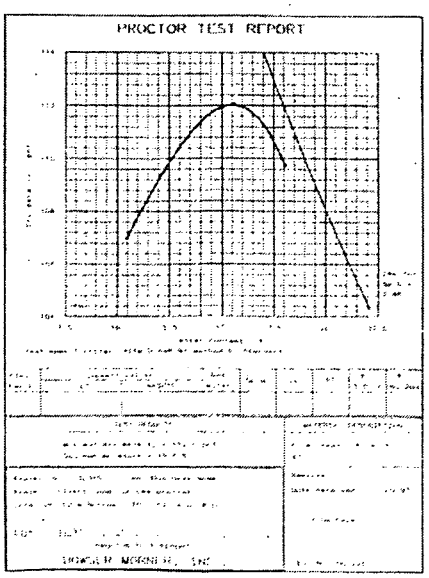
## NATURAL MOISTURE CONTENT (ASTM D2216)

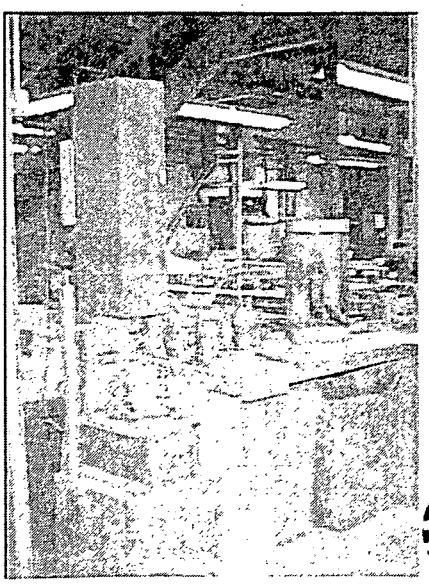
The purpose of this test is to indicate the range of moisture contents present in the soil. A wet sample is weighed, placed in the constant temperature oven at 105° for 24 hours, and re-weighed. The moisture content is the change in weight divided by the dry weight.



## PROCTOR TESTS

The purpose of these tests is to determine the maximum density and optimum moisture content of a soil. The Modified Proctor test is performed in accordance with ASTM D1557-70. The test is performed by dropping a 10-pound hammer 25 times from an 18-inch height on each of 5 equal layers of soil in a 1/30 cubic foot mold, which represents a compaction effort of 56,250 foot pounds per cubic foot. The moisture content is then raised, and this procedure is repeated. A moisture density curve is then plotted, with the density on the ordinate axis and the moisture on the abscissa axis. The moisture content at which the maximum density requirement can be achieved with a minimum compactive effort is designated as the optimum moisture content (O.M.C.). The Standard Proctor test is performed in accordance with ASTM D698-70. This test is similar to the Modified Proctor test and is performed by dropping a 5.5 pound hammer 25 times from a height of 12 inches on 3 equal layers of soil in a 1/30 cubic foot mold, which represents a compaction effort of 12,375 foot pounds per cubic foot. This test gives proportionately lower results than the Modified Proctor test.



A171GG

BOWSER MORNER

| CLIENT | JOB NO. | | |
|---|---|---|---|
| CH2M HILL MOUND INC | 134305 | | |
| PROJECT | BORING STARTED 6/1/05 | BORING COMPLETED 6/1/05 | 1 |
| CONSULTATION FOR SOIL REMOVAL, MOUND FACILITY, MIAMISBURG, OHIO | DRILLER MJ | METHOD 3 1/4" HSA | Boring No. |
| | TYPED BY kmw | | Sheet 1 of 2 |

PROJECT LOCATION
LAT. LONG.
SURFACE ELEVATION
BORING LOCATION
As shown on Boring Location Plan.
It has been necessary to interpolate between samples. Therefore, the contacts between the various soil strata should not be taken as absolute.

| DEPTH | SAMPLE NO. | SAMPLER TYPE / RECOVERY | GRAPHIC LOG | VISUAL CLASSIFICATION OF THE MATERIAL | BLOW COUNTS | N VALUE, blows/ft. (10 20 30 40 50 60 70 80 90) | COMMENTS | REMARKS |
|---|---|---|---|---|---|---|---|---|
| | | | | (FILL) TOPSOIL | | | | |
| 1.0 | 1A | | | (FILL) Medium stiff brown lean CLAY (trace sand, trace gravel) - moist | 3 3 5 | 8 | | |
| 2.0 | | | | | | | | |
| 3.0 | | | | | | | | |
| 4.0 | 2A | | | (FILL) Very stiff brown and gray sandy lean CLAY (trace gravel) - damp | 4 10 12 | 22 | | |
| 5.0 | | | | | | | | |
| 6.0 | | | | | | | | |
| 7.0 | | | | | | | | |
| 8.0 | | | | | | | | |
| 9.0 | 3A | | | (Becomes hard at 8.5') | 9 28 18 | 46 | | |
| 10.0 | | | | | | | | |
| 11.0 | | | | | | | | |
| 12.0 | | | | | | | | |
| 13.0 | | | | | | | | |
| 14.0 | 4A | | | (Becomes very stiff at 13.5') | 6 10 13 | 23 | | |
| 15.0 | | | | | | | | |
| 16.0 | | | | | | | | |
| 17.0 | | | | | | | | |
| 18.0 | | | | (FILL) Hard brown sandy lean CLAY (trace gravel) - damp | | | | |
| 19.0 | 5A | | | | 11 15 18 | 33 | | |
| 20.0 | | | | | | | | |
| 21.0 | | | | | | | | |
| 22.0 | | | | | | | | |

*Continued Next Page*

A171HH

WATER LEVEL MEASUREMENTS

| | DEPTH | DATE |
|---|---|---|
| INITIAL | NONE | 6/1/2005 |
| AT COMPLETION | NONE | 6/1/2005 |
| OTHER | N/A | N/A |

A — SPLIT SPOON
B — ROCK CORE
C — SHELBY TUBE
D — SOIL PROBE
E — AUGER CUTTINGS
F — SONIC

4518 TAYLORSVILLE ROAD
PO BOX 51
DAYTON, OHIO 45424
PH 937.236.8805
FAX 937.233.2016
BOWSER MORNER®

GINT Report Used: NEWLOGIN Report No.: 134305-0705-198.GPJ GINT Template Used: NEWLOGIN.GDT Date Printed: 7/20/05

| CLIENT | JOB NO. | | |
|---|---|---|---|
| CH2M HILL MOUND INC | 134305 | | |
| PROJECT | BORING STARTED 6/1/05 | BORING COMPLETED 6/1/05 | 1 |
| CONSULTATION FOR SOIL REMOVAL, MOUND FACILITY, MIAMISBURG, OHIO | DRILLER MJ | METHOD 3 1/4" HSA | Boring No. |
| | TYPED BY kmw | | Sheet 2 of 2 |

PROJECT LOCATION
LAT. LONG.
SURFACE ELEVATION
BORING LOCATION
As shown on Boring Location Plan.
It has been necessary to interpolate between samples. Therefore, the contacts between the various soil strata should not be taken as absolute.

| DEPTH | SAMPLE NO. | SAMPLER TYPE / RECOVERY | GRAPHIC LOG | VISUAL CLASSIFICATION OF THE MATERIAL | BLOW COUNTS | N VALUE, blows/ft. (10 20 30 40 50 60 70 80 90) | REMARKS |
|---|---|---|---|---|---|---|---|
| 23.0 | | | | (FILL) Dense brown sandy lean CLAY (trace gravel) - damp | | | |
| 24.0 | 6A | | | (ORIGINAL) Very stiff gray sandy lean CLAY (trace gravel) - damp | 9 11 13 | ◇ 24 | |
| 25.0 | | | | | | | |
| 26.0 | | | | | | | |
| 27.0 | | | | | | | |
| 28.0 | | | | Very stiff brown lean CLAY with sand (trace gravel) - moist | | | |
| 29.0 | 7A | | | | 4 6 10 | ◇ 16 | |
| 30.0 | | | | | | | |
| 31.0 | | | | | | | |
| 32.0 | | | | | | | |
| 33.0 | | | | Very dense brown silty SAND (trace gravel) - damp | | | |
| 34.0 | 8A | | | | 15 20 17 | ◇ 37 | |
| 35.0 | | | | | | | |
| 36.0 | | | | Apparent BEDROCK (Auger refual at 36.0') | | | |
| | | | | Bottom of boring at 36.0 feet | | | |
| 37.0 | | | | | | | |
| 38.0 | | | | | | | |
| 39.0 | | | | | | | |
| 40.0 | | | | | | | |
| 41.0 | | | | | | | |
| 42.0 | | | | | | | |
| 43.0 | | | | | | | |
| 44.0 | | | | | | | |
| 45.0 | | | | | | | |
| 46.0 | | | | | | | |
| 47.0 | | | | | | | |
| 48.0 | | | | | | | |

AMII

GINT Report Used: NEWLOGIN Report No.: 134305-0705-198.GPJ GINT Template Used: NEWLOGIN.GDT Date Printed: 7/20/05

| CLIENT | JOB NO. | | |
|---|---|---|---|
| CH2M HILL MOUND INC | 134305 | | |
| PROJECT | BORING STARTED 6/1/05 | BORING COMPLETED 6/1/05 | 2 |
| CONSULTATION FOR SOIL REMOVAL, MOUND FACILITY, MIAMISBURG, OHIO | DRILLER MJ | METHOD 3 1/4" HSA | Boring No. |
| | TYPED BY kmw | | Sheet 1 of 2 |

PROJECT LOCATION
LAT. LONG.
SURFACE ELEVATION
BORING LOCATION
As shown on Boring Location Plan.
It has been necessary to interpolate between samples. Therefore, the contacts between the various soil strata should not be taken as absolute.

| DEPTH | SAMPLE NO. | SAMPLER TYPE / RECOVERY | GRAPHIC LOG | VISUAL CLASSIFICATION OF THE MATERIAL | BLOW COUNTS | N VALUE, blows/ft. | COMMENTS | REMARKS |
|---|---|---|---|---|---|---|---|---|
| | | | | (FILL) TOPSOIL | | | | |
| 1.0 | 1A | | | (FILL) Stiff brown sandy lean CLAY (trace gravel) - damp | 5 8 7 | 15 | | |
| 2.0 | | | | | | | | |
| 3.0 | | | | (FILL) Very stiff brown and gray sandy CLAY and silt (trace pebbles) - moist | | | | |
| 4.0 | 2A | | | | 8 10 10 | 20 | | |
| 5.0 | | | | | | | | |
| 6.0 | | | | | | | | |
| 7.0 | | | | | | | | |
| 8.0 | | | | | | | | |
| 9.0 | 3A | | | (Trace cobbles at 8.5') | 3 7 17 | 24 | | |
| 10.0 | | | | | | | | |
| 11.0 | | | | | | | | |
| 12.0 | | | | | | | | |
| 13.0 | | | | | | | | |
| 14.0 | 4A | | | (Becomes hard at 13.5') | 14 17 23 | 40 | | |
| 15.0 | | | | | | | | |
| 16.0 | | | | | | | | |
| 17.0 | | | | | | | | |
| 18.0 | | | | | | | | |
| 19.0 | 5A | | | (Becomes stiff at 18.5') (Water was used to facilitate the boring) | 8 8 7 | 15 | | |
| 20.0 | | | | | | | | |
| 21.0 | | | | | | | | |
| 22.0 | | | | | | | | |

N VALUE, blows/ft. ◇ 10 20 30 40 50 60 70 80 90

*Continued Next Page*

A171 JJ

WATER LEVEL MEASUREMENTS

| | DEPTH | DATE |
|---|---|---|
| INITIAL | NONE | 6/1/2005 |
| AT COMPLETION | NONE | 6/1/2005 |
| OTHER | N/A | N/A |

A — SPLIT SPOON
B — ROCK CORE
C — SHELBY TUBE
D — SOIL PROBE
E — AUGER CUTTINGS
F — SONIC

4518 TAYLORSVILLE ROAD
PO BOX 51
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BOWSER MORNER

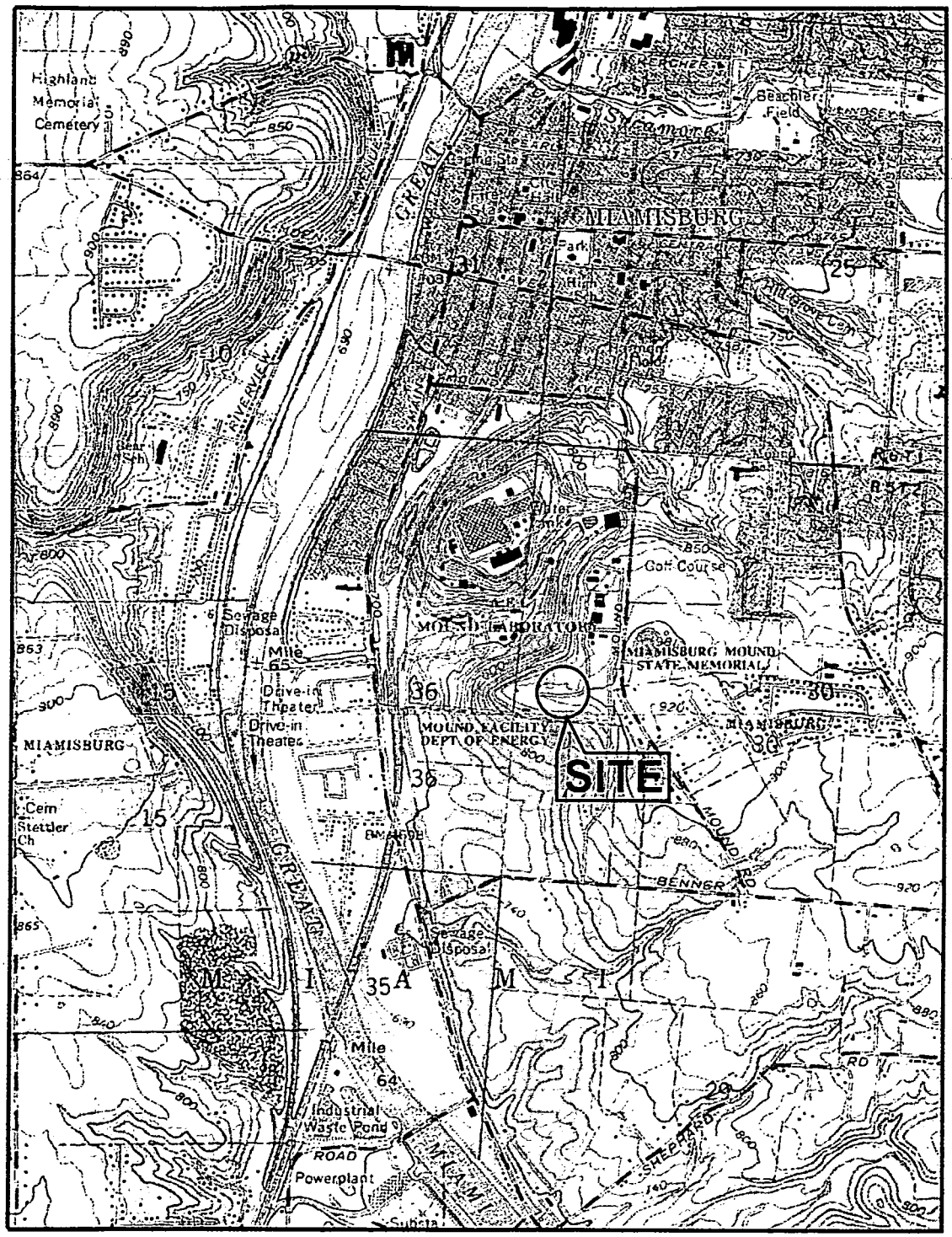
GINT Report Used: NEWLOGIN Report No.: 134305-0705-198.GPJ GINT Template Used: NEWLOGIN.GDT Date Printed: 7/20/05

| CLIENT | JOB NO. | | |
|---|---|---|---|
| CH2M HILL MOUND INC | 134305 | | |
| PROJECT | BORING STARTED 6/1/05 | BORING COMPLETED 6/1/05 | 2 |
| CONSULTATION FOR SOIL REMOVAL, MOUND FACILITY, MIAMISBURG, OHIO | DRILLER MJ | METHOD 3 1/4" HSA | Boring No. |
| | TYPED BY kmw | | Sheet 2 of 2 |

