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**DEPARTMENT OF THE AIR FORCE**
377th Civil Engineer Division (AFMC)

FEDERAL EXPRESS

12 Oct 07

MEMORANDUM FOR MR. JOHN KIELING, MANAGER
RCRA PERMITS MANAGEMENT PROGRAM
HAZARDOUS WASTE BUREAU (HWB)
NEW MEXICO ENVIRONMENT DEPARTMENT (NMED)
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SANTA FE, NM 87505-6313

FROM: 377 MSG/CEVR
2050 Wyoming Blvd SE, Suite 118
Kirtland AFB NM 87117-5270

SUBJECT: Submission of the Resource Conservation and Recovery Act Facility Investigation Report for Solid Waste Management Unit 6-30, Radioactive Burial 11 (RW-06), Kirtland Air Force Base (AFB), NM EPA ID # NM9570024423

1. The Environmental Management Branch at Kirtland AFB is submitting one electronic copy of the subject report to your office. One hard copy and an electronic copy is being submitted to Mr. Bill McDonald of your staff.

2. If you have any questions, please do not hesitate to contact me at (505) 853-6534 or Rob Warder at (505) 853-0012.

CARL J. LANZ, P.G.
Chief, Restoration Section

Attachments:
1. Resource Conservation and Recovery Act Facility Investigation Report for Solid Waste Management Unit 6-30, Radioactive Burial 11 (RW-06)
2. Electronic copy of Resource Conservation and Recovery Act Facility Investigation Report for Solid Waste Management Unit 6-30, Radioactive Burial 11 (RW-06)

cc:
NMED HWB-KAFB, Mr. Bearzi, wo Atchs
NMED HWB-KAFB, Mr. McDonald, w Atchs
USEPA-Region 6 (6PD-N), Ms. King w Atchs
HQ AFMC/A7CVP, Mr. McCann, wo Atchs
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CH2M HILL, Ms. Jarocki, wo Atchs
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# KIRTLAND AIR FORCE BASE
# ALBUQUERQUE, NEW MEXICO

## *RESOURCE CONSERVATION AND RECOVERY ACT*
## FACILITY INVESTIGATION REPORT FOR
## SOLID WASTE MANAGEMENT UNIT 6-30,
## RADIOACTIVE BURIAL 11 (RW-06)

**October 2007**

**377 MSG/CEVR**
**2050 Wyoming Blvd. SE**
**Kirtland AFB, New Mexico 87117-5670**

**ENVIRONMENTAL RESTORATION PROGRAM**
**KIRTLAND AIR FORCE BASE**
**ALBUQUERQUE, NEW MEXICO**

# *RESOURCE CONSERVATION AND RECOVERY ACT* FACILITY INVESTIGATION REPORT FOR SOLID WASTE MANAGEMENT UNIT 6-30, RADIOACTIVE BURIAL 11 (RW-06)

**October 2007**

***Prepared for***
HQ AFCEE/ERD
Environmental Restoration Division
Brooks City-Base, Texas 78235-5363

USAF Contract No. F41624-00-D-8595 Task Order No. 0017

***Prepared by***
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Albuquerque, New Mexico 87110

# NOTICE

This report was prepared for the Air Force Center for Engineering and the Environment (AFCEE) by CH2M HILL to aid in the implementation of a final remedial action plan under the Environmental Restoration Program (ERP). As the plan relates to actual or possible releases of potentially hazardous substances, its release prior to an Air Force final decision on remedial action may be in the public's interest. The limited objectives of this report and the ongoing nature of the ERP, along with the evolving knowledge of site conditions and chemical effects on the environment and health, must be considered when evaluating this plan, because subsequent facts may become known that may make this plan premature or inaccurate.

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**13. ABSTRACT (Maximum 200 words)**
This report describes the *Resource Conservation and Recovery Act* (RCRA) Facility Investigation (RFI) activities conducted at solid waste management unit (SWMU) 6-30, Radioactive Burial 11 (RW-06) at Kirtland Air Force Base, New Mexico and presents analytical results for the SWMU. RFI activities included soil excavation, field screening for metals and radionuclides, soil sampling and analysis, and data verification.

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# OCTOBER 2007

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

CARL J. LANZ, P.G., YF-02
Chief, Restoration Section, Environmental Management Branch

This document has been approved for public release.

KIRTLAND AIR FORCE BASE
377th ABW Public Affairs

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# NATURAL RESOURCE INJURY

The Department of Defense (DoD) policy requires the identification of Natural Resource Injury (NRI) and, whenever practicable, the rectification of any NRI during the site assessment, investigation, and remedy selection and implementation process for cleanup actions (DoD, 2000). As stated in the policy, DoD's objectives are

> "…to promote earlier and more complete consideration of the risks to natural resources associated with past activities and cleanup alternatives; to ensure that Components exercise their statutory Trustee authorities to address NRI on behalf of the public; to lower the total life-cycle costs of the Components' remediation programs; and to reduce the potential for response cost recovery or natural resource damage claims against the Components."

Based on the above discussions and the site-specific conditions presented in this report, hazardous wastes are not present in the site soil. Some radiologically contaminated waste is present in the disposal trenches along with uncontaminated laboratory waste. Residual contamination at the site will be evaluated during the selection of a remedial action for the site. Instated NRIs will be reevaluated during this process.

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# ENVIRONMENTAL JUSTICE CONSIDERATION

Presidential Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (59 *Federal Register* 7629), requires identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of federal programs, policies, and activities on minority and low-income populations. For purposes of this report, the population within a 50-mile radius around Kirtland Air Force Base (AFB) was considered. Demographic and economic census information presented in *Addressing Environmental Justice Under the National Environmental Policy Act at Sandia National Laboratories/New Mexico* (SNL/NM) was used as a primary reference (SNL/NM, 1997).

Populations living up to a 50-mile radius of Kirtland AFB, which exceed 49 percent of the population according to census data, are evaluated with regard to health and environmental effects from activities at Kirtland AFB. Similarly, low-income populations exceeding 21 percent of the general population were analyzed for effects from corrective measures activities at Kirtland AFB.

Minority populations are considered to be all people of color except white people who are not Hispanic. In 1990, 49 percent (51 percent by 1996) of New Mexico's population was minority (U.S. Bureau of Census, 1998). Neighborhoods having minority population percentages exceeding the minority population percentage of 49 percent (slightly more conservative than 51 percent) were identified on a block-by-block basis, with clusters of blocks known as block groups.

The U.S. Bureau of Census characterizes persons in poverty (low-income persons) as those whose incomes are less than a statistical poverty threshold. The threshold is a weighted average based on family size and age of family members. For instance, the 1990 census threshold for a family of four was based on a 1989 household income of $12,674 (U.S. Bureau of Census, 1990). By 1996, the household income threshold rose to $16,036 (U.S. Bureau of Census, 1997). In 1989, 21 percent of New Mexico's population was listed in poverty or designated as having low income (U.S. Bureau of Census, 1996). By 1996, the estimated percentage stood at 24 percent (U.S. Bureau of Census, 1997). In this analysis, low-income block groups (same as above) occur where the low-income population percentage in the block group exceeds the poverty percentage for the State of New Mexico.

According to 1990 census data, approximately 280,360 minority individuals from an approximate total population of 609,500 reside in the 50-mile radius of impact (ROI). This represents 46 percent of the total ROI population.

Block groups having less than 21 percent low-income individuals were not considered to contain a large number of low-income neighborhoods because they contain less than or equal to the state average of 21 percent. Approximately 85,330 persons were identified as being low income, which represents approximately 14 percent of the ROI population.

This distribution of low-income population has strong correlation to minority populations of Blacks, Native Americans, and Hispanics. For example, portions of the Pueblo of Isleta, south of Albuquerque, have high percentages of low-income individuals. To the southeast of Kirtland AFB, the rural Hispanic villages of Tajique, Torreon, and Escobosa also are low income. To the north of Kirtland AFB, high concentrations of low-income populations are located in the Pueblos of Jemez, Santo Domingo, and Cochiti, as well as in the rural Hispanic villages of La Cienega and Jemez Springs.

High concentrations of low-income populations occur west of Kirtland AFB, along the Rio Grande, in the predominantly Hispanic South Valley neighborhoods. In addition, small pockets of low-income populations reflect the locations of Black neighborhoods such as the Kirtland Addition and the South Broadway/East San Jose area.

The environmental and human health effects considered include potential impacts to surface and groundwater from contamination, restricted access by Native Americans to traditional cultural sites, biological resources, air quality, and noise. Based on the findings of the investigations at Solid Waste Management Unit (SWMU) 6-30, laboratory wastes buried at the SWMU do not pose adverse health effects on the general human populations when left undisturbed. There appear to be no disproportionately high or adverse impacts to minority and low-income populations. Any impacts due to restrictions of access to cultural sites would be removed by coordination between Kirtland AFB and the local Tribes to develop processes to allow access during periods in which safety standards and practices would be maintained.

# PREFACE

This report describes the activities conducted for a *Resource Conservation and Recovery Act* Facility Investigation at Solid Waste Management Unit 6-30, Radioactive Burial 11 (RW-06). The report addresses the requirements designated in the U.S. Air Force (USAF) statement of work dated 23 October 2001.

This RFI report was prepared by CH2M HILL in October 2007. The work was performed under the authority of the Air Force Center for Engineering and the Environment (AFCEE), Contract Number F41624-00-D-8595, Task Order 0017. Joe Urrutia served as the AFCEE Project Manager.

Sharon L. Minchak
CH2M HILL Program Manager

Karen E. Jarocki, P.G.
CH2M HILL Project Manager

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# ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| AFB | Air Force Base |
| AFCEE | Air Force Center for Engineering and the Environment |
| bgs | below ground surface |
| DoD | Department of Defense |
| DRO | diesel range organics |
| EPA | U.S. Environmental Protection Agency |
| FIDLER | Field Instrument for the Detection of Low Energy Radiation |
| FSP | field sampling plan |
| ft | feet/foot |
| GRO | gasoline range organics |
| HWB | Hazardous Waste Bureau |
| ICM | interim corrective measure |
| kcpm | kilocounts per minute |
| LTM | Long-Term Monitoring |
| µg/kg | microgram per kilogram |
| µg/L | micrograms per liter |
| µRem/hr | microRem per hour |
| mg/kg | milligram per kilogram |
| NFA | no further action |
| NMED | New Mexico Environment Department |
| NMWQCC | New Mexico Water Quality Control Commission |
| NRI | Natural Resource Injury |
| PARCC | precision, accuracy, representativeness, completeness, and comparability |
| PCB | polychlorinated biphenyl |
| pCi/g | picocuries per gram |
| PID | photoionization detector |
| RCRA | Resource Conservation and Recovery Act |
| RFI | RCRA facility investigation |
| ROI | radius of impact |
| RSO | Radiation Safety Officer |

# ACRONYMS AND ABBREVIATIONS (Concluded)

| | |
|---|---|
| SNL/NM | Sandia National Laboratories/New Mexico |
| SSL | soil screening level |
| SWMU | solid waste management unit |
| SVOC | semivolatile organic compound |
| TAL | target analyte list |
| TCLP | Toxicity Characteristic Leaching Procedure |
| USAF | U.S. Air Force |
| VOC | volatile organic compound |
| XRF | x-ray fluorescence |

# EXECUTIVE SUMMARY

This *Resource Conservation and Recovery Act* (RCRA) Facility Investigation (RFI) report was prepared to fulfill the requirements of the Kirtland Air Force Base (AFB) RCRA Part B Permit. This report addresses RFI activities completed in October 2006 at Solid Waste Management Unit (SWMU) 6-30, Radioactive Burial 11 (RW-06) at Kirtland AFB, New Mexico.

SWMU 6-30 occupies approximately 4.5 acres within the riding stables complex in the southeast portion of Kirtland AFB. From 1960 to 1971 the area now designated as SWMU 6-30 was part of a 40-acre facility operated by the Radiobiology Laboratory, Biophysics Branch, Air Force Weapons Laboratory. The SWMU 6-30 area served as a radioactive burial site that contained several trenches used for the disposal of animal carcasses, low-level radioactive material, and other laboratory wastes.

Previous site investigations extensively sampled soil around and within the formal disposal trenches. These investigations did not find evidence of soil contamination present at the site. Only three soil samples collected from the site had metals concentrations that exceeded the New Mexico Environment Department (NMED) residential soil screening levels (SSLs). Elevated levels of radionuclides were not identified during the previous site investigations.

The primary objectives of the 2006 RFI activities were to evaluate whether the site poses any risk to human health or to the environment and to determine whether additional investigation or remedial action is required at the site, or if the site is appropriate for a no further action (NFA) determination. A secondary objective of the RFI was to verify, to the extent possible, the reported historic disposal practices at the site and reconcile the list of contaminants of concern.

Nine former disposal trenches were identified during the excavation activities; the sizes of the disposal trenches were verified in the field with some trenches being less than 10 ft deep while others extended to greater than 18 ft deep. Evidence of buried animal remains and laboratory waste were noted throughout the exploratory excavation. Some radiologically contaminated materials were identified in the subsurface at the site, though such material likely represents a small percentage of the waste as only two waste items uncovered during the course of 533 linear ft of excavation showed elevated activity levels.

Soil samples collected during the 2006 RFI did not identify any metals at concentrations that exceed the NMED residential SSLs. No elevated radionuclides were found in the soil samples. Elevated radionuclides were identified in two waste items identified during field screening and removed from the site.

Exploratory trenching at the site confirmed reported past disposal practices by uncovering animal remains and laboratory wastes. Previous and current investigation data indicate that contaminants are not present in the soil at SWMU 6-30. It is possible that some radioactive contaminated waste is present in the former disposal trenched.

Based on the site investigations, no further investigation of the site is necessary. In order to allow for future unrestricted land use with no long-term monitoring, it is recommended that the waste materials present in the former disposal trenches be excavated from the site and disposed of appropriately offsite. Alternatively, the waste materials could be properly capped and contained within the SWMU using an evapotranspirative soil cover and long-term monitoring. However, this may not allow the site to have unrestricted land use in the future.

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# 1.0 INTRODUCTION

This *Resource Conservation and Recovery Act* (RCRA) Facility Investigation (RFI) report was prepared for Kirtland Air Force Base (AFB) as part of the U.S. Air Force (USAF) Contract Number F41624-00-D-8595, Delivery Order No. 0017, and meets the requirements of the USAF Statement of Work dated 23 October 2001. This report summarizes the RFI activities conducted at an inactive solid waste management unit (SWMU). The site is designated as SWMU 6-30, Radioactive Burial 11 (RW-06) at Kirtland AFB, New Mexico (Figure 1-1).

## 1.1 Objectives and Scope

The primary objectives of the RFI were to evaluate whether the site poses any risk to human health or to the environment and to determine whether additional investigation or remedial action is required at the site, or if the site is appropriate for a no further action (NFA) determination. A secondary objective of the RFI was to verify, to the extent possible, the reported historic disposal practices at the site and reconcile the list of contaminants of concern.

The scope of this RFI included excavating exploratory trenches through the former disposal site, field screening of the excavated soil and materials for radiological activity and metals, and collecting and analyzing soil samples.

## 1.2 Regulatory Requirements

This RFI phase was recommended for SWMU 6-30 based on previous investigations and communications with the New Mexico Environment Department (NMED) Hazardous Waste Bureau (HWB). However, the NMED HWB only has jurisdiction to regulate and direct investigations and remedial actions related to RCRA-associated nonradioactive contaminants of concern. The Nuclear Regulatory Commission has granted the USAF authority to self-regulate Air Force sites with radiological contamination (USAF, 2006).

SWMU 6-30 is listed on the expired Kirtland AFB Part B RCRA permit. The Kirtland AFB Environmental Restoration Program continues to operate under the expired RCRA Part B permit until the New Mexico Environment Department issues a final renewed operating permit. The RCRA corrective action schedule was followed for SWMU 6-30 as part of the RCRA process.

### 1.2.1 Interpretation of Analytical Results

Analytical results from the RFIs were evaluated by comparison with NMED-approved background concentrations for metals and radionuclides (NMED, 1997) and to NMED residential soil screening levels (SSL) for metals (NMED, 2006a). SWMU 6-30 is located within the Kirtland AFB riding stables complex, which is a recreational land use. But NMED residential SSLs were used for comparison to consider the most restrictive possible land use.

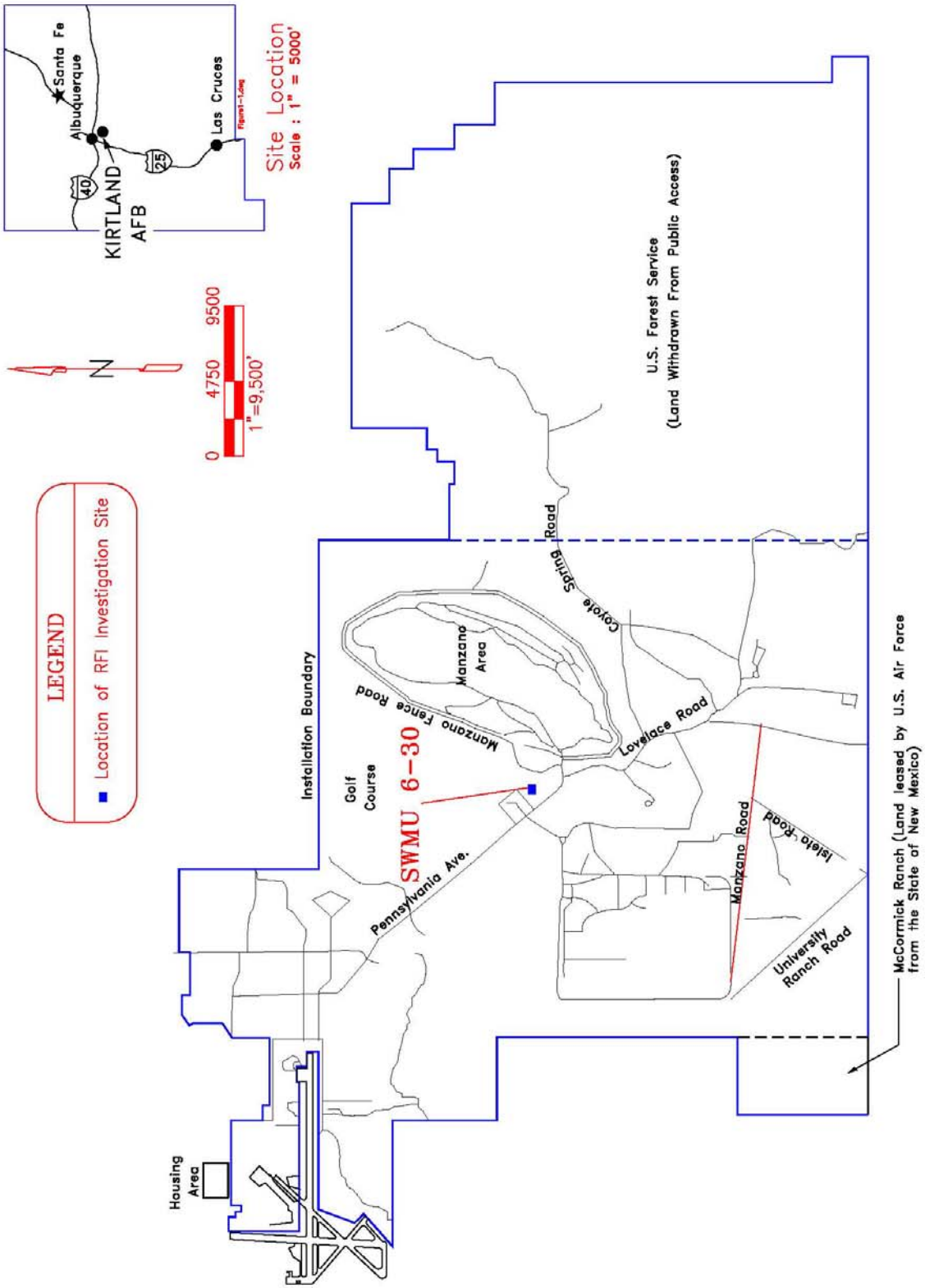


Figure 1-1. Site Location of SWMU 6-30, Radioactive Burial 11 (RW-06) at Kirtland AFB, New Mexico

## 1.3 Installation Description

Kirtland AFB is located in Bernalillo County, in central New Mexico, southeast of, and adjacent to, the City of Albuquerque and the Albuquerque International Sunport (Figure 1-1). The approximate area of the base is 52,287 acres. A detailed discussion of base history, geology, and climate is included in Section 3 of the *Base-Wide Plans for the Environmental Restoration Program, 2004 Update* (USAF, 2004).

## 1.4 Report Format

This report was prepared to present information from the RFI conducted during October 2006 at SWMU 6-30. This report is organized into two sections and appendices. The format for this RFI report was based on the RFI report outline guidance provided by the NMED (1998).

- Section 1 outlines the objectives and scope of this RFI and includes general installation background information.
- Section 2 presents information specific to the site and this RFI. The section contains a study area description, details of the RFIs conducted at the site, discussions of the analytical results for the samples collected, and the nature and extent of any contamination as defined by those samples. Finally, the section contains conclusions and recommendations for the SWMU.
- Appendix A includes the 1988 SWMU 6-30 Investigation Report
- Appendix B includes analytical results from previous site investigations.
- Appendix C includes the field report for the 2006 RFI activities.
- Appendix D includes a data quality evaluation report for the 2006 RFI soil sample laboratory analytical results.

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# 2.0 SOLID WASTE MANAGEMENT UNIT 6-30, RADIOACTIVE BURIAL 11 (RW-06)

## 2.1 Summary

This section presents the site description, operational history, investigatory activities and site assessment for SWMU 6-30, Radioactive Burial 11 (RW-06).

## 2.2 Description and Operational History

### 2.2.1 Site Description

SWMU 6-30 occupies approximately 4.5 acres within the riding stables complex in the southeast portion of Kirtland AFB (Figure 2-1). From 1960 to 1971 the area now designated as SWMU 6-30 was part of a 40-acre facility operated by the Radiobiology Laboratory, Biophysics Branch, Air Force Weapons Laboratory (USAF, 1981). The portion of the Radiobiology Laboratory that was used as a radioactive burial site contained several trenches that were used for the disposal of animal carcasses, low-level radioactive material, and other laboratory wastes. This area, now designated as SWMU 6-30, is located within a diamond-like shaped, fenced field area immediately east-southeast of the current Riding Stables complex. Some of the buildings and structures adjacent to the SWMU 6-30 area, now used as horse stables and riding stable facility buildings, were the original buildings formerly associated with the Radiobiology Laboratory.

SWMU 6-30 consists of nine former burial trenches. Four of the disposal trenches were described as being 50-feet (ft) long by 2-ft wide by 9-ft deep. These trenches were closed by 1965. Two were covered with asphalt caps that were visible during the 2006 RFI activities. The dimensions of the other five trenches were less well documented though two of the trenches were described as being 100-ft long by 6-ft wide by 20-ft deep. Wastes placed into the trenches, including animal carcasses, were buried in containers including metal drums and plastic bags and by direct burial without containers. High level radioactive waste and most liquids were reported as disposed of through appropriate Air Force channels and therefore, presumably, were not placed into the SWMU 6-30 disposal pits.

The exact location of the burial trenches was difficult to determine during previous site investigations but the asphalt caps and surface depressions indicated likely trench locations. The two asphalt caps placed over the first two trenches were observed, during the 2006 RFI activities, to be degraded at the surface. Cracks were present in the asphalt with some vegetation growing up through the cracks. Prior to the 2006 RFI investigation, SWMU 6-30 was overgrown heavily with native plants and weeds, though these were cut to facilitate the RFI activities.

### 2.2.2 Operational History

The operational history of SWMU 6-30 was thoroughly researched and reported as part of the *RCRA Facility Investigation Sampling and Analysis Plan for Solid Waste Management Unit 6-30, Radioactive Burial 11 (RW-06)* (USAF, 2006). The operational history described in the Sampling and Analysis Plan is not reprinted here but briefly summarized based on the extensive research.

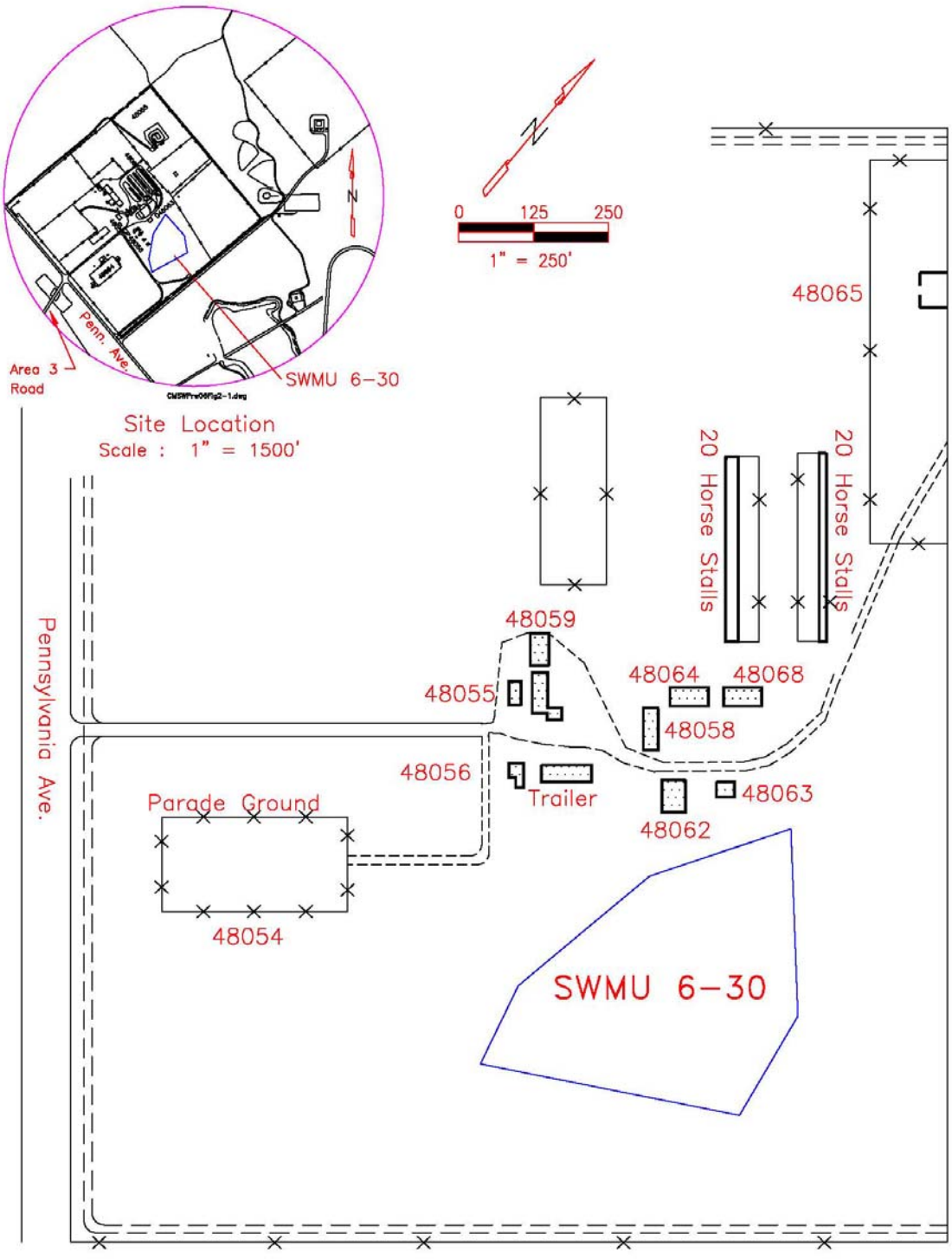


**Figure 2-1. Vicinity Map of SWMU 6-30, Radioactive Burial 11 (RW-06)**

### 2.2.3 Operational History of the Radiation Effects Laboratory Associated with SWMU 6-30

In March 1960, the Biophysics Division's Biomedical Branch began operations in new isolated quarters on Sandia Base (a former U.S. Army facility located on what is now the east side of Kirtland AFB and merged with Manzano Base and Kirtland AFB in 1971). The Radiation Effects Laboratory was planned to include facilities for maintaining 10 to 12 domestic-type animals for experimental purposes; a microbiological laboratory; an isolated irradiation laboratory; a medium level radioisotopes laboratory; and a laboratory for rearing experimental animals.

In 1961, the Biophysics Division was involved in various projects related to radiation hazards. Potential effects of radiation on personnel were evaluated through research on large animals approaching the size of a human to produce more realistic data for human exposures. Accounts from 1961-1962 specifically discuss exposing sheep and mice to various radiation and irradiation processes. Many of the in-house experiments are reported to have taken place at the Radiation Effects Laboratory, also referred to as the animal farm.

In 1963, the Biophysics Division is reported to have expanded its in-house research capabilities. The reported complement of animals that were available for research at the animal farm included "approximately 300 sheep, 25 to 30 burros, dogs, goats, and chickens". Also during 1963 a project entitled Operation Roller Coaster was undertaken, which involved exposure of animals to a plutonium cloud at planned distances downwind. The actual plutonium exposure took place at the Nevada Test Site and **DID NOT OCCUR** at Kirtland AFB. Reportedly 84 beagles, 84 burros, and 132 sheep were transferred to the Nevada Test Site for exposure. Six of each animal species were reportedly sacrificed immediately following exposure for pathologic evaluation while the others were sacrificed at later time periods. Exposed animals that were to be held for later sacrifice were transferred back to the animal farm facility at Kirtland AFB; however, how many actual animals were returned is not reported.

During 1964, the overall focus of the Biophysics Branch was almost exclusively devoted to investigation of radiation hazards from space environments in support of the USAF man-in-space capability. There are no specific reports of activities or animal testing at the Radiation Effects Laboratory.

Throughout 1965, the focus of the Biophysics Branch remained devoted to investigation of radiation hazards from space environments and high altitudes. Ongoing animal testing in support of these projects is reported to have continued, although details regarding exact animals and numbers of animals are not provided as specifically as in previous years' accounts. Reference to the irradiation of sheep and beagles is made. Based on reported activities, much of the animal testing involved irradiation of test subjects using the $Cobalt^{60}$ facility near the Radiation Effects Laboratory.

The 1969 annual report provides accounts of large animal irradiation experiments that took place throughout the period from 1965 through 1970. Descriptions of experiments involving irradiation exposure of sheep, rats, and beagles are made. Specific references are made to the exposure of at least 308 sheep and 16 beagles during this period, although it is not stated that these were the only animals used as part of research experiments during that time.

The 1970 annual report indicates that the Biophysics Division was discontinued in 1970. The Radiation Effects Laboratory was transferred to the "Laboratory's Civil Engineering Division". Any remaining experimental animals are reported to have been auctioned, or destroyed, depending on the condition of the animal.

### 2.2.4 Disposal History at SWMU 6-30

The documents entitled *Procedures for the Disposal of Radioactive Wastes* dated 1965 and *Radioactive Wastes Survey* dated 1 July 1971 provide some details of waste disposal practices, locations, and expected contaminants of concern at SWMU 6-30. The 1965 document specifically describes four waste disposal pits, which, at that time of writing in 1965, were closed. These pits are described as being 9 ft deep, 2 ft wide, and about 50 ft long. Pits were reported as being covered with a minimum of 4 ft of earth and two of the pits were surfaced with asphalt while the remaining two were compacted earth covers. These four pits were reportedly enclosed in a fenced area. Material disposed of in these pits was reported as animal carcasses, animal excreta, and contaminated solid waste (USAF, 1965). Most contaminated solid waste was reported as having been placed in steel drums prior to burial, although some waste was sealed in double, plastic bags. Animal carcasses were buried both by sealing in steel drums and by direct burial without a container. High-level waste and most liquid wastes are reported to have been **DISPOSED OF THOUGH APPROPRIATE AIR FORCE CHANNELS** and therefore, presumably, were not placed in the disposal pits.

In the 1965 USAF document, two other disposal trenches that were in use at the time of writing also were described. These two disposal trenches were described as being 20 ft deep, 6 ft wide, and roughly 100 ft long. As with the other trenches, waste was described as being contained in steel drums or plastic bags prior to disposal. The total amount of waste disposed in each trench was limited by the amount of total radioactivity that would be present based on the radioactivity of the materials disposed. It was reported that at the end of 1965 one of the disposal trenches (pit No. 5) was only one-quarter full based on disposed waste activity to that point. The 1971 *Radioactive Wastes Survey* (USAF, 1971) corroborates the same general operation and disposal methods at the Radiobiology Laboratory as those presented in the 1965 document.

Based on the 1965 *Procedures for the Disposal of Radioactive Wastes* document, an estimate was made of the possible maximum remaining isotope activity potentially present in materials disposed of in the SWMU 6-30 trenches to that date. The total maximum possible activity was estimated by comparing the total stock of radioisotopes that had been distributed to the facility in 1959 and comparing those volumes to the current stock at the time of writing in 1965. The difference between the original volumes and the 1965 stock, taking into account volumes known to have been used through other applications, was assumed to be the maximum amounts of radioactive materials that could be present in the disposed waste material.

The possibly present isotopes with total potential activities greater than 1 microcurie included calcium-45, cerium praseodymium-144, cesium-137, iodine-59, mercury-203, krypton-85, ruthenium-106, stontium-90, yttrium-91, zinc-65, and zirconium niobium-95. Other possibly present isotopes all with total potential activities less than, or equal to, 1 microcurie included gold-198, barium lanthanum-140, cerium-141, cobalt-57, chromium-51, iodine-131, radium-226, ruthenium-103, strontium-85, strontium-89, yttrium-90, mixed fission products (MFP), and possible trace amounts of plutonium-239. These calculated volumes were only estimates and this does not necessarily mean that all, or any, of the listed radioisotope volumes were actually present in the waste emplaced in the disposal trenches.

Of the listed radionuclides only four possessed half-lives long enough to theoretically still be present after 40 years of decay. These were krypton-88 (Kr-88), strontium-90 (Sr-90), cesium-137 (Cs-137) and radium-226 (Ra-226). Calculations for potential remaining activity for these and all other listed radionuclides were discussed in the Sampling and Analysis Plan (USAF, 2006).

## 2.3 Investigatory Activities

This section summarizes the previous investigations of the SWMU 6-30 disposal area, describes the preliminary site conceptual model, describes the 2006 RFI field activities, and presents an evaluation of the data collected during the field investigation.

### 2.3.1 Summary

SWMU 6-30 was investigated in October 2006. The RFI investigation included the excavation of 533 linear ft of exploratory trenches that cut through the former disposal trenches. The trenches and excavated soil and wastes were field screened for radionuclides. Soil samples were collected from the exploratory trenches and analyzed for metals and radionuclides. Based on the laboratory data, soil samples did not generally contain metals or radionuclides at concentrations exceeding NMED-approved background concentrations.

A variety of waste materials, including laboratory wastes and animal remains, were identified in the exploratory trenches. Of the waste materials, two laboratory waste items including a carboy (3-gallon polyethylene bottle) and plastic zip top bag containing alkaline batteries, broken electronic components and soil were found during the excavation activities as contaminated with alpha and beta radiation, respectively. These items were removed from the site and placed in the custody of the Kirtland AFB Radiation Safety Officer (RSO), Captain Bruce Murren. No other wastes were found to have elevated alpha or beta radiation. Based on the results of the 2006 RFI activities, the SWMU 6-30 trenches contain the materials as reported in the historical documents. RCRA contaminants are not present in the soil. Some radiologically contaminated wastes are present within the trenches.

### 2.3.2 Previous Investigations

Numerous investigations were conducted at the SWMU 6-30 site including radiation surveys, geophysical surveys, extensive site sampling, installation of a groundwater monitoring well, and installation of a horizontal borehole. These investigations are discussed in detail in the sections below.

#### *2.3.2.1 Nonsampling Data*

The primary nonsampling data for SWMU 6-30 are the write-ups of historical accounts of site activities, operations, and disposal practices that were discussed in preceding sections. The first environmental assessment of the SWMU consisted of a Phase 1 records and historical review study which identified the site as a radioactive burial trench-and-fill operation in use from 1960 to 1971 (USAF, 1981).

Kirtland AFB personnel visited the site in the early 1980s with Dr. Jelle DeBoer, a former director of the research facility. Dr. DeBoer confirmed that the general location of the former disposal trenches were within the designated SWMU 6-30 area (Davidson, 2003).

As part of the Appendix IV, Stage 2D-1 RFI (discussed in more detail below) in June 1994, geophysical surveys were conducted to further define the extent and depth of the disposal trenches. These results were combined with information from aerial photographs taken in 1966 and 1979, and from observed ground features (depressions, anomalous vegetation, and surface debris). The combined data sets were used to construct a map of probable trench areas. These data indicated that nine disposal trenches were present although historical operational reports specifically describe only six disposal trenches. Figure 2-2 presents an overlay of the EM31 Quadrature Response (a magnetometer) geophysical data. with the map of the interpreted trench locations (USAF, 1994).

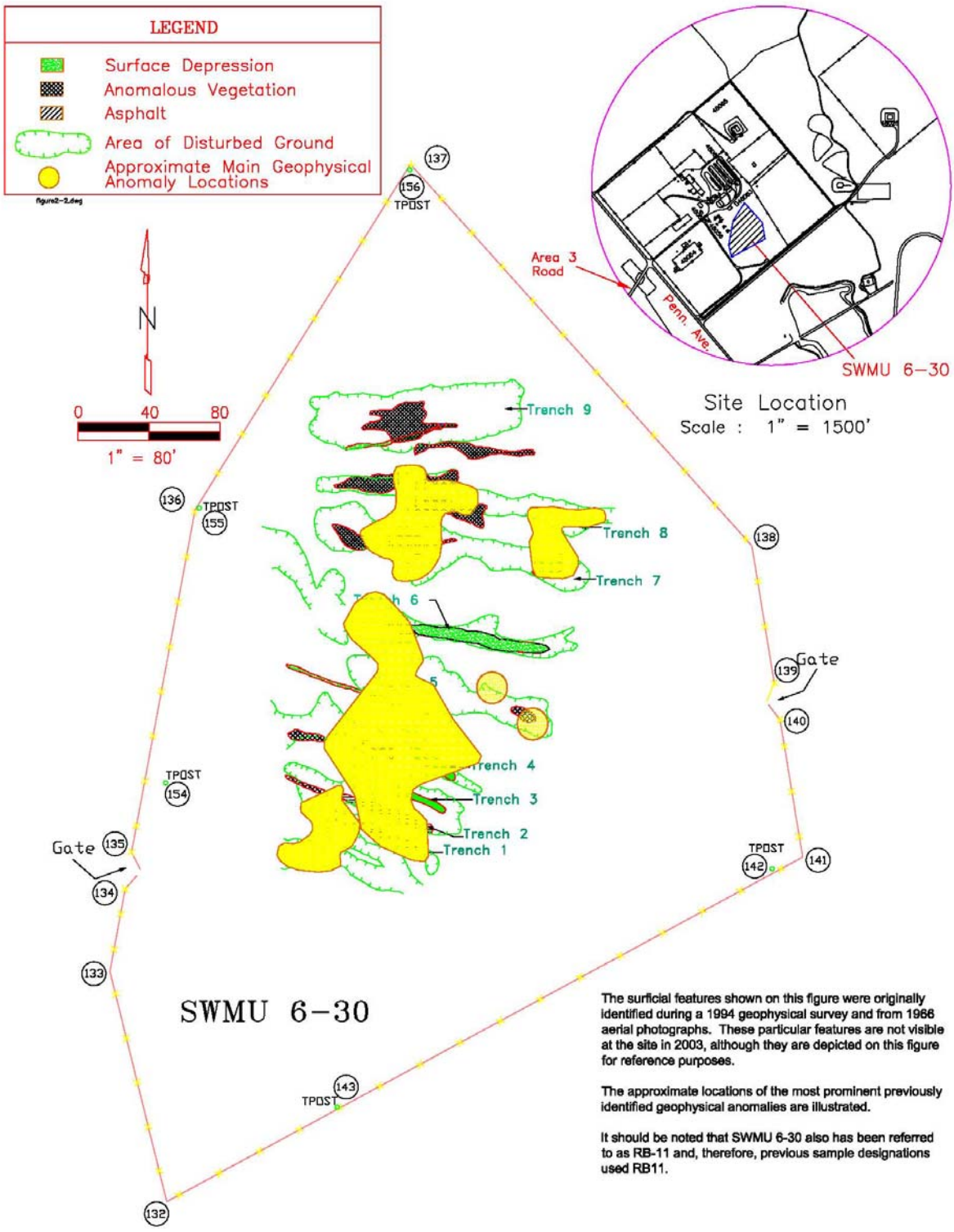


**Figure 2-2. Locations of Suspected Disposal Trenches at SWMU 6-30, Radioactive Burial 11 (RW-06)**

The geophysical investigation did not use permanent surveyed benchmarks to which anomaly locations and suspected trenches were correlated. The geophysical investigations used the existing fence line as benchmarks for referencing the geophysical data. However, the fence line has changed over time. All subsequent investigations at the site used the conclusions on likely trench locations that were synthesized from the June 1994 investigation. The subsequent investigations were conducted with general concurrence that the nine trench areas depicted on Figure 2-2 were the probable disposal trench areas that were historically referenced.

An interim corrective measure (ICM) was performed at SWMU 6-30 in 1996. The ICM activities included the installation of a security fence to surround the former burial trenches and the horizontal well installed by Sandia National Laboratories/New Mexico (SNL/NM) (USAF, 1997).

#### *2.3.2.2 Sampling Data*

***Preliminary Investigation Phases***

A Phase 2 Stage 1 field investigation reported in 1985 included the advancement of two 100-ft exploratory holes at the south end of the site. Sampling from these boreholes identified only sodium and iron in soil samples in excess of the screening levels used at that time. Lead, mercury, silver, total organic halogens, oils and greases, and pesticides were not detected. Field-screening for gamma radiation performed on the drill cuttings identified no activities above background (USAF, 1985).

In January 1988, a surface radiological survey, a subsurface magnetic survey, and a mercury vapor survey were performed at the site. All surface radiation levels were found to be consistent with background. A total of 21 magnetic anomalies were identified by the magnetic survey. Of these 21 anomalies, 13 were attributed to surface or shallow subsurface metal objects that could often be seen. The remaining eight anomalies were described as having the magnetic characteristics of significant masses of buried metal, such as buried drums. Many of these anomalies were oriented in linear configurations, often in association with surface depressions, which suggested subsidence of a disposal trench. The largest identified magnetic anomaly was associated with a linear depression and an exposed drum was observed. (The exposed drum referred to in the 1988 survey is no longer visible at the site and the final disposition of the drum is unknown.) No mercury vapors were detected in any of the shallow test boreholes installed in the areas of the significant magnetic anomalies (USAF, 1988). A copy of the 1988 report is included as Appendix A.

A June 1992 radiation survey to determine possible air and surface soil contamination identified no radiation levels above background conditions (Caputo, 1992).

A SNL/NM technology demonstration project, consisted of installing a horizontal borehole beneath the six southernmost trenches; field monitoring for mercury vapors and volatile organic compounds (VOCs); measuring gamma radiation in soil adjacent to the borehole using a downhole gamma-ray spectrometer; and sampling soil gas for mercury and VOCs. This investigation did not identify radiation levels above background conditions or contaminated soil vapor, though detailed field screening and analytical results for mercury vapor and VOCs were not included within the technology demonstration report (Floran, 1994). In November 2006, SNL/NM plugged and abandoned the horizontal borehole.

***Appendix IV, Stage 2D-1 RFI***

The Appendix IV, Stage 2D-1 RFI (USAF, 1994) was conducted to determine the possible nature and extent of disposal trench contamination and included surface and subsurface soil sampling in soil adjacent to the trenches. Thirty-six boreholes were installed with four to five soil samples collected per borehole for a total of approximately 170 individual soil samples. Soil samples were analyzed for petroleum

hydrocarbon gasoline range organics (GROs) and diesel range organics (DROs), VOCs, semivolatile organic compounds (SVOCs), target analyte list (TAL) metals, cyanide, gross alpha and gross beta radiation levels, Ra-226, Ra-228, soil pH, and soil moisture.

The locations of the Appendix IV, Stage 2D-1 investigation boreholes are shown on Figure 2-3. The site map with the soil boring locations that was utilized during the Appendix IV, Stage 2D-1 investigation is zoomed in on the apparent trench areas. Although other site landmarks and fence lines are not depicted on this figure, the general trench shapes are consistent with those depicted on subsequent investigation maps. Therefore, relative boring locations can be distinguished.

Analytical result from the Appendix IV, Stage 2D-1 indicated the presence of seven VOCs including, acetone; ethylbenzene; methylene chloride; tetrachloroethene; toluene; 1,1,1-trichloroethane; and xylenes. These VOCs were detected at low concentrations and in limited number of the soil samples. None of the detected VOCs exceed the current NMED residential SSLs. Eight SVOCs including benzo(b)fluoranthene; benzo(k)fluoranthene; chrysene; di-n-butyl phthalate; bis(2-ethylhexyl)phthalate; fluoranthene; phenathrene; and pyrene were detected at low levels and in a limited number of the site soil samples. None of the detected SVOCs exceed the current NMED residential SSLs. Both DROs and GROs were detected at low levels and in a limited number of the site soil samples. Analytical results from this investigation are included in Appendix B.

Antimony, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, vanadium, and zinc were detected in some soil samples at concentrations that exceeded the NMED-approved background concentrations. Most of the background exceedences occurred in a limited number of soil samples. Copper concentrations exceeded the NMED-approved background concentration of 17 milligrams per kilogram (mg/kg) in almost all soil samples. The maximum copper concentration was 1,210 mg/kg detected in sample RB-11-16 at a depth of 28 to 30 ft (Appendix B).

Chromium (1,130 mg/kg), iron (45,300 mg/kg), molybdenum (429 mg/kg), and vanadium (100 mg/kg) were detected in one soil sample, RB-11-30 at a depth of 13 to 17 ft, at concentrations that exceed their NMED residential SSLs. This was the only sample that exceeded any NMED residential SSLs. Samples collected from both shallower and deeper sampling depths within the borehole did not show elevated metals concentrations (Appendix B).

Activities for gross alpha, gross beta, and radium-226 were slightly greater than background activities for some of the soil samples. All soil activities were within one order of magnitude of the background activities (Appendix B).

***1997 Phase 2 RFI***

A Phase 2 RFI was conducted at SWMU 6-30 in June and July 1997 (USAF, 1998). The field investigation program was designed to determine if contamination was present within the trenches and in the underlying soils. Boreholes were installed within the apparent disposal trenches using a direct-push drill rig. Since previous investigations did not indicate high levels of radiation would be encountered in the trench, this investigation phase included sampling directly in the apparent trenches. The number of boreholes per trench was based on trench length (approximate 30-ft spacing between boreholes). The depth of boreholes within a trench was based on trench depth with the shallow trenches having 20-ft borehole depths and deep trenches having 30-ft borehole depths.

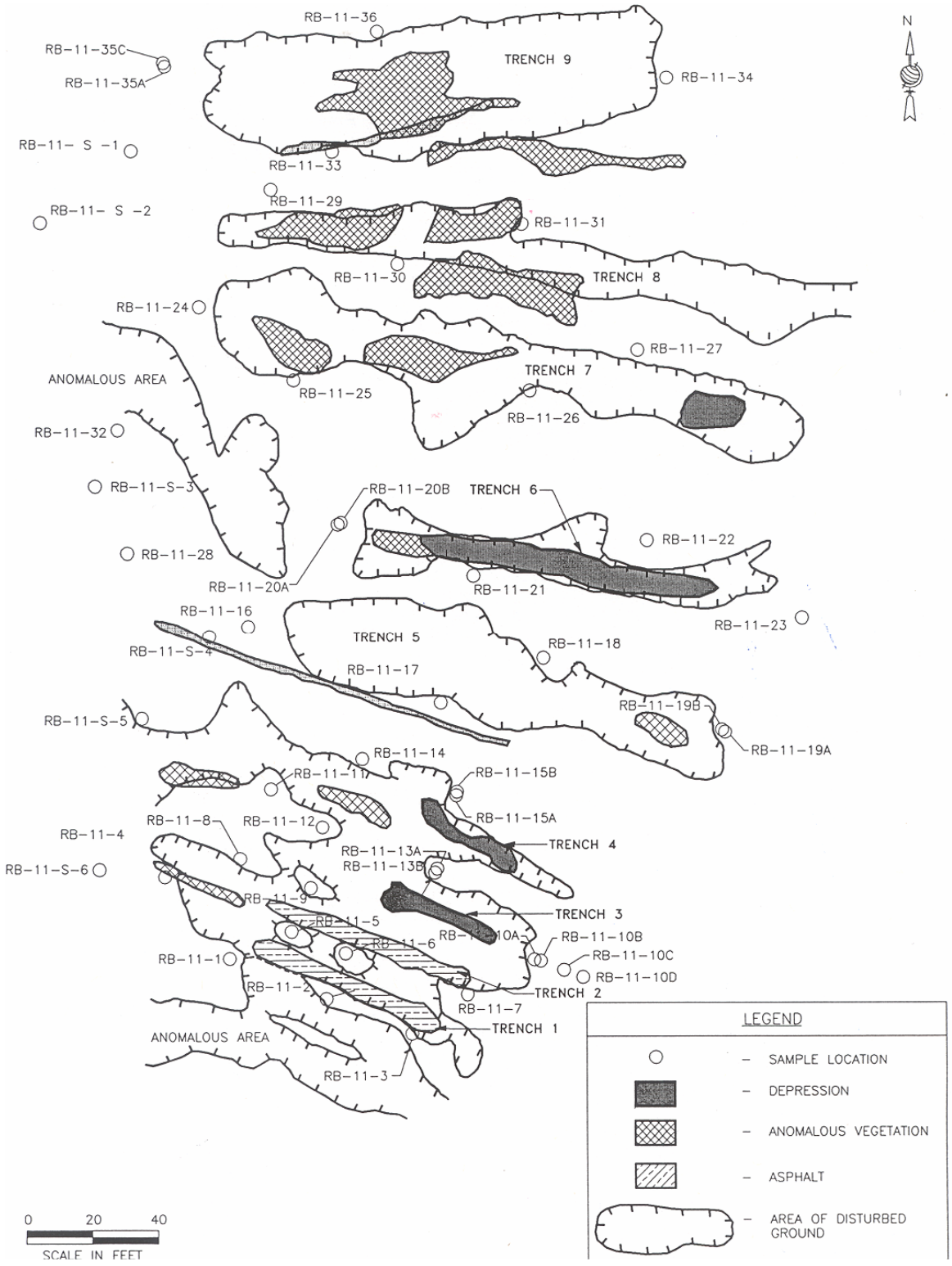


**Figure 2-3. Appendix IV, Stage 2D-1 RFI Sampling Locations, SWMU 6-30, Radioactive Burial 11 (RW-06)**

Thirty-two boreholes were advanced at the site with four to six soil samples collected per borehole for a total of approximately 160 individual soil samples. Soil samples were collected from each borehole at 5-ft intervals to the bottom of the trench and from two additional sampling intervals below the bottom of the trench (10 ft below the bottom of the trench). Boring locations are shown on Figure 2-4.

Samples were field-screened using a photoionization detector (PID), a beta-gamma meter, and a mercury vapor detector. Samples were analyzed for VOCs, SVOCs, TAL metals, mercury, cyanide, gross alpha and beta radiation levels, gamma spectroscopy, soil pH, and soil moisture.

Analytical result from the 1997 Phase 2 RFI indicated the presence of one VOC, acetone, detected in a limited number of samples and at low levels. Three SVOCs including bis(2-ethylhexyl)phthalate, phenol, and styrene were detected at low levels and in a limited number of the site soil samples. None of the detected VOCs or SVOCs exceed the current NMED residential SSLs. Analytical results from this investigation are included in Appendix B.

Arsenic, barium, beryllium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc were detected in some soil samples at concentrations that exceeded their NMED-approved background concentrations. Most of the background exceedences occurred in a limited number of soil samples. Copper concentrations exceeded the NMED-approved background concentration of 17 milligrams per kilogram (mg/kg) in almost all soil samples. The maximum copper concentration was 3,020 mg/kg detected in sample RB-11-48 at a depth of 23 to 25 ft (Appendix B).

Iron (38,100 mg/kg) and vanadium (81.4 mg/kg) each were detected in one soil sample at concentrations that exceed their NMED residential SSLs. Arsenic was detected in a number of soil samples that exceed the NMED residential SSL of 3.9 mg/kg. It should be noted that the NMED-approved background concentration of arsenic is 4.4 mg/kg which is greater than the NMED residential SSL. The maximum arsenic concentration was 14.7 mg/kg (Appendix B).

Activities for gross alpha, gross beta, radium-226, thorium-234, and uranium-235 were slightly greater than background activities for some of the soil samples. All soil activities were within one order of magnitude of the background activities (Appendix B). Screening level risk assessments conducted using the radionuclide data collected indicated that the potential dose and excess cancer risk posed by any radioactive material at SWMU 6-30 did not exceed U.S. Department of Energy and U.S. Environmental Protection Agency (EPA) guidelines.

***1999 Phase 3 RFI***

The Phase 3 RFI at SWMU 6-30, Radioactive Burial 11 (RW-06), was conducted in August and September 1999. Investigation activities included installing one groundwater monitoring well (KAFB-6301), downhole geophysical logging, and laboratory analyses. To avoid intrusive work within the boundaries of the actual SWMU area, the groundwater monitoring well was installed outside of the actual fenced SWMU, within 50 ft of the west fence line of the southernmost tip of the SWMU area.

Following installation of the monitoring well, groundwater samples were collected and analyzed for VOCs, SVOCs, metals, pesticides, polychlorinated biphenyls (PCBs), herbicides, total petroleum hydrocarbons (GROs and DROs), cyanide, nitrate, nitrite, anions, and radionuclides. Nitrate was detected at a concentration of 6.0 mg/L in the groundwater sample and 5.7 mg/L in duplicate groundwater sample.

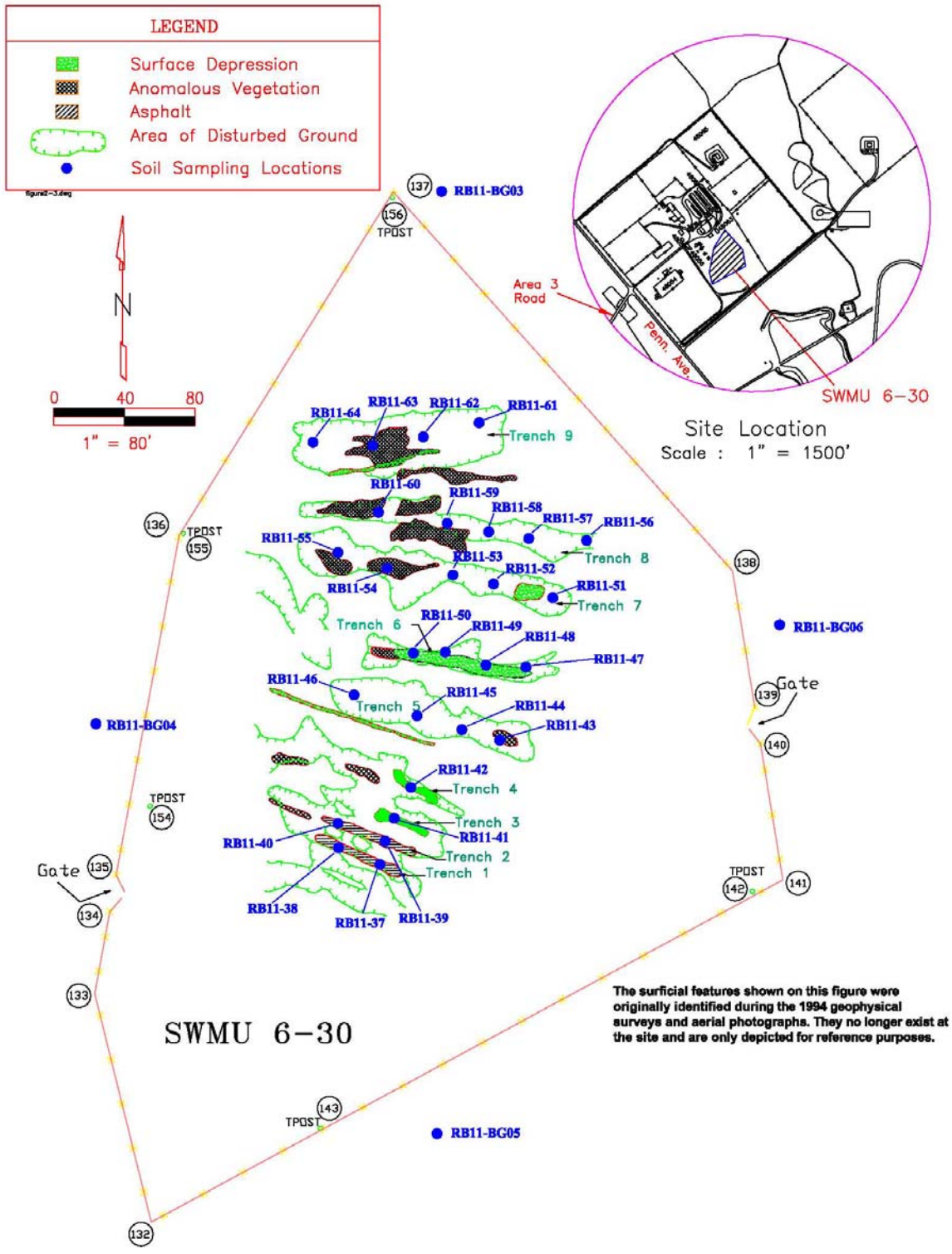


**Figure 2-4. 1997 RFI Sampling Locations SWMU 6-30, Radioactive Burial 11 (RW-06)**

These concentrations exceed the NMED-approved background value for nitrate in groundwater of 4 mg/L but do not exceed the New Mexico Water Quality Control Commission (NMWQCC) groundwater standard of 10 mg/L. The concentrations of VOCs, SVOCs, metals, and radiogenic isotopes were all below the applicable screening levels.

Following installation, monitoring well KAFB-6301 was added to the Kirtland AFB Long-Term Monitoring (LTM) program. Groundwater samples are collected on an annual basis from the well and analyzed for VOCs, organochlorine pesticides, chlorinated herbicides, mercury, dissolved metals, chloride, fluoride, nitrate, sulfate, total organic carbon, total organic halides, phenols, gross alpha, gross beta, radium, radon, uranium, and gamma spectroscopy. Nitrate continues to occur at concentrations that exceed NMED-approved background of 4 mg/L but do not exceed the NMWQCC standard. All detected constituents are below regulatory standards (USAF, 2003).

### 2.3.3 Preliminary Conceptual Model

#### *2.3.3.1 Nature and Extent of Contamination*

The soil sampling investigations conducted at SWMU 6-30 suggested that there was no pervasive chemical or radiological contamination that was released into the subsurface soils. Historical operational records suggested the possibility that radioactive material and animal remains that may have contained some radioactive component, or chemical contaminants may have existed in the subsurface still sequestered in the original disposal vessels. If this was the case, investigations conducted may not have sampled these discrete areas or the native or backfilled soils immediately adjacent to these items. Therefore, NMED requested additional evaluation of the nature and possible extent of buried material through exploratory trenching to excavate the likely locations of the historic disposal trenches.

#### *2.3.3.2 Fate and Transport*

Remaining chemical or radiological contamination could present a risk to human or ecological receptors if disturbances to the area provide pathways for direct exposure to these contaminants or offsite migration through wind or surface water transport.

Any remaining contamination at the SWMU 6-30 potentially could present a risk to groundwater. However, based on groundwater data from the onsite monitoring well at SWMU 6-30, there is no indication that there are any impacts to the regional water table aquifer. Contaminant migration from SWMU 6-30 to the water table at 530 ft below ground surface (bgs) is considered unlikely.

#### *2.3.3.3 Data Gaps*

Prior to this RFI, the primary data gap with regard to SWMU 6-30 was whether or not, and if so, what type, of buried waste materials and containers may exist in the reported disposal trenches. Prior investigations did not conclusively demonstrate that the reported material was present or, if present, what amounts and types of materials were present. These data gaps needed to be filled to make an assessment of whether the site presented risk to human health or the environment.

## 2.3.4 Field Investigation and Data Evaluation

### *2.3.4.1 Summary*

Based on the field activities conducted in October 2006, the wastes that were historically documented to have been disposed at the SWMU 6-30 site were placed in nine trenches located across the site as expected. The sizes of the disposal trenches were verified in the field with some trenches being less than 10 ft deep while others extended to greater than 18 ft deep. Evidence of buried animal remains and laboratory waste were noted throughout the exploratory excavation. Some radiologically contaminated materials were identified in the subsurface at the site, though such material likely represents a small percentage of the waste as only two waste items uncovered during the course of 533 linear ft of excavation showed elevated activity levels.

Soil samples collected during the 2006 RFI did not identify any metals at concentrations that exceed the NMED residential SSLs. No elevated radionuclides were found in the soil samples. Elevated radionuclides were identified on two items identified during field screening and removed from the site.

### *2.3.4.2 Field Investigation*

A site survey was performed at SWMU 6-30 on 4 October 2006. The survey established the locations of the exploratory trenches. Survey coordinates were also measured for visible site features including, former sampling locations, asphalt caps, and surface depressions.

Mobilization for the excavation and sampling activities occurred on 16 October 2006. Mobilization included delivering equipment and supplies to the site; building an onsite decontamination pad; establishing an exclusion zone and support zone; and performing instrument checks and calibrations. An initial gamma radiation survey was conducted to establish background radiation levels and determine if any surface contamination was present. Surface concentrations of cesium-137, previously identified by the Kirtland AFB RSO, were located outside of the trenching area and were not included in the initial survey. The initial survey showed background gross gamma radiation values ranging from 11.2 to 14.1 kilocounts per minute (kcpm) with an average background value of 12.4 kcpm. Dose rate measurements varied from 6 to 8 microRem per hour (µRem/hr) with an average dose rate of 7 µRem/hr. No surface contamination was identified as all initial readings were within the background range. Radiological survey results are included in Appendix C.

Excavation, screening, and sampling of three exploratory trenches occurred from 17 October to 23 October 2006. The locations of the exploratory trenches were selected during the work planning process to encounter all nine former burial trenches and correspond to locations of magnetic anomalies identified during previous investigations.

The primary exploratory trench, identified as Trench A for the purposes of this report, extended from the northern end to the southern end of SWMU 6-30. Exploratory Trench A cut through all nine former disposal trenches. The total length of Trench A was 421 ft. Exploratory Trench B was located to the east of Trench A. Trench B cut through the eastern ends of former disposal trenches 7 and 8 and had a total length of 72 ft. Exploratory Trench C was located to the east of Trench A and south of Trench B. This trench cut through the eastern end of former disposal trench 6 and had a total length of 40 ft. A total of 533 ft was excavated along the length of the three exploratory trenches (Figure 2-5).

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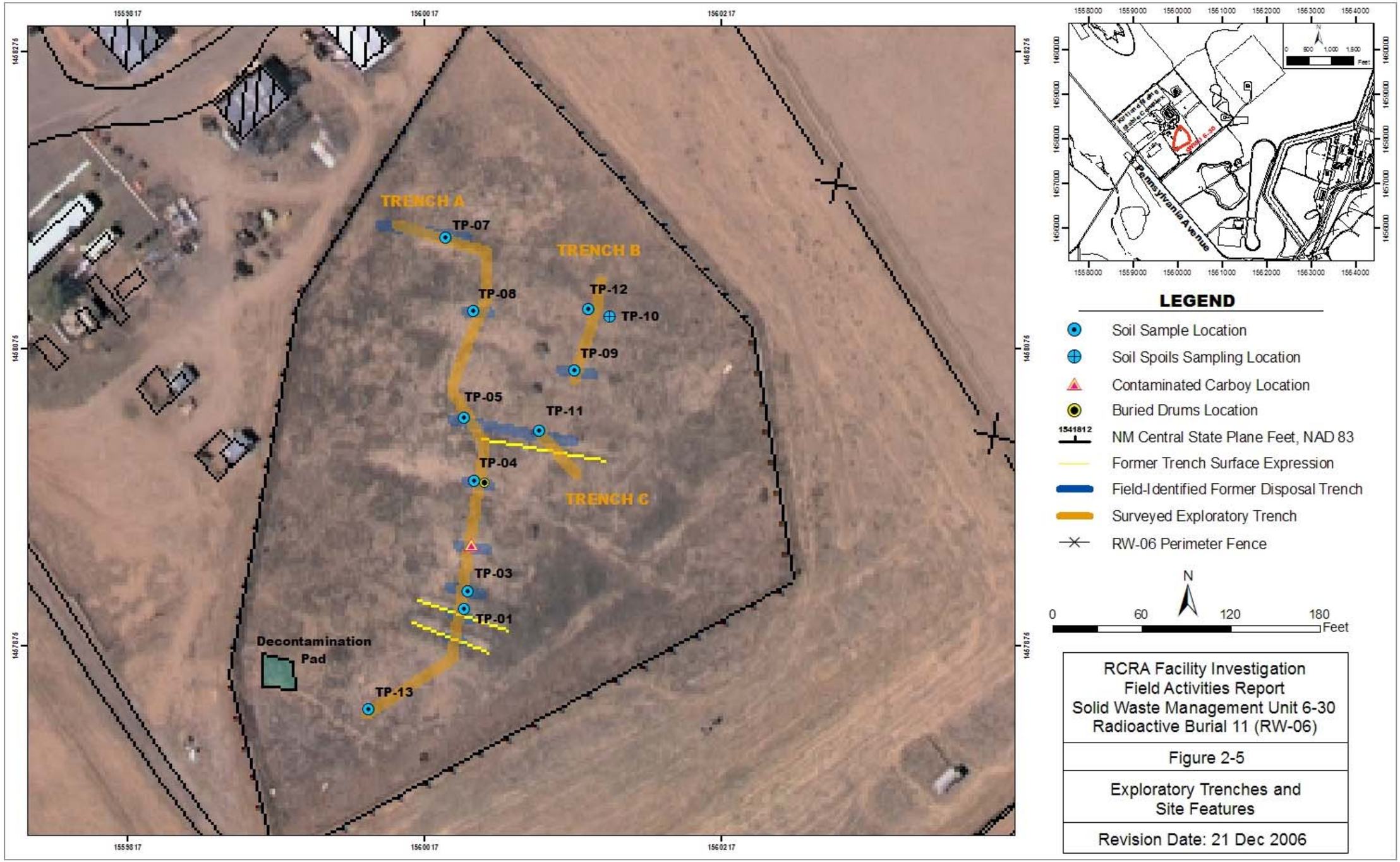


RCRA Facility Investigation
Field Activities Report
Solid Waste Management Unit 6-30
Radioactive Burial 11 (RW-06)

Figure 2-5

Exploratory Trenches and
Site Features

Revision Date: 21 Dec 2006

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Exploratory trench depths varied from 10 to 18 ft bgs. In their April 2006 notice of deficiency letter, the NMED requested that the exploratory trenches extend to a minimum depth of 15 ft bgs (NMED, 2006b). The depths of the trenches largely depended on the depths at which waste was encountered. In some areas where little or no waste materials were found but disturbed soil was present, the trenches were extended to the maximum depth that could be reached by the excavation equipment, approximately 18 ft, in order to verify that waste was not present in that location. In some areas, the bottoms of the former disposal trenches were visually identified within the exploratory trenches. In other areas, the maximum exploratory excavation depth did not reach below the base of the former disposal trenches. This was not unexpected based on historical site records that indicated some of the former disposal trenches extended to approximately 10 ft bgs and others extended 15 to 20 ft bgs. All trench widths were approximately 3 to 4 ft wide.

All nine former disposal trenches were identified visually during excavation based on the presence of buried materials and disturbed soil. Animal remains, consisting primarily of bones, were found throughout the exploratory trenches. The remains were found within the excavated soil, buried in plastic bags, and buried in 55-gallon drums as discussed in the historical site records. Laboratory wastes, such as plastic bottles, glass bottles, glass vials, glass syringes, and plastic tubing were identified in the exploratory trenches. Other large metal objects uncovered during the excavation included fencing, signs, and laboratory equipment. Some of these large metal objects were buried at depths of less than 2 ft. and are likely responsible for the large magnetic anomalies identified during geophysical investigations. Several 55-gallon drums were found at a depth of approximately 16 to 18 ft within former burial trench 5.

Radiological soil screening was performed during all excavation activities. Soil was screened for gamma radiation using a Ludlum 2221 with a Field Instrument for the Detection of Low Energy Radiation (FIDLER). Soil and debris removed from the exploratory trenches was stockpiled along the sides of the trenches. The FIDLER was used to scan the excavated soil and debris for gamma radiation. All soil gamma radiation readings were similar to background values identified during the initial screening survey.

The bottom of each exploratory trench was also field screened using the FIDLER. Measurements were collected at approximately 20 ft intervals along the bottom of the trenches. The gross gamma measurements recorded along the bottom of the trenches are exhibited in Figure 2-6.

One laboratory carboy (3-gallon polyethylene bottle) was identified in the field as having significantly higher gamma radiation. The carboy contained a small amount of liquid (estimated at 500 milliliters) which spilled onto some excavated soil. Swipe samples analyzed in the field from the carboy showed elevated alpha radiation. A sample of this soil was sent to the laboratory for radionuclide analyses as requested by the Kirtland AFB RSO. Results of these analyses are presented later in this report as sample "BIO 001". The carboy and nearby soil was containerized and removed from SWMU 6-30 for proper storage by the Kirtland AFB RSO.

A plastic zip top bag containing alkaline batteries, broken electronic components, and soil was excavated from the same location as the carboy and also showed elevated gamma radiation based on field screening. Swipe samples from the zip top bag showed elevated beta radiation. A sample of soil retrieved from the plastic zip top bag was sent to the laboratory for radionuclide analyses as requested by the Kirtland AFB RSO. Results of these analyses are presented as sample "BIO 002". The zip top bag and nearby soil was containerized and removed from SWMU 6-30 for proper storage by the Kirtland AFB RSO. Other debris, including glass vials and a lead brick, were excavated from the same location but did not show elevated gamma radiation. All other debris excavated from the exploratory trenches was found to have gamma radiation readings similar to the background values (Appendix C).

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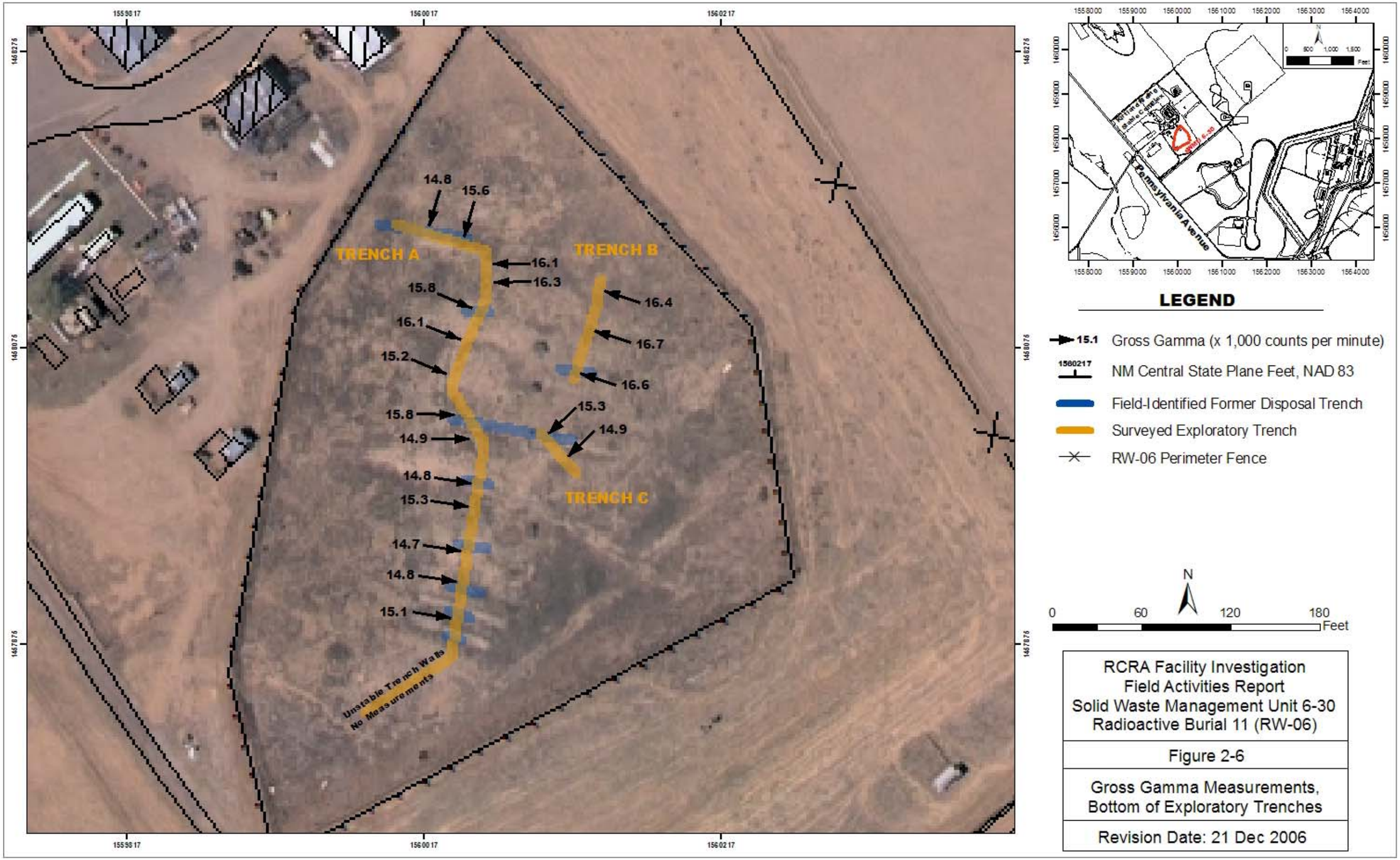
1558817
1560017
1560217
1468275
1468075
1467875
TRENCH A
TRENCH B
TRENCH C
14.8
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Unstable Trench Walls
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Feet
LEGEND
15.1 Gross Gamma (x 1,000 counts per minute)
1560217 NM Central State Plane Feet, NAD 83
Field-Identified Former Disposal Trench
Surveyed Exploratory Trench
RW-06 Perimeter Fence
N
0 60 120 180
Feet
RCRA Facility Investigation
Field Activities Report
Solid Waste Management Unit 6-30
Radioactive Burial 11 (RW-06)
Figure 2-6
Gross Gamma Measurements,
Bottom of Exploratory Trenches
Revision Date: 21 Dec 2006

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The carboy, zip top bag, and associated soil were removed from the site by the Kirtland AFB RSO. The debris and soil were placed in two heavy duty trash bags which were then placed inside a 35-gallon drum. Swipe samples of the bags and drum along with field instrument readings showed the radiological materials to be properly contained. The debris and soil are being properly stored by the Kirtland AFB RSO for future disposal.

A field portable x-ray fluorescence (XRF) meter was used to screen excavated soil for metals concentrations. XRF readings were collected along the excavated soil piles and were targeted near where debris was located. The XRF readings did not identify any significantly elevated metals concentrations. The variations in metals concentrations appear to be naturally occurring.

Soil samples were collected from the sides and trench bottoms of the exploratory trenches. Soil sampling locations were selected based on the presence of visible debris and disturbed soil. Soil samples were collected from the exploratory trenches using the excavator bucket to retrieve soil from the desired trench depth. The soil samples were then placed in glass sampling jars for submittal to the laboratory. Soil samples were analyzed for TAL metals and radionuclides, including gross alpha and beta analysis, alpha spectroscopy, beta spectroscopy, and gamma spectroscopy. Three soil samples were submitted for toxicity characteristic leaching procedure (TCLP) metals analysis. Table 2-1 lists the soil samples collected and respective analyses conducted on each.

#### *2.3.4.3 Data Review*

Complete analytical results from the 2006 RFI are summarized in Tables 2-2, 2-3, and 2-4. Table 2-2 summarizes results for total metals. Metals analytical results were compared to NMED-approved background concentrations (NMED, 1997) and NMED residential SSLs (NMED, 2006a). Table 2-3 summarizes results for TCLP metals. TCLP results were compared to EPA standards for characteristic hazardous wastes. Table 2-4 summarizes results for radionuclide analyses. Radionuclide results were compared to available NMED-approved background concentrations. A data quality evaluation report was prepared for all laboratory data and is included as Appendix D.

***Total Metals***

Results of the 2006 RFI identified barium, copper, lead, and zinc at concentrations that exceeded the NMED-approved background concentrations in one or more soil samples collected from within the exploratory trenches. Barium was detected in two soil samples above the NMED-approved background concentration of 200 mg/kg for subsurface soil. The maximum concentration of barium was 280 mg/kg. Copper was detected in one soil sample above the NMED-approved background concentration of 17 mg/kg for subsurface soil. The maximum concentration of copper was 32.1 mg/kg. Lead was detected in two soil samples above the NMED-approved background concentration of 11.2 mg/kg for subsurface soil. The maximum concentration of lead was 40.5 mg/kg. Zinc was detected in one soil sample above the NMED-approved background concentration of 76 mg/kg for subsurface soil. The maximum concentration of zinc was 119 mg/kg. None of these constituents exceeded their respective NMED residential SSLs (Table 2-2).

Arsenic was detected in two soil samples that exceeded the NMED residential SSL of 3.9 mg/kg. The maximum arsenic concentration was 4.3 mg/kg. These arsenic concentrations did not exceed the NMED-approved background concentration for arsenic of 4.4 mg/kg (Table 2-2).

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**Table 2-1. Soil Samples Collected for the *Resource Conservation and Recovery Act* Facility Investigation at SWMU 6-30, Radioactive Burial 11 (RW-06), Kirtland Air Force Base (October 17 through October 23, 2006)**

| Sample Identification | Date Collected | Time Collected | Depth | Analysis | Description |
|---|---|---|---|---|---|
| 6-30-TP-01-0506 | 10/17/2006 | 1425 | 5 to 6 ft | rad, TAL metals | Collected from side wall of trench A, within former burial trench 2, near visible debris, within geophysical anomaly C. |
| 6-30-TP-01-1415 | 10/17/2006 | 1420 | 14 to 15 ft | TAL metals | Collected from bottom of trench A, below former burial trench 2, depth greater than former trench, within geophysical anomaly C. |
| 6-30-TP-02-0203 | 10/17/2006 | 1428 | 2 to 3 ft | rad | Collected from soil found with the alpha and beta rad contaminated carboy, soil came from the shallow subsurface of former burial trench 4. |
| 6-30-TP-03-0506 | 10/17/2006 | 1438 | 5 to 6 ft | rad, TAL metals | Collected from side wall of trench A, within former burial trench 3, near visible debris. |
| 6-30-TP-03-1516 | 10/17/2006 | 1433 | 15 to 16 ft | TAL metals | Collected from bottom of trench A, below former burial trench 3, depth greater than former trench. |
| 6-30-TP-04-0607 | 10/18/2006 | 0955 | 6 to 7 ft | rad, TAL metals | Collected from side wall of trench A, within former burial trench 5, near visible debris, south of geophysical anomaly B. |
| 6-30-TP-04-1314 | 10/18/2006 | 0951 | 13 to 14 ft | TAL metals | Collected from bottom of trench A, within former burial trench 5, near visible debris, south of geophysical anomaly B, on top of drums. |
| 6-30-TP-05-0607 | 10/18/2006 | 1051 | 6 to 7 ft | TAL metals | Collected from side wall of trench A, within former burial trench 6, near visible debris, north of geophysical anomaly B. |
| 6-30-TP-05-1314 | 10/18/2006 | 1048 | 13 to 14 ft | TAL metals | Collected from bottom of trench A, within former burial trench 6, near visible debris, north of geophysical anomaly B. |
| 6-30-TP-06-1718 | 10/18/2006 | 1520 | 17 to 18 ft | rad, TAL metals | Collected from bottom of trench A, within former burial trench 5, soil from within the uncovered drums, below TO-04 samples. |
| 6-30-TP-07-0506 | 10/19/2006 | 1109 | 5 to 6 ft | rad, TAL metals | Collected from side wall of trench A, within former burial trench 9, near laboratory trash. |
| 6-30-TP-07-1617 | 10/19/2006 | 1106 | 16 to 17 ft | TAL metals | Collected from bottom of trench A, within former burial trench 9, near laboratory trash. |
| 6-30-TP-08-1920 | 10/19/2006 | 1500 | 19 to 20 ft | rad, TAL metals | Collected from bottom of trench A, within probable former burial trench 7, near where carboy was found, no other debris visible. |
| 6-30-TP-09-0708 | 10/20/2006 | 1115 | 7 to 8 ft | rad, TAL metals | Collected from sidewall of trench B, within probable former burial trench 7, one jaw bone visible in spoils pile, near geophysical anomaly E. |
| 6-30-TP-09-2021 | 10/20/2006 | 1107 | 20 to 21 ft | rad, TAL metals, TCLP metals | Collected from bottom of trench B, within probable former burial trench 7, no debris visible, near geophysical anomaly E. |
| 6-30-TP-10-0102 | 10/20/2006 | 1110 | 1 to 2 ft | rad, TAL metals | Collected from spoils pile of trench B, near plastic waste with odor, possibly from former burial trench 8. |
| 6-30-TP-11-0910 | 10/20/2006 | 1210 | 9 to 10 ft | rad, TAL metals, TCLP metals | Collected from sidewall of trench C, within former burial trench 6, near visible bones and laboratory debris. |
| 6-30-TP-11-1516 | 10/20/2006 | 1204 | 15 to 16 ft | rad, TAL metals, TCLP metals | Collected from bottom of trench C, within former burial trench 6, near visible bones and laboratory debris. |
| 6-30-TP-12-0708 | 10/20/2006 | 1405 | 7 to 8 ft | rad, TAL metals | Collected from sidewall of trench B, within probable former burial trench 8, within geophysical anomaly A. |
| 6-30-TP-12-1819 | 10/20/2006 | 1400 | 18 to 19 ft | rad, TAL metals | Collected from bottom of trench B, within probable former burial trench 8, within geophysical anomaly A. |
| 6-30-TP-1299-0708 | 10/20/2006 | 1407 | 7 to 8 ft | rad, TAL metals | Duplicate of 6-30-TP-12-0708 |
| 6-30-TP-13-0708 | 10/23/2006 | 0815 | 7 to 8 ft | rad, TAL metals | Collected from sidewall of trench A, within geophysical anomaly D, rad rope and one thin cable present. |
| 6-30-TP-13-1516 | 10/23/2006 | 0810 | 15 to 16 ft | TAL metals | Collected from bottom of trench A, within geophysical anomaly D, rad rope and one thin cable present. |
| 6-30-TP-1399-0708 | 10/23/2006 | 0817 | 7 to 8 ft | rad, TAL metals | Duplicate of 6-30-TP-13-0708 |
| BIO-001 | 10/17/2006 | Not applicable | Carboy | rad | Field identified contaminated carboy; submitted to laboratory on 11/06/2006. |
| BIO-002 | 10/17/2006 | Not applicable | Zip top bag | rad | Field identified contaminated zip top bag with batteries, electronic components, and soil; submitted to laboratory on 11/06/2006. |

ft = foot/feet
rad = radionuclides (alpha, beta, and gamma spectroscopy)
TAL = target analyte list
TCLP = toxicity characteristic leaching procedure

**Table 2-2. Summary of Metals Data for the 2006 *Resource Conservation and Recovery Act* Facility Investigation, at SWMU 6-30, Radioactive Burial 11 (RW-06), Kirtland Air Force Base (Page 1 of 2)**

| Chemical Class/ Laboratory Method | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential SSL [b] | Location Number, Sample Depth Interval (feet), and Date (concentrations in milligrams per kilogram) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | TP-01 | | TP-03 | | TP-04 | | TP-05 | | TP-06 |
| | | | | 5-6 | 14-15 | 5-6 | 15-16 | 6-7 | 13-14 | 6-7 | 13-14 | 17-18 |
| | | | | 10/17/06 | 10/17/06 | 10/17/06 | 10/17/06 | 10/18/06 | 10/18/06 | 10/18/06 | 10/18/06 | 10/18/06 |
| **Metals**/SW-846 6010 (mg/kg) | Aluminum | N/A | 77800 | 6180 J | 4880 J | 5790 J | 3660 J | 5930 J | 6270 J | 6370 J | 6150 J | 5920 J |
| | Antimony | 3.9 | 31.3 | 0.16 J | 0.13 J | 0.13 J | 0.086 J | 0.13 J | 0.24 J | 0.18 J | 0.14 J | 0.15 J |
| | Arsenic | 4.4 | 3.9 | 3.6 | 2.9 | 3.5 | 1.4 | 3.3 | 3.3 | **4.3** | 3.7 | 3.9 |
| | Barium | 200 | 15600 | 139 J | 139 | 137 | 74.4 | 140 | *280 J* | 149 | 175 | 164 |
| | Beryllium | 0.8 | 156 | 0.38 | 0.34 | 0.33 | 0.26 | 0.37 | 0.42 | 0.41 | 0.39 | 0.38 |
| | Cadmium | 0.9 | 39 | 0.13 | 0.094 | 0.095 | 0.073 | 0.082 | 0.091 | 0.17 | 0.1 | 0.092 |
| | Calcium | N/A | N/A | 28600 J | 38900 J | 37300 J | 21500 J | 27000 J | 24900 J | 29600 J | 31000 J | 30800 J |
| | Chromium | 16.2 | 234 | 8.3 J | 8.6 J | 6.9 J | 6.8 J | 7.8 | *11.7 J* | 8.4 | 7.7 | 7.5 |
| | Cobalt | 9.3 | 1520 | 5.3 J | 5.8 J | 4.9 J | 3.8 J | 4.9 | 5.9 J | 5.3 | 4.7 | 4.6 |
| | Copper | 17 | 3130 | 10.2 J | 7.6 | 8.9 | 6.4 | 8.9 | 10.3 J | 9.1 | 9.2 | 8.1 |
| | Iron | N/A | 23500 | 11000 J | 9780 J | 9830 J | 8610 J | 10400 J | 13600 J | 11100 J | 10300 J | 9730 J |
| | Lead | 11.2 | 400 | 8.9 | 6.1 | 6.4 | 5 | 7.5 J | 7.9 J | 9.4 J | 7.9 J | 8.4 J |
| | Magnesium | N/A | N/A | 3540 J | 3430 J | 3820 J | 2980 J | 4110 J | 4740 J | 4130 J | 3770 J | 3970 J |
| | Manganese | N/A | 3590 | 225 J | 244 J | 190 J | 165 J | 238 J | 290 J | 234 J | 215 J | 189 J |
| | Mercury | <0.1 | 100000 | 0.0069 U | 0.0068 U | 0.0071 U | 0.0067 U | 0.0069 U | 0.0069 U | 0.0069 U | 0.0069 U | 0.007 U |
| | Molybdenum | N/A | 391 | 0.45 J | 0.73 | 0.33 J | 0.28 J | 0.4 J | 0.72 | 0.66 | 0.36 J | 0.4 J |
| | Nickel | 21 | 1560 | 9.3 J | 10.5 J | 8.9 J | 8.3 J | 9 J | 12.2 J | 9.4 J | 8.6 J | 8.8 J |
| | Potassium | N/A | N/A | 2310 J | 1130 J | 2160 J | 813 J | 1290 J | 1210 J | 1410 J | 1500 J | 1390 J |
| | Selenium | <1 | 391 | 0.11 U | 0.11 U | 0.12 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U |
| | Silver | <1 | 391 | 0.044 J | 0.026 J | 0.034 J | 0.02 U | 0.037 J | 0.035 J | 0.047 J | 0.042 J | 0.042 J |
| | Sodium | N/A | N/A | 82.8 J | 99.3 J | 37.5 U | 40.2 U | 155 J | 131 J | 93.1 J | 81.8 J | 155 J |
| | Thallium | <1.1 | 5.16 | 0.18 J | 0.18 J | 0.084 J | 0.07 U | 0.13 J | 0.14 J | 0.12 J | 0.11 J | 0.09 U |
| | Vanadium | 33 | 78.2 | 22.6 J | 19 | 21.1 | 14.5 | 20.4 | 24.8 J | 22.4 | 20.9 | 20.7 |
| | Zinc | 76 | 23500 | 29.2 J | 25.3 J | 26.6 J | 21 J | 26.6 J | 29.6 J | 30.9 J | 26.8 J | 25 J |

| Chemical Class/ Laboratory Method | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential SSL [b] | Location Number, Sample Depth Interval (feet), and Date (concentrations in milligrams per kilogram) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | TP-07 | | TP-08 | TP-09 | | TP-10 | TP-11 | |
| | | | | 5-6 | 16-17 | 19-20 | 7-8 | 20-21 | 1-2 | 9-10 | 15-16 |
| | | | | 10/19/06 | 10/19/06 | 10/19/06 | 10/20/06 | 10/20/06 | 10/20/06 | 10/20/06 | 10/20/06 |
| **Metals**/SW-846 6010 (mg/kg) | Aluminum | N/A | 77800 | 7610 J | 4570 J | 5200 J | 6550 J | 5110 J | 7690 J | 6840 J | 5780 J |
| | Antimony | 3.9 | 31.3 | 0.14 J | 0.1 J | 0.13 J | 0.12 J | 0.11 J | 0.14 J | 0.19 J | 0.15 J |
| | Arsenic | 4.4 | 3.9 | 3.6 | 2.2 | 2.8 | 3.2 | 2.7 | 3.6 | **4** | 3.3 |
| | Barium | 200 | 15600 | *242* | 72.5 | 103 | 134 | 108 | 137 | 175 | 138 |
| | Beryllium | 0.8 | 156 | 0.43 | 0.33 | 0.35 | 0.4 | 0.34 | 0.47 | 0.41 | 0.38 |
| | Cadmium | 0.9 | 39 | 0.36 | 0.086 | 0.091 | 0.11 | 0.093 | 0.094 | 0.14 | 0.099 |
| | Calcium | N/A | N/A | 28700 J | 25700 J | 26400 J | 26400 J | 25700 J | 13800 J | 23700 J | 28500 J |
| | Chromium | 16.2 | 234 | 11.2 | 9.3 | 7.9 | 8.5 | 8.4 | 9.2 | 9 | 8.6 |
| | Cobalt | 9.3 | 1520 | 5.2 | 4.8 | 4.4 | 5.4 | 4.8 | 5.7 | 5.3 | 4.5 |
| | Copper | 17 | 3130 | *32.1* | 8.4 | 7.8 | 9.9 | 8.6 | 10.3 | 9.4 | 7.9 |
| | Iron | N/A | 23500 | 10300 J | 11100 J | 9060 J | 10300 J | 10900 J | 11300 J | 10800 J | 9820 J |
| | Lead | 11.2 | 400 | *16.9 J* | 8.9 J | 7.6 J | 8.2 J | 9 J | 9.2 J | *40.5 J* | 7.3 J |
| | Magnesium | N/A | N/A | 3860 J | 3840 J | 3480 J | 4290 J | 3780 J | 3810 J | 3790 J | 3730 J |
| | Manganese | N/A | 3590 | 210 J | 203 J | 183 J | 276 J | 219 J | 249 J | 218 J | 187 J |
| | Mercury | <0.1 | 100000 | 0.007 U | 0.0067 U | 0.0068 U | 0.0069 U | 0.0068 U | 0.015 J | 0.013 J | 0.0069 U |
| | Molybdenum | N/A | 391 | 0.4 J | 0.52 | 0.36 J | 0.43 J | 0.54 | 0.44 J | 0.51 J | 0.54 |
| | Nickel | 21 | 1560 | 9.2 J | 9.9 J | 8.3 J | 11.2 J | 9 J | 10 J | 9.5 J | 9.1 J |
| | Potassium | N/A | N/A | 1160 J | 775 J | 1000 J | 1500 J | 998 J | 1630 J | 1390 J | 1250 J |
| | Selenium | <1 | 391 | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.12 U | 0.11 U | 0.11 U |
| | Silver | <1 | 391 | 0.05 J | 0.023 J | 0.034 J | 0.042 J | 0.033 J | 0.072 J | 0.054 J | 0.037 J |
| | Sodium | N/A | N/A | 312 J | 151 J | 74.4 J | 232 J | 120 J | 197 J | 55.4 J | 90 J |
| | Thallium | <1.1 | 5.16 | 0.077 U | 0.071 | 0.072 U | 0.12 J | 0.097 U | 0.11 J | 0.095 U | 0.076 U |
| | Vanadium | 33 | 78.2 | 20.7 | 19.4 | 18 | 19.5 | 19.5 | 20.8 | 20.9 | 19 |
| | Zinc | 76 | 23500 | *119 J* | 23.7 J | 21.4 J | 27 J | 26.1 J | 27 J | 30.4 J | 26.1 J |

**Table 2-2. Summary of Metals Data for the 2006 *Resource Conservation and Recovery Act* Facility Investigation, at SWMU 6-30, Radioactive Burial 11 (RW-06), Kirtland Air Force Base (Page 2 of 2)**

| Chemical Class/ Laboratory Method | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential SSL [b] | Location Number, Sample Depth Interval (feet), and Date (concentrations in milligrams per kilogram) | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | TP-12 | | | TP-13 | | |
| | | | | 7-8 | 7-8 Duplicate | 18-19 | 7-8 | 7-8 Duplicate | 15-16 |
| | | | | 10/20/06 | 10/20/06 | 10/20/06 | 10/23/06 | 10/23/06 | 10/23/06 |
| **Metals**/SW-846 6010 (mg/kg) | Aluminum | N/A | 77800 | 5550 J | 5760 J | 4950 J | 5690 J | 5500 J | 5370 J |
| | Antimony | 3.9 | 31.3 | 0.26 J | 0.13 J | 0.077 J | 0.13 J | 0.12 J | 0.13 J |
| | Arsenic | 4.4 | 3.9 | **4.3** | 3.3 | 1.9 | 3.4 | 2.9 | 3.3 |
| | Barium | 200 | 15600 | 88.7 | 109 | 117 | 197 | 190 | 113 |
| | Beryllium | 0.8 | 156 | 0.35 | 0.38 | 0.27 | 0.35 | 0.37 | 0.33 |
| | Cadmium | 0.9 | 39 | 0.081 | 0.092 | 0.064 | 0.11 | 0.1 | 0.12 |
| | Calcium | N/A | N/A | 24500 J | 24100 J | 14600 J | 25800 J | 27400 J | 34700 J |
| | Chromium | 16.2 | 234 | 7.7 | 7.4 | 11.9 | 7.4 J | 8.2 J | 7.6 J |
| | Cobalt | 9.3 | 1520 | 4.4 | 4.7 | 6.3 | 5.2 J | 4.6 J | 4.5 J |
| | Copper | 17 | 3130 | 7.4 | 7.9 | 9 | 8.8 | 8.7 | 7.9 |
| | Iron | N/A | 23500 | 8880 J | 9270 J | 11200 J | 10300 J | 10000 J | 9950 J |
| | Lead | 11.2 | 400 | 6.3 J | 6.9 J | 6.2 J | 8.7 | 7.5 | 7.2 |
| | Magnesium | N/A | N/A | 3460 J | 3400 J | 4210 J | 3720 J | 3460 J | 3560 J |
| | Manganese | N/A | 3590 | 177 J | 190 J | 205 J | 253 J | 194 J | 190 J |
| | Mercury | <0.1 | 100000 | 0.0069 U | 0.0068 U | 0.0068 U | 0.0068 U | 0.0068 U | 0.007 U |
| | Molybdenum | N/A | 391 | 0.29 J | 0.3 J | 0.27 J | 0.5 J | 0.42 J | 0.49 J |
| | Nickel | 21 | 1560 | 8.7 J | 8.3 J | 11.2 J | 8.5 J | 8.3 J | 8.8 J |
| | Potassium | N/A | N/A | 1100 J | 1160 J | 1020 J | 1460 J | 1190 J | 1170 J |
| | Selenium | <1 | 391 | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U | 0.11 U |
| | Silver | <1 | 391 | 0.041 J | 0.046 J | 0.023 J | 0.045 J | 0.039 J | 0.043 J |
| | Sodium | N/A | N/A | 213 J | 219 J | 175 J | 299 J | 300 J | 143 J |
| | Thallium | <1.1 | 5.16 | 0.073 U | 0.077 U | 0.071 U | 0.1 J | 0.072 U | 0.08 J |
| | Vanadium | 33 | 78.2 | 17.4 | 17.3 | 22.1 | 19.7 | 18.6 | 20.1 |
| | Zinc | 76 | 23500 | 21.1 J | 22 J | 23.9 J | 29.4 J | 25.1 J | 25.6 J |

[a] NMED, 1997. Maximum background for Tijeras Super Group. Concentrations exceeding maximum background are shown in *italics* .
[b] NMED, 2006. Concentrations exceeding soil screening level (SSL) shown in **bold**.
J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
mg/kg - milligrams per kilogram
N/A – not applicable
NMED - New Mexico Environment Department
SSL - Soil Screening Level
TP - test pit
U - The analyte was analyzed for but not detected. The associated value is the method detection limit.

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**Table 2-3. Summary of Toxicity Characteristic Leaching Procedure Metals Data for the 2006 *Resource Conservation and Recovery Act* Facility Investigation, at SWMU 6-30, Radioactive Burial 11 (RW-06), Kirtland Air Force Base**

| Chemical Class/ Laboratory Method | Analyte | TCLP Maximum Contaminant Concentration | Location Number, Sample Depth Interval (feet), and Date (concentrations in microgram per liter) | | |
|---|---|---|---|---|---|
| | | | TP-09 | TP-11 | |
| | | | 20-21 | 9-10 | 15-16 |
| | | | 10/20/06 | 10/20/06 | 10/20/06 |
| **TCLP Metals**/ SW6010, SW7470A | Arsenic | 5,000 | 74.3 U | 74.3 U | 74.3 U |
| | Barium | 100,000 | 567 J | 1090 J | 662 J |
| | Cadmium | 1,000 | 5.7 U | 5.7 U | 5.7 U |
| | Chromium | 5,000 | 19.3 U | 19.3 U | 19.3 U |
| | Lead | 5,000 | 70.4 U | 704 U | 70.4 U |
| | Mercury | 200 | 0.46 U | 0.46 U | 0.46 U |
| | Selenium | 1,000 | 104 U | 104 U | 104 U |
| | Silver | 5,000 | 13 U | 13 U | 13 U |

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the
N/A – not applicable
TCLP - toxicity characteristic leaching procedure
TP - test pit
U - The analyte was analyzed for but not detected. The associated value is the method detection limit.

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**Table 2-4. Summary of Radionuclide Data for the 2006 *Resource Conservation and Recovery Act* Facility Investigation, at SWMU 6-30, Radioactive Burial 11 (RW-06), Kirtland Air Force Base (Page 1 of 2)**

| Chemical Class/ Laboratory Method | Analyte | NMED-Approved Background Subsurface [a] | Location Number, Sample Depth Interval (feet), and Date (concentrations in picocuries per gram) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | TP-01 | TP-02 | TP-03 | TP-04 | TP-06 | TP-07 | TP-08 | TP-09 | | TP-10 |
| | | | 5-6 | 2-3 | 5-6 | 6-7 | 17-18 | 5-6 | 19-20 | 7-8 | 20-21 | 1-2 |
| | | | 10/17/06 | 10/17/06 | 10/17/06 | 10/18/06 | 10/18/06 | 10/19/06 | 10/19/06 | 10/20/06 | 10/20/06 | 10/20/06 |
| **Radionuclides** (pCi/g) | Gross Alpha | 17.4 [b] | *19.4* | *30.8* | *21.3* | *19.5* | *21.5* | *28* | *25.8* | *26.3* | *21.5* | *20* |
| | Gross Beta | 35.4 [b] | 28.9 J | *36.4* | 30.1 | 27.8 J | 30.6 | 33.3 | 25.3 J | 28.6 J | 27.5 J | 28.8 J |
| | Radium 226 | 0.90 | 0.77 J | 0.62 J | 0.61 J | 0.65 J | 0.73 J | 0.76 J | 0.56 J | 0.69 J | 0.61 J | 0.74 J |
| | Radium 228 | 0.70 | *0.74* | *0.81* | 0.32 U | 0.66 J | *0.92* | *0.8* | 0.61 J | 0.57 J | 0.46 J | *0.76* |
| | Actinium 227 | N/A | 0.41 U | -0.004 U | -0.0007 U | 0.14 U | 0.1 U | 0.03 U | 0.53 | 0.05 U | 0.1 U | 0.36 U |
| | Actinium 228 | N/A | 0.74 | 0.81 | 0.32 U | 0.66 | 0.92 | 0.8 | 0.61 | 0.57 | 0.76 | 0.76 |
| | Americium 241 | N/A | -0031 U | 0.2 | -0.003 | -0.007 U | 0.018 U | 0.037 U | 0.009 U | 0.015 U | 0.033 U | 0.006 U |
| | Bismuth 207 | N/A | 0.013 U | 0.023 U | -0.011 U | 0.005 U | -0.01 U | 0.006 U | 0.028 U | -0.008 U | -0.005 U | 0.007 U |
| | Bismuth-210M | N/A | 0.048 U | -0.015 U | -0.006 U | -0.022 U | 0.066 U | -0.012 U | 0.014 U | 0.042 U | -0.019 U | 0.01 U |
| | Bismuth 212 | N/A | 0.57 U | 0.53 U | 0.4 U | 0.35 U | 0.27 U | 0.72 | 0.69 | 0.37 U | 0.24 U | 0.5 U |
| | Bismuth 214 | N/A | 0.77 | 0.62 | 0.61 | 0.65 | 0.73 | 0.76 | 0.56 | 0.69 | 0.61 | 0.74 |
| | Cobalt 57 | N/A | 0.004 U | -0.004 U | 0.004 U | 0.009 U | 0.019 U | 0.0003 U | 0.012 U | -0.009 U | -0.006 U | 0.012 U |
| | Cobalt 58 | N/A | -0.019 U | 0.018 U | 0.012 U | -0.025 U | -0.0008 U | -0.001 U | -0.006 U | -0.013 U | -0.031 U | -0.002 |
| | Cobalt 60 | N/A | -0.031 U | -0.008 U | 0.015 U | -0.006 U | 0.038 U | -0.031 U | -0.007 U | 0.027 | 0.03 U | 0.004 U |
| | Cesium 134 | N/A | 0.025 U | -0.016 U | -0.007 U | -0.008 U | 0.011 U | -0.004 U | 0.038 U | -0.024 U | 0.018 U | 0.04 U |
| | Cesium 137 | 0.908 | 0.081 U | *3.52* | 0.029 U | 0.019 U | 0.006 U | 0.021 U | 0.042 U | -0.032 U | -0.012 U | -0.029 U |
| | Iodine 129 | N/A | 0.03 U | 0.005 U | 0.002 U | -0.03 U | 0.003 U | 0.15 U | 0.06 U | 0.06 U | -0.2 U | 0.1 U |
| | Potassium 40 | N/A | 18.4 | 15.3 | 16.4 | 14.2 | 14.2 | 14.4 | 13.1 | 14.3 | 13.5 | 15.1 |
| | Neptunium 237 | N/A | 0.006 U | -0.0009 U | 0.001 U | -0.0009 U | -0.006 U | -0.003 U | 0.006 U | -0.003 U | -0.003 U | -0.003 U |
| | Lead 210 | N/A | 0.06 U | 1.05 U | 1 | -0.28 U | 1.6 U | -0.28 U | 1 U | 0.7 U | 0.67 U | 0.4 U |
| | Lead 212 | N/A | 0.66 | 0.63 | 1.7 U | 0.64 | 0.7 | 0.63 | 0.52 | 0.73 | 0.56 | 0.62 |
| | Lead 214 | N/A | 0.77 | 0.67 | 0.66 | 0.66 | 0.79 | 0.77 | 0.67 | 0.72 | 0.59 | 0.74 |
| | Plutonium 238 | N/A | 0.004 U | 0.029 U | -0.002 U | 0.004 U | -0.004 U | 0.007 U | 0.004 U | 0.013 U | 0.002 U | -0.006 U |
| | Plutonium 239/40 | N/A | 0.008 U | 5.28 | 0.002 U | -0.0009 U | 0.019 U | -0.004 U | 0.017 U | 0.026 U | 0.007 U | -0.004 U |
| | Strontium 89 | N/A | 0.09 U | 0.01 U | 0.07 U | 0.27 U | 0.05 U | 0.09 U | 0.18 U | 0.38 U | 0.37 U | 0.15 U |
| | Strontium 90 | 1.08 | 0.36 U | 0.35 U | 0.05 U | -0.31 U | -0.14 U | -0.11 U | -1.37 U | -0.4 U | -0.28 U | -0.03 U |
| | Thorium 228 | N/A | 0.62 | 0.7 | 0.78 | 1 | 0.88 | 0.88 | 0.63 | 0.92 | 0.89 | 0.85 |
| | Thorium 230 | N/A | 0.52 J | 0.62 J | 0.87 J | 0.87 | 0.8 | 0.71 | 0.73 | 0.62 | 0.68 | 0.71 |
| | Thorium 232 | 1.01 | 0.62 | 0.61 | 0.76 | 0.91 | 0.85 | 0.79 | 0.57 | 0.84 | 0.82 | 0.8 |
| | Thorium 234 | 1.4 | 0.086 U | 0.57 U | 0.41 U | 0.54 U | 0.34 U | 0.73 U | 0.003 U | 0.47 U | 0.26 U | 0.6 U |
| | Thallium 208 | N/A | 0.243 | 0.229 | 0.231 | 0.169 | 0.232 | 0.244 | 0.189 | 0.211 | 0.191 | 0.21 |
| | Uranium 233/234 | 1.6 | 0.75 | 0.67 | 0.72 | 0.72 | 0.57 | 0.61 | 0.62 | 0.53 | 0.88 | 0.74 |
| | Uranium 235 | 0.16 | 0.04 U | -0.06 U | 0.07 U | -0.007 U | 0.08 U | 0.22 U | 0.05 U | -0.05 U | 0.16 U | 0.02 U |
| | Uranium 238 | 1.4 | 0.7 | 0.65 | 0.74 | 0.71 | 0.59 | 0.63 | 0.66 | 0.52 | 0.7 | 0.64 |

**Table 2-4. Summary of Radionuclide Data for the 2006 *Resource Conservation and Recovery Act* Facility Investigation, at SWMU 6-30, Radioactive Burial 11 (RW-06), Kirtland Air Force Base (Page 2 of 2)**

| Chemical Class/ Laboratory Method | Analyte | NMED-Approved Background Subsurface [a] | Location Number, Sample Depth Interval (feet), and Date (concentrations in picocuries per gram) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | TP-11 | | TP-12 | | | TP-13 | | BIO 001 | BIO 002 |
| | | | 9-10 | 15-16 | 7-8 | 7-8 Duplicate | 18-19 | 7-8 | 7-8 Duplicate | Grab Sample | Grab Sample |
| | | | 10/20/06 | 10/20/06 | 10/20/06 | 10/20/06 | 10/20/06 | 10/23/06 | 10/23/06 | 11/6/06 | 11/6/06 |
| **Radionuclides** (pCi/g) | Gross Alpha | 17.4 [b] | *27.4* | *18.2* | *23.5* | *29.7* | *18.1* | *20.2* | *19.2* | **64300** | *121* |
| | Gross Beta | 35.4 [b] | 29.3 J | 27.2 J | *36.2* | 31.6 | 28.8 J | 30.8 | 31.4 | **1670** | **14000** |
| | Radium 226 | 0.90 | 0.77 J | 0.78 J | 0.86 J | 0.71 J | 0.6 J | 0.63 J | 0.63 J | 0.56 J | -0.1 U |
| | Radium 228 | 0.70 | *0.94* | *0.94* | *0.93* | *0.94* | 0.67 J | 0.63 J | *0.72* | *0.78* | -0.1 U |
| | Actinium 227 | N/A | -0.03 U | 0.02 U | 0.13 U | 0.09 U | 0.26 U | 0.1 U | -0.02 U | -0.24 U | -3.3 U |
| | Actinium 228 | N/A | 0.94 | 0.94 | 0.93 | 0.94 | 0.67 | 0.63 | 0.72 | 0.78 | -0.1 U |
| | Americium 241 | N/A | 0.026 U | 0.018 U | -0.006 U | 0.109 | 0.006 U | 0.037 U | -0.003 U | 508 | 60.2 |
| | Bismuth 207 | N/A | 0.015 U | -0.014 U | -0.011 U | 0.01 U | -0.021 U | 0.014 U | 0.021 U | -0.031 U | -0.1 U |
| | Bismuth-210M | N/A | 0.012 U | -0.043 U | -0.008 U | -0.04 U | -0.008 U | -0.0002 U | 0.001 U | -0.031 U | -0.9 U |
| | Bismuth 212 | N/A | 0.33 U | 0.19 U | 0.4 U | 0.58 U | 0.61 U | 0.54 U | 0.26 U | 0.33 U | 6 U |
| | Bismuth 214 | N/A | 0.77 | 0.78 | 0.86 | 0.71 | 0.6 | 0.63 | 0.63 | 0.56 | -0.1 U |
| | Cobalt 57 | N/A | -0.013 U | 0.009 U | 0.019 U | 0.032 U | 0.017 U | -0.006 U | -0.01 U | -0.029 U | 0.32 U |
| | Cobalt 58 | N/A | 0.032 U | 0.044 U | -0.026 U | 0.016 U | 0.002 U | -0.0005 U | 0.005 U | 0.009 U | 0.03 U |
| | Cobalt 60 | N/A | 0.02 U | -0.02 U | -0.024 U | 0.031 U | -0.009 U | 0.014 U | -0.034 U | -0.026 U | -0.07 U |
| | Cesium 134 | N/A | -0.022 U | -0.011 U | -0.033 U | 0.056 U | -0.035 U | -0.002 U | -0.019 U | 0.002 U | -0.03 U |
| | Cesium 137 | 0.908 | 0.001 U | -0.025 U | -0.046 U | -0.038 | -0.019 U | 0.024 U | 0.049 U | **11.7** | **13500** |
| | Iodine 129 | N/A | -0.04 U | 0.13 U | 0.11 U | -0.04 U | < 30 | -0.1 U | -0.07 U | - - | - - |
| | Potassium 40 | N/A | 17.1 | 13.4 | 17.8 | 16.7 | 16.8 | 16.1 | 17.9 | 17.2 | 25 |
| | Neptunium 237 | N/A | 0.001 U | 0.024 U | 0.07 U | -0.002 U | < 0.1 | -0.005 U | -0.002 U | - - | - - |
| | Lead 210 | N/A | -0.1 U | -0.2 U | 0.4 U | 0.2 U | 0.54 U | 0.48 U | 0.52 U | 49.8 J | -4 U |
| | Lead 212 | N/A | 0.99 | 0.81 U | 0.84 | 0.74 | 0.73 U | 0.55 | 0.69 | 0.64 | 1.6 U |
| | Lead 214 | N/A | 0.84 | 0.88 | 0.83 | 0.76 | 0.64 | 0.6 | 0.69 | 0.6 | -0.1 U |
| | Plutonium 238 | N/A | 0.005 U | -0.062 U | 0.004 U | 0.008 U | < 0.1 | -0.046 | -0.02 U | - - | - - |
| | Plutonium 239/40 | N/A | 0.019 U | -0.015 U | 0.012 U | 0.019 U | < 0.1 | -0.005 U | -0.016 U | - - | - - |
| | Strontium 89 | N/A | -0.03 U | -0.27 U | -0.02 U | -0.36 U | 0.27 U | 1.26 J | 1.14 J | - - | - - |
| | Strontium 90 | 1.08 | -0.86 U | -0.25 U | 0.01 U | -0.52 U | 0.008 U | 0.04 U | 0.03 U | - - | - - |
| | Thorium 228 | N/A | 1.07 | 1.13 | 1.02 | 0.81 | 0.84 | 0.85 | 0.82 | - - | - - |
| | Thorium 230 | N/A | 0.87 | 1.03 | 0.89 | 0.8 | 0.65 | 0.74 | 0.77 | - - | - - |
| | Thorium 232 | 1.01 | *1.02* | 0.95 | 0.85 | 0.8 | 0.88 | 0.95 | 0.94 | - - | - - |
| | Thorium 234 | 1.4 | 0.2 U | 1.02 U | 0.44 U | 0.35 U | 0.69 U | 0.15 U | 0.37 U | -0.009 U | 7 U |
| | Thallium 208 | N/A | 0.288 | 0.29 | 0.316 | 0.39 | 0.222 | 0.201 | 0.199 | 0.205 | 0.8 U |
| | Uranium 233/234 | 1.6 | 0.83 | 0.84 | 0.68 | 0.53 | 0.47 | 0.75 | 0.82 | - - | - - |
| | Uranium 235 | 0.16 | -0.05 U | 0.12 U | 0.15 U | -0.08 U | 0.09 U | 0.13 U | 0.1 U | 0.54 U | 0.1 U |
| | Uranium 238 | 1.4 | 0.71 | 0.83 | 0.72 | 0.65 | 0.35 | 0.7 | 0.75 | - - | - - |

- - not analyzed

[a] NMED, 1997. Maximum background subsurface values for Tijeras Super Group (T), or for Southwest Super Group (SW) where Tijeras values were not available. Concentrations exceeding maximum background are shown in italics. Analyte concentrations reported an order of magnitude or more above the maximum background value are listed in bold.

[b] SNL/NM 2003.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

N/A – not applicable

NMED - New Mexico Environment Department

pCi/g - picocuries per gram

TP - test pit

U - The analyte was analyzed for but not detected. The associated value is the method detection limit.

***TCLP Metals***
Three soil samples collected from the exploratory trenches were submitted to the laboratory for TCLP metals analyses. Barium was the only metal detected in the soils from the TCLP analyses. Barium was detected at a maximum estimated concentration of 1,090 micrograms per liter (µg/L), well below the screening level of 100,000 µg/L. All other metals were not detected in the TCLP analyses (Table 2-3).

***Radionuclides***
Laboratory analytical results for gross alpha exceed the background value of 17.4 picocuries per gram (pCi/g) in all analyzed soil samples. The maximum soil gross alpha measurement was 30.8 pCi/g. All measured values were within an order of magnitude of the background value. Laboratory analytical results for gross beta exceed the background value of 35.4 pCi/g in two soil samples. The maximum soil gross beta measurement was 36.4 pCi/g and only slightly greater than the background value (Table 2-4).

Radium-228 exceeded the NMED-approved background value of 0.7 pCi/g in 10 of the soil samples collected. The maximum radium-228 value was 0.94 pCi/g and only slightly greater than the background value. Cesium-137 exceeded the NMED-approved background value of 0.908 pCi/g in one of the soil samples collected. The maximum cesium-137 value was 3.52 pCi/g. This concentration is within an order of magnitude of the NMED-approved background value. Thorium-232 exceeded the NMED-approved background value of 1.01 pCi/g in one of the soil samples collected. The maximum thorium-232 value was 1.02 pCi/g and only slightly greater than the background value (Table 2-4).

Two grab samples were collected from waste materials identified in the field as having elevated alpha or beta values based on field screening and swipe samples. The laboratory carboy and associated soil are identified as sample BIO 001 in Table 2-4. The associated soil was analyzed off-site and found to contain americium-241 at a concentration of 508 pCi/g. Two other radionuclides were detected at slightly elevated values including cesium-137 at a concentration of 11.7 pCi/g and lead-210 at an estimated concentration of 49.8 pCi/gm. Both gross alpha and gross beta exceeded the background concentrations by more than an order of magnitude.

The zip top bag containing batteries, broken electronic components, and soil is identified as sample BIO 002 in Table 2-4. The associated soil was analyzed offsite and found to contain cesium-137 at a concentration of 13,500 pCi/g. Americium-241 was identified in the sample at a concentration of 60.2 pCi/g. Gross beta exceeded the background concentration by more than an order of magnitude.

## 2.3.5 Revised Site Conceptual Model

The revised conceptual site model is based on all data collected at the site to date.

### *2.3.5.1 Nature and Extent of Contamination*

Excavation of the exploratory trenches confirmed the past disposal practices for SWMU 6-30. Materials found within the former disposal trenches included:

- Animal remains, consisting primarily of bones, buried in plastic bags, in 55-gallon drums, and directly in the soil;
- Laboratory wastes, such as plastic bottles, glass bottles, glass vials, glass syringes, and plastic tubing, some containing small amounts of liquid;
- Large metal objects including fencing material and laboratory equipment with some of these objects buried at depths of less than 2 ft; and
- Laboratory documentation including papers and Mylar reports.

Field screening of excavated soil identified no radiologically contaminated soil within the trenches. Previous and current soil analytical results for radionuclides indicate that the soil within SWMU 6-30 is not contaminated with radionuclides. Two laboratory objects, a carboy and zip-top bag, were found to contain significant concentrations of radionuclides including, cesium-137 and americium-241. These items were removed from the SWMU by the Kirtland AFB RSO for proper off-site disposal. Among the numerous waste items uncovered during the 2006 excavation only these two were found to be contaminated. It is likely that some other contaminated objects are buried within the SWMU though they likely represent a small percentage of the buried materials. Cesium-137 was detected at the surface of SWMU 6-30 by the Kirtland AFB RSO prior to the 2006 RFI activities.

No evidence of a drum containing mercury that was rumored to be buried at SWMU 6-30 was found during the exploratory trenching activities and no evidence of mercury was found in either previous or current investigation soil samples.

The soil sampling investigations conducted at SWMU 6-30 suggest that there is no pervasive chemical contamination that was released into the subsurface soils. Among the hundreds of soil samples collected from within and around the former disposal trenches including soil samples collected from the 2006 exploratory trenches only one soil sample was found to have metals concentrations that exceed NMED residential SSLs for metals. Organic contaminants are not present at the site.

#### *2.3.5.2 Environmental Fate*

Buried laboratory waste with radiological contamination could present a risk to human or ecological receptors if disturbances to the area provide pathways for direct exposure to these contaminants. Small amounts of liquid present in laboratory bottles are not likely to be a threat to the environment due to the small volumes present. Contaminant migration from SWMU 6-30 to the water table at 530 ft bgs is considered unlikely.

## 2.4 Site Assessments

### 2.4.1 Summary

Human health screening assessments are discussed in the preceding sections where laboratory data are compared to NMED-approved background concentrations and NMED residential SSLs. Based on the limited positive detections and lack of exceedence of NMED residential SSLs, human health and ecological risk assessments were not prepared for the SWMU. Surface water and groundwater assessments are discussed below.

### 2.4.2 Other Applicable Assessments

#### *2.4.2.1 Surface Water*

SWMU 6-30 is located between The Tijeras Arroyo and Arroyo del Coyote. These arroyos contain runoff only during heavy rainfall events. No surface water bodies are located within SWMU 6-30. Storm runoff is directed away from the site through unlined storm drainage ditches that are located around the perimeter of the Kirtland AFB stables. The site and surrounding areas are relatively flat and well vegetated preventing runoff of site soils. No surface contamination has been identified at the SWMU.

#### *2.4.2.2 Groundwater*

There are no water production wells in the vicinity of SWMU 6-30. The depth to groundwater in the area of SWMU 6-30 is approximately 530 ft. Groundwater is monitored at well KAFB-6301 on an annual basis as part of the LTM program. Several years of groundwater analytical results have shown that past activities at SMWU 6-30 have not effected the regional aquifer groundwater quality.

## 2.5 Conclusions and Recommendations

Based on previous and current investigation at SWMU 6-30, the following conclusions can be made:

- Exploratory trenching at the site confirmed reported past disposal practices by uncovering animal remains and laboratory wastes. Identified items included 55-gallon drums containing animal remains and other large metal objects that corresponded to geophysical anomalies identified during previous investigations. No evidence of a 55-gallon drum of mercury that was rumored to be buried at SWMU 6-30 was found during the 2006 investigation.
- Some metals concentrations in soil at SWMU 6-30 exceed NMED-approved background concentrations. These metals concentrations likely represent natural variations within the soil. Arsenic is present at concentrations that exceed the NMED residential SSL but this is likely due to natural variations within the soil. One soil sample collected in 1994 contained chromium, iron, molybdenum, and vanadium at concentrations that exceeded their NMED residential SSLs. One soil sample collected in 1997 contained iron above the NMED residential SSL; a separate soil sample collected in 1997 contained vanadium above the NMED residential SSL. None of the 2006 soils samples collected from within the former disposal trenches contained metals above the NMED residential SSLs.
- Two laboratory waste items were found to be contaminated with radionuclides during the 2006 investigation. It is possible that other contaminated waste items are present within the SWMU though they likely represent a small percentage of the buried materials based on the limited number of radiologically contaminated items encountered during the excavation of 533 linear ft of soil to depths up to 18 ft.
- Elevated levels of radionuclides were not identified in soil samples collected from the site during previous or current investigations.
- Slightly elevated levels of cesium-137 were identified in a small area at the surface of SWMU 6-30 prior to the 2006 field investigation.

### 2.5.1 Recommendations

Based upon the exploratory trenching and previous soil investigations, no further investigation of the soil at SWMU 6-30 is warranted or recommended. SWMU 6-30 has been well characterized and significant concentrations of contaminants are not present in the soil. Additionally, groundwater is monitored on an annual basis at monitoring well KAFB-6301 as part of the LTM program. No contaminants have been identified in the groundwater at the SWMU and no additional groundwater monitoring is required.

Some radiologically contaminated waste materials were identified within the SWMU 6-30 disposal trenches during the 2006 investigation. Other radiologically contaminated waste materials may be present in the former disposal trenches. In order to allow for future unrestricted land use with no LTM, it is recommended that the waste materials be excavated from the site and disposed of appropriately offsite.

Alternatively, the waste materials could be properly capped and contained within the SWMU through the use of an evapotranspirative soil cover and LTM. However, this may not allow the site to have unrestricted land use in the future. Cesium-137 present in a small surface area at the site would be addressed through either remedial action.

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# APPENDIX A

# SWMU 6-30 USAF 1988 Investigation Report

# RESULTS OF SITE INVESTIGATION AND MAGNETICS SURVEY OF THE RB-11 RADIOACTIVE BURIAL SITE KIRTLAND AIR FORCE BASE, NEW MEXICO

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January 1988

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## 1.0 INTRODUCTION

IT Corporation (IT) performed a site investigation of Radioactive Burial Site No. 11 (RB-11) located at Kirtland Air Force Base (KAFB) in Albuquerque, New Mexico to assist in locating drums of hazardous/toxic materials. The investigation included a documents review, surface radiological survey, magnetometer survey, and a mercury vapor survey. Field activities in support of these tasks were conducted December 1987 through January 1988. The results of these activities are described below.

## 2.0 DOCUMENTS REVIEW

Documents provided IT by KAFB personnel describe the RB-11 burial site as containing six trenches ranging in depth below the surface from nine to 20 feet covered with approximately four feet of earth. The trenches contain both radioactive and hazardous wastes. The radioactive wastes are comprised of animal carcasses, animal excreta, and contaminated solid wastes. Most of the contaminated solid waste and a portion of the animal carcasses were contained in steel drums. Liquid hazardous waste, including acids, mercury, cyanides, and silver, were also contained in steel drums and placed within the trenches.

## 3.0 SURFACE RADIOLOGICAL SURVEY

On December 8, 1987 (prior to initiation of other field activities) IT personnel performed a radiological survey over 300,000 square feet of the RB-11 surface using a Ludlum Model 3 survey meter. Direct radiation readings were at background level. No surface radioactive contamination was detected in the designated radioactive waste burial area, nor in the adjacent vicinity surveyed.

## 4.0 FIELD SURVEY

A licensed surveyor located the landfill boundaries as identified in the statement of work to establish reference points for the magnetometer survey and the mercury vapor survey. Reference stakes at each boundary leg were driven into the ground and surveyed.

## 5.0 MAGNETOMETER SURVEY

### 5.1 OBJECTIVES

A magnetics survey was conducted at the RB-11 site on December 14-17, 1987. The objective of this task was to delineate areas within RB-11 containing buried magnetic objects which may be associated with disposal trenches.

### 5.2 MAGNETIC THEORY

All magnetic objects, such as steel drums, create their own magnetic fields. These fields, like the earth's magnetic field, are vectors and will constructively or destructively interact with the earth's field. A magnetometer measures the strength of the ambient magnetic field at points on the earth's surface. Buried magnetic objects are located by delineating areas with magnetic fields different in direction and magnitude than the earth's normal magnetic field.

The field created by a magnetic object decreases in strength at greater distances away from the object. For example, the magnitude of the total field caused by 100 pounds of iron (several drums) is approximately 100 gammas at a depth of 10 feet and drops to 10 gammas at 20 feet. This very rapid drop-off rate requires closely spaced data points and a very sensitive magnetometer to detect objects with low magnetic mass buried deep below the ground surface.

At site RB-11 the total magnitude of the ambient field was measured at many individual locations on the ground surface. The data were compared with magnetic data considered to represent the earth's ambient background field for this region and the resulting anomalies are considered to be caused by nearby magnetic objects.

To determine the background magnetic field and quantify normal diurnal (daily) variations in the earth's magnetic field, a base station was established outside of the survey area and away from visible magnetic interferences. Since this base station is not effected by any known magnetic objects, the magnetic field will be considered the background field which will be compared to all data collected within the survey area. The magnitude of diurnal variations of

the earth's magnetic field can also be determined by periodically measuring the magnetic field at the base station.

## 5.3 FIELD PROCEDURES

Total field magnetic data were collected at nodes of a grid on 10-feet centers with an OMNI IV magnetometer. The OMNI IV is a state-of-the-art, sensitive, proton precession, total field magnetometer. This instrument automatically stores the magnetic field data, quality control information (sensitivity, decay and battery strength), and the coordinates of the data point. Data is accessible by transferring the data to a field computer for future processing.

To establish the grid, two approximately parallel lines were placed on the east and west sides of the site in a north-south orientation. Wood stakes were placed at 10 feet intervals along each line. Each stake was labeled with a line number, and fiberglass tape-measures were stretched between east and west line stakes with corresponding line numbers. Grid node points along each line are established at distances of 10 feet along each tape-measured line.

The magnetic data were collected at each grid node along seven marked lines and then the tape measures were repositioned along seven more lines. The operator recorded each magnetic total field value within the magnetometer after visually confirming that the position indicated on the magnetometer display corresponded to the distance on the tape measure. All visual potential magnetic interferences were also recorded in a field notebook. Several times each day, several magnetic readings were recorded at the base station to determine diurnal variations and background field values.

## 5.4 DATA PROCESSING

The data were transferred from the magnetometer memory to a portable field computer several times each day at the site. A computer plot (Figure 1) of each data point location was produced to confirm that the data coordinates are correct. Daily variation in the earth's magnetic field was detected at the base station, and the total field values in the survey area were adjusted to compensate for these changes.

A base station total field value of 52,500 gammas was considered to be the background, and this value was subtracted from all data. The magnetic total field values were then computer-contoured (Figure 2) so that anomalous magnetic fields could be identified.

5.5 RESULTS

In the context of this report, a magnetic anomaly is a cluster of data points with total field values significantly different from the background magnetic field at the base station. It is difficult to determine the threshold difference which indicates an anomaly, since the background field is a range of values and the magnetic field caused by a drum buried deep below the ground surface is relatively small. A contour interval of 10 gammas was used so that even low magnitude anomalies could be detected. Once the magnetic magnitude exceeded 100 gammas, variable contour intervals were used.

The magnetic contour map (Figure 2) indicates that many anomalies were detected and several of these indicate buried magnetic objects. Three classes of magnetic anomalies were defined over the site as follows:

1. Anomalies ≥50 gammas caused by magnetic objects visible on the surface (shaded blue);

2. Anomalies ≥50 gammas caused by small magnetic objects just on the surface or just below the surface (shaded green); and

3. Anomalies ≥50 gammas caused by larger, deeper buried objects (shaded red).

Due to the magnitude of some magnetic anomalies, variable contouring was used when magnetic magnitudes exceeded 100 gammas above background. Some magnetic anomalies produced values which exceeded 9,000 gammas above the background value. Individual anomalies are indicated with letters, and each anomaly is described and discussed below:

- Anomalies A through E are caused by visual metal objects on the surface such as trailers, junk vehicles, buildings, metal fences and scrap metal.

- Anomaly F is caused by a locked metal box on the surface at the south edge of a narrow, shallow, linear depression approximately 200 feet long whose appearance is similar to that of settlement in a backfilled trench. This depression has several other

magnetic anomalies along its northwest edge, which may be the result of buried metals in a trench.

- Anomalies G through J are caused by metal sign posts with metal signs.
- Anomaly K is caused by a metal disking tractor attachment.
- Anomalies L and M are high-magnitude anomalies resulting from small pieces of metal on the surface or just below the surface. Sections of reinforcement bar on the surface or several inches below the surface could be a possible cause. A drum buried just below the surface would cause a much higher magnitude anomaly.
- Anomalies N through T have the characteristics of significant masses of buried metals, such as steel drums. Anomalies N and O are outside of the known trench area. Anomalies R and S also occur along a linear, narrow depression and may be associated with metal in a covered trench. Anomaly T is a series of small magnitude anomalies in a linear configuration which could indicate deeply buried larger metal objects, such as steel drums, at depths greater than 10 feet. However, there is no visual evidence of a covered trench.
- Anomaly U is the largest magnetic anomaly detected. Linear depressions and an exposed drum indicate that this area was used for drum disposal in trenches.

## 6.0 MERCURY VAPOR SURVEY

A mercury vapor survey was performed on January 8, 1988 using a Bacharach MV2 mercury sniffer with a detection limit of 0.001 milligrams per cubic meter ($mg/m^3$). The survey was performed in areas with magnetic anomalies ≥50 gammas caused by larger, deeper buried objects. Mercury vapor measurements were obtained by hand augering shallow test holes into the target areas and lowering the gas evacuation tube into the hole. The total depth of each test hole was determined by the depth at which gravels were encountered and beyond which augering was not possible. Gas samples were drawn through the meter for 10-second intervals and the meter readings recorded. All test holes were simultaneously monitored for radioactivity with a Ludlum Model 3 survey meter. Following the mercury vapor measurements, the soil cuttings were backfilled into the test holes. No mercury vapor was detected in any of the test holes surveyed. A summary of the measurements are given in Table 1.

## 7.0 RECOMMENDATIONS

Magnetic data and visual evidence indicate that buried magnetic objects exist in several areas of RB-11. Several of the buried objects are associated with linear depressions and may indicate steel drums or other magnetic material in trenches. The data also indicate that there are buried magnetic objects outside of the known trench area. Although no mercury vapors were measured (anomalies N through U), all the buried objects detected with the magnetometer are potential sites for further investigation.

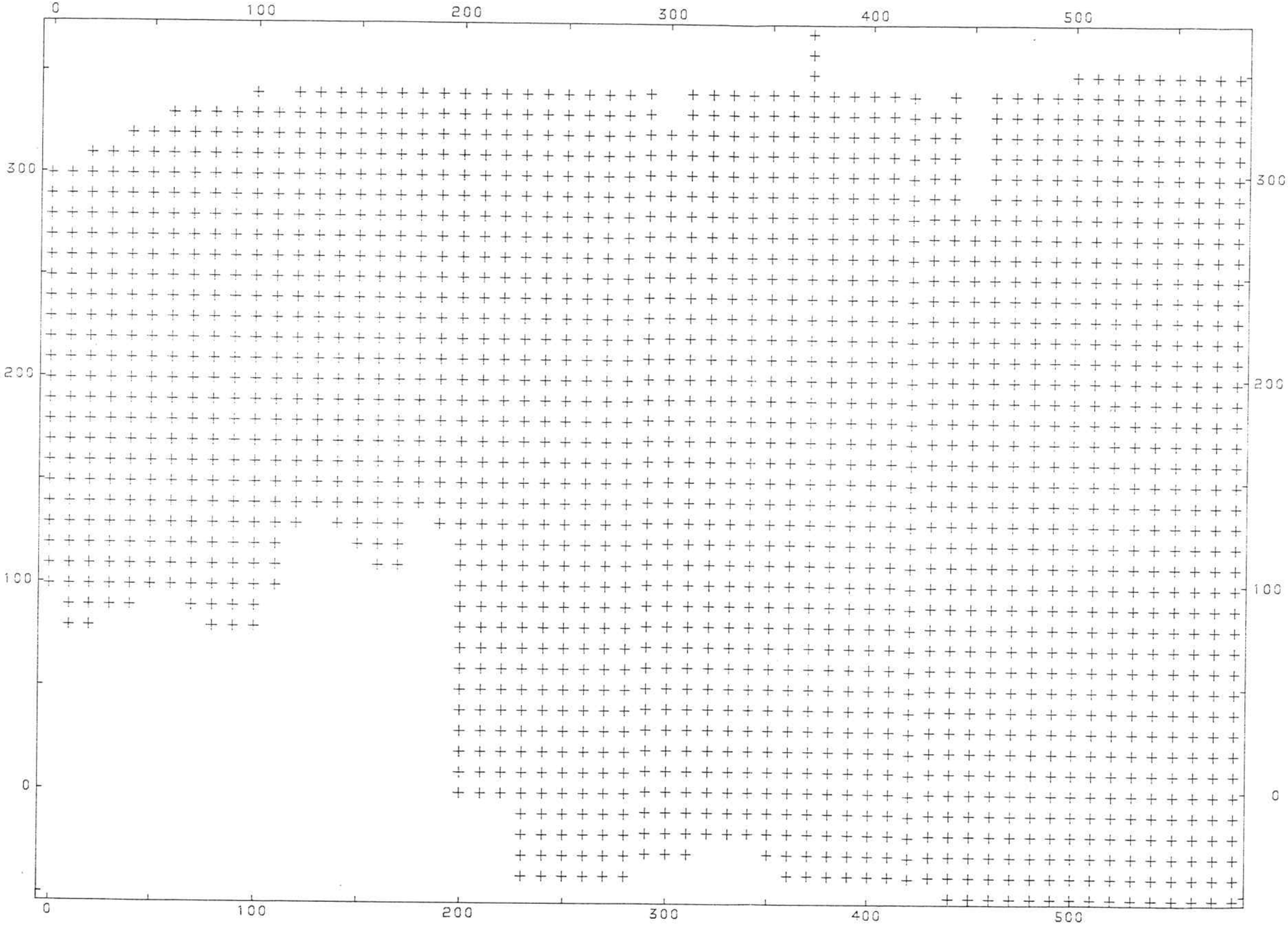
**TABLE 1**

**SUMMARY OF MERCURY VAPOR MEASUREMENTS**
**RB-11, KIRTLAND AIR FORCE BASE, NEW MEXICO**
**JANUARY 8, 1988**

| TARGET AREA | TEST HOLE DEPTH (ft) | MERCURY VAPOR CONCENTRATION ($mg/m^3$) |
|---|---|---|
| H | 1.0 | 0.000 |
| N | 2.0; 1.5 | 0.000; 0.000 |
| O | 1.5 | 0.000 |
| Q | 1.0 | 0.000 |
| R | 0.5 | 0.000 |
| S | 2.5 | 0.000 |
| T | 3.0 | 0.000 |
| U | 5.5; 4.0 | 0.000; 0.000 |

KRP:186-T1

LLF 1/22/88 301186 A4




LEGEND

\+ MAGNETIC SURVEY DATA POINT LOCATION

SCALE

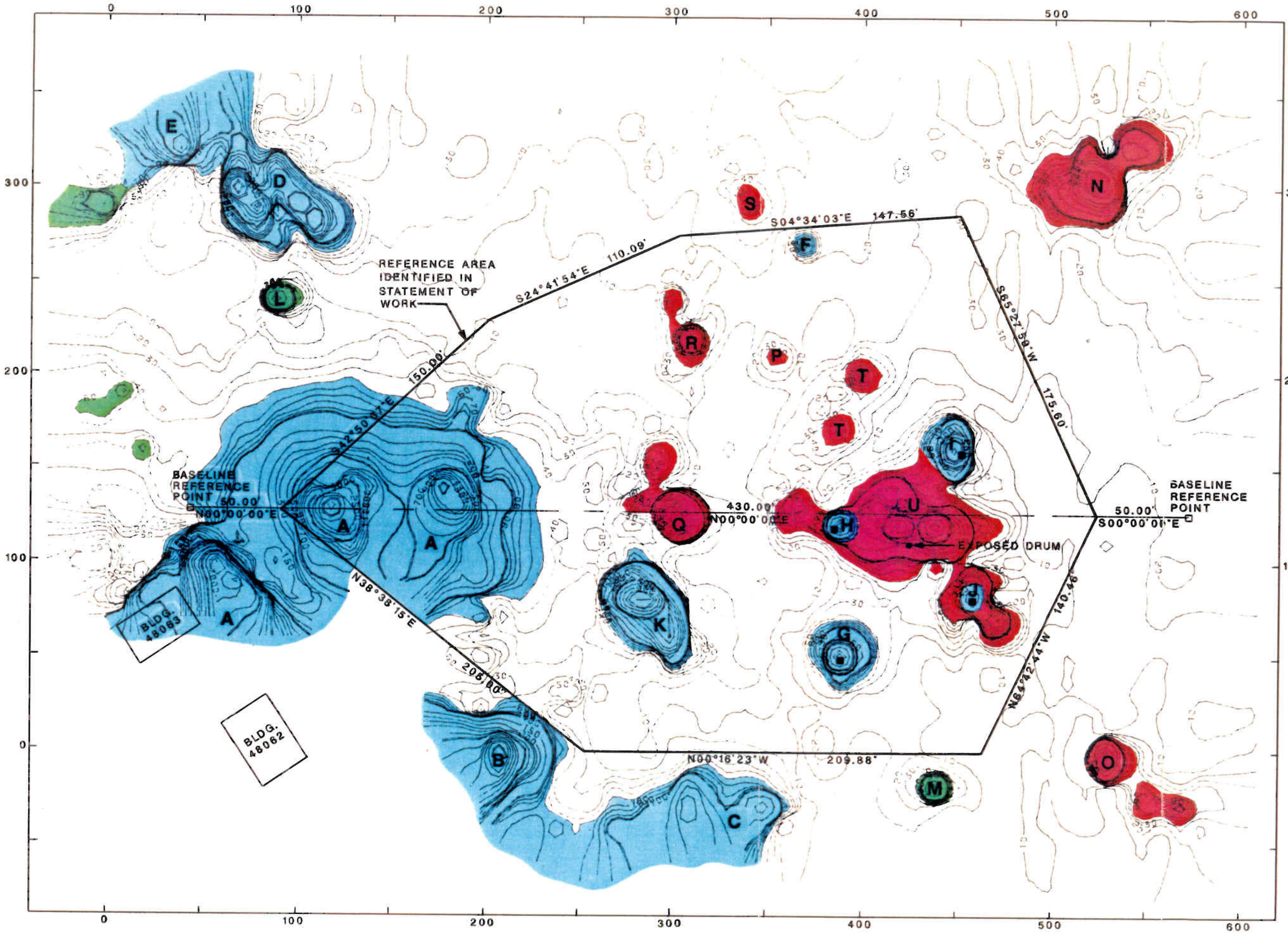
25 0 50 FEET

FIGURE 1

MAGNETIC SURVEY AREA
KIRTLAND AIR FORCE BASE,
NEW MEXICO

PREPARED FOR

KIRTLAND AIR FORCE BASE




LEGEND

- ANOMALIES ≥50 GAMMAS CAUSED BY MAGNETIC OBJECTS VISIBLE ON THE SURFACE, ANOMALIES A–K
- ANOMALIES ≥50 GAMMAS CAUSED BY SMALL MAGNETIC OBJECTS ON THE SURFACE OR JUST BELOW THE SURFACE, ANOMALIES L AND M
- ANOMALIES ≥50 GAMMAS CAUSED BY LARGER, DEEPER BURIED OBJECTS ANOMALIES N–U
- A — MAGNETIC ANOMALY
- –20– MAGNETIC CONTOUR IN GAMMAS
- ■ RADIOACTIVE MATERIAL SIGN

N

0 50 FEET

FIGURE 2

MAGNETIC CONTOUR MAP
RADIOACTIVE BURIAL SITE NO. 11,
KIRTLAND AIR FORCE BASE,
NEW MEXICO

PREPARED FOR

KIRTLAND AIR FORCE BASE

LLF 1/22/88 301186 A3

# APPENDIX B

# SWMU 6-30 Previous Investigation Data

**Table B-1. Summary of 1994 Soil Analyses for SWMU 6-30, Radioactive Burial 11 (RW-06) (Page 1 of 10)**

| Chemical Class/ Laboratory Method | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential Soil SSL [b] | Borehole Number, Sample Depth Interval (feet), and Date (concentrations in milligrams per kilogram) | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | RB-11-B1 | RB-11-BG01 Background | | | | | RB-11-B2 | RB-11-BG02 Background | | | | | RB-11-01 | | |
| | | | | 0-1 | 3-7 | 8-12 | 13-17 | 18-22 | 28-32 | 0-1 | 3-7 | 8-12 | 13-17 | 18-22 | 28-32 | 3-7 | 8-13 | 18-22 |
| | | | | 8/18/94 | 7/19/94 | 7/19/94 | 7/19/94 | 7/19/94 | 7/19/94 | 8/18/94 | 7/19/94 | 7/19/94 | 7/19/94 | 7/19/94 | 7/19/94 | 7/5/94 | 7/5/94 | 7/5/94 |
| **VOC**/SW-846 8240 | Acetone | N/A | 28,100 | <0.052 | <0.053 | <0.052 UJ | <0.052 | <0.052 | <0.050 | <0.055 | <0.051 | <0.052 | <0.050 UJ | <0.051 UJ | <0.053 | <0.052 | <0.051 | <0.050 |
| | Ethylbenzene | N/A | 128 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.016 | <0.005 | <0.005 |
| | Methylene Chloride | N/A | 182 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | Tetrachloroethene(PCE) | N/A | 12.5 | <0.005 | <0.005 | 2.100 | 0.055 | <0.005 | <0.005 | <0.006 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | Toluene | N/A | 252 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.064 | <0.005 | <0.005 |
| | 1,1,1-Trichloroethane | N/A | 563 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | O-Xylene(1,2-Dimethylbenzene) | N/A | 99.5 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.017 | <0.005 | <0.005 |
| | M,P-Xylenes(Sum of Isomers) | N/A | 82.0 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.006 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.051 | <0.005 | <0.005 |
| **SVOC**/SW-846 8270 | Benzo(b)fluoranthene | N/A | 6.21 | <0.35 | <0.35 | <0.34 | <0.34 | <0.34 | <0.33 | <0.36 | <0.34 | <0.34 | <0.33 | <0.33 | <0.35 | <0.34 | <0.33 | <0.33 |
| | Benzo(k)fluoranthene | N/A | 6.21 | <0.35 | <0.35 | <0.34 | <0.34 | <0.34 | <0.33 | <0.36 | <0.34 | <0.34 | <0.33 | <0.33 | <0.35 | <0.34 | <0.33 | <0.33 |
| | Chrysene | N/A | 615 | <0.35 | <0.35 | <0.34 | <0.34 | <0.34 | <0.33 | <0.36 | <0.34 | <0.34 | <0.33 | <0.33 | <0.35 | <0.34 | <0.33 | <0.33 |
| | di-n-Butyl Phthalate | N/A | 6,110 | 0.43 | 0.48 | 0.37 | <0.34 | <0.34 | <0.33 | 0.36 | 0.44 | <0.34 | <0.33 | 0.34 | <0.35 | <0.34 | <0.33 | <0.33 |
| | bis(2-Ethylhexyl)Phthalate | N/A | 347 | <0.35 | 6.50 | 0.36 | <0.34 | 0.79 | 0.88 | <0.36 | <0.34 | <0.34 | <0.33 | <0.33 | 0.43 | <0.34 | <0.33 | <0.33 |
| | Fluoranthene | N/A | 2,290 | <0.35 | <0.35 | <0.34 | <0.34 | <0.34 | <0.33 | <0.36 | <0.34 | <0.34 | <0.33 | <0.33 | <0.35 | <0.34 | <0.33 | <0.33 |
| | Phenanthrene | N/A | 1,830 | <0.35 | <0.35 | <0.34 | <0.34 | <0.34 | <0.33 | <0.36 | <0.34 | <0.34 | <0.33 | <0.33 | <0.35 | <0.34 | <0.33 | <0.33 |
| | Pyrene | N/A | 2,290 | <0.35 | <0.35 | <0.34 | <0.34 | <0.34 | <0.33 | <0.36 | <0.34 | <0.34 | <0.33 | <0.33 | <0.35 | <0.34 | <0.33 | <0.33 |
| **TPH**/SW-846 8015 | Diesel Fraction | N/A | 200 | 12.5 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | 16.1 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 |
| | Gasoline Fraction | N/A | 200 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| **Metals**/SW-846 6010 | Aluminum | N/A | 77,800 | 8,070 | 11,600 | 7,060 | 7,980 | 6,420 | 4,520 | 13,900 | 8,690 | 7,150 | 4,870 | 4,110 | 5,680 | 9,730 | 7,010 | 4,810 |
| | Antimony | 3.9 | 31.3 | *<21.0* | *<21.2* | *<20.7 UJ* | *<20.7* | *<20.9* | *<20.1* | *24.10* | *<20.5* | *<20.7* | *<20.2 UJ* | *<20.3 UJ* | *<21.2* | *<20.8* | *<20.3* | *<20.2* |
| | Barium | 200 | 15,600 | 86.2 | 174.0 | 154.0 | 80.5 | 89.9 | 46.3 | 101.0 | *252.0* | 125.0 | 71.2 | 44.7 | 136.0 | 145.0 | 110.0 | 44.3 |
| | Beryllium | 0.8 | 156 | 0.53 | 0.74 | 0.41 | 0.52 | 0.42 | 0.30 | 0.66 | 0.51 | 0.41 | 0.40 | 0.30 | 0.42 | 0.52 | 0.51 | 0.40 |
| | Cadmium | 0.9 | 39 | 0.63 | <0.53 | 0.52 | <0.52 | 0.52 | <0.50 | <0.55 | <0.51 | 0.52 | 0.50 | <0.51 | <0.53 | <0.52 | <0.51 | <0.50 |
| | Calcium | N/A | N/A | 8,420 | 34,400 | 43,900 | 28,100 | 26,600 | 102,000 | 10,800 | 36,600 | 36,600 | 30,800 | 35,200 | 25,100 | 27,500 | 47,300 | 30,500 |
| | Chromium, Total | 16.2 | 234 | 8.8 | 9.8 | 13.2 U | 10.3 | 11.4 | 11.0 | 15.0 | 10.5 | 11.6 | 8.8 U | 9.1 U | 7.8 | 13.3 | *23.9* | 11.9 |
| | Cobalt | 9.3 | 1,520 | 7.6 | 7.1 | 8.0 | 7.3 | 7.8 | 5.3 | 9.2 | 6.7 | 6.3 | 6.0 | 5.8 | 5.1 | 8.2 | 8.2 | 7.3 |
| | Copper | 17 | 3,130 | 12.3 | *67.9* | *72.5* | *69.1* | *106.0* | *294.0* | 16.4 | *73.8* | *51.2* | *201.0* | *143.0* | *56.9* | *40.9* | *29.1* | *210.0* |
| | Iron | N/A | 23,500 | 12,800 | 13,700 | 10,900 | 12,600 | 12,000 | 7,850 | 17,300 | 11,800 | 10,300 | 9,720 | 9,140 | 8,480 | 13,700 | 14,800 | 10,400 |
| | Lead | 11.2 | 400 | 9.1 | 8.1 | 9.2 | 8.6 | 5.6 | <5.0 | 8.6 | 8.1 | 8.2 | 5.5 | 6.6 | 5.7 | 5.6 | 6.9 | <5.0 |
| | Magnesium | N/A | N/A | 4,150 | 5,570 | 5,070 | 5,360 | 533 | 3,830 | 4,980 | 5,910 | 5,200 | 3,920 | 3,460 | 3,380 | 5,470 | 5,400 | 3,470 |
| | Manganese | N/A | 3,590 | 296 | 332 | 255 | 270 | 287 | 211 | 316 | 232 | 235 | 292 | 203 | 187 | 276 | 274 | 265 |
| | Mercury | < 0.1 | 100,000 | <0.07 | <0.10 | <0.10 | <0.09 | <0.10 | <0.09 | *<0.11* | <0.10 | <0.10 | <0.09 | <0.09 | <0.10 | <0.10 | <0.09 | <0.10 |
| | Molybdenum | N/A | 391 | <5.3 | <5.3 | <5.2 | <5.2 | <5.2 | <5.0 | <5.5 | <5.1 | <5.2 | <5.0 | <5.1 | <5.3 | <5.2 | <5.1 | <5.0 |
| | Nickel | 21 | 1,560 | 8.1 | *33.7* | *202 J* | 20.5 | *31.6* | *75.8* | 13.0 | *50.3* | *44.8* | *38.7 J* | 19 J | *27.7* | 14.3 | 20.0 | 17.9 |
| | Potassium | N/A | N/A | 2,790 | 2,000 | 1760 J | 1,650 | 1,080 | 869 | 3,310 | 1,920 | 1,420 | 878 J | 715 J | 1,340 | 1,540 | 1,060 | 756 |
| | Selenium | < 1.0 | 391 | *<10.5* | *<10.6* | *<10.4* | *<10.3* | *<10.5* | *<10.1* | *<11.1* | *<10.3* | *<10.3* | *<10.1* | *<10.1* | *<10.6* | *<10.4* | *<10.1* | *<10.1* |
| | Sodium | N/A | N/A | 74.1 | 759.0 | 502 J | 550.0 | 492.0 | 228.0 | 87.7 | 163.0 | 436.0 | 175 U | 240 U | 537.0 | 775.0 | 637.0 | 344.0 |
| | Vanadium | 33 | 78.2 | 24.9 | 26.7 | 23.3 | 24.8 | 22.2 | 15.3 | 32.0 | *33.5* | 21.4 | 17.9 | 17.0 | 17.8 | 25.6 | 26.0 | 19.2 |
| | Zinc | 76 | 23,500 | 43.3 | 54.5 | 55.1 J | 50.1 | 62.8 | *117.0* | 40.3 | 50.3 | 42.2 | *89.0 J* | 64.9 J | 44.4 | 46.2 | 38.8 | *94.0* |
| **RAD** (pCi/g) | Gross Alpha | 17.4 [c] | N/A | 21 | 18 | 24 UJ | 21 | 18 | 12 | 20 | 15 | 18 | 10 J | 12 J | 16 | 1.4 | 28 | 21 |
| | Gross Beta | 35.4 [c] | N/A | 27 | 17 | 30 J | 20 | 19 | 12 | 25 | 23 | 15 | 13 | 23 | 22 | 2.5 | 22 | 24 |
| | Radium-226 | 1.76 | N/A | 0.4 | 0.7 | 0.4 J | 0.6 | 0.6 | ND | 0.4 | 0.6 | 0.5 | 0.6 J | 0.6 J | 0.5 | 0.5 | 0.5 | 0.7 |
| | Radium-228 | 1.2 | N/A | 0.5 | 0.4 | 0.3 J | 0.4 | 0.4 | ND | 0.4 | 0.3 | 0.4 | 0.5 J | 0.3 J | 0.3 | 0.6 | 0.5 | 0.4 |
| **Other** | Moisture (%) | | | 5.0 | 5.5 | 3.5 | 3.3 | 4.4 | 0.6 | 9.7 | 2.6 | 3.3 | 0.9 | 1.3 | 5.7 | 4.0 | 1.4 | 0.8 |
| | pH | | | 7.4 | 7.9 | 7.8 | 7.8 | 7.7 | 7.8 | 7.5 | 8.0 | 8.0 | 8.0 | 7.9 | 7.9 | 7.9 | 8.5 | 9.2 |