PROJECT LOCATION
LAT. LONG.
SURFACE ELEVATION
BORING LOCATION
As shown on Boring Location Plan.
It has been necessary to interpolate between samples. Therefore, the contacts between the various soil strata should not be taken as absolute.

| DEPTH | SAMPLE NO. | SAMPLER TYPE / RECOVERY | GRAPHIC LOG | VISUAL CLASSIFICATION OF THE MATERIAL | BLOW COUNTS | N VALUE, blows/ft. (10 20 30 40 50 60 70 80 90) | REMARKS |
|---|---|---|---|---|---|---|---|
| 23.0 | | | | | | | |
| 24.0 | 6A | | | (ORIGINAL) Very stiff brown sandy lean CLAY (trace gravel) - damp | 10 10 16 | ◇26 | |
| 25.0 | | | | | | | |
| 26.0 | | | | | | | |
| 27.0 | | | | | | | |
| 28.0 | | | | | | | |
| 29.0 | 7A | | | | 8 11 13 | ◇24 | |
| 30.0 | | | | | | | |
| 31.0 | | | | | | | |
| 32.0 | | | | | | | |
| 33.0 | | | | | | | |
| 34.0 | 8A | | | | 6 6 10 | ◇16 | |
| 35.0 | | | | | | | |
| 36.0 | | | | | | | |
| 37.0 | | | | | | | |
| 38.0 | | | | Medium stiff brown sandy lean CLAY (trace gravel) - moist | | | |
| 39.0 | 9A | | | | 1 2 7 | ◇9 | |
| 40.0 | | | | | | | |
| 41.0 | | | | | | | |
| 42.0 | | | | | | | |
| 43.0 | | | | Stiff olive gray lean CLAY with sand (trace gravel) - moist | | | |
| 44.0 | 10A | | | | 4 4 7 | ◇11 | |
| 45.0 | | | | Bottom of boring at 45.0 feet | | | |
| 46.0 | | | | | | | |
| 47.0 | | | | | | | |
| 48.0 | | | | | | | |

A171 KK




USGS QUAD: MIAMISBURG AND FRANKLIN, OHIO

LATITUDE: 39°37'33"N LONGITUDE: 84°17'02"W

# VICINITY MAP

Consultation for Soil Removal,
Mound Facility,
Miamisburg, Ohio

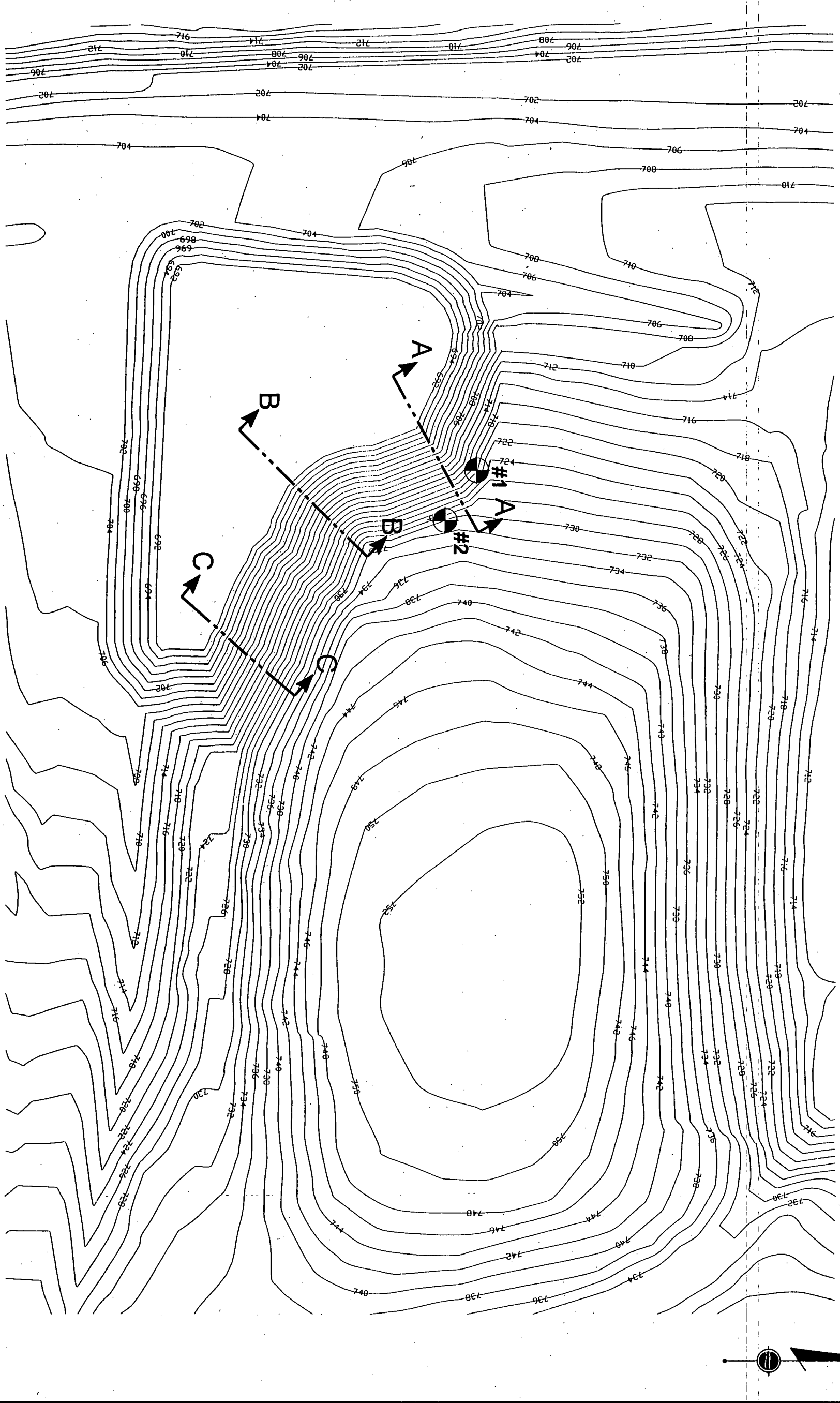
Client: CH2M Hill Mound, Inc.

07-05/HGW

| | |
|---|---|
| PROJECT NO. | 134305 |
| SCALE | 1"=2000' |
| FIGURE NO. | 1 |

BOWSER MORNER.
4518 Taylorsville Road
Dayton, Ohio 45424
Ph 937-236-8805
Fax 937-233-2016

A171 KKa




# PLAN

Consultation for Soil Removal,
Mound Facility,
Miamisburg, Ohio

Client: CH2M Hill Mound, Inc.

06-05/SR

| | |
|---|---|
| PROJECT NO. | 134305 |
| SCALE | GRAPHIC |
| FIGURE NO. | 2 |

BOWSER MORNER.
4518 Taylorsville Road
Dayton, Ohio 45424
Ph 937-236-8805
Fax 937-233-2016

A17177

# APPENDIX B

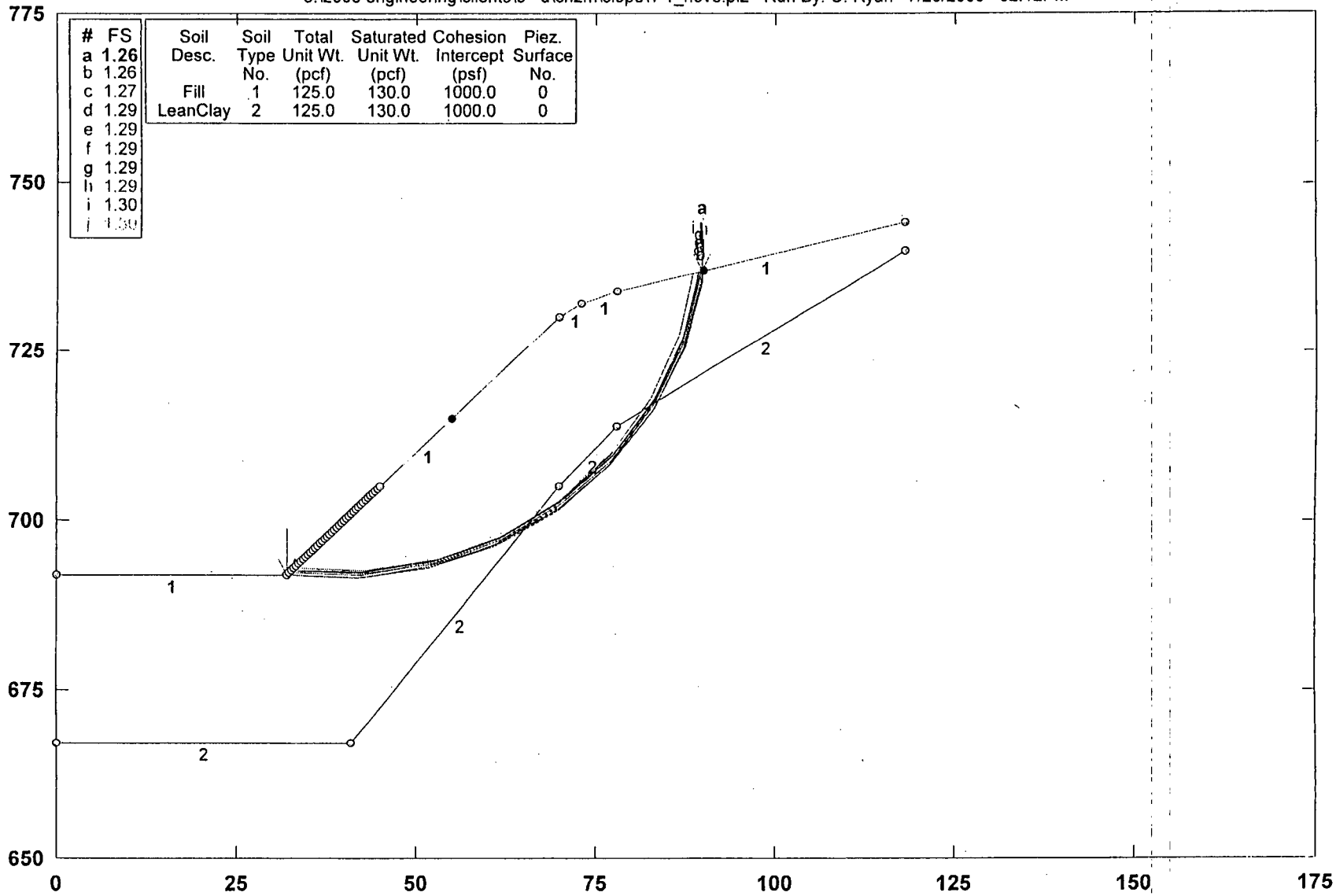
# STABL COMPUTER OUTPUT

A 11 MM

BOWSER MORNER®

# CH2M Hill 1 to 1 Slope (No Vertical)

e:\2005 engineering\clients\c - d\ch2m\slope\1-1_nove.pl2 Run By: C. Ryan 7/20/2005 02:12PM




| # | FS |
|---|---|
| a | 1.26 |
| b | 1.26 |
| c | 1.27 |
| d | 1.29 |
| e | 1.29 |
| f | 1.29 |
| g | 1.29 |
| h | 1.29 |
| i | 1.30 |
| j | 1.30 |

| Soil Desc. | Soil Type No. | Total Unit Wt. (pcf) | Saturated Unit Wt. (pcf) | Cohesion Intercept (psf) | Piez. Surface No. |
|---|---|---|---|---|---|
| Fill | 1 | 125.0 | 130.0 | 1000.0 | 0 |
| LeanClay | 2 | 125.0 | 130.0 | 1000.0 | 0 |

**STABL6H FSmin=1.26**

**Safety Factors Are Calculated By The Modified Bishop Method**

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A171M

** STABL6H **
by
Purdue University
--Slope Stability Analysis--
Simplified Janbu, Simplified Bishop
or Spencer`s Method of Slices

Run Date: 7/20/2005
Time of Run: 02:12PM
Run By: C. Ryan
Input Data Filename: e:1-1_nove.in
Output Filename: e:1-1_nove.OUT
Plotted Output Filename: e:1-1_nove.PLT
PROBLEM DESCRIPTION CH2M Hill
1 to 1 Slope (No Vertical)

BOUNDARY COORDINATES
Note: User origin value specified.
Add 0.00 to X-values and 650.00 to Y-values listed.