**Table B-1. Summary of 1994 Soil Analyses for SWMU 6-30, Radioactive Burial 11 (RW-06) (Page 2 of 10)**

| Chemical Class/ Laboratory Method | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential Soil SSL [b] | Borehole Number, Sample Depth Interval (feet), and Date (concentrations in milligrams per kilogram) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | RB-11-02 | | | | | RB-11-03 | | | RB-11-04 | | | RB-11-05 | | | RB-11-06 | | |
| | | | | 3-8 | 8-13 | 18-22 | 18-22 | 28-32 | 3-7 | 8-12 | 17-21 | 3-7 | 8-12 | 18-22 | 3-7 | 8-12 | 18-22 | 3-7 | 8-12 | 18-22 |
| | | | | 7/5/94 | 7/5/94 | 7/6/94 | 7/6/94 | 7/6/94 | 7/12/94 | 7/12/94 | 7/12/94 | 7/15/94 | 7/15/94 | 7/25/94 | 7/15/94 | 7/15/94 | 7/15/94 | 7/15/94 | 7/15/94 | 7/15/94 |
| **VOC**/SW-846 8240 | Acetone | N/A | 28,100 | <0.052 | <0.051 | <0.051 | ND | ND | <0.052 | <0.052 | <0.050 | <0.052 | <0.050 | <0.050 | <0.051 | <0.052 | <0.050 | <0.052 | <0.052 | <0.050 |
| | Ethylbenzene | N/A | 128 | <0.005 | <0.005 | <0.005 | ND | ND | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | Methylene Chloride | N/A | 182 | <0.005 | <0.005 | <0.005 | 0.006 | 0.007 | <0.005 | <0.005 | <0.005 | 0.019 | <0.005 | <0.005 | 0.006 | 0.006 | 0.006 | <0.005 | <0.005 | <0.005 |
| | Tetrachloroethene(PCE) | N/A | 12.5 | <0.005 | <0.005 | <0.005 | ND | ND | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | Toluene | N/A | 252 | <0.005 | <0.005 | <0.005 | ND | ND | <0.005 | <0.005 | 0.018 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | 1,1,1-Trichloroethane | N/A | 563 | <0.005 | <0.005 | <0.005 | ND | ND | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | O-Xylene(1,2-Dimethylbenzene) | N/A | 99.5 | <0.005 | <0.005 | <0.005 | ND | ND | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | M,P-Xylenes(Sum of Isomers) | N/A | 82.0 | <0.005 | <0.005 | <0.005 | ND | ND | <0.005 | <0.005 | 0.013 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| **SVOC**/SW-846 8270 | Benzo(b)fluoranthene | N/A | 6.21 | <0.34 | <0.34 | <0.34 | ND | ND | <0.34 | <0.35 | <0.33 | <0.35 | <0.33 | <0.33 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.33 |
| | Benzo(k)fluoranthene | N/A | 6.21 | <0.34 | <0.34 | <0.34 | ND | ND | <0.34 | <0.35 | <0.33 | <0.35 | <0.33 | <0.33 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.33 |
| | Chrysene | N/A | 615 | <0.34 | <0.34 | <0.34 | ND | ND | <0.34 | <0.35 | <0.33 | <0.35 | <0.33 | <0.33 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.33 |
| | di-n-Butyl Phthalate | N/A | 6,110 | <0.34 | <0.34 | <0.34 | ND | ND | <0.34 | <0.35 | <0.33 | <0.35 | <0.33 | <0.33 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.33 |
| | bis(2-Ethylhexyl)Phthalate | N/A | 347 | <0.34 | <0.34 | 0.77 | ND | 0.74 | <0.34 | <0.35 | <0.33 | <0.35 | <0.33 | <0.33 | <0.34 | <0.34 | <0.33 | 0.54 | <0.34 | <0.33 |
| | Fluoranthene | N/A | 2,290 | <0.34 | <0.34 | <0.34 | ND | ND | <0.34 | <0.35 | <0.33 | <0.35 | <0.33 | <0.33 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.33 |
| | Phenanthrene | N/A | 1,830 | <0.34 | <0.34 | <0.34 | ND | ND | <0.34 | <0.35 | <0.33 | <0.35 | <0.33 | <0.33 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.33 |
| | Pyrene | N/A | 2,290 | <0.34 | <0.34 | <0.34 | ND | ND | <0.34 | <0.35 | <0.33 | <0.35 | <0.33 | <0.33 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.33 |
| **TPH**/SW-846 8015 | Diesel Fraction | N/A | 200 | <4.0 | <4.0 | <4.0 | ND | 8.900 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 |
| | Gasoline Fraction | N/A | 200 | <0.2 | <0.2 | <0.2 | ND | ND | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| **Metals**/SW-846 6010 | Aluminum | N/A | 77,800 | 7,210 | 4,350 | 5,580 | 4,480 | 9,930 | 8,250 | 7,830 | 5,130 | 10,200 | 6,110 | 4,690 | 7,760 | 8,860 | 5,260 | 8,520 | 9,570 | 2,860 |
| | Antimony | 3.9 | 31.3 | *<20.7* | *<20.4* | *<20.4* | *<200* | *<200* | *<20.8* | *<21.0* | *<20.2* | *<21.0* | *<20.2* | *<20.2* | *<20.5* | *<20.7* | *<20.2* | *<20.7* | *<20.9* | *<20.1* |
| | Barium | 200 | 15,600 | 97.4 | 113.0 | 77.2 | 37.3 | 161.0 | 89.7 | 127.0 | 78.1 | 159.0 | 84.7 | 42.5 | 126.0 | *975.0* | 91.0 | *209.0* | 153.0 | 44 J |
| | Beryllium | 0.8 | 156 | 0.41 | 0.41 | 0.41 | 0.41 | *0.90* | 0.52 | 0.52 | 0.40 | 0.52 | 0.40 | 0.30 | 0.41 | 0.52 | 0.30 | 0.52 | 0.52 | <0.30 |
| | Cadmium | 0.9 | 39 | <0.52 | <0.51 | <0.51 | *<5.0* | 0.67 | <0.52 | 0.52 | <0.51 | *6.20* | <0.51 | 0.61 | <0.51 | <0.52 | 0.81 | 0.62 | <0.52 | <0.50 UJ |
| | Calcium | N/A | N/A | 41,700 | 93,400 | 29,300 | 37,800 | 25,800 | 25,900 | 56,200 | 28,300 | 32,800 | 34,700 | 38,100 | 23,400 | 77,200 | 41,600 | 37,600 | 42,300 | 16,400 |
| | Chromium, Total | 16.2 | 234 | *38.9* | 10.6 | 12.1 | 9.4 | 13.7 | 12.2 | 11.8 | 10.0 | *17.2* | 11.8 | 12.0 | 8.4 | 14.7 | 9.2 | 11.4 | 10.8 | *42.8* |
| | Cobalt | 9.3 | 1,520 | 6.4 | 4.9 | 7.1 | 7.5 | 9.0 | 7.4 J | 7.6 | 6.9 | 8.0 | 8.0 | 6.4 | 6.5 | 8.0 | 7.0 | 7.1 | 6.6 | 3.5 J |
| | Copper | 17 | 3,130 | *70.8* | *43.9* | *94.2* | *193.0* | *178.0* | *24.9* | *22.7* | *108.0* | *36.0* | *28.8* | *41.6* | *24.6* | *24.9* | *72.6* | *68.3* | *38.2* | *186 J* |
| | Iron | N/A | 23,500 | 12,300 | 7,390 | 11,700 | 10,600 | 15,200 | 13,500 | 14,200 | 10,600 | 13,800 | 13,600 | 10,700 | 12,300 | 14,400 | 11,200 | 13,800 | 13,100 | 6,710 |
| | Lead | 11.2 | 400 | 7.4 | 6.7 | 7.3 | 6.2 | 10.1 | 7.3 | 8.2 | <5.1 | *80.2* | 6.9 | <5.0 | 7.7 | 9.2 | 5.1 | 9.8 | 9.2 | 5.1 |
| | Magnesium | N/A | N/A | 4,920 | 2,880 | 3,610 | 3,500 | 4,910 | 5,680 | 5,460 | 3,750 | 6,420 | 4,880 | 3,800 | 5,090 | 5,970 | 4,610 | 5,880 | 5,740 | 2,510 |
| | Manganese | N/A | 3,590 | 428 | 158 | 267 | 236 | 448 | 274 | 245 | 215 | 271 | 270 | 216 | 251 | 237 | 280 | 301 | 238 | 150 |
| | Mercury | < 0.1 | 100,000 | <0.10 | <0.09 | <0.10 | *<0.2* | *<0.2* | <0.10 | <0.10 | <0.09 | <0.10 | <0.09 | <0.10 | <0.09 | <0.10 | <0.09 | <0.09 | <0.09 | <0.08 |
| | Molybdenum | N/A | 391 | 8.6 | <5.1 | <5.1 | <50 | <50 | <5.2 | <5.2 | <5.1 | <5.2 | <5.1 | <5.0 | <5.1 | <5.2 | <5.1 | <5.2 | <5.2 | 13.2 |
| | Nickel | 21 | 1,560 | *21.7* | 9.9 | *37.2* | 10.9 | *33.0* | 10.0 | 12.1 | 17.8 | 17.9 | 15.8 | 13.9 | 11.1 | 12.1 | 15.7 | 13.8 | 18.1 | *29.9* |
| | Potassium | N/A | N/A | 1,180 | 593 | 857 | 810 | 2,050 | 1,420 | 1,170 | 988 | 1,820 | 1,050 | 727 | 1,330 | 1,310 | 836 | 1,250 | 1,540 | 551 |
| | Selenium | < 1.0 | 391 | *<10.3* | *<10.2* | *<10.2* | *<100* | *<100* | *<10.4* | *<10.5* | *<10.1* | *<10.5* | *<10.1* | *<10.1* | *<10.3* | *<10.4* | *<10.1* | *<10.4* | *<10.4* | *<10.1* |
| | Sodium | N/A | N/A | 368.0 | 488.0 | 542.0 | 173.0 | 578.0 | 751.0 | 723.0 | 494.0 | 1090.0 | 441.0 | 324.0 | 563.0 | 727.0 | 392.0 | 895.0 | 844.0 | 209 J |
| | Vanadium | 33 | 78.2 | 26.4 | 14.7 | 22.0 | 19.3 | 26.0 | 30.3 | 28.6 | 19.8 | 26.8 | 25.0 | 21.1 | 23.1 | *33.8* | 20.2 | 25.2 | 26.4 | 12.3 |
| | Zinc | 76 | 23,500 | 53.4 | *3309.0* | 59.9 | *84.6* | *101.0* | 38.2 J | 37.0 | 60.7 | 42.1 | 38.3 | 32.9 | 35.5 | 38.0 | 54.4 | 56.6 | 41.3 | 75.6 J |
| **RAD** (pCi/g) | Gross Alpha | 17.4 [c] | N/A | 2.4 | 7 | 17 | 20 | 17 | 14 | 7.5 | 12 | 19 | 20 | 13 | 16 | 22 | 16 | 29 | 18 | 12 UJ |
| | Gross Beta | 35.4 [c] | N/A | 2.2 | 17 | 26 | 28 | 23 | 23 J | 20 | 23 | 22 | 22 | 24 | 26 | 23 | 23 | 20 | 18 | 23 J |
| | Radium-226 | 1.76 | N/A | 0.5 | 0.7 | 0.6 | 0.2 | 0.4 | 0.7 J | 0.5 | 0.6 | 0.9 | 0.7 | 0.7 | 0.6 | 0.3 | 0.8 | 0.4 | 0.8 | 0.6 J |
| | Radium-228 | 1.2 | N/A | 0.8 | 0.5 | 0.4 | 0.3 | 0.4 | 0.5 J | 0.3 | 0.2 | 0.5 | 0.5 | 0.5 | 0.2 | 0.2 | 0.4 | 0.3 | 0.3 | 0.3 J |
| **Other** | Moisture (%) | | | 3.3 | 2.0 | 2.2 | 2.4 | 10.8 | 4.0 | 4.7 | 1.0 | 4.5 | 1.1 | 0.9 | 2.5 | 3.5 | 1.0 | 3.4 | 4.1 | 0.7 |
| | pH | | | 8.3 | 8.2 | 8.9 | 7.8 | 8.0 | 8.1 J | 8.1 | 8.2 | 7.8 | 7.8 | 7.8 | 7.8 | 8.0 | 7.8 | 7.9 | 7.8 | 7.9 |

**Table B-1. Summary of 1994 Soil Analyses for SWMU 6-30, Radioactive Burial 11 (RW-06) (Page 3 of 10)**

| Chemical Class/ Laboratory Method | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential Soil SSL [b] | Borehole Number, Sample Depth Interval (feet), and Date (concentrations in milligrams per kilogram) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | RB-11-07 | | | RB-11-08 | | | RB-11-09 | | | RB-11-10 | | RB-11-11 | | | RB-11-12 | | |
| | | | | 3-7 | 8-12 | 18-22 | 3-7 | 8-12 | 18-22 | 3-7 | 8-12 | 18-22 | 3-7 | 8-12 | 1-7 | 8-12 | 18-24 | 3-7 | 8-12 | 18-24 |
| | | | | 7/12/94 | 7/12/94 | 7/12/94 | 7/14/94 | 7/14/94 | 7/14/94 | 7/14/94 | 7/14/94 | 7/14/94 | 7/12/94 | 7/13/94 | 7/18/94 | 7/18/94 | 7/18/94 | 7/14/94 | 7/14/94 | 7/14/94 |
| **VOC**/SW-846 8240 | Acetone | N/A | 28,100 | <0.052 | <0.051 | <0.052 | <0.051 | <0.052 | <0.051 | <0.052 | <0.052 | <0.051 | <0.052 | <0.050 | <0.051 | <0.052 | <0.052 | <0.052 | <0.052 | <0.052 |
| | Ethylbenzene | N/A | 128 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | Methylene Chloride | N/A | 182 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.010 | 0.011 | <0.005 | <0.005 | <0.005 |
| | Tetrachloroethene(PCE) | N/A | 12.5 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | Toluene | N/A | 252 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | 1,1,1-Trichloroethane | N/A | 563 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | O-Xylene(1,2-Dimethylbenzene) | N/A | 99.5 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | M,P-Xylenes(Sum of Isomers) | N/A | 82.0 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.007 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| **SVOC**/SW-846 8270 | Benzo(b)fluoranthene | N/A | 6.21 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.35 | <0.34 | <0.34 | <0.34 | <0.34 |
| | Benzo(k)fluoranthene | N/A | 6.21 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.35 | <0.34 | <0.34 | <0.34 | <0.34 |
| | Chrysene | N/A | 615 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.35 | <0.34 | <0.34 | <0.34 | <0.34 |
| | di-n-Butyl Phthalate | N/A | 6,110 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.35 | <0.34 | <0.34 | <0.34 | <0.34 |
| | bis(2-Ethylhexyl)Phthalate | N/A | 347 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | 0.61 | <0.34 | <0.34 | <0.33 | <0.34 | <0.35 | <0.34 | <0.34 | <0.34 | <0.34 |
| | Fluoranthene | N/A | 2,290 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.35 | <0.34 | <0.34 | <0.34 | <0.34 |
| | Phenanthrene | N/A | 1,830 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.35 | <0.34 | <0.34 | <0.34 | <0.34 |
| | Pyrene | N/A | 2,290 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.35 | <0.34 | <0.34 | <0.34 | <0.34 |
| **TPH**/SW-846 8015 | Diesel Fraction | N/A | 200 | 11.500 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 |
| | Gasoline Fraction | N/A | 200 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| **Metals**/SW-846 6010 | Aluminum | N/A | 77,800 | 9,560 | 6,420 | 5,840 | 6,020 | 7,460 | 6,500 | 9,100 | 8,710 | 7,450 | 7,190 | 4,700 | 7,860 | 12,000 | 9,150 | 8,370 | 5,190 | 6,830 |
| | Antimony | 3.9 | 31.3 | *<20.9* | *<20.6* | *<20.6* | *<20.6* | *<20.7* | *<20.5* | *<20.9* | *<20.8* | *<20.6* | *<20.9* | *<20.2* | *<20.4* | *<21.0* | *<20.8* | *<20.8* | *<20.7* | *<20.7* |
| | Barium | 200 | 15,600 | 106.0 | 106.0 | 84.1 | 125.0 | 177.0 | 125 J | *211.0* | *216 J* | 83.8 | 137.0 | 87.1 | 108.0 | 115.0 | 180.0 | 68.6 | 79.2 | 93.3 |
| | Beryllium | 0.8 | 156 | 0.63 | 0.51 | 0.41 | 0.41 | 0.41 | 0.41 | 0.63 | 0.52 | 0.41 | 0.52 | 0.40 | 0.51 | 0.63 | 0.52 | 0.52 | 0.31 | 0.52 |
| | Cadmium | 0.9 | 39 | <0.52 | <0.51 | <0.52 | <0.51 | 0.73 | <0.51 UJ | <0.52 | *1.0 U* | <0.51 | <0.52 | <0.51 | <0.51 | <0.53 | <0.52 | 0.62 | 0.52 | <0.52 |
| | Calcium | N/A | N/A | 27,200 | 54,900 | 25,500 | 23,900 | 44,900 | 41,100 | 31,800 | 65,800 | 25,200 | 25,100 | 42,200 | 35,300 | 34,600 | 30,600 | 35,800 | 43,700 | 34,200 |
| | Chromium, Total | 16.2 | 234 | 12.8 | 9.6 | 12.3 | 9.1 | 11.8 | 12.8 | 12.5 | 13.1 | 10.1 | 8.7 | 7.7 | 11.0 | *17.0* | 13.5 | 10.5 | 9.4 | 8.7 |
| | Cobalt | 9.3 | 1,520 | 8.8 J | 6.2 | 8.2 | 5.8 | 7.3 | 6.6 J | 7.7 | 7.4 J | 6.2 | 7.0 | 4.6 | 6.7 | *10.7* | 7.5 | 6.9 | 6.3 | 6.1 |
| | Copper | 17 | 3,130 | *21.3* | *29.2* | *55.7* | *55.6* | *24.6* | *69.4 J* | *36.1* | *96.2 J* | *59.1* | *25.2* | *27.5* | *29.2* | *23.8* | *105.0* | *29.2* | *68.4* | *35.3* |
| | Iron | N/A | 23,500 | 14,100 | 10,300 | 11,400 | 11,600 | 13,000 | 11,800 | 14,000 | 12,500 | 11,800 | 12,800 | 8,940 | 13,300 | 16,100 | 14,300 | 13,700 | 9,860 | 11,500 |
| | Lead | 11.2 | 400 | 6.4 | 9.0 | 6.2 | 10.0 | 9.6 | 6.7 | 8.4 | 7.1 | 6.1 | 8.5 | 5.9 | 8.5 | 7.4 | 6.7 | 5.2 | 10.8 | 6.4 |
| | Magnesium | N/A | N/A | 6,420 | 4,480 | 4,710 | 4,770 | 5,810 | 5,010 | 6,230 | 5,790 | 4,360 | 5,140 | 3,750 | 5,960 | 6,290 | 4,650 | 6,580 | 3,920 | 4,590 |
| | Manganese | N/A | 3,590 | 306 | 229 | 265 | 247 | 278 | 296 | 335 | 251 | 252 | 270 | 187 | 263 | 389 | 282 | 275 | 223 | 270 |
| | Mercury | < 0.1 | 100,000 | <0.10 | <0.10 | <0.10 | <0.08 | <0.10 | <0.10 | <0.10 | <0.09 | <0.10 | <0.10 | <0.10 | <0.10 | *<0.11* | <0.10 | <0.10 | <0.09 | <0.10 |
| | Molybdenum | N/A | 391 | <5.2 | <5.1 | <5.2 | <5.1 | <5.2 | <5.1 | <5.2 | <5.2 | <5.1 | <5.2 | <5.1 | <5.1 | <5.3 | <5.2 | <5.2 | <5.2 | <5.2 |
| | Nickel | 21 | 1,560 | 13.7 | 20.8 | 16.9 | 10.9 | 16.9 | *85.8* | 18.5 | *87.9* | 16.8 | 12.1 | 11.3 | 16.9 | 19.5 | 16.4 | 11.5 | 14.5 | 14.4 |
| | Potassium | N/A | N/A | 1,770 | 1,190 | 1,150 | 998 | 1,080 | 982 | 1,450 | 1,670 | 1,360 | 1,160 | 729 | 1,550 | 2,250 | 1,530 | 1,790 | 795 | 1,170 |
| | Selenium | < 1.0 | 391 | *<10.4* | *<10.3* | *<10.3* | *<10.3* | *<10.4* | *<10.3* | *<10.4* | *<10.4* | *<10.3* | *<10.4* | *<10.1* | *<10.2* | *<10.5* | *<10.4* | *<10.4* | *<10.3* | *<10.4* |
| | Sodium | N/A | N/A | 905.0 | 655.0 | 518.0 | 644.0 | 790.0 | 698 J | 966.0 | 771 J | 723.0 | 559.0 | 328.0 | 565.0 | 961.0 | 779.0 | 685.0 | 537.0 | 811.0 |
| | Vanadium | 33 | 78.2 | 32.4 | 21.3 | 20.7 | 22.1 | 24.3 | 21.3 | 24.5 | 25.9 | 22.7 | 24.7 | 17.4 | *33.9* | 32.6 | 28.5 | 29.5 | 19.2 | 21.6 |
| | Zinc | 76 | 23,500 | 37.3 J | 34.7 | 44.0 | 47.7 | 38.2 | 55.6 J | 48.2 | 68.8 J | 45.7 | 37.2 | 30.6 | 42.4 | 39.6 | 60.5 | 41.8 | 44.2 | 42.9 |
| **RAD** (pCi/g) | Gross Alpha | 17.4 [c] | N/A | 11 | 5.3 | 12 | 17 | 33 | 31 J | 15 | 21 J | 24 | 17 | 16 | 19 | 13 | 19 | 16 | 23 | 27 |
| | Gross Beta | 35.4 [c] | N/A | 22 J | 19 | 24 | 20 | 28 | 25 J | 23 | 21 J | 21 | 22 | 20 | 23 | 27 | 29 | 26 | 27 | 26 |
| | Radium-226 | 1.76 | N/A | 0.4 J | 0.8 | 0.2 | 0.5 | 0.5 | 0.4 J | 0.6 | 0.6 J | 0.7 | 0.5 | 0.4 | 0.6 | 0.5 | 0.6 | 0.6 | 0.5 | 0.5 |
| | Radium-228 | 1.2 | N/A | 0.4 J | 0.5 | 0.4 | 0.2 | 0.3 | 0.2 UJ | 0.2 | 0.4 J | 0.3 | 0.3 | 0.6 | ND | 0.5 | 0.3 | 0.4 | ND | 0.4 |
| **Other** | Moisture (%) | | | 4.1 | 2.8 | 3.0 | 2.7 | 3.6 | 2.5 | 4.3 | 4.0 | 2.8 | 4.2 | 1.0 | 2.1 | 4.9 | 3.8 | 3.8 | 3.3 | 3.5 |
| | pH | | | 8.2 | 8.1 | 8.1 | 8.0 | 8.1 | 8.1 | 7.8 | 8.0 | 8.0 | 8.0 | 7.9 | 8.0 | 7.8 | 8.2 | 8.1 | 7.9 | 8.0 |

**Table B-1. Summary of 1994 Soil Analyses for SWMU 6-30, Radioactive Burial 11 (RW-06) (Page 4 of 10)**

| Chemical Class/ Laboratory Method | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential Soil SSL [b] | Borehole Number, Sample Depth Interval (feet), and Date (concentrations in milligrams per kilogram) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | RB-11-13 | | | RB-11-14 | | | RB-11-15 | | | RB-11-16 | | | | | RB-11-17 | | | | |
| | | | | 1-9 | 9-13 | 17-21 | 1-7 | 8-12 | 18-22 | 3-7 | 8-12 | 18-24 | 3-7 | 8-12 | 13-21 | 21-25 | 28-30 | 3-7 | 8-12 | 13-18 | 18-23 | 28-32 |
| | | | | 7/13/94 | 7/13/94 | 7/13/94 | 7/18/94 | 7/18/94 | 7/18/94 | 7/18/94 | 7/18/94 | 7/18/94 | 7/7/94 | 7/7/94 | 7/7/94 | 7/7/94 | 7/7/94 | 7/6/94 | 7/6/94 | 7/6/94 | 7/6/94 | 7/6/94 |
| **VOC**/SW-846 8240 | Acetone | N/A | 28,100 | <0.051 | <0.052 UJ | <0.050 | <0.052 | <0.052 | <0.051 | <0.052 | <0.052 | <0.051 | <0.052 | <0.051 | <0.051 | <0.051 | <0.051 | <0.052 | <0.051 | <0.051 | <0.051 | <0.052 |
| | Ethylbenzene | N/A | 128 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.014 |
| | Methylene Chloride | N/A | 182 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | Tetrachloroethene(PCE) | N/A | 12.5 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | Toluene | N/A | 252 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.052 |
| | 1,1,1-Trichloroethane | N/A | 563 | <0.005 | <0.005 | <0.005 | <0.005 | 0.006 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | O-Xylene(1,2-Dimethylbenzene) | N/A | 99.5 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.015 |
| | M,P-Xylenes(Sum of Isomers) | N/A | 82.0 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.056 |
| **SVOC**/SW-846 8270 | Benzo(b)fluoranthene | N/A | 6.21 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 |
| | Benzo(k)fluoranthene | N/A | 6.21 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 |
| | Chrysene | N/A | 615 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 |
| | di-n-Butyl Phthalate | N/A | 6,110 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | 0.56 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 |
| | bis(2-Ethylhexyl)Phthalate | N/A | 347 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | 1.20 | <0.33 | <0.34 | 0.62 | <0.34 | <0.34 | <0.33 | <0.34 |
| | Fluoranthene | N/A | 2,290 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 |
| | Phenanthrene | N/A | 1,830 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 |
| | Pyrene | N/A | 2,290 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 |
| **TPH**/SW-846 8015 | Diesel Fraction | N/A | 200 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 |
| | Gasoline Fraction | N/A | 200 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| **Metals**/SW-846 6010 | Aluminum | N/A | 77,800 | 5,180 | 6,100 | 3,610 | 11,500 | 9,700 | 4,980 | 7,440 | 8,980 | 5,430 | 8,450 | 9,160 | 6,750 | 7,230 | 5,380 | 9,130 | 8,200 | 7,250 | 5,660 | 5,080 |
| | Antimony | 3.9 | 31.3 | *<20.3* | *<20.6* | *<20.2* | *<20.8* | *<20.9* | *<20.3* | *<20.7* | *<20.7* | *<20.5* | *<20.6* | *<20.5* | *<20.3* | *<20.2* | *<20.3* | *<20.6* | *<20.4* | *<20.4* | *<20.3* | *<20.9* |
| | Barium | 200 | 15,600 | 156.0 | 139 J | 28.5 | 174.0 | 100.0 | 48.9 | 165.0 | *390.0* | 53.9 | *210.0* | 199.0 | 91.3 | 91.0 | 70.4 | *204.0* | 213.0 | 100.0 | 54.9 | 91.8 |
| | Beryllium | 0.8 | 156 | 0.30 | 0.41 J | <0.30 | 0.52 | 0.42 | 0.30 | 0.41 | 0.41 | 0.31 | 0.52 | 0.51 | 0.51 | 0.51 | 0.41 | 0.62 | 0.51 | 0.51 | 0.41 | 0.42 |
| | Cadmium | 0.9 | 39 | 0.71 | *0.93 U* | <0.50 | 0.83 | <0.52 | 0.51 | 0.62 | 0.62 | <0.51 | <0.52 | 0.51 | <0.51 | <0.51 | 0.61 | <0.52 | <0.51 | 0.51 | <0.51 | <0.52 |
| | Calcium | N/A | N/A | 48,600 | 52,000 | 14,300 | 95,200 | 59,700 | 31,900 | 42,100 | 39,700 | 28,800 | 41,200 | 60,500 | 37,600 | 33,300 | 43,100 | 52,600 | 39,500 | 42,400 | 45,000 | 51,000 |
| | Chromium, Total | 16.2 | 234 | 7.3 | 8.7 | 6.5 | 10.5 | 15.3 | 10.1 | 10.2 | *19.4* | 12.5 | 10.4 | 16.2 | *18.5* | 11.4 | 9.2 | 10.6 | 15.1 | 14.5 | 10.9 | 9.4 |
| | Cobalt | 9.3 | 1,520 | 4.0 | 6.5 J | 4.7 | 9.1 | 9.1 | 6.0 | 6.8 | 9.1 | 8.1 | 7.1 | 9.3 | 8.3 | 7.2 | 6.0 | 7.2 | 8.6 | *9.9* | 8.0 | 5.4 |
| | Copper | 17 | 3,130 | *38.4* | *32.9 J* | *51.4* | *36.1* | *35.5* | *98.0* | *19.4* | *26.9* | *48.5* | *27.5* | *51.7* | *239.0* | *74.2* | *1210.0* | *28.5* | *60.9* | *63.1* | *70.0* | *28.3* |
| | Iron | N/A | 23,500 | 8,140 | 10,300 | 6,610 | 13,200 | 13,700 | 10,200 | 12,200 | 13,300 | 11,600 | 13,900 | 12,900 | 15,600 | 11,800 | 11,200 | 13,700 | 14,000 | 15,700 | 12,200 | 8,750 |
| | Lead | 11.2 | 400 | 6.7 | 6.2 | <5.0 | 7.7 | <5.2 | 6.7 | 9.6 | 5.9 | <5.1 | <5.2 | 7.6 | 6.8 | 5.9 | <5.1 | <5.2 | <5.1 | <5.1 | <5.1 | <5.2 |
| | Magnesium | N/A | N/A | 4,270 | 4,890 | 3,150 | 5,000 | 6,300 | 4,390 | 6,130 | 6,530 | 4,730 | 7,030 | 6,330 | 5,070 | 4,060 | 4,430 | 6,180 | 5,170 | 5,540 | 4,800 | 3,380 |
| | Manganese | N/A | 3,590 | 229 | 245 | 191 | 237 | 247 | 250 | 260 | 277 | 249 | 300 | 271 | 327 | 258 | 234 | 256 | 260 | 284 | 221 | 197 |
| | Mercury | < 0.1 | 100,000 | <0.09 | <0.09 | <0.10 | <0.10 | <0.09 | <0.09 | <0.10 | <0.10 | <0.09 | <0.09 | <0.10 | <0.10 | <0.09 | <0.08 | <0.10 | <0.10 | <0.09 | <0.10 | <0.09 |
| | Molybdenum | N/A | 391 | <5.1 | <5.2 | <5.0 | <5.2 | <5.2 | <5.1 | <5.2 | <5.2 | <5.1 | <5.2 | <5.1 | <5.1 | <5.1 | <5.1 | <5.2 | <5.1 | <5.1 | <5.1 | <5.2 |
| | Nickel | 21 | 1,560 | 13.8 | 15.9 | 12.6 | 11.6 | *36.5* | 20.5 | 14.2 | *29.2* | *29.0* | 12.7 | *37.6* | *48.1* | 17.3 | 15.3 | 13.2 | *35.7* | *31.4* | 20.1 | 17.6 |
| | Potassium | N/A | N/A | 1,760 | 986 J | 557 | 2,540 | 1,760 | 911 | 1,240 | 1,520 | 799 | 1,870 | 1,630 | 1,010 | 992 | 921 | 1,210 | 1,310 | 1,080 | 1,070 | 684 |
| | Selenium | < 1.0 | 391 | *<10.2* | *<10.3* | *<10.1* | *<10.4* | *<10.4* | *<10.1* | *<10.4* | *<10.4* | *<10.3* | *<10.3* | *<10.3* | *<10.2* | *<10.1* | *<10.2* | *<10.3* | *<10.2* | *<10.2* | *<10.1* | *<10.4* |
| | Sodium | N/A | N/A | 97.9 | 191 J | 207.0 | 128.0 | 778.0 | 330.0 | 566.0 | 493.0 | 146.0 | 474.0 | 706.0 | 524.0 | 643.0 | 442.0 | 253.0 | 249.0 | 223.0 | 186.0 | 300.0 |
| | Vanadium | 33 | 78.2 | 19.0 | 20.1 J | 11.6 | *34.6* | 30.0 | 18.9 | 28.3 | 28.2 | 21.0 | *34.7* | 29.0 | 27.0 | 22.6 | 21.8 | *34.0* | 30.1 | 29.2 | 21.6 | 18.2 |
| | Zinc | 76 | 23,500 | 38.1 | 37.4 J | 37.0 | 44.5 | *397.0* | 56.7 | 33.9 | 35.2 | 39.3 | 44.4 | 48.2 | *118.0* | *118.0* | *451.0* | 41.4 | 49.8 | 53.8 | 55.8 | 31.1 |
| **RAD** (pCi/g) | Gross Alpha | 17.4 [c] | N/A | 19 | 30 J | 19 | 14 | 29 | 23 | 20 | 12 | 19 | 31 | 16 | 22 | 5.2 | 13 | 4.1 | 14 | 14 | 16 | 21 |
| | Gross Beta | 35.4 [c] | N/A | 26 | 31 | 31 | 23 | 30 | 25 | 26 | 24 | 24 | 27 | 18 | 22 | 19 | 23 | 2.4 | 22 | 23 | 23 | 30 |
| | Radium-226 | 1.76 | N/A | 0.9 | 0.6 J | 0.6 | 0.7 | 0.8 | 1.0 | 1.2 | 0.6 | 0.7 | 0.6 | 0.4 | 0.5 | 0.2 | 0.4 | 0.6 | 0.4 | 0.5 | 0.4 | 0.5 |
| | Radium-228 | 1.2 | N/A | 0.3 | 0.4 J | 0.2 | 0.4 | 0.3 | 0.4 | 0.7 | 0.2 | 0.3 | 0.4 | 0.4 | 0.2 | 0.3 | 0.3 | 0.3 | 0.5 | 0.4 | 0.6 | 0.4 |
| **Other** | Moisture (%) | | | 1.6 | 3.0 | 0.9 | 3.8 | 4.3 | 1.3 | 3.4 | 3.5 | 2.6 | 3.1 | 2.5 | 1.5 | 1.2 | 1.6 | 3.0 | 2.2 | 2.0 | 1.3 | 4.2 |
| | pH | | | 7.7 | 7.7 | 8.0 | 7.7 | 7.8 | 8.0 | 8.0 | 7.9 | 7.8 | 8.5 | 8.2 | 8.9 | 8.9 | 8.7 | 8.3 | 8.2 | 8.6 | 8.8 | 8.6 |

**Table B-1. Summary of 1994 Soil Analyses for SWMU 6-30, Radioactive Burial 11 (RW-06) (Page 5 of 10)**

| Chemical Class/ Laboratory Method | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential Soil SSL [b] | Borehole Number, Sample Depth Interval (feet), and Date (concentrations in milligrams per kilogram) | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | RB-11-18 | | | | | RB-11-19 | | | | | RB-11-20 | | | | | RB-11-21 | | | | | |
| | | | | 1-7 | 7-11 | 13-17 | 18-22 | 28-32 | 3-7 | 8-12 | 13-19 | 19-23 | 28-33 | 3-7 | 8-12 | 13-17 | 18-22 | 28-32 | 3-7 | 8-12 | 13-17 | 18-22 | 28-32 |
| | | | | 7/11/94 | 7/11/94 | 7/11/94 | 7/11/94 | 7/11/94 | 7/8/94 | 7/8/94 | 7/8/94 | 7/8/94 | 7/8/94 | 7/12/94 | 7/12/94 | 7/12/94 | 7/12/94 | 7/12/94 | 7/11/94 | 7/11/94 | 7/11/94 | 7/11/94 | 7/11/94 |
| **VOC**/SW-846 8240 | Acetone | N/A | 28,100 | <0.052 | <0.052 | <0.050 | <0.051 | <0.051 | <0.052 | <0.052 | <0.051 | <0.051 | <0.051 | <0.051 | <0.052 | <0.051 | <0.051 | <0.051 | <0.051 | <0.051 | <0.051 | <0.051 UJ | <0.052 |
| | Ethylbenzene | N/A | 128 | 0.008 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | Methylene Chloride | N/A | 182 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.006 | 0.006 | 0.006 | 0.006 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | Tetrachloroethene(PCE) | N/A | 12.5 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | Toluene | N/A | 252 | 0.031 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | 1,1,1-Trichloroethane | N/A | 563 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | O-Xylene(1,2-Dimethylbenzene) | N/A | 99.5 | 0.009 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | M,P-Xylenes(Sum of Isomers) | N/A | 82.0 | 0.032 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.006 | <0.005 | <0.005 | <0.005 |
| **SVOC**/SW-846 8270 | Benzo(b)fluoranthene | N/A | 6.21 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 | <0.33 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 |
| | Benzo(k)fluoranthene | N/A | 6.21 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 | <0.33 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 |
| | Chrysene | N/A | 615 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 | <0.33 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 |
| | di-n-Butyl Phthalate | N/A | 6,110 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | 0.51 | <0.34 | <0.34 | <0.33 | <0.33 | <0.33 | 0.36 | <0.34 | <0.33 | <0.34 | <0.34 |
| | bis(2-Ethylhexyl)Phthalate | N/A | 347 | 0.93 | <0.34 | <0.33 | <0.34 | 1.80 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 | <0.33 | 2.10 | <0.34 | <0.33 | <0.34 | <0.34 |
| | Fluoranthene | N/A | 2,290 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 | <0.33 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 |
| | Phenanthrene | N/A | 1,830 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 | <0.33 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 |
| | Pyrene | N/A | 2,290 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 | <0.33 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 |
| **TPH**/SW-846 8015 | Diesel Fraction | N/A | 200 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 |
| | Gasoline Fraction | N/A | 200 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| **Metals**/SW-846 6010 | Aluminum | N/A | 77,800 | 8,730 | 8,840 | 4,250 | 4,790 | 3,760 | 8,040 | 10,300 | 7,050 | 8,800 | 5,150 | 5,660 | 7,750 | 6,500 | 5,000 | 3,870 | 4,980 | 6,830 | 5,090 | 4,390 | 5,210 |
| | Antimony | 3.9 | 31.3 | *<20.8* | *<20.8* | *<20.2* | *<20.3* | *<20.3* | *28.80* | *<20.6* | *<20.4* | *<20.6* | *<20.3* | *<20.3* | *<20.7* | *<20.4* | *<20.3* | *<20.2* | *21.30* | *<20.3* | *<20.2* | *<20.4* | *<20.8* |
| | Barium | 200 | 15,600 | 195.0 | 101.0 | 79.0 | 52.8 | 96.7 | *329.0* | 176.0 | 63.7 | 200.0 | 110.0 | 178.0 | 144.0 | 137.0 | 58.1 | 54.1 | 168.0 | 131.0 | 111.0 | 48.8 | 188.0 |
| | Beryllium | 0.8 | 156 | 0.52 | 0.52 | 0.30 | 0.30 | 0.31 | 0.52 | 0.62 | 0.51 | 0.51 | 0.51 | 0.41 | 0.52 | 0.41 | 0.30 | 0.40 | 0.51 | 0.41 | 0.40 | 0.31 | 0.42 |
| | Cadmium | 0.9 | 39 | <0.52 | <0.52 | 0.61 | <0.51 | <0.51 | 0.73 | <0.52 | 0.51 | *0.92* | <0.51 | <0.51 | <0.52 | <0.51 | <0.51 | <0.51 | <0.51 | <0.51 | 0.81 | <0.51 | <0.52 |
| | Calcium | N/A | N/A | 88,000 | 31,400 | 36,600 | 23,000 | 37,800 | 107,000 | 28,800 | 23,300 | 41,000 | 37,100 | 37,500 | 45,300 | 76,900 | 50,100 | 29,900 | 131,000 | 56,500 | 48,600 | 29,700 | 50,900 |
| | Chromium, Total | 16.2 | 234 | 10.0 | *16.9* | *189.0* | 13.1 | 7.7 | 8.6 | *23.7* | *23.6* | *22.3* | 11.7 | 7.5 | 15.2 | *34.3* | 11.4 | 10.0 | 6.8 | 12.8 | 16.1 | *23.2* | 9.0 |
| | Cobalt | 9.3 | 1,520 | 6.6 | 8.9 | 6.2 | 7.2 | 5.3 | 5.9 | *11.6* | *9.8* | 7.8 | 6.7 | 5.3 | 7.8 | 7.7 | 8.7 | 5.3 | 5.4 | *66.6* | 6.1 | 7.5 J | 5.6 |
| | Copper | 17 | 3,130 | *295.0* | *20.8* | *51.5* | *217.0* | *74.4* | *47.8* | *32.0* | *66.5* | *61.8* | *270.0* | *50.2* | *61.8* | *54.1* | *96.4* | *127.0* | *30.7* | *107.0* | *112.0* | *259.0* | *89.7* |
| | Iron | N/A | 23,500 | 12,600 | 16,400 | 14,300 | 10,800 | 9,360 | 11,700 | 18,300 | 17,200 | 15,100 | 11,900 | 11,400 | 13,300 | 13,500 | 10,700 | 9,700 | 8,930 | 11,200 | 11,500 | 13,400 | 11,200 |
| | Lead | 11.2 | 400 | 6.1 | 7.2 | 5.8 | 5.1 | <5.1 | 5.5 | 8.8 | <5.1 | 8.1 | <5.1 | 6.6 | 6.2 | 8.1 | 5.6 | <5.1 | <5.1 | 5.3 | <5.1 | 6.2 | <5.2 |
| | Magnesium | N/A | N/A | 5,090 | 6,570 | 4,320 | 3,970 | 3,020 | 6,100 | 8,610 | 6,510 | 6,020 | 3,930 | 4,870 | 5,610 | 5,600 | 4,640 | 2,750 | 4,310 | 4,450 | 5,700 | 4,160 | 3,870 |
| | Manganese | N/A | 3,590 | 201 | 330 | 303 | 211 | 234 | 204 | 380 | 304 | 275 | 253 | 213 | 246 | 20 | 259 | 292 | 266 | 235 | 225 | 249 J | 308 |
| | Mercury | < 0.1 | 100,000 | <0.10 | <0.10 | <0.08 | *<1.0* | <0.09 | <0.10 | <0.10 | <0.09 | <0.09 | <0.09 | <0.09 | <0.10 | <0.10 | <0.10 | <0.09 | <0.10 | <0.10 | <0.10 | <0.09 | <0.10 |
| | Molybdenum | N/A | 391 | <5.2 | <5.2 | 69.6 | <5.1 | <5.1 | <5.2 | <5.2 | <5.1 | <5.1 | <5.1 | <5.1 | <5.2 | <5.1 | <5.1 | <5.1 | <5.1 | <5.1 | <5.1 | <5.1 | <5.2 |
| | Nickel | 21 | 1,560 | 14.3 | 18.0 | 18.8 | 11.0 | 12.1 | 10.9 | *21.4* | *21.4* | *449.0* | *26.2* | 11.0 | 20.4 | *34.4* | 18.1 | 16.6 | 11.4 | *39.9* | 13.1 | 19.6 J | *26.0* |
| | Potassium | N/A | N/A | 1,610 | 1,230 | 927 | 684 | 565 | 1,370 | 1,540 | 1,190 | 1,610 | 916 | 1,010 | 1,110 | 1,230 | 1,050 | 701 | 649 | 1,370 | 783 | 824 | 779 |
| | Selenium | < 1.0 | 391 | *<10.4* | *<10.4* | *<10.1* | *<10.2* | *<10.2* | *<10.5* | *<10.3* | *<10.2* | *<10.3* | *<10.2* | *<10.2* | *<10.4* | *<10.2* | *<10.1* | *<10.1* | *<10.2* | *<10.2* | *<10.1* | *<10.2* | *<10.4* |
| | Sodium | N/A | N/A | 103.0 | 466.0 | 206.0 | 209.0 | 252.0 | 345.0 | 352.0 | 208.0 | 270.0 | 182.0 | 121.0 | 451.0 | 221.0 | 284.0 | 275.0 | 167.0 | 123.0 | 170.0 | 148 J | 469.0 |
| | Vanadium | 33 | 78.2 | 26.8 | 28.1 | 28.2 | 19.6 | 22.0 | 24.8 | *34.8* | 32.0 | 31.8 | 21.8 | 2.2 | 24.9 | 26.5 | 20.2 | 19.1 | 19.9 | 21.8 | 20.3 | 24.6 | 26.5 |
| | Zinc | 76 | 23,500 | *125.0* | 40.2 | 45.1 | *98.3* | 45.1 | 41.0 | 47.5 | 51.5 | 53.1 | *114.0* | 40.5 | 50.4 | 41.8 | 56.2 | 64.7 | 29.5 | 59.0 | 60.5 | *112.0* | 56.2 |
| **RAD** (pCi/g) | Gross Alpha | 17.4 [c] | N/A | 21 | 20 | 18 | 9 | 19 | 19 | 16 | 16 | 12 | 21 | 19 | 13 | 20 | 26 | 8.8 | 14 | 7.9 | 13 | 14 UJ | 18 |
| | Gross Beta | 35.4 [c] | N/A | 23 | 22 | 26 | 23 | 25 | 25 | 21 | 21 | 26 | 27 | 25 | 19 | 24 | 23 | 21 | 21 | 22 | 23 | 25 J | 24 |
| | Radium-226 | 1.76 | N/A | 0.6 | 0.6 | 0.7 | 0.7 | 0.9 | 0.4 | 0.5 | 0.4 | 0.6 | 0.8 | 0.4 | 0.3 | 0.4 | 0.3 | 0.6 | *1.8* | 0.6 | 0.6 | 1.0 J | 0.6 |
| | Radium-228 | 1.2 | N/A | 0.7 | 0.4 | 0.4 | 0.8 | 0.3 | 0.4 | 0.5 | 0.4 | 0.5 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.6 | 0.3 | 0.3 | 0.5 J | 0.3 |
| **Other** | Moisture (%) | | | 3.9 | 3.9 | 0.9 | 1.6 | 1.7 | 4.4 | 3.1 | 1.8 | 2.7 | 1.5 | 1.6 | 3.5 | 2.1 | 1.3 | 1.2 | 1.6 | 1.6 | 1.2 | 1.9 | 4.0 |
| | pH | | | 8.1 | 8.3 | 8.5 | 8.6 | 8.4 | 8.1 | 8.4 | 8.4 | 8.2 | 8.3 | 8.0 | 8.0 | 8.0 | 8.0 | 7.8 | 8.1 | 8.1 | 8.3 | 8.4 | 7.8 |

**Table B-1. Summary of 1994 Soil Analyses for SWMU 6-30, Radioactive Burial 11 (RW-06) (Page 6 of 10)**

| Chemical Class/ Laboratory Method | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential Soil SSL [b] | Borehole Number, Sample Depth Interval (feet), and Date (concentrations in milligrams per kilogram) | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | RB-11-22 | | | | | RB-11-23 | | | | | RB-11-24 | | | | | RB-11-25 | | | | | |
| | | | | 3-7 | 8-12 | 13-17 | 18-22 | 28-32 | 3-7 | 8-12 | 13-17 | 18-22 | 28-32 | 3-7 | 8-12 | 13-17 | 18-22 | 28-32 | 3-7 | 8-12 | 13-17 | 18-22 | 28-32 | |
| | | | | 7/12/94 | 7/12/94 | 7/12/94 | 7/12/94 | 7/12/94 | 7/12/94 | 7/12/94 | 7/12/94 | 7/12/94 | 7/12/94 | 7/13/94 | 7/13/94 | 7/13/94 | 7/13/94 | 7/13/94 | 7/13/94 | 7/13/94 | 7/13/94 | 7/13/94 | 7/13/94 | |
| **VOC**/SW-846 8240 | Acetone | N/A | 28,100 | <0.053 | <0.052 | <0.051 | <0.051 | <0.056 | <0.052 | <0.052 | <0.050 | <0.051 | <0.051 | <0.052 | <0.051 | <0.050 | <0.051 | <0.051 | <0.052 | <0.052 | <0.051 | <0.050 | <0.051 | |
| | Ethylbenzene | N/A | 128 | <0.005 | 0.010 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | |
| | Methylene Chloride | N/A | 182 | 0.006 | 0.007 | 0.005 J | 0.006 | 0.007 | <0.005 | <0.005 | <0.005 | 0.006 | 0.007 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.006 | 0.006 | <0.005 | <0.005 | <0.005 | |
| | Tetrachloroethene(PCE) | N/A | 12.5 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | |
| | Toluene | N/A | 252 | <0.005 | 0.038 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | |
| | 1,1,1-Trichloroethane | N/A | 563 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | |
| | O-Xylene(1,2-Dimethylbenzene) | N/A | 99.5 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | |
| | M,P-Xylenes(Sum of Isomers) | N/A | 82.0 | <0.005 | 0.036 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | |
| **SVOC**/SW-846 8270 | Benzo(b)fluoranthene | N/A | 6.21 | <0.36 | <0.34 | <0.34 | <0.34 | <0.37 | <0.34 | <0.35 | <0.35 | <0.33 | <0.34 | <0.33 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | |
| | Benzo(k)fluoranthene | N/A | 6.21 | <0.36 | <0.34 | <0.34 | <0.34 | <0.37 | <0.34 | <0.35 | <0.35 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | |
| | Chrysene | N/A | 615 | <0.36 | <0.34 | <0.34 | <0.34 | <0.37 | <0.34 | <0.35 | <0.35 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | |
| | di-n-Butyl Phthalate | N/A | 6,110 | <0.36 | <0.34 | <0.34 | <0.34 | <0.37 | <0.34 | <0.35 | <0.35 | <0.33 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | |
| | bis(2-Ethylhexyl)Phthalate | N/A | 347 | <0.36 | <0.34 | <0.34 | <0.34 | 0.74 | <0.34 | <0.35 | <0.35 | <0.33 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | 0.44 | 0.90 | <0.33 | 0.86 | |
| | Fluoranthene | N/A | 2,290 | <0.36 | <0.34 | <0.34 | <0.34 | <0.37 | <0.34 | <0.35 | <0.35 | <0.33 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | |
| | Phenanthrene | N/A | 1,830 | <0.36 | <0.34 | <0.34 | <0.34 | <0.37 | <0.34 | <0.35 | <0.35 | <0.33 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | |
| | Pyrene | N/A | 2,290 | <0.36 | <0.34 | <0.34 | <0.34 | <0.37 | <0.34 | <0.35 | <0.35 | <0.33 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | |
| **TPH**/SW-846 8015 | Diesel Fraction | N/A | 200 | 7.07 | 7.4 | <4.0 | <4.0 | 8.9 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | 9.800 | 13.1 | <4.0 | <4.0 | <4.0 | |
| | Gasoline Fraction | N/A | 200 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | |
| **Metals**/SW-846 6010 | Aluminum | N/A | 77,800 | 6,990 | 6,070 | 6,460 | 4,480 | 9,930 | 8,140 | 8,370 | 6,680 | 5,970 | 6,470 | 8,190 | 5,530 | 4,250 | 7,140 | 3,990 | 7,930 | 7,490 | 6,610 | 5,570 | 4,310 | |
| | Antimony | 3.9 | 31.3 | *<21.1* | *<20.9* | *<20.4* | *<20.5* | *<22.4* | *<20.7* | *<21.0* | *<20.2* | *<20.2* | *<20.5* | *<20.9* | *<20.4* | *<20.2* | *<20.4* | *<20.5* | *<20.6* | *<21.0* | *<20.4* | *<20.2* | *<20.4* | |
| | Barium | 200 | 15,600 | 192.0 | 175.0 | 117.0 | 37.3 | 161.0 | *336.0* | 160.0 | 76.4 | 77.2 | 124.0 | 138.0 | 83.7 | 51.0 | 146.0 | 96.3 | *287.0* | *448.0* | 152.0 | 50.9 | 95.0 | |
| | Beryllium | 0.8 | 156 | 0.53 | 0.42 | 0.41 | 0.41 | *0.90* | 0.52 | 0.52 | 0.40 | 0.40 | 0.51 | 0.63 | 0.41 | 0.40 | 0.51 | 0.41 | 0.52 | 0.63 | 0.51 | 0.40 | 0.41 | |
| | Cadmium | 0.9 | 39 | <0.53 | 0.84 | <0.51 | <0.51 | 0.67 | <0.52 | <0.52 | 0.50 | <0.51 | <0.51 | 0.52 | <0.51 | <0.51 | <0.51 | <0.51 | <0.52 | <0.52 | 0.61 | <0.51 | <0.51 | |
| | Calcium | N/A | N/A | 92,100 | 43,600 | 36,100 | 37,800 | 25,800 | 39,500 | 44,500 | 21,200 | 24,200 | 26,800 | 27,400 | 33,800 | 50,000 | 48,500 | 12,700 | 63,600 | 69,900 | 47,300 | 22,000 | 22,000 | |
| | Chromium, Total | 16.2 | 234 | 11.6 | 9.4 | 14.5 | 9.4 | 13.7 | 10.2 | 15.6 | *16.6* | 14.7 | 9.7 | 12.3 | 10.5 | 13.5 | 13.1 | 5.4 | 9.7 | 13.0 | 14.3 | 14.5 | 7.7 | |
| | Cobalt | 9.3 | 1,520 | 6.2 | 7.7 | 7.7 | 7.5 | 9.0 | 8.0 | *9.4* | *10.2* | 8.2 | 7.2 | 6.5 | 7.3 | 6.5 | 7.4 | 5.4 | 7.0 | 7.8 | 6.7 | 8.0 | 6.1 | |
| | Copper | 17 | 3,130 | *26.6* | *30.8* | *88.3* | *193.0* | *178.0* | *58.2* | *80.1* | *138.0* | *150.0* | *97.2* | *67.0* | *39.1* | *435.0* | *190.0* | *90.4* | *30.8* | *72.9* | *170.0* | *154.0* | *106.0* | |
| | Iron | N/A | 23,500 | 10,400 | 11,500 | 11,800 | 10,600 | 15,200 | 12,000 | 1,460 | 13,500 | 13,600 | 12,700 | 12,800 | 12,600 | 10,700 | 12,100 | 7,960 | 12,300 | 12,600 | 12,400 | 12,000 | 8,620 | |
| | Lead | 11.2 | 400 | 5.9 | 10.1 | 7.2 | 6.2 | 10.1 | <5.2 | 6.8 | 5.5 | 5.6 | 5.8 | 7.8 | <5.1 | <5.1 | 5.6 | <5.1 | 6.6 | <5.2 | 7.1 | 5.1 | <5.1 | |
| | Magnesium | N/A | N/A | 5,180 | 5,040 | 5,350 | 3,500 | 4,910 | 5,820 | 6,060 | 5,930 | 5,330 | 3,770 | 5,440 | 4,560 | 3,580 | 4,930 | 2,880 | 6,000 | 5,540 | 4,940 | 5,150 | 3,370 | |
| | Manganese | N/A | 3,590 | 177 | 257 | 290 | 246 | 448 | 261 | 268 | 303 | 267 | 279 | 212 | 293 | 266 | 246 | 180 | 230 | 226 | 275 | 271 | 198 | |
| | Mercury | < 0.1 | 100,000 | <0.10 | <0.10 | <0.09 | <0.10 | *<0.11* | <0.10 | <0.10 | <0.09 | <0.10 | <0.10 | <0.09 | <0.09 | <0.07 | *0.57* | <0.10 | <0.10 | <0.10 | <0.10 | <0.09 | <0.10 | |
| | Molybdenum | N/A | 391 | <5.3 | <5.2 | <5.1 | <5.1 | <5.6 | <5.2 | <5.2 | <5.0 | <5.1 | <5.1 | <5.2 | <5.1 | <5.1 | <5.1 | <5.1 | <5.2 | <5.2 | <5.1 | <5.1 | <5.1 | |
| | Nickel | 21 | 1,560 | 10.8 | 13.9 | *150.0* | 10.9 | *33.0* | 10.6 | 17.2 | *24.6* | *35.1* | 12.3 | *27.1* | 12.8 | 13.2 | *44.2* | 10.5 | 10.0 | 17.5 | *48.9* | *35.1* | *47.8* | |
| | Potassium | N/A | N/A | 1,180 | 1,040 | 1,270 | 810 | 2,050 | 1,270 | 1,490 | 1,180 | 1,090 | 1,200 | 1,590 | 903 | 742 | 1,420 | 919 | 1,150 | 1,050 | 1,220 | 967 | 819 | |
| | Selenium | < 1.0 | 391 | *<10.5* | *<10.4* | *<10.2* | *<10.2* | *<11.2* | *<10.4* | *<10.5* | *<10.1* | *<10.1* | *<10.2* | *<10.4* | *<10.2* | *<10.1* | *<10.2* | *<10.1* | *<10.3* | *<10.5* | *<10.2* | *<10.1* | *<10.2* | |
| | Sodium | N/A | N/A | 391.0 | 344.0 | 216.0 | 173.0 | 58.0 | 299.0 | 422.0 | 299.0 | 305.0 | 365.0 | 414.0 | 322.0 | 242.0 | 243.0 | 413.0 | 322.0 | 303.0 | 258.0 | 286.0 | 411.0 | |
| | Vanadium | 33 | 78.2 | 23.5 | 23.8 | 21.8 | 19.3 | 26.0 | 23.9 | 31.4 | 24.9 | 25.0 | 24.0 | 28.1 | 21.9 | 19.1 | 24.9 | 16.9 | 31.8 | 29.0 | 24.6 | 21.7 | 16.6 | |
| | Zinc | 76 | 23,500 | 30.7 | 37.0 | 55.0 | *84.6* | *101.0* | 47.9 | 58.8 | 74.6 | *76.9* | 58.5 | 50.1 | 37.7 | *164.0* | *91.5* | 48.7 | 37.2 | 52.6 | 76.0 | 72.3 | 59.1 | |
| **RAD** (pCi/g) | Gross Alpha | 17.4 [c] | N/A | 23 | 11 | 15 | 20 | 17 | 20 | 13 | 12 | 15 | 30 | 23 | 19 | 21 | 26 | 16 | 19 | 14 | 21 | 13 | 13 | |
| | Gross Beta | 35.4 [c] | N/A | 23 | 22 | 21 | 28 | 23 | 28 | 19 | 24 | 23 | 19 | 22 | 22 | 26 | 23 | 22 | 20 | 24 | 22 | 29 | 28 | |
| | Radium-226 | 1.76 | N/A | 0.5 | 0.6 | 0.6 | 0.2 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.7 | 0.8 | 0.5 | 0.7 | 0.3 | 0.6 | 0.4 | 0.5 | |
| | Radium-228 | 1.2 | N/A | 0.4 | 0.5 | 0.4 | 0.3 | 0.4 | 0.6 | 0.2 | 0.3 | 0.4 | 0.4 | 0.3 | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.2 | 0.2 | 0.2 | 0.2 | |
| **Other** | Moisture (%) | | | 5.2 | 4.2 | 2.0 | 2.4 | 10.8 | 3.4 | 4.7 | 0.9 | 1.2 | 2.3 | 4.3 | 2.1 | 1.1 | 1.8 | 2.3 | 3.1 | 4.6 | 1.8 | 1.1 | 2.2 | |
| | pH | | | 7.9 | 7.9 | 7.8 | 7.8 | 8.0 | 8.0 | 7.9 | 7.9 | 7.9 | 8.0 | 7.9 | 7.9 | 8.0 | 7.9 | 7.9 | 7.9 | 7.8 | 8.0 | 7.9 | 7.8 | |

**Table B-1. Summary of 1994 Soil Analyses for SWMU 6-30, Radioactive Burial 11 (RW-06) (Page 7 of 10)**

| Chemical Class/ Laboratory Method | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential Soil SSL [b] | Borehole Number, Sample Depth Interval (feet), and Date (concentrations in milligrams per kilogram) | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | RB-11-26 | | | | | RB-11-27 | | | | | RB-11-28 | | | | | RB-11-29 | | | | |
| | | | | 3-7 | 8-12 | 13-17 | 18-22 | 28-32 | 3-7 | 8-12 | 13-17 | 18-22 | 28-32 | 3-7 | 8-12 | 13-17 | 18-22 | 28-32 | 3-7 | 8-12 | 13-17 | 18-22 | 28-32 |
| | | | | 7/18/94 | 7/18/94 | 7/18/94 | 7/18/94 | 7/18/94 | 7/18/94 | 7/18/94 | 7/18/94 | 7/18/94 | 7/18/94 | Unknown | Unknown | Unknown | Unknown | Unknown | 7/14/94 | 7/14/94 | 7/14/94 | 7/14/94 | 7/14/94 |
| **VOC**/SW-846 8240 | Acetone | N/A | 28,100 | <0.051 | <0.052 | <0.052 | <0.051 UJ | <0.053 | <0.052 | ND | ND | ND | ND | ND | ND | ND | ND | ND | <0.052 | <0.052 | <0.051 UJ | <0.050 | <0.050 |
| | Ethylbenzene | N/A | 128 | <0.005 | <0.005 | <0.005 | <0.005 | 0.008 | <0.005 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.007 | <0.005 | <0.005 | <0.005 | <0.005 |
| | Methylene Chloride | N/A | 182 | 0.008 | 0.008 | <0.005 | 0.010 J | 0.008 | 0.009 | 0.008 | 0.007 | 0.007 | 0.008 | 0.008 | 0.007 | 0.010 U | 0.007 | 0.010 U | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | Tetrachloroethene(PCE) | N/A | 12.5 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | ND | ND | ND | ND | ND | ND | ND | ND | ND | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | Toluene | N/A | 252 | <0.005 | <0.005 | <0.005 | <0.005 | 0.029 | <0.005 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.030 | <0.005 | <0.005 | <0.005 | <0.005 |
| | 1,1,1-Trichloroethane | N/A | 563 | 0.006 | 0.006 | <0.005 | <0.005 | <0.005 | <0.005 | ND | ND | ND | ND | ND | ND | ND | ND | ND | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | O-Xylene(1,2-Dimethylbenzene) | N/A | 99.5 | <0.005 | <0.005 | <0.005 | <0.005 | 0.008 | <0.005 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.008 | <0.005 | <0.005 | <0.005 | <0.005 |
| | M,P-Xylenes(Sum of Isomers) | N/A | 82.0 | <0.005 | <0.005 | <0.005 | <0.005 | 0.029 | <0.005 | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.027 | <0.005 | <0.005 | <0.005 | <0.005 |
| **SVOC**/SW-846 8270 | Benzo(b)fluoranthene | N/A | 6.21 | <0.34 | <0.34 | <0.34 | <0.33 | <0.35 | <0.34 | ND | ND | ND | ND | ND | ND | ND | ND | ND | <0.34 | <0.34 | <0.33 | <0.33 | <0.33 |
| | Benzo(k)fluoranthene | N/A | 6.21 | <0.34 | <0.34 | <0.34 | <0.33 | <0.35 | <0.34 | ND | ND | ND | ND | ND | ND | ND | ND | ND | <0.34 | <0.34 | <0.33 | <0.33 | <0.33 |
| | Chrysene | N/A | 615 | <0.34 | <0.34 | <0.34 | <0.33 | <0.35 | <0.34 | ND | ND | ND | ND | ND | ND | ND | ND | ND | <0.34 | <0.34 | <0.33 | <0.33 | <0.33 |
| | di-n-Butyl Phthalate | N/A | 6,110 | <0.34 | <0.34 | <0.34 | <0.33 | <0.35 | 0.39 | ND | ND | ND | ND | ND | ND | ND | ND | ND | <0.34 | <0.34 | <0.33 | <0.33 | <0.33 |
| | bis(2-Ethylhexyl)Phthalate | N/A | 347 | <0.34 | <0.34 | <0.34 | <0.33 | 1.00 | <0.34 | ND | ND | ND | 1.80 | ND | ND | ND | 0.50 | 0.48 | <0.34 | <0.34 | <0.33 | <0.33 | <0.33 |
| | Fluoranthene | N/A | 2,290 | <0.34 | <0.34 | <0.34 | <0.33 | <0.35 | <0.34 | ND | ND | ND | ND | ND | ND | ND | ND | ND | <0.34 | <0.34 | <0.33 | <0.33 | <0.33 |
| | Phenanthrene | N/A | 1,830 | <0.34 | <0.34 | <0.34 | <0.33 | <0.35 | <0.34 | ND | ND | ND | ND | ND | ND | ND | ND | ND | <0.34 | <0.34 | <0.33 | <0.33 | <0.33 |
| | Pyrene | N/A | 2,290 | <0.34 | <0.34 | <0.34 | <0.33 | <0.35 | <0.34 | ND | ND | ND | ND | ND | ND | ND | ND | ND | <0.34 | <0.34 | <0.33 | <0.33 | <0.33 |
| **TPH**/SW-846 8015 | Diesel Fraction | N/A | 200 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | ND | ND | ND | ND | ND | ND | ND | ND | ND | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 |
| | Gasoline Fraction | N/A | 200 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | ND | ND | ND | ND | ND | ND | ND | ND | ND | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| **Metals**/SW-846 6010 | Aluminum | N/A | 77,800 | 9,810 | 10,800 | 10,500 | 6,200 | 8,740 | 11,100 | 7,530 | 5,860 | 4,800 | 8,940 | 9,270 | 7,440 | 5,140 | 5,570 | 6,920 | 9,950 | 9,990 | 6,610 | 5,590 | 3,300 |
| | Antimony | 3.9 | 31.3 | *<20.6* | *<20.8* | *<20.7* | *<20.2 R* | *<20.2* | *<20.9* | *<200* | *<200* | *<200* | *<200* | *<200* | *<200* | *<200* | *<200* | *<200* | *<20.5* | *<20.8* | *<20.2* | *<20.2* | *<20.1* |
| | Barium | 200 | 15,600 | *233.0* | 146.0 | 167.0 | 87.9 J | 112.0 | *356.0* | *402.0* | 59.1 | 52.9 | 78.3 | 127.0 | *250.0* | 145.0 | 74.4 | 140.0 | 165.0 | 103.0 | 170.0 | 60.7 | 82.5 |
| | Beryllium | 0.8 | 156 | 0.51 | 0.62 | 0.52 | 0.30 | 0.64 | 0.63 | 0.41 | 0.40 | 0.30 | 0.63 | 0.50 | 0.40 | 0.30 | 0.40 | 0.51 | 0.62 | 0.52 | 0.40 | 0.30 | 0.40 |
| | Cadmium | 0.9 | 39 | *1.00* | 0.62 | 0.83 | 0.61 J | 0.74 | 0.84 | 0.71 | *<5.0* | 0.71 | *<5.0* | 0.81 | 0.81 | 0.61 J | 0.80 | 0.82 J | 0.73 | 0.83 | 0.51 U | <0.50 | 0.80 |
| | Calcium | N/A | N/A | 59,100 | 22,800 | 44,500 | 35,800 | 48,700 | 65,700 | 72,600 | 34,400 | 23,000 | 27,500 | 36,500 | 56,200 | 51,600 | 52,500 | 40,400 | 37,700 | 45,800 | 21,600 | 64,800 | 72,300 |
| | Chromium, Total | 16.2 | 234 | 12.4 | 13.1 | *17.3* | 13.7 | 11.7 | 12.4 | 14.1 | 11.7 | 11.4 | 16.8 | 11.0 | *16.3* | 11.0 | 13.5 | 9.7 | 10.5 | 11.7 | 9.8 J | 9.1 | 6.4 |
| | Cobalt | 9.3 | 1,520 | 7.9 | *9.6* | *10.1* | 7.3 | 8.7 | 7.2 | 8.5 | 8.5 | 7.7 | 8.2 | 6.9 | 8.7 | 6.6 | 7.5 | 5.9 | 8.2 | 7.1 | 7.2 J | 6.6 | 3.3 |
| | Copper | 17 | 3,130 | *57.3* | *582.0* | *156.0* | *281.0* | *145.0* | *31.4* | *36.9* | *78.5* | *83.4* | *70.0* | *106.0* | *129.0* | *168.0* | *181.0* | *77.3* | *36.4* | *40.8* | *52.2 J* | *171.0* | *280.0* |
| | Iron | N/A | 23,500 | 14,200 | 15,500 | 16,500 | 12,200 | 13,000 | 13,800 | 12,500 | 11,800 | 9,490 | 13,300 | 12,800 | 13,600 | 9,290 | 13,800 | 11,600 | 13,200 | 13,100 | 9,860 | 9,320 | 7,760 |
| | Lead | 11.2 | 400 | 9.6 | 10.3 | *73.0* | 5.3 | 6.2 | 7.9 | 5.3 | 5.0 | 5.6 | 7.9 | 9.1 | 6.7 | 6.1 | 6.9 | 6.2 | 8.4 | 5.8 | 8.5 | 7.2 | <5.0 |
| | Magnesium | N/A | N/A | 5,870 | 5,620 | 6,090 | 4,560 | 4,390 | 5,700 | 6,670 | 5,260 | 4,470 | 4,420 | 4,540 | 6,220 | 4,680 | 4,830 | 3,920 | 5,790 | 5,390 | 4,240 | 4,760 | 18,200 |
| | Manganese | N/A | 3,590 | 297 | 397 | 321 | 252 | 250 | 234 | 232 | 265 | 222 | 273 | 254 | 248 | 304 | 244 | 210 | 322 | 220 | 377 | 242 | 475 |
| | Mercury | < 0.1 | 100,000 | <0.08 | <0.09 | <0.09 | <0.10 | <0.10 | <0.08 | *<0.2* | *<0.2* | *0.11* | *<0.2* | *<0.2* | *<0.2* | *<0.2* | *<0.2* | *<0.2* | <0.10 | <0.09 | *0.11* | *0.22* | <0.10 |
| | Molybdenum | N/A | 391 | <5.1 | <5.2 | <5.2 | <5.1 | <5.3 | <5.2 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <50 | <5.2 | <5.2 | <5.1 | <5.1 | <5.0 |
| | Nickel | 21 | 1,560 | *54.6* | *49.5* | *109.0* | *221.0* | *52.5* | 12.4 | *40.0* | *22.7* | *22.3* | *65.9* | *104.0* | *86.1* | *306.0* | *36.6* | *30.3* | 12.7 | 15.7 | *67.9 J* | 12.6 | 14.6 |
| | Potassium | N/A | N/A | 1,910 | 2,980 | 2,220 | 1180 J | 1,760 | 1,790 | 979 | 1,300 | 856 | 1,730 | 280 | 1,510 | 964 | 1,030 | 1,200 | 1,550 | 2,050 | 1740 J | 1,020 | 709 |
| | Selenium | < 1.0 | 391 | *<10.3* | *<10.4* | *<10.4* | *<10.1* | *<10.6* | *<10.5* | *<100* | *<100* | *<100* | *<100* | *<100* | *<100* | *<100* | *<100* | *<100* | *<10.4* | *<10.4* | *<10.1* | *<10.1* | *<10.1* |
| | Sodium | N/A | N/A | 311.0 | 123.0 | 196.0 | 136 J | 344.0 | 519.0 | 379.0 | 263.0 | 226.0 | 407.0 | 101.0 | 345.0 | 314 J | 424.0 | 660.0 | 311.0 | 291.0 | 140.0 | 239.0 | 218.0 |
| | Vanadium | 33 | 78.2 | 30.1 | 29.0 | *34.1* | 22.7 | 28.0 | 28.3 | 30.6 | 20.2 | 16.9 | 25.3 | 25.8 | 30.1 | 19.8 | 24.6 | 22.3 | 26.6 | 28.2 | 17.9 | 19.2 | 15.1 |
| | Zinc | 76 | 23,500 | 48.9 | 54.6 | *81.0* | *118.0* | *78.0* | 38.2 | 35.9 | 53.2 | 48.3 | 52.4 | 64.1 | 67.5 | *79.2 J* | *87.3* | 58.3 | 46.6 | 41.4 | 50.7 | *85.2* | *123.0* |
| **RAD** (pCi/g) | Gross Alpha | 17.4 [c] | N/A | 25 | 22 | 14 | 14 UJ | 14 | 28 | 42 | 28 | 37 | 11 | 13 | 1 | 11 U | 16 | 13 UJ | 22 | 13 | 6.6 UJ | 9.6 | 29 |
| | Gross Beta | 35.4 [c] | N/A | 21 | 27 | 24 | 17 | 22 | 20 | 24 | 35 | 2 | 23 | 24 | 24 | 25 | 14 | 21 | 24 | 21 | 24 J | 17 | 22 |
| | Radium-226 | 1.76 | N/A | 0.8 | 0.7 | 0.5 | 0.5 J | 0.4 | 0.5 | 0.4 | 0.4 | 0.6 | 0.4 | 0.6 | 0.7 | 0.8 J | 0.7 | 0.7 J | 0.6 | 0.9 | 0.7 J | 0.6 | 0.6 |
| | Radium-228 | 1.2 | N/A | 0.4 | 0.4 | 0.3 | 0.5 J | 0.4 | 0.3 | 0.4 | 0.3 | 0.4 | 0.4 | 0.3 | 0.4 | 0.4 J | 0.2 | 0.3 J | 0.4 | 0.4 | 0.3 J | 0.3 | 0.2 |
| **Other** | Moisture (%) | | | 2.9 | 3.9 | 3.5 | 1.2 | 5.7 | 4.5 | 2.0 | 0.6 | 1.4 | 5.2 | 0.9 | 1.0 | 1.0 | 0.5 | 2.6 | 3.7 | 4.0 | 1.2 | 1.0 | 0.6 |
| | pH | | | 7.9 | 7.6 | 7.9 | 7.8 | 7.9 | 7.9 | 7.9 | 7.9 | 7.7 | 7.8 | 7.7 | 8.0 | 8.0 | 7.9 | 7.8 | 8.0 | 8.0 | 7.8 | 7.8 | 8.0 |

**Table B-1. Summary of 1994 Soil Analyses for SWMU 6-30, Radioactive Burial 11 (RW-06) (Page 8 of 10)**

| Chemical Class/ Laboratory Method | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential Soil SSL [b] | Borehole Number, Sample Depth Interval (feet), and Date (concentrations in milligrams per kilogram) | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | RB-11-30 | | | | | RB-11-31 | | | | | RB-11-32 | | | | | RB-11-33 | | | | | |
| | | | | 3-7 | 8-12 | 13-17 | 18-22 | 28-32 | 3-7 | 8-12 | 13-17 | 18-22 | 28-34 | 3-7 | 8-12 | 13-17 | 18-22 | 28-32 | 3-7 | 8-12 | 13-17 | 18-22 | 28-34 |
| | | | | 7/13/94 | 7/13/94 | 7/13/94 | 7/13/94 | 7/13/94 | 7/14/94 | 7/14/94 | 7/14/94 | 7/14/94 | 7/14/94 | 7/19/94 | 7/19/94 | 7/19/94 | 7/19/94 | 7/19/94 | 7/14/94 | 7/14/94 | 7/14/94 | 7/14/94 | 7/14/94 |
| **VOC**/SW-846 8240 | Acetone | N/A | 28,100 | <0.052 | <0.051 | <0.051 | <0.050 | <0.051 | <0.052 | <0.051 | <0.050 | <0.050 | <0.051 | <0.051 | <0.051 | <0.050 UJ | <0.050 | <0.051 | <0.050 | <0.052 | <0.051 | <0.051 | <0.051 |
| | Ethylbenzene | N/A | 128 | 0.011 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.011 | <0.005 | <0.005 |
| | Methylene Chloride | N/A | 182 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.009 | <0.005 | <0.005 UJ | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | Tetrachloroethene(PCE) | N/A | 12.5 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.170 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | Toluene | N/A | 252 | 0.045 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.035 | <0.005 | <0.005 |
| | 1,1,1-Trichloroethane | N/A | 563 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 |
| | O-Xylene(1,2-Dimethylbenzene) | N/A | 99.5 | 0.011 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.010 | <0.005 | <0.005 |
| | M,P-Xylenes(Sum of Isomers) | N/A | 82.0 | 0.040 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.038 | <0.005 | <0.005 |
| **SVOC**/SW-846 8270 | Benzo(b)fluoranthene | N/A | 6.21 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 |
| | Benzo(k)fluoranthene | N/A | 6.21 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 |
| | Chrysene | N/A | 615 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 |
| | di-n-Butyl Phthalate | N/A | 6,110 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 | <0.34 | 0.34 | <0.34 | <0.33 | <0.33 | 0.36 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 |
| | bis(2-Ethylhexyl)Phthalate | N/A | 347 | <0.34 | <0.34 | <0.34 | <0.33 | 10.00 | <0.34 | <0.34 | <0.33 | <0.33 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 |
| | Fluoranthene | N/A | 2,290 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 |
| | Phenanthrene | N/A | 1,830 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 |
| | Pyrene | N/A | 2,290 | <0.34 | <0.34 | <0.34 | <0.33 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.33 | <0.33 |
| **TPH**/SW-846 8015 | Diesel Fraction | N/A | 200 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | 8.4 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 |
| | Gasoline Fraction | N/A | 200 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 |
| **Metals**/SW-846 6010 | Aluminum | N/A | 77,800 | 10,000 | 7,170 | 6,380 | 3,990 | 5,510 | 12,300 | 7,730 | 5,460 | 3,990 | 3,270 | 8,130 | 6,450 | 4,440 | 7,520 | 4,860 | 5,470 | 7,180 | 6,180 | 5,390 | 4,730 |
| | Antimony | 3.9 | 31.3 | *<20.9* | *<20.3* | *<20.3* | *<20.1* | *<20.3* | *<20.9* | *<20.5* | *<20.1* | *<20.1* | *<20.6* | *<20.5* | *<20.4* | *<20.1 UJ* | *<20.2* | *<20.4* | *<20.6* | *<20.9* | *<20.7* | *<20.3* | *<20.2* |
| | Barium | 200 | 15,600 | *203.0* | 143.0 | 129.0 | 46.4 | 78.2 | *257.0* | 106.0 | 91.2 | 27.6 | 102.0 | 121.0 | *241.0* | 43.2 | 84.5 | 142.0 | *243.0* | *231.0* | 131.0 | 61.0 | 83.0 |
| | Beryllium | 0.8 | 156 | 0.73 | 0.51 | 0.61 | 0.30 | 0.30 | 0.73 | 0.51 | 0.30 | 0.30 | <0.31 | 0.51 | 0.41 | 0.30 | 0.50 | 0.41 | 0.31 | 0.42 | 0.41 | 0.30 | 0.40 |
| | Cadmium | 0.9 | 39 | <0.52 | <0.51 | *2.00* | 0.81 | *0.91* | 0.73 | <0.51 | <0.50 | 0.60 | *0.93* | 0.73 | <0.51 | <0.50 | 0.81 | <0.51 | *0.92* | 0.73 | 0.62 | 0.71 | <0.51 |
| | Calcium | N/A | N/A | 47,100 | 29,700 | 37,600 | 39,000 | 39,500 | 54,100 | 44,800 | 25,400 | 30,700 | 145,000 | 24,000 | 38,300 | 32,800 | 32,300 | 25,000 | 73,700 | 69,000 | 33,100 | 29,900 | 27,000 |
| | Chromium, Total | 16.2 | 234 | 12.3 | 11.3 | **1130** | 9.3 | *23.7* | 12.9 | *33.7* | 9.7 | 5.7 | *16.4* | 9.8 | 11.8 | 9.4 U | 13.5 | 7.1 | 6.7 | 12.7 | 9.5 | 11.5 | 9.5 |
| | Cobalt | 9.3 | 1,520 | 8.6 | 7.7 | 8.9 | 4.9 | 7.4 | 7.9 | 6.4 | 6.5 | 4.8 | 2.4 | 8.1 | 7.5 | 5.5 | 8.7 | 5.7 | 4.4 | 6.7 | 5.8 | 7.6 | 5.1 |
| | Copper | 17 | 3,130 | *49.3* | *33.8* | *139.0* | *125.0* | *168.0* | *90.7* | *76.2* | 1.1 | *129.0* | *69.5* | *60.8* | *43.4* | *155.0* | *51.6* | *171.0* | *69.2* | *24.6* | *68.8* | *145.0* | *35.1* |
| | Iron | N/A | 23,500 | 14,300 | 11,700 | **45,300** | 7,320 | 9,550 | 13,500 | 12,000 | 9,730 | 7,390 | 5,990 | 12,100 | 10,000 | 9,700 | 13,800 | 9,960 | 7,930 | 10,800 | 10,200 | 10,100 | 8,610 |
| | Lead | 11.2 | 400 | 7.2 | 7.8 | 7.4 | 5.7 | <5.1 | 8.0 | 7.5 | 6.6 | 5.2 | <5.1 | 8.6 | 7.2 | <5.0 | <5.0 | 5.4 | 5.7 | 6.4 | 8.2 | 5.1 | <5.1 |
| | Magnesium | N/A | N/A | 4,840 | 4,550 | 4,650 | 3,500 | 4,550 | 6,300 | 5,820 | 5,040 | 3,600 | 3,250 | 4,810 | 4,960 | 3,870 | 5,450 | 3,130 | 4,920 | 6,490 | 5,430 | 5,140 | 3,250 |
| | Manganese | N/A | 3,590 | 325 | 318 | 516 | 216 | 304 | 276 | 265 | 246 | 197 | 379 | 279 | 240 | 229 | 297 | 210 | 170 | 228 | 246 | 259 | 198 |
| | Mercury | < 0.1 | 100,000 | <0.08 | *0.17* | 0.10 | *0.11* | <0.10 | <0.10 | 0.10 | 0.10 | *0.42* | <0.08 | *0.17* | <0.09 | <0.09 | <0.10 | <0.10 | <0.09 | *0.21* | <0.10 | <0.10 | <0.09 |
| | Molybdenum | N/A | 391 | <5.2 | <5.1 | **429** | <5.0 | <5.1 | <5.2 | 6.6 | <5.0 | <5.0 | <5.1 | <5.1 | <5.1 | <5.0 | <5.0 | <5.1 | <5.1 | <5.2 | <5.2 | <5.1 | <5.1 |
| | Nickel | 21 | 1,560 | 12.0 | *109.0* | *232.0* | *94.0* | *32.0* | 14.8 | *25.3* | 14.8 | 9.7 | *131.0* | 20.1 | *29.4* | 15 J | 16.3 | *26.3* | 6.9 | 12.8 | 11.1 | 14.9 | 20.7 |
| | Potassium | N/A | N/A | 1,860 | 2,190 | 1,430 | 706 | 907 | 2,040 | 96 | 931 | 602 | 595 | 2,150 | 1,570 | 768 J | 1,510 | 821 | 834 | 1,240 | 940 | 842 | 835 |
| | Selenium | < 1.0 | 391 | *<10.4* | *<10.2* | *<10.2* | *<10.1* | *<10.2* | *<10.4* | *<10.3* | *<10.1* | *<10.1* | *<10.3* | *<10.3* | *<10.2* | *<10.1* | *<10.1* | *<10.2* | *<10.3* | *<10.5* | *<10.3* | *<10.1* | *<10.1* |
| | Sodium | N/A | N/A | 99.7 | 85.3 | 166.0 | 170.0 | 338.0 | 425.0 | 527.0 | 367.0 | 228.0 | 296.0 | 457.0 | 473.0 | 326 U | 654.0 | 509.0 | 172.0 | 391.0 | 1358.0 | 212.0 | 205.0 |
| | Vanadium | 33 | 78.2 | 27.0 | 22.6 | **100** | 14.3 | 19.5 | 26.7 | 25.5 | 18.1 | 13.5 | 12.6 | 24.8 | 21.6 | 18.2 | 28.9 | 21.3 | 19.2 | 28.1 | 19.3 | 19.7 | 18.1 |
| | Zinc | 76 | 23,500 | 45.5 | 40.3 | 68.8 | 63.1 | *78.2* | 65.0 | 54.4 | 52.2 | 63.2 | 37.1 | 45.2 | 40.4 | 69.6 J | 53.0 | *81.5* | 47.0 | 37.6 | 51.3 | *77.3* | 30.6 |
| **RAD** (pCi/g) | Gross Alpha | 17.4 [c] | N/A | 14 | 27 | 25 | 20 | 17 | 21 | 16 | 19 | 13 | 22 | 25 | 26 | 21 J | 16 | 16 | 18 | 34 | 10 | 7.7 | 18 |
| | Gross Beta | 35.4 [c] | N/A | 28 | 27 | 25 | 25 | 27 | 26 | 18 | 30 | 22 | 24 | 21 | 19 | 19 | 26 | 17 | 26 | 21 | 15 | 18 | 20 |
| | Radium-226 | 1.76 | N/A | 0.6 | 0.7 | 0.6 | 0.6 | 0.5 | 0.6 | 0.9 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.8 J | 0.7 | 0.6 | 0.4 | 0.5 | 0.6 | 0.7 | 0.6 |
| | Radium-228 | 1.2 | N/A | 0.4 | 0.4 | 0.5 | 0.4 | 0.2 | 0.2 | 0.4 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 J | 0.4 | 0.3 | 0.4 | 0.4 | ND | 0.5 | <0.2 |
| **Other** | Moisture (%) | | | 4.2 | 1.5 | 1.6 | 0.7 | 1.5 | 4.1 | 2.6 | 0.7 | 0.7 | 2.8 | 2.6 | 1.9 | 0.5 | 0.9 | 1.8 | 2.7 | 4.5 | 3.2 | 1.4 | 1.2 |
| | pH | | | 7.7 | 7.7 | 7.8 | 8.1 | 8.0 | 7.9 | 8.0 | 7.8 | 7.9 | 8.3 | 8.0 | 8.0 | 8.1 | 8.0 | 7.9 | 8.0 | 8.0 | 8.0 | 8.0 | 7.9 |