5 Top Boundaries
9 Total Boundaries

| Boundary No. | X-Left (ft) | Y-Left (ft) | X-Right (ft) | Y-Right (ft) | Soil Type Below Bnd |
|---|---|---|---|---|---|
| 1 | .00 | 42.00 | 32.00 | 42.00 | 1 |
| 2 | 32.00 | 42.00 | 70.00 | 80.00 | 1 |
| 3 | 70.00 | 80.00 | 73.00 | 82.00 | 1 |
| 4 | 73.00 | 82.00 | 78.00 | 84.00 | 1 |
| 5 | 78.00 | 84.00 | 118.00 | 94.00 | 1 |
| 6 | .00 | 17.00 | 41.00 | 17.00 | 2 |
| 7 | 41.00 | 17.00 | 70.00 | 55.00 | 2 |
| 8 | 70.00 | 55.00 | 78.00 | 64.00 | 2 |
| 9 | 78.00 | 64.00 | 118.00 | 90.00 | 2 |

ISOTROPIC SOIL PARAMETERS
2 Type(s) of Soil

| Soil Type No. | Total Unit Wt. (pcf) | Saturated Unit Wt. (pcf) | Cohesion Intercept (psf) | Friction Angle (deg) | Pore Pressure Param. | Pressure Constant (psf) | Piez. Surface No. |
|---|---|---|---|---|---|---|---|
| 1 | 125.0 | 130.0 | 1000.0 | .0 | .00 | .0 | 0 |
| 2 | 125.0 | 130.0 | 1000.0 | .0 | .00 | .0 | 0 |

A Critical Failure Surface Searching Method, Using A Random
Technique For Generating Circular Surfaces, Has Been Specified.
1600 Trial Surfaces Have Been Generated.
40 Surfaces Initiate From Each Of 40 Points Equally Spaced
Along The Ground Surface Between X = 32.00 ft.
and X = 45.00 ft.
Each Surface Terminates Between X = 55.00 ft.
and X = 90.00 ft.
Unless Further Limitations Were Imposed, The Minimum Elevation
At Which A Surface Extends Is Y = .00 ft.
10.00 ft. Line Segments Define Each Trial Failure Surface.
Following Are Displayed The Ten Most Critical Of The Trial
Failure Surfaces Examined. They Are Ordered - Most Critical
First.
* * Safety Factors Are Calculated By The Modified Bishop Method * *
Failure Surface Specified By 10 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 32.00 | 42.00 |
| 2 | 41.99 | 41.54 |
| 3 | 51.88 | 43.04 |
| 4 | 61.28 | 46.44 |
| 5 | 69.84 | 51.61 |
| 6 | 77.22 | 58.36 |
| 7 | 83.15 | 66.41 |
| 8 | 87.38 | 75.47 |
| 9 | 89.77 | 85.18 |
| 10 | 89.85 | 86.96 |

Circle Center At X = 39.3 ; Y = 92.4 and Radius, 51.0

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*** 1.261 ***

Failure Surface Specified By 10 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 32.00 | 42.00 |
| 2 | 41.99 | 41.49 |
| 3 | 51.88 | 42.96 |
| 4 | 61.28 | 46.36 |
| 5 | 69.83 | 51.55 |
| 6 | 77.19 | 58.32 |
| 7 | 83.06 | 66.42 |
| 8 | 87.21 | 75.52 |
| 9 | 89.48 | 85.25 |
| 10 | 89.53 | 86.88 |

Circle Center At X = 39.6 ; Y = 91.8 and Radius, 50.4

*** 1.264 ***

Failure Surface Specified By 10 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 32.00 | 42.00 |
| 2 | 41.99 | 41.57 |
| 3 | 51.87 | 43.12 |
| 4 | 61.25 | 46.59 |
| 5 | 69.76 | 51.84 |
| 6 | 77.07 | 58.66 |
| 7 | 82.89 | 66.80 |
| 8 | 86.98 | 75.92 |
| 9 | 89.20 | 85.67 |
| 10 | 89.23 | 86.81 |

Circle Center At X = 39.2 ; Y = 91.9 and Radius, 50.4

*** 1.271 ***

Failure Surface Specified By 10 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 32.67 | 42.67 |
| 2 | 42.65 | 42.17 |
| 3 | 52.54 | 43.69 |
| 4 | 61.92 | 47.16 |
| 5 | 70.41 | 52.43 |
| 6 | 77.67 | 59.31 |
| 7 | 83.41 | 67.50 |
| 8 | 87.39 | 76.68 |
| 9 | 89.44 | 86.46 |
| 10 | 89.45 | 86.86 |

Circle Center At X = 40.1 ; Y = 91.7 and Radius, 49.6

*** 1.285 ***

Failure Surface Specified By 10 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 32.33 | 42.33 |
| 2 | 42.33 | 42.05 |
| 3 | 52.19 | 43.72 |
| 4 | 61.53 | 47.29 |
| 5 | 70.00 | 52.61 |
| 6 | 77.27 | 59.48 |
| 7 | 83.05 | 67.64 |
| 8 | 87.13 | 76.76 |
| 9 | 89.36 | 86.51 |
| 10 | 89.37 | 86.84 |

Circle Center At X = 38.8 ; Y = 92.9 and Radius, 51.0

*** 1.285 ***

Failure Surface Specified By 10 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 32.67 | 42.67 |
| 2 | 42.66 | 42.34 |
| 3 | 52.53 | 43.99 |

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| | | |
|---|---|---|
| 4 | 61.87 | 47.54 |
| 5 | 70.34 | 52.86 |
| 6 | 77.60 | 59.74 |
| 7 | 83.37 | 67.91 |
| 8 | 87.42 | 77.05 |
| 9 | 89.60 | 86.81 |
| 10 | 89.60 | 86.90 |

Circle Center At X = 39.3 ; Y = 92.9 and Radius, 50.7

*** 1.289 ***

Failure Surface Specified By 9 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 32.67 | 42.67 |
| 2 | 42.66 | 42.33 |
| 3 | 52.53 | 43.97 |
| 4 | 61.87 | 47.53 |
| 5 | 70.33 | 52.87 |
| 6 | 77.56 | 59.77 |
| 7 | 83.28 | 67.98 |
| 8 | 87.27 | 77.15 |
| 9 | 89.34 | 86.84 |

Circle Center At X = 39.4 ; Y = 92.5 and Radius, 50.3

*** 1.293 ***

Failure Surface Specified By 9 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 33.00 | 43.00 |
| 2 | 42.99 | 42.66 |
| 3 | 52.86 | 44.30 |
| 4 | 62.21 | 47.84 |
| 5 | 70.69 | 53.15 |
| 6 | 77.95 | 60.02 |
| 7 | 83.73 | 68.18 |
| 8 | 87.79 | 77.32 |
| 9 | 89.96 | 86.99 |

Circle Center At X = 39.7 ; Y = 93.2 and Radius, 50.7

*** 1.294 ***

Failure Surface Specified By 9 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 32.33 | 42.33 |
| 2 | 42.33 | 42.05 |
| 3 | 52.18 | 43.77 |
| 4 | 61.50 | 47.40 |
| 5 | 69.91 | 52.81 |
| 6 | 77.07 | 59.79 |
| 7 | 82.71 | 68.04 |
| 8 | 86.60 | 77.26 |
| 9 | 88.49 | 86.62 |

Circle Center At X = 38.7 ; Y = 92.0 and Radius, 50.1

*** 1.298 ***

Failure Surface Specified By 9 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 32.67 | 42.67 |
| 2 | 42.67 | 42.66 |
| 3 | 52.49 | 44.53 |
| 4 | 61.79 | 48.22 |
| 5 | 70.22 | 53.59 |
| 6 | 77.50 | 60.45 |
| 7 | 83.35 | 68.56 |
| 8 | 87.58 | 77.62 |
| 9 | 89.95 | 86.99 |

Circle Center At X = 37.7 ; Y = 95.4 and Radius, 52.9

*** 1.299 ***

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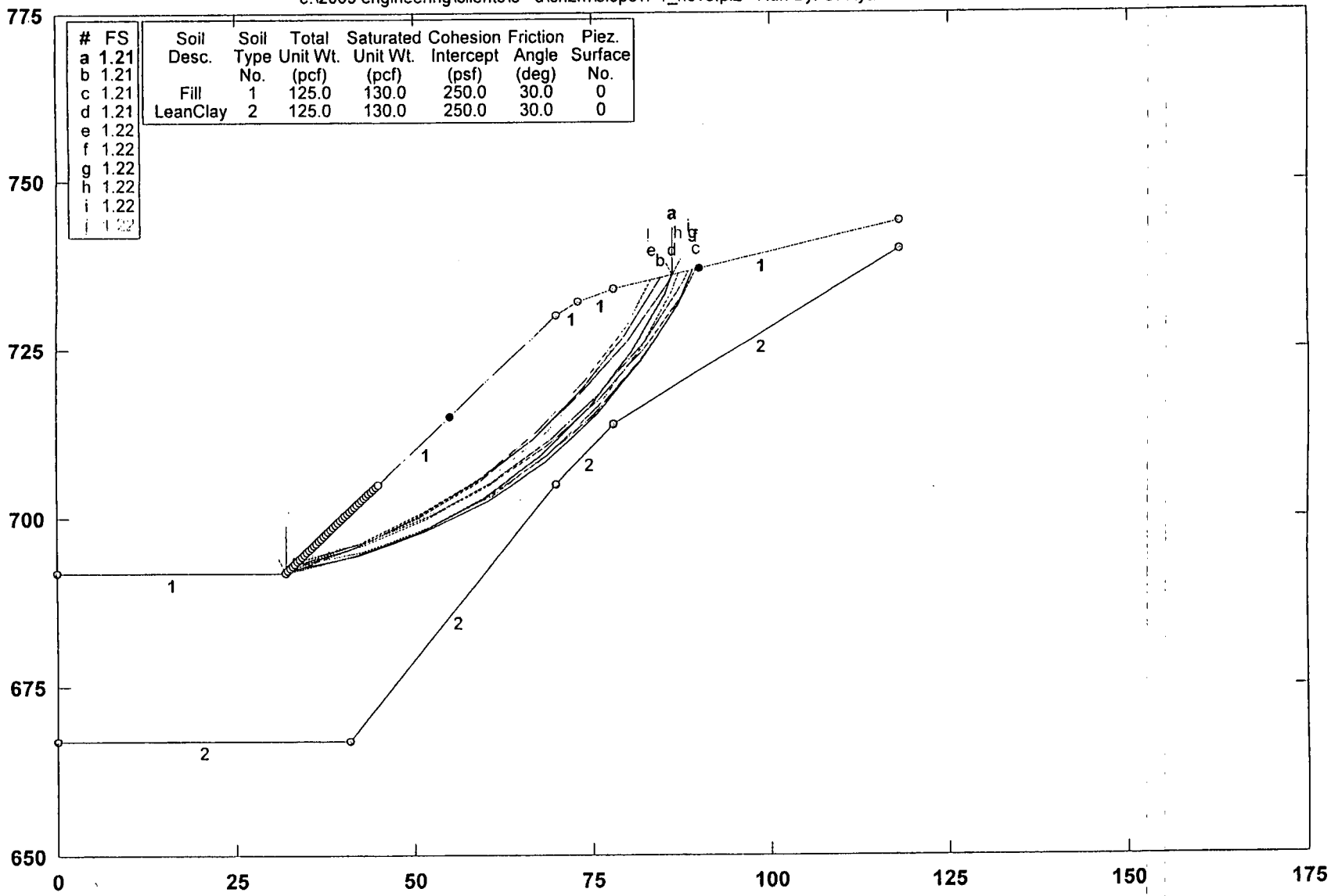
# CH2M Hill 1 to 1 Slope (No Vertical)

e:\2005 engineering\clients\c - d\ch2m\slope\1-1_nove.pl2 Run By: C. Ryan 7/20/2005 02:18PM




**STABL6H FSmin=1.21**

**Safety Factors Are Calculated By The Modified Bishop Method**

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** STABL6H **
by
Purdue University
--Slope Stability Analysis--
Simplified Janbu, Simplified Bishop
or Spencer`s Method of Slices

Run Date: 7/20/2005
Time of Run: 02:18PM
Run By: C. Ryan
Input Data Filename: e:1-1_nove.in
Output Filename: e:1-1_nove.OUT
Plotted Output Filename: e:1-1_nove.PLT
PROBLEM DESCRIPTION CH2M Hill
1 to 1 Slope (No Vertical)

BOUNDARY COORDINATES
Note: User origin value specified.
Add 0.00 to X-values and 650.00 to Y-values listed.

5 Top Boundaries
9 Total Boundaries

| Boundary No. | X-Left (ft) | Y-Left (ft) | X-Right (ft) | Y-Right (ft) | Soil Type Below Bnd |
|---|---|---|---|---|---|
| 1 | .00 | 42.00 | 32.00 | 42.00 | 1 |
| 2 | 32.00 | 42.00 | 70.00 | 80.00 | 1 |
| 3 | 70.00 | 80.00 | 73.00 | 82.00 | 1 |
| 4 | 73.00 | 82.00 | 78.00 | 84.00 | 1 |
| 5 | 78.00 | 84.00 | 118.00 | 94.00 | 1 |
| 6 | .00 | 17.00 | 41.00 | 17.00 | 2 |
| 7 | 41.00 | 17.00 | 70.00 | 55.00 | 2 |
| 8 | 70.00 | 55.00 | 78.00 | 64.00 | 2 |
| 9 | 78.00 | 64.00 | 118.00 | 90.00 | 2 |

ISOTROPIC SOIL PARAMETERS
2 Type(s) of Soil

| Soil Type No. | Total Unit Wt. (pcf) | Saturated Unit Wt. (pcf) | Cohesion Intercept (psf) | Friction Angle (deg) | Pore Pressure Param. | Pressure Constant (psf) | Piez. Surface No. |
|---|---|---|---|---|---|---|---|
| 1 | 125.0 | 130.0 | 250.0 | 30.0 | .00 | .0 | 0 |
| 2 | 125.0 | 130.0 | 250.0 | 30.0 | .00 | .0 | 0 |

A Critical Failure Surface Searching Method, Using A Random
Technique For Generating Circular Surfaces, Has Been Specified.
1600 Trial Surfaces Have Been Generated.
40 Surfaces Initiate From Each Of 40 Points Equally Spaced
Along The Ground Surface Between X = 32.00 ft.
and X = 45.00 ft.
Each Surface Terminates Between X = 55.00 ft.
and X = 90.00 ft.
Unless Further Limitations Were Imposed, The Minimum Elevation
At Which A Surface Extends Is Y = .00 ft.
10.00 ft. Line Segments Define Each Trial Failure Surface.
Following Are Displayed The Ten Most Critical Of The Trial
Failure Surfaces Examined. They Are Ordered - Most Critical
First.
* * Safety Factors Are Calculated By The Modified Bishop Method * *
Failure Surface Specified By 9 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 32.00 | 42.00 |
| 2 | 41.72 | 44.36 |
| 3 | 51.01 | 48.06 |
| 4 | 59.69 | 53.02 |
| 5 | 67.60 | 59.15 |
| 6 | 74.57 | 66.32 |
| 7 | 80.47 | 74.39 |
| 8 | 85.18 | 83.21 |
| 9 | 86.22 | 86.05 |

Circle Center At X = 20.0 ; Y = 112.4 and Radius, 71.4
*** 1.206 ***

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Failure Surface Specified By 8 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 32.33 | 42.33 |
| 2 | 41.77 | 45.65 |
| 3 | 50.75 | 50.05 |
| 4 | 59.14 | 55.49 |
| 5 | 66.83 | 61.89 |
| 6 | 73.70 | 69.15 |
| 7 | 79.68 | 77.17 |
| 8 | 84.54 | 85.63 |

Circle Center At X = 9.1 ; Y = 123.4 and Radius, 84.4

*** 1.210 ***

Failure Surface Specified By 9 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 32.00 | 42.00 |
| 2 | 41.70 | 44.42 |
| 3 | 51.02 | 48.04 |
| 4 | 59.82 | 52.81 |
| 5 | 67.94 | 58.64 |
| 6 | 75.26 | 65.45 |
| 7 | 81.68 | 73.12 |
| 8 | 87.07 | 81.54 |
| 9 | 89.62 | 86.90 |

Circle Center At X = 17.7 ; Y = 120.1 and Radius, 79.4

*** 1.212 ***

Failure Surface Specified By 9 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 32.00 | 42.00 |
| 2 | 41.35 | 45.54 |
| 3 | 50.29 | 50.03 |
| 4 | 58.71 | 55.43 |
| 5 | 66.52 | 61.67 |
| 6 | 73.64 | 68.69 |
| 7 | 80.00 | 76.41 |
| 8 | 85.52 | 84.75 |
| 9 | 86.20 | 86.05 |

Circle Center At X = 2.7 ; Y = 133.6 and Radius, 96.2

*** 1.212 ***

Failure Surface Specified By 8 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 33.00 | 43.00 |
| 2 | 42.43 | 46.32 |
| 3 | 51.38 | 50.79 |
| 4 | 59.71 | 56.32 |
| 5 | 67.29 | 62.85 |
| 6 | 74.00 | 70.26 |
| 7 | 79.75 | 78.44 |
| 8 | 83.42 | 85.36 |

Circle Center At X = 10.9 ; Y = 120.6 and Radius, 80.7

*** 1.219 ***

Failure Surface Specified By 9 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 33.00 | 43.00 |
| 2 | 42.59 | 45.83 |
| 3 | 51.79 | 49.76 |
| 4 | 60.47 | 54.72 |
| 5 | 68.52 | 60.65 |
| 6 | 75.83 | 67.47 |
| 7 | 82.30 | 75.10 |
| 8 | 87.85 | 83.42 |
| 9 | 89.63 | 86.91 |