**Table B-1. Summary of 1994 Soil Analyses for SWMU 6-30, Radioactive Burial 11 (RW-06) (Page 9 of 10)**

| Chemical Class/ Laboratory Method | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential Soil SSL [b] | Borehole Number, Sample Depth Interval (feet), and Date (concentrations in milligrams per kilogram) | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | RB-11-34 | | | | RB-11-35 | | | | | RB-11-36 | | | | | RB-11-83 | RB-11-84 | RB-11-85 | RB-11-86 | RB-11-87 | RB-11-88 |
| | | | | 3-7 | 8-12 | 13-17 | 18-22 | 3-7 | 8-12 | 13-17 | 18-22 | 28-34 | 3-7 | 8-12 | 13-17 | 18-22 | 28-32 | 0-1 | 3-7 | 3-7 | 3-7 | 3-7 | 3-7 |
| | | | | 7/14/94 | 7/14/94 | 7/14/94 | 7/14/94 | 7/14/94 | 7/14/94 | 7/14/94 | 7/14/94 | 7/18/94 | 7/14/94 | 7/14/94 | 7/14/94 | 7/14/94 | 7/14/94 | Unknown | 7/19/94 | 7/19/94 | 7/18/94 | Unknown | 7/14/94 |
| **VOC**/SW-846 8240 | Acetone | N/A | 28,100 | <0.052 | <0.050 | <0.050 | <0.051 | <0.050 | <0.051 | <0.051 | <0.050 | <0.051 | <0.052 | <0.052 UJ | <0.052 | <0.051 | <0.050 | ND | <0.053 | <0.051 | <0.052 | ND | <0.051 |
| | Ethylbenzene | N/A | 128 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.008 | <0.005 | <0.005 | <0.005 | ND | <0.005 |
| | Methylene Chloride | N/A | 182 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.016 | 0.013 | <0.005 | 0.008 | <0.005 | 0.017 U | <0.005 | <0.005 | <0.005 | 0.020 | <0.005 | 0.008 | 0.007 | 0.011 | <0.005 |
| | Tetrachloroethene(PCE) | N/A | 12.5 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | ND | <0.005 | <0.005 | <0.005 | ND | <0.005 |
| | Toluene | N/A | 252 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.026 | <0.005 | <0.005 | <0.005 | ND | <0.005 |
| | 1,1,1-Trichloroethane | N/A | 563 | <0.005 | <0.005 | <0.005 | <0.005 | 0.007 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | ND | <0.005 | <0.005 | 0.006 | 0.007 | <0.005 |
| | O-Xylene(1,2-Dimethylbenzene) | N/A | 99.5 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | ND | <0.005 | <0.005 | <0.005 | ND | <0.005 |
| | M,P-Xylenes(Sum of Isomers) | N/A | 82.0 | <0.005 | <0.005 | 0.008 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.005 | <0.005 | <0.005 | <0.005 | ND | <0.005 |
| **SVOC**/SW-846 8270 | Benzo(b)fluoranthene | N/A | 6.21 | <0.34 | <0.33 | <0.33 | <0.34 | <0.33 | <0.34 | <0.34 | <0.33 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | ND | <0.35 | <0.34 | <0.34 | ND | <0.34 |
| | Benzo(k)fluoranthene | N/A | 6.21 | <0.34 | <0.33 | <0.33 | <0.34 | <0.33 | <0.34 | <0.34 | <0.33 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | ND | <0.35 | <0.34 | <0.34 | ND | <0.34 |
| | Chrysene | N/A | 615 | <0.34 | <0.33 | <0.33 | <0.34 | <0.33 | <0.34 | <0.34 | <0.33 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | ND | <0.35 | <0.34 | <0.34 | ND | <0.34 |
| | di-n-Butyl Phthalate | N/A | 6,110 | 0.45 | 0.36 | <0.33 | <0.34 | <0.33 | <0.34 | <0.34 | 0.36 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | ND | 0.35 | <0.34 | <0.34 | 0.36 | <0.34 |
| | bis(2-Ethylhexyl)Phthalate | N/A | 347 | <0.34 | 0.46 | 0.37 | 1.20 | <0.33 | <0.34 | <0.34 | 1.80 | <0.33 | <0.34 | <0.34 | <0.34 | 0.38 | 1.10 | ND | 0.67 | <0.34 | <0.34 | ND | <0.34 |
| | Fluoranthene | N/A | 2,290 | <0.34 | <0.33 | <0.33 | <0.34 | <0.33 | <0.34 | <0.34 | <0.33 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | ND | <0.35 | <0.34 | <0.34 | ND | <0.34 |
| | Phenanthrene | N/A | 1,830 | <0.34 | <0.33 | <0.33 | <0.34 | <0.33 | <0.34 | <0.34 | <0.33 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | ND | <0.35 | <0.34 | <0.34 | ND | <0.34 |
| | Pyrene | N/A | 2,290 | <0.34 | <0.33 | <0.33 | <0.34 | <0.33 | <0.34 | <0.34 | <0.33 | <0.33 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | ND | <0.35 | <0.34 | <0.34 | ND | <0.34 |
| **TPH**/SW-846 8015 | Diesel Fraction | N/A | 200 | <4.0 | <4.0 | <4.0 | <4.0 | 10.8 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | 12.755 | 14.44 | ND | <4.0 | <4.0 | <4.0 | ND | 8.247 |
| | Gasoline Fraction | N/A | 200 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | ND | <0.2 | <0.2 | <0.2 | ND | <0.2 |
| **Metals**/SW-846 6010 | Aluminum | N/A | 77,800 | 9,240 | 6,560 | 7,880 | 8,000 | 4,160 | 8,040 | 7,290 | 5,590 | 4,460 | 7,590 | 5,580 | 5,480 | 4,750 | 5,670 | 7,490 | 10,800 | 5,920 | 8,070 | 11,200 | 6,530 |
| | Antimony | 3.9 | 31.3 | *<20.7* | *<20.1* | *<20.2* | *<20.3* | *<20.2* | *<20.5* | *21.1* | *<20.1* | *<20.2* | *<20.6* | *<20.8 UJ* | *<20.9* | *<20.3* | *<20.2* | *<200* | *<21.1* | *<20.5* | *<20.7* | *<200* | *<20.5* |
| | Barium | 200 | 15,600 | 192.0 | 91.0 | 88.2 | 115.0 | 125.0 | 128.0 | 116.0 | 49.9 | 88.3 | 133.0 | 92.9 | 127.0 | 65.7 | 62.4 | 89.0 | 109.0 | 122.0 | 186.0 | *308.0* | 118.0 |
| | Beryllium | 0.8 | 156 | 0.62 | 0.40 | 0.40 | 0.41 | 0.30 | 0.51 | 0.41 | 0.30 | 0.40 | 0.41 | 0.31 | 0.31 | <0.31 | 0.30 | 0.40 | 0.74 | 0.41 | 0.41 | 0.62 | 0.41 |
| | Cadmium | 0.9 | 39 | <0.52 | <0.50 | <0.51 | <0.51 | <0.50 | 0.51 | <0.51 | <0.50 | 0.51 | <0.52 | <0.52 UJ | <0.52 | 0.71 | *1.20* | *<5.0* | <0.53 | <0.51 | 0.52 | 0.73 | <0.51 |
| | Calcium | N/A | N/A | 19,000 | 47,400 | 22,100 | 31,500 | 48,700 | 35,100 | 26,200 | 40,000 | 24,800 | 36,100 | 42,500 | 26,400 | 63,700 | 46,900 | 13,500 | 20,600 | 29,800 | 42,400 | 54,700 | 29,400 |
| | Chromium, Total | 16.2 | 234 | 12.2 | *18.2* | *48.9* | 15.9 | 5.9 | 14.8 | 14.7 | 14.3 | 8.1 | 9.5 | 10.4 | 10.6 | 11.4 | *18.2* | 8.4 | 10.2 | 11.1 | 9.7 | 14.2 | *50.7* |
| | Cobalt | 9.3 | 1,520 | 7.3 | 6.2 | *10.1* | *9.5* | 4.0 | 6.1 | 8.6 | 8.0 | 6.3 | 6.5 | 8.6 | 6.8 | 5.7 | 6.4 | 7.2 | 8.0 | 5.0 | 6.8 | 9.0 | 5.6 |
| | Copper | 17 | 3,130 | *69.7* | *102.0* | *109.0* | *259.0* | *127.0* | *191.0* | *56.2* | *190.0* | *157.0* | *32.9* | *105.0* | *50.9* | *92.8* | *301.0* | 12.2 | *71.5* | *44.8* | *22.2* | *98.0* | *53.6* |
| | Iron | N/A | 23,500 | 14,900 | 12,400 | 17,400 | 13,700 | 7,900 | 13,000 | 13,800 | 12,400 | 10,400 | 11,300 | 11,600 | 11,500 | 9,160 | 11,300 | 10,400 | 13,600 | 9,950 | 12,100 | 15,300 | 13,200 |
| | Lead | 11.2 | 400 | 9.1 | 5.8 | <5.1 | <5.1 | 6.8 | 7.6 | 7.8 | <5.0 | 5.2 | 6.9 | 5.3 | <5.2 | 5.3 | 5.1 | 9.2 | 9.6 | 8.7 | <5.2 | 11.0 | 6.1 |
| | Magnesium | N/A | N/A | 4,980 | 4,770 | 6,930 | 5,850 | 3,430 | 4,890 | 6,160 | 4,690 | 3,300 | 4,330 | 5,280 | 4,290 | 3,830 | 3,940 | 3,930 | 5,350 | 4,200 | 5,600 | 7,200 | 5,270 |
| | Manganese | N/A | 3,590 | 372 | 234 | 328 | 278 | 181 | 263 | 296 | 240 | 235 | 283 | 279 | 220 | 194 | 234 | 276 | 334 | 253 | 225 | 309 | 264 |
| | Mercury | < 0.1 | 100,000 | <0.09 | <0.10 | <0.10 | <0.10 | <0.07 | <0.06 | <0.09 | <0.07 | *0.51* | <0.09 | <0.10 | <0.08 | <0.09 | *<0.11* | *<0.2* | *<0.11* | <0.09 | <0.10 | *<0.2* | <0.07 |
| | Molybdenum | N/A | 391 | <5.2 | <5.0 | 7.5 | <5.1 | <5.0 | <5.1 | <5.1 | <5.0 | <5.1 | <5.2 | <5.2 | <5.2 | <5.1 | <5.1 | <50 | <5.3 | <5.1 | <5.2 | <50 | 12.6 |
| | Nickel | 21 | 1,560 | 16.9 | *27.3* | *31.4* | *35.1* | 8.1 | *86.6* | *23.3* | *25.7* | 9.5 | *73.8* | 11 J | 10.8 | 18.1 | *483.0* | 9.2 | 20.3 | *203.0* | 12.3 | *65.1* | 11.9 J |
| | Potassium | N/A | N/A | 2,300 | 1,050 | 1,520 | 1,410 | 577 | 1,400 | 977 | 993 | 978 | 2,480 | 791 J | 730 | 714 | 1,000 | 2,630 | 1,910 | 1,500 | 1,160 | 2,560 | 897 J |
| | Selenium | < 1.0 | 391 | *<10.3* | *<10.1* | *<10.1* | *<10.2* | *<10.1* | *<10.3* | *<10.3* | *<10.1* | *<10.1* | *<10.3* | *<10.4* | *<10.4* | *<10.2* | *<10.1* | *<100* | *<10.5* | *<10.3* | *<10.3* | *<100* | *<10.3* |
| | Sodium | N/A | N/A | 370.0 | 313.0 | 331.0 | 347.0 | 71.9 | 125.0 | 338.0 | 369.0 | 309.0 | 322.0 | 268 J | 258.0 | 187.0 | 220.0 | 53.3 | 821.0 | 547.0 | 482.0 | 292.0 | 136 J |
| | Vanadium | 33 | 78.2 | 27.7 | 24.3 | 31.6 | 25.2 | 16.8 | 25.6 | 25.3 | 24.1 | 19.7 | 20.8 | 22.5 J | 20.7 | 18.7 | 20.7 | 19.2 | 25.2 | 19.6 | 27.1 | 32.1 | 27.6 |
| | Zinc | 76 | 23,500 | 68.8 | 59.0 | 68.4 | *119.0* | 61.7 | *83.9* | 47.9 | *869.0* | 72.8 | 41.6 | 57.5 J | 43.5 | 50.3 | *118.0* | 41.0 | 54.1 | 41.2 | 33.0 | 61.5 | 42.0 J |
| **RAD** (pCi/g) | Gross Alpha | 17.4 [c] | N/A | 16 | 22 | 21 | 15 | 14 | 13 | 26 | 54 | 19 | 16 | 18 UJ | 29 | 24 | 23 | 22 | 19 | 29 | 16 | 23 | 19 UJ |
| | Gross Beta | 35.4 [c] | N/A | 24 | 26 | 23 | 25 | 22 | 24 | 24 | 49 | 17 | 31 | 24 J | 32 | 29 | 30 | 24 | 26 | 26 | 27 | 27 | 28 J |
| | Radium-226 | 1.76 | N/A | 0.6 | 0.5 | 0.6 | 0.4 | 0.6 | 0.7 | 0.6 | 0.6 | 0.4 | 0.4 | 0.4 J | 0.5 | 0.5 | 0.5 | 0.8 | 0.6 | 0.8 | 0.7 | 0.4 | 0.9 J |
| | Radium-228 | 1.2 | N/A | 0.4 | 0.7 | 0.5 | 0.3 | 0.3 | 0.5 | 0.6 | 0.2 | 0.4 | 0.8 | 0.4 J | 0.3 | 0.4 | 0.4 | 0.5 | 0.3 | 0.3 | 0.5 | 0.4 | 0.6 J |
| **Other** | Moisture (%) | | | 3.3 | 0.6 | 1.1 | 1.7 | 0.8 | 2.5 | 2.8 | 0.7 | 1.2 | 3.1 | 3.7 | 4.2 | 1.7 | 1.1 | 0.3 | 5.1 | 2.5 | 3.3 | 3.7 | 2.6 |
| | pH | | | 7.5 | 7.9 | 7.9 | 7.8 | 7.9 | 7.6 | 7.8 | 7.8 | 8.0 | 7.6 | 7.8 | 7.8 | 8.0 | 7.9 | 7.6 | 7.8 | 8.0 | 7.8 | 7.7 | 7.9 |

**Table B-1. Summary of 1994 Soil Analyses for SWMU 6-30, Radioactive Burial 11 (RW-06) (Page 10 of 10)**

| Chemical Class/ Laboratory Method | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential Soil SSL [b] | Borehole Number, Sample Depth Interval (feet), and Date (concentrations in milligrams per kilogram) | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | RB-11-89 | RB-11-90 | RB-11-91 | RB-11-92 | RB-11-93 | RB-11-94 | RB-11-95 | RB-11-96 | RB-11-97 | RB-11-98 | RB-11-99 | RB-11-S1 | RB-11-S2 | RB-11-S3 | RB-11-S4 | RB-11-S5 | RB-11-S6 |
| | | | | 3-7 | 3-7 | 3-7 | 3-7 | 3-7 | 3-7 | 3-7 | 3-7 | 3-7 | 3-7 | 3-7 | 0-1 | 0-1 | 0-1 | 0-1 | 0-1 | 0-1 |
| | | | | 7/14/94 | 7/14/94 | 7/14/94 | 7/14/94 | 7/13/94 | 7/13/94 | 7/13/94 | 7/12/94 | 7/12/94 | 7/8/94 | 7/7/94 | Unknown | Unknown | Unknown | Unknown | Unknown | Unknown |
| **VOC**/SW-846 8240 | Acetone | N/A | 28,100 | <0.052 | <0.052 | <0.052 | <0.052 | <0.052 UJ | <0.052 | <0.052 | <0.051 | <0.051 | <0.053 | <0.051 | ND | ND | ND | ND | ND | ND |
| | Ethylbenzene | N/A | 128 | <0.005 | <0.005 | <0.005 | 0.013 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.019 | <0.005 | 0.005 | 0.012 | ND | 0.008 | ND | ND |
| | Methylene Chloride | N/A | 182 | <0.005 | 0.006 | <0.005 | <0.005 | <0.005 | 0.006 | <0.005 | 0.006 | <0.005 | <0.005 | <0.005 | 0.027 | 0.064 | 0.006 | 0.033 | 0.019 | 0.031 |
| | Tetrachloroethene(PCE) | N/A | 12.5 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | ND | ND | ND | ND | ND | ND |
| | Toluene | N/A | 252 | <0.005 | <0.005 | <0.005 | 0.052 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.079 | <0.005 | 0.022 | 0.053 | 0.007 | 0.075 | 0.019 | 0.024 |
| | 1,1,1-Trichloroethane | N/A | 563 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | ND | 0.008 | ND | 0.006 | ND | 0.005 |
| | O-Xylene(1,2-Dimethylbenzene) | N/A | 99.5 | <0.005 | <0.005 | <0.005 | 0.014 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | 0.022 | <0.005 | ND | ND | ND | ND | ND | ND |
| | M,P-Xylenes(Sum of Isomers) | N/A | 82.0 | <0.005 | <0.005 | <0.005 | 0.043 | <0.005 | <0.005 | <0.005 | 0.006 | <0.005 | 0.076 | <0.005 | ND | 0.008 | ND | 0.005 | ND | ND |
| **SVOC**/SW-846 8270 | Benzo(b)fluoranthene | N/A | 6.21 | <0.34 | <0.34 | <0.34 | <0.35 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.35 | <0.34 | ND | 1.40 | ND | ND | ND | ND |
| | Benzo(k)fluoranthene | N/A | 6.21 | <0.34 | <0.34 | <0.34 | <0.35 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.35 | <0.34 | ND | 1.10 | ND | ND | ND | ND |
| | Chrysene | N/A | 615 | <0.34 | <0.34 | <0.34 | <0.35 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.35 | <0.34 | ND | 1.80 | ND | ND | ND | ND |
| | di-n-Butyl Phthalate | N/A | 6,110 | 0.47 | <0.34 | <0.34 | <0.35 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.35 | <0.34 | ND | ND | ND | 0.35 | ND | ND |
| | bis(2-Ethylhexyl)Phthalate | N/A | 347 | <0.34 | <0.34 | <0.34 | <0.35 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.35 | <0.34 | ND | ND | ND | ND | ND | ND |
| | Fluoranthene | N/A | 2,290 | <0.34 | <0.34 | <0.34 | <0.35 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.35 | <0.34 | ND | 1.40 | ND | ND | ND | ND |
| | Phenanthrene | N/A | 1,830 | <0.34 | <0.34 | <0.34 | <0.35 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.35 | <0.34 | ND | 0.42 | ND | ND | ND | ND |
| | Pyrene | N/A | 2,290 | <0.34 | <0.34 | <0.34 | <0.35 | <0.34 | <0.34 | <0.34 | <0.34 | <0.34 | <0.35 | <0.34 | ND | 1.40 | ND | ND | ND | ND |
| **TPH**/SW-846 8015 | Diesel Fraction | N/A | 200 | <4.0 | <4.0 | <4.0 | <4.0 | <4.0 | 10.4 | <4.0 | <4.0 | 10.8 | <4.0 | <4.0 | 16.1 | 16.5 | 11.8 | 9.4 | 6.1 | ND |
| | Gasoline Fraction | N/A | 200 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | ND | 0.230 | ND | 0.290 | ND | ND |
| **Metals**/SW-846 6010 | Aluminum | N/A | 77,800 | 6,890 | 6,880 | 10,100 | 10,200 | 11,500 | 7,590 | 6,210 | 6,000 | 6,440 | 8,370 | 5,850 | 13,400 | 10,600 | 12,600 | 10,300 | 9,670 | 11,700 |
| | Antimony | 3.9 | 31.3 | *<20.6* | *<20.7* | *<20.7* | *<21.0* | *<20.9* | *<20.8* | *<20.7* | *<20.5* | *<20.5* | *<21.2* | *<20.6* | *<200* | *<200* | *<200* | *<200* | *<200* | *<200* |
| | Barium | 200 | 15,600 | *282.0* | 117.0 | 121.0 | 162.0 | *226 J* | *583.0* | 137.0 | 193.0 | 171.0 | *485.0* | 111.0 | 147.0 | 127.0 | 112.0 | 124.0 | 101.0 | 161.0 |
| | Beryllium | 0.8 | 156 | 0.41 | 0.41 | 0.52 | 0.63 | 0.73 J | 0.62 | 0.41 | 0.41 | 0.51 | 0.53 | 0.51 | 0.70 | 0.50 | 0.60 | 0.50 | 0.50 | 0.60 |
| | Cadmium | 0.9 | 39 | 0.62 J | 0.62 | 0.62 | 0.53 | <0.52 | <0.52 | <0.52 | <0.51 | <0.51 | 0.53 | <0.51 | *1.10* | *1.10* | 0.50 | 0.90 | 0.70 | 0.60 |
| | Calcium | N/A | N/A | 41,400 | 34,300 | 53,400 | 22,200 | 45,700 | 93,500 | 30,600 | 35,900 | 22,200 | 72,800 | 31,200 | 15,100 | 16,700 | 10,600 | 21,100 | 16,900 | 9,320 |
| | Chromium, Total | 16.2 | 234 | 9.7 | 9.7 | 10.3 | 15.1 | 14.0 | 9.1 | 7.4 | 9.1 | 9.3 | 9.5 | 7.4 | 12.1 | 13.3 | 14.0 | 11.3 | 10.8 | 13.6 |
| | Cobalt | 9.3 | 1,520 | 6.1 | 5.9 | 7.7 | 8.9 | 9.0 J | 6.3 | 6.1 | 6.1 | 7.2 | 7.2 | 6.2 | *9.8* | 8.2 | 8.3 | *9.5* | 9.0 | 9.2 |
| | Copper | 17 | 3,130 | *54.4* | *19.4* | *28.1* | *35.3* | *26.8 J* | *37.9* | *31.9* | *45.1* | *37.6* | 16.0 | *21.1* | *24.4* | *24.7* | *17.9* | 16.5 | 13.1 | 16.1 |
| | Iron | N/A | 23,500 | 11,300 | 11,300 | 12,400 | 15,100 | 15,600 | 11,300 | 10,900 | 10,900 | 11,900 | 12,600 | 11,500 | 15,900 | 12,900 | 15,900 | 14,600 | 13,400 | 16,400 |
| | Lead | 11.2 | 400 | 7.9 | 9.8 | 8.2 | 9.3 | 9.4 | <5.2 | 9.1 | <5.1 | 7.8 | <5.3 | 7.3 | *18.3* | *130.0* | *16.1* | 11.2 | 7.9 | *13.6* |
| | Magnesium | N/A | N/A | 6,280 | 5,780 | 5,610 | 6,490 | 5,770 | 6,310 | 5,290 | 4,980 | 5,050 | 9,040 | 5,320 | 5,950 | 4,980 | 5,100 | 4,730 | 4,520 | 5,070 |
| | Manganese | N/A | 3,590 | 227 | 265 | 288 | 321 | 376 | 194 | 263 | 207 | 274 | 246 | 285 | 440 | 361 | 347 | 308 | 343 | 361 |
| | Mercury | < 0.1 | 100,000 | <0.09 | <0.09 | <0.09 | <0.10 | <0.08 | <0.10 | <0.10 | <0.09 | <0.10 | <0.10 | <0.10 | *<0.2* | *<0.2* | *<0.2* | *<0.2* | *<0.2* | *<0.2* |
| | Molybdenum | N/A | 391 | <5.2 | <5.2 | <5.2 | <5.3 | <5.2 | <5.2 | <5.2 | <5.1 | <5.1 | <5.3 | <5.1 | <50 | <50 | <50 | <50 | <50 | <50 |
| | Nickel | 21 | 1,560 | 19.7 J | 11.4 | 10.6 | 17.2 | 11.5 | 8.2 | 14.5 | 12.2 | 11.2 | 12.4 | 13.4 | 12.8 | 10.9 | 12.2 | 11.6 | 11.0 | 12.1 |
| | Potassium | N/A | N/A | 1130 J | 1,100 | 1,700 | 1,760 | 2030 J | 1,000 | 986 | 1,120 | 1,210 | 1,060 | 1,370 | 4,190 | 3,680 | 4,120 | 3,350 | 2,990 | 3,620 |
| | Selenium | < 1.0 | 391 | *<10.3* | *<10.4* | *<10.4* | *<10.5* | *<10.5* | *<10.4* | *<10.3* | *<10.3* | *<10.3* | *<10.6* | *<10.3* | *<100* | *<100* | *<100* | *11.1* | *<100* | *<100* |
| | Sodium | N/A | N/A | 422 J | 844.0 | 278.0 | 1050.0 | 143 J | 286.0 | 488.0 | 187.0 | 617.0 | 600.0 | 406.0 | 96.2 | 87.7 | 84.1 | 72.6 | 72.3 | 61.0 |
| | Vanadium | 33 | 78.2 | 27.6 J | *35.1* | 27.2 | 27.8 | 29.3 J | 30.7 | 31.9 | 24.1 | 35.2 | *33.4* | 28.6 | 28.4 | 23.0 | 29.7 | 28.1 | 27.7 | 28.4 |
| | Zinc | 76 | 23,500 | 15.0 J | 34.2 | 41.0 | 45.3 | 43.1 J | 36.7 | 39.5 | 35.8 | 41.4 | 34.5 | 39.5 | 68.9 | 70.8 | 46.0 | 39.6 | 38.0 | 47.2 |
| **RAD** (pCi/g) | Gross Alpha | 17.4 [c] | N/A | 15 J | 14 | 32 | 24 | 13 J | 19 | 17 | 27 | 21 | 21 | 26 | 40 | 21 | 16 | 12 | 17 | 18 |
| | Gross Beta | 35.4 [c] | N/A | 23 J | 17 | 24 | 22 | 19 UJ | 20 | 20 | 22 | 23 | 26 | 28 | 30 | 24 | 26 | 22 | 28 | 34 |
| | Radium-226 | 1.76 | N/A | 0.8 J | 1.0 | 1.0 | 0.4 | 0.6 J | 0.5 | 0.8 | 0.4 | 0.6 | 0.9 | 0.4 | 0.8 | 0.6 | 0.9 | 0.5 | 0.7 | 0.6 |
| | Radium-228 | 1.2 | N/A | 0.3 J | 0.4 | ND | 0.3 | 0.5 J | 0.5 | 0.4 | 0.3 | ND | 0.7 | 0.4 | 0.5 | 0.3 | 0.4 | 0.3 | 0.5 | 0.5 |
| **Other** | Moisture (%) | | | 3.1 | 3.5 | 3.5 | 4.9 | 4.4 | 3.9 | 3.2 | 2.6 | 2.6 | 5.5 | 2.7 | 0.4 | 0.6 | 0.3 | 0.1 | 0.3 | 0.4 |
| | pH | | | 7.8 | 8.0 | 7.9 | 8.0 | 7.7 | 7.9 | 7.8 | 8.1 | 8.1 | 7.7 | 8.6 | 7.5 | 7.5 | 7.6 | 7.5 | 7.7 | 7.6 |

[a] NMED, 1997. Maximum background for Tijeras Super Group. Concentrations exceeding maximum background are shown in *italics.*

[b] NMED, 2006. Concentrations exceeding SSL shown in **bold**.

[c] SNL/NM, 2003

-- not analyzed
J - estimated
N/A – not applicable
ND - not detected, detection limit unknown
NMED - New Mexico Environment Department
pCi/g - picocuries per gram
R- rejected
RAD - radionuclides
SSL - Soil Screening Level
SVOC - semivolatile organic compound
TPH - total petroleum hydrocarbons
U - not detected at the reporting limit
UJ - estimated non-detect
VOC - volatile organic compound

**Table B-2. Summary of the Phase 2 RFI Soil Analyses for SWMU 6-30, Radioactive Burial 11 (RW-06) (Page 1 of 10)**

| Chemical Class (units) | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential Soil SSL [b] | Borehole Number and Sample Depth Interval (feet) | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 37 | | | | 38 | | | | | 39 | | | | 40 | | | | |
| | | | | 3 to 5 | 8 to 10 | 13 to 15 | 18 to 20 | 3 to 5 | 3 to 5FD | 8 to10 | 13 to 15 | 18 to 20 | 3 to 5 | 8 to 10 | 13 to 15 | 18 to 20 | 3 to 5 | 3 to 5FD | 8 to 10 | 13 to 15 | 18 to 20 |
| **VOCs/SVOCs** (µg/kg) | Acetone | N/A | 28,100,000 | 11 U | 11 U | 10 U | 10 U | 11 U | 11 U | 10 U | 10 U | 10 U | 11 U | 11 U | 10 U | 10 U | 10 U | 10 U | 11 U | 10 U | 10 U |
| | Bis(2-ethylhexyl) phthalate | N/A | 347,000 | 340 U | 460 | 400 | 330 U | 350 U | 350 U | 340 U | 340 U | 340 U | 350 U | 350 U | 460 | 330 U | 1300 | 340 U | 340 U | 330 U | 330 U |
| | Phenol | N/A | 18,300,000 | 340 U | 350 U | 340 U | 330 U | 350 U | 350 U | 340 U | 340 U | 340 U | 350 U | 350 U | 330 U | 330 U | 340 U | 340 U | 340 U | 330 U | 330 U |
| | Styrene | N/A | 100,000 | 5 U | 5 U | 5 U | 5 U | 5U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| **Metals** (mg/kg) | Aluminum | N/A | 77,800 | 8120 | 8620 | 7370 | 5240 | 8110 | 6360 | 4170 | 6350 | 8240 | 8070 | 6630 | 4190 | 3790 | 7360 | 13100 | 6020 | 6920 | 4800 |
| | Antimony | 3.9 | 31.3 | 0.52 UJ | 0.53 UJ | 0.51 UJ | 0.51 UJ | 0.53 UJ | 0.54 UJ | 0.52 UJ | 0.51 UJ | 0.52 UJ | 0.54 UJ | 0.53 UJ | 0.51 UJ | 0.51 UJ | 0.52 UJ | 0.52 UJ | 0.53 UJ | 0.51 UJ | 0.51 UJ |
| | Arsenic | 4.4 | 3.9 | **4.3** | **4.1** | 3.8 | 2.3 | 3.9 | 3.1 | 2.6 | 3.7 | 3 | ***4.9*** | 3.7 | 2 | 2.4 | 3.8 | **4.2** | 3.2 | 3.6 | 3.4 |
| | Barium | 281 | 15,600 | 133 | 202 | 118 | 59 | 120 | 138 | 132 | 85.8 | 77 | 135 | 63.5 | 55.8 | 40.7 | 117 | 172 | 175 | 100 | 43.3 |
| | Beryllium | 0.8 | 156 | 0.38 J | 0.42 J | 0.33 J | 0.3 UJ | 0.38 J | 0.32 UJ | 0.31 UJ | 0.31 UJ | 0.37 J | 0.41 J | 0.34 J | 0.3 UJ | 0.3 UJ | 0.44 | 0.73 | 0.43 | 0.44 | 0.4 |
| | Calcium | N/A | N/A | 27000 | 56800 | 30500 | 35500 | 33300 | 38400 | 151000 | 45500 | 28700 | 27600 | 36600 | 24100 | 31400 | 35100 | 22900 | 42700 | 39900 | 36700 |
| | Chromium | 16.2 | 234 | 9.1 | 10.4 | 13.6 | 12.3 | 8.7 | 6.7 | 8.7 | 14.2 | 12.2 | 9.4 | 8.1 | 9.1 | 5.5 | 7.6 | 14.6 | 6.5 | *17.2* | 10.9 |
| | Cobalt | 9.3 | 1,520 | 7.3 U | 7.4 U | 7.2 U | 7.1 U | 7.4 U | 7.5 U | 7.2 U | 7.2 U | 7.3 U | 7.6 U | 7.4 U | 7.1 U | 7.1 U | 7.3 U | 7.5 | 7.4 U | 7.1 U | 7.1 U |
| | Copper | 17 | 3,130 | *35.4* | *20.3* | *50.7* | *37.7* | *20.2* | *58* | *64.2* | *256* | *92.9* | *31.5* | *27.2* | *37.3* | *442* | *37.3* | *27* | *24.8* | *101* | *37.4* |
| | Iron | N/A | 23,500 | 11400 | 12000 | 14700 | 11400 | 11600 | 8520 | 7910 | 11800 | 12700 | 13400 | 9700 | 8470 | 6690 | 10500 | 16400 | 9160 | 13400 | 16300 |
| | Lead | 11.2 | 400 | 8.1 | 7.3 | 7.2 | 8 | 7.7 | 10.3 | 3.9 | 7.2 | 7.4 | 8.2 | 7.1 | 4.8 | *11.5* | 7 | 11 | 6 | 7.6 | 6.5 |
| | Magnesium | N/A | N/A | 4730 | 5310 | 5030 | 3590 | 4260 | 4630 | 3120 | 4150 | 4050 | 4500 | 3850 | 3100 | 3190 | 3680 | 6550 | 4210 | 4570 | 3440 |
| | Manganese | N/A | 3,590 | 209 | 199 | 233 | 207 | 267 | 188 | 157 | 211 | 214 | 261 | 173 | 197 | 188 | 206 | 366 | 206 | 281 | 208 |
| | Nickel | 21 | 1,560 | 15.7 U | 15.9 U | 15.4 U | 15.2 U | 15.9 U | 16.1 U | 15.5 U | 15.4 U | 15.5 U | 16.2 U | 16 U | 15.2 U | 15.2 U | 15.6 U | 15.5 U | 15.8 U | 15.2 U | 15.2 U |
| | Potassium | N/A | N/A | 1440 | 960 | 1130 | 759 | 2720 | 5250 | 524 | 986 | 1360 | 1480 | 1250 | 612 | 561 | 1970 | 2100 | 1490 | 934 | 776 |
| | Selenium | < 1.0 | 391 | 0.52 U | 0.53 U | 0.51 UJ | 0.51 UJ | 0.53 UJ | 0.54 UJ | 0.52 UJ | 0.51 UJ | 0.52 UJ | 0.54 UJ | 0.53 UJ | 0.51 UJ | 0.51 UJ | 0.52 UJ | 0.52 UJ | 0.53 UJ | 0.51 UJ | 0.51 UJ |
| | Sodium | N/A | N/A | 657 | 695 | 690 | 467 | 431 | 1010 | 362 | 471 | 796 | 399 | 406 | 233 | 311 | 191 | 649 | 720 | 629 | 324 |
| | Thallium | <1.1 | 5.16 | 0.12 J | 0.11 U | 0.13 J | 0.1 U | 0.13 J | 0.11 U | 0.1 J | 0.1 J | 0.12 J | 0.16 J | 0.11 J | 0.1 U | 0.1 U | 0.12 J | 0.12 J | 0.11 U | 0.1 U | 0.1 U |
| | Vanadium | 33 | 78.2 | 21.8 | 24.2 | 27.8 | 20.2 | 26 | 18.9 | 16.3 | 23.3 | 25.2 | 28.1 | 20.1 | 15.5 | 10.9 | 22.3 | 29.5 | 21.8 | 23.4 | 31.1 |
| | Zinc | 76 | 23,500 | 38.2 | 40.3 | 46.9 | 35.8 | 34.9 | 115 | 57.1 | *108* | 61.8 | 41.9 | 35 | 31.7 | *174* | 32.9 | 55 | 31.7 | 59.9 | 34.5 |
| **Inorganics** (mg/kg) | Cyanide | N/A | 1220 | 0.52 U | 0.53 U | 0.51 U | 0.51 U | 0.53 U | 1.06 | 0.52 U | 0.51 U | 0.52 U | 0.54 U | 0.53 U | 0.51 U | 0.51 U | 0.52 U | 0.52 U | 0.53 U | 0.51 U | 0.51 U |

**Table B-2. Summary of the Phase 2 RFI Soil Analyses for SWMU 6-30, Radioactive Burial 11 (RW-06) (Page 2 of 10)**

| Chemical Class (units) | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential Soil SSL [b] | Borehole Number and Sample Depth Interval (feet) | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 41 | | | | 42 | | | | 43 | | | | | | | 44 | | | | | |
| | | | | 3 to 5 | 8 to 10 | 13 to 15 | 18 to 20 | 3 to 5 | 8 to 10 | 13 to 15 | 18 to 20 | 3 to 5 | 3 to 5FD | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 | 3 to 5 | 3 to 5FD | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 |
| **VOCs/SVOCs** (µg/kg) | Acetone | N/A | 28,100,000 | 10 U | 13 U | 10 U | 10 U | 10 U | 10 U | 10 U | 11 U | 11 | 10 U | 14 | 12 | 11 | 10 U | 10 U | 10 U | 11 U | 10 U | 10 U | 10 U | 11 U | 10 U |
| | Bis(2-ethylhexyl) phthalate | N/A | 347,000 | 100000 | 540 | 340 U | 380 | 340 U | 2100 | 360 | 350 U | 340 U | 5200 | 510 | 340 U | 1000 | 330 U | 1000 | 570 | 2300 | 740 | 900 | 510 | 880 | 400 |
| | Phenol | N/A | 18,300,000 | 340 U | 350 U | 340 U | 340 U | 340 U | 340 U | 330 U | 350 U | 340 U | 340 U | 340 U | 340 U | 340 U | 330 U | 330 U | 340 U | 340 U | 340 U | 340 U | 340 U | 370 U | 340 U |
| | Styrene | N/A | 100,000 | 5 U | 5 J | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 6 U | 5 U |
| **Metals** (mg/kg) | Aluminum | N/A | 77,800 | 7290 | 11500 | 5560 | 5250 | 11500 | 7130 | 8080 | 10800 | 9540 | 13200 | 8760 | 7540 | 5520 | 4080 | 5280 | 5650 | 6110 | 11200 | 7260 | 9210 | 10300 | 11100 |
| | Antimony | 3.9 | 31.3 | 0.52 UJ | 0.53 UJ | 0.51 UJ | 0.51 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.53 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.52 UJ | 0.52 UJ | 0.52 UJ | 0.51 UJ | 0.56 UJ | 0.52 UJ |
| | Arsenic | 4.4 | 3.9 | 4.1 | ***4.5*** | 2.4 | 1.8 | **4.2** | **4** | 3.7 | **4.2** | 3.9 | ***4.6*** | 2.2 | 3.3 | 3.3 | 2.4 | 2.1 | ***5.2*** | 2.2 | 2.8 | 3.7 | 2.7 | ***5*** | **4.4** |
| | Barium | 281 | 15,600 | 115 | 207 | 58 | 46.1 | 129 | 139 | 107 | 150 | 123 | 132 | 62.8 | 85.6 | 80.2 | 44 | 66.8 | 117 | 197 | 210 | 213 | 75.1 | 194 | 146 |
| | Beryllium | 0.8 | 156 | 0.49 | 0.62 | 0.39 | 0.33 | 0.57 | 0.42 | 0.48 | 0.53 | 0.54 | 0.62 | 0.43 | 0.39 | 0.36 | 0.31 U | 0.39 | 0.37 | 0.35 | 0.49 | 0.43 | 0.5 | 0.55 | 0.58 |
| | Calcium | N/A | N/A | 24600 | 38800 | 27000 | 23600 | 25100 | 35900 | 36700 | 43100 | 20400 | 18600 | 11600 | 27100 | 34400 | 35200 | 19600 | 24500 | 21700 | 19900 | 24100 | 35100 | 32400 | 20900 |
| | Chromium | 16.2 | 234 | 8.1 | 11.4 | 14.7 | 7.4 | 13.8 | 7.4 | *17.4* | *20.7* | 13.9 | 11.5 | *16.3* | *18.7* | 8.7 | 12.9 | 8.7 | 6.7 | 12.4 | *19.6* | 16.2 | *26.4* | 11.6 | 15.5 |
| | Cobalt | 9.3 | 1,520 | 7.3 U | 7.4 U | 7.2 U | 7.2 U | 7.3 U | 7.2 U | 7.1 U | 7.4 U | 7.8 | 7.9 | 7.8 | 7.3 | *9.5* | 7.1 U | 7.1 U | 7.2 U | 7.3 U | 8.9 | 7.3 U | 8.3 | 7.8 U | 7.2 U |
| | Copper | 17 | 3,130 | *20.7* | *49* | *53.9* | *57* | *29.8* | *20.9* | *16.5* | *88.2* | *30.3* | *32.5* | *40.2* | *144* | *40.9* | *87.1* | *47.9* | *25.4* | *35.4* | *23.9* | *51.3* | *210* | *73.3* | *41.6* |
| | Iron | N/A | 23,500 | 11100 | 13800 | 13700 | 9620 | 14400 | 10400 | 18800 | 18300 | 11700 | 14300 | 13400 | 12400 | 12100 | 8130 | 9990 | 10500 | 11600 | 16500 | 12500 | 17500 | 12800 | 14900 |
| | Lead | 11.2 | 400 | 7.7 | 7.2 | 5.8 | 3.4 | 6.9 | 7.2 | 6.3 | 7.5 | 8 | 9.6 | 4.7 | *46.7* | 6 | 4.7 | 3.9 | 7.4 | 4.6 | 6 | 6.6 | 5.6 | 8.8 | 8.8 |
| | Magnesium | N/A | N/A | 3930 | 4960 | 4320 | 4550 | 4770 | 4070 | 4840 | 5580 | 4520 | 5080 | 6340 | 5640 | 3910 | 2750 | 2860 | 4090 | 4340 | 6590 | 5200 | 4900 | 4300 | 3610 |
| | Manganese | N/A | 3,590 | 243 | 249 | 225 | 215 | 236 | 199 | 260 | 265 | 315 | 326 | 315 | 295 | 221 | 167 | 176 | 207 | 260 | 306 | 256 | 250 | 274 | 241 |
| | Nickel | 21 | 1,560 | 15.7 U | 15.8 U | 15.4 U | 15.3 U | 15.7 U | 15.4 U | 15.3 U | 15.9 U | 15.6 U | 15.4 U | 19.6 | 17.9 | 15.4 U | 15.3 U | 15.3 U | 15.4 U | 15.7 U | 20.2 | 15.6 U | 16.4 | 16.7 U | 15.5 U |
| | Potassium | N/A | N/A | 1990 | 2260 | 905 | 737 | 2160 | 1530 | 1330 | 1760 | 2800 | 3520 | 1490 | 1320 | 965 | 598 | 786 | 938 | 1040 | 1970 | 1160 | 1400 | 1380 | 1600 |
| | Selenium | < 1.0 | 391 | 0.52 U | 0.53 U | 0.51 U | 0.51 U | 0.52 U | 0.51 U | 0.51 U | 0.53 U | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.52 UJ | 0.52 UJ | 0.52 UJ | 0.51 UJ | 0.56 UJ | 0.52 UJ |
| | Sodium | N/A | N/A | 181 | 223 | 268 | 295 | 221 | 240 | 242 | 304 | 205 | 187 | 235 | 231 | 210 | 226 | 256 | 253 | 247 | 419 | 326 | 418 | 528 | 468 |
| | Thallium | <1.1 | 5.16 | 0.12 J | 0.14 J | 0.1 U | 0.1 U | 0.1 J | 0.16 J | 0.11 J | 0.14 J | 0.16 J | 0.23 J | 0.17 J | 0.1 UJ | 0.1 UJ | 0.1 UJ | 0.1 UJ | 0.12 J | 0.1 UJ | 0.12 J | 0.16 J | 0.1 J | 0.14 J | 0.17 J |
| | Vanadium | 33 | 78.2 | 23.6 | 32.3 | *25.4* | 17.9 | 31.2 | 21.7 | *39.3* | *37.3* | 23.6 | 27.2 | 24.4 | *22.4* | 24.2 | 15.7 | 22.3 | 24.4 | 23.1 | *33.9* | *23* | *36.1* | 26.4 | *34.5* |
| | Zinc | 76 | 23,500 | 36.1 | 45.4 | 74.6 | 45.2 | 38.3 | 31.1 | 34.8 | 64.5 | 41.5 | 46.6 | 45.4 | *81.5* | 40.5 | 41.5 | 37.5 | 34.6 | 34.1 | 41.5 | 44.4 | *104* | 81.4 | 47.7 |
| **Inorganics** (mg/kg) | Cyanide | N/A | 1220 | 0.52 U | 0.53 U | 0.51 U | 0.51 U | 0.52 U | 0.51 U | 0.51 U | 0.53 U | 0.52 U | 0.51 U | 0.51 U | 0.52 U | 0.51 U | 0.51 U | 0.51 U | 0.51 U | 0.52 U | 0.52 U | 0.52 U | 0.51 U | 0.56 U | 0.52 U |

**Table B-2. Summary of the Phase 2 RFI Soil Analyses for SWMU 6-30, Radioactive Burial 11 (RW-06) (Page 3 of 10)**

| Chemical Class (units) | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential Soil SSL [b] | Borehole Number and Sample Depth Interval (feet) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 45 | | | | | | 46 | | | | | | | 47 | | | | | | |
| | | | | 3 to 5 | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 | 3 to 5 | 3 to 5FD | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 | 3 to 5 | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 |
| **VOCs/SVOCs** (µg/kg) | Acetone | N/A | 28,100,000 | 10 U | 10 U | 10 U | 10 U | 11 U | 10 U | 11 U | 10 U | 10 U | 10 U | 10 U | 11 U | 11 U | 10 U | 11 U | 10 U | 10 U | 11 U | 11 U |
| | Bis(2-ethylhexyl) phthalate | N/A | 347,000 | 350 U | 340 U | 1100 | 2100 | 360 U | 1000 | 360 U | 500 | 340 U | 670 | 340 U | 380 U | 370 U | 340 | 400 | 340 U | 340 U | 350 U | 350 U |
| | Phenol | N/A | 18,300,000 | 350 U | 340 U | 340 U | 340 U | 360 U | 340 U | 360 U | 350 U | 340 U | 340 U | 340 U | 380 U | 370 U | 340 U | 370 U | 340 U | 340 U | 350 U | 350 U |
| | Styrene | N/A | 100,000 | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 6 U | 5 U | 5 U | 6 U | 5 U | 5 U | 5 U | 5 U |
| **Metals** (mg/kg) | Aluminum | N/A | 77,800 | 8770 | 5770 | 6280 | 4280 | 8520 | 3700 | 5300 | 7720 | 7490 | 5810 | 5240 | 3530 | 6180 | 12000 | 7990 | 9080 | 4020 | 8650 | 6720 |
| | Antimony | 3.9 | 31.3 | 0.52 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.54 UJ | 0.51 UJ | 0.53 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.57 UJ | 0.55 J | 0.51 UJ | 0.55 UJ | 0.51 UJ | 0.51 UJ | 0.53 UJ | 0.53 UJ |
| | Arsenic | 4.4 | 3.9 | 3.6 | 2.8 | 1.9 | 2.6 | **4.4** | 2.8 | **4** | 3.9 | 3.6 | 3.8 | 2 | 3.2 | ***5.7*** | ***5.1*** | 3.6 | **4.2** | 2.9 | 3.4 | 2.4 |
| | Barium | 281 | 15,600 | 91.4 | 98.6 | 58.8 | 56.2 | 168 | 212 | 60.7 | 154 | 230 | 102 | 48.5 | 64.8 | 106 | 160 | 166 | 110 | 51 | 102 | 78.7 |
| | Beryllium | 0.8 | 156 | 0.49 | 0.32 | 0.38 | 0.33 | 0.55 | 0.39 | 0.44 | 0.46 | 0.39 | 0.41 | 0.34 | 0.34 U | 0.44 | 0.71 | 0.5 | 0.48 | 0.31 U | 0.55 | 0.53 |
| | Calcium | N/A | N/A | 26500 | 14900 | 33400 | 31100 | 28900 | 43200 | 20500 | 23500 | 24300 | 26200 | 21300 | 29500 | 80300 | 20200 | 41300 | 32800 | 29800 | 13400 | 25600 |
| | Chromium | 16.2 | 234 | 10.2 | 10.5 | 12.2 | 9.7 | 10 | 6.4 | 6.1 | 9.9 | 13 | *19.8* | 12.2 | 6.1 | 6 | 11.5 | 11.9 | 13.6 | 5.8 | 12.6 | *18.9* |
| | Cobalt | 9.3 | 1,520 | 7.3 U | 7.2 U | 7.1 U | 7.2 U | 7.5 U | 7.2 U | 7.5 U | 7.2 U | 7.2 | 7.1 U | 7.1 U | 8 U | 7.7 U | 7.2 U | 7.7 U | 7.2 U | 7.2 U | 7.4 U | 7.4 |
| | Copper | 17 | 3,130 | *88.4* | *27.1* | *53* | *58.5* | *53.2* | *170* | *22.1* | *30.2* | *60.4* | *240* | *83.3* | *37.6* | *36.8* | *96.6* | *181* | *461* | *261* | *27.3* | *230* |
| | Iron | N/A | 23,500 | 12400 | 9690 | 11200 | 8330 | 10800 | 6640 | 9410 | 11600 | 12700 | 10200 | 11500 | 7440 | 8650 | 14200 | 13600 | 13900 | 7810 | 14000 | 18000 |
| | Lead | 11.2 | 400 | 9.6 | 5.9 | 5.6 | 4.7 | 7 | 4.5 | 6.7 | 8 | 5.9 | 8.2 | 4.1 | 4.7 | 5.6 | 10.5 | 9.7 | 9 | 5.1 | 6.3 | 5.8 |
| | Magnesium | N/A | N/A | 5160 | 5240 | 5030 | 3050 | 3540 | 3080 | 4200 | 5600 | 5900 | 4360 | 4490 | 2480 | 3510 | 5120 | 5270 | 5130 | 3560 | 4360 | 3660 |
| | Manganese | N/A | 3,590 | 214 | 236 | 238 | 167 | 238 | 170 | 205 | 252 | 246 | 231 | 208 | 175 | 244 | 323 | 269 | 237 | 183 | 243 | 224 |
| | Nickel | 21 | 1,560 | 15.6 U | 15.5 U | 15.2 U | 15.4 U | 16.1 U | 15.4 U | 16 U | 15.4 U | 15.4 U | 15.3 U | 15.2 U | 17.2 U | 16.6 U | 15.4 U | 16.6 U | 15.3 U | 15.4 U | 15.9 UJ | 15.9 UJ |
| | Potassium | N/A | N/A | 1280 | 1120 | 985 | 665 | 1050 | 769 | 814 | 1280 | 1460 | 1110 | 793 | 572 U | 858 | 2970 | 1800 | 1840 | 680 | 1720 | 1060 |
| | Selenium | < 1.0 | 391 | 0.52 U | 0.52 U | 0.51 U | 0.51 U | 0.54 U | 0.51 U | 0.53 U | 0.51 U | 0.51 U | 0.51 U | 0.51 U | 0.57 U | 0.55 U | 0.51 U | 0.55 U | 0.51 U | 0.51 U | 0.53 UJ | 0.53 UJ |
| | Sodium | N/A | N/A | 374 | 224 | 216 | 186 | 498 | 263 | 516 | 585 | 413 | 397 | 329 | 587 | 974 | 263 | 243 | 222 | 246 | 478 | 341 |
| | Thallium | <1.1 | 5.16 | 0.1 J | 0.11 J | 0.1 U | 0.1 U | 0.12 J | 0.1 U | 0.12 J | 0.1 J | 0.16 J | 0.12 J | 0.1 U | 0.11 J | 0.11 J | 0.23 J | 0.12 J | 0.11 J | 0.1 U | 0.11 U | 0.11 U |
| | Vanadium | 33 | 78.2 | 32.2 | 17.5 | *22* | 14.9 | 21.3 | 13.4 | 25.2 | 22.2 | 25.6 | 17.8 | 21.2 | 14.7 | 20.5 | 28.1 | 26 | 28.4 | 13.7 | 26.5 | *35.8* |
| | Zinc | 76 | 23,500 | 52.8 | 33 | 42.8 | 36.4 | 50.9 | 70.8 | 31.6 | 39.5 | 45.7 | *99.2* | 50.1 | 29 | 41.1 | 63.7 | *106* | *170* | *105* | 44 | *105* |
| **Inorganics** (mg/kg) | Cyanide | N/A | 1220 | 0.52 U | 0.52 U | 0.51 U | 0.51 U | 0.54 U | 0.51 U | 0.53 U | 0.51 U | 0.51 U | 0.51 U | 0.51 U | 0.57 U | 0.55 U | 0.51 U | 0.55 U | 0.51 U | 0.51 U | 0.53 U | 0.53 U |

**Table B-2. Summary of the Phase 2 RFI Soil Analyses for SWMU 6-30, Radioactive Burial 11 (RW-06) (Page 4 of 10)**

| Chemical Class (units) | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential Soil SSL [b] | Borehole Number and Sample Depth Interval (feet) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 48 | | | | | | | 49 | | | | | | | 50 | | | | | |
| | | | | 3 to 5 | 3 to 5FD | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 | 3 to 5 | 3 to 5FD | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 | 3 to 5 | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 |
| **VOCs/SVOCs** (µg/kg) | Acetone | N/A | 28,100,000 | 10 U | 11 U | 11 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 11 U | 11 U | 11 U | 10 U | 11 U | 11 U | 11 U | 10 U | 10 U | 10 U | 10 U |
| | Bis(2-ethylhexyl) phthalate | N/A | 347,000 | 340 U | 370 | 350 U | 1400 | 340 U | 340 U | 340 U | 340 U | 340 U | 1900 | 350 U | 350 U | 340 U | 350 U | 1700 | 360 U | 340 U | 340 U | 680 | 340 U |
| | Phenol | N/A | 18,300,000 | 340 U | 350 U | 350 U | 340 U | 340 U | 340 U | 340 U | 340 U | 340 U | 350 U | 350 U | 350 U | 340 U | 350 U | 350 U | 360 U | 340 U | 340 U | 340 U | 340 U |
| | Styrene | N/A | 100,000 | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| **Metals** (mg/kg) | Aluminum | N/A | 77,800 | 9500 | 12900 | 8270 | 5960 | 4270 | 10700 | 5300 | 5440 | 12000 | 6830 | 7230 | 8940 | 5660 | 5780 | 7470 | 8350 | 7160 | 8150 | 6420 | 8750 |
| | Antimony | 3.9 | 31.3 | 0.51 UJ | 0.54 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.52 UJ | 0.51 UJ | 0.51 U | 0.51 U | 0.52 U | 0.53 U | 0.52 U | 0.51 U | 0.52 U | 0.52 U | 0.55 U | 0.51 U | 0.51 U | 0.51 U | 0.52 U |
| | Arsenic | 4.4 | 3.9 | ***8.8*** | ***4.8*** | 2.8 | 2.5 | 3.5 | **4** | 3.5 | 2.9 | **4.4** | 3 | **4.4** | 2.5 | 2 | **4** | 2.9 | ***4.6*** | 2.5 | **4.3** | 2.5 | 2.6 |
| | Barium | 281 | 15,600 | 197 | 168 | 124 | 70.3 | 68.8 | 155 | 82 | 111 | 164 | 110 | 199 | 78 | 63.8 | 38 | 135 | 124 | 60.7 | 95 | 93.2 | 90.5 |
| | Beryllium | 0.8 | 156 | 0.53 | 0.71 | 0.45 | 0.41 | 0.31 U | 0.55 | 0.31 U | 0.35 | 0.59 | 0.44 | 0.49 | 0.46 | 0.31 | 0.47 | 0.44 | 0.47 | 0.44 | 0.54 | 0.37 | 0.47 |
| | Calcium | N/A | N/A | 39500 | 25800 | 48900 | 29100 | 135000 | 33700 | 20900 | 29900 | 34600 | 26600 | 31800 | 19800 | 22200 | 17500 | 31400 | 40200 | 20800 | 23600 | 25600 | 33600 |
| | Chromium | 16.2 | 234 | *23.6* | 11.5 | 9.2 | *16.4* | 9.2 | *21.5* | 7.1 | 7.9 | 13.5 | 7.5 | 8.3 | *18* | 13.1 | *23.7* | 9.9 | 8.6 | *19.9* | 8.4 | 11.4 | 15.5 |
| | Cobalt | 9.3 | 1,520 | 7.2 U | 7.5 U | 7.4 U | 7.2 U | 7.2 U | 7.2 U | 7.2 U | 7.2 U | 7.2 U | 7.3 U | 7.5 U | 7.3 U | 7.2 U | 7.3 U | 7.3 U | 7.7 U | 7.2 U | 7.2 U | 7.2 U | 7.3 U |
| | Copper | 17 | 3,130 | *395* | *36.6* | *42* | *208* | *56.5* | *3020* | *20.2* | *39.1* | *64.9* | *33.4* | *24.4* | *17.8* | *55.8* | *264* | *50.5* | *45.2* | *175* | *27.7* | *31.9* | *109* |
| | Iron | N/A | 23,500 | 13800 | 15600 | 10700 | 14100 | 7010 | 14800 | 7500 | 8330 | 15000 | 10100 | 10900 | 15400 | 10500 | **38100** | 10800 | 12500 | 21100 | 9710 | 10900 | 14500 |
| | Lead | 11.2 | 400 | 7.7 | 9.3 | 8.2 | 5.4 | 6.4 | 7.7 | 7.1 | 6 | *13.5* | 8.4 | 8.8 | 5.3 | 4.9 | 4.4 | 7.9 | 7.6 | 5.5 | 9.8 | 5.4 | 5.5 |
| | Magnesium | N/A | N/A | 5180 | 5370 | 4680 | 4650 | 3620 | 5200 | 2530 | 4220 | 5520 | 4220 | 4630 | 5590 | 4510 | 3600 | 4370 | 4650 | 4670 | 3630 | 3930 | 4550 |
| | Manganese | N/A | 3,590 | 258 | 286 | 225 | 264 | 239 | 248 | 141 | 254 | 297 | 292 | 267 | 270 | 225 | 211 | 265 | 216 | 246 | 280 | 202 | 252 |
| | Nickel | 21 | 1,560 | *22.3 J* | 16.1 UJ | 16 UJ | 15.3 UJ | 15.4 UJ | 15.5 UJ | 15.4 UJ | 15.4 U | 15.5 U | 15.7 U | 16 U | 15.7 U | 15.3 U | 15.7 U | 15.7 U | 16.5 U | 15.3 U | 15.4 U | 15.4 U | 15.6 U |
| | Potassium | N/A | N/A | 1560 | 2520 | 1790 | 1010 | 787 | 2160 | 1230 | 1450 | 3320 | 1880 | 1810 | 1750 | 1130 | 967 | 2020 | 1800 | 1270 | 1220 | 1400 | 1760 |
| | Selenium | < 1.0 | 391 | 0.51 UJ | 0.54 J | 0.53 UJ | 0.51 UJ | 0.51 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.52 UJ | 0.53 UJ | 0.52 UJ | 0.51 UJ | 0.52 UJ | 0.52 UJ | 0.55 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.52 UJ |
| | Sodium | N/A | N/A | 243 | 260 | 639 | 228 | 225 | 339 | 181 | 178 | 216 | 263 | 258 | 277 | 232 | 335 | 202 | 225 | 245 | 473 | 209 | 262 |
| | Thallium | <1.1 | 5.16 | 0.12 J | 0.18 J | 0.11 U | 0.1 U | 0.1 U | 0.1 J | 0.1 U | 0.1 U | 0.11 J | 0.1 J | 0.15 J | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.11 U | 0.1 U | 0.15 J | 0.1 U | 0.1 U |
| | Vanadium | 33 | 78.2 | 27.5 | 31.8 | 19.8 | 25.7 | 14 | 30.3 | 16.1 | 17.4 | 30.6 | 20.3 | 22.7 | 31.3 | 20.3 | ***81.4*** | 20.9 | 29.6 | *44.1* | 17.2 | 20.9 | 29.5 |
| | Zinc | 76 | 23,500 | *160* | 42.5 | 54.3 | *86.7* | 36.8 | *1100* | 21.1 | 49.5 | 56.1 | 39 | 40.4 | 35.4 | 40.1 | *103* | 47.2 | 55.4 | *83.4* | 34 | 33.9 | 65.5 |
| **Inorganics** (mg/kg) | Cyanide | N/A | 1220 | 0.51 U | 0.54 U | 0.53 U | 0.51 U | 0.51 U | 0.52 U | 0.51 U | 0.51 U | 0.73 | 0.52 U | 1.05 | 0.52 U | 0.51 U | 0.52 U | 0.52 U | 0.55 U | 0.51 U | 0.51 U | 0.51 U | 0.52 U |

**Table B-2. Summary of the Phase 2 RFI Soil Analyses for SWMU 6-30, Radioactive Burial 11 (RW-06) (Page 5 of 10)**

| Chemical Class (units) | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential Soil SSL [b] | Borehole Number and Sample Depth Interval (feet) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 51 | | | | | | | 52 | | | | | | 53 | | | | | |
| | | | | 3 to 5 | 3 to 5FD | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 | 3 to 5 | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 | 3 to 5 | 3 to 5FD | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 |
| **VOCs/SVOCs** (µg/kg) | Acetone | N/A | 28,100,000 | 11 U | 11 U | 11 U | 11 U | 10 U | 11 U | 11 U | 11 U | 10 U | 11 U | 10 U | 10 U | 11 U | 11 U | 11 U | 10 U | 10 U | 10 U | 10 U | 11 U |
| | Bis(2-ethylhexyl) phthalate | N/A | 347,000 | 350 U | 350 U | 370 U | 350 U | 340 U | 350 U | 350 U | 350 U | 340 U | 350 U | 340 U | 390 | 460 | 350 U | 350 U | 340 U | 330 U | 5800 | 350 | 1200 |
| | Phenol | N/A | 18,300,000 | 350 U | 350 U | 370 U | 350 U | 340 U | 350 U | 350 U | 350 U | 340 U | 350 U | 340 U | 340 U | 360 U | 350 U | 350 U | 340 U | 330 U | 340 U | 340 U | 360 U |
| | Styrene | N/A | 100,000 | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| **Metals** (mg/kg) | Aluminum | N/A | 77,800 | 6820 | 8000 | 9880 | 8610 | 6090 | 4260 | 9640 | 6120 | 3900 | 8800 | 4050 | 3730 | 8750 | 11200 | 9550 | 8160 | 5360 | 6130 | 5370 | 9630 |
| | Antimony | 3.9 | 31.3 | 0.52 UJ | 0.52 UJ | 0.55 UJ | 0.52 UJ | 0.52 UJ | 0.53 UJ | 0.53 UJ | 0.53 UJ | 0.52 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.54 UJ | 0.53 UJ | 0.52 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.54 UJ |
| | Arsenic | 4.4 | 3.9 | 3.3 | **4** | **4.1** | 3.9 | 3.3 | 2.7 | 3.6 | 3 | 1.7 | 3.6 | 3.2 | 1.8 | 3.8 | **4.1** | 3.5 | ***4.5*** | 1.7 | 2 | 1.9 | ***5.1*** |
| | Barium | 281 | 15,600 | 77.6 | 153 | 180 | 138 | 54.9 | 33.2 | 74.8 | 116 | 47 | 145 | 40.6 | 33.7 | 108 | *292* | 144 | 173 | 49.6 | 41 | 53 | 179 |
| | Beryllium | 0.8 | 156 | 0.42 | 0.5 | 0.54 | 0.48 | 0.39 | 0.35 | 0.53 | 0.41 | 0.31 U | 0.47 | 0.31 U | 0.31 U | 0.52 | 0.52 | 0.42 | 0.39 | 0.3 U | 0.34 | 0.36 | 0.65 |
| | Calcium | N/A | N/A | 49900 | 44700 | 31500 | 41200 | 29600 | 36900 | 21400 | 47000 | 26200 | **38100** | 36500 | 36800 | 23700 | 46800 | 39700 | 61300 | 17000 | 32000 | 25100 | 45800 |
| | Chromium | 16.2 | 234 | 10 | 7.7 | *16.7* | 11.5 | 7.9 | 10 | 11.8 | 6.5 | 6.6 | 8.8 | 6.1 | 7 | 9.1 | *16.7* | 12.3 | 10.6 | 10.8 | 12.7 | 9.4 | 9.7 |
| | Cobalt | 9.3 | 1,520 | 7.3 U | 7.3 U | 8 | 7.3 U | 7.2 U | 7.5 U | 7.4 U | 7.4 U | 7.2 U | 7.3 U | 7.1 U | 7.1 U | 7.5 U | 7.4 U | 7.3 U | 7.3 U | 7.1 U | 7.1 U | 7.2 U | 7.6 U |
| | Copper | 17 | 3,130 | *39.9* | *31.2* | *18.6* | *42.9* | 11.5 | *531* | 11.5 | 14.6 | *177* | *24.1* | *50.2* | *30.4* | *39* | *277* | *33.3* | *18.4* | *51.5* | *32* | *431* | *50.9* |
| | Iron | N/A | 23,500 | 11900 | 10800 | 15500 | 12700 | 10200 | 11400 | 12900 | 8300 | 7130 | 13000 | 7590 | 6700 | 11300 | 13800 | 13400 | 11200 | 12200 | 12800 | 9550 | 11200 |
| | Lead | 11.2 | 400 | 7 | 6.3 | 7.9 | 9.3 | 5.7 | 5.9 | 4.7 | 6 | 4.2 | 6.5 | 4.5 | 3 | 6.3 | 6.1 | 4.9 | 5.5 | 3.9 | 4.2 | 4.2 | 6.3 |
| | Magnesium | N/A | N/A | 4460 | 4310 | 6040 | 4590 | 3610 | 2740 | 4160 | 4230 | 3060 | 4700 | 3510 | 2660 | 3780 | 4870 | 4810 | 4900 | 3890 | 4540 | 3900 | 4300 |
| | Manganese | N/A | 3,590 | 235 | 249 | 313 | 243 | 184 | 204 | 217 | 194 | 159 | 241 | 180 | 140 | 209 | 225 | 178 | 158 | 197 | 241 | 199 | 220 |
| | Nickel | 21 | 1,560 | 15.7 U | 15.7 U | 16.6 U | 15.7 U | 15.5 U | 16 U | 16 U | 15.8 U | 15.5 U | 15.7 U | 15.3 U | 15.3 U | 16.1 U | 15.8 U | 15.7 U | 15.6 U | 15.2 U | 15.2 U | 15.4 U | 16.2 U |
| | Potassium | N/A | N/A | 1150 | 1600 | 1930 | 1700 | 1370 | 610 | 1690 | 1310 | 518 U | 1620 | 640 | 510 U | 1570 | 1750 | 1650 | 1310 | 856 | 858 | 890 | 1670 |
| | Selenium | < 1.0 | 391 | 0.52 U | 0.52 U | 0.55 U | 0.52 U | 0.52 U | 0.53 U | 0.53 UJ | 0.53 UJ | 0.52 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.54 UJ | 0.53 UJ | 0.52 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.54 UJ |
| | Sodium | N/A | N/A | 304 | 416 | 314 | 319 | 400 | 238 | 455 | 263 | 197 | 293 | 207 | 201 | 525 | 456 | 331 | 339 | 202 | 227 | 292 | 579 |
| | Thallium | <1.1 | 5.16 | 0.1 U | 0.1 U | 0.14 J | 0.1 U | 0.1 U | 0.11 U | 0.11 U | 0.11 J | 0.1 U | 0.1 U | 0.1 U | 0.1 U | 0.11 U | 0.15 J | 0.15 J | 0.2 J | 0.12 J | 0.13 J | 0.1 U | 0.17 J |
| | Vanadium | 33 | 78.2 | 23.9 | 21.1 | 30.6 | 24.2 | 20 | 23.3 | 30.4 | 17.3 | 12.2 | 26.4 | 13.1 | 12.6 | 24.1 | 28.3 | 31 | 30.2 | 22.5 | 23.3 | 17.5 | 21.6 |
| | Zinc | 76 | 23,500 | 35.3 | 38.8 | 38.7 | *139* | 27.1 | *224* | 29.7 | 37.2 | *76.4* | 39.4 | 36.6 | 27.3 | 41.2 | *117* | 46.8 | 28.6 | 41.1 | 35.3 | *180* | 46.4 |
| **Inorganics** (mg/kg) | Cyanide | N/A | 1220 | 0.52 U | 0.52 U | 0.55 U | 0.52 U | 0.52 U | 0.53 U | 0.53 U | 0.53 U | 0.52 U | 0.52 U | 0.52 | 0.51 UJ | 0.54 UJ | 0.53 UJ | 0.52 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.54 UJ |

**Table B-2. Summary of the Phase 2 RFI Soil Analyses for SWMU 6-30, Radioactive Burial 11 (RW-06) (Page 6 of 10)**

| Chemical Class (units) | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential Soil SSL [b] | Borehole Number and Sample Depth Interval (feet) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 54 | | | | | | | 55 | | | | | | 56 | | | | | | |
| | | | | 3 to 5 | 3 to 5FD | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 | 3 to 5 | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 | 3 to 5 | 3 to 5FD | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 |
| **VOCs/SVOCs** (µg/kg) | Acetone | N/A | 28,100,000 | 10 U | 11 U | 11 U | 11 U | 10 U | 10 U | 10 U | 11 U | 11 U | 10 U | 11 U | 12 U | 11 U | 10 U | 11 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| | Bis(2-ethylhexyl) phthalate | N/A | 347,000 | 410 | 370 | 350 U | 390 | 340 U | 330 U | 340 U | 350 U | 1600 | 340 U | 350 U | 390 U | 370 U | 440 | 350 U | 340 U | 5800 | 340 U | 340 U | 340 U |
| | Phenol | N/A | 18,300,000 | 340 U | 350 U | 350 U | 350 U | 340 U | 330 U | 340 U | 350 U | 350 U | 340 U | 350 U | 390 U | 370 U | 340 U | 350 U | 340 U | 330 U | 340 U | 340U | 340 U |
| | Styrene | N/A | 100,000 | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 6 U | 6 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| **Metals** (mg/kg) | Aluminum | N/A | 77,800 | 10300 | 11100 | 9850 | 5250 | 5350 | 4770 | 9910 | 9700 | 11200 | 7310 | 8830 | 11300 | 6800 | 5940 | 7390 | 11100 | 7490 | 11300 | 7170 | 8560 |
| | Antimony | 3.9 | 31.3 | 0.52 UJ | 0.53 UJ | 0.53 UJ | 0.53 UJ | 0.51 UJ | 0.57 UJ | 0.51 UJ | 0.52 UJ | 0.52 UJ | 0.52 UJ | 0.54 UJ | 0.59 UJ | 0.56 UJ | 0.52 UJ | 0.53 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.52 UJ |
| | Arsenic | 4.4 | 3.9 | 3.7 | **4.4** | 3.8 | 2.5 | 1.7 | 1.9 | 3.1 | 3.3 | 3.8 | 1.9 | 2.9 | ***5.3*** | 3 | 3 | 3.7 | 3.3 | 2.6 | 2.6 | 2.7 | 3.1 |
| | Barium | 281 | 15,600 | 152 | 163 | 153 | 53.7 | 62.2 | 28.9 | 158 | 165 | 133 | 32.6 | 69.7 | 79.4 | 75 | 146 | 132 | 204 | 93.3 | 205 | 135 | 117 |
| | Beryllium | 0.8 | 156 | 0.5 | 0.51 | 0.47 | 0.32 U | 0.35 | 0.33 | 0.48 | 0.52 | 0.58 | 0.31 U | 0.5 | 0.66 | 0.49 | 0.4 | 0.44 | 0.55 | 0.41 | 0.6 | 0.4 | 0.46 |
| | Calcium | N/A | N/A | 48400 | 41900 | 33100 | 31700 | 34300 | 38200 | 33600 | 24300 | 28800 | 26600 | 30200 | 44500 | 22500 | 34800 | 31900 | 47900 | 23500 | 21800 | 30500 | 35000 |
| | Chromium | 16.2 | 234 | 11.2 | 15.3 | 13 | 10.5 | 8 | 7.4 | 15.6 | 12.1 | 14.8 | 9.2 | 12.6 | *18.9* | 8.6 | 7.9 | 9.7 | 13.1 | *16.4* | *19.2* | 14.9 | 15.4 |
| | Cobalt | 9.3 | 1,520 | 7.3 U | 7.4 U | 7.4 U | 7.4 U | 7.1 U | 7.1 U | 7.2 U | 7.3 U | 7.3 U | *9.5* | 7.5 U | 8.3 U | 7.8 U | 7.3 U | 7.4 U | 7.3 U | 7.1 U | 7.9 | 7.2 U | 7.2 U |
| | Copper | 17 | 3,130 | *41.8* | *85.2* | *33.1* | *33.3* | *102* | 16.3 | *116* | *43.1* | *213* | *115* | *20.8* | *85.1* | *12.6* | *47.2* | *184* | *40.9* | *135* | *34.4* | *160* | *47.2* |
| | Iron | N/A | 23,500 | 13200 | 14700 | 12900 | 11100 | 11200 | 8550 | 12900 | 14700 | 14700 | 14400 | 13400 | 14600 | 11500 | 10200 | 11500 | 12700 | 13900 | 18400 | 11800 | 14300 |
| | Lead | 11.2 | 400 | 7.1 | 8.2 | 7.3 | 6.5 | 3.7 | 3.5 | 10.1 | 6.9 | 9.1 | 4.2 | 5.6 | *37* | 5.1 | 6 | 6.9 | 6.7 | 6.5 | 5.7 | 5.9 | 6.3 |
| | Magnesium | N/A | N/A | 5100 | 5320 | 5100 | 3530 | 4240 | 2750 | 4950 | 4880 | 5080 | 6930 | 3950 | 5030 | 3550 | 4430 | 5010 | 5000 | 5670 | 6980 | 4940 | 5010 |
| | Manganese | N/A | 3,590 | 237 | 249 | 236 | 180 | 240 | 157 | 258 | 262 | 213 | 298 | 235 | 367 | 233 | 231 | 228 | 224 | 253 | 328 | 283 | 241 |
| | Nickel | 21 | 1,560 | 15.6 U | 15.9 U | 15.8 U | 15.8 U | 15.2 U | 15.2 U | 15.3 U | 15.7 U | 15.7 U | 15.5 U | 16.1 U | 17.8 U | 16.7 U | 15.5 U | 15.9 U | 15.6 U | 15.3 | 15.3 | 16.5 | 15.5 U |
| | Potassium | N/A | N/A | 1880 | 2070 | 1800 | 937 | 882 | 774 | 2590 | 1790 | 2100 | 518 UJ | 1380 | 1760 | 1090 | 1080 | 1140 | 2120 | 1300 | 2100 | 1370 | 1520 |
| | Selenium | < 1.0 | 391 | 0.52 UJ | 0.53 UJ | 0.53 UJ | 0.53 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.52 UJ | 0.52 UJ | 0.52 UJ | 0.54 UJ | 0.59 UJ | 0.56 UJ | 0.52 UJ | 0.53 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.52 UJ |
| | Sodium | N/A | N/A | 409 | 323 | 374 | 195 | 208 | 242 | 267 | 284 | 292 | 223 | 530 | 723 | 551 | 464 | 504 | 419 | 453 | 506 | 415 | 473 |
| | Thallium | <1.1 | 5.16 | 0.19 J | 0.19 J | 0.18 J | 0.11 U | 0.1 U | 0.1 U | 0.13 J | 0.15 J | 0.16 J | 0.1 U | 0.16 J | 0.58 J | 0.11 J | 0.11 J | 0.17 J | 0.16 J | 0.18 J | 0.22 J | 0.18 J | 0.47 J |
| | Vanadium | 33 | 78.2 | 27.8 | 31.4 | 28.4 | 21.9 | 20.4 | 17.7 | 24.9 | 33 | 30.4 | 21.3 | 28.7 | 26.3 | 22.8 | 30 | *33.7* | 28 | 26.5 | *37.4* | 22.7 | 30 |
| | Zinc | 76 | 23,500 | 40.4 | 59.3 | 39.2 | 29.6 | 59.2 | 22.8 | 64.4 | 40.8 | *117* | 78.9 | 33.5 | 79 | 27.2 | 54.4 | *141* | 38.1 | *76.8* | 49.2 | 69.4 | 42.7 |
| **Inorganics** (mg/kg) | Cyanide | N/A | 1220 | 0.52 UJ | 0.53 UJ | 0.53 UJ | 0.53 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.52 UJ | 0.52 UJ | 0.52 UJ | 0.54 UJ | 0.59 UJ | 0.56 UJ | 0.52 UJ | 0.53 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.52 UJ |