Circle Center At X = 13.4 ; Y = 127.0 and Radius, 86.3

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     ***      1.219    ***
Failure Surface Specified By  9 Coordinate Points
  Point       X-Surf       Y-Surf
   No.         (ft)         (ft)
    1          32.33        42.33
    2          42.11        44.45
    3          51.50        47.89
    4          60.34        52.57
    5          68.45        58.41
    6          75.70        65.30
    7          81.94        73.12
    8          87.05        81.71
    9          89.21        86.80
Circle Center At X =   21.7 ; Y =  114.8  and Radius,   73.2
     ***      1.220    ***
Failure Surface Specified By  9 Coordinate Points
  Point       X-Surf       Y-Surf
   No.         (ft)         (ft)
    1          33.00        43.00
    2          42.79        45.06
    3          52.16        48.55
    4          60.91        53.39
    5          68.85        59.48
    6          75.79        66.67
    7          81.60        74.81
    8          86.14        83.72
    9          86.99        86.25
Circle Center At X =   24.0 ; Y =  109.7  and Radius,   67.3
     ***      1.224    ***
Failure Surface Specified By  9 Coordinate Points
  Point       X-Surf       Y-Surf
   No.         (ft)         (ft)
    1          33.67        43.67
    2          43.26        46.48
    3          52.45        50.44
    4          61.08        55.49
    5          69.03        61.56
    6          76.18        68.55
    7          82.42        76.36
    8          87.66        84.88
    9          88.46        86.61
Circle Center At X =   15.5 ; Y =  123.4  and Radius,   81.8
     ***      1.224    ***
Failure Surface Specified By  8 Coordinate Points
  Point       X-Surf       Y-Surf
   No.         (ft)         (ft)
    1          34.00        44.00
    2          43.61        46.77
    3          52.71        50.91
    4          61.10        56.35
    5          68.60        62.97
    6          75.05        70.61
    7          80.31        79.12
    8          82.93        85.23
Circle Center At X =   20.1 ; Y =  110.4  and Radius,   67.9
     ***      1.224    ***
```

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# CH2M Hill 1 to 1 Slope

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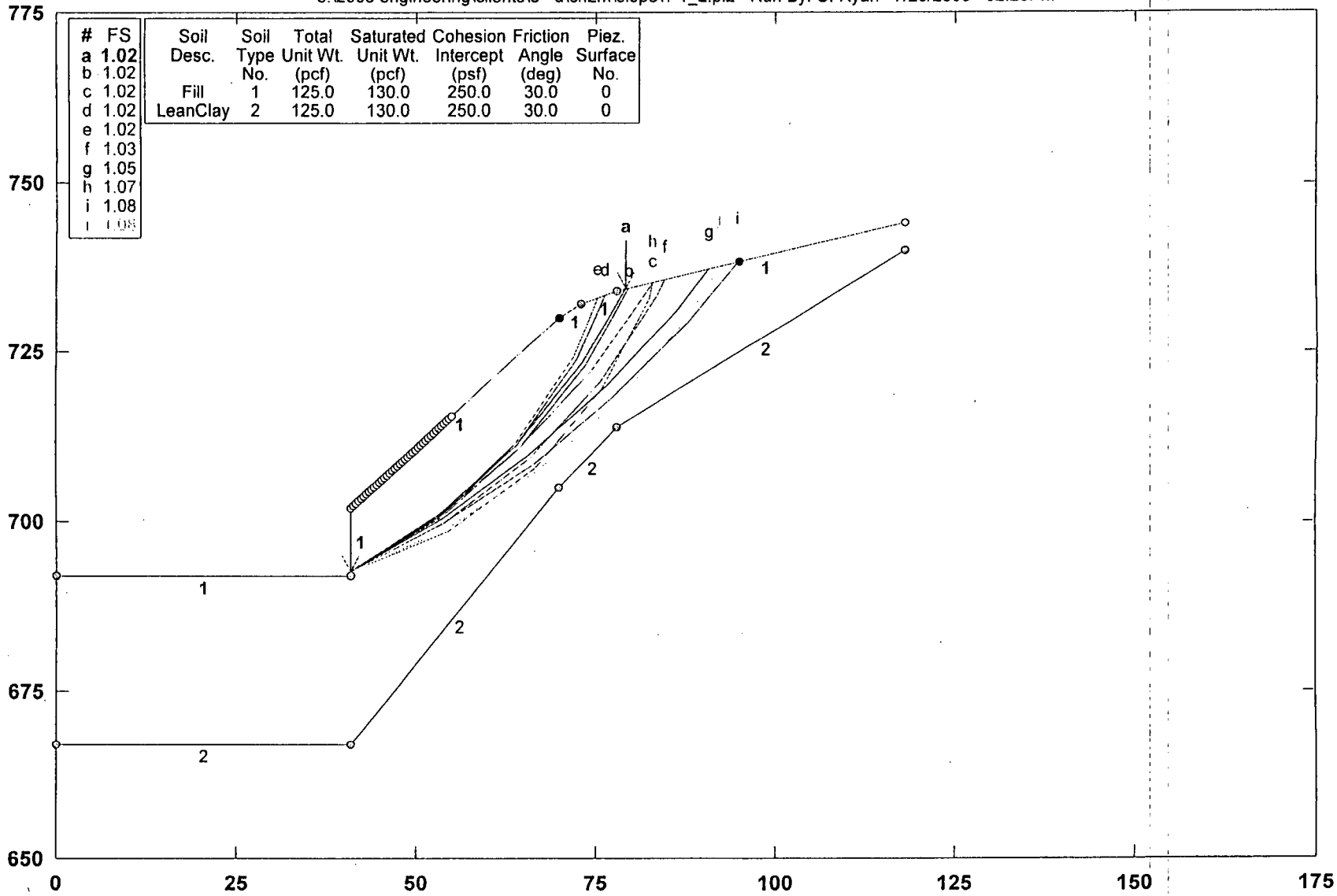


STABL6H FSmin=1.02

Safety Factors Are Calculated By The Modified Bishop Method

BOWSER MORNER®

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** STABL6H **
by
Purdue University
--Slope Stability Analysis--
Simplified Janbu, Simplified Bishop
or Spencer`s Method of Slices

Run Date: 7/20/2005
Time of Run: 02:20PM
Run By: C. Ryan
Input Data Filename: e:1-1_2.in
Output Filename: e:1-1_2.OUT
Plotted Output Filename: e:1-1_2.PLT
PROBLEM DESCRIPTION CH2M Hill
1 to 1 Slope

BOUNDARY COORDINATES
Note: User origin value specified.
Add 0.00 to X-values and 650.00 to Y-values listed.

6 Top Boundaries
10 Total Boundaries

| Boundary No. | X-Left (ft) | Y-Left (ft) | X-Right (ft) | Y-Right (ft) | Soil Type Below Bnd |
|---|---|---|---|---|---|
| 1 | .00 | 42.00 | 41.00 | 42.00 | 1 |
| 2 | 41.00 | 42.00 | 41.01 | 52.00 | 1 |
| 3 | 41.01 | 52.00 | 70.00 | 80.00 | 1 |
| 4 | 70.00 | 80.00 | 73.00 | 82.00 | 1 |
| 5 | 73.00 | 82.00 | 78.00 | 84.00 | 1 |
| 6 | 78.00 | 84.00 | 118.00 | 94.00 | 1 |
| 7 | .00 | 17.00 | 41.00 | 17.00 | 2 |
| 8 | 41.00 | 17.00 | 70.00 | 55.00 | 2 |
| 9 | 70.00 | 55.00 | 78.00 | 64.00 | 2 |
| 10 | 78.00 | 64.00 | 118.00 | 90.00 | 2 |

ISOTROPIC SOIL PARAMETERS
2 Type(s) of Soil

| Soil Type No. | Total Unit Wt. (pcf) | Saturated Unit Wt. (pcf) | Cohesion Intercept (psf) | Friction Angle (deg) | Pore Pressure Param. | Pressure Constant (psf) | Piez. Surface No. |
|---|---|---|---|---|---|---|---|
| 1 | 125.0 | 130.0 | 250.0 | 30.0 | .00 | .0 | 0 |
| 2 | 125.0 | 130.0 | 250.0 | 30.0 | .00 | .0 | 0 |

A Critical Failure Surface Searching Method, Using A Random
Technique For Generating Circular Surfaces, Has Been Specified.
1600 Trial Surfaces Have Been Generated.
40 Surfaces Initiate From Each Of 40 Points Equally Spaced
Along The Ground Surface Between X = 41.00 ft.
and X = 55.00 ft.
Each Surface Terminates Between X = 70.00 ft.
and X = 95.00 ft.
Unless Further Limitations Were Imposed, The Minimum Elevation
At Which A Surface Extends Is Y = 42.00 ft.
15.00 ft. Line Segments Define Each Trial Failure Surface.
Following Are Displayed The Ten Most Critical Of The Trial
Failure Surfaces Examined. They Are Ordered - Most Critical
First.
* * Safety Factors Are Calculated By The Modified Bishop Method * *
Failure Surface Specified By 5 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 41.00 | 42.50 |
| 2 | 53.32 | 51.05 |
| 3 | 64.17 | 61.42 |
| 4 | 73.27 | 73.34 |
| 5 | 79.21 | 84.30 |

Circle Center At X = -7.6 ; Y = 125.7 and Radius, 96.3
*** 1.015 ***
Failure Surface Specified By 5 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|

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| | | |
|---|---|---|
| 1 | 41.00 | 42.50 |
| 2 | 53.52 | 50.76 |
| 3 | 64.48 | 61.00 |
| 4 | 73.57 | 72.93 |
| 5 | 79.57 | 84.39 |

Circle Center At X = -1.6 ; Y = 120.7 and Radius, 89.1

*** 1.017 ***

Failure Surface Specified By 6 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 41.00 | 42.50 |
| 2 | 53.39 | 50.95 |
| 3 | 64.59 | 60.93 |
| 4 | 74.42 | 72.27 |
| 5 | 82.70 | 84.77 |
| 6 | 82.93 | 85.23 |

Circle Center At X = -18.3 ; Y = 142.7 and Radius, 116.4

*** 1.018 ***

Failure Surface Specified By 5 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 41.00 | 42.50 |
| 2 | 53.50 | 50.79 |
| 3 | 64.11 | 61.39 |
| 4 | 72.41 | 73.89 |
| 5 | 76.24 | 83.30 |

Circle Center At X = 5.8 ; Y = 109.1 and Radius, 75.3

*** 1.020 ***

Failure Surface Specified By 5 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 41.00 | 42.50 |
| 2 | 53.46 | 50.86 |
| 3 | 63.94 | 61.59 |
| 4 | 72.01 | 74.23 |
| 5 | 75.29 | 82.92 |

Circle Center At X = 6.8 ; Y = 106.9 and Radius, 73.0

*** 1.022 ***

Failure Surface Specified By 6 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 41.00 | 42.50 |
| 2 | 54.07 | 49.86 |
| 3 | 65.73 | 59.30 |
| 4 | 75.66 | 70.54 |
| 5 | 83.57 | 83.28 |
| 6 | 84.54 | 85.63 |

Circle Center At X = 3.6 ; Y = 124.1 and Radius, 89.8

*** 1.033 ***

Failure Surface Specified By 6 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 41.00 | 42.50 |
| 2 | 53.69 | 50.49 |
| 3 | 65.56 | 59.66 |
| 4 | 76.51 | 69.92 |
| 5 | 86.42 | 81.18 |
| 6 | 90.78 | 87.19 |

Circle Center At X = -36.3 ; Y = 179.3 and Radius, 157.1

*** 1.051 ***

Failure Surface Specified By 6 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 41.00 | 42.50 |
| 2 | 54.68 | 48.65 |
| 3 | 66.56 | 57.81 |
| 4 | 75.98 | 69.48 |

A-171 ZZ

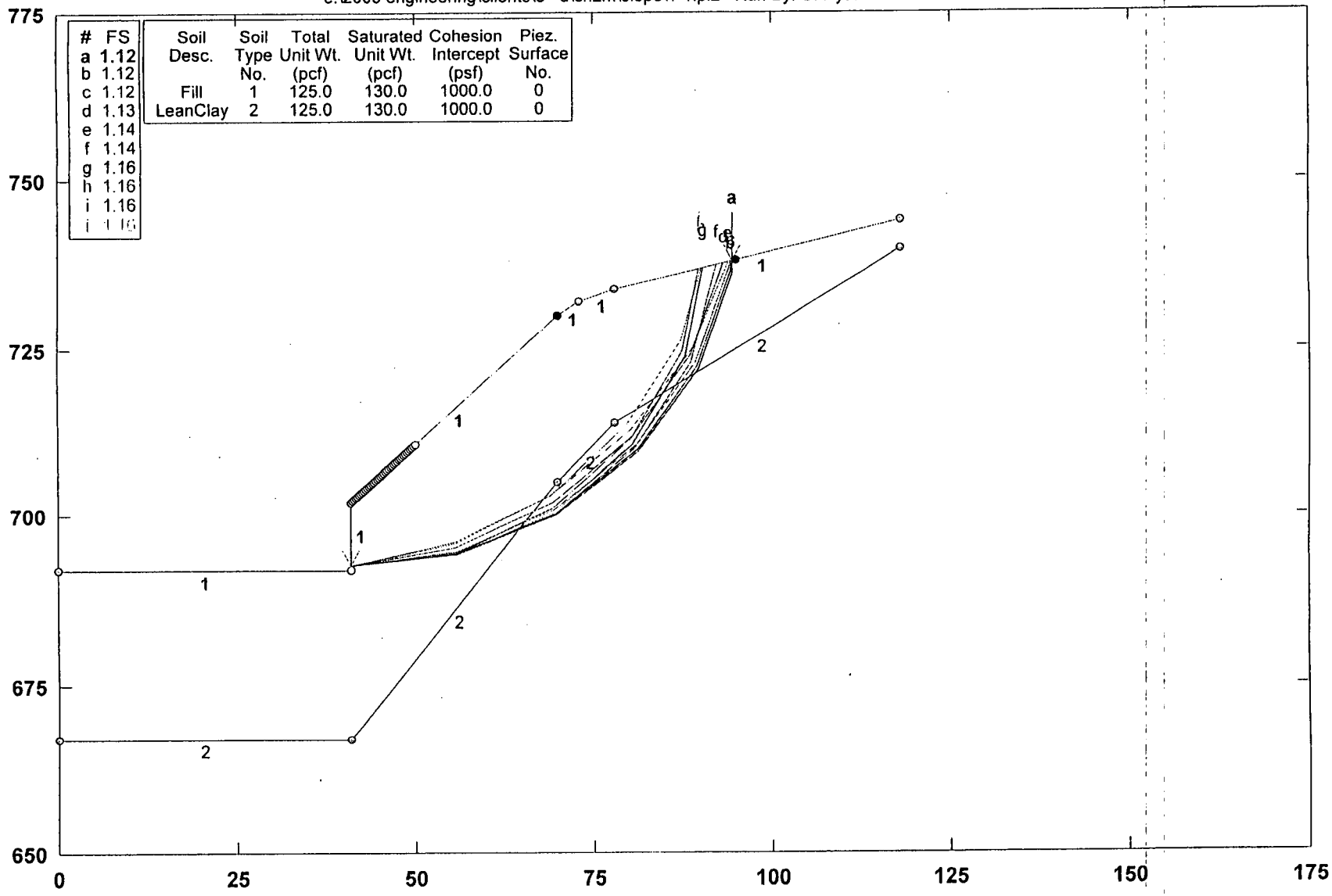
```
    5          82.43        83.03
    6          82.89        85.22
Circle Center At X =   21.8 ; Y =  103.6  and Radius,   64.1
      ***      1.070   ***
Failure Surface Specified By  6 Coordinate Points
  Point       X-Surf       Y-Surf
   No.         (ft)         (ft)
    1          41.00        42.50
    2          54.06        49.87
    3          66.31        58.53
    4          77.63        68.38
    5          87.89        79.32
    6          94.63        88.16
Circle Center At X =  -25.2 ; Y =  175.1  and Radius,  148.2
      ***      1.077   ***
Failure Surface Specified By  6 Coordinate Points
  Point       X-Surf       Y-Surf
   No.         (ft)         (ft)
    1          41.00        42.50
    2          54.48        49.08
    3          66.86        57.54
    4          77.89        67.72
    5          87.31        79.38
    6          92.13        87.53
Circle Center At X =    2.7 ; Y =  138.1  and Radius,  103.0
      ***      1.079   ***
```

A 171 AAA

A 171 BBB

# CH2M Hill 1 to 1 Slope

e:\2005 engineering\clients\c - d\ch2m\slope\1-1.pl2 Run By: C. Ryan 7/20/2005 02:20PM




| # | FS |
|---|---|
| a | 1.12 |
| b | 1.12 |
| c | 1.12 |
| d | 1.13 |
| e | 1.14 |
| f | 1.14 |
| g | 1.16 |
| h | 1.16 |
| i | 1.16 |
| j | 1.16 |

| Soil Desc. | Soil Type No. | Total Unit Wt. (pcf) | Saturated Unit Wt. (pcf) | Cohesion Intercept (psf) | Piez. Surface No. |
|---|---|---|---|---|---|
| Fill | 1 | 125.0 | 130.0 | 1000.0 | 0 |
| LeanClay | 2 | 125.0 | 130.0 | 1000.0 | 0 |

**STABL6H FSmin=1.12**

**Safety Factors Are Calculated By The Modified Bishop Method**

BOWSER MORNER®

COMMITTED TO EXCELLENCE SINCE 1911

171 222

** STABL6H **
by
Purdue University
--Slope Stability Analysis--
Simplified Janbu, Simplified Bishop
or Spencer`s Method of Slices

Run Date: 7/20/2005
Time of Run: 02:20PM
Run By: C. Ryan
Input Data Filename: e:1-1.in
Output Filename: e:1-1.OUT
Plotted Output Filename: e:1-1.PLT
PROBLEM DESCRIPTION CH2M Hill
1 to 1 Slope

BOUNDARY COORDINATES
Note: User origin value specified.
Add 0.00 to X-values and 650.00 to Y-values listed.

6 Top Boundaries
10 Total Boundaries

| Boundary No. | X-Left (ft) | Y-Left (ft) | X-Right (ft) | Y-Right (ft) | Soil Type Below Bnd |
|---|---|---|---|---|---|
| 1 | .00 | 42.00 | 41.00 | 42.00 | 1 |
| 2 | 41.00 | 42.00 | 41.01 | 52.00 | 1 |
| 3 | 41.01 | 52.00 | 70.00 | 80.00 | 1 |
| 4 | 70.00 | 80.00 | 73.00 | 82.00 | 1 |
| 5 | 73.00 | 82.00 | 78.00 | 84.00 | 1 |
| 6 | 78.00 | 84.00 | 118.00 | 94.00 | 1 |
| 7 | .00 | 17.00 | 41.00 | 17.00 | 2 |
| 8 | 41.00 | 17.00 | 70.00 | 55.00 | 2 |
| 9 | 70.00 | 55.00 | 78.00 | 64.00 | 2 |
| 10 | 78.00 | 64.00 | 118.00 | 90.00 | 2 |

ISOTROPIC SOIL PARAMETERS
2 Type(s) of Soil

| Soil Type No. | Total Unit Wt. (pcf) | Saturated Unit Wt. (pcf) | Cohesion Intercept (psf) | Friction Angle (deg) | Pore Pressure Param. | Pressure Constant (psf) | Piez. Surface No. |
|---|---|---|---|---|---|---|---|
| 1 | 125.0 | 130.0 | 1000.0 | .0 | .00 | .0 | 0 |
| 2 | 125.0 | 130.0 | 1000.0 | .0 | .00 | .0 | 0 |

A Critical Failure Surface Searching Method, Using A Random
Technique For Generating Circular Surfaces, Has Been Specified.
1600 Trial Surfaces Have Been Generated.
40 Surfaces Initiate From Each Of 40 Points Equally Spaced
Along The Ground Surface Between X = 41.00 ft.
and X = 50.00 ft.
Each Surface Terminates Between X = 70.00 ft.
and X = 95.00 ft.
Unless Further Limitations Were Imposed, The Minimum Elevation
At Which A Surface Extends Is Y = 42.00 ft.
15.00 ft. Line Segments Define Each Trial Failure Surface.
Following Are Displayed The Ten Most Critical Of The Trial
Failure Surfaces Examined. They Are Ordered - Most Critical
First.
* * Safety Factors Are Calculated By The Modified Bishop Method * *
Failure Surface Specified By 7 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 41.00 | 42.50 |
| 2 | 55.90 | 44.27 |
| 3 | 69.70 | 50.15 |
| 4 | 81.30 | 59.66 |
| 5 | 89.77 | 72.04 |
| 6 | 94.43 | 86.29 |
| 7 | 94.49 | 88.12 |

Circle Center At X = 42.3 ; Y = 95.5 and Radius, 53.0
*** 1.118 ***
Failure Surface Specified By 7 Coordinate Points