**Table B-2. Summary of the Phase 2 RFI Soil Analyses for SWMU 6-30, Radioactive Burial 11 (RW-06) (Page 7 of 10)**

| Chemical Class (units) | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential Soil SSL [b] | Borehole Number and Sample Depth Interval (feet) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 57 | | | | | | 58 | | | | | | | 59 | | | | | | |
| | | | | 3 to 5 | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 | 3 to 5 | 3 to 5FD | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 | 3 to 5 | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 |
| **VOCs/SVOCs** (µg/kg) | Acetone | N/A | 28,100,000 | 11 U | 10 U | 10 U | 10 U | 10 U | 10 U | 11 U | 11 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| | Bis(2-ethylhexyl) phthalate | N/A | 347,000 | 350 U | 340 U | 340 U | 340 U | 330 U | 340 | 5800 J | 8200 J | 340 UJ | 980 J | 330 UJ | 330 UJ | 330 UJ | 340 U | 11000 | 500 | 340 U | 340 U | 340 U |
| | Phenol | N/A | 18,300,000 | 350 U | 340 U | 340 U | 340 U | 330 U | 340 U | 350 U | 350 U | 340 U | 330 U | 330 U | 330 U | 330 U | 340 U | 340 | 330 U | 340 U | 340 U | 340 U |
| | Styrene | N/A | 100,000 | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| **Metals** (mg/kg) | Aluminum | N/A | 77,800 | 9760 | 5040 | 5620 | 4950 | 3290 | 5340 | 8940 | 8270 | 5350 | 7520 | 4160 | 4250 | 5920 | 8040 | 4910 | 6140 | 8150 | 3560 | 5450 |
| | Antimony | 3.9 | 31.3 | 0.53 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.52 UJ | 0.53 UJ | 0.52 UJ | 0.5 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ |
| | Arsenic | 4.4 | 3.9 | 3.9 | 2.7 | 2.6 | 3.5 | 1.1 | 2 | **4.3** | 3.7 | 2.3 | 2.4 | 2.5 | 2.3 | 2 | ***5.4*** | ***4.5*** | ***5.8*** | ***5.5*** | 1.8 | 4.1 |
| | Barium | 281 | 15,600 | 156 | 89.7 | 57.2 | 126 | 23.1 | 32.1 | 156 | 113 | 137 | 69.9 | 57.2 | 33.7 | 45.6 | 115 | 50.7 | 88.3 | 125 | 25.7 | *333* |
| | Beryllium | 0.8 | 156 | 0.47 | 0.31 U | 0.32 | 0.31 U | 0.3 U | 0.32 | 0.55 | 0.54 | 0.31 U | 0.35 | 0.3 U | 0.3 U | 0.39 | 0.4 | 0.37 | 0.43 | 0.42 | 0.3 U | 0.37 |
| | Calcium | N/A | N/A | 21700 | 28400 | 25500 | 32300 | 58800 | 33600 | 45000 | 52500 | 51700 | 21200 | 43400 | 34500 | 33600 | 74800 | 36600 | 45900 | 26500 | 30700 | 38700 |
| | Chromium | 16.2 | 234 | 12.4 | 9.1 | 7.3 | 7.4 | 4.7 | 14.2 | 8.7 | 7.3 | 11.8 | *19* | 5.4 | 7.2 | 9.9 | 7.5 | 9.8 | 9.1 | *16.3* | 5.9 | 5.7 |
| | Cobalt | 9.3 | 1,520 | 7.5 U | 7.2 U | 7.2 U | 7.2 U | 7.1 U | 7.1 U | 7.3 U | 7.4 U | 7.2 U | 7 U | 7.1 U | 7.1 U | 7.1 U | 7.3 U | 7.1 U | 7.1 U | 7.1 U | 7.1 U | 7.1 U |
| | Copper | 17 | 3,130 | *25.8* | *259* | *47.3* | *55.5* | *55.5* | *213* | *18.1* | *20.4* | *105* | *35.2* | *20.2* | *79.1* | *50.9* | *34.9* | *87.4* | *70* | *242* | *51.9* | *102* |
| | Iron | N/A | 23,500 | 14200 | 8670 | 9000 | 7970 | 5730 | 13400 | 11400 | 10300 | 10400 | 13600 | 7160 | 8580 | 15800 | 9490 | 11600 | 11800 | 14400 | 7280 | 10800 |
| | Lead | 11.2 | 400 | 7.2 | 4.9 | 4.7 | 6.3 | 2.6 | 4.9 | 8.3 | 7.3 | 4.8 | 4.8 | 5.2 | 3.5 | 4.9 | 8.3 | 4.9 | 7.1 | 10.4 | 3.4 | 6.7 |
| | Magnesium | N/A | N/A | 4210 | 3830 | 3480 | 4130 | 2550 | 3800 | 4900 | 4270 | 3960 | 5730 | 3430 | 3120 | 3780 | 4220 | 3360 | 4290 | 5140 | 2460 | 4670 |
| | Manganese | N/A | 3,590 | 212 | 186 | 188 | 189 | 157 | 180 | 259 | 230 | 218 | 212 | 189 | 181 | 235 | 130 | 222 | 230 | 274 | 152 | 241 |
| | Nickel | 21 | 1,560 | 15.7 U | 15.5 U | 15.4 U | 15.4 U | 15.2 U | 15.2 U | 15.7 U | 15.9 U | 15.6 U | 16.6 | 15.2 U | 15.2 U | 15.2 U | 15.7 U | 15.2 U | 15.2 U | 15.2 U | 15.2 U | 15.2 U |
| | Potassium | N/A | N/A | 1510 | 1040 | 961 | 1000 | 529 | 768 | 1600 | 1480 | 784 | 1060 | 786 | 623 | 1470 | 1090 | 805 | 927 | 1680 | 583 | 864 |
| | Selenium | < 1.0 | 391 | 0.53 UJ | 0.52 UJ | 0.51 U | 0.51 U | 0.51 U | 0.51 UJ | 0.52 UJ | 0.53 U | 0.52 U | 0.5 UJ | 0.51 U | 0.51 UJ | 0.51 U | 0.52 UJ | 0.51 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ |
| | Sodium | N/A | N/A | 466 | 216 | 295 | 472 | 270 | 310 | 492 | 511 | 327 | 409 | 302 | 273 | 315 | 386 | 266 | 384 | 344 | 312 | 412 |
| | Thallium | <1.1 | 5.16 | 0.18 J | 0.1 U | 0.1 J | 0.18 J | 0.1 U | 0.1 U | 0.19 J | 0.17 J | 0.1 U | 0.14 J | 0.14 J | 0.1 U | 0.12 J | 0.1 U | 0.1 J | 0.1 U | 0.19 J | 0.1 U | 0.1 U |
| | Vanadium | 33 | 78.2 | 27.2 | 18.6 | 19.8 | 15.2 | 10.7 | 26.2 | 21.1 | 19.4 | 18.8 | 26.8 | 12.2 | 16.1 | 29.6 | 20.7 | 23 | 21.4 | 28.4 | 13 | 22.5 |
| | Zinc | 76 | 23,500 | 36 | *124* | 34.5 | 38.7 | 31.8 | *93.4* | 33.2 | 31 | 54.3 | 37.7 | 30.7 | 41.8 | 40.8 | 28 | 51.8 | 47.2 | *103* | 31.9 | 65.5 |
| **Inorganics** (mg/kg) | Cyanide | N/A | 1220 | 0.53 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.51 U | 0.51 U | 0.52 U | 0.53 U | 0.52 U | 0.5 U | 0.51 U | 0.51 U | 0.51 U | 0.52 U | 0.51 U | 0.52 U | 0.51 U | 0.51 U | 0.51 U |

**Table B-2. Summary of the Phase 2 RFI Soil Analyses for SWMU 6-30, Radioactive Burial 11 (RW-06) (Page 8 of 10)**

| Chemical Class (units) | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential Soil SSL [b] | Borehole Number and Sample Depth Interval (feet) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 60 | | | | | | | 61 | | | | | | 62 | | | | | |
| | | | | 3 to 5 | 3 to 5FD | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 | 3 to 5 | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 | 3 to 5 | 3 to 5FD | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 |
| **VOCs/SVOCs** (µg/kg) | Acetone | N/A | 28,100,000 | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 10 U | 11 U | 11 U | 10 U | 10 U | 10 U | 10 U | 10 U |
| | Bis(2-ethylhexyl) phthalate | N/A | 347,000 | 340 U | 340 U | 550 | 330 U | 340 U | 940 | 340 U | 340 U | 340 U | 340 U | 340 U | 330 U | 330 U | 490 | 560 | 340 U | 340 U | 230 J | 540 | 400 |
| | Phenol | N/A | 18,300,000 | 340 U | 340 U | 340 U | 330 U | 340 U | 340 U | 340 U | 340 U | 340 U | 340 U | 340 U | 330 U | 330 U | 350 U | 350 U | 340 U | 340 U | 340 U | 330 U | 340 U |
| | Styrene | N/A | 100,000 | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| **Metals** (mg/kg) | Aluminum | N/A | 77,800 | 7860 | 6810 | 7940 | 5670 | 3190 | 7050 | 5730 | 7860 | 6360 | 6420 | 5510 | 5410 | 5550 | 12700 | 11700 | 4130 | 10600 | 3890 | 7390 | 3700 |
| | Antimony | 3.9 | 31.3 | 0.51 UJ | 0.52 UJ | 0.52 UJ | 0.51 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.53 UJ | 0.53 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ |
| | Arsenic | 4.4 | 3.9 | ***12.3*** | ***8*** | ***14.7*** | **4** | 3.8 | 3.8 | ***12.4*** | ***10.1*** | ***13.5*** | ***4.7*** | 2.3 | 3.7 | **4.1** | **4.4** | **4.3** | 1.9 | 2.6 | 1.9 | **4.4** | 3.1 |
| | Barium | 281 | 15,600 | 231 | 198 | 121 | 63.4 | 35.3 | 187 | 67 | 113 | 110 | 55.3 | 24.6 | 53.6 | 46.7 | 220 | 201 | 71.9 | 74 | 117 | 61 | 41.1 |
| | Beryllium | 0.8 | 156 | 0.4 | 0.44 | 0.45 | 0.34 | 0.31 U | 0.4 | 0.41 | 0.4 | 0.47 | 0.36 | 0.3 U | 0.42 | 0.32 | 0.61 | 0.62 | 0.31 U | 0.31 U | 0.31 U | 0.43 | 0.31 U |
| | Calcium | N/A | N/A | 45500 | 35300 | 58500 | 22800 | 81000 | 57400 | 35100 | 66900 | 30600 | 13600 | 22000 | 19600 | 25100 | 28000 | 29000 | 71100 | 5060 | 52300 | 82600 | 52200 |
| | Chromium | 16.2 | 234 | 9.3 | 7.8 | 11.4 | 15.6 | 3.4 | 13.6 | 6.5 | 7.6 | 8.4 | 8.8 | *29.7* | 7.6 | 14.5 | 12.1 | 12.4 | 5.9 | *43* | 5.6 | 7.9 | 6.7 |
| | Cobalt | 9.3 | 1,520 | 7.2 U | 7.2 U | 7.2 U | 7.1 U | 7.2 U | 7.1 U | 7.2 U | 7.3 U | 7.2 U | 7.1 U | 7.1 U | 7.1 U | 7.1 U | 7.4 U | 7.4 U | 7.1 U | 9.3 | 7.2 U | 7.1 U | 7.1 U |
| | Copper | 17 | 3,130 | *46.2* | *91* | *64.5* | *64.7* | *27.8* | *39.1* | *25.7* | *28.8* | *20.2* | *67.5* | *87.5* | *81.4* | *67* | *113* | *42.6* | *60.2* | *45.9* | *296* | *62* | *251* |
| | Iron | N/A | 23,500 | 13000 | 10500 | 12700 | 12200 | 5540 | 13400 | 9050 | 10200 | 9600 | 12500 | 11500 | 11100 | 10800 | 14500 | 14500 | 8920 | 17100 | 7130 | 9460 | 5910 |
| | Lead | 11.2 | 400 | 6.5 | 6.9 | 8.6 | 4.7 | 4.3 | 7.4 | 5.5 | 8.7 | 7.5 | 6.2 | 3.4 | 5.5 | 4.8 | 8.3 | 8.3 | 2.9 | 1.7 | 3.5 | 5 | 4.5 |
| | Magnesium | N/A | N/A | 5080 | 4230 | 5010 | 4650 | 2840 | 4130 | 3210 | 3580 | 4330 | 4790 | 4710 | 3800 | 3570 | 5100 | 5580 | 2940 | 10600 | 2800 | 3620 | 2850 |
| | Manganese | N/A | 3,590 | 221 | 205 | 223 | 234 | 196 | 343 | 160 | 135 | 211 | 250 | 186 | 206 | 194 | 260 | 291 | 153 | 418 | 225 | 326 | 155 |
| | Nickel | 21 | 1,560 | 15.4 U | 15.5 U | 15.5 U | 15.2 U | 15.5 U | 19.9 | 15.4 U | 15.7 U | 15.4 U | 15.3 U | 18.8 | 15.2 U | 15.2 U | 15.9 U | 15.8 U | 15.3 U | *28* | 15.3 U | 15.2 U | 15.3 U |
| | Potassium | N/A | N/A | 1290 | 1150 | 1020 | 940 | 610 | 795 | 1140 | 1270 | 1050 | 1360 | 617 | 812 | 975 | 2090 | 1930 | 567 | 3170 | 658 | 1260 | 702 |
| | Selenium | < 1.0 | 391 | 0.51 UJ | 0.52 UJ | 0.52 UJ | 0.51 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.53 UJ | 0.53 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ |
| | Sodium | N/A | N/A | 343 | 277 | 440 | 307 | 331 | 374 | 490 | 489 | 520 | 390 | 291 | 330 | 385 | 496 | 548 | 225 | 1020 | 316 | 387 | 253 |
| | Thallium | <1.1 | 5.16 | 0.13 J | 0.14 J | 0.13 J | 0.1 U | 0.1 U | 0.1 U | 0.11 J | 0.12 J | 0.17 J | 0.16 J | 0.1 U | 0.1 U | 0.1 U | 0.19 J | 0.17 J | 0.1 U | 0.18 J | 0.12 J | 0.12 J | 0.12 J |
| | Vanadium | 33 | 78.2 | 29.5 | 21.9 | 26.2 | 21.4 | 9.7 | 21.2 | 19.2 | 21.7 | 19.2 | 21.6 | 18.2 | 20.7 | 20.8 | 28.5 | 28.1 | 17.5 | *37.6* | 12.9 | 19.5 | 10.9 |
| | Zinc | 76 | 23,500 | 40.1 | 56.2 | 45.1 | 45 | 28.3 | 44.8 | 33.8 | 30.2 | 29.8 | 49.5 | 43.3 | 48.1 | 38.6 | 68.6 | 43.5 | 40.2 | 67 | *109* | 41.1 | *105* |
| **Inorganics** (mg/kg) | Cyanide | N/A | 1220 | 0.51 U | 0.52 U | 0.52 U | 0.51 U | 0.52 U | 0.51 U | 0.51 U | 0.52 U | 0.51 U | 0.51 U | 0.51 U | 0.51 U | 0.51 U | 0.53 U | 0.53 U | 0.51 U | 0.51 U | 0.51 U | 0.51 U | 0.51 U |

**Table B-2. Summary of the Phase 2 RFI Soil Analyses for SWMU 6-30, Radioactive Burial 11 (RW-06) (Page 9 of 10)**

| Chemical Class (units) | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential Soil SSL [b] | Borehole Number and Sample Depth Interval (feet) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 63 | | | | | | 64 | | | | | | | Background 03 | | | | | | |
| | | | | 3 to 5 | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 | 3 to 5 | 3 to 5FD | 8 to 10 | 8 to 10FD | 13 to 15 | 18 to 20 | 23 to 25 | 3 to 5 | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 |
| **VOCs/SVOCs** (µg/kg) | Acetone | N/A | 28,100,000 | 11 U | 11 U | 10 U | 10 U | 10 U | 10 U | 11 U | 11 U | 11 U | 11 U | 10 U | 10 U | 10 U | 12 | 13 | ND | 11 | 11 U | 10 U |
| | Bis(2-ethylhexyl) phthalate | N/A | 347,000 | 970 | 780 | 340 U | 220 J | 370 | 330 U | 350 U | 400 | 350 U | 870 | 340 U | 810 | 420 | 430 | 570 | 370 | 340 U | 500 | 340 U |
| | Phenol | N/A | 18,300,000 | 360 U | 360 U | 340 U | 340 U | 340 U | 330 U | 350 U | 350 U | 350 U | 350 U | 340 U | 340 U | 340 U | 350 U | 350 U | 340 U | 340 U | 340 U | 340 U |
| | Styrene | N/A | 100,000 | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| **Metals** (mg/kg) | Aluminum | N/A | 77,800 | 8930 | 7280 | 4380 | 4480 | 3130 | 17000 | 8990 | 10400 | 9100 | 7760 | 3780 | 7540 | 4460 | 18400 | 8090 | 4850 | 6070 | 5600 | 8700 |
| | Antimony | 3.9 | 31.3 | 0.54 UJ | 0.55 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.53 UJ | 0.53 UJ | 0.53 UJ | 0.53 UJ | 0.52 UJ | 0.52 UJ | 0.51 UJ | 0.52 UJ | 0.53 UJ | 0.51 UJ | 0.51 UJ | 0.54 UJ | 0.52 UJ |
| | Arsenic | 4.4 | 3.9 | ***5*** | 3.2 | **4.2** | 2.3 | 2 | **4.3** | **4.4** | **4.3** | ***6.9*** | 3.7 | 1.9 | 2.9 | 2.1 | ***4.9*** | ***4.7*** | 2.6 | 2.7 | **4.3** | 2.9 |
| | Barium | 281 | 15,600 | *315* | 67.1 | 112 | 29.7 | 18.1 | 55.5 | *438* | 115 | 90.8 | 125 | 39.8 | 68.4 | 22 | 90.3 | 138 | 67.3 | 43.7 | 89.5 | 131 |
| | Beryllium | 0.8 | 156 | 0.48 | 0.4 | 0.31 U | 0.31 U | 0.31 U | *0.86* | 0.35 | 0.48 | 0.54 | 0.35 | 0.31 U | 0.39 | 0.31 U | *0.87* | 0.44 | 0.31 U | 0.3 U | 0.33 U | 0.54 |
| | Calcium | N/A | N/A | 53400 | 25500 | 40600 | 24700 | 34300 | 48100 | 168000 | 24600 | 30100 | 51200 | 18700 | 29900 | 68200 | 32900 | 56300 | 26800 | 18700 | 17600 | 72900 |
| | Chromium | 16.2 | 234 | 9 | 10.6 | 7.5 | 8.9 | 8.1 | 14.2 | 7.4 | 10.5 | 14.5 | 20.4 | 4.9 | 11.7 | 4.1 | *16.4* | 9.1 | 7.4 | 15.3 | 7.5 | 9.3 |
| | Cobalt | 9.3 | 1,520 | 7.6 U | 7.6 U | 7.2 U | 7.2 U | 7.1 U | 7.1 U | 7.4 U | 7.4 U | 7.5 U | 7.4 U | 7.3 U | 7.3 U | 7.2 U | 7.3 U | 7.4 U | 7.1 U | 7.1 U | 7.6 U | 7.3UJ |
| | Copper | 17 | 3,130 | *77.8* | *27.3* | *28.3* | *35* | *22.8* | *79.2* | *43.6* | *34.8* | *26.2* | *142* | *35.9* | *32.3* | *33* | *21.9* | 13.8 | *27.9* | *307* | 10.7 | *30.8* |
| | Iron | N/A | 23,500 | 10900 | 12200 | 7730 | 7740 | 7730 | 15000 | 8940 | 12700 | 13800 | 14100 | 7380 | 14700 | 7880 | 17000 | 10700 | 9550 | 10100 | 9780 | 11500 |
| | Lead | 11.2 | 400 | 8.5 | 5 | 6.3 | 3.9 | 3.5 | 7.9 | 4.8 | 8.6 | *18.2* | *15.8* | 3.1 | 5.7 | 3 | 8.8 | 5.7 | 5.3 | 3.9 | 6.2 | 4.8 |
| | Magnesium | N/A | N/A | 4900 | 4620 | 3780 | 3580 | 2340 | 5570 | 6060 | 4130 | 5940 | 5500 | 3440 | 4810 | 2670 | 5600 | 4560 | 3410 | 4010 | 3740 | 3720 |
| | Manganese | N/A | 3,590 | 231 | 206 | 198 | 176 | 166 | 241 | 123 | 306 | 258 | 180 | 189 | 238 | 157 | 274 | 199 | 214 | 201 | 234 | 211 |
| | Nickel | 21 | 1,560 | 16.2 U | 16.4 U | 15.5 U | 15.4 U | 15.3 U | 15.2 U | 15.8 U | 15.8 U | 16 U | 15.8 U | 15.6 U | 15.6 U | 15.4 U | 15.7 U | 15.9 U | 15.3 U | 15.6 | 16.3 U | 15.7 U |
| | Potassium | N/A | N/A | 1390 | 941 | 726 | 714 | 509 UJ | 2690 | 1070 | 2780 | 1080 | 859 | 726 | 1140 | 671 | 3040 | 1220 | 966 | 1080 | 1180 | 1480 |
| | Selenium | < 1.0 | 391 | 0.54 UJ | 0.55 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.53 UJ | 0.53 UJ | 0.53 UJ | 0.53 UJ | 0.53 UJ | 0.52 UJ | 0.51 UJ | 0.52 UJ | 0.53 UJ | 0.51 UJ | 0.51 UJ | 0.54 UJ | 0.52 UJ |
| | Sodium | N/A | N/A | 211 | 227 | 199 | 255 | 204 | 576 | 323 | 200 | 486 | 411 | 247 | 422 | 285 | 736 | 505 | 266 | 246 | 253 | 308 |
| | Thallium | <1.1 | 5.16 | 0.18 J | 0.14 J | 0.1 U | 0.11 J | 0.1 U | 0.14 J | 0.11 U | 0.22 J | 0.16 J | 0.11 U | 0.1 U | 0.1 U | 0.1 U | 0.15 J | 0.14 J | 0.1 U | 0.1 U | 0.15 J | 0.1 U |
| | Vanadium | 33 | 78.2 | 21.6 | 27.9 | 13.4 | 13.7 | 13.7 | *29* | 24.5 | 24.1 | 25.8 | 30.6 | 12.3 | 28.5 | 14.3 | 33 | 21.5 | 17.2 | 19.3 | 18.9 | 25.3 |
| | Zinc | 76 | 23,500 | 53.1 | 35.3 | 31.6 | 35.1 | 38.7 | 56.7 | 27.1 | 40 | 38.9 | 59.8 | 31.2 | 38.8 | 27 | 44.8 | 30 | 30.4 | *122* | 27.9 | 40.5 |
| **Inorganics** (mg/kg) | Cyanide | N/A | 1220 | 0.54 U | 0.55 U | 0.52 U | 0.51 U | 0.51 U | 0.51 U | 0.53 U | 0.53 U | 0.53 U | 0.53 U | 0.53 U | 0.52 U | 0.51 U | 0.52 U | 0.53 U | 0.51 U | 0.51 U | 0.54 U | 0.52 U |

**Table B-2. Summary of the Phase 2 RFI Soil Analyses for SWMU 6-30, Radioactive Burial 11 (RW-06) (Page 10 of 10)**

| Chemical Class (units) | Analyte | NMED-Approved Background Subsurface [a] | NMED Residential Soil SSL [b] | Borehole Number and Sample Depth Interval (feet) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Background 04 | | | | | | | Background 05 | | | | | | Background 06 | | | | | |
| | | | | 3 to 5 | 3 to 5FD | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 | 3 to 5 | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 | 3 to 5 | 3 to 5FD | 8 to 10 | 13 to 15 | 18 to 20 | 23 to 25 | 28 to 30 |
| **VOCs/SVOCs** (µg/kg) | Acetone | N/A | 28,100,000 | 14 | 11 U | 11 U | 10 U | 10 U | 11 | 10 U | 10 U | 11 U | 10 U | 10 U | 11 U | 10 U | 11 U | 10 U | 11 | 10 U | 10 U | 10 U | ND |
| | Bis(2-ethylhexyl) phthalate | N/A | 347,000 | 350 U | 2200 | 550 | 340 U | 340 U | 520 | 340 U | 360 | 370 U | 640 | 360 | 370 U | 480 | 380 | 340 U | 350 U | 630 | 17000 | 740 | 1200 |
| | Phenol | N/A | 18,300,000 | 350 U | 350 U | 350 U | 340 U | 490 | 340 U | 340 U | 340 U | 370 U | 330 U | 340 U | 370 U | 330 U | 350 U | 340 U | 350 U | 340 U | 330 U | 340 U | 360 U |
| | Styrene | N/A | 100,000 | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 6 U | 5 U | 5 U | 6 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U | 5 U |
| **Metals** (mg/kg) | Aluminum | N/A | 77,800 | 12700 | 12600 | 11200 | 5190 | 3560 | 2950 | 4700 | 10400 | 4150 | 5740 | 4560 | 8830 | 4380 | 4390 | 9580 | 10300 | 6590 | 4570 | 3500 | 3650 |
| | Antimony | 3.9 | 31.3 | 0.53 UJ | 0.54 UJ | 0.53 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.52 UJ | 0.55 UJ | 0.51 UJ | 0.51 UJ | 0.57 UJ | 0.5 UJ | 0.53 UJ | 0.52 UJ | 0.53 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.55 UJ |
| | Arsenic | 4.4 | 3.9 | 3.6 | 3.6 | ***4.6*** | 1.4 | 1.7 | 2.3 | 3.7 | ***6.1*** | 4.1 | 2.6 | 2.8 | 3.7 | ***4.8*** | 3.5 | ***5.2*** | ***6.3*** | 2.5 | 1.5 | 2.1 | 2.9 |
| | Barium | 281 | 15,600 | 216 | 164 | 204 | 55.5 | 21.1 | 26 | 61.8 | 223 | 110 | 52.5 | 35.3 | 64.9 | 107 | 147 | 144 | 88.7 | 72.2 | 29.2 | 39.3 | 27.2 |
| | Beryllium | 0.8 | 156 | 0.73 | 0.69 | 0.66 | 0.38 | 0.31 U | 0.33 | 0.36 | 0.56 | 0.33 U | 0.34 | 0.31 U | 0.49 | 0.46 | 0.32 U | 0.4 | 0.52 | 0.31 U | 0.3 U | 0.3 U | 0.33 U |
| | Calcium | N/A | N/A | 27300 | 36200 | 56900 | 29100 | 34800 | 37700 | 53100 | 29600 | 66800 | 34600 | 33100 | 23500 | 41600 | 143000 | 68300 | 30400 | 12500 | 27700 | 49600 | 28000 |
| | Chromium | 16.2 | 234 | 13.4 | 15 | 13.3 | 12.5 | 6.3 | 5.3 | 7.5 | 11.4 | 6.6 | 10.8 | 7.5 | 11 | 8 | 7.4 | 9.7 | 12.6 | 13.3 | 9.1 | 4.8 | 5 |
| | Cobalt | 9.3 | 1,520 | 7.4 UJ | 7.5 UJ | 7.4 UJ | 7.2 UJ | 7.2 UJ | 7.1 UJ | 7.1 UJ | 7.3 U | 7.7 U | 7.1 U | 7.1 U | 8 U | 7 U | 7.4 U | 7.3 U | 7.4 U | 7.2 U | 7.1 U | 7.1 U | 7.6 U |
| | Copper | 17 | 3,130 | *30* | *48.5* | *39.1* | *42.1* | *165* | *15.7* | *813* | *21.9* | *51.7* | *72* | *30.3* | *64.3* | *72.5* | *32.2* | *23.8* | *25.5* | *61.8* | *24.1* | 16.3 | *84.6* |
| | Iron | N/A | 23,500 | 15300 | 15800 | 13800 | 13900 | 7790 | 6130 | 9090 | 14000 | 9130 | 13100 | 8280 | 11800 | 7510 | 6270 | 11200 | 14400 | 11800 | 8790 | 8140 | 6600 |
| | Lead | 11.2 | 400 | 10.6 | 7.4 | 8.1 | 5.8 | 3.8 | 3.9 | 4.2 | 7.8 | 5.4 | 4.1 | 6.4 | 7 | 5.9 | 2.9 | 5.1 | 7.2 | 5 | 3.1 | 3.2 | 4.4 |
| | Magnesium | N/A | N/A | 6590 | 5640 | 5730 | 3950 | 2470 | 2050 | 3150 | 6220 | 2940 | 4450 | 3870 | 3690 | 2890 | 3240 | 4840 | 5680 | 6100 | 3720 | 2450 | 2840 |
| | Manganese | N/A | 3,590 | 327 | 262 | 220 | 213 | 142 | 175 | 192 | 281 | 199 | 241 | 212 | 241 | 170 | 75.3 | 160 | 262 | 265 | 178 | 194 | 177 |
| | Nickel | 21 | 1,560 | 15.9 U | 16.1 U | 15.9 U | 15.5 U | 15.3 U | 15.3 U | 15.2 U | 15.6 U | 16.6 U | 15.2 U | 15.3 U | 17.1 U | 15 U | 15.9 U | 15.7 U | 15.8 U | 15.4 U | 15.2 U | 15.2 U | 16.4 U |
| | Potassium | N/A | N/A | 1780 | 2180 | 1230 | 922 | 511 U | 509 U | 697 | 1420 | 656 | 849 | 785 | 1240 | 1030 | 770 | 1690 | 2140 | 1150 | 817 | 604 | 737 |
| | Selenium | < 1.0 | 391 | 0.53 UJ | 0.54 UJ | 0.53 UJ | 0.52 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.52 UJ | 0.55 UJ | 0.51 UJ | 0.51 UJ | 0.57 UJ | 0.5 UJ | 0.53 UJ | 0.52 UJ | 0.53 UJ | 0.51 UJ | 0.51 UJ | 0.51 UJ | 0.55 UJ |
| | Sodium | N/A | N/A | 236 | 242 | 434 | 255 | 235 | 364 | 325 | 428 | 179 | 271 | 337 | 862 | 561 | 571 | 544 | 516 | 274 | 254 | 185 | 190 |
| | Thallium | <1.1 | 5.16 | 0.18 U | 0.13 U | 0.11 U | 0.1 U | 0.1 U | 0.1U | 0.1 U | 0.12 J | 0.11 U | 0.1 U | 0.1 U | 0.13 J | 0.1 U | 0.11 U | 0.1 U | 0.15 J | 0.12 J | 0.1 U | 0.1 U | 0.1 U |
| | Vanadium | 33 | 78.2 | 27.5 | *33.1* | 28.9 | 26.8 | 15.3 | 11.3 | 16.1 | *33.2* | 20.8 | 22.2 | 14.9 | 23.3 | 14.2 | 13.9 | 27 | *33.5* | 20.7 | 15.4 | 13.9 | 12.1 |
| | Zinc | 76 | 23,500 | 43.4 | 65.9 | 42.6 | 37.1 | 67.2 | 22.2 | *303* | 38 | 34.1 | 56.9 | 33.1 | *76.2* | 45 | 24.9 | 32.7 | 39.4 | 51.5 | 29.8 | 20.4 | 41.4 |
| **Inorganics** (mg/kg) | Cyanide | N/A | 1220 | 0.53 U | 0.54 U | 0.53 U | 0.52 U | 0.51 U | 0.51 U | 0.51 U | 0.52 U | 0.55 U | 0.51 U | 0.51 U | 0.57 U | 0.5 U | 0.53 U | 0.52 U | 0.53 U | 0.67 | 0.51 U | 0.51 U | 0.55 U |

[a] NMED, 1997. Maximum background for Tijeras Super Group. Concentrations exceeding maximum background are shown in *italics.*
[b] NMED, 2006. Concentrations exceeding SSL shown in **bold**.

J - estimated
mg/kg - milligram per kilogram
N/A – not applicable
NMED - New Mexico Environment Department
SSL - Soil Screening Level
SVOC - semivolatile organic compound
U - not detected at the reporting limit
µg/kg - micrograms per kilogram
UJ - estimated non-detect
VOC - volatile organic compound

**Table B-3. Summary of Maximum Reported Radioactive Isotope Concentrations for the Phase 2 RFI at SWMU 6-30, Radioactive Burial 11 (RW-06)**

| Analyte | NMED Approved Background [a] | Maximum Reported Concentration (pCi/g) |
|---|---|---|
| Actinium-228 | N/A | 1.78 |
| Bismuth-212 | N/A | 0.94 |
| Bismuth-214 | N/A | 0.92 |
| Cobalt-57 | N/A | ND |
| Cobalt-60 | N/A | ND |
| Cesium-134 | N/A | 0.032 |
| Cesium-137 | 0.908 | 0.069 |
| Potassium-40 | N/A | 23.6 |
| Lead-210 | N/A | 6.2 |
| Lead-212 | N/A | 1.73 |
| Lead-214 | N/A | 1.01 |
| Radium-226 | 0.90 | *2.16* |
| Thorium-234 | 1.4 | *5.22* |
| Thallium-208 | N/A | 0.524 |
| Uranium-235 | 0.16 | *0.22* |
| Gross Alpha | 17.4 | *28* |
| Gross Beta | 35.4 | *36.9* |

[a] NMED, 1997. Maximum background for Tijeras Super Group where available.
Concentratons exceeding maximum background are shown in *italics.*
N/A - not applicable
ND - not detected at the reporting limit.
pCi/g - picocuries per gram

# APPENDIX C

## 2006 Field Activities Report Provided by Cabrera Services

# Daily Field Activity Logs

CABRERA SERVICES
RADIOLOGICAL · ENVIRONMENTAL · REMEDIATION

| | | | |
|---|---|---|---|
| Date | 10 | 16 | 06 |
| Sheet | 1 | of | 1 |

# Draft Daily Field Activity Log

| | |
|---|---|
| Project Name: RW-06 | Project No.: 07-1007.00 |
| Field Activity Locations: Kirtland Air Force Base RW-06 | |
| Description of Days Activities and Events: | |

0700 Arrived on site. Performed Kickoff meeting. Reviewed and signed Radiation Work Permit. Issued dosimeters. Performed daily safety brief. Performance check instrumentation.

0800 Performed initial gamma walkover survey and dose rate survey of trench line. Gross gamma measurements ranged from 11.2 kcpm to 14.1 kcpm with a background of 12.4 kcpm. Dose rate measurements ranged from 6-8 microRem/hr with a background of 7 µRem/hr.

1000 Attended Ordinance safety training and continued mobilization activities.

1200 Excavator arrived on site and an initial radiological status survey was performed. Performed gross gamma and dose rate survey of decon pad. Began construction of decon pad.

1400 Conex arrived on site and an initial radiological status survey was performed. Continue mobilization activities.

1500 Generator arrived onsite.

1630 Offsite

| | |
|---|---|
| Visitors on Site:<br>None | Changes From Plans and Specifications, and Other Special Orders and Important Decisions:<br>None |
| Weather Conditions:<br>Sunny with temperatures ranging from 50 to 70 degrees. | Important Telephone Calls:<br>None |
| Additional CSI Personnel on Site:<br>None | |

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| | | | |
|---|---|---|---|
| Date | 10 | 17 | 06 |
| Sheet | 1 | of | 2 |

# Draft Daily Field Activity Log

| | |
|---|---|
| Project Name: RW-06 | Project No.: 07-1007.00 |
| Field Activity Locations: Kirtland Air Force Base RW-06 | |
| Description of Days Activities and Events: | |

07:00 Performed safety briefing and performance checked instrumentation.

08:00 Begin trenching approximately 50 feet from southern end of Trench A. Perform gross gamma scanning of spoils. Scan results range from 10.5 k counts per minute (cpm) to 13.5 kcpm. Identified and surveyed debris consisting of glass syringes, plastic bags, plastic sheeting, animal bones, wire fencing, and steel cable. All survey results of debris less than action levels.

09:30 Hold excavation. Wire fencing debris identified at ~65 feet from trench origin. Yellow and magenta postings indicative of radiological material identified on debris. Survey performed on debris and all survey results below action levels. Continue excavation.

11:00 Gross gamma static measurements were performed at the bottom of the trench. The measurements were performed at approximately 25 feet, 50 feet, and 70 feet from the origin of the trench at depths ranging 12 feet to 14 feet below ground surface. Static measurement results were 15.1 kcpm, 14.8 kcpm, and 14.7 kcpm, respectively.

11:45 Hold excavation. Plastic carboy and plastic bag identified at ~75 feet from trench origin. Gross gamma scan and dose rate result of 30.9 kcpm and 8 µ Rem/hr, respectively, on carboy. The carboy contained liquid and was leaking when brought to the surface (~1 liter). Swipe result of carboy and liquid were ~7,000 dpm/100cm^2 alpha and ~600 dpm/100cm^2 beta. Gross gamma scan result of 100,000 kcpm on plastic bag. Dose rate measurements on plastic bag were 8 µRem/hr at one meter (100 µRem/hr on contact). Swipe result of plastic bag were ~10 dpm/100cm^2 alpha and ~4,000 dpm/100cm^2 beta. Bag contained batteries, dirt, broken electronic components, and possible crushed vials.

Due to elevated results, the exclusion area was posted and controlled as a contamination area. Captain Murren (Kirtland RSO) was informed of site conditions. Per Captain Murren's instruction, the carboy, plastic bag, and surrounding dirt and debris were double bagged in plastic and segregated from the spoils. The remaining dirt was scanned and the results were below background. Swipe results on the bagged waste were below action levels. Began backfilling trench.

14:45 Captain Murren arrived on site. Transferred waste bags into 35 gallon drum. The maximum dose rate measurement on the exterior of the drum was 60 µRem/hr on contact. Swipe results on the exterior of the drum were below action levels.

15:20 Performed release surveys on all personnel and equipment inside contamination area. All survey results were below Regulatory Guide 1.86 limits.

16:30 Offsite.

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| | | | |
|---|---|---|---|
| Date | 10 | 17 | 06 |
| Sheet | 2 | of | 2 |

# Draft Daily Field Activity Log

| | |
|---|---|
| Visitors on Site:<br>Captain Murren (Kirtland RSO)<br>Robert Warder (377 MSG/CSVR) | Changes From Plans and Specifications, and Other Special Orders and Important Decisions:<br>Described Above |
| Weather Conditions:<br>Sunny with temperatures ranging from 50 to 70 degrees. Light winds in the morning with steady winds (~10mph) in the afternoon. | Important Telephone Calls:<br>Described Above |
| Additional CSI Personnel on Site:<br>None | |

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| | | | |
|---|---|---|---|
| Date | 10 | 18 | 06 |
| Sheet | 1 | of | 2 |

# Draft Daily Field Activity Log

| | |
|---|---|
| Project Name: RW-06 | Project No.: 07-1007.00 |
| Field Activity Locations: Kirtland Air Force Base RW-06 | |
| Description of Days Activities and Events: | |

07:00 Performed safety briefing and performance checked instrumentation.

07:30 Performed walkover gross gamma scan and dose rate survey over backfilled section of Trench A 0'-88'. Gross gamma scan results ranged from 11.1 k counts per minute (cpm) to 12.1 kcpm. Dose rate survey results ranged from 6 to 8 µRem/hr. The backfilled soil was watered down to reduce dust.

08:00 Began trenching at approximately 98 feet further norther from previous days starting point. Performed gross gamma scanning and dose rate measurements of spoils. Scan results range from 11.0 k counts per minute (cpm) to 13.5 kcpm. Dose rate measurements ranged from 6 to 8 µRem/hr. Identified and surveyed debris consisting of plastic bags, plastic sheeting, animal bones, steel buckets, and tubes. All survey results of debris were less than project action levels. Spoils were routinely sprayed with water to reduce dust.

11:00 Four gross gamma static measurements were performed at the bottom of the trench. The measurements were performed at approximately 100', 115', 135' and 160' from the origin of the trench at depths ranging 13' to 15' below ground surface. The static measurement results were 15.3 kcpm, 14.8 kcpm, and 14.9 kcpm, and 15.8, respectively.

13:00 Hold excavation. The remains of several drums were identified in Burial Trench 5 at a depth of 15'. Two crushed 30 gallon or 55 gallon drums were scooped and surveyed in the bucket of the excavator. The drums were scanned for gross gamma activity. A dose rate measurement of the drums was performed. The results of the gamma scan were approximately background at 11.3 kcpm. The result of the dose rate survey was 7 µRem/hr. Four swipe samples were collected from the drums. The results of the swipe measurements were below project action levels. Captain Murren (Kirtland RSO) was informed of the presence of the drum remains. The drums were returned to the trench. Soil samples were collected from the location where the drums were found. Backfilling of the trench began.

15:45 Performed release surveys on all personnel and equipment inside contamination area. All survey results were below Regulatory Guide 1.86 limits.

16:30 Offsite.

| | |
|---|---|
| Visitors on Site:<br>Captain Murren (Kirtland RSO)<br>Robert Warder (377 MSG/CEVR)<br>Wayne Bitner (377 MSG/CEVR) | Changes From Plans and Specifications, and Other Special Orders and Important Decisions:<br>None |
| Weather Conditions:<br>Sunny with temperatures ranging from 40 to | Important Telephone Calls:<br>Described Above |

CABRERA SERVICES
RADIOLOGICAL · ENVIRONMENTAL · REMEDIATION

| | | | |
|---|---|---|---|
| Date | 10 | 18 | 06 |
| Sheet | 2 | of | 2 |

# Draft Daily Field Activity Log

| | |
|---|---|
| 60 degrees. Light winds in the morning with steady winds (~10mph) in the afternoon. | |
| Additional CSI Personnel on Site:<br><br>Hank Siegrist | |

CABRERA SERVICES
RADIOLOGICAL · ENVIRONMENTAL · REMEDIATION

| | | | |
|---|---|---|---|
| Date | 10 | 19 | 06 |
| Sheet | 1 | of | 2 |

# Draft Daily Field Activity Log

| | |
|---|---|
| Project Name: RW-06 | Project No.: 07-1007.00 |
| Field Activity Locations: Kirtland Air Force Base RW-06 | |
| Description of Days Activities and Events: | |

07:00 Performed safety briefing and performance checked instrumentation.

07:30 Began trenching at the north most point in Trench A. Gross gamma scanning and dose rate measurements of spoils were performed. Scan results ranged from 11.0 k counts per minute (cpm) to 13.5 kcpm. Dose rate measurements ranged from 6 to 8 µRem/hr. Two carboys and a plastic bag were identified at approximately 30 feet from the origin of the trench at a depth of 3 feet bgs. All survey results of debris were less than project action levels. Spoils were routinely sprayed with water to reduce dust.

10:00 Hold excavation. Identified a large amount of debris at approximately 50' from the origin of the trench at depths of 1 feet to 11 feet bgs. Debris consisted of carboys, bags, steel machine components, paperwork, vials, and laboratory trash. Radiological surveys were performed on debris and all survey results were less than project action levels.

10:45 Two gross gamma static measurements were performed at the bottom of the trench. The measurements were performed at approximately 20 feet and 50 feet from the northern origin of the trench at depth of 15 feet bgs. The static measurement results were 14.8 kcpm and 15.6, respectively.

11:30 Due to the large amount of debris in the trench, trenching was resumed at approximately 65 feet from the northern origin. Performed gross gamma scanning and dose rate measurements of spoils. Scan results ranged from 11.0 k counts per minute (cpm) to 13.5 kcpm. Dose rate measurements ranged from 6 to 8 µRem/hr. Identified and surveyed debris consisting of plastic bags, plastic sheeting, animal bones, steel buckets, and tubes. All survey results of debris were less than project action levels. Spoils were routinely sprayed with water to reduce dust.

13:30 Five gross gamma static measurements were performed at the bottom of this section of trench. The measurements were performed at approximately 75 feet, 100 feet, 120 feet, 145 feet and 160 feet from the northern origin of the trench at depths of 15 feet to 19 feet bgs. The static measurement results were 14.8 kcpm and 15.6, respectively.

14:00 Tie into previous excavation of Trench A. Began backfilling.

15:45 Performed release surveys on all personnel and equipment inside contamination area. All survey results were below Regulatory Guide 1.86 limits.

16:30 Offsite.

| | |
|---|---|
| Visitors on Site:<br>Bill McDonald (NMED)<br>Robert Warder (377MSG/CEVR) | Changes From Plans and Specifications, and Other Special Orders and Important Decisions:<br>None |

CABRERA SERVICES
RADIOLOGICAL · ENVIRONMENTAL · REMEDIATION

| | | | |
|---|---|---|---|
| Date | 10 | 19 | 06 |
| Sheet | 2 | of | 2 |

# Draft Daily Field Activity Log

| | |
|---|---|
| Weather Conditions:<br>Sunny with temperatures ranging from 30 to 60 degrees. Light winds in the morning with steady winds (~10mph) in the afternoon. | Important Telephone Calls:<br>Described Above |
| Additional CSI Personnel on Site:<br>Hank Siegrist | |

CABRERA SERVICES
RADIOLOGICAL · ENVIRONMENTAL · REMEDIATION

| Date | 10 | 20 | 06 |
|---|---|---|---|
| Sheet | 1 | of | 2 |

# Draft Daily Field Activity Log

| Project Name: RW-06 | Project No.: 07-1007.00 |
|---|---|
| Field Activity Locations: Kirtland Air Force Base RW-06 | |
| Description of Days Activities and Events: | |

07:00 Performed safety briefing and performance checked instrumentation.

07:30 Began compacting backfill from yesterday.

09:15 Began trenching at the northwestern end of Trench A. Trench A was extended 15' west. The trench was dug to a depth of 5' below ground surface (bgs). Gross gamma scanning and dose rate measurements were performed on the spoils. Scan results range from 10.8 k counts per minute (cpm) to 12.9 kcpm. Dose rate measurements ranged from 7 to 8 µRem/hr. Spoils were sprayed with water to reduce dust.

10:00 Began trenching at the north end of Trench B. The length of the trench was approximately 70'. The trench was dug to a depth of approximately 19' bgs. Gross gamma scanning and dose rate measurements were performed on the spoils. Scan results range from 11.4 k counts per minute (cpm) to 13.8 kcpm. Dose rate measurements ranged from 6 to 8 µRem/hr. Small amount of plastic and a few animal bones found. All radiological survey results of the bones were below project action levels. The spoils were routinely sprayed with water to reduce dust.

11:00 Three static gross gamma measurements were performed at the bottom of Trench B. The measurements were performed at approximately 20', 40', and 60' from the north end of the trench. The results of the static measurements were 16.4, 16.7, and 16.6 kcpm, respectively.

11:30 Began trenching at the southeastern end of Trench C. The length of the trench was approximately 35' in length. The trench was dug to a depth of approximately 15' bgs. Gross gamma scanning and dose rate measurements were performed on the spoils. Scan results range from 11.3 kcpm to 13.7 kcpm. Dose rate measurements ranged from 7 to 8 µRem/hr. Identified more than a dozen plastic bottles, vials, and syringes in the spoils. The debris was identified at approximately 35' from the start of the trench at a depth of 11'bgs. The vials were 20-100ml in size. Most of the vials were intact and contained liquid. Numerous bones, golf balls (range balls) and laboratory debris found. The debris was scanned for gross alpha, gross beta, and gross gamma. None of the scan results exceeded project action levels. The debris was swiped for removable contamination and dose rate measurements were performed. None of the survey results exceeded project action levels.

12:00 Two static gross gamma measurements were performed at the bottom of Trench C. The static measurements were performed at approximately 15' and at 35' near where debris was located. The static measurement results were 14.9 and 15.3 kcpm, respectively.

12:30 Began backfilling trenches.

15:00 Performed release surveys on all personnel and equipment inside contamination area. All survey results were below Regulatory Guide 1.86 limits.

CABRERA SERVICES
RADIOLOGICAL · ENVIRONMENTAL · REMEDIATION

| | | | |
|---|---|---|---|
| Date | 10 | 20 | 06 |
| Sheet | 2 | of | 2 |

# Draft Daily Field Activity Log

| | |
|---|---|
| 16:30 Offsite. | |
| Visitors on Site:<br>Wayne Bitner (377MSG/CEVR)<br>Carl Lanz (377MSG/CEVR) | Changes From Plans and Specifications, and Other Special Orders and Important Decisions:<br>None |
| Weather Conditions:<br>Sunny with temperatures ranging from 30 to 60 degrees. Light winds in the morning with steady winds (~15mph) in the afternoon. | Important Telephone Calls:<br>None |
| Additional CSI Personnel on Site:<br>None | |

CABRERA SERVICES
RADIOLOGICAL · ENVIRONMENTAL · REMEDIATION

| | | | |
|---|---|---|---|
| Date | 10 | 23 | 06 |
| Sheet | 1 | of | 1 |

# Draft Daily Field Activity Log

| | |
|---|---|
| Project Name: RW-06 | Project No.: 07-1007.00 |
| Field Activity Locations: Kirtland Air Force Base RW-06 | |
| Description of Days Activities and Events: | |

07:00 Performed safety briefing and performance checked instrumentation.

07:30 Began trenching in Trench A approximately 40 feet to the southwest end. The trench was dug to a depth of 15 feet below ground surface (bgs). Gross gamma scanning and dose rate measurements were performed on the spoils. Scan results ranged from 11.3 k counts per minute (cpm) to 13.7 kcpm. Dose rate measurements ranged from 6 to 8 µRem/hr.

07:40 Struck what appeared to be a communication line at approximately 10 feet from the origin of the trench at a depth of 1 feet bgs. CH2MHill received clearance from base Communications that line was abandoned. CH2M Hill notified and instructed Cabrera to continue trenching activities.

08:30 At approximately 30 feet from the origin of the trench, the south wall of the trench began to slough. The soil at this location appeared disturbed. A bundle of yellow and magenta rope (indicative of radiological activity was found at approximately 35 feet from the origin of the trench at a depth of approximately 10 feet bgs. All survey results were below project action levels. Due to the weakness of the trench walls, Cabrera was unable to collect static measurements in the trench extension.

10:00 Began demobilization activities and final status surveys.

15:30 Complete demobilization activities.

16:00 Offsite.

| | |
|---|---|
| Visitors on Site:<br>None | Changes From Plans and Specifications, and Other Special Orders and Important Decisions:<br>None |
| Weather Conditions:<br>Sunny with temperatures ranging from 30 to 60 degrees. Light winds in the morning with steady winds (~15mph) in the afternoon. | Important Telephone Calls:<br>None |
| Additional CSI Personnel on Site:<br>None | |

# Instrument Calibration Records

Designer and Manufacturer of Scientific and Industrial Instruments

*APPENDIX C*

# CERTIFICATE OF CALIBRATION

**LUDLUM MEASUREMENTS, INC.**
POST OFFICE BOX 810 PH 325-235-5494
501 OAK STREET FAX NO. 325-235-4672
SWEETWATER, TEXAS 79556, U.S.A.

CUSTOMER CABRERA SERVICES ORDER NO. 261531/305134

Mfg. Ludlum Measurements, Inc. Model 2224-1 Serial No. 162426

Mfg. Ludlum Measurements, Inc. Model 43-93 Serial No. PR 193921

Cal Date 23-Aug-06 Cal Due Date 23-Aug-07 Cal. Interval 1 Year Meterface 202-848

Check mark ☑ applies to applicable instr. and/or detector IAW mfg. spec. T 73 °F RH 46 % Alt 701.8 mm Hg

☐ New Instrument Instrument Received ☐ Within Toler. +-10% ☐ 10-20% ☐ Out of Tol ☑ Requiring Repair ☐ Other-See comments

☑ Mechanical ck. ☑ Meter Zeroed ☐ Background Subtract ☐ Input Sens. Linearity
☐ F/S Resp. ck. ☑ Reset ck. ☑ Window Operation ☑ Geotropism
☑ Audio ck. ☐ Alarm Setting ck. ☑ Batt. ck (Min. Volt) 2.2 VDC
☑ Calibrated in accordance with LMI SOP 14.8 rev 12/05/89. ☐ Calibrated in accordance with LMI SOP 14.9 rev 02/07/97.

Instrument Volt Set 825 V Input Sens. comments mV Det. Oper. 825 V at comments mV Threshold Dial Ratio ____ = ____ mV

☑ HV Readout (2 points) Ref./Inst. 500 / 501 V Ref./Inst. 1000 / 999 V

**COMMENTS:**

alpha Sens.:120mv
beta Sens.:3.5mv
beta Window:30mv
H.V. set with detector disconnected.
firmware;390096
nstrument calibrated with 5' cable.
EFF. for: Th230=22%, Tc99=21%, Ni63=0.13%, Sr90Y90=36%
pi efficiencies (refer to plateau sheet for details).
verload set to simulate light leak.

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source.

| RANGE/MULTIPLIER | REFERENCE CAL. POINT | INSTRUMENT REC'D "AS FOUND READING" | INSTRUMENT METER READING* |
|---|---|---|---|
| x1000 | 800k cpm | n/a | 800 |
| x1000 | 200k cpm | | 200 |
| x100 | 80k cpm | | 800 |
| x100 | 20k cpm | | 200 |
| x10 | 8k cpm | | 800 |
| x10 | 2k cpm | | 200 |
| x1 | 800 cpm | | 800 |
| x1 | 200 cpm | | 200 |
| | | | |
| | | | |

*Uncertainty within ± 10% C.F. within ± 20%

ALL **Range(s) Calibrated Electronically**

| | REFERENCE CAL. POINT | INSTRUMENT RECEIVED | INSTRUMENT METER READING* |
|---|---|---|---|
| Digital Readout | 800kcpm | n/a | 79813 |
| | 80kcpm | | 79800 |
| | 8kcpm | | 7980 |
| | 800cpm | | 798 |
| | 80cpm | | 80 |

| | REFERENCE CAL. POINT | INSTRUMENT RECEIVED | INSTRUMENT METER READING* |
|---|---|---|---|
| Log Scale | | | |
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Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques. The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323-1978. State of Texas Calibration License No. LO-1963

**Reference Instruments and/or Sources:** ☐ S-394 ☐ 1122 ☐ 781
Cs-137 Gamma S/N ☐ 1162 ☐ G112 ☐ M565 ☐ 5105 ☐ T1008 ☐ T879 ☐ E552 ☐ E551 ☐ 720 ☐ 734 ☐ 1616 ☐ Neutron Am-241 Be S/N T-304

☑ Alpha S/N Th230:5020-04 ☑ Beta S/N Tc99:5279-04/Sr90Y90:5281-Ni63: 99NI220 ☐ Other ____

☑ m 500 S/N 949940 ☐ Oscilloscope S/N ~~____~~ ☑ Multimeter S/N 78401031

Calibrated By: Scott S Date 23-Aug-06

Reviewed By: W Hobbs C-13 Date 23-Aug-06

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AC Inst Only ☐ Passed Dielectric (Hi-Pot) and Continuity Test ☐ Failed: ____

Designer and Manufacturer
of
Scientific and Industrial
Instruments

**LUDLUM MEASUREMENTS, INC.**
POST OFFICE BOX 810 PH. 325-235-5494
501 OAK STREET FAX NO. 325-235-4672
SWEETWATER, TEXAS 79556, U.S.A.

## *Bench Test Data For Detector*

Detector 43-93 Serial No. PR 193921 Order #. 261531/305134

Customer CABRERA SERVICES Alpha Input Sensitivity 120 mV

Counter 2224-1 Serial No. 162426 Beta Input Sensitivity 3.5 mV

Count Time 1Minute Beta Window 30 mV

Other _____ Distance Source to Detector Surface

| High Voltage | Background | | Isotope Tc99 Size 28,800 dpm | | Isotope Sr90Y90 Size 113,696 dpm | | Isotope Ni63 Size 290,376 dpm | |
|---|---|---|---|---|---|---|---|---|
| | Alpha | Beta | Alpha | Beta | Alpha | Beta | Alpha | Beta |
| 750 | 1 | 90 | 5 | 2665 | 8 | 21997 | 1 | 70 |
| 775 | 2 | 114 | 8 | 3811 | 4 | 29885 | 5 | 114 |
| 800 | 2 | 152 | 13 | 5022 | 1 | 36220 | 4 | 218 |
| 825 | 1 | 199 | 8 | 6109 | 1 | 41313 | 2 | 584 |
| 850 | 2 | 267 | 9 | 7169 | 2 | 44628 | 2 | 1309 |
| 875 | 1 | 326 | 5 | 8098 | 9 | 45677 | 1 | 2638 |
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☐ Gas Proportional detector count rate decreased ≤ 10% after 15 hour static test using 39" cable.

☐ Gas proportional detector count rate decreased ≤ 10% after 5 hour static test using 39" cable and alpha/beta counter.

Signature S Cabrera S Thomas Date 23-Aug.06

Designer and Manufacturer
of
Scientific and Industrial
Instruments

**LUDLUM MEASUREMENTS, INC.**
POST OFFICE BOX 810 PH. 325-235-5494
501 OAK STREET FAX NO. 325-235-4672
SWEETWATER, TEXAS 79556, U.S.A.

## *Bench Test Data For Detector*

Detector 43-93 Serial No. PR193921 Order # 261531/305134

Customer CABRERA SERVICES Alpha Input Sensitivity 120 mV

Counter 2224-1 Serial No. 162426 Beta Input Sensitivity 3.5 mV

Count Time 1Minute Beta Window 30 mV

Other _____ Distance Source to Detector Surface

| High Voltage | Background | | Isotope Th230 Size 4395 dpm | | Isotope _____ Size _____ | | Isotope _____ Size _____ | |
|---|---|---|---|---|---|---|---|---|
| | Alpha | Beta | Alpha | Beta | Alpha | Beta | Alpha | Beta |
| 750 | 1 | 90 | 782 | 165 | | | | |
| 775 | 2 | 114 | 843 | 206 | | | | |
| 800 | 2 | 152 | 865 | 234 | | | | |
| 825 | 1 | 199 | 944 | 328 | | | | |
| 850 | 2 | 267 | 955 | 473 | | | | |
| 875 | 1 | 326 | 947 | 501 | | | | |
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☐ Gas Proportional detector count rate decreased ≤ 10% after 15 hour static test using 39" cable.

☐ Gas proportional detector count rate decreased ≤ 10% after 5 hour static test using 39" cable and alpha/beta counter.

Signature _____ Date 23-Aug.06

Designer and Manufacturer of Scientific and Industrial Instruments

*APPENDIX C*

# CERTIFICATE OF CALIBRATION

**LUDLUM MEASUREMENTS, INC.**
POST OFFICE BOX 810 PH. 325-235-5494
501 OAK STREET FAX NO. 325-235-46
SWEETWATER, TEXAS 79556, U.S.A

CUSTOMER CABRERA SERVICES ORDER NO. 255183 / 302143

Mfg. Ludlum Measurements, Inc. Model 3 Serial No. 79498

Mfg. Ludlum Measurements, Inc. Model 44-9 Serial No. PR023106

Cal. Date 11-May-06 Cal Due Date 11-May-07 Cal. Interval 1 Year Meterface 202-002

Check mark ☑ applies to applicable instr. and/or detector IAW mfg. spec T. 74 °F RH 35 % Alt 796.8 mm H

☐ New Instrument Instrument Received ☑ Within Toler. +-10% ☐ 10-20% ☐ Out of Tol. ☐ Requiring Repair ☐ Other-See comments

☑ Mechanical ck. ☑ Meter Zeroed ☐ Background Subtract ☐ Input Sens. Linearity
☑ F/S Resp ck ☑ Reset ck. ☐ Window Operation ☑ Geotropism
☑ Audio ck ☐ Alarm Setting ck. ☑ Batt. ck. (Min. Volt) 2.2 VDC
☑ Calibrated in accordance with LMI SOP 14.8 rev 12/05/89. ☐ Calibrated in accordance with LMI SOP 14.9 rev 02/07/97.

Instrument Volt Set 900 V Input Sens. 28 mV Det Oper. 900 V at 28 mV Threshold Dial Ratio ____ = ____

☐ HV Readout (2 points) Ref./Inst. ____ / ____ V Ref./Inst. ____ / ____ V

**COMMENTS:** CALIBRATED WITH 5' CABLE

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source.

| RANGE/MULTIPLIER | REFERENCE CAL. POINT | INSTRUMENT REC'D "AS FOUND READING" | INSTRUMENT METER READING* |
|---|---|---|---|
| X 100 | 400kcpm | 4 | 4 |
| X 100 | 100kcpm | 1 | 1 |
| X 10 | 40kcpm | 4 | 4 |
| X 10 | 10kcpm | 1 | 1 |
| X 1 | 4kcpm | 4 | 4 |
| X 1 | 1kcpm | 1 | 1 |
| X 0.1 | 400cpm | 4 | 4 |
| X 0.1 | 100cpm | 1 | 1 |
| | | | |
| | | | |

*Uncertainty within ± 10% C.F. within ± 20%

ALL **Range(s) Calibrated Electronically**

| | REFERENCE CAL. POINT | INSTRUMENT RECEIVED | INSTRUMENT METER READING* | | REFERENCE CAL. POINT | INSTRUMENT RECEIVED | INSTRUMENT METER READING |
|---|---|---|---|---|---|---|---|
| Digital Readout | | | | Log Scale | | | |
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Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities o other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration technique The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323-1978

State of Texas Calibration License No. LO-19

**Reference Instruments and/or Sources:**

Cs-137 Gamma S/N ☐ 1162 ☐ G112 ☐ M565 ☐ 5105 ☐ T1008 ☐ T879 ☐ E552 ☐ E551 ☐ 720 ☐ 734 ☐ 1616 ☐ Neutron Am-241 Be S/N T-3

☐ Alpha S/N ____ ☐ Beta S/N ____ ☐ Other ____

☑ m 500 S/N 189509 ☐ Oscilloscope S/N ____ ☑ Multimeter S/N 71300492

Calibrated By: Wendell Williams Date 11-MAY-06

Reviewed By: Rachel J Shaw C-16 Date 11-May-06

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AC Inst ☐ Passed Dielectric (Hi-Pot) and Continuity Test ☐ ____

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501 OAK STREET FAX NO. 325-235-46
SWEETWATER, TEXAS 79556, U.S.A.

# CONVERSION CHART

Customer CABRERA SERVICES Date 11-May-06 Order # 255183 / 302143

Model 3 Serial No 79498 Detector Model 44-9 Serial No PR023106

Source Cs137, 1162, E552 High Voltage 900 V

Input Sensitivity 28 mV

| Reference Point | "As Found" Readings (CPM): Meter Reading | Range/Scale | After Adjustment Readings (CPM): Meter Reading | Range/Scale |
|---|---|---|---|---|
| 150 mR/hr | 2K | x100 | 2K | x100 |
| 50 mR/hr | 1K | x100 | 1K | x100 |
| 15 mR/hr | 4K | x10 | 4K | x10 |
| 5 mR/hr | 1.5K | x10 | 1.5K | x10 |
| 1.5 mR/hr | 4.5K | x1 | 4.5K | x1 |
| 1.0 mR/hr | 3K | x1 | 3K | x1 |
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Signature: Wendell Williams Date 11-MAY-06

Designer and Manufacturer of Scientific and Industrial Instruments

*APPENDIX C*

# CERTIFICATE OF CALIBRATION

**LUDLUM MEASUREMENTS, INC.**
POST OFFICE BOX 810 PH. 325-235-5494
501 OAK STREET FAX NO. 325-235-4672
SWEETWATER, TEXAS 79556, U.S.A.

CUSTOMER CABRERA SERVICES ORDER NO. 257191/303228

Mfg Ludlum Measurements, Inc. Model 3 Serial No 89973

Mfg Ludlum Measurements, Inc. Model 44-9 Serial No PR084781

Cal Date 25-Jun-06 Cal Due Date 25-Jun-07 Cal Interval 1 Year Meterface 202-560

Check mark ☑ applies to applicable instr. and/or detector IAW mfg spec T 76 °F RH 42 % Alt 700.8 mm Hg

☐ New Instrument Instrument Received ☐ Within Toler. +-10% ☐ 10-20% ☐ Out of Tol ☑ Requiring Repair ☐ Other-See comments

☑ Mechanical ck ☑ Meter Zeroed ☐ Background Subtract ☐ Input Sens Linearity
☑ F/S Resp ck ☑ Reset ck ☐ Window Operation ☑ Geotropism
☑ Audio ck ☐ Alarm Setting ck ☑ Batt. ck (Min. Volt) 2.2 VDC

☐ Calibrated in accordance with LMI SOP 14.8 rev 12/05/89 ☑ Calibrated in accordance with LMI SOP 14.9 rev 02/07/97

Instrument Volt Set 900 V Input Sens 26 mV Det Oper 900 V at 26 mV Threshold Dial Ratio = mV

☐ HV Readout (2 points) Ref./Inst. / V Ref./Inst. / V

**COMMENTS:**

Efficiency Formula:
Source Count - Bkgrd=? /source size(dpm)=? x100 = %
pi efficiencies for Th230, Tc99, Sr90Y90, and Ni63 are as follows:
Background: 45 cpm

| | | | |
|---|---|---|---|
| Source reading:2800 cpm | Source reading:4600 cpm | Source reading: 19000 cpm | Source reading: 1200 cpm |
| Source size:19800 dpm | Source size:22600 dpm | Source size:59077 dpm | Source size: 290696 dpm |
| Th230 efficiency:14% | Tc99 efficiency: 20% | Sr90Y90 efficiency: 32% | Ni63 efficiency: 0.4% |
| Source SN: E121495 | Sourc SN: NI-EV | Source SN: 4016 | Source SN: 4017 |

Do "As Founds" due to repair

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source.

| RANGE/MULTIPLIER | REFERENCE CAL. POINT | INSTRUMENT REC'D "AS FOUND READING" | INSTRUMENT METER READING* |
|---|---|---|---|
| X 100 | 150mR/hr | N/A | 1.5 |
| X 100 | 50mR/hr | | 0.5 |
| X 10 | 15mR/hr | | 1.5 |
| X 10 | 5mR/hr | | 0.5 |
| X 1 | 1.5mR/hr= | | 1.5 |
| X 1 | 1.0mR/hr | | 1.0 |
| X 0.1 | cpm | | 1.5 |
| X 0.1 | cpm | | 0.5 |
| | | | |
| | | | |

*Uncertainty within ± 10% C.F. within ± 20%

X 0.1 Range(s) Calibrated Electronically

| | REFERENCE CAL POINT | INSTRUMENT RECEIVED | INSTRUMENT METER READING* | | REFERENCE CAL POINT | INSTRUMENT RECEIVED | INSTRUMENT METER READING* |
|---|---|---|---|---|---|---|---|
| Digital Readout | | | | Log Scale | | | |
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Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques. The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323-1978. State of Texas Calibration License No. LO-1963

**Reference Instruments and/or Sources:** ☐ S-394 ☐ 1122 ☐ 781

Cs-137 Gamma S/N ☐ 1162 ☑ G112 ☐ M565 ☐ 5105 ☐ T1008 ☐ T879 ☐ E552 ☑ E551 ☐ 720 ☐ 734 ☐ 1616 ☐ Neutron Am-241 Be S/N T-304

☐ Alpha S/N ☐ Beta S/N ☐ Other

☑ m 500 S/N 189496 ☐ Oscilloscope S/N ☑ Multimeter S/N 83750186

Calibrated By: Michael Torres Date 25 June 06

Reviewed By: [signature] C-18 Date 26 Jun 06

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FORM C22A 06/02/2006

AC Inst. Only ☐ Passed Dielectric (Hi-Pot) and Continuity Test ☐ Failed:

Designer and Manufacturer of Scientific and Industrial Instruments

*APPENDIX C*

# CERTIFICATE OF CALIBRATION

**LUDLUM MEASUREMENTS, INC.**
POST OFFICE BOX 810 PH 325-235-5494
501 OAK STREET FAX NO 325-235-4672
SWEETWATER, TEXAS 79556, U.S.A

CUSTOMER CABRERA SERVICES ORDER NO 257191/303228

Mfg Ludlum Measurements, Inc. Model 2360 Serial No 202398

Mfg Ludlum Measurements, Inc. Model 43-93 Serial No PR 211706

Cal Date 25-Jun-06 Cal Due Date 25-Jun-07 Cal Interval 1 Year Meterface 202-855

Check mark ☑ applies to applicable instr. and/or detector IAW mfg. spec T 76 °F RH 42 % Alt 700.8 mm Hg

☐ New Instrument Instrument Received ☑ Within Toler. +-10% ☐ 10-20% ☐ Out of Tol ☐ Requiring Repair ☐ Other-See comments

☑ Mechanical ck ☑ Meter Zeroed ☐ Background Subtract ☐ Input Sens Linearity
☐ F/S Resp. ck ☑ Reset ck ☑ Window Operation ☑ Geotropism
☑ Audio ck ☐ Alarm Setting ck ☑ Batt. ck (Min. Volt) 2.2 VDC
☑ Calibrated in accordance with LMI SOP 14.8 rev 12/05/89 ☐ Calibrated in accordance with LMI SOP 14.9 rev 02/07/97

Instrument Volt Set 725 V

☑ HV Readout (2 points) Ref./Inst 500 / 503 V Ref./Inst 1500 / 1510 V

Firmware Version: 39010n25
Alpha Threshold: 120 mV
Beta Threshold: 3.5 mV
Beta Window: 30 mV
Overload SET TO SIMULATE LIGHT LEAK
Instrument calibrated with a 5' cable.
High voltage set with detector CONNECTED

(EEPROM Settings)
User Time: 1.0
Alpha Alarm: 50000
Beta Alarm: 50000
A/B Alarm: 50000
Model 2360 Date: 6/25/~~07~~-06
Calibration Date Due: 6/25/07

**COMMENTS:**

Efficiency Formula:
Source Count - Bkgrd=? /source size (dpm)=? x100 = %
pi efficiencies for Th230, Tc99, Sr90Y90, and Ni63 are as follows:
Th230≈20%, Tc99≈16%, Sr90Y90≈25%, Ni63≈0.06%

* SEE PLATEAU SHEETS FOR ALL

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source:

| RANGE/MULTIPLIER | REFERENCE CAL. POINT | INSTRUMENT REC'D "AS FOUND READING" | INSTRUMENT METER READING* |
|---|---|---|---|
| x1000 | 400kcpm | 400 | 400 |
| x1000 | 100kcpm | 100 | 100 |
| x100 | 40kcpm | 400 | 400 |
| x100 | 10kcpm | 100 | 100 |
| x10 | 4kcpm | 400 | 400 |
| x10 | 1kcpm | 100 | 100 |
| x1 | 400kcpm | 400 | 400 |
| x1 | 100kcpm | 100 | 100 |

*Uncertainty within ± 10% C.F. within ± 20%

ALL Range(s) Calibrated Electronically

| | REFERENCE CAL. POINT | INSTRUMENT RECEIVED | INSTRUMENT METER READING* |
|---|---|---|---|
| Digital Readout | 400kcpm | 39993(0) | 39993(0) |
| | 40kcpm | 3995 | 3995 |
| | 4kcpm | 400 | 400 |
| | 400cpm | 40 | 40 |
| | 40cpm | 4 | 4 |

| | REFERENCE CAL. POINT | INSTRUMENT RECEIVED | INSTRUMENT METER READING* |
|---|---|---|---|
| Log Scale | | | |
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Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques. The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323-1978 State of Texas Calibration License No. LO-1963

**Reference Instruments and/or Sources:** ☐ S-394 ☐ 1122 ☐ 781
Cs-137 Gamma S/N ☐ 1162 ☐ G112 ☐ M565 ☐ 5105 ☐ T1008 ☐ T879 ☐ E552 ☐ E551 ☐ 720 ☐ 734 ☐ 1616 ☐ Neutron Am-241 Be S/N T-304

☑ Alpha S/N Th230/E121495 ☑ Beta S/N Tc99/NI-EV,Sr90Y90/4016,Ni63/4017 ☐ Other

☑ m 500 S/N 189496 ☐ Oscilloscope S/N ☑ Multimeter S/N 83750186

Calibrated By: M. Thomas Jones Date 25 June 06

Reviewed By: [illegible] C-19 Date 26 June 06

This certificate shall not be reproduced except in full, without the written approval of Ludlum Measurements, Inc
FORM C22S 06/02/2006

AC Inst Only ☐ Passed Dielectric (Hi-Pot) and Continuity Test ☐ Failed:

Designer and Manufacturer
of
Scientific and Industrial
Instruments

**LUDLUM MEASUREMENTS, INC.**
POST OFFICE BOX 810 PH 325-235-5494
501 OAK STREET FAX NO 325-235-4672
SWEETWATER, TEXAS 79556, U S A

## *Bench Test Data For Detector*

Detector 43-93 Serial No PR 211706 Order # 257191/303228

Customer CABRERA SERVICES Alpha Input Sensitivity 120 mV

Counter 2360 Serial No 202398 Beta Input Sensitivity 3.5 mV

Count Time 1Minute Beta Window 30 mV

Other _____ Distance Source to Detector surface

Isotope Tc 99 Size ≈ 22600 dpm | Isotope Sr 90/90 Size ≈ 59077 dpm | Isotope Ni 63 Size ≈ 290696 dpm

| High Voltage | Background | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Alpha | Beta | Alpha | Beta | Alpha | Beta | Alpha | Beta |
| 700 | 1 | 124 | 2 | 2969 | 5 | 11583 | 1 | 141 |
| 725 | 1 | 213 | 4 | 3829 | 4 | 15130 | 3 | 391 |
| 750 | 0 | 554 | 6 | 5266 | 4 | 18207 | 1 | 1634 |
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☐ Gas Proportional detector count rate decreased ≤ 10% after 15 hour static test using 39" cable

☐ Gas proportional detector count rate decreased ≤ 10% after 5 hour static test using 39" cable and alpha/beta counter

Signature Michael Torres Date 25 Jun 06

Designer and Manufacturer
of
Scientific and Industrial
Instruments

**LUDLUM MEASUREMENTS, INC.**
POST OFFICE BOX 810 PH. 325-235-5494
501 OAK STREET FAX NO. 325-235-4672
SWEETWATER, TEXAS 79556, U.S.A.