A/71 DDD

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 41.00 | 42.50 |
| 2 | 55.88 | 44.39 |
| 3 | 69.65 | 50.35 |
| 4 | 81.20 | 59.91 |
| 5 | 89.63 | 72.32 |
| 6 | 94.27 | 86.58 |
| 7 | 94.32 | 88.08 |

Circle Center At X = 41.8 ; Y = 95.7 and Radius, 53.3
*** 1.120 ***

Failure Surface Specified By 7 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 41.00 | 42.50 |
| 2 | 55.83 | 44.73 |
| 3 | 69.50 | 50.90 |
| 4 | 80.99 | 60.55 |
| 5 | 89.43 | 72.95 |
| 6 | 94.19 | 87.18 |
| 7 | 94.23 | 88.06 |

Circle Center At X = 40.3 ; Y = 97.3 and Radius, 54.8
*** 1.122 ***

Failure Surface Specified By 6 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 41.00 | 42.50 |
| 2 | 55.73 | 45.34 |
| 3 | 69.20 | 51.93 |
| 4 | 80.48 | 61.81 |
| 5 | 88.78 | 74.31 |
| 6 | 93.29 | 87.82 |

Circle Center At X = 37.7 ; Y = 99.2 and Radius, 56.8
*** 1.134 ***

Failure Surface Specified By 6 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 41.00 | 42.50 |
| 2 | 55.58 | 46.02 |
| 3 | 68.90 | 52.92 |
| 4 | 80.20 | 62.78 |
| 5 | 88.82 | 75.06 |
| 6 | 93.86 | 87.97 |

Circle Center At X = 33.7 ; Y = 104.6 and Radius, 62.5
*** 1.138 ***

Failure Surface Specified By 6 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 41.00 | 42.50 |
| 2 | 55.90 | 44.21 |
| 3 | 69.61 | 50.31 |
| 4 | 80.87 | 60.22 |
| 5 | 88.64 | 73.05 |
| 6 | 92.21 | 87.55 |

Circle Center At X = 42.9 ; Y = 92.0 and Radius, 49.6
*** 1.142 ***

Failure Surface Specified By 6 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 41.00 | 42.50 |
| 2 | 55.90 | 44.20 |
| 3 | 69.54 | 50.46 |
| 4 | 80.54 | 60.66 |
| 5 | 87.82 | 73.77 |
| 6 | 90.38 | 87.09 |

Circle Center At X = 43.1 ; Y = 90.0 and Radius, 47.5
*** 1.159 ***

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Failure Surface Specified By 6 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 41.00 | 42.50 |
| 2 | 55.62 | 45.86 |
| 3 | 68.81 | 53.01 |
| 4 | 79.60 | 63.42 |
| 5 | 87.22 | 76.34 |
| 6 | 90.09 | 87.02 |

Circle Center At X = 36.0 ; Y = 97.9 and Radius, 55.6

*** 1.163 ***

Failure Surface Specified By 6 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 41.00 | 42.50 |
| 2 | 55.86 | 44.55 |
| 3 | 69.37 | 51.06 |
| 4 | 80.24 | 61.41 |
| 5 | 87.40 | 74.58 |
| 6 | 89.73 | 86.93 |

Circle Center At X = 41.9 ; Y = 90.8 and Radius, 48.3

*** 1.163 ***

Failure Surface Specified By 6 Coordinate Points

| Point No. | X-Surf (ft) | Y-Surf (ft) |
|---|---|---|
| 1 | 41.00 | 42.50 |
| 2 | 55.91 | 44.18 |
| 3 | 69.52 | 50.46 |
| 4 | 80.47 | 60.72 |
| 5 | 87.63 | 73.91 |
| 6 | 89.96 | 86.99 |

Circle Center At X = 43.3 ; Y = 89.5 and Radius, 47.0

*** 1.164 ***

A171 FFF

A171GGG

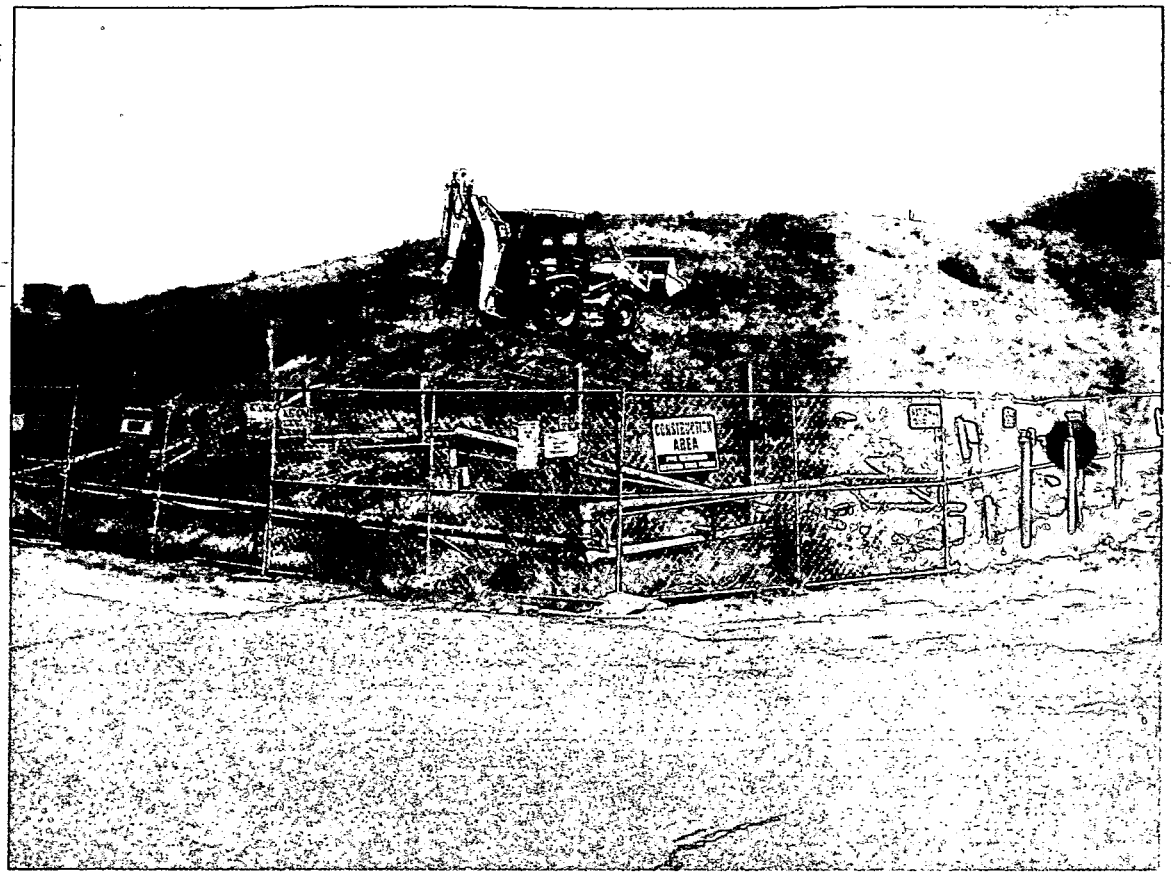
# ATTACHMENT B

## GENERAL MEDIA INFORMATION

[there was no general media information released to the public]

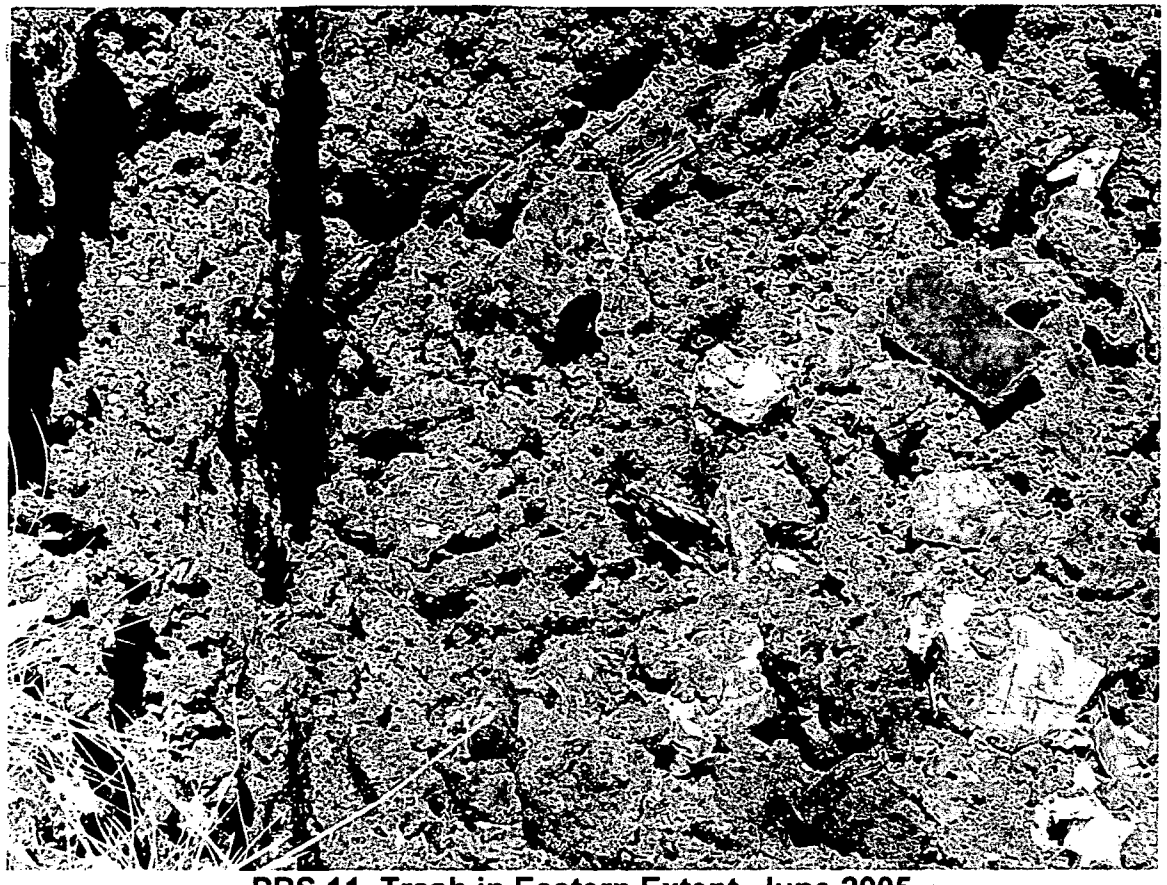
# ATTACHMENT C

## PHOTO DOCUMENTATION

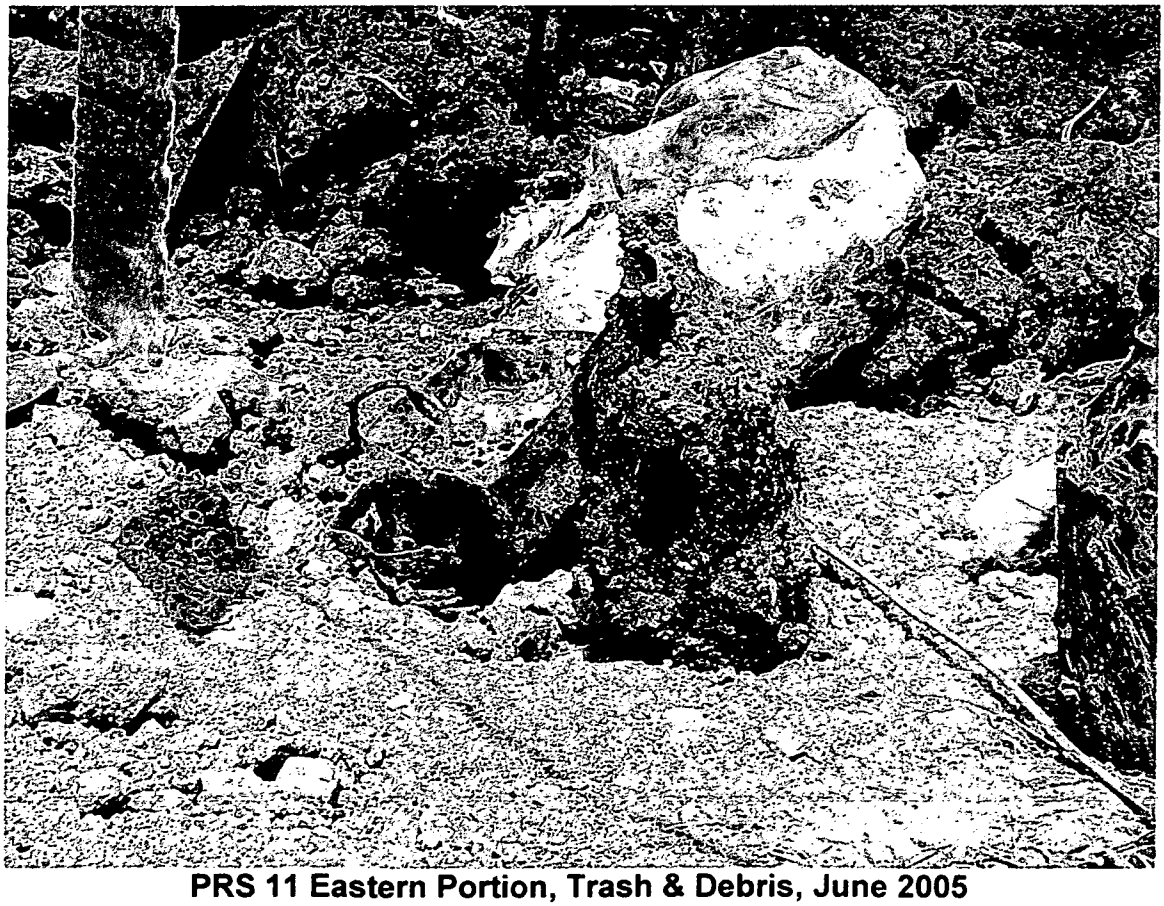



PRS 11 April 12, 2005

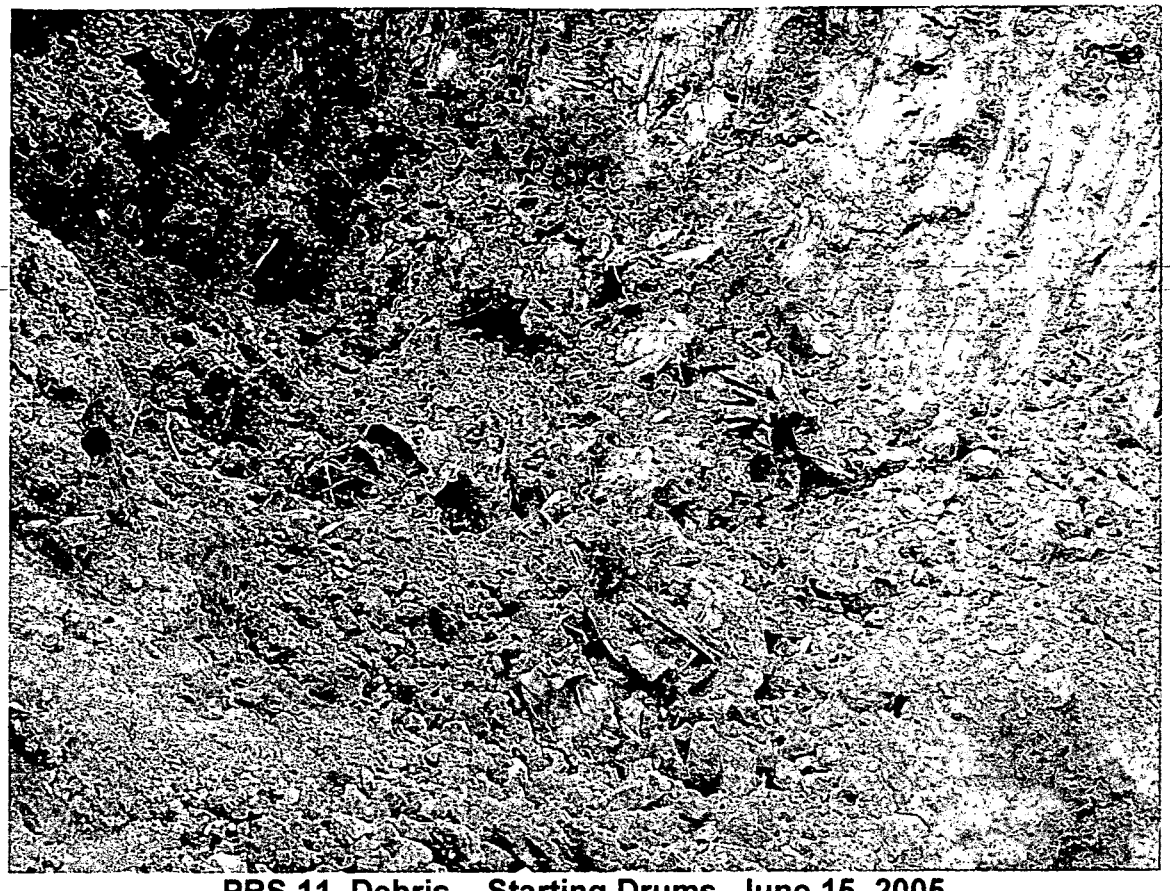
PRS 11 VOCs, First Encounter, June 2005



PRS 11, Trash in Eastern Extent, June 2005



PRS 11 Eastern Portion, Trash & Debris, June 2005

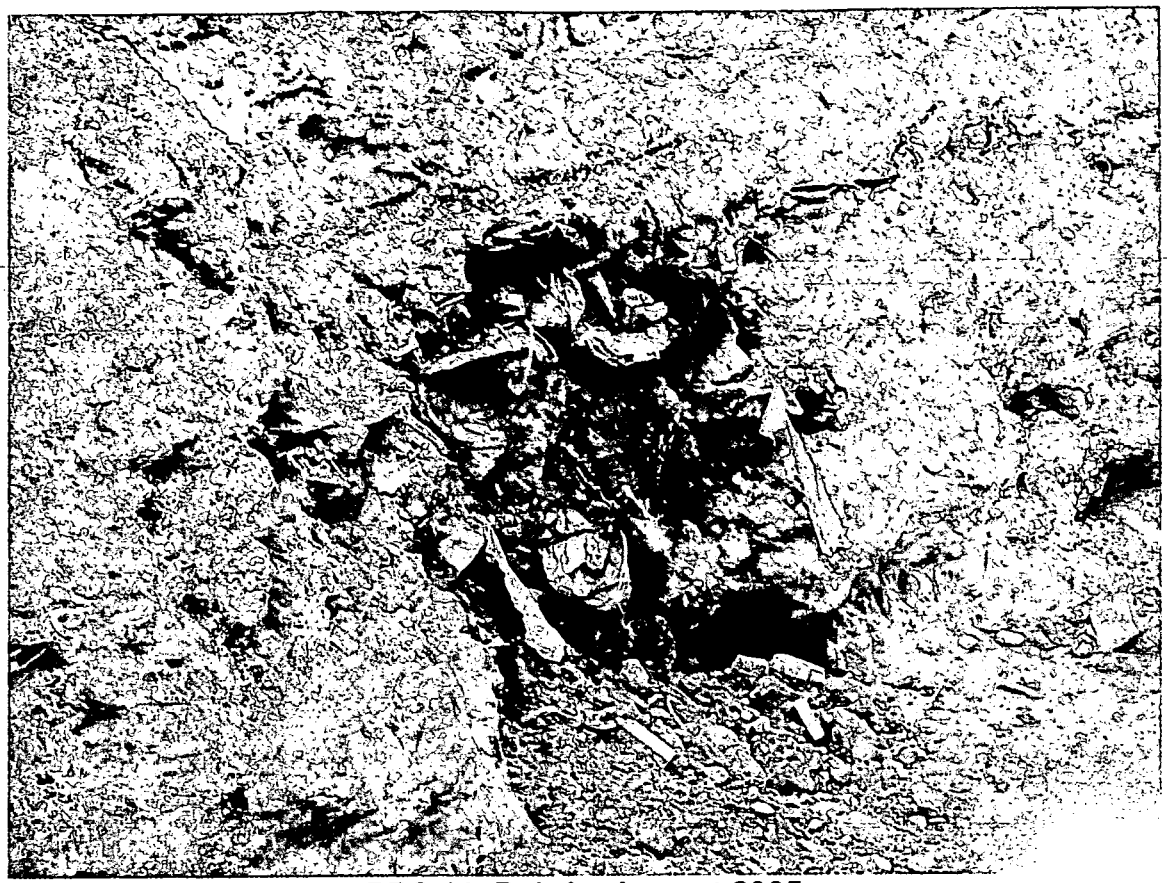


PRS 11, Debris – Starting Drums, June 15, 2005

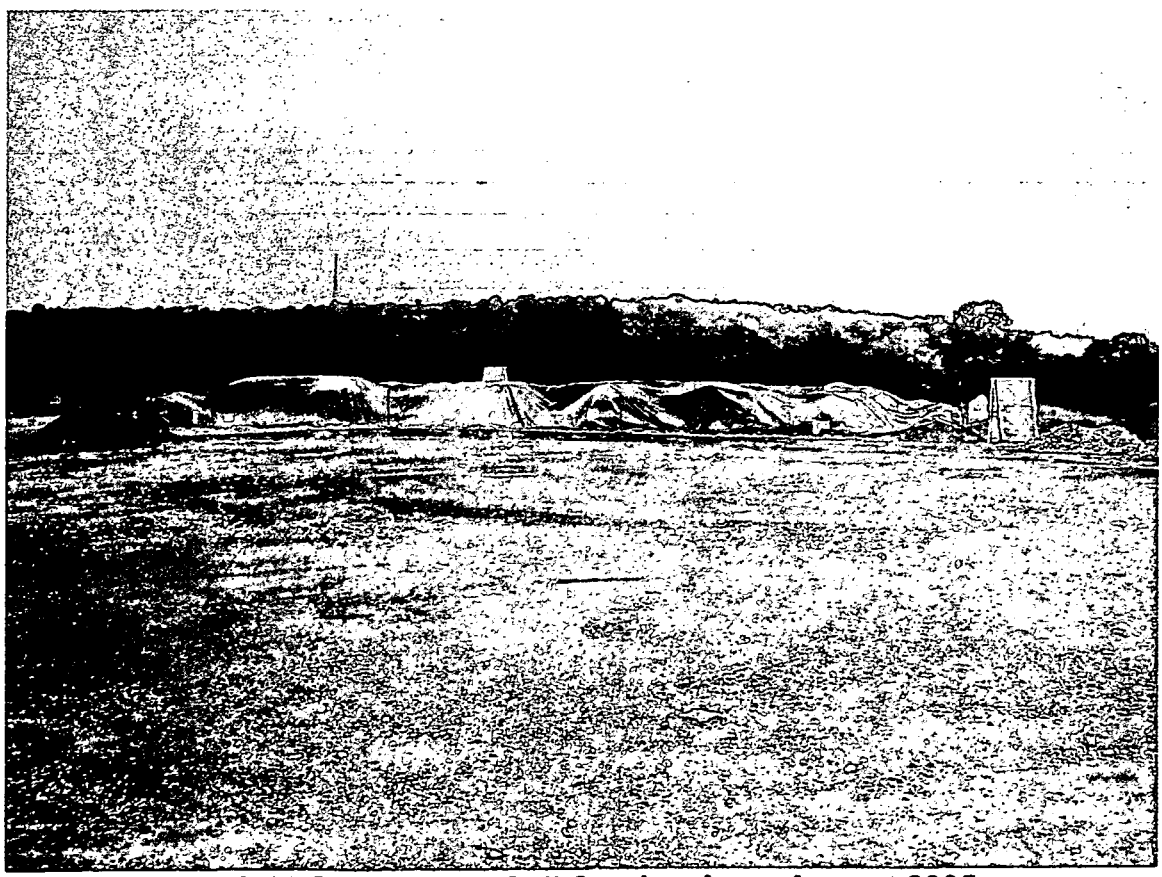
PRS 11, SU3 Sampling, June 2005

PRS 11, VOC Sampling, June 29, 2005

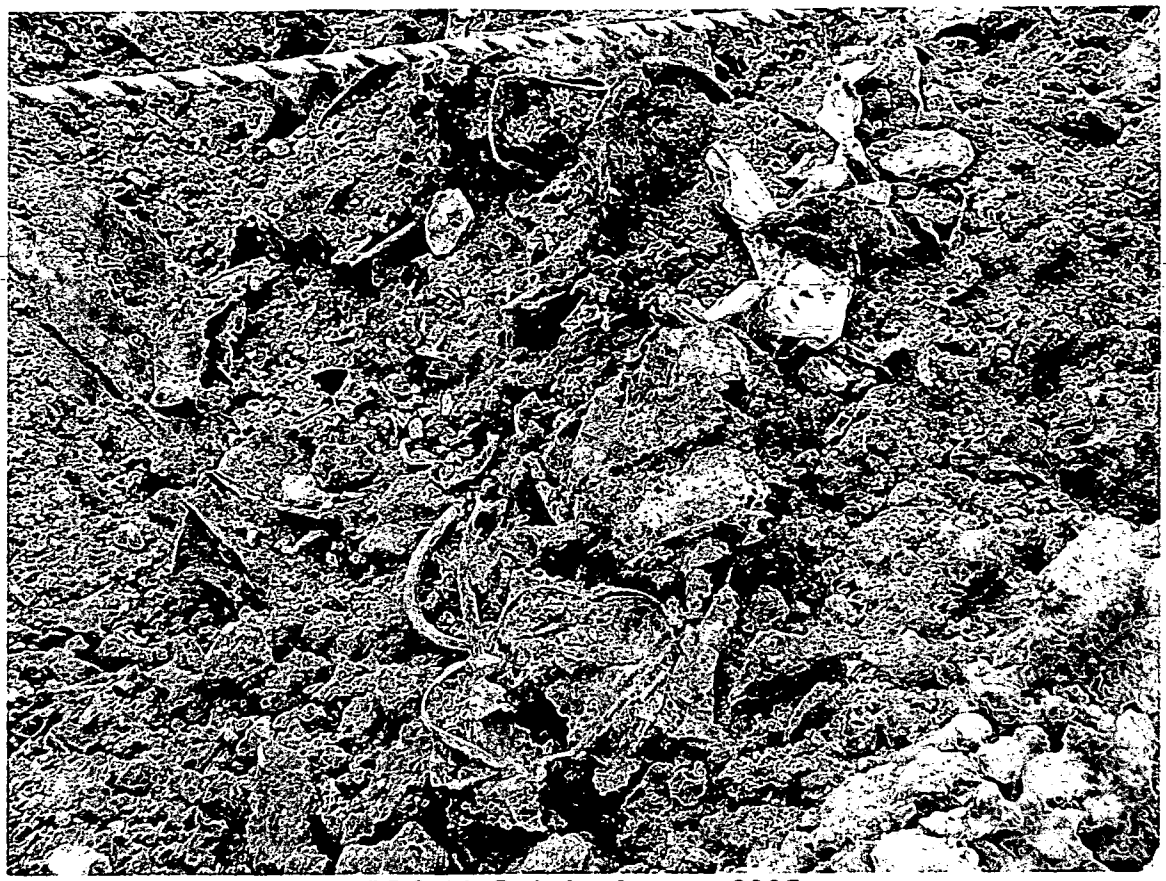
PRS 11 Spoils Area, Constructing Soil Staging Cell, August 2005



PRS 11, Debris, August 2005



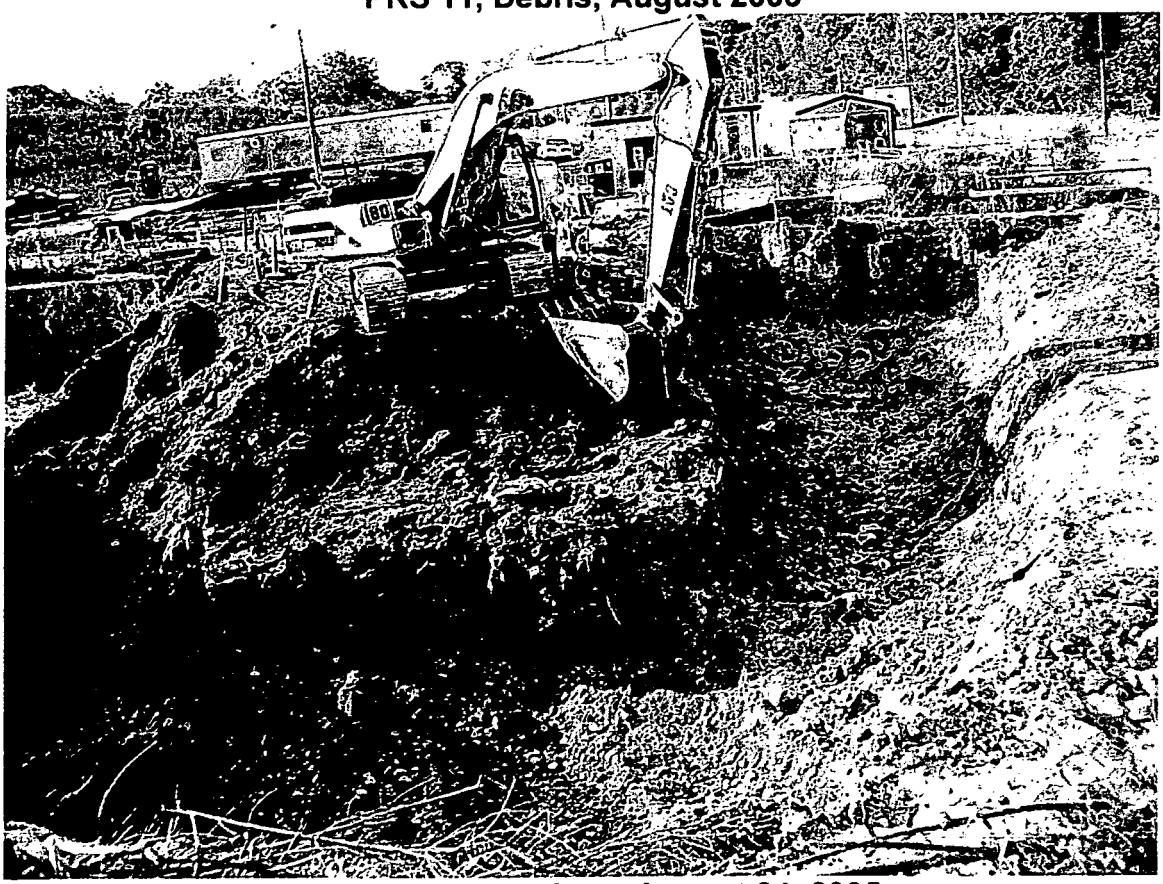
PRS 11 Spoils Area, Soil Staging Area, August 2005



PRS 11, Debris, August 2005

PRS 11, Debris (Vessel), August 2005

PRS 11, Debris, August 2005



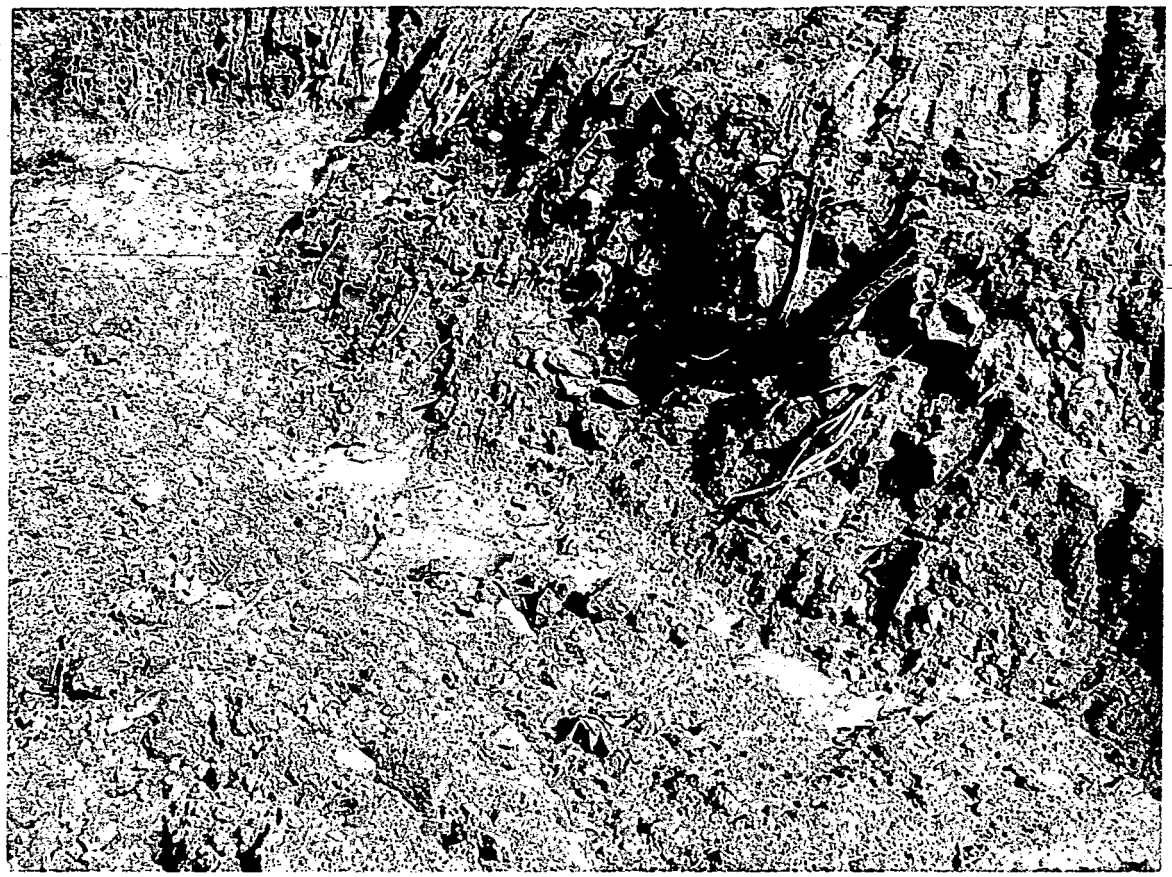
PRS 11, Mercury Area, August 24, 2005

PRS 11, Mercury, August 25, 2005

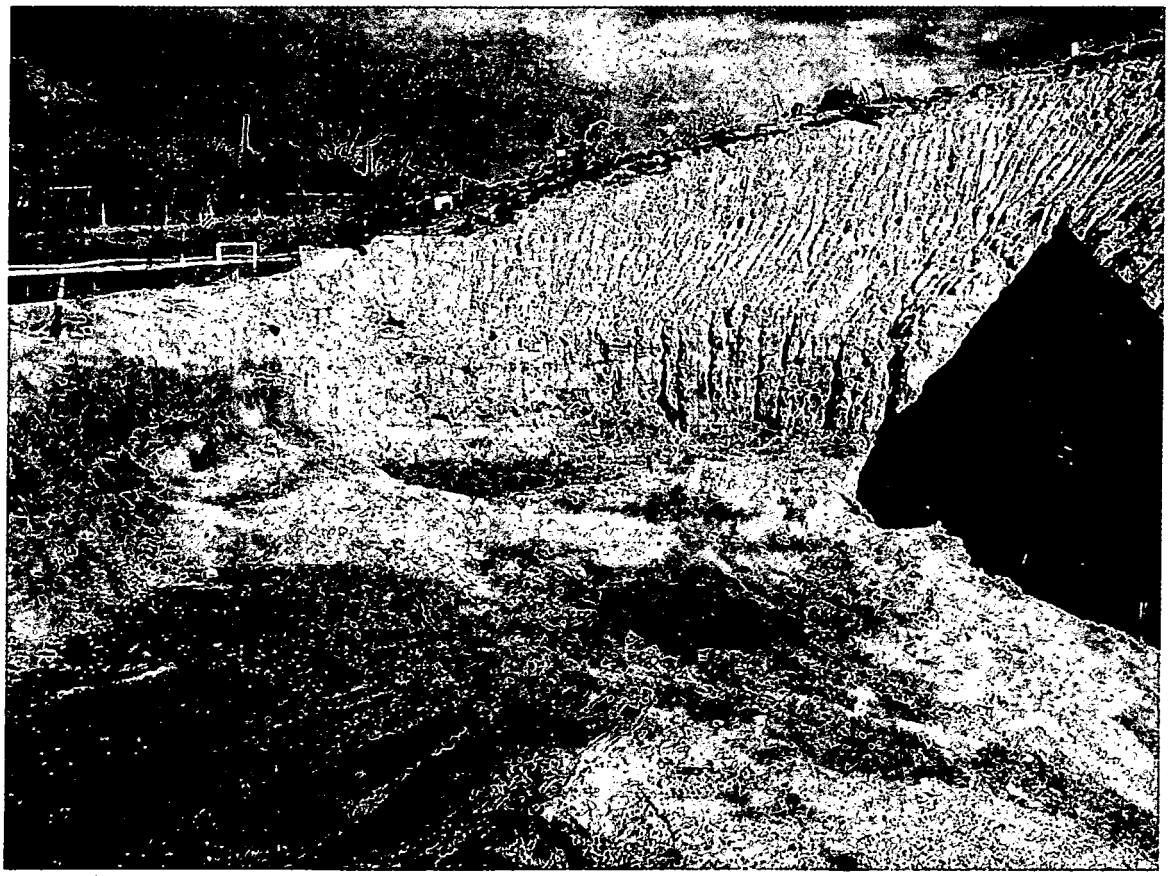
PRS 11, Protection of Mercury Area, August 2005

PRS 11, Wall Adjacent to Landfill Debris, September 2005

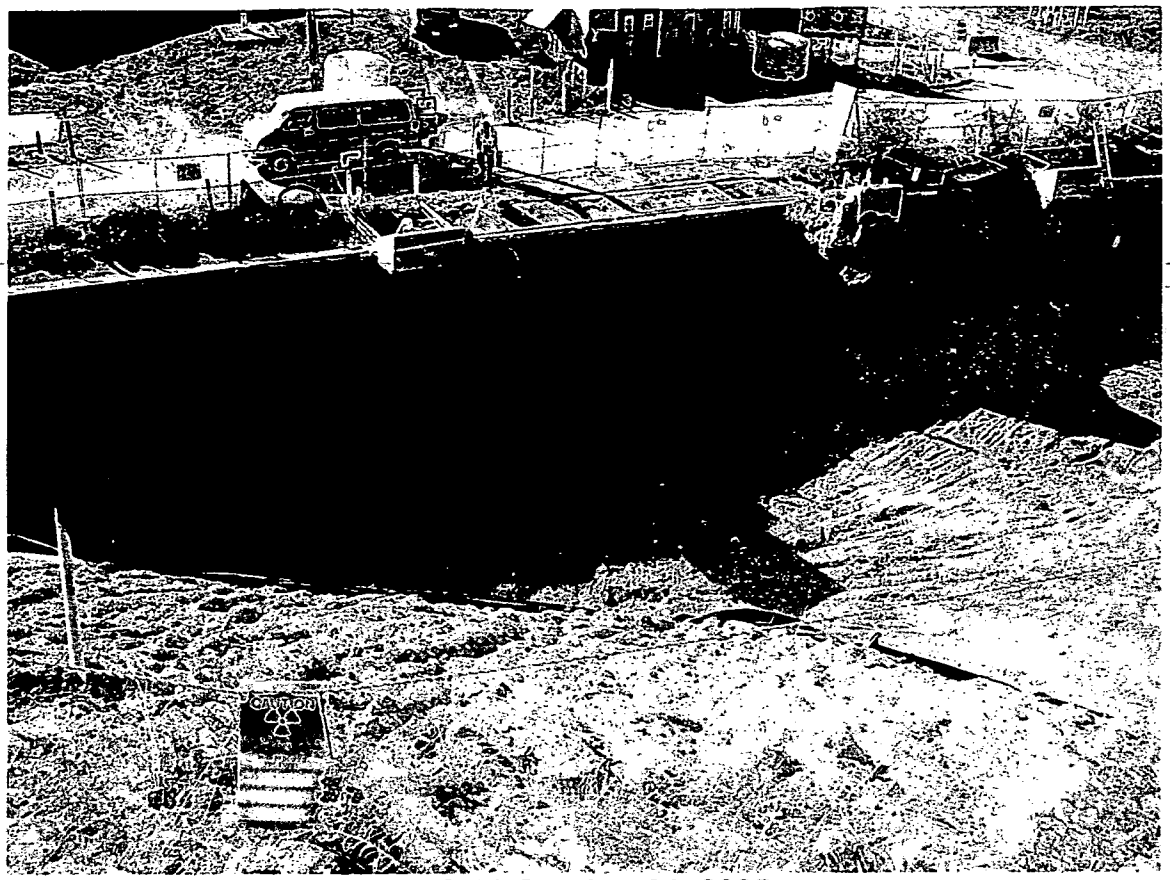
PRS 11, Debris Removal, September 2005



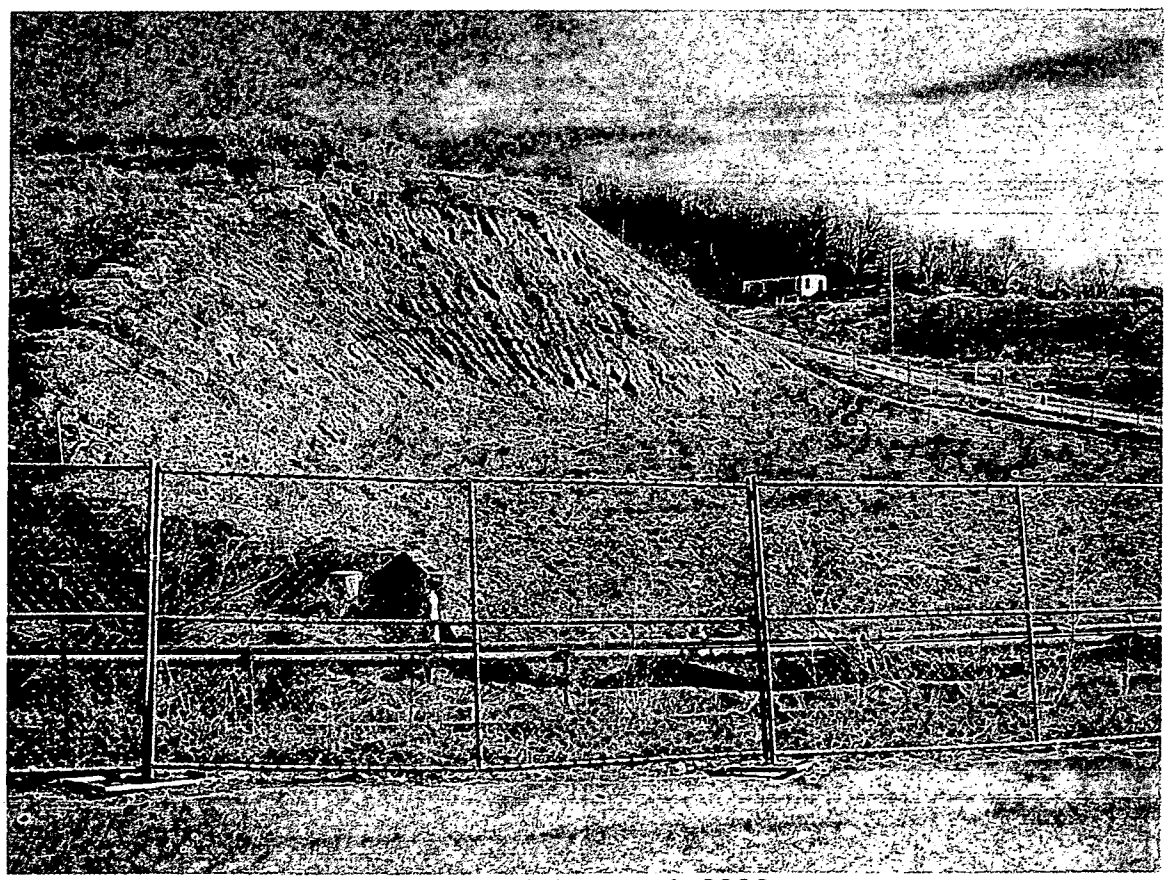
PRS 11, Debris in Wall Adjacent to Landfill, September 2005



PRS 11 October 31, 2005




PRS 11 October 31, 2005



PRS 11 February 1, 2006

# ATTACHMENT D

## PUBLIC FACT SHEET

# PUBLIC FACT SHEET

## PRS 11: Thorium and Polonium – Contaminated Waste Area

This Fact Sheet satisfies the Public Notification requirement set forth in the Contingent Removal Action Memorandum[1]. This Fact Sheet replaces the version[4] released in December 2003 and allows a partial removal.

**Background.** Potential Release Site (PRS) 11, also known as Area 2 and the Crushed Drum Area, is located in the southwest portion of the site (within the boundary of CERCLA Operable Unit 1) as shown on Figure 1. Approximately 2,500 empty drums were crushed in place and covered with soil. These drums had previously contained thorium process materials used for thorium projects in the 1960s. This location also contains buried wood ash and debris from a fire that had consumed the polonium-contaminated flooring from the Dayton units (Area 13). Since Polonium-210 has a half-life of 138 days, it is no longer detectable. However, Lead-210 (half-life of 22 years) and Bismuth-210m (half-life of $3.04\times10^{+6}$ years) may be present due to processes that produced Polonium-210. Therefore, Lead-210 and Bismuth-210m are listed in the table below.

**Characterization.** Thorium-232 was found during installation of drainage features and wells in support of the Operable Unit 1 Record of Decision remedy and subsequent augmentations. The maximum concentration found is included in the following table (unit = pCi/g).

| Analyte | Bkgd** | Maximum Concentration | Cleanup Objective* |