## *Bench Test Data For Detector*

Detector 43-93 Serial No. PR 211706 Order # 257191/303228

Customer CABRERA SERVICES Alpha Input Sensitivity 120 mV

Counter 2360 Serial No. 202398 Beta Input Sensitivity 3.5 mV

Count Time 1Minute Beta Window 30 mV

Other _____ Distance Source to Detector Surface

| High Voltage | Background | | Isotope Th230 Size ≈19800 dpm | | Isotope _____ Size _____ | | Isotope _____ Size _____ | |
|---|---|---|---|---|---|---|---|---|
| | Alpha | Beta | Alpha | Beta | Alpha | Beta | Alpha | Beta |
| 700 | 1 | 124 | 3918 | 505 | | | | |
| 725 | 1 | 213 | 4047 | 568 | | | | |
| 750 | 0 | 554 | 4132 | 1153 | | | | |
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☐ Gas Proportional detector count rate decreased ≤ 10% after 15 hour static test using 39" cable

☐ Gas proportional detector count rate decreased ≤ 10% after 5 hour static test using 39" cable and alpha/beta counter

Signature Michael Torres Date 25 June 06

# Calibration Certificate
**ID Number:** C854F5134-0

Calibration Technology
*A Division of RSCS, Inc.*

**Customer:** Hank Siegrist
Cabrera Services, Inc.
473 Silver Lane
East Hartford, CT 06118

**Instrument**
Bicron Model MicroRem

**Serial Number**
C854F

| Precision Check | | | | |
|---|---|---|---|---|
| Test 1 | Test 2 | Test 3 | Mean | Results |
| **4.00 mrem/hr** | **4.00 mrem/hr** | **4.00 mrem/hr** | **4.00 mrem/hr** | **Satisfactory** |

| Accuracy Check | | | |
|---|---|---|---|
| Range | Target Value | As Found | As Left |
| X1000 | 160 mrem/hr | 160 mrem/hr | 160 mrem/hr |
| X1000 | 40 mrem/hr | 40 mrem/hr | 40 mrem/hr |
| X100 | 16 mrem/hr | 13 5 mrem/hr | 16 mrem/hr |
| X100 | 4 mrem/hr | 3 5 mrem/hr | 4 mrem/hr |
| X10 | 1 6 mrem/hr | 1 6 mrem/hr | 1 6 mrem/hr |
| X10 | 0 4 mrem/hr | 0 4 mrem/hr | 0 4 mrem/hr |
| X1 | 160 µrem/hr | 160 µrem/hr | 160 µrem/hr |
| X1 | 40 µrem/hr | 40 µrem/hr # | 40 µrem/hr # |
| X0 1 | 16 µrem/hr | 17 5 µrem/hr # | 16 µrem/hr # |
| X0 1 | 4 µrem/hr | 5 µrem/hr # * | 4 µrem/hr # |

Readings with * indicate ranges where As-Found readings are >20% of Target value. Readings with ** indicate As-left readings are >10% of Target value
Readings with # indicate ranges where pulser was used.

| MTE Instrument Type | Model | CalDueDate |
|---|---|---|
| Pulser | Ludlum 500 SN: 134720 | 08/16/2006 |

Outer Physical Check: *Pass*
Internal Check: *Pass*
Geotropism Check: *Pass*
Mechanical Zero: *Pass*
Tap Test: *Pass*

Calibrated by: QA Review: Calibration Date: 05/25/2006
Expires: 05/25/2007

Atmospheric Conditions - Temperature: 72°F Humidity: 42% Barometric Pressure: 29.83"hg
This calibration was performed by RSCS Inc. using a NIST Traceable radiation source, in conformance to the following standards: ANSI N323A (1997). RSCS New Hampshire Radioactive Material License Number: 381R. RSCS calibration services are performed in accordance with the RSCS Radiation Protection Program Manual and Standard Operating Procedure 2.4. This calibration certificate shall not be reproduced except in full without the express written consent of RSCS Inc.



Radiation Safety and Control Services, Inc.
91 Portsmouth Ave. Stratham, NH 03885
1-800-525-8339 (603) 778-2871 Fax (603) 778-6879 www.radsafety.com

Designer and Manufacturer of Scientific and Industrial Instruments

*APPENDIX C*

# CERTIFICATE OF CALIBRATION

**LUDLUM MEASUREMENTS, INC.**
POST OFFICE BOX 810 PH. 325-235-5494
501 OAK STREET FAX NO. 325-235-4672
SWEETWATER, TEXAS 79556, U S A

CUSTOMER CABRERA SERVICES ORDER NO 261302/304997

Mfg. Ludlum Measurements, Inc. Model 2929 Serial No 163827

Mfg. Ludlum Measurements, Inc. Model 43-10-1 Serial No PR-171322

Cal Date 16-Aug-06 Cal Due Date 16-Aug-07 Cal Interval 1 Year Meterface 202-014

Check mark ☑ applies to applicable instr and/or detector IAW mfg. spec T 74 °F RH 45 % Alt 700.8 mm Hg

☐ New Instrument Instrument Received ☑ Within Toler. +-10% ☐ 10-20% ☐ Out of Tol. ☐ Requiring Repair ☐ Other-See comments

☑ Mechanical ck ☑ Window Operation

☑ Audio ck.

☑ Meter Zeroed Alpha Sensitivity 175 mV. Beta Sensitivity 4 mV Beta Window 50 mV

☑ Calibrated in accordance with LMI SOP 14.8 rev 12/05/89. ☐ Calibrated in accordance with LMI SOP 14.9 rev 02/07/97

Instrument Volt Set 875 V = 3.58 on High Voltage dial. High Voltage set with detector connected.

☑ HV Readout (2 points) Ref./Inst. 500 / 500 V Ref./Inst. 2000 / 2000 V

**COMMENTS:** Calibrated Hv. with detector connected.

ff for Ni63 ≈1.5 %4pi, Source count= 4396cpm - 55cpm background
Source size=290415dpm

ff for Th230 ≈39.5 %4pi, Source count= 1742cpm - 1cpm background
Source size=4400dpm

ff for Tc99 ≈33.5 %4pi, Source count= 7641cpm - 55cpm background
Source size=22600dpm

ff for Sr90Y90 ≈48.6 %4pi, Source count= 55421cpm - 55cpm background/source size=113749dpm

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source.

| | REFERENCE CAL POINT | INSTRUMENT RECEIVED | INSTRUMENT METER READING* |
|---|---|---|---|
| Alpha Channel Digital Readout | 400K cpm | 40021 (0) | 40021 (0) |
| | 40K cpm | 4002 | 4002 |
| | 4K cpm | 400 | 400 |
| | 400 cpm | 40 | 40 |
| | 40 cpm | 4 | 4 |
| | REFERENCE CAL POINT | INSTRUMENT RECEIVED | INSTRUMENT METER READING* |
| Beta/Gamma Channel Digital Readout | 400K cpm | 40019 (0) | 40019 (0) |
| | 40K cpm | 4002 | 4002 |
| | 4K cpm | 400 | 400 |
| | 400 cpm | 40 | 40 |
| | 40 cpm | 4 | 4 |

Uncertainty within ± 10% C.F. within ± 20%

Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques. The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323-1978. State of Texas Calibration License No. LO-1963

**Reference Instruments and/or Sources:**

Cs-137 Gamma S/N ☐ 1162 ☐ G112 ☐ M565 ☐ 5105 ☐ T1008 ☐ T879 ☐ E552 ☐ E551 ☐ 720 ☐ 734 ☐ 1616 ☐ Neutron Am-241 Be S/N T-304

☑ Alpha S/N Th230 SN: 5020-03 ☑ Beta S/N Tc99 SN: NI-EV/Sr90Y90 SN: 5281-04 NI63 SN: 4017 ☐ Other

☑ m 500 S/N 50800 ☐ Oscilloscope S/N ☑ Multimeter S/N 83990502

Calibrated By: Charles Lusk Date 16 Aug 06

Reviewed By: [signature] Date 16 Aug 06



This certificate shall not be reproduced except in full, without the written approval of Ludlum Measurements, Inc.
FORM C25 11/26/2003

AC Inst Only ☑ Passed Dielectric (Hi-Pot) and Continuity Test ☐ Failed:

Designer and Manufacturer
of
Scientific and Industrial
Instruments

**LUDLUM MEASUREMENTS, INC.**
POST OFFICE BOX 810 PH 325-235-5494
501 OAK STREET FAX NO 325-235-4672
SWEETWATER, TEXAS 79556, U S A

## *Bench Test Data For Detector*

Detector 43-10-1 Serial No. PR-171322 Order # 261302/304997

Customer CABRERA SERVICES Alpha Input Sensitivity 175 mV

Counter 2929 Serial No. 163827 Beta Input Sensitivity 4 mV

Count Time 1Minute Beta Window 50 mV

Other _____ Distance Source to Detector Tray

| High Voltage | Background | | Isotope Th 230 Size 4400 dpm | | Isotope Tc 99 Size 22600 dpm | | Isotope Sr 90Y90 Size 113749 dpm | |
|---|---|---|---|---|---|---|---|---|
| | Alpha | Beta | Alpha | Beta | Alpha | Beta | Alpha | Beta |
| 825 | 0 | 49 | 1671 | 157 | 4 | 6321 | 2 | 56478 |
| 850 | 0 | 52 | 1684 | 215 | 2 | 6777 | 2 | 56274 |
| 875 | 1 | 55 | 1742 | 257 | 4 | 7641 | 17 | 55421 |
| 900 | 0 | 64 | 1768 | 294 | 3 | 8183 | 52 | 53324 |
| 925 | 0 | 85 | 1701 | 341 | 0 | 8852 | 156 | 51049 |

☐ Gas Proportional detector count rate decreased ≤ 10% after 15 hour static test using 39" cable

☐ Gas proportional detector count rate decreased ≤ 10% after 5 hour static test using 39" cable and alpha/beta counter

Signature Charles Shirk Date 16 Aug 06

Designer and Manufacturer
of
Scientific and Industrial
Instruments

**LUDLUM MEASUREMENTS, INC.**
POST OFFICE BOX 810 PH. 325-235-5494
501 OAK STREET FAX NO. 325-235-4672
SWEETWATER, TEXAS 79556, U S A

## *Bench Test Data For Detector*

Detector 43-10-1 Serial No. PR-171322 Order # 261302/304997

Customer CABRERA SERVICES Alpha Input Sensitivity 175 mV

Counter 2929 Serial No. 163827 Beta Input Sensitivity 4 mV

Count Time 1Minute Beta Window 50 mV

Other _____ Distance Source to Detector Tray

| High Voltage | Background | | Isotope NI 63 Size 290415dpm | | Isotope _____ Size _____ | | Isotope _____ Size _____ | |
|---|---|---|---|---|---|---|---|---|
| | Alpha | Beta | Alpha | Beta | Alpha | Beta | Alpha | Beta |
| 825 | 0 | 49 | 1 | 734 | | | | |
| 850 | 0 | 52 | 2 | 2102 | | | | |
| 875 | 1 | 55 | 3 | 4396 | | | | |
| 900 | 0 | 64 | 1 | 7948 | | | | |
| 925 | 0 | 85 | 2 | 11462 | | | | |
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☐ Gas Proportional detector count rate decreased ≤ 10% after 15 hour static test using 39" cable.

☐ Gas proportional detector count rate decreased ≤ 10% after 5 hour static test using 39" cable and alpha/beta counter

Signature Charles Lusk Date 16 Aug 06

Project Number 07-1007.00 / 1 Kirtland AFB RW-06 10/10/2006

| Manufacturer | Model No. Other ID | Serial No. | Shipped | Remarks | Returned |
|---|---|---|---|---|---|
| Alpha Spectra | Fidler VC | 051200A | 9-Oct | McAFB with 30 ft cable | |
| Ludlum | 2221 VC | 176952 | 9-Oct | McAFB | |
| | | | | | |
| 1173 | LV-1 | 2803 | c1 | | |
| 1172 | LV-1 | 2802 | c2 | | |
| 1234 | 2929 VC | 180830 | c3 | | |
| 1034 | 2221 VC | 132861 | c5 | Fidler 051200A 30 ft cable | |
| 1097 | Micro Rem Meter VC | C854F | 2b | | |
| 1278 | 2360 VC | 202398 | c4 | 43-93 PR211706 5 ft cable | |
| 1157 | Power conditioner | Sentrex | | | |
| 1036 | 3 VC | 89973 | c3 | 44-9 PR084781 4 ft cable | |
| 1029 | 3 VC | 79498 | c4 | 44-9 PR073106 5 ft cable | |
| 1043 | 2224-1 VC | 162426 | c4 | 43-93 PR193921 5 ft cable | |
| 1200 | GPS Model 33302-51 VC | 220253538 | | | |
| | | | | | |
| 1249 | IN1K | Canberra | | AT Canberra for repair | |
| | 43-93 VC | PR211706 | | | |
| | 43-93 VC | PR193921 | | | |
| | 44-9 VC | PR084781 | | | |
| | 44-9 VC | PR073106 | | | |
| Sentrex | AC power conditioner | 00775 | | | |
| | Fidler VC | 021700F | | | |
| | TSCe V | 00031463 | | | |
| | | | | | |
| 2 | 43-93 mylar windows | | C4 | | |
| 2 | 4 ft c-c cables | | C4 | | |
| 1 | QC Template CD | | C4 | | |
| 4 | rad signs with inserts | | C4 | | |
| | Cal Certs | | C4 | | |
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Project Number 07-1007.00 / 1 Kirtland AFB RW-06 10/12/2006

| Manufacturer | Model No. Other ID | Serial No. | Shipped | Remarks | Returned |
|---|---|---|---|---|---|
| Ludlum | 2929 | 163827 | 12-Oct | | |

Project Number 07-1007.00 / 1 Kirtland AFB RW-06 10/12/2006

| Manufacturer | Model No. Other ID | Serial No. | | Shipped | Remarks | Returned |
|---|---|---|---|---|---|---|
| Eberline | Check Source NIST | 3972-02 | ✓ | 12-Oct | 1128 | |
| Eberline | Check Source NIST | 3974-02 | ✓ | 12-Oct | 1129 | |
| Tennelec | Check Source | 99-2611, #1 | ✓ | 12-Oct | 1228 | |

# CERTIFICATE OF CALIBRATION
## (AIR SAMPLER)

**RSA Laboratories, Inc.**
21 Pendleton Drive, P.O. Box 61
Hebron, Connecticut 06248
(860) 228-0721 Fax (860) 228-4402

Customer and Contact: **Cabrera Services, Inc., Attn: Larry Pawlus (860) 289-1885**
Customer Address: **809 Main Street, East Hartford, CT 06108**

Inst. Mfr. **F&J Specialty Products** | Inst. Model **LV-1** | Inst. s/n **2803**
Reference Inst. **F&J Venturi D-812** | Inst. s/n **2541**

Cal. Date **08 February 2006** | Due Date **08 February 2007** | Cal. Interval **1 year**

Barometric Press: Actual **29.60** in. Hg | Corrected to: 29.44 in. Hg
Temperature: Actual **64°F** | Corrected to: 65.2°F
Filters Used: ☒Particulate ☐Charcoal/silver zeolite ☐Other:

| Measurement | Air Sampler Flow Rate (LPM) | Ref. Inst. Flow Rate (LPM) | Percent Deviation |
|---|---|---|---|
| 1 | **19.59** | **19.93** | **1.71** |
| 2 | **39.18** | **37.87** | **-3.46** |
| 3 | **48.97** | **46.83** | **-4.56** |
| 4 | **58.76** | **55.80** | **-5.31** |
| 5 | **78.35** | **73.74** | **-6.26** |
| 6 | | | |
| 7 | | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |

****Average percent deviation across the range = -3.58**

---

This is to certify that RSA Laboratories, Inc. of Hebron, Connecticut, has on this date certified this air sampler to be within the accuracy specified above. The Reference Flow Device bears Letters of Certification traceable to the National Institute of Science and Technology. RSA Laboratories, Inc. ID# **10348**.

Calibrated by: **Kurt D. Newton** _____ Date: **08 February 2006**

# CERTIFICATE OF CALIBRATION
## (AIR SAMPLER)

**RSA Laboratories, Inc.**
21 Pendleton Drive, P.O. Box 61
Hebron, Connecticut 06248
(860) 228-0721 Fax (860) 228-4402

Customer and Contact: **Cabrera Services, Inc., Attn: Larry Pawlus (860) 289-1885**
Customer Address: **809 Main Street, East Hartford, CT 06108**

Inst. Mfr. **F&J Specialty Products** Inst. Model **LV-1** Inst. s/n **2802**
Reference Inst. **F&J Venturi D-812** Inst. s/n **2541**

Cal. Date **08 February 2006** Due Date **08 February 2007** Cal. Interval **1 year**

Barometric Press: Actual **29.60** in Hg Corrected to: 29.45 in. Hg
Temperature: Actual **63°F** Corrected to: 63.7°F
Filters Used: ☒Particulate ☐Charcoal/silver zeolite ☐Other:

| Measurement | Air Sampler Flow Rate (LPM) | Ref. Inst. Flow Rate (LPM) | Percent Deviation |
|---|---|---|---|
| 1 | **19.62** | **19.96** | **1.71** |
| 2 | **39.24** | **38.92** | **-0.81** |
| 3 | **49.05** | **47.91** | **-2.38** |
| 4 | **58.86** | **57.89** | **-1.68** |
| 5 | **78.48** | **75.85** | **-3.46** |
| 6 | | | |
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| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | | | |

****Average percent deviation across the range = -1.32**

---

This is to certify that RSA Laboratories, Inc. of Hebron, Connecticut, has on this date certified this air sampler to be within the accuracy specified above. The Reference Flow Device bears Letters of Certification traceable to the National Institute of Science and Technology. RSA Laboratories, Inc. ID# **10347**.

Calibrated by: **Kurt D. Newton** Date: **08 February 2006**

Calibration Technology
A Division of RSCS, Inc.

# Calibration Certificate
## ID Number: 1769527751-0

**Customer:** Chuck Mikaitis
**Cabrera Services, Inc.**
473 Silver Lane
East Hartford, CT 06118-

| Instrument | Serial Number |
|---|---|
| Ludlum Model 2221 | 176952 |

| Probe Model | Serial Number |
|---|---|
| Alpha Spectra Inc G5 | 021700F |

**Precision Check**

| Test 1 | Test 2 | Test 3 | Mean | Results |
|---|---|---|---|---|
| **4.01 Kcpm** | **4.01 Kcpm** | **4.00 Kcpm** | **4.01 Kcpm** | **Satisfactory** |

**Accuracy Check**

| Range | Target Value | As Found | As Left |
|---|---|---|---|
| X1000 | 400 Kcpm | 400 9 Kcpm # | 400 9 Kcpm # |
| X1000 | 100 Kcpm | 99 92 Kcpm # | 99 92 Kcpm # |
| X100 | 40 Kcpm | 40 09 Kcpm # | 40 09 Kcpm # |
| X100 | 10 Kcpm | 9 99 Kcpm # | 9 99 Kcpm # |
| X10 | 4 Kcpm | 4 01 Kcpm # | 4 01 Kcpm # |
| X10 | 1 Kcpm | 0 998 Kcpm # | 0 998 Kcpm # |
| X1 | 400 cpm | 400 cpm # | 400 cpm # |
| X1 | 100 cpm | 100 cpm # | 100 cpm # |

Readings with * indicate ranges where As-Found readings are >20% of Target value. Readings with ** indicate As-left readings are >10% of Target value
Readings with # indicate ranges were calibrated using a pulser

| Probe Model & SN | Isotope | Efficiency | NIST Source ID | Geometry |
|---|---|---|---|---|
| G5 021700F | Co-57 | 0 4678 C/D | Co-57 (SN: 5586) | On Contact |
| G5 021700F | I-129 | 0.3675 C/D | I-129 (SN: NES-186S) | On Contact |

| MTE Instrument Type | Model | CalDueDate |
|---|---|---|
| Pulser | Ludlum 500-4SN: 66151 | 01/03/2007 |

Outer Physical Check: *Pass*
Internal Check: *Pass*
Geotropism Check: *Pass*
Mechanical Zero: *Pass*
Tap Test: *Pass*

| Electronics Checks | As Found | As Left |
|---|---|---|
| High Voltage | **1145 Volts** | **1145 Volts** |
| Low Level Discriminator #1 | **10 mV** | **10 mV** |
| Window | **Out** | **Out** |

Calibrated by: JCE
QA Review:
Date: 10/04/2006
Expires: 10/04/2007

Atmospheric Conditions - Temperature: 76° F Humidity: 38 % Barometric Pressure: 29.92 in/hg
This calibration was performed by RSCS using a NIST Traceable radiation source, in conformance to the following standards: ANSI N323A (1997). RSCS New Hampshire Radioactive Material License Number: 381R. RSCS calibration services are performed in accordance with the RSCS Radiation Protection Program Manual and Standard Operating Procedure 2.4.
This calibration certificate shall not be reproduced except in full without the express written consent of RSCS, Inc

Calibration Technology
A Division of RSCS, Inc

# Calibration Certificate
## ID Number: 1328617750-0

**Customer:** Chuck Mikaitis
**Cabrera Services, Inc.**
473 Silver Lane
East Hartford, CT 06118-

| Instrument | Serial Number |
|---|---|
| Ludlum Model 2221 | 132861 |

| Probe Model | Serial Number |
|---|---|
| Alpha Spectra Inc G5 | 051200A |

**Precision Check**

| Test 1 | Test 2 | Test 3 | Mean | Results |
|---|---|---|---|---|
| **40.00 Kcpm** | **40.00 Kcpm** | **40.00 Kcpm** | **40.00 Kcpm** | **Satisfactory** |

**Accuracy Check**

| Range | Target Value | As Found | As Left |
|---|---|---|---|
| X1000 | 400 Kcpm | 400 Kcpm # | 400 Kcpm # |
| X1000 | 100 Kcpm | 100 Kcpm # | 100 Kcpm # |
| X100 | 40 Kcpm | 40 Kcpm # | 40 Kcpm # |
| X100 | 10 Kcpm | 10 Kcpm # | 10 Kcpm # |
| X10 | 4 Kcpm | 4 Kcpm # | 4 Kcpm # |
| X10 | 1 Kcpm | 1 Kcpm # | 1 Kcpm # |
| X1 | 400 cpm | 400 cpm # | 400 cpm # |
| X1 | 100 cpm | 100 cpm # | 100 cpm # |

Readings with * indicate ranges where As-Found readings are >20% of Target value. Readings with ** indicate As-left readings are >10% of Target value
Readings with # indicate ranges were calibrated using a pulser

| Probe Model & SN | Isotope | Efficiency | NIST Source ID | Geometry |
|---|---|---|---|---|
| G5 051200A | Co-57 | 0.4366 C/D | Co-57 (SN: 5586) | On Contact |
| G5 051200A | I-129 | 0.3405 C/D | I-129 (SN: NES-186S) | On Contact |

| MTE Instrument Type | Model | CalDueDate |
|---|---|---|
| Pulser | Ludlum 500-4SN: 66151 | 01/03/2007 |

Outer Physical Check: *Pass*
Internal Check: *Pass*
Geotropism Check: *Pass*
Mechanical Zero: *Pass*
Tap Test: *Pass*

| Electronics Checks | As Found | As Left |
|---|---|---|
| High Voltage | **990 Volts** | **1150 Volts** |
| Low Level Discriminator #1 | **10 mV** | **10 mV** |
| Window | **Out** | **Out** |

Calibrated by: JCSQ/NHIC
QA Review:
Date: 10/04/2006
Expires: 10/04/2007

Atmospheric Conditions - Temperature: 76° F Humidity: 38 % Barometric Pressure: 29.92 In/hg
This calibration was performed by RSCS using a NIST Traceable radiation source, in conformance to the following standards: ANSI N323A (1997). RSCS New Hampshire Radioactive Material License Number: 381R. RSCS calibration services are performed in accordance with the RSCS Radiation Protection Program Manual and Standard Operating Procedure 2.4
This calibration certificate shall not be reproduced except in full without the express written consent of RSCS, Inc

# Health and Safety Records

## AP-012-01 - Radiation Work Permit

| RADIATION WORK PERMIT | | |
|---|---|---|
| Job Supervisor: GORDON TANNAHILL | Date: 10-16-06 | RWP #: RW06-01 |
| Location of Work: SOLID WASTE MANAGEMENT UNIT (SWMU) 6-30, RW-06 | | |
| Description of Work: PROVIDE RADIOLOGICAL CONTROLS AND SUPPORT FOR RCRA FACILITY INVESTIGATION at SWMU 6-30, RW-06. PERFORM TRENCHING ACTIVITIES AND ASSIST WITH SAMPLE COLLECTION. | | |

**SUMMARY OF RADIOLOGICAL CONDITIONS**

| LOCATION | CONTAMINATION LEVELS | RADIATION LEVELS | AIRBORNE CONCENTRATIONS |
|---|---|---|---|
| RW-06 | < 2000 dpm/cm² α | 5-40 μRem/hr | < 10% $^{232}$Th DAC |
| | < 4000 dpm/100cm² β | | |
| | | | |

**REQUIRED RADIOLOGICAL CONTROLS**

| | | |
|---|---|---|
| ☐ Coveralls | ☐ Glove Liners | ☐ Lapel Air Sampler |
| ☐ Hood | ☐ Plastic Shoe Covers | ☐ Lab Coat |
| ☐ Surgeon's Cap | ☒ Rubber Shoe Covers | ☒ Pre-Job Meeting |
| ☐ Surgeon's Gloves | ☐ Tape Gloves to Sleeves | ☒ Continuous HP Coverage |
| ☐ Rubber Gloves | ☐ Plastic Suit | ☒ TLD |
| ☒ Trained Radiation Worker(s) | ☐ Other | |

Special Instructions: DEPENDING ON SITE CONDITIONS, SURGEON'S GLOVES and TYVEK SUITS WILL BE REQUIRED FOR PERSONNEL WHO COME INTO CONTACT WITH SPOILS. VISITORS REQUIRE CABRERA ESCORT AT ALL TIMES.

***YOUR SIGNATURE INDICATES THAT YOU HAVE READ AND UNDERSTAND THE RADIOLOGICAL CONDITIONS AND CONTROLS.***

| NAME | SIGNATURE | NAME | SIGNATURE |
|---|---|---|---|
| GORDON TANNAHILL | G.M. Tannahill | Karen Jarocki | Karen Jarocki |
| Vince Barber | | Greg Miller | |
| JOSEPH VOEGTLI | Joseph Voegtli | JOSEPH STERLING | Joseph Sterling |

| GORDON TANNAHILL | G.M. Tannahill | 10-16-06 |
|---|---|---|
| Approved by (print name) | Signature | Date |
| | | |
| Re-approved by (print name) | Signature | Date |
| | | |
| RWP Terminated by (print name) | Signature | Date |

## AP-012-02 - Radiation Work Permit Addition Sheet

| RADIATION WORK PERMIT ADDITION SHEET | | | |
|---|---|---|---|
| RWP # | | | |
| **NAME** | **SIGNATURE** | **NAME** | **SIGNATURE** |
| Robert Wade | | | |
| Wayne Bittel | | | |
| Henry Siegrist | | | |
| William McDonald | | | |
| Carl Lantz | | | |
| | | | |
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Reviewed by (print name) _____ Signature _____ Date _____

**AP-005-03 - ALARA Briefing Record**

RWP#: RW06-01 Revision: _____ Start Date: 10/17/06

Task Description: Trenching activities, Radiological Support & Controls

Radiation Safety: GORDON TANNAHILL _____ (Print/Sign)

Project Manager: _____ (Print/Sign)

Site Radiation Safety Officer: GORDON TANNAHILL _____ (Print/Sign)

1. The Site Radiation Safety Officer

**AP-005-02 - Project ALARA Review Form (continued)**

| | | Review Criteria | | Action | Comments |
|---|---|---|---|---|---|
| In Progress/Post-Job Review | 1. | Are tagout/lockout procedures being followed? | | Yes | |
| | | | | No | |
| | | | ✓ | N/A | |
| | 2. | Were any unanticipated radiological conditions encountered? | ✓ | Yes | Expected less than 220 dpm/100cm2 & Identified 7,400 dpm/100cm2. Expected <1000β, found 4,000 dpmβ. |
| | | | | No | |
| | | | | N/A | |
| | 3. | Can additional dose reduction measures be applied to further reduce worker doses? | ✓ | Yes | Reduce dust levels w/ water spray. wore ~~tyko~~ tyvek, gloves & booties & hard hats. Controlled & posted contamination area. |
| | | | | No | |
| | | | | N/A | |
| | 4. | Is dosimetry being worn and stored properly? | ✓ | Yes | |
| | | | | No | |
| | | | | N/A | |
| | 5. | Were equipment needs and the materials needed for the job identified in the procedure? | ✓ | Yes | |
| | | | | No | |
| | | | | N/A | |
| | 6. | Were prerequisite activities completed prior to the start of the job? | ✓ | Yes | |
| | | | | No | |
| | | | | N/A | |
| | 7. | Were support groups present when required for the job evolution? | | Yes | |
| | | | | No | |
| | | | ✓ | N/A | |
| | 8. | Was job-specific training completed for this job? Was it adequate for the job? | ✓ | Yes | |
| | | | | No | |
| | | | | N/A | |
| | 9. | Were any unplanned or unanticipated conditions encountered? If yes, explain. | ✓ | Yes | |
| | | | ✓ | No | |
| | | | | N/A | |
| | 10. | Were estimated manpower requirements exceeded? If yes, explain. | | Yes | |
| | | | ✓ | No | |
| | | | | N/A | |

**AP-005-02 - Project ALARA Review Form (continued)**

| | | REVIEW CRITERIA | | ACTION | COMMENTS |
|---|---|---|---|---|---|
| IN PROGRESS/POST-JOB REVIEW | 11. | Were low dose rate areas and staging used? If yes, were they effective? | | Yes | |
| | | | | No | |
| | | | ✓ | N/A | |
| | 12. | Were required services available (electrical, ventilation, lights, etc.)? | ✓ | Yes | |
| | | | | No | |
| | | | | N/A | |
| | 13. | Was temporary shielding used? Was it adequate? | | Yes | |
| | | | | No | |
| | | | ✓ | N/A | |
| | 14. | Were engineering controls used to reduce potential for airborne radioactive materials? Were they effective? | ✓ | Yes | Water spray to reduce dust emissions. |
| | | | | No | |
| | | | | N/A | |
| | 15. | Were contamination control practices followed? Were they effective? | ✓ | Yes | |
| | | | | No | |
| | | | | N/A | |
| | 16. | Were respirators or other airborne protective equipment utilized? Did they impact job performance? | | Yes | |
| | | | ✓ | No | |
| | | | | N/A | |
| | 17. | Were procedure changes needed during work evolutions to accommodate lessons learned? | | Yes | |
| | | | ✓ | No | |
| | | | | N/A | |
| | 18. | Were additional radiological hold points needed during work evolutions? | | Yes | |
| | | | ✓ | No | |
| | | | | N/A | |
| | 19. | Are equipment or process changes needed to help reduce exposures for the next job performance? If yes, explain. | | Yes | |
| | | | ✓ | No | |
| | | | | N/A | |
| | 20. | Were person-rem goals exceeded? If yes, explain. | | Yes | |
| | | | ✓ | No | |
| | | | | N/A | |
| | 21. | Could activities or scheduled plan of activities been done differently to reduce exposures the next time this job is performed? If yes, explain. | | Yes | |
| | | | ✓ | No | |
| | | | | N/A | |

## AP-005-02 - Project ALARA Review Form

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| RWP # | RW06-01 | Revision | | Task Location | KIRTLAND AFB, RW-06 | | | | |
| Pre-Job Review Date | | | | Conducted by | | | | | |
| In Progress/Post-Job Review Date | | 10/17/86 | | Conducted by | GORDON TANNAHILL | | | | |
| ALARA Goals: | person-rem | | | DDE | | CEDE | | TEDE | |

| | | Review Criteria | | Action | Comments |
|---|---|---|---|---|---|
| Pre-Job Review | 1. | Are technical work documents that accurately define the work available? | | Yes<br>No<br>N/A | |
| | 2. | Has the procedure been verified through walk-downs or prior performance? | | Yes<br>No<br>N/A | |
| | 3. | Do procedures/work checklists/documents have approved hold points? | | Yes<br>No<br>N/A | |
| | 4. | Are there specific points in the work evolution at which radiological conditions are subject to change? If yes, are these addressed as hold points in work documents? | | Yes<br>No<br>N/A | |
| | 5. | Has the work force performed this previously? | | Yes<br>No<br>N/A | |
| | 6. | Is specific training required prior to job performance? | | Yes<br>No<br>N/A | |
| | 7. | Are photographs, videos, and or drawings of the areas(s) to be worked available? | | Yes<br>No<br>N/A | |
| | 8. | Has the size of the work crew needed to perform the job been evaluated? | | Yes<br>No<br>N/A | |

## AP-005-04 - ALARA Briefing Attendance Record

| DATE | NAME | | SSN/ID# | BRIEFING SUBJECT |
|---|---|---|---|---|
| | PRINT | SIGN | | |
| 10/20/06 | GORDON TANNAHILL | | 143-78-3068 | PPE & Radiological Controls. |
| 10/20/06 | JOSEPH VOEGTLI | | 215-70-7227 | " |
| 10/20/06 | Vince Barber | | — | " |
| 20 OCT 06 | JOSEPH STERLING | | CH2M HILL | " " |
| 20 Oct 06 | Greg Miller | | CH2M HILL | " " |
| 20 Oct 06 | Karen Jarocki | | CH2MHill | " " |
| | | | | |
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| | | | | |

Comments _____

Instructor _____ Gordon Tannahill (Print/Sign) Date 10/20/06

# Cabrera Services
# Morning Safety Brief

Date: ~~10/16/06~~ 10/16/06

Topics Covered:

Site specific training. Trench safety (2 ft from edge) hands free cell phone use only when driving. Obey speed limits, Eye contact w/ excavators when near. Trench must be filled at end of day. Treat all material as if contaminated. All PPE & IDW collect on site. Beware metals & possible mercury. Snakes & spiders Slip, trips, falls

(505) 853-9111 KIRTLAND Emergency #
~~Hospital~~ Hospital @ Gibson & San Mateo

Attendee's

Comments:

**All visitors to the Office, Lab and field sites must sign in.**

# Cabrera Services
# Morning Safety Brief

Date: 10/17/06

Topics Covered:

No eating or drinking in exclusion area. Maintain eye contact w/ excavator operator when approaching excavator. Treat all equipment as if it were contaminated in exclusion area. Brush self out when leaving exclusion area. Wear proper proper PPE. Beware of snakes & spiders. Wear Dosimety Maintain safety while excavating (3 ft from trench & operator seat pole). Do not approach horses or stable. Maintain 20 ft distance

Attendee's

Comments:

**All visitors to the Office, Lab and field sites must sign in.**

# Cabrera Services
# Morning Safety Brief

Date: 10/18/06

Topics Covered:

No eating or drinking in exclusion area. Stay 3 ft away from open trench. Do not come closer than 20 ft. to horses & Treat all equipment as if it were contaminated while in exclusion zone. Visitors require field worker escort. Wear proper ppe. Beware snakes & spiders. watch for slips, trips & falls especially if raining.

Attendee's

Comments:

**All visitors to the Office, Lab and field sites must sign in.**

# Cabrera Services
# Morning Safety Brief

Date: ~~10/18/06~~ 10/19/06

Topics Covered:

No eating or drinking in exclusion area. Stay at least 3ft from open trench. Do not approach horses. Treat all equipment & materials in exclusion area as if contaminated. Visitors require rad worker escort. Tyvek suite required to walk on spoils. Wear dosimetry. Beware slips trips & falls.

Attendee's

| | | |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Comments:

**All visitors to the Office, Lab and field sites must sign in.**

# Cabrera Services
# Morning Safety Brief

Date: 10/20/06

Topics Covered:

No eating or drinking in the exclusion. Stay at least 3ft from the open trench. Treat all equipment and materials as if it were contaminated. Visitors require yard worker escort. Tyvek suits required to walk on spoils pile. Be careful of slips trips and falls. Wear dosimetry. Do not approach horses.

Attendee's

Henry Siegrist HW Signit Wayne Bittner Wayne
Vince Barber
Carl J. Young

Comments:

**All visitors to the Office, Lab and field sites must sign in.**

# Cabrera Services
# Morning Safety Brief

Date: 10/23/06

Topics Covered:

Beware of slips, trips, & falls. Stay at least 3ft from an open trench. Tyvek suit must be worn on soil piles. No eating or drinking in exclusion zone. Visitors require radworker escort. Wear dosimetry in exclusion area. Stay away from horses.

Attendee's

Vince Barbato

Comments:

**All visitors to the Office, Lab and field sites must sign in.**

# Radiological Field Survey Results

RADIOLOGICAL SURVEY MAP

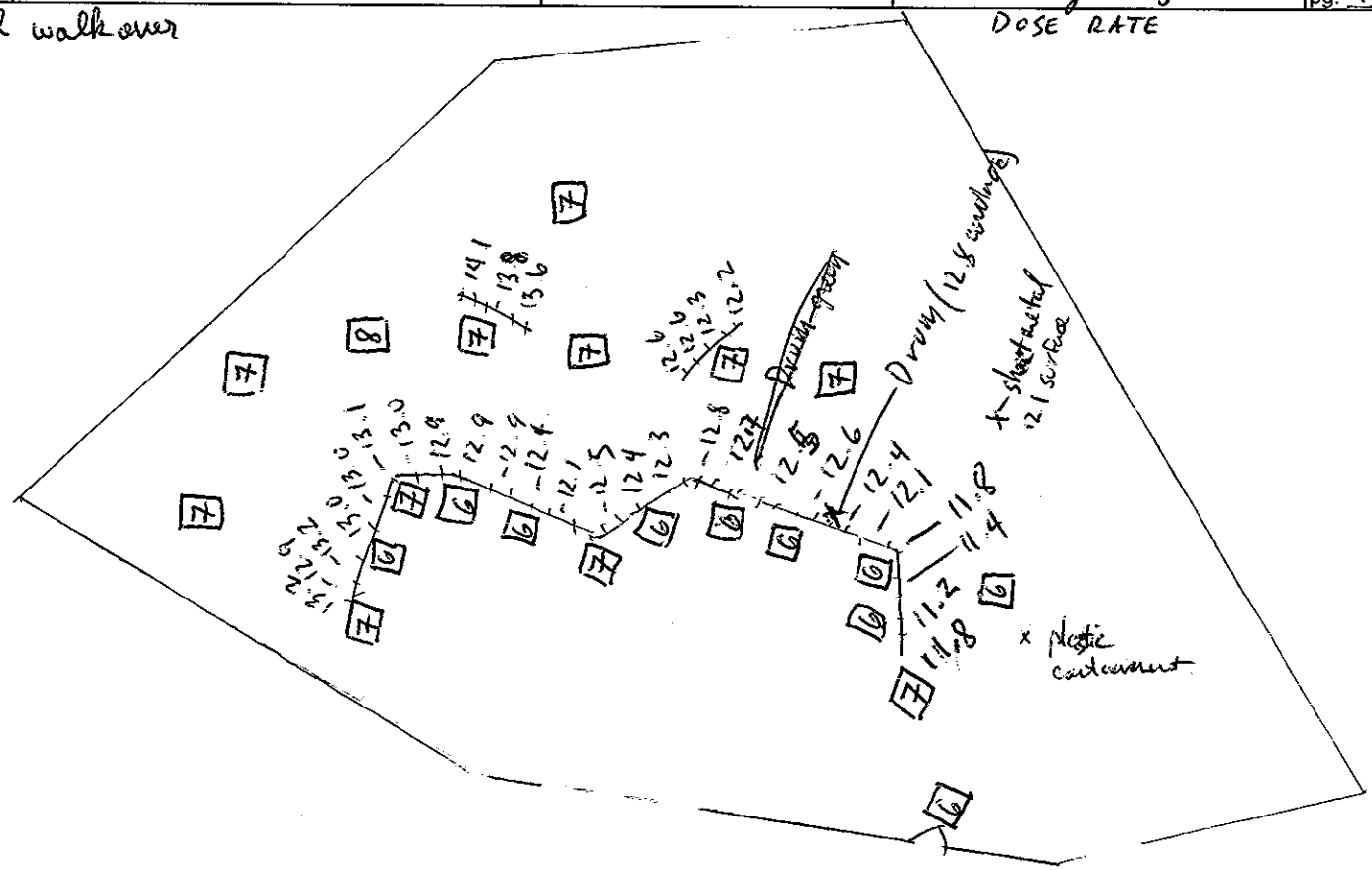
| Location: KIRTLAND AFB RW-26 | RWP# RW06-01 | Survey # 001 | Survey Type: Ambient gross gamma DOSE RATE | pg. 1 of 1 |
|---|---|---|---|---|

Smear Results CPM/100cm²

| No. | α | β | No. | α | β |
|---|---|---|---|---|---|
| 1 | | | 26 | | |
| 2 | | | 27 | | |
| 3 | | | 28 | | |
| 4 | | | 29 | | |
| 5 | | | 30 | | |
| 6 | | | 31 | | |
| 7 | | | 32 | | |
| 8 | | | 33 | | |
| 9 | | | 34 | | |
| 10 | | | 35 | | |
| 11 | | | 36 | | V |
| 12 | | V | 37 | | |
| 13 | | | 38 | | |
| 14 | | | 39 | A | |
| 15 | A | | 40 | | |
| 16 | | | 41 | | |
| 17 | | | 42 | | |
| 18 | | | 43 | | |
| 19 | | | 44 | | |
| 20 | | | 45 | | |
| 21 | | | 46 | | |
| 22 | | | 47 | | |
| 23 | | | 48 | | |
| 24 | | | 49 | | |
| 25 | | | 50 | | |

Comments

All fidler measurements in kcpm on ground surface. All dose rate measurements performed @ 1 meter above surface.




Surveyed By: [signature] Date: 10/16/06

Reviewed By: [signature] Date: 10/16/06

| Instrument | Serial # | α Eff. | β Eff. | α Bkg. | β Bkg | Cal. Due |
|---|---|---|---|---|---|---|
| BICRON | C854F | NA | NA | NA | 7 μRem/h | 5/07 |
| FIDLER | 132861 | NA | NA | NA | 12.4 kcpm | 10/07 |
| | | | 2 | | | |
| | | | 4 | | | |

Key

| | | | |
|---|---|---|---|
| ○ | Smear | | |
| □ | Dose Rate ~~mr/hr~~ | μRem/hr | |
| * | Static CPM (Counts per minute) | | |

Revision 0

Radiological Surveys

# OP-001-02 Radiological Survey Sheet

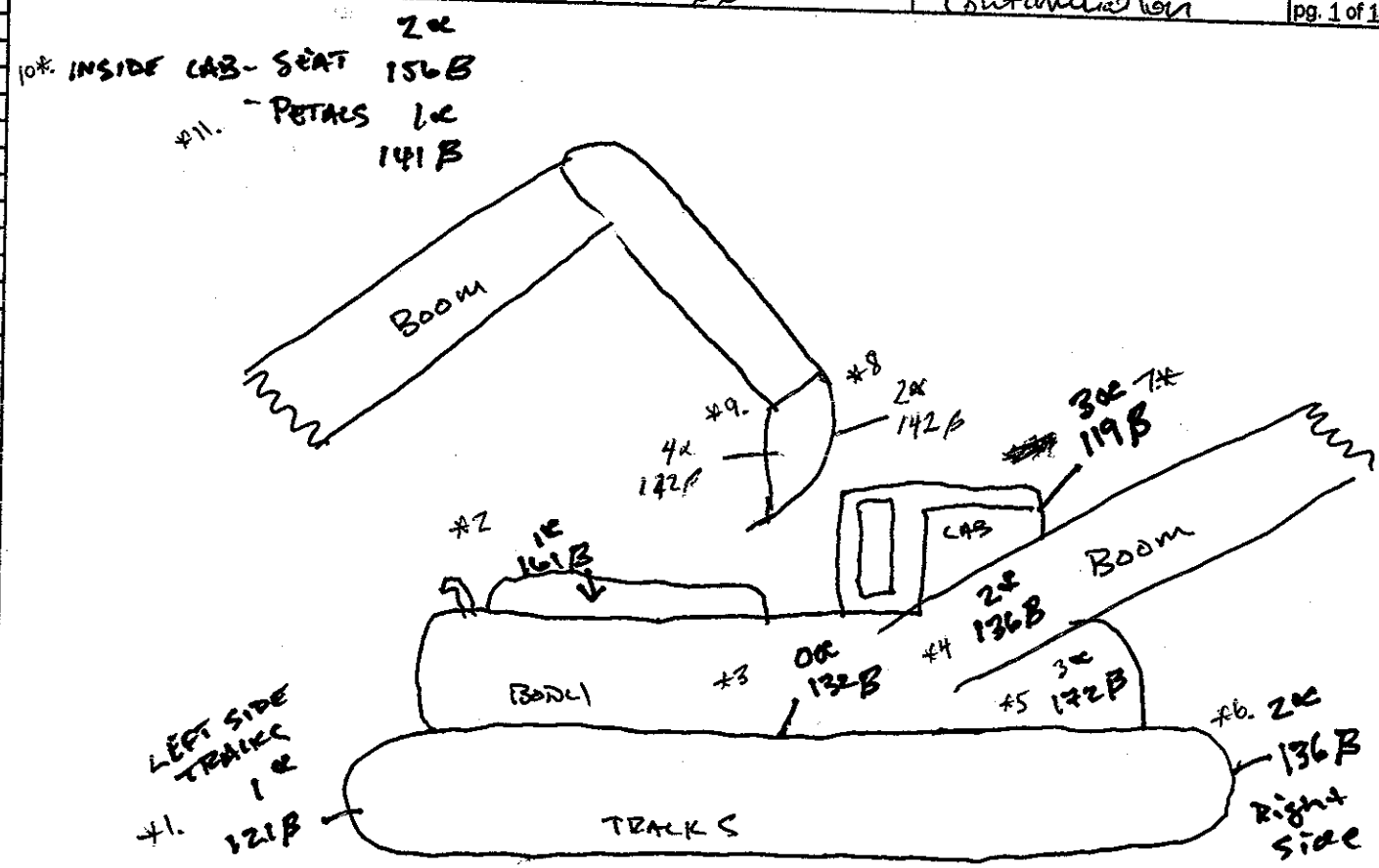
| Location: | RWP# | Survey # | Survey Type: | pg. 1 of 1 |
|---|---|---|---|---|
| KIRTLAND AFB RW-06 | RW06-01 | 002 | Contamination | |

**Smear Results DPM/100cm^2**

| No. | α | β | No. | α | β |
|---|---|---|---|---|---|
| 1 | | | 26 | | |
| 2 | | | 27 | | |
| 3 | | | 28 | | |
| 4 | | | 29 | | |
| 5 | | | 30 | | |
| 6 | | | 31 | | |
| 7 | | | 32 | | |
| 8 | | | 33 | | |
| 9 | | | 34 | | |
| 10 | | | 35 | | |
| 11 | | | 36 | | |
| 12 | | | 37 | | |
| 13 | | | 38 | | |
| 14 | | | 39 | | |
| 15 | A | | 40 | A | |
| 16 | | | 41 | | |
| 17 | | | 42 | | |
| 18 | | | 43 | | |
| 19 | | | 44 | | |
| 20 | | | 45 | | |
| 21 | | | 46 | | |
| 22 | | | 47 | | |
| 23 | | | 48 | | |
| 24 | | | 49 | | |
| 25 | | | 50 | | |

**Comments**

ALL DOSE RATES in MRem/hr.
ALL DIRECT READINGS in counts per minute.




| Surveyed By: | Date: |
|---|---|
| | 10/16/06 |

| Reviewed By: | Date: |
|---|---|
| | 10/16/06 |

| Instrument | Serial # | α Eff. | β Eff. | α Bkg. | β Bkg | Cal. Due |
|---|---|---|---|---|---|---|
| 43-89 | 202396 | 0.223 | 0.142 | 1 | 155 | 6/07 |
| BICRON | C8541 | NA | NA | NA | 6 kRem/hr | 5/06 |
| ~~E-DOG~~ | | | | | | |

**Key**

| | | | |
|---|---|---|---|
| ○ | Smear | *_* | Boundary |
| □ | Dose Rate ~~Meter~~ | ■ | A/S Location |
| * | Direct Reading ~~DPM/100 cm^2~~ | 5,000 | cpm/ mR/hr |
| △ | Grab Sample | | |

see comments

RADIOLOGICAL SURVEY MAP

| Location: | RWP# | Survey # | Survey Type: | pg. |
|---|---|---|---|---|
| KIRTLAND AFB RW06 | RW06-01 | 0003 | CONTAMINATION SURVEY | 1 of 1 |

Smear Results CPM/100cm²

| No. | α | β | No. | α | β |
|---|---|---|---|---|---|
| 1 | | | 26 | | |
| 2 | | | 27 | | |
| 3 | | | 28 | | |
| 4 | | | 29 | | |
| 5 | | | 30 | | |
| 6 | | | 31 | | |
| 7 | | | 32 | | |
| 8 | | | 33 | | |
| 9 | | | 34 | | |
| 10 | | | 35 | | |
| 11 | | ✓ | 36 | | ✓ |
| 12 | | | 37 | | |
| 13 | | | 38 | | |
| 14 | A | | 39 | A | |
| 15 | | | 40 | | |
| 16 | | | 41 | | |
| 17 | | | 42 | | |
| 18 | | | 43 | | |
| 19 | | | 44 | | |
| 20 | | | 45 | | |
| 21 | | | 46 | | |
| 22 | | | 47 | | |
| 23 | | | 48 | | |
| 24 | | | 49 | | |
| 25 | | | 50 | | |

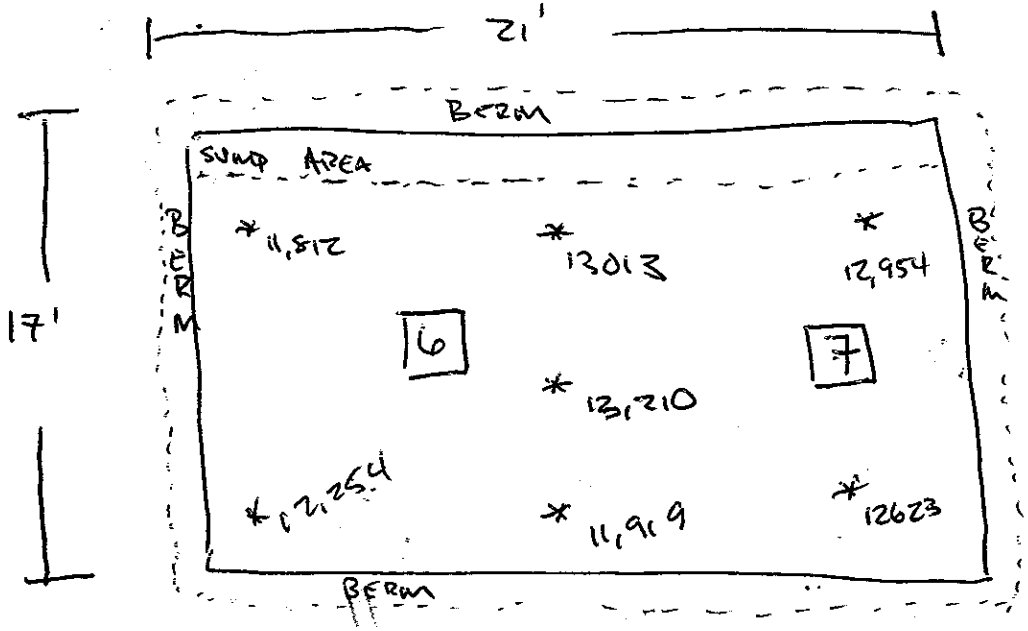
Comments

Dose rates performed @ 1m above surface.

Fidler measurements performed on contact.

DECON PAD pre-poly

gross gamma & Dose rate




Surveyed By: Date: 10/16/06

Reviewed By: Date: 10/16/06

| Instrument | Serial # | α Eff. | β Eff. | α Bkg. | β Bkg | Cal. Due |
|---|---|---|---|---|---|---|
| BICRON | C854F | NA | NA | NA | 6 uR/hr | 5/07 |
| FIDLER | 132861 | NA | NA | NA | 11,894 | 10/07 |
| | | ✓ | | | | |
| | | A | | | | |

Key

○ Smear

□ Dose Rate ~~mR/hr~~ uRem/hr

* Static CPM (counts per minute)

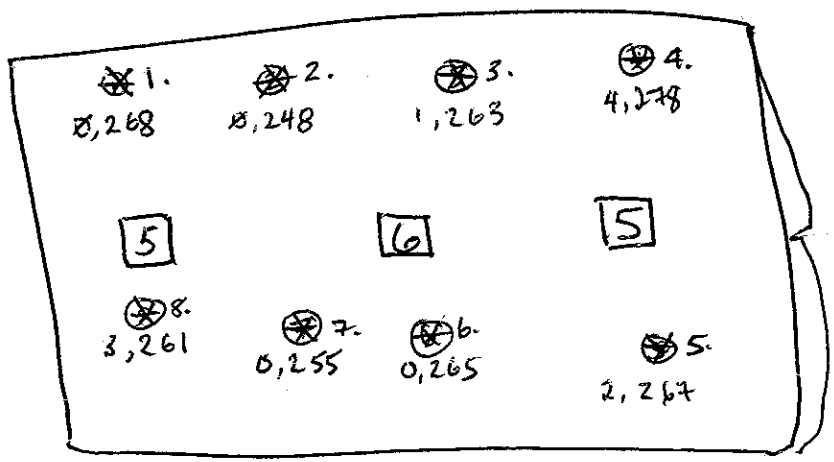
RADIOLOGICAL SURVEY MAP

| Location: RW-06 Initial Conex | RWP# RW06-01 | Survey # 004 | Survey Type: Contamination Survey | pg. 1 of 1 |
|---|---|---|---|---|

**Smear Results**

CPM/100cm²

| No. | α | β | No. | α | β |
|---|---|---|---|---|---|
| 1 | | | 26 | | |
| 2 | | | 27 | | |
| 3 | | | 28 | | |
| 4 | | | 29 | | |
| 5 | | | 30 | | |
| 6 | | | 31 | | |
| 7 | | | 32 | | |
| 8 | | | 33 | | |
| 9 | | | 34 | | |
| 10 | | | 35 | | |
| 11 | | | 36 | | |
| 12 | | N | 37 | | N |
| 13 | | | 38 | | |
| 14 | | | 39 | A | |
| 15 | A | | 40 | | |
| 16 | | | 41 | | |
| 17 | | | 42 | | |
| 18 | | | 43 | | |
| 19 | | | 44 | | |
| 20 | | | 45 | | |
| 21 | | | 46 | | |
| 22 | | | 47 | | |
| 23 | | | 48 | | |
| 24 | | | 49 | | |
| 25 | | | 50 | | |




*Static measurement results in the order of alpha, beta counts per minute.

measurements 1 through 8 are static measurements.

**Comments**

Dose rate reading performed @ 1 meter above floor.

100% scan of floor w/ 43-93.

Surveyed By: [signature] Date: 10/16/06

Reviewed By: [signature] Date: 10/16/06

| Instrument | Serial # | α Eff. | β Eff. | α Bkg. | β Bkg | Cal. Due |
|---|---|---|---|---|---|---|
| BICRON | C854F | NA | NA | NA | 6uRem/hr | 5/07 |
| 43-93 | 162426 | 0.223 | 0.142 | 1 | 259 | 8/07 |
| | | | N | | | |
| | | | A | | | |

Key

○ Smear

□ Dose Rate ~~mrem~~ uRem/hr

* Static CPM (counts per minute)

RADIOLOGICAL SURVEY MAP

| Location: RW-06 TRENCH A | RWP# RW06-01 | Survey # 005 | Survey Type: Contamination | pg. 1 of 1 |
|---|---|---|---|---|

**Smear Results**

DPM ~~CPM~~/100cm²

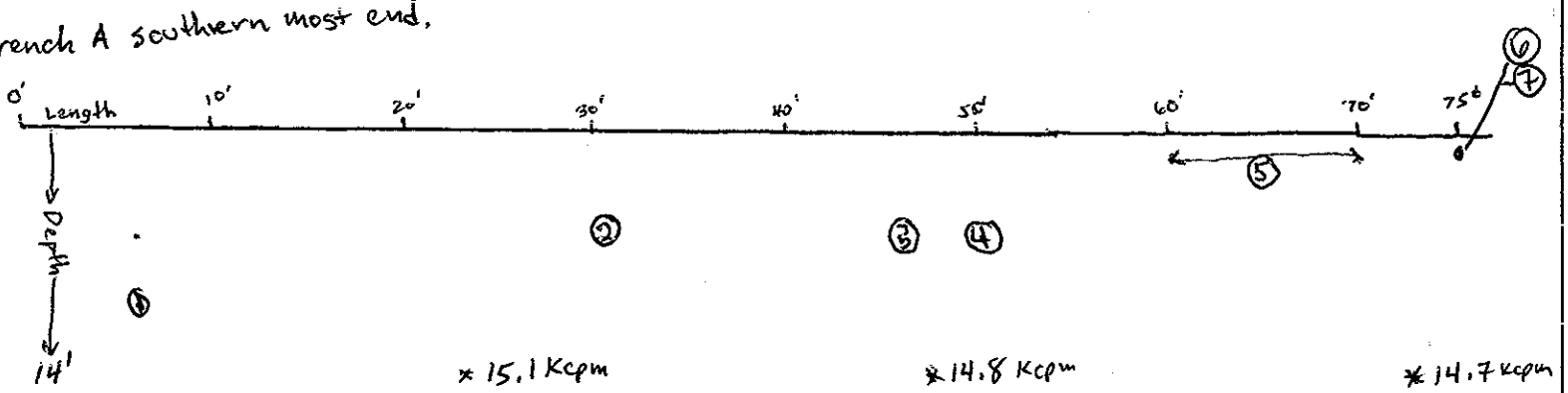
| No. | α | β | No. | α | β |
|---|---|---|---|---|---|
| 1 | 11 | -40 | 26 | | |
| 2 | 8 | -21 | 27 | | |
| 3 | 16 | -28 | 28 | | |
| 4 | 8 | 47 | 29 | | |
| 5 | 14 | 39 | 30 | | |
| 6 | 7445 | 593 | 31 | | |
| 7 | 11 | 3887 | 32 | | |
| 8 | 72 | 7 | 33 | | |
| 9 | | | 34 | | |
| 10 | | | 35 | | |
| 11 | | | 36 | | |
| 12 | | | 37 | | |
| 13 | | | 38 | | |
| 14 | | | 39 | | |
| 15 | | | 40 | | |
| 16 | | | 41 | | |
| 17 | | | 42 | | |
| 18 | | | 43 | | |
| 19 | | | 44 | | |
| 20 | | | 45 | | |
| 21 | | | 46 | | |
| 22 | | | 47 | | |
| 23 | | | 48 | | |
| 24 | | | 49 | | |
| 25 | | | 50 | | |

**Comments**

Spoils pile scanned with Fidler. Results ranged from 10.5 Kcpm to 13.5 Kcpm unless otherwise noted.

① Syringe (glass) trench A, ~6" length, 9 ft depth; 12.2 K cpm; 8 uRem/hr
② Plastic (bags & sheeting) ~30' length, 6' depth; 11.3 K cpm; 7 uRem/hr
③ Steel banding; plastic bags – 45' length, 6' depth; 11.7K cpm; 7 uRem/hr
④ plastic, bones, bags – 50' length, 50' length, 6' depth; 12.7K cpm; 6 uRem/hr
⑤ Fencing & cage material, steel wire & cable – 60'-70' length; 12. K cpm; 7 uRem/hr; 2' depth (COLD RAD postings present (yellow & magenta ☢))
⑥ plastic carboy (~0.5L Liquid) – 75' length, 2' depth; 30.9 K cpm, 8 uRem/hr
⑦ plastic bag (Batteries, poss. bb vials, dirt) – 75' x 2'; 100K cpm, 100 uRem/hr @ contact & 8 uRem/hr @ 1 m.
⑧ EXCAVATOR BUCKET teeth; 11.9 Kcpm; 8 uRem/hr.

Trench A southern most end.




Surveyed By: [signature] Date: 10/17/06

Reviewed By: [signature] Date: 10/17/06

| Instrument | Serial # | α Eff. | β Eff. | α Bkg. | β Bkg | Cal. Due |
|---|---|---|---|---|---|---|
| BICRON | C854F | n/a | n/a | n/a | 7 uRem/h | 5/07 |
| Fidler | 132861 | n/a | n/a | n/a | 11.9 Kcpm | 10/07 |
| 2929 | 163827 | 0.359 | 0.251 | 0.1 | 88.2 | 8/07 |

Key: ○ Smear; □ Dose Rate ~~mr/hr~~ mRem/hr; * Static CPM (counts per minute)

RADIOLOGICAL SURVEY MAP

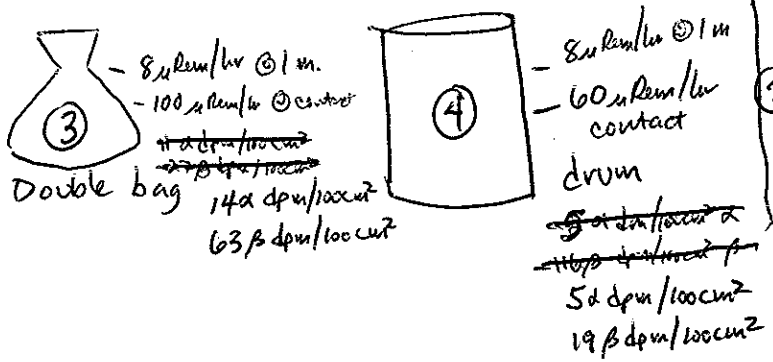
| Location: | RWP# | Survey # | Survey Type: | pg. |
|---|---|---|---|---|
| RW-06 KIRTLAND AFB | RW06-01 | 006 | Contamination | 1 of 1 |

**Smear Results**

DPM/100cm²

| No. | α | β | No. | α | β |
|---|---|---|---|---|---|
| 1 | ~~11~~ | ~~6,446~~ | 26 | | |
| 2 | ~~7,445~~ | ~~954~~ | 27 | | |
| 3 | ~~14~~ | ~~63~~ | 28 | | |
| 4 | ~~5~~ | ~~19~~ | 29 | | |
| 5 | | | 30 | | |
| 6 | | | 31 | | |
| 7 | | | 32 | | |
| 8 | | | 33 | | |
| 9 | | | 34 | | |
| 10 | | | 35 | | |
| 11 | | | 36 | | |
| 12 | | | 37 | | |
| 13 | | | 38 | | |
| 14 | | | 39 | | |
| 15 | | | 40 | | |
| 16 | | | 41 | | |
| 17 | | | 42 | | |
| 18 | | | 43 | | |
| 19 | | | 44 | | |
| 20 | | | 45 | | |
| 21 | | | 46 | | |
| 22 | | | 47 | | |
| 23 | | | 48 | | |
| 24 | | | 49 | | |
| 25 | | | 50 | | |

Comments




① 8 μRem/hr @ 1 meter
100 μRem/hr @ contact
11 dpm α/100cm²
3987 ~~6,446~~ dpm β/100cm²

② 7,445 dpm/100cm² α
593 ~~954~~ dpm/100cm² β
8 μRem/hr @ contact & 1 m

BAG contains carboy, glass jar, plastic bags, dirt. Items placed in double bag. Swiped outside of double bag. BAG placed inside drum

Surveyed By: [signature] Date: 10/12/06

Reviewed By: [signature] Date: 10/17/06

| Instrument | Serial # | α Eff. | β Eff. | α Bkg. | β Bkg | Cal. Due |
|---|---|---|---|---|---|---|
| Ludlum 2929 | 163827 | .359 | .156 | 0.1 | 88.2 | 8/07 |
| BICRON | C854F | NA | NA | NA | 6 μRem/hr | 5/07 |

Key: ○ Smear; □ Dose Rate ~~mr/hr~~ μRem/hr; * Static CPM (counts per minute)

RADIOLOGICAL SURVEY MAP

| Location: RW-06 | RWP# RW06-01 | Survey # 007 | Survey Type: Contamination | pg. 1 of 1 |
|---|---|---|---|---|

**Smear Results**

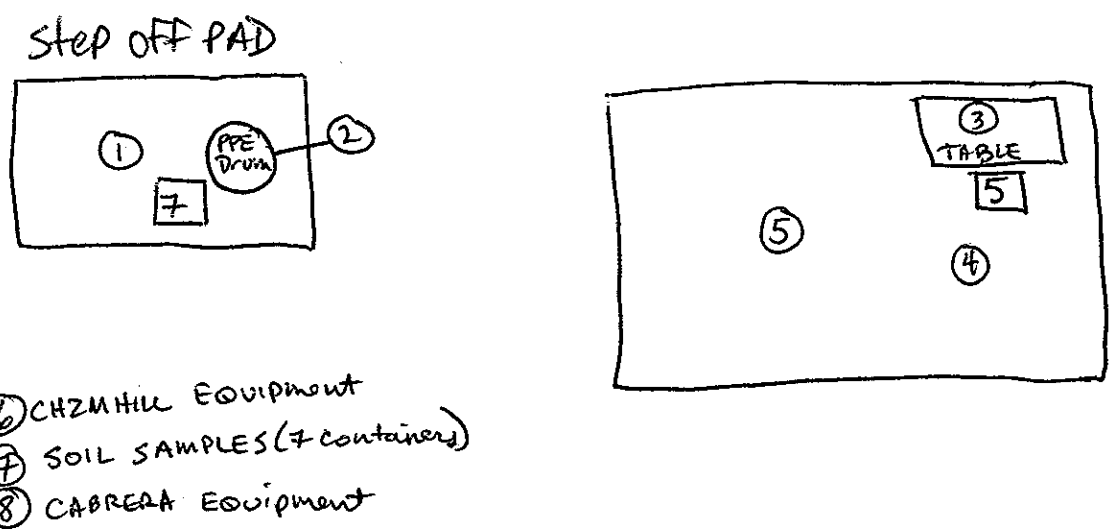
CPM/100cm²

| No. | α | β | No. | α | β |
|---|---|---|---|---|---|
| 1 | | | 26 | | |
| 2 | | | 27 | | |
| 3 | | | 28 | | |
| 4 | | | 29 | | |
| 5 | | | 30 | | |
| 6 | | | 31 | | |
| 7 | | | 32 | | |
| 8 | | | 33 | | |
| 9 | | | 34 | | |
| 10 | | | 35 | | |
| 11 | | | 36 | | |
| 12 | | | 37 | | |
| 13 | | | 38 | | |
| 14 | | | 39 | | |
| 15 | | | 40 | | |
| 16 | | | 41 | | |
| 17 | | | 42 | | |
| 18 | | | 43 | | |
| 19 | | | 44 | | |
| 20 | | | 45 | | |
| 21 | | | 46 | | |
| 22 | | | 47 | | |
| 23 | | | 48 | | |
| 24 | | | 49 | | |
| 25 | | | 50 | | |

Site Electronic Datasheet

Comments

~~Scan~~ 100% Scan of accessable survey area R w/ 43-93. Results below action levels.




| Surveyed By: | Date: |
|---|---|
| [signature] | 10/17/06 |
| Reviewed By: | Date: |
| [signature] | 10/17/06 |

| Instrument | Serial # | α Eff. | β Eff. | α Bkg. | β Bkg | Cal. Due |
|---|---|---|---|---|---|---|
| 2929 | 163827 | 0.359 | 0.251 | 0.1 | 88.2 | 8/07 |
| BICRON | C854F | NA | NA | NA | 6 μRem/hr | 5/07 |
| ~~43-93~~ | | | | | | |
| | | | | | | |

Key

| | | |
|---|---|---|
| ○ | Smear | |
| □ | Dose Rate ~~mR/hr~~ | μRem/hr |
| * | Direct Reading CPM | (Counts per minute) |

RADIOLOGICAL SURVEY MAP

Location: RW-06 TRENCH A 98'+~~165A~~ 165A | RWP# RW06-01 | Survey # 0008 | Survey Type: Contamination | pg. 1 of 1

Smear Results
DPM/100cm²

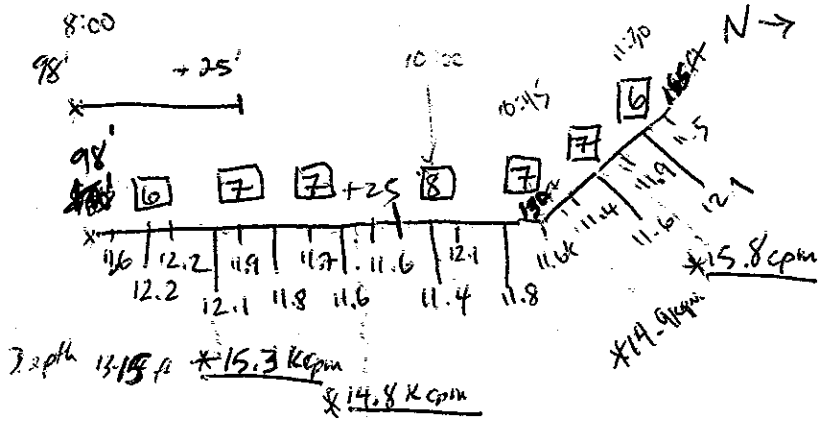
| No. | α | β | No. | α | β |
|---|---|---|---|---|---|
| 1 | 1.8 | 86 | 26 | | |
| 2 | -1 | -18 | 27 | | |
| 3 | -1 | -50 | 28 | | |
| 4 | 2 | -26 | 29 | | |
| 5 | 5 | 6 | 30 | | |
| 6 | 2 | -54 | 31 | | |
| 7 | | | 32 | | |
| 8 | | | 33 | | |
| 9 | | | 34 | | |
| 10 | | | 35 | | |
| 11 | | | 36 | | |
| 12 | | | 37 | | |
| 13 | | | 38 | | |
| 14 | | > | 39 | * | |
| 15 | * | | 40 | | |
| 16 | | | 41 | | |
| 17 | | | 42 | | |
| 18 | | | 43 | | |
| 19 | | | 44 | | |
| 20 | | | 45 | | |
| 21 | | | 46 | | |
| 22 | | | 47 | | |
| 23 | | | 48 | | |
| 24 | | | 49 | | |
| 25 | | | 50 | | |

Comments

Dose rates performed @ 1m above surface.

Gross gamma and dose rate measurements less than twice background for measurements 7-14.

K= 1×10³




scan of spoils pile w/ fidler ranged from 11.2 kcpm to 12.2 kcpm.

① plastic bag w/ lead label of $^{144}Ce$ 75', 2'd, 11.2 kcpm, 7 μRem/hr
② steel bucket, 98+44', 8'd, 11.4 kcpm; 6 μRem/hr
③ plastic bag, unmarked & intact w/ possible concass, 98'+50', 8'd, 12.3 kcpm, 6 μRem/hr
④ large intact plastic bag (1.5'x3'), 98'+10', 10'd, 12.1 kcpm, 7 μRem/hr
⑤ tube (possible part), photo multiplier tube, 98'+75, 8ft d, 12.1 kcpm, 7 μRem/hr
⑥ Equipment & personnel exit.
⑦⑧⑨⑩ Drum's from pit 5
⑪ Bucket ⑫ Personnel and equipment off site. ⑬ step off pad (6 μRem/hr) ⑭ Conex (5 μRem/hr)

| Surveyed By: | Date: |
|---|---|
| [signature] | 10/18/06 |
| Reviewed By: | Date: |
| [signature] | 10/18/06 |

| Instrument | Serial # | α Eff. | β Eff. | α Bkg. | β Bkg | Cal. Due |
|---|---|---|---|---|---|---|
| BICRON | C854F | NA | NA | NA | 6 μRem | 5/07 |
| FIDLER | 132861 | NA | NA | NA | 12.5K | 10/07 |
| 2929 | 163827 | 0.359 | 0.251 | 0.4 | 85.5 | 8/07 |

Key: ○ Smear; □ Dose Rate ~~mR/hr~~ μRem/hr; * Static CPM (counts per minute)

All measurements below project action levels.

RADIOLOGICAL SURVEY MAP

| Location: | RWP# | Survey # | Survey Type: | pg. 1 of 1 |
|---|---|---|---|---|
| SWOB TRENCH A End - | RW86-21 | 0089 | Contamination | |

**Smear Results**

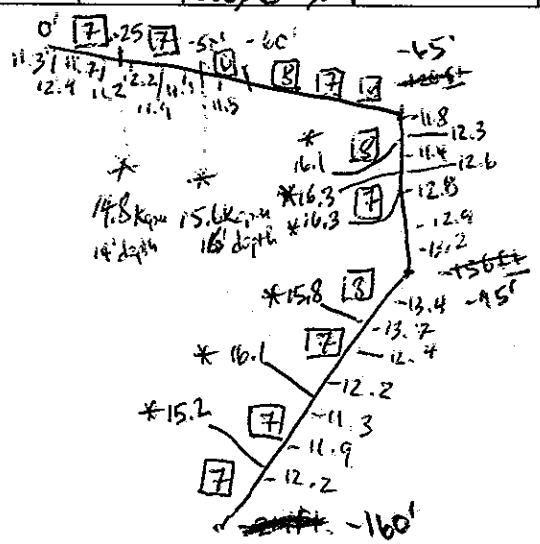
DPM ~~CPM~~/100cm²

| No. | α | β | No. | α | β |
|---|---|---|---|---|---|
| 1 | 5 | -31 | 26 | | |
| 2 | -1 | -27 | 27 | | |
| 3 | 5 | 33 | 28 | | |
| 4 | -1 | -19 | 29 | | |
| 5 | -1 | 13 | 30 | | |
| 6 | -1 | 53 | 31 | | |
| 7 | -1 | 21 | 32 | | |
| 8 | -1 | 9 | 33 | | |
| 9 | 2 | 49 | 34 | | |
| 10 | -1 | -15 | 35 | | |
| 11 | 5 | -39 | 36 | | |
| 12 | -1 | <3 | 37 | | |
| 13 | -1 | -3 | 38 | A | |
| 14 | | | 39 | | |
| 15 | | | 40 | | |
| 16 | | | 41 | | |
| 17 | | | 42 | | |
| 18 | | V | 43 | | |
| 19 | | | 44 | | |
| 20 | | | 45 | | |
| 21 | A | | 46 | | |
| 22 | | | 47 | | |
| 23 | | | 48 | | |
| 24 | | | 49 | | |
| 25 | | | 50 | | |

Comments

Dose rate reading performed @ 3 ft. (1 meter)

Scan measurements in K cpm.




(1) Carboy (E-30', S'd) 12.7 Kcpm, 7 uRem/hr
(2) Carboy (NW) 12.2 Kcpm, 8 uRem/hr
(3) Rubber jar (NW) 11.9 Kcpm, 6 uRem/hr
(4) Jars/vials (-50', 1-14'd), 12.7 Kcpm, 7 uRem/hr
(5) Metal frame (NW) 10.6 Kcpm, 8 uRem/hr
(6) Carboy (NW) 11.8 Kcpm, 7 uRem/hr
(7) grassed area (NE) 12.2 Kcpm, 6 uRem/hr
(8) Bones (-180', 2'd) 13.6 Kcpm, 8 uRem/hr
(9) Carboy w/ Rad posting (No Liquid) (-180', 11'd) 11.6 Kcpm, 6 uRem/hr
(10) Bag (NW) 11.3 Kcpm, 7 uRem/hr
(11) Bucket (EXCAVATOR) 10.2 Kcpm, 5 uRem/hr
(12) Equipment & personnel (N/A)
(13) soil samples ~~taken~~ 11.1 Kcpm, 6 uRem/hr
(14) personnel & equipment N/A, Step off pad, trailer

All measurements below project action levels.

Bill McDonald

| Surveyed By: | Date: | Reviewed By: | Date: |
|---|---|---|---|
| | 10/19/06 | | 10/20/06 |

| Instrument | Serial # | α Eff. | β Eff. | α Bkg. | ~~β Bkg~~ | Cal. Due |
|---|---|---|---|---|---|---|
| BICRON | C854F | NA | NA | NA | 7 uRem/h | 5/07 |
| FIDLER | 132861 | NA | NA | NA | 11.9 Kcpm | 10/07 |
| 2929 | 163827 | 0.359 | 0.251 | 0.4 | 706.8 | 8/07 |
| | | | V | | | |
| | | | A | | | |

Key

○ Smear
□ Dose Rate ~~mrad~~ uRem/hr
* Static ~~CPM~~ K cpm (counts per minute)
1K = 1x10³

RADIOLOGICAL SURVEY MAP

| Location: RW06 TRENCH A 0-88' | RWP# RW06-01 | Survey # 009.5 | Survey Type: gross gamma + dose rate | pg. 1 of 1 |
|---|---|---|---|---|

Smear Results

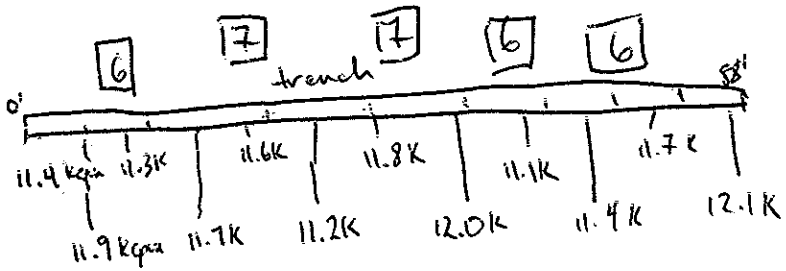
DPM ~~CPM~~/100cm²

| No. | α | β | No. | α | β |
|---|---|---|---|---|---|
| 1 | | | 26 | | |
| 2 | | | 27 | | |
| 3 | | | 28 | | |
| 4 | | | 29 | | |
| 5 | | | 30 | | |
| 6 | | | 31 | | |
| 7 | | | 32 | | |
| 8 | | | 33 | | |
| 9 | | | 34 | | |
| 10 | | | 35 | | |
| 11 | | | 36 | | |
| 12 | | | 37 | | |
| 13 | | | 38 | | |
| 14 | N | | 39 | | |
| 15 | D | | 40 | R | N |
| 16 | | | 41 | | |
| 17 | | | 42 | | |
| 18 | | | 43 | | |
| 19 | | | 44 | | |
| 20 | | | 45 | | |
| 21 | | | 46 | | |
| 22 | | | 47 | | |
| 23 | | | 48 | | |
| 24 | | | 49 | | |
| 25 | | | 50 | | |

Comments

Dose rates performed @ 1 meter above surface of interest.