|---|---|---|---|
| Lead-210 + D | 1.2 | see note | 7.4 |
| Bismuth-210m | ND | see note | 8.3 |
| Thorium-232 | 1.4 | 561.7 | 2.1 |
| note: Pb-210 and Bi-210m, as a COCs, are only associated with Dayton debris, if found. No samples above C.O. have been reported. ND = Not Detectable * risk criteria **background soil concentration | | | |

Based on the above, the Department of Energy (and the Core Team, see Recommendation Page on page 2) determined that a **Removal Action (RA)** was appropriate per the Contingent Removal Action Memo[1]. The RA Contaminants of Concern (COC) are listed in the table above.

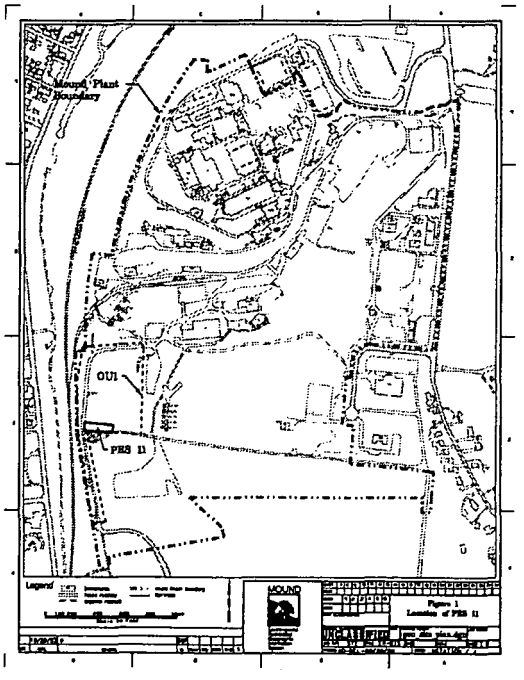
The **Work Plan** for Contingent Removal Actions[2], supplemented by the Unique Work Package as reviewed by the Core Team[1,2], includes procedures, instructions, and applicable permits and notifications required to safely conduct the work. Erosion and runon/runoff controls will be managed per the SWPPP[3].

The RA will consist of excavation of the crushed drums (and other debris associated with the Dayton Units if discovered), as indicated by sample results above the cleanup objectives (see table) and shipping of debris to an approved disposal facility. Concurrently a professional engineering evaluation will be conducted on the available alternatives to maximize the removal of known radiological contamination while ensuring worker safety and the integrity of the landfill. The soil excavation will continue to the extent possible without endangering the integrity of the adjacent landfill. Post-excavation sampling will be performed within the area per a Core Team approved **Standard Verification Sampling & Analysis Plan (VSAP)**.

**Schedule.** This Fact Sheet will be in public review for 30 days, ending March 22, 2005. The RA is planned to commence at the beginning of March 2005. A summary of the RA and the verification data will be included in the On-Scene Coordinator (OSC) Report. The OSC Report will be placed in the public reading room after the conclusion of the verification sampling and approval by the Core Team.

Excavation of approximately 13,000 $yd^3$ (9,939 $m^3$) of material (banked and based upon a 1.5:1 slopeback, including overburden), disposal, and verification are expected to cost less than $4,115,000.

Additional information can be found in the public reading room, or by contacting Sue Smiley at 847-8350 ext. 318.




1: Action Memorandum/Engineering Evaluation/Cost Analysis, Contingent Removal Action for Contaminated Soil, June 2002, Final
2: Standard Work Package for Contingent Removal Actions, November 2001, Final
3: Storm Water Pollution Prevention Plan
4: PRS 11 Fact Sheet, December 2003, Public Review Draft

## Recommendation for PRS 11

Potential Release Site (PRS) 11, also known as Area 2 and the Crushed Drum Area, is located in the southwest portion of the site (within the boundary of CERCLA Operable Unit 1), see Figure 1 on Fact Sheet. Approximately 2,500 empty drums were crushed in place and covered with soil. These drums had previously contained thorium process materials used for thorium projects in the 1960s. This location also contains buried wood ash and debris from a fire that had consumed the polonium-contaminated flooring from the Dayton units (Area 13).

Thorium-232 was found during installation of drainage features and wells in support of the Operable Unit 1 Record of Decision remedy and subsequent augmentations. The maximum concentration of Th-232 found was 561.7 pCi/g, compared to the cleanup objective of 2.1 pCi/g. Based on the above information, the Department of Energy determined that a **Removal Action (RA)** was warranted and the Core Team agreed to apply the Contingent Removal Action Memorandum. The RA Contaminant of Concern is thorium-232.

The Core Team originally recommended No Further Assessment for PRS 11 based upon data available at that time. However, based upon the above information the Core Team recommends a **Removal Action** for PRS 11.

This Removal Action will be performed under the Action Memorandum for Contengengent Removal Actions. Successful completion of the Removal Action will be documented via an On-Scene Coordinator (OSC) Report signed by the Core Team, which will be placed in the Public Reading Room.

A Public Fact Sheet along with this recommendation, signed by the Core Team, will be placed in the Public Reading Room for a 30-day review period. Upon closure of the public review comments, if any, the Fact Sheet will be issued as a final document and made available in the Public Reading Room.

**CONCURRENCE:**

DOE/MCP: Paul Lucas 11/26/03
Paul Lucas, Remedial Project Manager (date)

USEPA: David P. Seely 11/19/03
David P. Seely, Remedial Project Manager (date)

OEPA: Brian K. Nickel 11/25/03
Brian K. Nickel, Project Manager (date)

1: Action Memorandum/Engineering Evaluation/Cost Analysis, Contingent Removal Action for Contaminated Soil, June 2002, Final
2: Standard Work Package for Contingent Removal Actions, November 2001, Final
3: Storm Water Pollution Prevention Plan
4: PRS 11 Fact Sheet, December 2003, Public Review Draft