K = 1 x 10³




Walkover scan w/ Fidler of backfilled section on trench (0-88') pre-water.

| Surveyed By: | Date: | Reviewed By: | Date: |
|---|---|---|---|
| [signature] | 10/18/06 | [signature] | 10/18/06 |

| Instrument | Serial # | α Eff. | β Eff. | α Bkg. | β Bkg. (gamma) | Cal. Due |
|---|---|---|---|---|---|---|
| Bicron | C854F | NA | NA | NA | 6 uR/hr | 5/07 |
| Fidler | 132861 | NA | NA | NA | 12.5K | 10/07 |

Key

○ Smear

□ Dose Rate ~~mr/hr~~ mRem/hr

* Static ~~CPM~~ K cpm (counts per minute)

RADIOLOGICAL SURVEY MAP

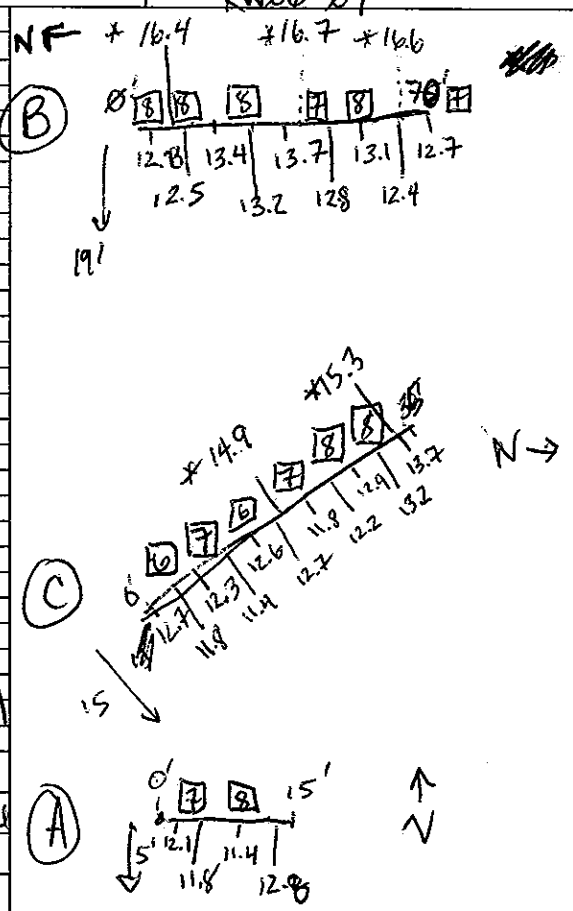
| Location: TRENCH B + C + A | RWP#: RW06-01 | Survey #: 010 | Survey Type: Contamination | pg. 1 of 1 |
|---|---|---|---|---|

**Smear Results CPM/100cm²**

| No. | α | β | No. | α | β |
|---|---|---|---|---|---|
| 1 | 4 | -11 | 26 | | |
| 2 | -2 | -31 | 27 | | |
| 3 | -2 | 29 | 28 | | |
| 4 | 1 | 57 | 29 | | |
| 5 | 4 | 25 | 30 | | |
| 6 | 10 | 9 | 31 | | |
| 7 | 1 | 29 | 32 | | |
| 8 | | | 33 | | |
| 9 | | | 34 | | |
| 10 | | | 35 | | |
| 11 | | | 36 | | |
| 12 | | | 37 | | |
| 13 | | | 38 | | 2 |
| 14 | | | 39 | | |
| 15 | | 2 | 40 | 1 | |
| 16 | | | 41 | | |
| 17 | | | 42 | | |
| 18 | 1 | | 43 | | |
| 19 | | | 44 | | |
| 20 | | | 45 | | |
| 21 | | | 46 | | |
| 22 | | | 47 | | |
| 23 | | | 48 | | |
| 24 | | | 49 | | |
| 25 | | | 50 | | |

**Comments**

* Static gross gamma measurements performed for 1 min. Dose rates performed at 1m above surface. Plastic fluid vials & soil discoloration scanned w/ 44-9 in addition to Fidler & swipe samples.




① Bones (B 30'l, 8'd), 12.4 kcpm, 8 uRem/hr
② Plastic vials w/ fluid (10-50 ml) (C 30'l, 11'l), 11.9 kcpm, 6 uRem/hr 40-60 cpm β
③ "
④ "
⑤ Discoloration on soil surface at trench A @ end - 30'l. 40-60 cpm β
⑥ Personnel & Equipment
⑦ Conex table and step off pad.

| Surveyed By: | Date: | Instrument | Serial # | α Eff. | β Eff. | α Bkg. | β Bkg | Cal. Due |
|---|---|---|---|---|---|---|---|---|
| | 10/20/06 | Fidler | 132861 | NA | NA | NA | 12.4 | 10/07 |
| | | Bicron | C854F | NA | NA | NA | 7 kRem | 5/07 |
| Reviewed By: | Date: | 2929 | 132826 | 0.359 | 0.251 | 0.6 | 76.8 | 8/07 |
| | 10/20/06 | 44-9 | 89973 | NA | 20% | ~~60~~ NA | 60 cpm | 6/07 |
| | | ~~Ensp. HK~~ | | | | | | |

Key: ○ Smear / 100cm² | □ Dose Rate ~~mrem~~ uRem/hr | * Static ~~GPM~~ ~~kcpm~~ (counts per minute)

K = 1x10³

RADIOLOGICAL SURVEY MAP

| Location: TRENCH A Extension South | RWP# RW 06-01 | Survey # ~~00~~ 011 | Survey Type: Contamination | pg. 1 of 1 |
|---|---|---|---|---|

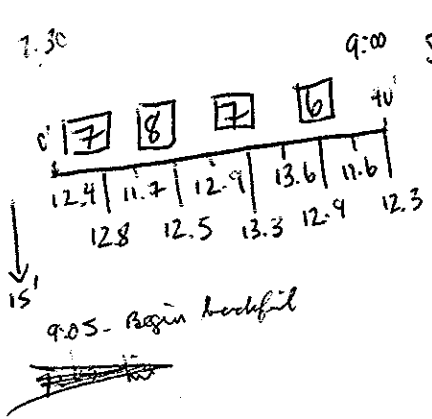
Smear Results CPM/100cm²

| No. | α | β | No. | α | β |
|---|---|---|---|---|---|
| 1 | | | 26 | | |
| 2 | | | 27 | | |
| 3 | | | 28 | | |
| 4 | | | 29 | | |
| 5 | | | 30 | | |
| 6 | | | 31 | | |
| 7 | | | 32 | | |
| 8 | | | 33 | | |
| 9 | | | 34 | | |
| 10 | | | 35 | | |
| 11 | | | 36 | | |
| 12 | | | 37 | | |
| 13 | | | 38 | | |
| 14 | | | 39 | | |
| 15 | | | 40 | | |
| 16 | | | 41 | | |
| 17 | | | 42 | | |
| 18 | | | 43 | | |
| 19 | | | 44 | | |
| 20 | | | 45 | | |
| 21 | | | 46 | | |
| 22 | | | 47 | | |
| 23 | | | 48 | | |
| 24 | | | 49 | | |
| 25 | | | 50 | | |

Comments

Dosecates performed

1m above surface.




① Bucket of Soil (CH² Hill soil sample) (30 l, 8' d)
12.3 Kcpm, 6.4 uRem/hr, 40-60 cpm/β

② Rad Rope (45 l, 10' d) yellow & magenta rope
Bundle 11.8 Kcpm, 7 uRem/hr, 40-60 cpm/β

③ Equipment & personnel
④ Air sampler + Stand & cooler
⑤ electrical cords + fire extinguisher
⑥ Hoses
⑦ Misc equipment & personnel

740 struck communications wire (possible telephone) @ 10' l, 1' d. Soil appears disturbed @ 30', 2-10' d. soil soft & caving in. CH²M Hill tech took soil sample. found Rad rope.

| Surveyed By: | Date: | Instrument | Serial # | α Eff. | β Eff. | α Bkg. | β Bkg | Cal. Due |
|---|---|---|---|---|---|---|---|---|
| [signature] | 10/23/06 | Fidler | 132861 | NA | NA | NA | 12.0K | 10/07 |
| | | Bicron | C854F | NA | N A | NA | 6 uRem/hr | 5/07 |
| Reviewed By: | Date: | 2929 | 132826 | 0.359 | 0.251 | 0.3 | 79.0 | 8/07 |
| [signature] | 10/23/06 | 44-9 | 89173 | NA | 0.20 | NA | 5K cpm | 6/07 |

Key

| | | | |
|---|---|---|---|
| ○ | Smear | | |
| □ | Dose Rate ~~mrem~~ | uRem | /hr |
| * | Static CPM (counts per minute) | | |

RADIOLOGICAL SURVEY MAP

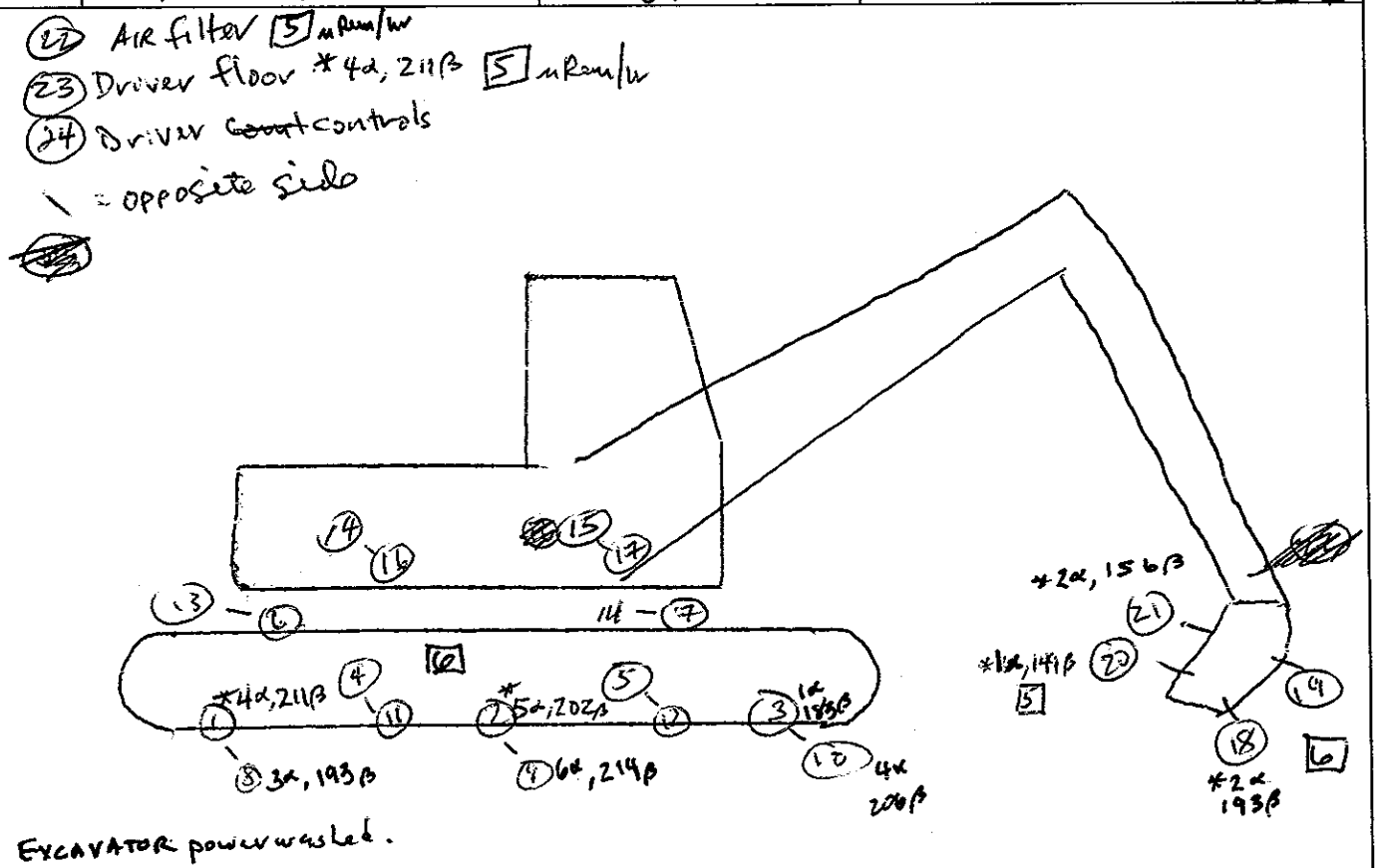
| Location: RW-06 | RWP# RW06-01 | Survey # 012 | Survey Type: Contamination | pg. 1 of 1 |
|---|---|---|---|---|

**Smear Results**
CPM/100cm²

| No. | α | β | No. | α | β |
|---|---|---|---|---|---|
| 1 | | | 26 | | |
| 2 | | | 27 | | |
| 3 | | | 28 | | |
| 4 | | | 29 | | |
| 5 | | | 30 | | |
| 6 | | | 31 | | |
| 7 | | | 32 | | |
| 8 | | | 33 | | |
| 9 | | | 34 | | |
| 10 | | | 35 | | |
| 11 | | | 36 | | |
| 12 | | | 37 | | |
| 13 | | | 38 | | |
| 14 | | | 39 | | |
| 15 | | | 40 | | |
| 16 | | | 41 | | |
| 17 | | | 42 | | |
| 18 | | | 43 | | |
| 19 | | | 44 | | |
| 20 | | | 45 | | |
| 21 | | | 46 | | |
| 22 | | | 47 | | |
| 23 | | | 48 | | |
| 24 | | | 49 | | |
| 25 | | | 50 | | |

Comments

Dose rates performed 1m above surface.




| Surveyed By: | Date: | Instrument | Serial # | α Eff. | β Eff. | α Bkg. | β Bkg | Cal. Due |
|---|---|---|---|---|---|---|---|---|
| | 10/23/06 | 43-89 | 202398 | 0.197 | 0.123 | 2 | 193 | 6/07 |
| | | BICRON | C854F | NA | NA | NA | 6uRem | 5/07 |
| Reviewed By: | Date: | 2929 | 163827 | 0.359 | 0.251 | 0.3 | 79.0 | 8/07 |
| | 10/23/06 | | | | | | | |

Key

| | | | |
|---|---|---|---|
| ○ | Smear | | |
| □ | Dose Rate ~~mR/hr~~ | uRem/hr | |
| * | Static CPM (counts per minute) | | |

RADIOLOGICAL SURVEY MAP

| Location: RW-06 | RWP# RW06-01 | Survey # 013 | Survey Type: Contamination | pg. 1 of 1 |
|---|---|---|---|---|

**Smear Results**

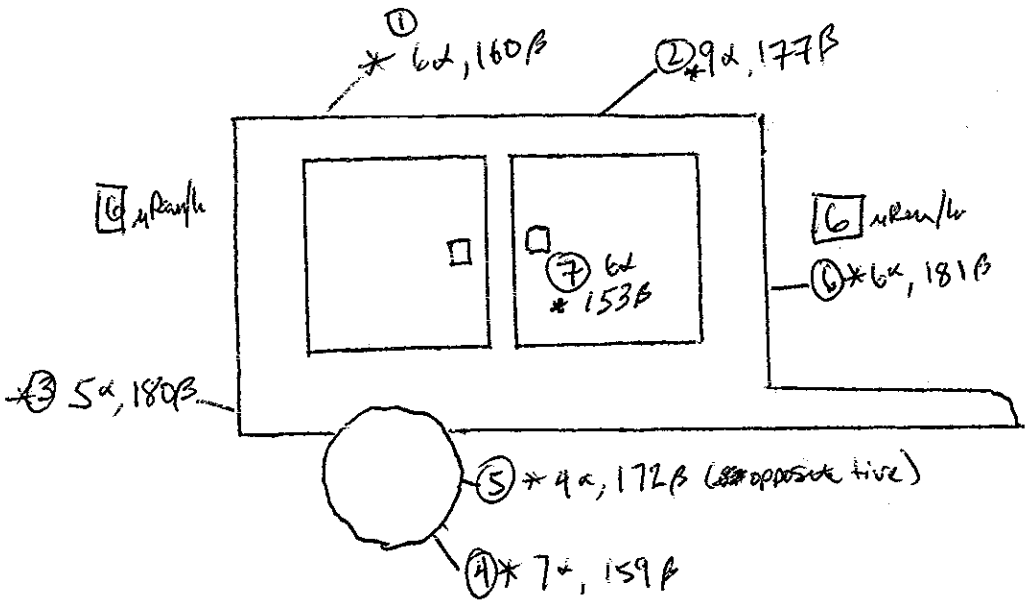
CPM/100cm²

| No. | α | β | No. | α | β |
|---|---|---|---|---|---|
| 1 | | | 26 | | |
| 2 | | | 27 | | |
| 3 | | | 28 | | |
| 4 | | | 29 | | |
| 5 | | | 30 | | |
| 6 | | | 31 | | |
| 7 | | | 32 | | |
| 8 | | | 33 | | |
| 9 | | | 34 | | |
| 10 | | | 35 | | |
| 11 | | | 36 | | |
| 12 | | | 37 | | |
| 13 | | | 38 | | |
| 14 | | | 39 | | |
| 15 | | | 40 | | |
| 16 | | | 41 | | |
| 17 | | | 42 | | |
| 18 | | | 43 | | |
| 19 | | | 44 | | |
| 20 | | | 45 | | |
| 21 | | | 46 | | |
| 22 | | | 47 | | |
| 23 | | | 48 | | |
| 24 | | | 49 | | |
| 25 | | | 50 | | |

**Comments**

Dose rates performed 1m above surface of interest. Scanned 100% of accessible surface are w/ 43-93.

All scan results w/ ludlum 43-93 less than project action levels.




| Surveyed By: | Date: |
|---|---|
| [signature] | 10/23/06 |

| Reviewed By: | Date: |
|---|---|
| [signature] | 10/23/06 |

| Instrument | Serial # | α Eff. | β Eff. | α Bkg. | β Bkg | Cal. Due |
|---|---|---|---|---|---|---|
| 43-93 | 202398 | 0.197 | 0.123 | 4α | ~~177~~ 219 | 6/07 |
| BICRON | C854F | NA | NA | NA | 6 μRem | 5/07 |
| 2929 | 163827 | 0.359 | 0.251 | 0.3 | 79.0 | 8/07 |
| | | | ✓ | | | |
| | | | Δ | | | |

| Key | | | |
|---|---|---|---|
| ◇ | Smear | | |
| □ | Dose Rate ~~mR/hr~~ | μRem/hr | |
| * | Static CPM (Counts per minute) | | |

RADIOLOGICAL SURVEY MAP

| Location: RW-06 | RWP# RW06-01 | Survey # 014 | Survey Type: Contamination | pg. 1 of 1 |
|---|---|---|---|---|

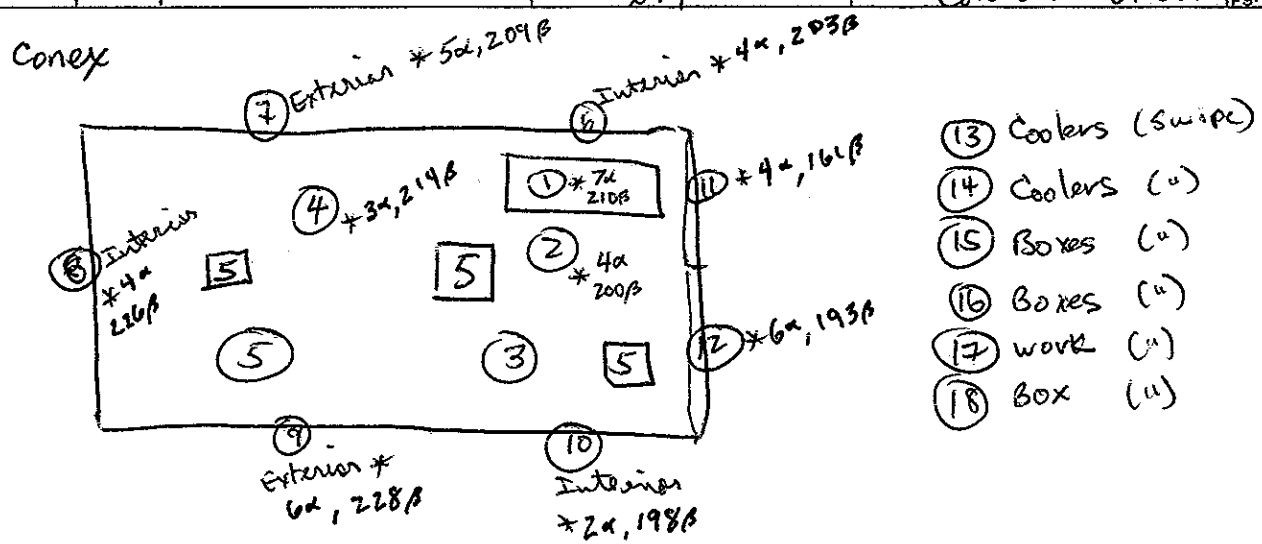
**Smear Results** CPM/100cm²

| No. | α | β | No. | α | β |
|---|---|---|---|---|---|
| 1 | | | 26 | | |
| 2 | | | 27 | | |
| 3 | | | 28 | | |
| 4 | | | 29 | | |
| 5 | | | 30 | | |
| 6 | | | 31 | | |
| 7 | | | 32 | | |
| 8 | | | 33 | | |
| 9 | | | 34 | | |
| 10 | | | 35 | | |
| 11 | | | 36 | | |
| 12 | | | 37 | | |
| 13 | | | 38 | | |
| 14 | | | 39 | | |
| 15 | | | 40 | | |
| 16 | | | 41 | | |
| 17 | | | 42 | | |
| 18 | | | 43 | | |
| 19 | | | 44 | | |
| 20 | | | 45 | | |
| 21 | | | 46 | | |
| 22 | | | 47 | | |
| 23 | | | 48 | | |
| 24 | | | 49 | | |
| 25 | | | 50 | | |

Use Electronic Instrument

Comments

Dose rates performed @ 1 meter above surface. Scanned 100% of Interior area w/ 43.93. Scanned 50% of accessible exterior.




All Results below project action levels.

Surveyed By: Date: 10/23/06

Reviewed By: Date: 10/23/06

| Instrument | Serial # | α Eff. | β Eff. | α Bkg. | β Bkg | Cal. Due |
|---|---|---|---|---|---|---|
| 43.93 | 202398 | 0.197 | 0.123 | 0.3 | 206 | ~~6~~/07 |
| BICRON | C854F | NA | NA | NA | Tag Bend | 5/07 |
| 2929 | 163827 | 0.359 | 0.251 | 0-3 | 79.0 | 8/07 |
| | | | 2 | | | |
| | | | NA | | | |

Key

◇ Smear

□ Dose Rate ~~mr/hr~~ uRem/hr

* Static CPM (counts per minute)

RADIOLOGICAL SURVEY MAP

Location: RW-06 | RWP# RW06-01 | Survey # 015 | Survey Type: ~~Gamma~~ WALKOVER | pg. 1 of 1

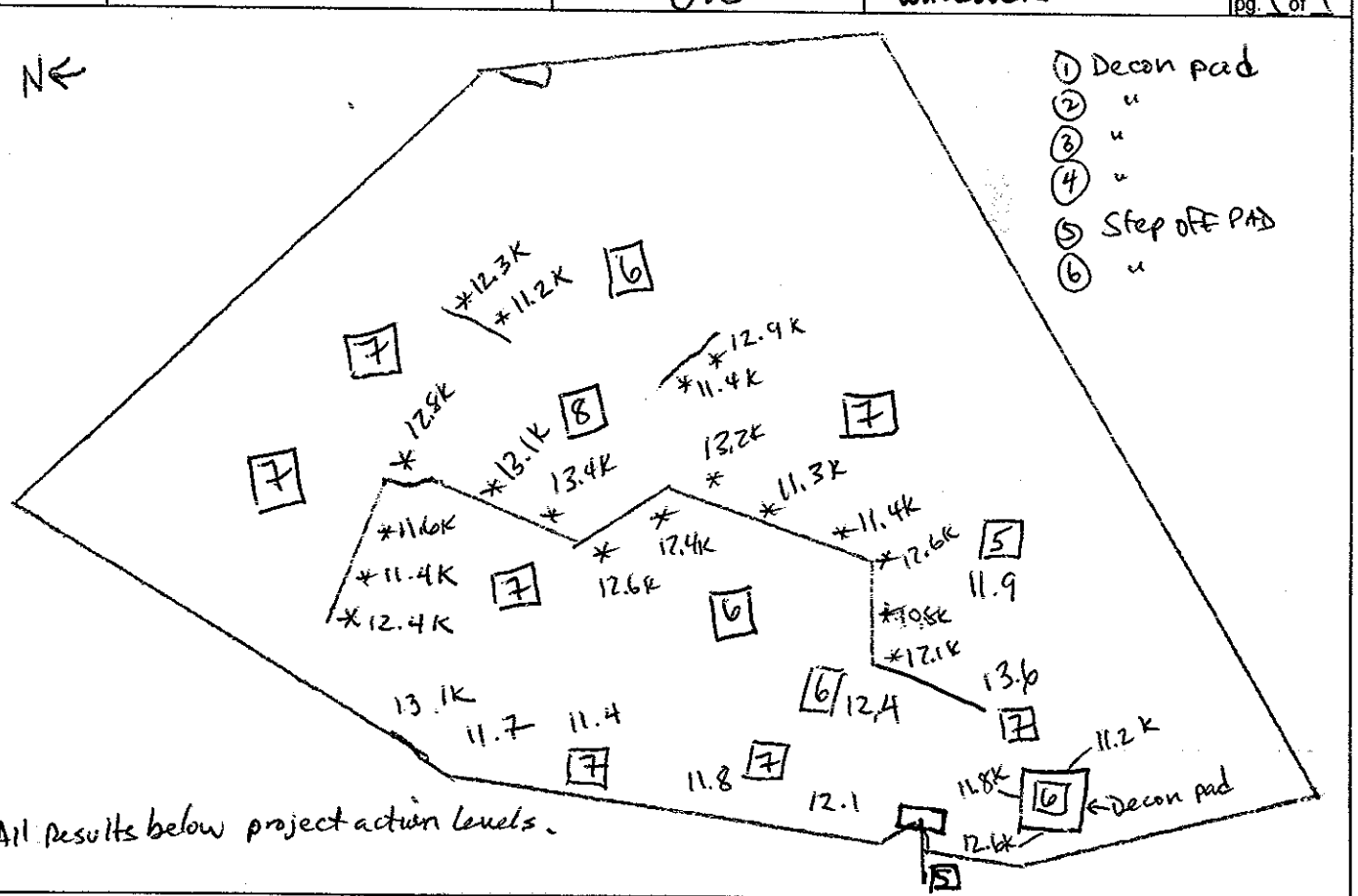
Smear Results CPM/100cm²

| No. | α | β | No. | α | β |
|---|---|---|---|---|---|
| 1 | | | 26 | | |
| 2 | | | 27 | | |
| 3 | | | 28 | | |
| 4 | | | 29 | | |
| 5 | | | 30 | | |
| 6 | | | 31 | | |
| 7 | | | 32 | | |
| 8 | | | 33 | | |
| 9 | | | 34 | | |
| 10 | | | 35 | | |
| 11 | | | 36 | | |
| 12 | | | 37 | | |
| 13 | | | 38 | | |
| 14 | | | 39 | | |
| 15 | | | 40 | | |
| 16 | | | 41 | | |
| 17 | | | 42 | | |
| 18 | | | 43 | | |
| 19 | | | 44 | | |
| 20 | | | 45 | | |
| 21 | | | 46 | | |
| 22 | | | 47 | | |
| 23 | | | 48 | | |
| 24 | | | 49 | | |
| 25 | | | 50 | | |

Comments

Dose rate readings performed 1m above surface of Intercept.

Dose rate readings in μRem/hr




| Surveyed By: | Date: | Instrument | Serial # | α Eff. | β Eff. | α Bkg. | β Bkg | Cal. Due |
|---|---|---|---|---|---|---|---|---|
| [signature] | 10/23/06 | BICRON | C854F | ~~0.197~~ N/A | ~~0.123~~ N/A | N/A | 6 μR/hr | 5/07 |
| | | FIDLER | 132861 | N/A | N/A | N/A | 11.9 | 10/07 |
| Reviewed By: | Date: | 2929 | 132826 | 0.559 | 0.251 | 0.3 | 79.0 | 8/07 |
| [signature] | 10/23/06 | | | | | | | |

Key: ○ Smear; □ Dose Rate ~~mR/hr~~ μRem/hr; * Static ~~CPM~~ kcpm (counts per minute); K = 1 × 10³

RADIOLOGICAL SURVEY MAP

| Location: RW-06 PPE Drum | RWP# RW06-01 | Survey # 0016 | Survey Type: Contamination | pg. 1 of 1 |
|---|---|---|---|---|

Smear Results CPM/100cm²

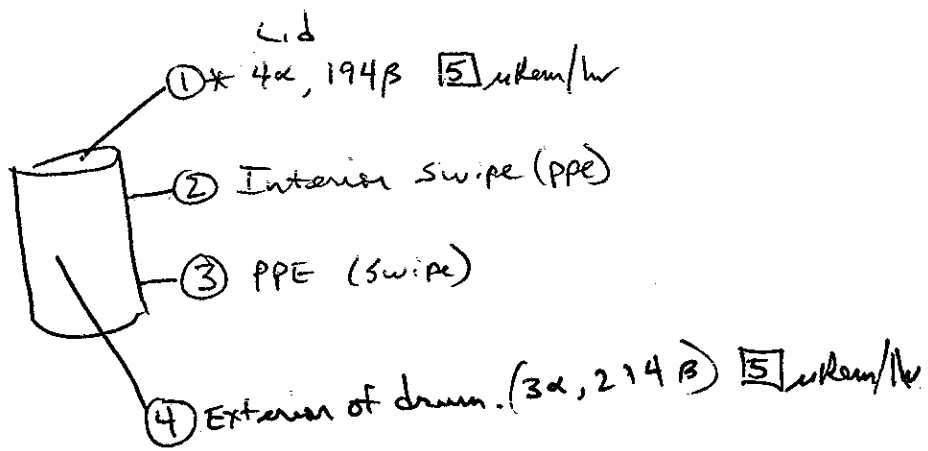
| No. | α | β | No. | α | β |
|---|---|---|---|---|---|
| 1 | | | 26 | | |
| 2 | | | 27 | | |
| 3 | | | 28 | | |
| 4 | | | 29 | | |
| 5 | | | 30 | | |
| 6 | | | 31 | | |
| 7 | | | 32 | | |
| 8 | | | 33 | | |
| 9 | | | 34 | | |
| 10 | | | 35 | | |
| 11 | | | 36 | | |
| 12 | | | 37 | | |
| 13 | | | 38 | | |
| 14 | | | 39 | | |
| 15 | | | 40 | | |
| 16 | | | 41 | | |
| 17 | | | 42 | | |
| 18 | | | 43 | | |
| 19 | | | 44 | | |
| 20 | | | 45 | | |
| 21 | | | 46 | | |
| 22 | | | 47 | | |
| 23 | | | 48 | | |
| 24 | | | 49 | | |
| 25 | | | 50 | | |

Analysis Select Electronic

Comments

all dose rates performed @ 1m from drum.

PPE scanned w/ 43-93.




All ppe & plastic scanned prior to placing in drum and ~~below~~ results below project action levels.

Surveyed By: Date: 10/23/06

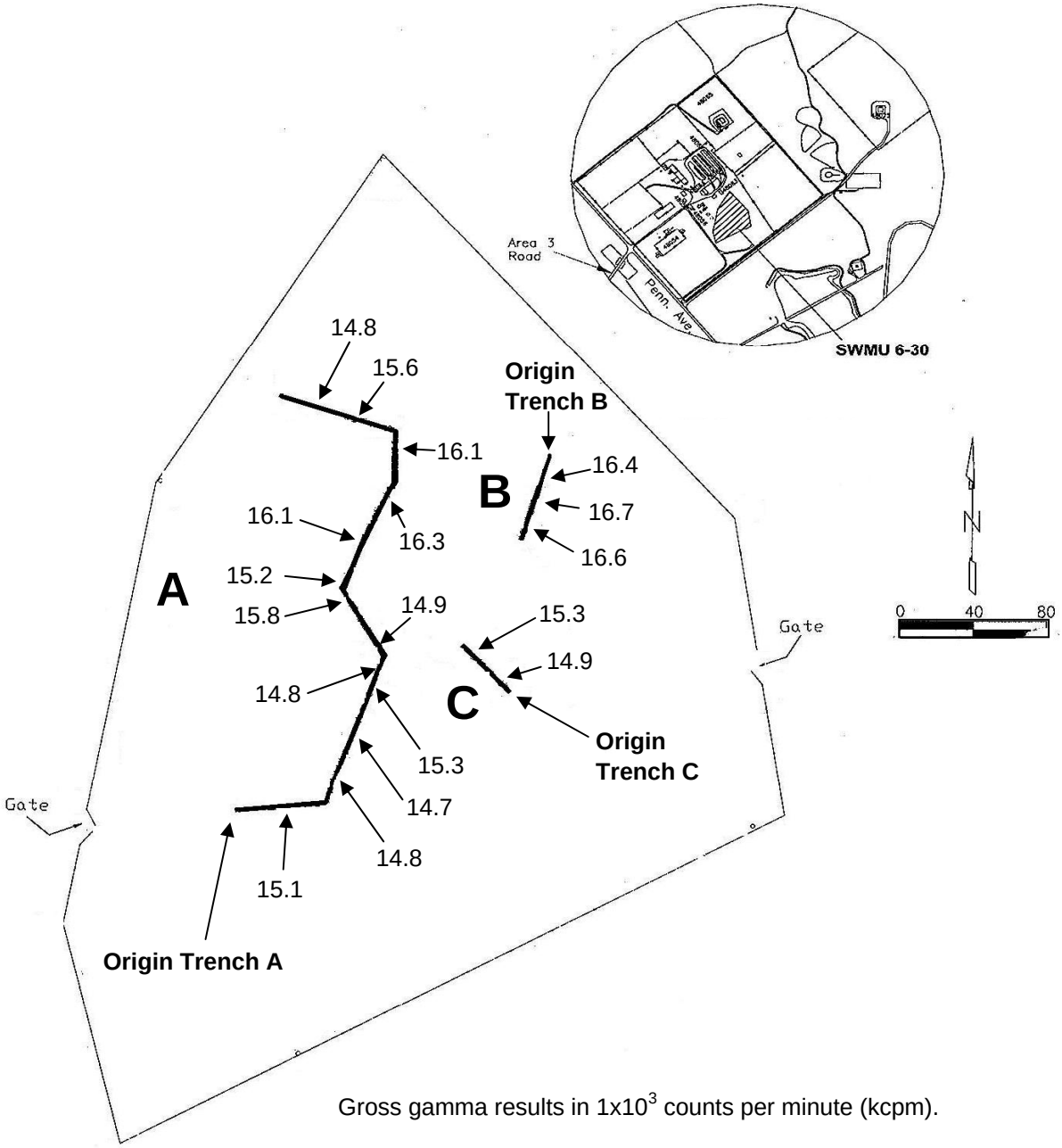
Reviewed By: Date: 10/23/06

| Instrument | Serial # | α Eff. | β Eff. | α Bkg. | β Bkg | Cal. Due |
|---|---|---|---|---|---|---|
| Bicron | C854F | N/A | N/A | N/A | 5 uRem | 5/07 |
| 43-93 | 202398 | 0.197 | 0.123 | 4 cpm | 178 cpm | 6/07 |
| 2929 | 163827 | 0.359 | 0.251 | 0.3 | 79.0 | 8/07 |
| | | | N/A | | | |
| | | | | | | |

Key

| | | | |
|---|---|---|---|
| ◇ | Smear | | |
| □ | Dose Rate ~~mR/hr~~ | uRem/hr | |
| * | Static CPM (Counts | | per minute) |

## Results of "At Depth" Gross Gamma Measurements in Trenches A, B, and C




Gross gamma results in $1x10^3$ counts per minute (kcpm).

| Trench | Feet from Origin | Static Result (kcpm) |
|---|---|---|
| A | 25 | 15.1 |
| A | 50 | 14.8 |
| A | 70 | 14.7 |
| A | 100 | 15.3 |
| A | 115 | 14.8 |
| A | 135 | 14.9 |
| A | 160 | 15.8 |
| A | 165 | 15.2 |
| A | 180 | 16.1 |
| A | 205 | 15.8 |

| Trench | Feet from Origin | Static Result (kcpm) |
|---|---|---|
| A | 225 | 16.3 |
| A | 250 | 16.1 |
| A | 275 | 15.6 |
| A | 300 | 14.8 |
| B | 20 | 16.4 |
| B | 40 | 16.7 |
| B | 60 | 16.6 |
| C | 15 | 14.9 |
| C | 30 | 15.3 |

## Swipe Results Electronic Data Sheet

| α eff | β eff |
|---|---|
| 0.3590 | 0.2510 |

| Sample Count Time (min) | Daily Bkgrd Count Time (min) |
|---|---|
| 1.0 | 20.0 |

| dpm/100 cm$^2$ | |
|---|---|
| α Flag | β Flag |
| 20 | 200 |

* Morning Daily Count

| Seq. # | Survey# - Smear# | Date | Background Total Counts* | | Sample Total Counts | | Background (cpm) | | Sample Counts (cpm) | | Sample (dpm/100 cm$^2$) | | > α flag | > β flag | Tech. Initial |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | α | β | α | β | α | β | α | β | α | β | | | |
| 1 | 005-01 | 10/17/2006 | 2 | 1763 | 4 | 78 | 0.1 | 88.2 | 4 | 78 | 10.9 | -40 | | | gmt |
| 2 | 005-02 | 10/17/2006 | 2 | 1763 | 3 | 83 | 0.1 | 88.2 | 3 | 83 | 8.1 | -21 | | | gmt |
| 3 | 005-03 | 10/17/2006 | 2 | 1763 | 6 | 81 | 0.1 | 88.2 | 6 | 81 | 16.4 | -28 | | | gmt |
| 4 | 005-04 | 10/17/2006 | 2 | 1763 | 3 | 100 | 0.1 | 88.2 | 3 | 100 | 8.1 | 47 | | | gmt |
| 5 | 005-05 | 10/17/2006 | 2 | 1763 | 5 | 98 | 0.1 | 88.2 | 5 | 98 | 13.6 | 39 | | | gmt |
| 6 | 005-06 | 10/17/2006 | 2 | 1763 | 2673 | 237 | 0.1 | 88.2 | 2673 | 237 | 7445.4 | 593 | FLAG | FLAG | gmt |
| 7 | 005-07 | 10/17/2006 | 2 | 1763 | 4 | 1089 | 0.1 | 88.2 | 4 | 1089 | 10.9 | 3987 | | FLAG | gmt |
| 8 | 005-08 | 10/17/2006 | 2 | 1763 | 26 | 90 | 0.1 | 88.2 | 26 | 90 | 72.1 | 7 | FLAG | | gmt |
| 9 | 006-01 | 10/17/2006 | 2 | 1763 | 4 | 1089 | 0.1 | 88.2 | 4 | 1089 | 10.9 | 3987 | | FLAG | gmt |
| 10 | 006-02 | 10/17/2006 | 2 | 1763 | 2673 | 237 | 0.1 | 88.2 | 2673 | 237 | 7445.4 | 593 | FLAG | FLAG | gmt |
| 11 | 006-03 | 10/17/2006 | 2 | 1763 | 5 | 104 | 0.1 | 88.2 | 5 | 104 | 13.6 | 63 | | | gmt |
| 12 | 006-04 | 10/17/2006 | 2 | 1763 | 2 | 93 | 0.1 | 88.2 | 2 | 93 | 5.3 | 19 | | | gmt |
| 13 | 007-01 | 10/17/2006 | 2 | 1763 | 1 | 85 | 0.1 | 88.2 | 1 | 85 | 2.5 | -13 | | | gmt |
| 14 | 007-02 | 10/17/2006 | 2 | 1763 | 3 | 96 | 0.1 | 88.2 | 3 | 96 | 8.1 | 31 | | | gmt |
| 15 | 007-03 | 10/17/2006 | 2 | 1763 | 3 | 81 | 0.1 | 88.2 | 3 | 81 | 8.1 | -28 | | | gmt |
| 16 | 007-04 | 10/17/2006 | 2 | 1763 | 2 | 68 | 0.1 | 88.2 | 2 | 68 | 5.3 | -80 | | | gmt |
| 17 | 007-05 | 10/17/2006 | 2 | 1763 | 6 | 76 | 0.1 | 88.2 | 6 | 76 | 16.4 | -48 | | | gmt |
| 18 | 007-06 | 10/17/2006 | 2 | 1763 | 3 | 105 | 0.1 | 88.2 | 3 | 105 | 8.1 | 67 | | | gmt |
| 19 | 007-07 | 10/17/2006 | 2 | 1763 | 3 | 91 | 0.1 | 88.2 | 3 | 91 | 8.1 | 11 | | | gmt |
| 20 | 007-08 | 10/17/2006 | 2 | 1763 | 2 | 87 | 0.1 | 88.2 | 2 | 87 | 5.3 | -5 | | | gmt |
| 21 | 008-01 | 10/18/2006 | 7 | 1710 | 1 | 107 | 0.4 | 85.5 | 1 | 107 | 1.8 | 86 | | | gmt |
| 22 | 008-02 | 10/18/2006 | 7 | 1710 | 0 | 81 | 0.4 | 85.5 | 0 | 81 | -1.0 | -18 | | | gmt |
| 23 | 008-03 | 10/18/2006 | 7 | 1710 | 0 | 73 | 0.4 | 85.5 | 0 | 73 | -1.0 | -50 | | | gmt |
| 24 | 008-04 | 10/18/2006 | 7 | 1710 | 1 | 79 | 0.4 | 85.5 | 1 | 79 | 1.8 | -26 | | | gmt |
| 25 | 008-05 | 10/18/2006 | 7 | 1710 | 2 | 87 | 0.4 | 85.5 | 2 | 87 | 4.6 | 6 | | | gmt |
| 26 | 008-06 | 10/18/2006 | 7 | 1710 | 1 | 72 | 0.4 | 85.5 | 1 | 72 | 1.8 | -54 | | | gmt |
| 27 | 008-07 | 10/18/2006 | 7 | 1710 | 7 | 50 | 0.4 | 85.5 | 7 | 50 | 18.5 | -141 | | | gmt |
| 28 | 008-08 | 10/18/2006 | 7 | 1710 | 1 | 83 | 0.4 | 85.5 | 1 | 83 | 1.8 | -10 | | | gmt |

## Swipe Results Electronic Data Sheet

| α eff | β eff |
|---|---|
| 0.3590 | 0.2510 |

| Sample Count Time (min) | Daily Bkgrd Count Time (min) |
|---|---|
| 1.0 | 20.0 |

| dpm/100 cm$^2$ | |
|---|---|
| α Flag | β Flag |
| 20 | 200 |

* Morning Daily Count

| Seq. # | Survey# - Smear# | Date | Background Total Counts* | | Sample Total Counts | | Background (cpm) | | Sample Counts (cpm) | | Sample (dpm/100 cm$^2$) | | > α flag | > β flag | Tech. Initial |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | α | β | α | β | α | β | α | β | α | β | | | |
| 29 | 008-09 | 10/18/2006 | 7 | 1710 | 0 | 79 | 0.4 | 85.5 | 0 | 79 | -1.0 | -26 | | | gmt |
| 30 | 008-10 | 10/18/2006 | 7 | 1710 | 1 | 75 | 0.4 | 85.5 | 1 | 75 | 1.8 | -42 | | | gmt |
| 31 | 008-11 | 10/18/2006 | 7 | 1710 | 0 | 89 | 0.4 | 85.5 | 0 | 89 | -1.0 | 14 | | | gmt |
| 32 | 009-01 | 10/19/2006 | 7 | 1535 | 2 | 69 | 0.4 | 76.8 | 2 | 69 | 4.6 | -31 | | | gmt |
| 33 | 009-02 | 10/19/2006 | 7 | 1535 | 0 | 70 | 0.4 | 76.8 | 0 | 70 | -1.0 | -27 | | | gmt |
| 34 | 009-03 | 10/19/2006 | 7 | 1535 | 2 | 85 | 0.4 | 76.8 | 2 | 85 | 4.6 | 33 | | | gmt |
| 35 | 009-04 | 10/19/2006 | 7 | 1535 | 0 | 72 | 0.4 | 76.8 | 0 | 72 | -1.0 | -19 | | | gmt |
| 36 | 009-05 | 10/19/2006 | 7 | 1535 | 0 | 80 | 0.4 | 76.8 | 0 | 80 | -1.0 | 13 | | | gmt |
| 37 | 009-06 | 10/19/2006 | 7 | 1535 | 0 | 90 | 0.4 | 76.8 | 0 | 90 | -1.0 | 53 | | | gmt |
| 38 | 009-07 | 10/19/2006 | 7 | 1535 | 0 | 82 | 0.4 | 76.8 | 0 | 82 | -1.0 | 21 | | | gmt |
| 39 | 009-08 | 10/19/2006 | 7 | 1535 | 0 | 79 | 0.4 | 76.8 | 0 | 79 | -1.0 | 9 | | | gmt |
| 41 | 009-09 | 10/19/2006 | 7 | 1535 | 0 | 89 | 0.4 | 76.8 | 0 | 89 | -1.0 | 49 | | | gmt |
| 42 | 009-10 | 10/19/2006 | 7 | 1535 | 1 | 73 | 0.4 | 76.8 | 1 | 73 | 1.8 | -15 | | | gmt |
| 43 | 009-11 | 10/19/2006 | 7 | 1535 | 0 | 67 | 0.4 | 76.8 | 0 | 67 | -1.0 | -39 | | | gmt |
| 44 | 009-12 | 10/19/2006 | 7 | 1535 | 2 | 90 | 0.4 | 76.8 | 2 | 90 | 4.6 | 53 | | | gmt |
| 45 | 009-13 | 10/19/2006 | 7 | 1535 | 0 | 76 | 0.4 | 76.8 | 0 | 76 | -1.0 | -3 | | | gmt |
| 46 | 009-14 | 10/19/2006 | 7 | 1535 | 1 | 83 | 0.4 | 76.8 | 1 | 83 | 1.8 | 25 | | | gmt |
| 47 | 010-01 | 10/20/2006 | 11 | 1535 | 2 | 74 | 0.6 | 76.8 | 2 | 74 | 4.0 | -11 | | | gmt |
| 48 | 010-02 | 10/20/2006 | 11 | 1535 | 0 | 69 | 0.6 | 76.8 | 0 | 69 | -1.5 | -31 | | | gmt |
| 49 | 010-03 | 10/20/2006 | 11 | 1535 | 0 | 84 | 0.6 | 76.8 | 0 | 84 | -1.5 | 29 | | | gmt |
| 50 | 010-04 | 10/20/2006 | 11 | 1535 | 1 | 91 | 0.6 | 76.8 | 1 | 91 | 1.3 | 57 | | | gmt |
| 51 | 010-05 | 10/20/2006 | 11 | 1535 | 2 | 83 | 0.6 | 76.8 | 2 | 83 | 4.0 | 25 | | | gmt |
| 52 | 010-06 | 10/20/2006 | 11 | 1535 | 4 | 79 | 0.6 | 76.8 | 4 | 79 | 9.6 | 9 | | | gmt |
| 53 | 010-07 | 10/20/2006 | 11 | 1535 | 7 | 84 | 0.6 | 76.8 | 7 | 84 | 18.0 | 29 | | | gmt |
| 54 | 011-01 | 10/23/2006 | 6 | 1680 | 5 | 87 | 0.3 | 84.0 | 5 | 87 | 13.1 | 12 | | | gmt |
| 55 | 011-02 | 10/23/2006 | 6 | 1680 | 2 | 81 | 0.3 | 84.0 | 2 | 81 | 4.7 | -12 | | | gmt |
| 56 | 011-03 | 10/23/2006 | 6 | 1680 | 4 | 74 | 0.3 | 84.0 | 4 | 74 | 10.3 | -40 | | | gmt |
| 57 | 011-04 | 10/23/2006 | 6 | 1680 | 7 | 94 | 0.3 | 84.0 | 7 | 94 | 18.7 | 40 | | | gmt |

## Swipe Results Electronic Data Sheet

| α eff | β eff |
|---|---|
| 0.3590 | 0.2510 |

| Sample Count Time (min) | Daily Bkgrd Count Time (min) |
|---|---|
| 1.0 | 20.0 |

| dpm/100 cm$^2$ | |
|---|---|
| α Flag | β Flag |
| 20 | 200 |

* Morning Daily Count

| Seq. # | Survey# - Smear# | Date | Background Total Counts* | | Sample Total Counts | | Background (cpm) | | Sample Counts (cpm) | | Sample (dpm/100 cm$^2$) | | > α flag | > β flag | Tech. Initial |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | α | β | α | β | α | β | α | β | α | β | | | |
| 58 | 011-05 | 10/23/2006 | 6 | 1680 | 3 | 76 | 0.3 | 84.0 | 3 | 76 | 7.5 | -32 | | | gmt |
| 59 | 011-06 | 10/23/2006 | 6 | 1680 | 4 | 86 | 0.3 | 84.0 | 4 | 86 | 10.3 | 8 | | | gmt |
| 60 | 011-07 | 10/23/2006 | 6 | 1680 | 2 | 81 | 0.3 | 84.0 | 2 | 81 | 4.7 | -12 | | | gmt |
| 61 | 012-01 | 10/23/2006 | 6 | 1680 | 1 | 90 | 0.3 | 84.0 | 1 | 90 | 1.9 | 24 | | | gmt |
| 62 | 012-02 | 10/23/2006 | 6 | 1680 | 1 | 78 | 0.3 | 84.0 | 1 | 78 | 1.9 | -24 | | | gmt |
| 63 | 012-03 | 10/23/2006 | 6 | 1680 | 0 | 59 | 0.3 | 84.0 | 0 | 59 | -0.8 | -100 | | | gmt |
| 64 | 012-04 | 10/23/2006 | 6 | 1680 | 0 | 83 | 0.3 | 84.0 | 0 | 83 | -0.8 | -4 | | | gmt |
| 65 | 012-05 | 10/23/2006 | 6 | 1680 | 1 | 90 | 0.3 | 84.0 | 1 | 90 | 1.9 | 24 | | | gmt |
| 66 | 012-06 | 10/23/2006 | 6 | 1680 | 0 | 83 | 0.3 | 84.0 | 0 | 83 | -0.8 | -4 | | | gmt |
| 67 | 012-07 | 10/23/2006 | 6 | 1680 | 0 | 84 | 0.3 | 84.0 | 0 | 84 | -0.8 | 0 | | | gmt |
| 68 | 012-08 | 10/23/2006 | 6 | 1680 | 2 | 74 | 0.3 | 84.0 | 2 | 74 | 4.7 | -40 | | | gmt |
| 69 | 012-09 | 10/23/2006 | 6 | 1680 | 1 | 78 | 0.3 | 84.0 | 1 | 78 | 1.9 | -24 | | | gmt |
| 70 | 012-10 | 10/23/2006 | 6 | 1680 | 1 | 65 | 0.3 | 84.0 | 1 | 65 | 1.9 | -76 | | | gmt |
| 71 | 012-11 | 10/23/2006 | 6 | 1680 | 2 | 72 | 0.3 | 84.0 | 2 | 72 | 4.7 | -48 | | | gmt |
| 72 | 012-12 | 10/23/2006 | 6 | 1680 | 0 | 90 | 0.3 | 84.0 | 0 | 90 | -0.8 | 24 | | | gmt |
| 73 | 012-13 | 10/23/2006 | 6 | 1680 | 1 | 82 | 0.3 | 84.0 | 1 | 82 | 1.9 | -8 | | | gmt |
| 74 | 012-14 | 10/23/2006 | 6 | 1680 | 1 | 86 | 0.3 | 84.0 | 1 | 86 | 1.9 | 8 | | | gmt |
| 75 | 012-15 | 10/23/2006 | 6 | 1680 | 5 | 104 | 0.3 | 84.0 | 5 | 104 | 13.1 | 80 | | | gmt |
| 76 | 012-16 | 10/23/2006 | 6 | 1680 | 4 | 86 | 0.3 | 84.0 | 4 | 86 | 10.3 | 8 | | | gmt |
| 77 | 012-17 | 10/23/2006 | 6 | 1680 | 6 | 107 | 0.3 | 84.0 | 6 | 107 | 15.9 | 92 | | | gmt |
| 78 | 012-18 | 10/23/2006 | 6 | 1680 | 1 | 93 | 0.3 | 84.0 | 1 | 93 | 1.9 | 36 | | | gmt |
| 79 | 012-19 | 10/23/2006 | 6 | 1680 | 3 | 101 | 0.3 | 84.0 | 3 | 101 | 7.5 | 68 | | | gmt |
| 80 | 012-20 | 10/23/2006 | 6 | 1680 | 2 | 81 | 0.3 | 84.0 | 2 | 81 | 4.7 | -12 | | | gmt |
| 81 | 012-21 | 10/23/2006 | 6 | 1680 | 0 | 85 | 0.3 | 84.0 | 0 | 85 | -0.8 | 4 | | | gmt |
| 82 | 012-22 | 10/23/2006 | 6 | 1680 | 0 | 89 | 0.3 | 84.0 | 0 | 89 | -0.8 | 20 | | | gmt |
| 83 | 012-23 | 10/23/2006 | 6 | 1680 | 1 | 93 | 0.3 | 84.0 | 1 | 93 | 1.9 | 36 | | | gmt |
| 84 | 012-24 | 10/23/2006 | 6 | 1680 | 0 | 74 | 0.3 | 84.0 | 0 | 74 | -0.8 | -40 | | | gmt |
| 85 | 013-01 | 10/23/2006 | 6 | 1680 | 6 | 91 | 0.3 | 84.0 | 6 | 91 | 15.9 | 28 | | | gmt |

## Swipe Results Electronic Data Sheet

| α eff | β eff |
|---|---|
| 0.3590 | 0.2510 |

| Sample Count Time (min) | Daily Bkgrd Count Time (min) |
|---|---|
| 1.0 | 20.0 |

| dpm/100 cm$^2$ | |
|---|---|
| α Flag | β Flag |
| 20 | 200 |

* Morning Daily Count

| Seq. # | Survey# - Smear# | Date | Background Total Counts* | | Sample Total Counts | | Background (cpm) | | Sample Counts (cpm) | | Sample (dpm/100 cm$^2$) | | > α flag | > β flag | Tech. Initial |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | α | β | α | β | α | β | α | β | α | β | | | |
| 86 | 013-02 | 10/23/2006 | 6 | 1680 | 5 | 97 | 0.3 | 84.0 | 5 | 97 | 13.1 | 52 | | | gmt |
| 87 | 013-03 | 10/23/2006 | 6 | 1680 | 6 | 93 | 0.3 | 84.0 | 6 | 93 | 15.9 | 36 | | | gmt |
| 88 | 013-04 | 10/23/2006 | 6 | 1680 | 6 | 100 | 0.3 | 84.0 | 6 | 100 | 15.9 | 64 | | | gmt |
| 89 | 013-05 | 10/23/2006 | 6 | 1680 | 3 | 84 | 0.3 | 84.0 | 3 | 84 | 7.5 | 0 | | | gmt |
| 90 | 013-06 | 10/23/2006 | 6 | 1680 | 4 | 94 | 0.3 | 84.0 | 4 | 94 | 10.3 | 40 | | | gmt |
| 91 | 014-01 | 10/23/2006 | 6 | 1680 | 3 | 85 | 0.3 | 84.0 | 3 | 85 | 7.5 | 4 | | | gmt |
| 92 | 014-02 | 10/23/2006 | 6 | 1680 | 0 | 70 | 0.3 | 84.0 | 0 | 70 | -0.8 | -56 | | | gmt |
| 93 | 014-03 | 10/23/2006 | 6 | 1680 | 1 | 72 | 0.3 | 84.0 | 1 | 72 | 1.9 | -48 | | | gmt |
| 94 | 014-04 | 10/23/2006 | 6 | 1680 | 0 | 78 | 0.3 | 84.0 | 0 | 78 | -0.8 | -24 | | | gmt |
| 95 | 014-05 | 10/23/2006 | 6 | 1680 | 5 | 70 | 0.3 | 84.0 | 5 | 70 | 13.1 | -56 | | | gmt |
| 96 | 014-06 | 10/23/2006 | 6 | 1680 | 1 | 79 | 0.3 | 84.0 | 1 | 79 | 1.9 | -20 | | | gmt |
| 97 | 014-07 | 10/23/2006 | 6 | 1680 | 3 | 76 | 0.3 | 84.0 | 3 | 76 | 7.5 | -32 | | | gmt |
| 98 | 014-08 | 10/23/2006 | 6 | 1680 | 6 | 92 | 0.3 | 84.0 | 6 | 92 | 15.9 | 32 | | | gmt |
| 99 | 014-09 | 10/23/2006 | 6 | 1680 | 0 | 65 | 0.3 | 84.0 | 0 | 65 | -0.8 | -76 | | | gmt |
| 100 | 014-10 | 10/23/2006 | 6 | 1680 | 1 | 81 | 0.3 | 84.0 | 1 | 81 | 1.9 | -12 | | | gmt |
| 101 | 014-11 | 10/23/2006 | 6 | 1680 | 2 | 73 | 0.3 | 84.0 | 2 | 73 | 4.7 | -44 | | | gmt |
| 102 | 014-12 | 10/23/2006 | 6 | 1680 | 4 | 80 | 0.3 | 84.0 | 4 | 80 | 10.3 | -16 | | | gmt |
| 103 | 014-13 | 10/23/2006 | 6 | 1680 | 2 | 94 | 0.3 | 84.0 | 2 | 94 | 4.7 | 40 | | | gmt |
| 104 | 014-14 | 10/23/2006 | 6 | 1680 | 1 | 75 | 0.3 | 84.0 | 1 | 75 | 1.9 | -36 | | | gmt |
| 105 | 014-15 | 10/23/2006 | 6 | 1680 | 0 | 71 | 0.3 | 84.0 | 0 | 71 | -0.8 | -52 | | | gmt |
| 106 | 014-16 | 10/23/2006 | 6 | 1680 | 0 | 89 | 0.3 | 84.0 | 0 | 89 | -0.8 | 20 | | | gmt |
| 107 | 014-17 | 10/23/2006 | 6 | 1680 | 2 | 83 | 0.3 | 84.0 | 2 | 83 | 4.7 | -4 | | | gmt |
| 108 | 014-18 | 10/23/2006 | 6 | 1680 | 6 | 89 | 0.3 | 84.0 | 6 | 89 | 15.9 | 20 | | | gmt |
| 109 | 015-01 | 10/23/2006 | 6 | 1680 | 4 | 78 | 0.3 | 84.0 | 4 | 78 | 10.3 | -24 | | | gmt |
| 110 | 015-02 | 10/23/2006 | 6 | 1680 | 0 | 86 | 0.3 | 84.0 | 0 | 86 | -0.8 | 8 | | | gmt |
| 111 | 015-03 | 10/23/2006 | 6 | 1680 | 1 | 76 | 0.3 | 84.0 | 1 | 76 | 1.9 | -32 | | | gmt |
| 112 | 015-04 | 10/23/2006 | 6 | 1680 | 0 | 68 | 0.3 | 84.0 | 0 | 68 | -0.8 | -64 | | | gmt |
| 113 | 015-05 | 10/23/2006 | 6 | 1680 | 0 | 86 | 0.3 | 84.0 | 0 | 86 | -0.8 | 8 | | | gmt |

## Swipe Results Electronic Data Sheet

| α eff | β eff |
|---|---|
| 0.3590 | 0.2510 |

| Sample Count Time (min) | Daily Bkgrd Count Time (min) |
|---|---|
| 1.0 | 20.0 |

| dpm/100 cm$^2$ | |
|---|---|
| α Flag | β Flag |
| 20 | 200 |

* Morning Daily Count

| Seq. # | Survey# - Smear# | Date | Background Total Counts* | | Sample Total Counts | | Background (cpm) | | Sample Counts (cpm) | | Sample (dpm/100 cm$^2$) | | > α flag | > β flag | Tech. Initial |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | α | β | α | β | α | β | α | β | α | β | | | |
| 114 | 015-06 | 10/23/2006 | 6 | 1680 | 0 | 74 | 0.3 | 84.0 | 0 | 74 | -0.8 | -40 | | | gmt |
| 115 | 016-01 | 10/23/2006 | 6 | 1680 | 1 | 81 | 0.3 | 84.0 | 1 | 81 | 1.9 | -12 | | | gmt |
| 116 | 016-02 | 10/23/2006 | 6 | 1680 | 2 | 76 | 0.3 | 84.0 | 2 | 76 | 4.7 | -32 | | | gmt |
| 117 | 016-03 | 10/23/2006 | 6 | 1680 | 3 | 86 | 0.3 | 84.0 | 3 | 86 | 7.5 | 8 | | | gmt |
| 118 | 016-04 | 10/23/2006 | 6 | 1680 | 3 | 65 | 0.3 | 84.0 | 3 | 65 | 7.5 | -76 | | | gmt |

# APPENDIX D

# Data Quality Evaluation Report

# 1.0 INTRODUCTION

This data quality evaluation (DQE) report presents the analytical results for soil samples collected at Solid Waste Management Unit (SWMU) 6-30, Radioactive Burial 11 (RW-06), Kirtland Air Force Base (AFB) from 17 October through 6 November 2006. Guidance for this DQE report came from the *Base-Wide Plans for the Environmental Restoration Program, 2004 Update* (U.S. Air Force [USAF], 2004); the site specific Quality Assurance Plan (QAPP) included in *RCRA Facility Investigation Sampling and Analysis Plan, Solid Waste Management Unit 6-30, Radioactive Burial 11 (RW-06)* (USAF, 2006); the *United States Environmental Protection Agency (EPA) Contract Laboratory National Functional Guidelines (NFG) for Inorganic Review, October 2004* (EPA, 2004); and individual method requirements. The analytical results were evaluated using the criteria of precision, accuracy, representativeness, comparability and completeness (PARCC).

## 1.1 Analytical Data

This DQE report covers 24 soil samples and two field duplicates. The samples were reported as four sample delivery groups identified as: F6J190101, F6J220112, F6J240227 and F6K100189. The samples were delivered to Severn-Trent Laboratory (STL) in St. Louis, Missouri. ,The samples were analyzed for one or more of the methods listed in Table 1. Due to the size of some of the tables, all tables are located at the end of this document.

The analytical results were assessed by reviewing the following: (1) the chain-of-custody documentation; (2) holding time compliance; (3) method blanks; (4) calibration blanks, (5) calibration criteria; (6) laboratory control samples; (7) matrix spike samples; (8) surrogate spike recoveries; (9) tracer recoveries; (10) field duplicates; (11) matrix spike duplicates; (12) laboratory replicates; and (13) serial dilutions. Data flags were assigned according to the site specific QAPP and NFG.

Multiple flags are routinely applied to specific sample method, matrix, analyte combinations, but there will only be one final flag. A final flag is applied to the data and is the most conservative of the applied validation flags. The final flag also includes matrix and blank sample impacts.

Results between the method detection limit (MDL) and the reporting limit (RL) are qualified as estimated and flagged "J".

The data flags are those listed in the site specific QAPP and NFG and are defined below:

- J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- R = The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet the quality control (QC) criteria. The presence or absence of the analyte cannot be verified.
- U = The analyte was analyzed for but was not detected above the reported sample quantitation limit.
- UJ = The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

A summary of the qualified data is presented in Table 2.

# 2.0 DATA VERIFICATION RESULTS

## 2.1 Completeness Evaluation

### 2.1.1 Sampling Completeness

Sampling completeness was assessed by reviewing the chain-of-custody documentation. Required procedures were followed and all acceptance criteria were met, indicating sampling completeness for this project was 100 percent.

### 2.1.2 Analytical Completeness

Analytical completeness was evaluated using the following equation:

$$\text{Completeness} = \frac{\text{number of valid data points}}{\text{total number of measurements}} \times 100,$$

Where,
The number of valid data points is the total number of valid analytical measurements based on the precision, accuracy and holding time evaluation.

All samples were analyzed according to the site-specific QAPP. Based on the results of the data verification, all data were considered valid as qualified. The analytical completeness goal of 95 percent was met for this project. The analytical results are listed in the following tables which are located at the end of this report:

- Table 3 – Detected Constituents by Location;
- Table 4 – Maximum Detected Constituents by Location;
- Table 5 – Results by Location; and
- Table 6 – Statistics by Analyte.

## 2.2 Representativeness Evaluation

Representativeness is a qualitative expression of the degree to which sample data accurately and precisely represent a characteristic of a population, sampling point or an environmental condition. Representativeness is maximized by ensuring that the number and location of sampling points, sample collection and analysis methods are appropriate for the specific investigation and that the sampling and analysis program provides data that reflects "true" site conditions. The data were evaluated for representativeness by assessing the following: the use of standard methods and reporting units, sample preservation and holding time compliance, and method blank results.

### 2.2.1 Holding Time and Preservation

Holding time is the length of time after sample collection to extraction and/or analysis. All sample analyses met holding time and preservation requirements for this project. The sample holding times for this project are listed in Table 7.

### 2.2.2 Method Blank

Laboratory method blanks are blank matrices (such as ASTM Type II water or Ottawa sand) that are treated as environmental samples, being prepared and analyzed along with the field samples. Laboratory method blanks are used to monitor laboratory performance and to check for contamination introduced during the preparation and analytical procedures. Method blanks were analyzed at the required frequency and were generally free of contamination. All method blank concentrations were less than the reporting limit and attributed to laboratory contamination.

For the metals analyses, when the sample concentration was less than five times the concentration detected in the associated blank, the sample was qualified as not detected and flagged "U" at the detected concentration. Two sodium results were qualified as not detected.

Radiochemistry method blanks associated with gross beta and uranium-235/236 analyses had detected concentrations of the target compounds. One uranium-235/236 and nine gross beta detected results were qualified as estimated and flagged "J" to indicate an associated blank detected result.

The results of the method blank analyses are presented in Table 8.

### 2.2.3 Calibration Blanks

Initial and continuing calibration blanks are used to monitor instrument performance and check for calibration drift during the analysis run. Initial calibration blanks were analyzed at the required frequency and were free of contamination. Continuing calibration blanks were analyzed at the required frequency and were generally free of contamination with the exception of thallium. Seven associated thallium detected results were qualified as not detected and flagged "U" at the concentration measured when the sample concentration was less than 5 times the concentration detected in the blank.

## 2.3 Accuracy Evaluation

Accuracy is a measure of the level of agreement between a measurement and a known true value. Accuracy is evaluated by percent recovery (%R), which is calculated using the following equation:

$$\%R = \frac{A-B}{C} \times 100,$$

Where,

A = the measured concentration of the analyte in the spiked sample,

B = the measured concentration of the analyte in the unspiked sample, and

C = the concentration of the analyte used for spiking.

Laboratory accuracy was evaluated using initial and continuing calibration recoveries, laboratory control samples recoveries, and matrix spike recoveries, and tracer recoveries for radio chemistry methods.

### 2.3.1 Calibration

Initial and continuing calibration analyses were performed as required by the methods. Acceptance criteria for initial and continuing calibration were met.

### 2.3.2 Laboratory Control Samples

Laboratory control samples were analyzed to assess accuracy in the absence of matrix effects. Acceptance criteria were met for all parameters.

Laboratory control sample results are presented in Table 9.

### 2.3.3 Matrix Spike

Site-specific matrix spike samples were analyzed to assess accuracy and to identify possible matrix effects associated with the samples. Only the "parent" samples were qualified for matrix spike issues, but low spike recoveries should be taken into consideration when evaluating other sites which may be similar to these sample locations.

When the matrix spike concentration was less than four times the parent sample concentration, the spike recovery was not evaluated and no data were qualified.

Matrix spikes were analyzed as required and generally met all accuracy criteria. Several analytes were recovered less than control limits in the total metals matrix spike. The data were qualified as estimated detects and flagged "J" in the parent sample.

Barium was recovered greater than control limits in the total metals matrix spike. The associated analyte was qualified as an estimated detect and flagged "J" in the parent sample.

Matrix spike results are presented in Table 10.

### 2.3.4 Tracer Recoveries

Tracer recoveries were analyzed to monitor radiochemistry analyses and were within acceptance criteria.

Tracer recoveries are presented in Table 11.

## 2.4 Precision Evaluation

Precision measures the reproducibility of measurements under a given set of conditions and is expressed as relative percent difference (RPD):

$$RPD = \frac{(|A-B|)}{[A+B]/2} \times 100,$$

Where

A= the concentration of "parent" sample, and

B= the concentration of the "duplicate/replicate" sample.

Precision was evaluated for this project using field duplicate and matrix spike duplicate recoveries.

### 2.4.1 Field Duplicates

Field duplicates were collected and analyzed as required and met all precision criteria.

Field duplicate sample results are presented in Table 12.

### 2.4.2 Matrix Spike Duplicates

Matrix spike duplicates were analyzed as required and generally met criteria. Several analytes were recovered less than control limits in the total metals matrix spike duplicate. The data were qualified as estimated detects and flagged "J" in the parent sample.

Barium was recovered greater than control limit in the total metals matrix spike duplicate. The analyte was qualified as an estimated detect and flagged "J" in the parent sample.

Total metals RPD between the matrix spike and its associated duplicate (MSD) did not meet criteria for several analytes. The parent sample detected results were qualified as estimated detects and flagged "J".

Matrix spike duplicate results are presented in Table 10.

### 2.4.3 Laboratory Replicates

Laboratory replicates were performed as required and met all precision criteria with the exception of lead-210 and thorium-230. Associated samples were qualified as estimated detects and flagged "J."

Laboratory replicate precision results are presented in Table 13.

### 2.4.4 Serial Dilutions

Serial dilution percent differences (%D) were calculated and generally met acceptance criteria. Several analytes were not within the established range and all associated analytes of similar matrix were qualified as estimated and flagged "J."

## 2.5 Comparability Evaluation

Comparability is expressed as the confidence level in which one data set may be compared to another data set. Standardized methodology was used in the collection, analysis and reporting of the data. Therefore, the data from this sampling event should be comparable to data collected previously at the site.

# 3.0 OVERALL ASSESSMENT

Review of laboratory control data and field QC indicators were used to assess the PARCC of the samples collected by CH2M HILL at SWMU 6-30, Radioactive Burial 11 (RW-06). The assessment concluded that the PARCC of the data are generally acceptable.

Precision of the data was verified through the review of the field and laboratory data quality indicators that include: field duplicates, laboratory duplicates, and matrix spike duplicates. Precision was generally acceptable with a few analytes being qualified as estimated.

Accuracy of the data was verified through the review of calibration data, laboratory control samples, matrix spike, and surrogate spike data. Accuracy was generally acceptable with a few analytes being qualified as estimated due to matrix spike issues. Data users should consider the impact to any result that is qualified as estimated as it may contain a bias which could affect the decision making process.

Representativeness of the data was verified through the sample's collection, storage and preservation procedures, and verification of hold-time compliance and evaluation of method and field blank data and internal standards. The laboratory did not note any issues related to sample preservation or storage of the samples. All of the data are reported from analyses within the EPA recommended hold-time.

Comparability of the data was ensured through the use of standard EPA analytical procedures and standard units for reporting. Results obtained are comparable to industry standards in that collection and analytical techniques followed approved, documented procedures.

Completeness is a measure of the number of valid measurements obtained in relation to the total number of measurements planned. Completeness is expressed as the percentage of valid or usable measurements, compared to planned measurements. Valid data are defined as all data that are not rejected for project use. All data were considered valid. The completeness goal of 95 percent was met for the project.

# REFERENCE LIST

EPA, 2004. *Contract Laboratory Program National Functional Guidelines for Inorganic Data Review.* U.S. Environmental Protection Agency. EPA540/R-04/004. October.

USAF, 2006. *RCRA Facility Investigation Sampling and Analysis Plan, Solid Waste Management Unit 6-30, Radioactive Burial 11 (RW-06).* U.S. Air Force, Kirtland Air Force Base, New Mexico. September.

USAF, 2004. *Kirtland AFB Base-Wide Plans for Environmental Restoration Program, 2004 Update.* U.S. Air Force, Kirtland Air Force Base, New Mexico

**Table 1. Summary of Soil Analytical Methods for SWMU 6-30, Radioactive Burial 11 (RW-06)**

| Parameter | Method | Laboratory |
|---|---|---|
| Gamma Spectroscopy – Radium -226 | EML GA-01-R MOD | SEVERN-TRENT |
| Gross Alpha/Beta by GFPC | SW846 9310 MOD | SEVERN-TRENT |
| Iodine by Gamma Spectroscopy | EML Iodine GA - 0 | SEVERN-TRENT |
| Isotopic Am241, Cm243/244 by Alpha Spectroscopy | EML A-01-R MOD | SEVERN-TRENT |
| Isotopic Neptunium by Alpha Spectroscopy | EML A-01-R MOD | SEVERN-TRENT |
| Isotopic Plutonium by Alpha Spectroscopy | EML A-01-R MOD | SEVERN-TRENT |
| Isotopic Thorium by Alpha Spectroscopy | EML A-01-R MOD | SEVERN-TRENT |
| Isotopic Uranium by Alpha Spectroscopy | EML A-01-R MOD | SEVERN-TRENT |
| TCLP Metals by ICP Metals | SW 846 6010B | SEVERN-TRENT |
| Total Metals by ICP-MS | SW846 6020 | SEVERN-TRENT |
| TCLP Mercury by Manual Cold-Vapor | SW846 7470A | SEVERN-TRENT |
| Total Mercury by Manual Cold-Vapor | SW846 7471A | SEVERN-TRENT |
| Percent Moisture | MCAWW 160.3 MOD | SEVERN-TRENT |
| Strontium 89 by GFPC | EML SR-01-RC MO | SEVERN-TRENT |
| Strontium 90 by GFPC | EML SR-03-RC MO | SEVERN-TRENT |

**Table 2. Summary of Data Qualification at SWMU 6-30, Radioactive Burial 11 (RW-06) (Page 1 of 14)**

| Field ID | Method | Analyte | Units | Final Result | V-Flag | V-Reason |
|---|---|---|---|---|---|---|
| 6-30-TP-01-0506 | A01R | Thorium 230 | pCi/g | 0.52 | J | Lab Dup RPD |
| 6-30-TP-01-0506 | A01R | Thorium 230 | pCi/g | 0.52 | J | LB>MDL |
| 6-30-TP-01-0506 | A01R | Uranium 235/236 | pCi/g | 0.055 | J | LB>MDL |
| 6-30-TP-01-0506 | SW6020 | Aluminum | mg/kg | 6180 | J | LB>MDL |
| 6-30-TP-01-0506 | SW6020 | Aluminum | mg/kg | 6180 | J | SerDil %D |
| 6-30-TP-01-0506 | SW6020 | Antimony | mg/kg | 0.16 | J | >MDL<RL |
| 6-30-TP-01-0506 | SW6020 | Antimony | mg/kg | 0.16 | J | MS<LCL |
| 6-30-TP-01-0506 | SW6020 | Antimony | mg/kg | 0.16 | J | SD<LCL |
| 6-30-TP-01-0506 | SW6020 | Barium | mg/kg | 139 | J | MS>UCL |
| 6-30-TP-01-0506 | SW6020 | Barium | mg/kg | 139 | J | SD>UCL |
| 6-30-TP-01-0506 | SW6020 | Calcium | mg/kg | 28600 | J | LB>MDL |
| 6-30-TP-01-0506 | SW6020 | Calcium | mg/kg | 28600 | J | MSRPD |
| 6-30-TP-01-0506 | SW6020 | Calcium | mg/kg | 28600 | J | SerDil %D |
| 6-30-TP-01-0506 | SW6020 | Chromium | mg/kg | 8.3 | J | LB>MDL |
| 6-30-TP-01-0506 | SW6020 | Chromium | mg/kg | 8.3 | J | MS<LCL |
| 6-30-TP-01-0506 | SW6020 | Chromium | mg/kg | 8.3 | J | MSRPD |
| 6-30-TP-01-0506 | SW6020 | Chromium | mg/kg | 8.3 | J | SD<LCL |
| 6-30-TP-01-0506 | SW6020 | Cobalt | mg/kg | 5.3 | J | MS<LCL |
| 6-30-TP-01-0506 | SW6020 | Cobalt | mg/kg | 5.3 | J | SerDil %D |
| 6-30-TP-01-0506 | SW6020 | Copper | mg/kg | 10.2 | J | MS<LCL |
| 6-30-TP-01-0506 | SW6020 | Iron | mg/kg | 11000 | J | LB>MDL |
| 6-30-TP-01-0506 | SW6020 | Iron | mg/kg | 11000 | J | SerDil %D |
| 6-30-TP-01-0506 | SW6020 | Magnesium | mg/kg | 3540 | J | MS<LCL |
| 6-30-TP-01-0506 | SW6020 | Magnesium | mg/kg | 3540 | J | SerDil %D |
| 6-30-TP-01-0506 | SW6020 | Manganese | mg/kg | 225 | J | LB>MDL |
| 6-30-TP-01-0506 | SW6020 | Manganese | mg/kg | 225 | J | SerDil %D |
| 6-30-TP-01-0506 | SW6020 | Molybdenum | mg/kg | 0.45 | J | >MDL<RL |
| 6-30-TP-01-0506 | SW6020 | Nickel | mg/kg | 9.3 | J | LB>MDL |
| 6-30-TP-01-0506 | SW6020 | Nickel | mg/kg | 9.3 | J | MS<LCL |
| 6-30-TP-01-0506 | SW6020 | Nickel | mg/kg | 9.3 | J | SerDil %D |
| 6-30-TP-01-0506 | SW6020 | Potassium | mg/kg | 2310 | J | LB>MDL |
| 6-30-TP-01-0506 | SW6020 | Potassium | mg/kg | 2310 | J | MS<LCL |
| 6-30-TP-01-0506 | SW6020 | Potassium | mg/kg | 2310 | J | SD<LCL |
| 6-30-TP-01-0506 | SW6020 | Potassium | mg/kg | 2310 | J | SerDil %D |
| 6-30-TP-01-0506 | SW6020 | Silver | mg/kg | 0.044 | J | >MDL<RL |
| 6-30-TP-01-0506 | SW6020 | Sodium | mg/kg | 82.8 | J | LB>MDL |
| 6-30-TP-01-0506 | SW6020 | Sodium | mg/kg | 82.8 | J | MS<LCL |
| 6-30-TP-01-0506 | SW6020 | Thallium | mg/kg | 0.18 | J | >MDL<RL |
| 6-30-TP-01-0506 | SW6020 | Vanadium | mg/kg | 22.6 | J | MS<LCL |
| 6-30-TP-01-0506 | SW6020 | Vanadium | mg/kg | 22.6 | J | SD<LCL |
| 6-30-TP-01-0506 | SW6020 | Zinc | mg/kg | 29.2 | J | LB>MDL |

**Table 2. Summary of Data Qualification at SWMU 6-30, Radioactive Burial 11 (RW-06) (Continued, Page 2 of 14)**

| Field ID | Method | Analyte | Units | Final Result | V-Flag | V-Reason |
|---|---|---|---|---|---|---|
| 6-30-TP-01-0506 | SW6020 | Zinc | mg/kg | 29.2 | J | MS<LCL |
| 6-30-TP-01-0506 | SW6020 | Zinc | mg/kg | 29.2 | J | SD<LCL |
| 6-30-TP-01-0506 | SW6020 | Zinc | mg/kg | 29.2 | J | SerDil %D |
| 6-30-TP-01-0506 | SW9310 | Gross Beta | pCi/g | 28.9 | J | LB>MDL |
| 6-30-TP-01-1415 | SW6020 | Aluminum | mg/kg | 4880 | J | LB>MDL |
| 6-30-TP-01-1415 | SW6020 | Aluminum | mg/kg | 4880 | J | SerDil %D |
| 6-30-TP-01-1415 | SW6020 | Antimony | mg/kg | 0.13 | J | >MDL<RL |
| 6-30-TP-01-1415 | SW6020 | Calcium | mg/kg | 38900 | J | LB>MDL |
| 6-30-TP-01-1415 | SW6020 | Calcium | mg/kg | 38900 | J | SerDil %D |
| 6-30-TP-01-1415 | SW6020 | Chromium | mg/kg | 8.6 | J | LB>MDL |
| 6-30-TP-01-1415 | SW6020 | Cobalt | mg/kg | 5.8 | J | SerDil %D |
| 6-30-TP-01-1415 | SW6020 | Iron | mg/kg | 9780 | J | LB>MDL |
| 6-30-TP-01-1415 | SW6020 | Iron | mg/kg | 9780 | J | SerDil %D |
| 6-30-TP-01-1415 | SW6020 | Magnesium | mg/kg | 3430 | J | SerDil %D |
| 6-30-TP-01-1415 | SW6020 | Manganese | mg/kg | 244 | J | LB>MDL |
| 6-30-TP-01-1415 | SW6020 | Manganese | mg/kg | 244 | J | SerDil %D |
| 6-30-TP-01-1415 | SW6020 | Nickel | mg/kg | 10.5 | J | LB>MDL |
| 6-30-TP-01-1415 | SW6020 | Nickel | mg/kg | 10.5 | J | SerDil %D |
| 6-30-TP-01-1415 | SW6020 | Potassium | mg/kg | 1130 | J | LB>MDL |
| 6-30-TP-01-1415 | SW6020 | Potassium | mg/kg | 1130 | J | SerDil %D |
| 6-30-TP-01-1415 | SW6020 | Silver | mg/kg | 0.026 | J | >MDL<RL |
| 6-30-TP-01-1415 | SW6020 | Sodium | mg/kg | 99.3 | J | LB>MDL |
| 6-30-TP-01-1415 | SW6020 | Thallium | mg/kg | 0.18 | J | >MDL<RL |
| 6-30-TP-01-1415 | SW6020 | Zinc | mg/kg | 25.3 | J | LB>MDL |
| 6-30-TP-01-1415 | SW6020 | Zinc | mg/kg | 25.3 | J | SerDil %D |
| 6-30-TP-02-0203 | A01R | Thorium 230 | pCi/g | 0.62 | J | Lab Dup RPD |
| 6-30-TP-02-0203 | A01R | Thorium 230 | pCi/g | 0.62 | J | LB>MDL |
| 6-30-TP-02-0203 | A01R | Uranium 235/236 | pCi/g | 0.025 | U | LB>MDL |
| 6-30-TP-03-0506 | A01R | Thorium 230 | pCi/g | 0.87 | J | Lab Dup RPD |
| 6-30-TP-03-0506 | A01R | Thorium 230 | pCi/g | 0.87 | J | LB>MDL |
| 6-30-TP-03-0506 | A01R | Uranium 235/236 | pCi/g | 0.028 | U | LB>MDL |
| 6-30-TP-03-0506 | SW6020 | Aluminum | mg/kg | 5790 | J | LB>MDL |
| 6-30-TP-03-0506 | SW6020 | Aluminum | mg/kg | 5790 | J | SerDil %D |
| 6-30-TP-03-0506 | SW6020 | Antimony | mg/kg | 0.13 | J | >MDL<RL |
| 6-30-TP-03-0506 | SW6020 | Calcium | mg/kg | 37300 | J | LB>MDL |
| 6-30-TP-03-0506 | SW6020 | Calcium | mg/kg | 37300 | J | SerDil %D |
| 6-30-TP-03-0506 | SW6020 | Chromium | mg/kg | 6.9 | J | LB>MDL |
| 6-30-TP-03-0506 | SW6020 | Cobalt | mg/kg | 4.9 | J | SerDil %D |
| 6-30-TP-03-0506 | SW6020 | Iron | mg/kg | 9830 | J | LB>MDL |
| 6-30-TP-03-0506 | SW6020 | Iron | mg/kg | 9830 | J | SerDil %D |
| 6-30-TP-03-0506 | SW6020 | Magnesium | mg/kg | 3820 | J | SerDil %D |

**Table 2. Summary of Data Qualification at SWMU 6-30, Radioactive Burial 11 (RW-06) (Continued, Page 3 of 14)**

| Field ID | Method | Analyte | Units | Final Result | V-Flag | V-Reason |
|---|---|---|---|---|---|---|
| 6-30-TP-03-0506 | SW6020 | Manganese | mg/kg | 190 | J | LB>MDL |
| 6-30-TP-03-0506 | SW6020 | Manganese | mg/kg | 190 | J | SerDil %D |
| 6-30-TP-03-0506 | SW6020 | Molybdenum | mg/kg | 0.33 | J | >MDL<RL |
| 6-30-TP-03-0506 | SW6020 | Nickel | mg/kg | 8.9 | J | LB>MDL |
| 6-30-TP-03-0506 | SW6020 | Nickel | mg/kg | 8.9 | J | SerDil %D |
| 6-30-TP-03-0506 | SW6020 | Potassium | mg/kg | 2160 | J | LB>MDL |
| 6-30-TP-03-0506 | SW6020 | Potassium | mg/kg | 2160 | J | SerDil %D |
| 6-30-TP-03-0506 | SW6020 | Silver | mg/kg | 0.034 | J | >MDL<RL |
| 6-30-TP-03-0506 | SW6020 | Sodium | mg/kg | 37.5 | U | LB>MDL |
| 6-30-TP-03-0506 | SW6020 | Thallium | mg/kg | 0.084 | J | >MDL<RL |
| 6-30-TP-03-0506 | SW6020 | Zinc | mg/kg | 26.6 | J | LB>MDL |
| 6-30-TP-03-0506 | SW6020 | Zinc | mg/kg | 26.6 | J | SerDil %D |
| 6-30-TP-03-1516 | SW6020 | Aluminum | mg/kg | 3660 | J | LB>MDL |
| 6-30-TP-03-1516 | SW6020 | Aluminum | mg/kg | 3660 | J | SerDil %D |
| 6-30-TP-03-1516 | SW6020 | Antimony | mg/kg | 0.086 | J | >MDL<RL |
| 6-30-TP-03-1516 | SW6020 | Calcium | mg/kg | 21500 | J | LB>MDL |
| 6-30-TP-03-1516 | SW6020 | Calcium | mg/kg | 21500 | J | SerDil %D |
| 6-30-TP-03-1516 | SW6020 | Chromium | mg/kg | 6.8 | J | LB>MDL |
| 6-30-TP-03-1516 | SW6020 | Cobalt | mg/kg | 3.8 | J | SerDil %D |
| 6-30-TP-03-1516 | SW6020 | Iron | mg/kg | 8610 | J | LB>MDL |
| 6-30-TP-03-1516 | SW6020 | Iron | mg/kg | 8610 | J | SerDil %D |
| 6-30-TP-03-1516 | SW6020 | Magnesium | mg/kg | 2980 | J | SerDil %D |
| 6-30-TP-03-1516 | SW6020 | Manganese | mg/kg | 165 | J | LB>MDL |
| 6-30-TP-03-1516 | SW6020 | Manganese | mg/kg | 165 | J | SerDil %D |
| 6-30-TP-03-1516 | SW6020 | Molybdenum | mg/kg | 0.28 | J | >MDL<RL |
| 6-30-TP-03-1516 | SW6020 | Nickel | mg/kg | 8.3 | J | LB>MDL |
| 6-30-TP-03-1516 | SW6020 | Nickel | mg/kg | 8.3 | J | SerDil %D |
| 6-30-TP-03-1516 | SW6020 | Potassium | mg/kg | 813 | J | LB>MDL |
| 6-30-TP-03-1516 | SW6020 | Potassium | mg/kg | 813 | J | SerDil %D |
| 6-30-TP-03-1516 | SW6020 | Sodium | mg/kg | 40.2 | U | LB>MDL |
| 6-30-TP-03-1516 | SW6020 | Zinc | mg/kg | 21 | J | LB>MDL |
| 6-30-TP-03-1516 | SW6020 | Zinc | mg/kg | 21 | J | SerDil %D |
| 6-30-TP-04-0607 | SW6020 | Aluminum | mg/kg | 5930 | J | LB>MDL |
| 6-30-TP-04-0607 | SW6020 | Aluminum | mg/kg | 5930 | J | SerDil %D |
| 6-30-TP-04-0607 | SW6020 | Antimony | mg/kg | 0.13 | J | >MDL<RL |
| 6-30-TP-04-0607 | SW6020 | Calcium | mg/kg | 27000 | J | LB>MDL |
| 6-30-TP-04-0607 | SW6020 | Calcium | mg/kg | 27000 | J | SerDil %D |
| 6-30-TP-04-0607 | SW6020 | Iron | mg/kg | 10400 | J | LB>MDL |
| 6-30-TP-04-0607 | SW6020 | Iron | mg/kg | 10400 | J | SerDil %D |
| 6-30-TP-04-0607 | SW6020 | Lead | mg/kg | 7.5 | J | LB>MDL |
| 6-30-TP-04-0607 | SW6020 | Magnesium | mg/kg | 4110 | J | SerDil %D |

**Table 2. Summary of Data Qualification at SWMU 6-30, Radioactive Burial 11 (RW-06) (Continued, Page 4 of 14)**

| Field ID | Method | Analyte | Units | Final Result | V-Flag | V-Reason |
|---|---|---|---|---|---|---|
| 6-30-TP-04-0607 | SW6020 | Manganese | mg/kg | 238 | J | LB>MDL |
| 6-30-TP-04-0607 | SW6020 | Manganese | mg/kg | 238 | J | SerDil %D |
| 6-30-TP-04-0607 | SW6020 | Molybdenum | mg/kg | 0.4 | J | >MDL<RL |
| 6-30-TP-04-0607 | SW6020 | Nickel | mg/kg | 9 | J | LB>MDL |
| 6-30-TP-04-0607 | SW6020 | Nickel | mg/kg | 9 | J | SerDil %D |
| 6-30-TP-04-0607 | SW6020 | Potassium | mg/kg | 1290 | J | LB>MDL |
| 6-30-TP-04-0607 | SW6020 | Potassium | mg/kg | 1290 | J | SerDil %D |
| 6-30-TP-04-0607 | SW6020 | Silver | mg/kg | 0.037 | J | >MDL<RL |
| 6-30-TP-04-0607 | SW6020 | Sodium | mg/kg | 155 | J | LB>MDL |
| 6-30-TP-04-0607 | SW6020 | Thallium | mg/kg | 0.13 | J | >MDL<RL |
| 6-30-TP-04-0607 | SW6020 | Thallium | mg/kg | 0.13 | J | CCB<RL |
| 6-30-TP-04-0607 | SW6020 | Zinc | mg/kg | 26.6 | J | LB>MDL |
| 6-30-TP-04-0607 | SW6020 | Zinc | mg/kg | 26.6 | J | SerDil %D |
| 6-30-TP-04-0607 | SW9310 | Gross Beta | pCi/g | 27.8 | J | LB>MDL |
| 6-30-TP-04-1314 | SW6020 | Aluminum | mg/kg | 6270 | J | LB>MDL |
| 6-30-TP-04-1314 | SW6020 | Aluminum | mg/kg | 6270 | J | SerDil %D |
| 6-30-TP-04-1314 | SW6020 | Antimony | mg/kg | 0.24 | J | >MDL<RL |
| 6-30-TP-04-1314 | SW6020 | Antimony | mg/kg | 0.24 | J | MS<LCL |
| 6-30-TP-04-1314 | SW6020 | Antimony | mg/kg | 0.24 | J | SD<LCL |
| 6-30-TP-04-1314 | SW6020 | Barium | mg/kg | 280 | J | MS<LCL |
| 6-30-TP-04-1314 | SW6020 | Barium | mg/kg | 280 | J | SD<LCL |
| 6-30-TP-04-1314 | SW6020 | Calcium | mg/kg | 24900 | J | LB>MDL |
| 6-30-TP-04-1314 | SW6020 | Calcium | mg/kg | 24900 | J | SerDil %D |
| 6-30-TP-04-1314 | SW6020 | Chromium | mg/kg | 11.7 | J | MS<LCL |
| 6-30-TP-04-1314 | SW6020 | Chromium | mg/kg | 11.7 | J | MSRPD |
| 6-30-TP-04-1314 | SW6020 | Cobalt | mg/kg | 5.9 | J | MS<LCL |
| 6-30-TP-04-1314 | SW6020 | Copper | mg/kg | 10.3 | J | MS<LCL |
| 6-30-TP-04-1314 | SW6020 | Copper | mg/kg | 10.3 | J | MSRPD |
| 6-30-TP-04-1314 | SW6020 | Iron | mg/kg | 13600 | J | LB>MDL |
| 6-30-TP-04-1314 | SW6020 | Iron | mg/kg | 13600 | J | SerDil %D |
| 6-30-TP-04-1314 | SW6020 | Lead | mg/kg | 7.9 | J | LB>MDL |
| 6-30-TP-04-1314 | SW6020 | Magnesium | mg/kg | 4740 | J | MS<LCL |
| 6-30-TP-04-1314 | SW6020 | Magnesium | mg/kg | 4740 | J | SD<LCL |
| 6-30-TP-04-1314 | SW6020 | Magnesium | mg/kg | 4740 | J | SerDil %D |
| 6-30-TP-04-1314 | SW6020 | Manganese | mg/kg | 290 | J | LB>MDL |
| 6-30-TP-04-1314 | SW6020 | Manganese | mg/kg | 290 | J | SerDil %D |
| 6-30-TP-04-1314 | SW6020 | Nickel | mg/kg | 12.2 | J | LB>MDL |
| 6-30-TP-04-1314 | SW6020 | Nickel | mg/kg | 12.2 | J | MS<LCL |
| 6-30-TP-04-1314 | SW6020 | Nickel | mg/kg | 12.2 | J | SerDil %D |
| 6-30-TP-04-1314 | SW6020 | Potassium | mg/kg | 1210 | J | LB>MDL |
| 6-30-TP-04-1314 | SW6020 | Potassium | mg/kg | 1210 | J | MS<LCL |
| 6-30-TP-04-1314 | SW6020 | Potassium | mg/kg | 1210 | J | SerDil %D |

**Table 2. Summary of Data Qualification at SWMU 6-30, Radioactive Burial 11 (RW-06) (Continued, Page 5 of 14)**

| Field ID | Method | Analyte | Units | Final Result | V-Flag | V-Reason |
|---|---|---|---|---|---|---|
| 6-30-TP-04-1314 | SW6020 | Silver | mg/kg | 0.035 | J | >MDL<RL |
| 6-30-TP-04-1314 | SW6020 | Sodium | mg/kg | 131 | J | LB>MDL |
| 6-30-TP-04-1314 | SW6020 | Sodium | mg/kg | 131 | J | MS<LCL |
| 6-30-TP-04-1314 | SW6020 | Thallium | mg/kg | 0.14 | J | >MDL<RL |
| 6-30-TP-04-1314 | SW6020 | Thallium | mg/kg | 0.14 | J | CCB<RL |
| 6-30-TP-04-1314 | SW6020 | Vanadium | mg/kg | 24.8 | J | MS<LCL |
| 6-30-TP-04-1314 | SW6020 | Vanadium | mg/kg | 24.8 | J | SD<LCL |
| 6-30-TP-04-1314 | SW6020 | Zinc | mg/kg | 29.6 | J | LB>MDL |
| 6-30-TP-04-1314 | SW6020 | Zinc | mg/kg | 29.6 | J | MS<LCL |
| 6-30-TP-04-1314 | SW6020 | Zinc | mg/kg | 29.6 | J | SD<LCL |
| 6-30-TP-04-1314 | SW6020 | Zinc | mg/kg | 29.6 | J | SerDil %D |
| 6-30-TP-05-0607 | SW6020 | Aluminum | mg/kg | 6370 | J | LB>MDL |
| 6-30-TP-05-0607 | SW6020 | Aluminum | mg/kg | 6370 | J | SerDil %D |
| 6-30-TP-05-0607 | SW6020 | Antimony | mg/kg | 0.18 | J | >MDL<RL |
| 6-30-TP-05-0607 | SW6020 | Calcium | mg/kg | 29600 | J | LB>MDL |
| 6-30-TP-05-0607 | SW6020 | Calcium | mg/kg | 29600 | J | SerDil %D |
| 6-30-TP-05-0607 | SW6020 | Iron | mg/kg | 11100 | J | LB>MDL |
| 6-30-TP-05-0607 | SW6020 | Iron | mg/kg | 11100 | J | SerDil %D |
| 6-30-TP-05-0607 | SW6020 | Lead | mg/kg | 9.4 | J | LB>MDL |
| 6-30-TP-05-0607 | SW6020 | Magnesium | mg/kg | 4130 | J | SerDil %D |
| 6-30-TP-05-0607 | SW6020 | Manganese | mg/kg | 234 | J | LB>MDL |
| 6-30-TP-05-0607 | SW6020 | Manganese | mg/kg | 234 | J | SerDil %D |
| 6-30-TP-05-0607 | SW6020 | Nickel | mg/kg | 9.4 | J | LB>MDL |
| 6-30-TP-05-0607 | SW6020 | Nickel | mg/kg | 9.4 | J | SerDil %D |
| 6-30-TP-05-0607 | SW6020 | Potassium | mg/kg | 1410 | J | LB>MDL |
| 6-30-TP-05-0607 | SW6020 | Potassium | mg/kg | 1410 | J | SerDil %D |
| 6-30-TP-05-0607 | SW6020 | Silver | mg/kg | 0.047 | J | >MDL<RL |
| 6-30-TP-05-0607 | SW6020 | Sodium | mg/kg | 93.1 | J | LB>MDL |
| 6-30-TP-05-0607 | SW6020 | Thallium | mg/kg | 0.12 | J | >MDL<RL |
| 6-30-TP-05-0607 | SW6020 | Thallium | mg/kg | 0.12 | J | CCB<RL |
| 6-30-TP-05-0607 | SW6020 | Zinc | mg/kg | 30.9 | J | LB>MDL |
| 6-30-TP-05-0607 | SW6020 | Zinc | mg/kg | 30.9 | J | SerDil %D |
| 6-30-TP-05-1314 | SW6020 | Aluminum | mg/kg | 6150 | J | LB>MDL |
| 6-30-TP-05-1314 | SW6020 | Aluminum | mg/kg | 6150 | J | SerDil %D |
| 6-30-TP-05-1314 | SW6020 | Antimony | mg/kg | 0.14 | J | >MDL<RL |
| 6-30-TP-05-1314 | SW6020 | Calcium | mg/kg | 31000 | J | LB>MDL |
| 6-30-TP-05-1314 | SW6020 | Calcium | mg/kg | 31000 | J | SerDil %D |
| 6-30-TP-05-1314 | SW6020 | Iron | mg/kg | 10300 | J | LB>MDL |
| 6-30-TP-05-1314 | SW6020 | Iron | mg/kg | 10300 | J | SerDil %D |
| 6-30-TP-05-1314 | SW6020 | Lead | mg/kg | 7.9 | J | LB>MDL |
| 6-30-TP-05-1314 | SW6020 | Magnesium | mg/kg | 3770 | J | SerDil %D |

**Table 2. Summary of Data Qualification at SWMU 6-30, Radioactive Burial 11 (RW-06) (Continued, Page 6 of 14)**

| Field ID | Method | Analyte | Units | Final Result | V-Flag | V-Reason |
|---|---|---|---|---|---|---|
| 6-30-TP-05-1314 | SW6020 | Manganese | mg/kg | 215 | J | LB>MDL |
| 6-30-TP-05-1314 | SW6020 | Manganese | mg/kg | 215 | J | SerDil %D |
| 6-30-TP-05-1314 | SW6020 | Molybdenum | mg/kg | 0.36 | J | >MDL<RL |
| 6-30-TP-05-1314 | SW6020 | Nickel | mg/kg | 8.6 | J | LB>MDL |
| 6-30-TP-05-1314 | SW6020 | Nickel | mg/kg | 8.6 | J | SerDil %D |
| 6-30-TP-05-1314 | SW6020 | Potassium | mg/kg | 1500 | J | LB>MDL |
| 6-30-TP-05-1314 | SW6020 | Potassium | mg/kg | 1500 | J | SerDil %D |
| 6-30-TP-05-1314 | SW6020 | Silver | mg/kg | 0.042 | J | >MDL<RL |
| 6-30-TP-05-1314 | SW6020 | Sodium | mg/kg | 81.8 | J | LB>MDL |
| 6-30-TP-05-1314 | SW6020 | Thallium | mg/kg | 0.11 | J | >MDL<RL |
| 6-30-TP-05-1314 | SW6020 | Thallium | mg/kg | 0.11 | J | CCB<RL |
| 6-30-TP-05-1314 | SW6020 | Zinc | mg/kg | 26.8 | J | LB>MDL |
| 6-30-TP-05-1314 | SW6020 | Zinc | mg/kg | 26.8 | J | SerDil %D |
| 6-30-TP-06-1718 | SW6020 | Aluminum | mg/kg | 5920 | J | LB>MDL |
| 6-30-TP-06-1718 | SW6020 | Aluminum | mg/kg | 5920 | J | SerDil %D |
| 6-30-TP-06-1718 | SW6020 | Antimony | mg/kg | 0.15 | J | >MDL<RL |
| 6-30-TP-06-1718 | SW6020 | Calcium | mg/kg | 30800 | J | LB>MDL |
| 6-30-TP-06-1718 | SW6020 | Calcium | mg/kg | 30800 | J | SerDil %D |
| 6-30-TP-06-1718 | SW6020 | Iron | mg/kg | 9730 | J | LB>MDL |
| 6-30-TP-06-1718 | SW6020 | Iron | mg/kg | 9730 | J | SerDil %D |
| 6-30-TP-06-1718 | SW6020 | Lead | mg/kg | 8.4 | J | LB>MDL |
| 6-30-TP-06-1718 | SW6020 | Magnesium | mg/kg | 3970 | J | SerDil %D |
| 6-30-TP-06-1718 | SW6020 | Manganese | mg/kg | 189 | J | LB>MDL |
| 6-30-TP-06-1718 | SW6020 | Manganese | mg/kg | 189 | J | SerDil %D |
| 6-30-TP-06-1718 | SW6020 | Molybdenum | mg/kg | 0.4 | J | >MDL<RL |
| 6-30-TP-06-1718 | SW6020 | Nickel | mg/kg | 8.8 | J | LB>MDL |
| 6-30-TP-06-1718 | SW6020 | Nickel | mg/kg | 8.8 | J | SerDil %D |
| 6-30-TP-06-1718 | SW6020 | Potassium | mg/kg | 1390 | J | LB>MDL |
| 6-30-TP-06-1718 | SW6020 | Potassium | mg/kg | 1390 | J | SerDil %D |
| 6-30-TP-06-1718 | SW6020 | Silver | mg/kg | 0.042 | J | >MDL<RL |
| 6-30-TP-06-1718 | SW6020 | Sodium | mg/kg | 155 | J | LB>MDL |
| 6-30-TP-06-1718 | SW6020 | Thallium | mg/kg | 0.09 | U | >MDL<RL |
| 6-30-TP-06-1718 | SW6020 | Thallium | mg/kg | 0.09 | U | CCB<RL |
| 6-30-TP-06-1718 | SW6020 | Zinc | mg/kg | 25 | J | LB>MDL |
| 6-30-TP-06-1718 | SW6020 | Zinc | mg/kg | 25 | J | SerDil %D |
| 6-30-TP-07-0506 | SW6020 | Aluminum | mg/kg | 7610 | J | LB>MDL |
| 6-30-TP-07-0506 | SW6020 | Aluminum | mg/kg | 7610 | J | SerDil %D |
| 6-30-TP-07-0506 | SW6020 | Antimony | mg/kg | 0.14 | J | >MDL<RL |
| 6-30-TP-07-0506 | SW6020 | Calcium | mg/kg | 28700 | J | LB>MDL |
| 6-30-TP-07-0506 | SW6020 | Calcium | mg/kg | 28700 | J | SerDil %D |
| 6-30-TP-07-0506 | SW6020 | Iron | mg/kg | 10300 | J | LB>MDL |

**Table 2. Summary of Data Qualification at SWMU 6-30, Radioactive Burial 11 (RW-06) (Continued, Page 7 of 14)**

| Field ID | Method | Analyte | Units | Final Result | V-Flag | V-Reason |
|---|---|---|---|---|---|---|
| 6-30-TP-07-0506 | SW6020 | Iron | mg/kg | 10300 | J | SerDil %D |
| 6-30-TP-07-0506 | SW6020 | Lead | mg/kg | 16.9 | J | LB>MDL |
| 6-30-TP-07-0506 | SW6020 | Magnesium | mg/kg | 3860 | J | SerDil %D |
| 6-30-TP-07-0506 | SW6020 | Manganese | mg/kg | 210 | J | LB>MDL |
| 6-30-TP-07-0506 | SW6020 | Manganese | mg/kg | 210 | J | SerDil %D |
| 6-30-TP-07-0506 | SW6020 | Molybdenum | mg/kg | 0.4 | J | >MDL<RL |
| 6-30-TP-07-0506 | SW6020 | Nickel | mg/kg | 9.2 | J | LB>MDL |
| 6-30-TP-07-0506 | SW6020 | Nickel | mg/kg | 9.2 | J | SerDil %D |
| 6-30-TP-07-0506 | SW6020 | Potassium | mg/kg | 1160 | J | LB>MDL |
| 6-30-TP-07-0506 | SW6020 | Potassium | mg/kg | 1160 | J | SerDil %D |
| 6-30-TP-07-0506 | SW6020 | Silver | mg/kg | 0.05 | J | >MDL<RL |
| 6-30-TP-07-0506 | SW6020 | Sodium | mg/kg | 312 | J | LB>MDL |
| 6-30-TP-07-0506 | SW6020 | Thallium | mg/kg | 0.077 | U | >MDL<RL |
| 6-30-TP-07-0506 | SW6020 | Thallium | mg/kg | 0.077 | U | CCB<RL |
| 6-30-TP-07-0506 | SW6020 | Zinc | mg/kg | 119 | J | LB>MDL |
| 6-30-TP-07-0506 | SW6020 | Zinc | mg/kg | 119 | J | SerDil %D |
| 6-30-TP-07-1617 | SW6020 | Aluminum | mg/kg | 4570 | J | LB>MDL |
| 6-30-TP-07-1617 | SW6020 | Aluminum | mg/kg | 4570 | J | SerDil %D |
| 6-30-TP-07-1617 | SW6020 | Antimony | mg/kg | 0.1 | J | >MDL<RL |
| 6-30-TP-07-1617 | SW6020 | Calcium | mg/kg | 25700 | J | LB>MDL |
| 6-30-TP-07-1617 | SW6020 | Calcium | mg/kg | 25700 | J | SerDil %D |
| 6-30-TP-07-1617 | SW6020 | Iron | mg/kg | 11100 | J | LB>MDL |
| 6-30-TP-07-1617 | SW6020 | Iron | mg/kg | 11100 | J | SerDil %D |
| 6-30-TP-07-1617 | SW6020 | Lead | mg/kg | 8.9 | J | LB>MDL |
| 6-30-TP-07-1617 | SW6020 | Magnesium | mg/kg | 3840 | J | SerDil %D |
| 6-30-TP-07-1617 | SW6020 | Manganese | mg/kg | 203 | J | LB>MDL |
| 6-30-TP-07-1617 | SW6020 | Manganese | mg/kg | 203 | J | SerDil %D |
| 6-30-TP-07-1617 | SW6020 | Nickel | mg/kg | 9.9 | J | LB>MDL |
| 6-30-TP-07-1617 | SW6020 | Nickel | mg/kg | 9.9 | J | SerDil %D |
| 6-30-TP-07-1617 | SW6020 | Potassium | mg/kg | 775 | J | LB>MDL |
| 6-30-TP-07-1617 | SW6020 | Potassium | mg/kg | 775 | J | SerDil %D |
| 6-30-TP-07-1617 | SW6020 | Silver | mg/kg | 0.023 | J | >MDL<RL |
| 6-30-TP-07-1617 | SW6020 | Sodium | mg/kg | 151 | J | LB>MDL |
| 6-30-TP-07-1617 | SW6020 | Thallium | mg/kg | 0.071 | U | CCB<RL |
| 6-30-TP-07-1617 | SW6020 | Zinc | mg/kg | 23.7 | J | LB>MDL |
| 6-30-TP-07-1617 | SW6020 | Zinc | mg/kg | 23.7 | J | SerDil %D |
| 6-30-TP-08-1920 | SW6020 | Aluminum | mg/kg | 5200 | J | LB>MDL |
| 6-30-TP-08-1920 | SW6020 | Aluminum | mg/kg | 5200 | J | SerDil %D |
| 6-30-TP-08-1920 | SW6020 | Antimony | mg/kg | 0.13 | J | >MDL<RL |
| 6-30-TP-08-1920 | SW6020 | Calcium | mg/kg | 26400 | J | LB>MDL |
| 6-30-TP-08-1920 | SW6020 | Calcium | mg/kg | 26400 | J | SerDil %D |

**Table 2. Summary of Data Qualification at SWMU 6-30, Radioactive Burial 11 (RW-06) (Continued, Page 8 of 14)**

| Field ID | Method | Analyte | Units | Final Result | V-Flag | V-Reason |
|---|---|---|---|---|---|---|
| 6-30-TP-08-1920 | SW6020 | Iron | mg/kg | 9060 | J | LB>MDL |
| 6-30-TP-08-1920 | SW6020 | Iron | mg/kg | 9060 | J | SerDil %D |
| 6-30-TP-08-1920 | SW6020 | Lead | mg/kg | 7.6 | J | LB>MDL |
| 6-30-TP-08-1920 | SW6020 | Magnesium | mg/kg | 3480 | J | SerDil %D |
| 6-30-TP-08-1920 | SW6020 | Manganese | mg/kg | 183 | J | LB>MDL |
| 6-30-TP-08-1920 | SW6020 | Manganese | mg/kg | 183 | J | SerDil %D |
| 6-30-TP-08-1920 | SW6020 | Molybdenum | mg/kg | 0.36 | J | >MDL<RL |
| 6-30-TP-08-1920 | SW6020 | Nickel | mg/kg | 8.3 | J | LB>MDL |
| 6-30-TP-08-1920 | SW6020 | Nickel | mg/kg | 8.3 | J | SerDil %D |
| 6-30-TP-08-1920 | SW6020 | Potassium | mg/kg | 1000 | J | LB>MDL |
| 6-30-TP-08-1920 | SW6020 | Potassium | mg/kg | 1000 | J | SerDil %D |
| 6-30-TP-08-1920 | SW6020 | Silver | mg/kg | 0.034 | J | >MDL<RL |
| 6-30-TP-08-1920 | SW6020 | Sodium | mg/kg | 74.4 | J | LB>MDL |
| 6-30-TP-08-1920 | SW6020 | Thallium | mg/kg | 0.072 | U | CCB<RL |
| 6-30-TP-08-1920 | SW6020 | Zinc | mg/kg | 21.4 | J | LB>MDL |
| 6-30-TP-08-1920 | SW6020 | Zinc | mg/kg | 21.4 | J | SerDil %D |
| 6-30-TP-08-1920 | SW9310 | Gross Beta | pCi/g | 25.3 | J | LB>MDL |
| 6-30-TP-09-0708 | SW6020 | Aluminum | mg/kg | 6550 | J | LB>MDL |
| 6-30-TP-09-0708 | SW6020 | Aluminum | mg/kg | 6550 | J | SerDil %D |
| 6-30-TP-09-0708 | SW6020 | Antimony | mg/kg | 0.12 | J | >MDL<RL |
| 6-30-TP-09-0708 | SW6020 | Calcium | mg/kg | 26400 | J | LB>MDL |
| 6-30-TP-09-0708 | SW6020 | Calcium | mg/kg | 26400 | J | SerDil %D |
| 6-30-TP-09-0708 | SW6020 | Iron | mg/kg | 10300 | J | LB>MDL |
| 6-30-TP-09-0708 | SW6020 | Iron | mg/kg | 10300 | J | SerDil %D |
| 6-30-TP-09-0708 | SW6020 | Lead | mg/kg | 8.2 | J | LB>MDL |
| 6-30-TP-09-0708 | SW6020 | Magnesium | mg/kg | 4290 | J | SerDil %D |
| 6-30-TP-09-0708 | SW6020 | Manganese | mg/kg | 276 | J | LB>MDL |
| 6-30-TP-09-0708 | SW6020 | Manganese | mg/kg | 276 | J | SerDil %D |
| 6-30-TP-09-0708 | SW6020 | Molybdenum | mg/kg | 0.43 | J | >MDL<RL |
| 6-30-TP-09-0708 | SW6020 | Nickel | mg/kg | 11.2 | J | LB>MDL |
| 6-30-TP-09-0708 | SW6020 | Nickel | mg/kg | 11.2 | J | SerDil %D |
| 6-30-TP-09-0708 | SW6020 | Potassium | mg/kg | 1500 | J | LB>MDL |
| 6-30-TP-09-0708 | SW6020 | Potassium | mg/kg | 1500 | J | SerDil %D |
| 6-30-TP-09-0708 | SW6020 | Silver | mg/kg | 0.042 | J | >MDL<RL |
| 6-30-TP-09-0708 | SW6020 | Sodium | mg/kg | 232 | J | LB>MDL |
| 6-30-TP-09-0708 | SW6020 | Thallium | mg/kg | 0.12 | J | >MDL<RL |
| 6-30-TP-09-0708 | SW6020 | Thallium | mg/kg | 0.12 | J | CCB<RL |
| 6-30-TP-09-0708 | SW6020 | Zinc | mg/kg | 27 | J | LB>MDL |
| 6-30-TP-09-0708 | SW6020 | Zinc | mg/kg | 27 | J | SerDil %D |
| 6-30-TP-09-0708 | SW9310 | Gross Beta | pCi/g | 28.6 | J | LB>MDL |
| 6-30-TP-09-2021 | SW6020 | Aluminum | mg/kg | 5110 | J | LB>MDL |

**Table 2. Summary of Data Qualification at SWMU 6-30, Radioactive Burial 11 (RW-06) (Continued, Page 9 of 14)**

| Field ID | Method | Analyte | Units | Final Result | V-Flag | V-Reason |
|---|---|---|---|---|---|---|
| 6-30-TP-09-2021 | SW6020 | Aluminum | mg/kg | 5110 | J | SerDil %D |
| 6-30-TP-09-2021 | SW6020 | Antimony | mg/kg | 0.11 | J | >MDL<RL |
| 6-30-TP-09-2021 | SW6020 | Calcium | mg/kg | 25700 | J | LB>MDL |
| 6-30-TP-09-2021 | SW6020 | Calcium | mg/kg | 25700 | J | SerDil %D |
| 6-30-TP-09-2021 | SW6020 | Iron | mg/kg | 10900 | J | LB>MDL |
| 6-30-TP-09-2021 | SW6020 | Iron | mg/kg | 10900 | J | SerDil %D |
| 6-30-TP-09-2021 | SW6020 | Lead | mg/kg | 9 | J | LB>MDL |
| 6-30-TP-09-2021 | SW6020 | Magnesium | mg/kg | 3780 | J | SerDil %D |
| 6-30-TP-09-2021 | SW6020 | Manganese | mg/kg | 219 | J | LB>MDL |
| 6-30-TP-09-2021 | SW6020 | Manganese | mg/kg | 219 | J | SerDil %D |
| 6-30-TP-09-2021 | SW6020 | Nickel | mg/kg | 9 | J | LB>MDL |
| 6-30-TP-09-2021 | SW6020 | Nickel | mg/kg | 9 | J | SerDil %D |
| 6-30-TP-09-2021 | SW6020 | Potassium | mg/kg | 998 | J | LB>MDL |
| 6-30-TP-09-2021 | SW6020 | Potassium | mg/kg | 998 | J | SerDil %D |
| 6-30-TP-09-2021 | SW6020 | Silver | mg/kg | 0.033 | J | >MDL<RL |
| 6-30-TP-09-2021 | SW6020 | Sodium | mg/kg | 120 | J | LB>MDL |
| 6-30-TP-09-2021 | SW6020 | Thallium | mg/kg | 0.097 | U | >MDL<RL |
| 6-30-TP-09-2021 | SW6020 | Thallium | mg/kg | 0.097 | U | CCB<RL |
| 6-30-TP-09-2021 | SW6020 | Zinc | mg/kg | 26.1 | J | LB>MDL |
| 6-30-TP-09-2021 | SW6020 | Zinc | mg/kg | 26.1 | J | SerDil %D |
| 6-30-TP-09-2021 | SW9310 | Gross Beta | pCi/g | 27.5 | J | LB>MDL |
| 6-30-TP-10-0102 | SW6020 | Aluminum | mg/kg | 7690 | J | LB>MDL |
| 6-30-TP-10-0102 | SW6020 | Aluminum | mg/kg | 7690 | J | SerDil %D |
| 6-30-TP-10-0102 | SW6020 | Antimony | mg/kg | 0.14 | J | >MDL<RL |
| 6-30-TP-10-0102 | SW6020 | Calcium | mg/kg | 13800 | J | LB>MDL |
| 6-30-TP-10-0102 | SW6020 | Calcium | mg/kg | 13800 | J | SerDil %D |
| 6-30-TP-10-0102 | SW6020 | Iron | mg/kg | 11300 | J | LB>MDL |
| 6-30-TP-10-0102 | SW6020 | Iron | mg/kg | 11300 | J | SerDil %D |
| 6-30-TP-10-0102 | SW6020 | Lead | mg/kg | 9.2 | J | LB>MDL |
| 6-30-TP-10-0102 | SW6020 | Magnesium | mg/kg | 3810 | J | SerDil %D |
| 6-30-TP-10-0102 | SW6020 | Manganese | mg/kg | 249 | J | LB>MDL |
| 6-30-TP-10-0102 | SW6020 | Manganese | mg/kg | 249 | J | SerDil %D |
| 6-30-TP-10-0102 | SW6020 | Molybdenum | mg/kg | 0.44 | J | >MDL<RL |
| 6-30-TP-10-0102 | SW6020 | Nickel | mg/kg | 10 | J | LB>MDL |
| 6-30-TP-10-0102 | SW6020 | Nickel | mg/kg | 10 | J | SerDil %D |
| 6-30-TP-10-0102 | SW6020 | Potassium | mg/kg | 1630 | J | LB>MDL |
| 6-30-TP-10-0102 | SW6020 | Potassium | mg/kg | 1630 | J | SerDil %D |
| 6-30-TP-10-0102 | SW6020 | Silver | mg/kg | 0.072 | J | >MDL<RL |
| 6-30-TP-10-0102 | SW6020 | Sodium | mg/kg | 197 | J | LB>MDL |
| 6-30-TP-10-0102 | SW6020 | Thallium | mg/kg | 0.11 | J | >MDL<RL |
| 6-30-TP-10-0102 | SW6020 | Thallium | mg/kg | 0.11 | J | CCB<RL |

**Table 2. Summary of Data Qualification at SWMU 6-30, Radioactive Burial 11 (RW-06) (Continued, Page 10 of 14)**

| Field ID | Method | Analyte | Units | Final Result | V-Flag | V-Reason |
|---|---|---|---|---|---|---|
| 6-30-TP-10-0102 | SW6020 | Zinc | mg/kg | 27 | J | LB>MDL |
| 6-30-TP-10-0102 | SW6020 | Zinc | mg/kg | 27 | J | SerDil %D |
| 6-30-TP-10-0102 | SW9310 | Gross Beta | pCi/g | 28.8 | J | LB>MDL |
| 6-30-TP-11-0910 | SW6020 | Aluminum | mg/kg | 6840 | J | LB>MDL |
| 6-30-TP-11-0910 | SW6020 | Aluminum | mg/kg | 6840 | J | SerDil %D |
| 6-30-TP-11-0910 | SW6020 | Antimony | mg/kg | 0.19 | J | >MDL<RL |
| 6-30-TP-11-0910 | SW6020 | Calcium | mg/kg | 23700 | J | LB>MDL |
| 6-30-TP-11-0910 | SW6020 | Calcium | mg/kg | 23700 | J | SerDil %D |
| 6-30-TP-11-0910 | SW6020 | Iron | mg/kg | 10800 | J | LB>MDL |
| 6-30-TP-11-0910 | SW6020 | Iron | mg/kg | 10800 | J | SerDil %D |
| 6-30-TP-11-0910 | SW6020 | Lead | mg/kg | 40.5 | J | LB>MDL |
| 6-30-TP-11-0910 | SW6020 | Magnesium | mg/kg | 3790 | J | SerDil %D |
| 6-30-TP-11-0910 | SW6020 | Manganese | mg/kg | 218 | J | LB>MDL |
| 6-30-TP-11-0910 | SW6020 | Manganese | mg/kg | 218 | J | SerDil %D |
| 6-30-TP-11-0910 | SW6020 | Molybdenum | mg/kg | 0.51 | J | >MDL<RL |
| 6-30-TP-11-0910 | SW6020 | Nickel | mg/kg | 9.5 | J | LB>MDL |
| 6-30-TP-11-0910 | SW6020 | Nickel | mg/kg | 9.5 | J | SerDil %D |
| 6-30-TP-11-0910 | SW6020 | Potassium | mg/kg | 1390 | J | LB>MDL |
| 6-30-TP-11-0910 | SW6020 | Potassium | mg/kg | 1390 | J | SerDil %D |
| 6-30-TP-11-0910 | SW6020 | Silver | mg/kg | 0.054 | J | >MDL<RL |
| 6-30-TP-11-0910 | SW6020 | Sodium | mg/kg | 55.4 | J | LB>MDL |
| 6-30-TP-11-0910 | SW6020 | Thallium | mg/kg | 0.095 | U | >MDL<RL |
| 6-30-TP-11-0910 | SW6020 | Thallium | mg/kg | 0.095 | U | CCB<RL |
| 6-30-TP-11-0910 | SW6020 | Zinc | mg/kg | 30.4 | J | LB>MDL |
| 6-30-TP-11-0910 | SW6020 | Zinc | mg/kg | 30.4 | J | SerDil %D |
| 6-30-TP-11-0910 | SW9310 | Gross Beta | pCi/g | 29.3 | J | LB>MDL |
| 6-30-TP-11-1516 | SW6020 | Aluminum | mg/kg | 5780 | J | LB>MDL |
| 6-30-TP-11-1516 | SW6020 | Aluminum | mg/kg | 5780 | J | SerDil %D |
| 6-30-TP-11-1516 | SW6020 | Antimony | mg/kg | 0.15 | J | >MDL<RL |
| 6-30-TP-11-1516 | SW6020 | Calcium | mg/kg | 28500 | J | LB>MDL |
| 6-30-TP-11-1516 | SW6020 | Calcium | mg/kg | 28500 | J | SerDil %D |
| 6-30-TP-11-1516 | SW6020 | Iron | mg/kg | 9820 | J | LB>MDL |
| 6-30-TP-11-1516 | SW6020 | Iron | mg/kg | 9820 | J | SerDil %D |
| 6-30-TP-11-1516 | SW6020 | Lead | mg/kg | 7.3 | J | LB>MDL |
| 6-30-TP-11-1516 | SW6020 | Magnesium | mg/kg | 3730 | J | SerDil %D |
| 6-30-TP-11-1516 | SW6020 | Manganese | mg/kg | 187 | J | LB>MDL |
| 6-30-TP-11-1516 | SW6020 | Manganese | mg/kg | 187 | J | SerDil %D |
| 6-30-TP-11-1516 | SW6020 | Nickel | mg/kg | 9.1 | J | LB>MDL |
| 6-30-TP-11-1516 | SW6020 | Nickel | mg/kg | 9.1 | J | SerDil %D |
| 6-30-TP-11-1516 | SW6020 | Potassium | mg/kg | 1250 | J | LB>MDL |
| 6-30-TP-11-1516 | SW6020 | Potassium | mg/kg | 1250 | J | SerDil %D |

**Table 2. Summary of Data Qualification at SWMU 6-30, Radioactive Burial 11 (RW-06) (Continued, Page 11 of 14)**

| Field ID | Method | Analyte | Units | Final Result | V-Flag | V-Reason |
|---|---|---|---|---|---|---|
| 6-30-TP-11-1516 | SW6020 | Silver | mg/kg | 0.037 | J | >MDL<RL |
| 6-30-TP-11-1516 | SW6020 | Sodium | mg/kg | 90 | J | LB>MDL |
| 6-30-TP-11-1516 | SW6020 | Thallium | mg/kg | 0.076 | U | >MDL<RL |
| 6-30-TP-11-1516 | SW6020 | Thallium | mg/kg | 0.076 | U | CCB<RL |
| 6-30-TP-11-1516 | SW6020 | Zinc | mg/kg | 26.1 | J | LB>MDL |
| 6-30-TP-11-1516 | SW6020 | Zinc | mg/kg | 26.1 | J | SerDil %D |
| 6-30-TP-11-1516 | SW9310 | Gross Beta | pCi/g | 27.2 | J | LB>MDL |
| 6-30-TP-12-0708 | A01R | Neptunium 237 | pCi/g | 0.07 | U | LB>MDL |
| 6-30-TP-12-0708 | SW6020 | Aluminum | mg/kg | 5550 | J | LB>MDL |
| 6-30-TP-12-0708 | SW6020 | Aluminum | mg/kg | 5550 | J | SerDil %D |
| 6-30-TP-12-0708 | SW6020 | Antimony | mg/kg | 0.26 | J | >MDL<RL |
| 6-30-TP-12-0708 | SW6020 | Calcium | mg/kg | 24500 | J | LB>MDL |
| 6-30-TP-12-0708 | SW6020 | Calcium | mg/kg | 24500 | J | SerDil %D |
| 6-30-TP-12-0708 | SW6020 | Iron | mg/kg | 8880 | J | LB>MDL |
| 6-30-TP-12-0708 | SW6020 | Iron | mg/kg | 8880 | J | SerDil %D |
| 6-30-TP-12-0708 | SW6020 | Lead | mg/kg | 6.3 | J | LB>MDL |
| 6-30-TP-12-0708 | SW6020 | Magnesium | mg/kg | 3460 | J | SerDil %D |
| 6-30-TP-12-0708 | SW6020 | Manganese | mg/kg | 177 | J | LB>MDL |
| 6-30-TP-12-0708 | SW6020 | Manganese | mg/kg | 177 | J | SerDil %D |
| 6-30-TP-12-0708 | SW6020 | Molybdenum | mg/kg | 0.29 | J | >MDL<RL |
| 6-30-TP-12-0708 | SW6020 | Nickel | mg/kg | 8.7 | J | LB>MDL |
| 6-30-TP-12-0708 | SW6020 | Nickel | mg/kg | 8.7 | J | SerDil %D |
| 6-30-TP-12-0708 | SW6020 | Potassium | mg/kg | 1100 | J | LB>MDL |
| 6-30-TP-12-0708 | SW6020 | Potassium | mg/kg | 1100 | J | SerDil %D |
| 6-30-TP-12-0708 | SW6020 | Silver | mg/kg | 0.041 | J | >MDL<RL |
| 6-30-TP-12-0708 | SW6020 | Sodium | mg/kg | 213 | J | LB>MDL |
| 6-30-TP-12-0708 | SW6020 | Thallium | mg/kg | 0.073 | U | >MDL<RL |
| 6-30-TP-12-0708 | SW6020 | Thallium | mg/kg | 0.073 | U | CCB<RL |
| 6-30-TP-12-0708 | SW6020 | Zinc | mg/kg | 21.1 | J | LB>MDL |
| 6-30-TP-12-0708 | SW6020 | Zinc | mg/kg | 21.1 | J | SerDil %D |
| 6-30-TP-12-1819 | SW6020 | Aluminum | mg/kg | 4950 | J | LB>MDL |
| 6-30-TP-12-1819 | SW6020 | Aluminum | mg/kg | 4950 | J | SerDil %D |
| 6-30-TP-12-1819 | SW6020 | Antimony | mg/kg | 0.077 | J | >MDL<RL |
| 6-30-TP-12-1819 | SW6020 | Calcium | mg/kg | 14600 | J | LB>MDL |
| 6-30-TP-12-1819 | SW6020 | Calcium | mg/kg | 14600 | J | SerDil %D |
| 6-30-TP-12-1819 | SW6020 | Iron | mg/kg | 11200 | J | LB>MDL |
| 6-30-TP-12-1819 | SW6020 | Iron | mg/kg | 11200 | J | SerDil %D |
| 6-30-TP-12-1819 | SW6020 | Lead | mg/kg | 6.2 | J | LB>MDL |
| 6-30-TP-12-1819 | SW6020 | Magnesium | mg/kg | 4210 | J | SerDil %D |
| 6-30-TP-12-1819 | SW6020 | Manganese | mg/kg | 205 | J | LB>MDL |
| 6-30-TP-12-1819 | SW6020 | Manganese | mg/kg | 205 | J | SerDil %D |

**Table 2. Summary of Data Qualification at SWMU 6-30, Radioactive Burial 11 (RW-06) (Continued, Page 12 of 14)**

| Field ID | Method | Analyte | Units | Final Result | V-Flag | V-Reason |
|---|---|---|---|---|---|---|
| 6-30-TP-12-1819 | SW6020 | Molybdenum | mg/kg | 0.27 | J | >MDL<RL |
| 6-30-TP-12-1819 | SW6020 | Nickel | mg/kg | 11.2 | J | LB>MDL |
| 6-30-TP-12-1819 | SW6020 | Nickel | mg/kg | 11.2 | J | SerDil %D |
| 6-30-TP-12-1819 | SW6020 | Potassium | mg/kg | 1020 | J | LB>MDL |
| 6-30-TP-12-1819 | SW6020 | Potassium | mg/kg | 1020 | J | SerDil %D |
| 6-30-TP-12-1819 | SW6020 | Silver | mg/kg | 0.023 | J | >MDL<RL |
| 6-30-TP-12-1819 | SW6020 | Sodium | mg/kg | 175 | J | LB>MDL |
| 6-30-TP-12-1819 | SW6020 | Thallium | mg/kg | 0.071 | U | CCB<RL |
| 6-30-TP-12-1819 | SW6020 | Zinc | mg/kg | 23.9 | J | LB>MDL |
| 6-30-TP-12-1819 | SW6020 | Zinc | mg/kg | 23.9 | J | SerDil %D |
| 6-30-TP-12-1819 | SW9310 | Gross Beta | pCi/g | 28.8 | J | LB>MDL |
| 6-30-TP-1299-0708 | SW6020 | Aluminum | mg/kg | 5760 | J | LB>MDL |
| 6-30-TP-1299-0708 | SW6020 | Aluminum | mg/kg | 5760 | J | SerDil %D |
| 6-30-TP-1299-0708 | SW6020 | Antimony | mg/kg | 0.13 | J | >MDL<RL |
| 6-30-TP-1299-0708 | SW6020 | Calcium | mg/kg | 24100 | J | LB>MDL |
| 6-30-TP-1299-0708 | SW6020 | Calcium | mg/kg | 24100 | J | SerDil %D |
| 6-30-TP-1299-0708 | SW6020 | Iron | mg/kg | 9270 | J | LB>MDL |
| 6-30-TP-1299-0708 | SW6020 | Iron | mg/kg | 9270 | J | SerDil %D |
| 6-30-TP-1299-0708 | SW6020 | Lead | mg/kg | 6.9 | J | LB>MDL |
| 6-30-TP-1299-0708 | SW6020 | Magnesium | mg/kg | 3400 | J | SerDil %D |
| 6-30-TP-1299-0708 | SW6020 | Manganese | mg/kg | 190 | J | LB>MDL |
| 6-30-TP-1299-0708 | SW6020 | Manganese | mg/kg | 190 | J | SerDil %D |
| 6-30-TP-1299-0708 | SW6020 | Molybdenum | mg/kg | 0.3 | J | >MDL<RL |
| 6-30-TP-1299-0708 | SW6020 | Nickel | mg/kg | 8.3 | J | LB>MDL |
| 6-30-TP-1299-0708 | SW6020 | Nickel | mg/kg | 8.3 | J | SerDil %D |
| 6-30-TP-1299-0708 | SW6020 | Potassium | mg/kg | 1160 | J | LB>MDL |
| 6-30-TP-1299-0708 | SW6020 | Potassium | mg/kg | 1160 | J | SerDil %D |
| 6-30-TP-1299-0708 | SW6020 | Silver | mg/kg | 0.046 | J | >MDL<RL |
| 6-30-TP-1299-0708 | SW6020 | Sodium | mg/kg | 219 | J | LB>MDL |
| 6-30-TP-1299-0708 | SW6020 | Thallium | mg/kg | 0.077 | U | >MDL<RL |
| 6-30-TP-1299-0708 | SW6020 | Thallium | mg/kg | 0.077 | U | CCB<RL |
| 6-30-TP-1299-0708 | SW6020 | Zinc | mg/kg | 22 | J | LB>MDL |
| 6-30-TP-1299-0708 | SW6020 | Zinc | mg/kg | 22 | J | SerDil %D |
| 6-30-TP-13-0708 | SW6020 | Aluminum | mg/kg | 5690 | J | LB>MDL |
| 6-30-TP-13-0708 | SW6020 | Aluminum | mg/kg | 5690 | J | SerDil %D |
| 6-30-TP-13-0708 | SW6020 | Antimony | mg/kg | 0.13 | J | >MDL<RL |
| 6-30-TP-13-0708 | SW6020 | Calcium | mg/kg | 25800 | J | LB>MDL |
| 6-30-TP-13-0708 | SW6020 | Calcium | mg/kg | 25800 | J | SerDil %D |
| 6-30-TP-13-0708 | SW6020 | Chromium | mg/kg | 7.4 | J | LB>MDL |
| 6-30-TP-13-0708 | SW6020 | Cobalt | mg/kg | 5.2 | J | SerDil %D |
| 6-30-TP-13-0708 | SW6020 | Iron | mg/kg | 10300 | J | LB>RL |

**Table 2. Summary of Data Qualification at SWMU 6-30, Radioactive Burial 11 (RW-06) (Continued, Page 13 of 14)**

| Field ID | Method | Analyte | Units | Final Result | V-Flag | V-Reason |
|---|---|---|---|---|---|---|
| 6-30-TP-13-0708 | SW6020 | Iron | mg/kg | 10300 | J | SerDil %D |
| 6-30-TP-13-0708 | SW6020 | Magnesium | mg/kg | 3720 | J | SerDil %D |
| 6-30-TP-13-0708 | SW6020 | Manganese | mg/kg | 253 | J | LB>RL |
| 6-30-TP-13-0708 | SW6020 | Manganese | mg/kg | 253 | J | SerDil %D |
| 6-30-TP-13-0708 | SW6020 | Molybdenum | mg/kg | 0.5 | J | >MDL<RL |
| 6-30-TP-13-0708 | SW6020 | Nickel | mg/kg | 8.5 | J | LB>MDL |
| 6-30-TP-13-0708 | SW6020 | Nickel | mg/kg | 8.5 | J | SerDil %D |
| 6-30-TP-13-0708 | SW6020 | Potassium | mg/kg | 1460 | J | LB>MDL |
| 6-30-TP-13-0708 | SW6020 | Potassium | mg/kg | 1460 | J | SerDil %D |
| 6-30-TP-13-0708 | SW6020 | Silver | mg/kg | 0.045 | J | >MDL<RL |
| 6-30-TP-13-0708 | SW6020 | Sodium | mg/kg | 299 | J | LB>MDL |
| 6-30-TP-13-0708 | SW6020 | Thallium | mg/kg | 0.1 | J | >MDL<RL |
| 6-30-TP-13-0708 | SW6020 | Thallium | mg/kg | 0.1 | J | ICB<RL |
| 6-30-TP-13-0708 | SW6020 | Zinc | mg/kg | 29.4 | J | LB>MDL |
| 6-30-TP-13-0708 | SW6020 | Zinc | mg/kg | 29.4 | J | SerDil %D |
| 6-30-TP-13-1516 | SW6020 | Aluminum | mg/kg | 5370 | J | LB>MDL |
| 6-30-TP-13-1516 | SW6020 | Aluminum | mg/kg | 5370 | J | SerDil %D |
| 6-30-TP-13-1516 | SW6020 | Antimony | mg/kg | 0.13 | J | >MDL<RL |
| 6-30-TP-13-1516 | SW6020 | Calcium | mg/kg | 34700 | J | LB>MDL |
| 6-30-TP-13-1516 | SW6020 | Calcium | mg/kg | 34700 | J | SerDil %D |
| 6-30-TP-13-1516 | SW6020 | Chromium | mg/kg | 7.6 | J | LB>MDL |
| 6-30-TP-13-1516 | SW6020 | Cobalt | mg/kg | 4.5 | J | SerDil %D |
| 6-30-TP-13-1516 | SW6020 | Iron | mg/kg | 9950 | J | LB>RL |
| 6-30-TP-13-1516 | SW6020 | Iron | mg/kg | 9950 | J | SerDil %D |
| 6-30-TP-13-1516 | SW6020 | Magnesium | mg/kg | 3560 | J | SerDil %D |
| 6-30-TP-13-1516 | SW6020 | Manganese | mg/kg | 190 | J | LB>RL |
| 6-30-TP-13-1516 | SW6020 | Manganese | mg/kg | 190 | J | SerDil %D |
| 6-30-TP-13-1516 | SW6020 | Molybdenum | mg/kg | 0.49 | J | >MDL<RL |
| 6-30-TP-13-1516 | SW6020 | Nickel | mg/kg | 8.8 | J | LB>MDL |
| 6-30-TP-13-1516 | SW6020 | Nickel | mg/kg | 8.8 | J | SerDil %D |
| 6-30-TP-13-1516 | SW6020 | Potassium | mg/kg | 1170 | J | LB>MDL |
| 6-30-TP-13-1516 | SW6020 | Potassium | mg/kg | 1170 | J | SerDil %D |
| 6-30-TP-13-1516 | SW6020 | Silver | mg/kg | 0.043 | J | >MDL<RL |
| 6-30-TP-13-1516 | SW6020 | Sodium | mg/kg | 143 | J | LB>MDL |
| 6-30-TP-13-1516 | SW6020 | Thallium | mg/kg | 0.08 | J | >MDL<RL |
| 6-30-TP-13-1516 | SW6020 | Thallium | mg/kg | 0.08 | J | ICB<RL |
| 6-30-TP-13-1516 | SW6020 | Zinc | mg/kg | 25.6 | J | LB>MDL |
| 6-30-TP-13-1516 | SW6020 | Zinc | mg/kg | 25.6 | J | SerDil %D |
| 6-30-TP-1399-0708 | SW6020 | Aluminum | mg/kg | 5500 | J | LB>MDL |
| 6-30-TP-1399-0708 | SW6020 | Aluminum | mg/kg | 5500 | J | SerDil %D |
| 6-30-TP-1399-0708 | SW6020 | Antimony | mg/kg | 0.12 | J | >MDL<RL |

**Table 2. Summary of Data Qualification at SWMU 6-30, Radioactive Burial 11 (RW-06) (Concluded, Page 14 of 14)**

| Field ID | Method | Analyte | Units | Final Result | V-Flag | V-Reason |
|---|---|---|---|---|---|---|
| 6-30-TP-1399-0708 | SW6020 | Calcium | mg/kg | 27400 | J | LB>MDL |
| 6-30-TP-1399-0708 | SW6020 | Calcium | mg/kg | 27400 | J | SerDil %D |
| 6-30-TP-1399-0708 | SW6020 | Chromium | mg/kg | 8.2 | J | LB>MDL |
| 6-30-TP-1399-0708 | SW6020 | Cobalt | mg/kg | 4.6 | J | SerDil %D |
| 6-30-TP-1399-0708 | SW6020 | Iron | mg/kg | 10000 | J | LB>RL |
| 6-30-TP-1399-0708 | SW6020 | Iron | mg/kg | 10000 | J | SerDil %D |
| 6-30-TP-1399-0708 | SW6020 | Magnesium | mg/kg | 3460 | J | SerDil %D |
| 6-30-TP-1399-0708 | SW6020 | Manganese | mg/kg | 194 | J | LB>RL |
| 6-30-TP-1399-0708 | SW6020 | Manganese | mg/kg | 194 | J | SerDil %D |
| 6-30-TP-1399-0708 | SW6020 | Molybdenum | mg/kg | 0.42 | J | >MDL<RL |
| 6-30-TP-1399-0708 | SW6020 | Nickel | mg/kg | 8.3 | J | LB>MDL |
| 6-30-TP-1399-0708 | SW6020 | Nickel | mg/kg | 8.3 | J | SerDil %D |
| 6-30-TP-1399-0708 | SW6020 | Potassium | mg/kg | 1190 | J | LB>MDL |
| 6-30-TP-1399-0708 | SW6020 | Potassium | mg/kg | 1190 | J | SerDil %D |
| 6-30-TP-1399-0708 | SW6020 | Silver | mg/kg | 0.039 | J | >MDL<RL |
| 6-30-TP-1399-0708 | SW6020 | Sodium | mg/kg | 300 | J | LB>MDL |
| 6-30-TP-1399-0708 | SW6020 | Thallium | mg/kg | 0.072 | U | ICB<RL |
| 6-30-TP-1399-0708 | SW6020 | Zinc | mg/kg | 25.1 | J | LB>MDL |
| 6-30-TP-1399-0708 | SW6020 | Zinc | mg/kg | 25.1 | J | SerDil %D |
| RW-06 BIO 001 | GA01R | Lead 210 | pCi/g | 49.8 | J | Lab Dup RPD |

Notes:
ID – Identification
mg/kg – milligrams per kilogram
pCi/g – picocurries per gram
V – validation

Validation Flags:
J – The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
U – The analyte was analyzed for but was not detected above the reported sample quantitation limit.

Validation Reasons:
>MDL<RL The analyte was detected less than the reporting limit but greater than the method detection limit.
CCB<RL The analyte was detected less than the reporting limit in the associated continuing calibration blank.
Lab Dup RPD Laboratory replicate precision was out of criteria.
LB>MDL The analyte was detected in the associated method blank.
MS<LCL Matrix spike recovery was less than laboratory control limits.
MS>UCL Matrix spike recovery was greater than laboratory control limits.
MSRPD Matrix spike precision was out of criteria.
SD<LCL Matrix spike duplicate recovery was less than laboratory control limits.
SD>UCL Matrix spike duplicate recovery was greater than laboratory control limits.
Serial %D Serial dilution was out of criteria.

TABLE 3

Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Field ID | QAQC Type | Depth From | Depth To | Depth Units | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **SOIL BIN** | | | | | | | | | | |
| | SOIL | Actinium 228 | RW-06 BIO 001 | N | | | FT | 0.78 | 0.28 | PCI/G |
| | SOIL | Americium 241 | RW-06 BIO 001 | N | | | FT | 508 | 1 | PCI/G |
| | SOIL | Americium 241 | RW-06 BIO 002 | N | | | FT | 60.2 | 2.2 | PCI/G |
| | SOIL | Bismuth 214 | RW-06 BIO 001 | N | | | FT | 0.56 | 0.19 | PCI/G |
| | SOIL | Cesium 137 | RW-06 BIO 001 | N | | | FT | 11.7 | 0.1 | PCI/G |
| | SOIL | Cesium 137 | RW-06 BIO 002 | N | | | FT | 13500 | 2 | PCI/G |
| | SOIL | Gross Alpha | RW-06 BIO 001 | N | | | FT | 64300 | 30 | PCI/G |
| | SOIL | Gross Alpha | RW-06 BIO 002 | N | | | FT | 121 | 23 | PCI/G |
| | SOIL | Gross Beta | RW-06 BIO 001 | N | | | FT | 1670 | 10 | PCI/G |
| | SOIL | Gross Beta | RW-06 BIO 002 | N | | | FT | 14000 | 10 | PCI/G |
| | SOIL | Lead 210 | RW-06 BIO 001 | N | | | FT | 49.8 J | 12 | PCI/G |
| | SOIL | Lead 212 | RW-06 BIO 001 | N | | | FT | 0.64 | 0.18 | PCI/G |
| | SOIL | Lead 214 | RW-06 BIO 001 | N | | | FT | 0.6 | 0.25 | PCI/G |
| | SOIL | Potassium 40 | RW-06 BIO 001 | N | | | FT | 17.2 | 0.8 | PCI/G |
| | SOIL | Potassium 40 | RW-06 BIO 002 | N | | | FT | 25 | 2.7 | PCI/G |
| | SOIL | Radium (226) | RW-06 BIO 001 | N | | | FT | 0.56 J | 0.19 | PCI/G |
| | SOIL | Radium 228 | RW-06 BIO 001 | N | | | FT | 0.78 | 0.28 | PCI/G |
| | SOIL | Thallium 208 | RW-06 BIO 001 | N | | | FT | 0.205 | 0.1 | PCI/G |
| **TP-01** | | | | | | | | | | |
| | SOIL | Actinium 228 | 6-30-TP-01-0506 | N | | | FT | 0.74 | 0.33 | PCI/G |
| | SOIL | Aluminum | 6-30-TP-01-0506 | N | | | FT | 6180 J | 2.1 | MG/KG |
| | SOIL | Aluminum | 6-30-TP-01-1415 | N | | | FT | 4880 J | 2 | MG/KG |
| | SOIL | Antimony | 6-30-TP-01-0506 | N | | | FT | 0.16 J | 0.054 | MG/KG |
| | SOIL | Antimony | 6-30-TP-01-1415 | N | | | FT | 0.13 J | 0.053 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-01-0506 | N | | | FT | 3.6 | 0.22 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-01-1415 | N | | | FT | 2.9 | 0.22 | MG/KG |
| | SOIL | Barium | 6-30-TP-01-0506 | N | | | FT | 139 J | 0.36 | MG/KG |
| | SOIL | Barium | 6-30-TP-01-1415 | N | | | FT | 139 | 0.35 | MG/KG |
| | SOIL | Beryllium | 6-30-TP-01-0506 | N | | | FT | 0.38 | 0.026 | MG/KG |
| | SOIL | Beryllium | 6-30-TP-01-1415 | N | | | FT | 0.34 | 0.025 | MG/KG |
| | SOIL | Bismuth 214 | 6-30-TP-01-0506 | N | | | FT | 0.77 | 0.17 | PCI/G |
| | SOIL | Cadmium | 6-30-TP-01-0506 | N | | | FT | 0.13 | 0.0052 | MG/KG |
| | SOIL | Cadmium | 6-30-TP-01-1415 | N | | | FT | 0.094 | 0.0051 | MG/KG |
| | SOIL | Calcium | 6-30-TP-01-0506 | N | | | FT | 28600 J | 10.3 | MG/KG |
| | SOIL | Calcium | 6-30-TP-01-1415 | N | | | FT | 38900 J | 10.1 | MG/KG |
| | SOIL | Chromium | 6-30-TP-01-0506 | N | | | FT | 8.3 J | 0.41 | MG/KG |
| | SOIL | Chromium | 6-30-TP-01-1415 | N | | | FT | 8.6 J | 0.4 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-01-0506 | N | | | FT | 5.3 J | 0.026 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-01-1415 | N | | | FT | 5.8 J | 0.025 | MG/KG |
| | SOIL | Copper | 6-30-TP-01-0506 | N | | | FT | 10.2 J | 0.33 | MG/KG |
| | SOIL | Copper | 6-30-TP-01-1415 | N | | | FT | 7.6 | 0.32 | MG/KG |
| | SOIL | Gross Alpha | 6-30-TP-01-0506 | N | | | FT | 19.4 | 8.5 | PCI/G |

TABLE 3

Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Field ID | QAQC Type | Depth From | Depth To | Depth Units | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **TP-01** | | | | | | | | | | |
| | SOIL | Gross Beta | 6-30-TP-01-0506 | N | | | FT | 28.9 J | 3.5 | PCI/G |
| | SOIL | Iron | 6-30-TP-01-0506 | N | | | FT | 11000 J | 2.3 | MG/KG |
| | SOIL | Iron | 6-30-TP-01-1415 | N | | | FT | 9780 J | 2.2 | MG/KG |
| | SOIL | Lead | 6-30-TP-01-0506 | N | | | FT | 8.9 | 0.052 | MG/KG |
| | SOIL | Lead | 6-30-TP-01-1415 | N | | | FT | 6.1 | 0.051 | MG/KG |
| | SOIL | Lead 212 | 6-30-TP-01-0506 | N | | | FT | 0.66 | 0.15 | PCI/G |
| | SOIL | Lead 214 | 6-30-TP-01-0506 | N | | | FT | 0.77 | 0.14 | PCI/G |
| | SOIL | Magnesium | 6-30-TP-01-0506 | N | | | FT | 3540 J | 5.9 | MG/KG |
| | SOIL | Magnesium | 6-30-TP-01-1415 | N | | | FT | 3430 J | 5.7 | MG/KG |
| | SOIL | Manganese | 6-30-TP-01-0506 | N | | | FT | 225 J | 0.062 | MG/KG |
| | SOIL | Manganese | 6-30-TP-01-1415 | N | | | FT | 244 J | 0.061 | MG/KG |
| | SOIL | Molybdenum | 6-30-TP-01-0506 | N | | | FT | 0.45 J | 0.054 | MG/KG |
| | SOIL | Molybdenum | 6-30-TP-01-1415 | N | | | FT | 0.73 | 0.053 | MG/KG |
| | SOIL | Nickel | 6-30-TP-01-0506 | N | | | FT | 9.3 J | 0.052 | MG/KG |
| | SOIL | Nickel | 6-30-TP-01-1415 | N | | | FT | 10.5 J | 0.051 | MG/KG |
| | SOIL | Potassium | 6-30-TP-01-0506 | N | | | FT | 2310 J | 3.3 | MG/KG |
| | SOIL | Potassium | 6-30-TP-01-1415 | N | | | FT | 1130 J | 3.2 | MG/KG |
| | SOIL | Potassium 40 | 6-30-TP-01-0506 | N | | | FT | 18.4 | 0.6 | PCI/G |
| | SOIL | Radium (226) | 6-30-TP-01-0506 | N | | | FT | 0.77 J | 0.17 | PCI/G |
| | SOIL | Radium 228 | 6-30-TP-01-0506 | N | | | FT | 0.74 | 0.33 | PCI/G |
| | SOIL | Silver | 6-30-TP-01-0506 | N | | | FT | 0.044 J | 0.021 | MG/KG |
| | SOIL | Silver | 6-30-TP-01-1415 | N | | | FT | 0.026 J | 0.02 | MG/KG |
| | SOIL | Sodium | 6-30-TP-01-0506 | N | | | FT | 82.8 J | 8.9 | MG/KG |
| | SOIL | Sodium | 6-30-TP-01-1415 | N | | | FT | 99.3 J | 8.7 | MG/KG |
| | SOIL | Thallium | 6-30-TP-01-0506 | N | | | FT | 0.18 J | 0.072 | MG/KG |
| | SOIL | Thallium | 6-30-TP-01-1415 | N | | | FT | 0.18 J | 0.071 | MG/KG |
| | SOIL | Thallium 208 | 6-30-TP-01-0506 | N | | | FT | 0.243 | 0.07 | PCI/G |
| | SOIL | Thorium 228 | 6-30-TP-01-0506 | N | | | FT | 0.62 | 0.04 | PCI/G |
| | SOIL | Thorium 230 | 6-30-TP-01-0506 | N | | | FT | 0.52 J | 0.03 | PCI/G |
| | SOIL | Thorium 232 | 6-30-TP-01-0506 | N | | | FT | 0.62 | 0.03 | PCI/G |
| | SOIL | Uranium 233/234 | 6-30-TP-01-0506 | N | | | FT | 0.75 | 0.02 | PCI/G |
| | SOIL | Uranium 235/236 | 6-30-TP-01-0506 | N | | | FT | 0.055 J | 0.011 | PCI/G |
| | SOIL | Uranium 238 | 6-30-TP-01-0506 | N | | | FT | 0.7 | 0.02 | PCI/G |
| | SOIL | Vanadium | 6-30-TP-01-0506 | N | | | FT | 22.6 J | 0.24 | MG/KG |
| | SOIL | Vanadium | 6-30-TP-01-1415 | N | | | FT | 19 | 0.24 | MG/KG |
| | SOIL | Zinc | 6-30-TP-01-0506 | N | | | FT | 29.2 J | 0.54 | MG/KG |
| | SOIL | Zinc | 6-30-TP-01-1415 | N | | | FT | 25.3 J | 0.53 | MG/KG |
| **TP-02** | | | | | | | | | | |
| | SOIL | Actinium 228 | 6-30-TP-02-0203 | N | | | FT | 0.81 | 0.26 | PCI/G |
| | SOIL | Americium 241 | 6-30-TP-02-0203 | N | | | FT | 0.229 | 0.033 | PCI/G |
| | SOIL | Americium 241 | 6-30-TP-02-0203 | N | | | FT | 0.2 | 0.15 | PCI/G |
| | SOIL | Bismuth 214 | 6-30-TP-02-0203 | N | | | FT | 0.62 | 0.15 | PCI/G |

TABLE 3

Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Field ID | QAQC Type | Depth From | Depth To | Depth Units | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **TP-02** | | | | | | | | | | |
| | SOIL | Cesium 137 | 6-30-TP-02-0203 | N | | | FT | 3.52 | 0.1 | PCI/G |
| | SOIL | Gross Alpha | 6-30-TP-02-0203 | N | | | FT | 30.8 | 3.8 | PCI/G |
| | SOIL | Gross Beta | 6-30-TP-02-0203 | N | | | FT | 36.4 | 4.5 | PCI/G |
| | SOIL | Lead 212 | 6-30-TP-02-0203 | N | | | FT | 0.63 | 0.13 | PCI/G |
| | SOIL | Lead 214 | 6-30-TP-02-0203 | N | | | FT | 0.67 | 0.17 | PCI/G |
| | SOIL | Plutonium 239/40 | 6-30-TP-02-0203 | N | | | FT | 5.28 | 0.02 | PCI/G |
| | SOIL | Potassium 40 | 6-30-TP-02-0203 | N | | | FT | 15.3 | 0.1 | PCI/G |
| | SOIL | Radium (226) | 6-30-TP-02-0203 | N | | | FT | 0.62 J | 0.15 | PCI/G |
| | SOIL | Radium 228 | 6-30-TP-02-0203 | N | | | FT | 0.81 | 0.26 | PCI/G |
| | SOIL | Thallium 208 | 6-30-TP-02-0203 | N | | | FT | 0.229 | 0.063 | PCI/G |
| | SOIL | Thorium 228 | 6-30-TP-02-0203 | N | | | FT | 0.7 | 0.04 | PCI/G |
| | SOIL | Thorium 230 | 6-30-TP-02-0203 | N | | | FT | 0.62 J | 0.03 | PCI/G |
| | SOIL | Thorium 232 | 6-30-TP-02-0203 | N | | | FT | 0.61 | 0.02 | PCI/G |
| | SOIL | Uranium 233/234 | 6-30-TP-02-0203 | N | | | FT | 0.67 | 0.03 | PCI/G |
| | SOIL | Uranium 238 | 6-30-TP-02-0203 | N | | | FT | 0.65 | 0.009 | PCI/G |
| **TP-03** | | | | | | | | | | |
| | SOIL | Aluminum | 6-30-TP-03-0506 | N | | | FT | 5790 J | 2.1 | MG/KG |
| | SOIL | Aluminum | 6-30-TP-03-1516 | N | | | FT | 3660 J | 2 | MG/KG |
| | SOIL | Antimony | 6-30-TP-03-0506 | N | | | FT | 0.13 J | 0.056 | MG/KG |
| | SOIL | Antimony | 6-30-TP-03-1516 | N | | | FT | 0.086 J | 0.053 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-03-0506 | N | | | FT | 3.5 | 0.23 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-03-1516 | N | | | FT | 1.4 | 0.21 | MG/KG |
| | SOIL | Barium | 6-30-TP-03-0506 | N | | | FT | 137 | 0.37 | MG/KG |
| | SOIL | Barium | 6-30-TP-03-1516 | N | | | FT | 74.4 | 0.35 | MG/KG |
| | SOIL | Beryllium | 6-30-TP-03-0506 | N | | | FT | 0.33 | 0.027 | MG/KG |
| | SOIL | Beryllium | 6-30-TP-03-1516 | N | | | FT | 0.26 | 0.025 | MG/KG |
| | SOIL | Bismuth 214 | 6-30-TP-03-0506 | N | | | FT | 0.61 | 0.15 | PCI/G |
| | SOIL | Cadmium | 6-30-TP-03-0506 | N | | | FT | 0.095 | 0.0053 | MG/KG |
| | SOIL | Cadmium | 6-30-TP-03-1516 | N | | | FT | 0.073 | 0.005 | MG/KG |
| | SOIL | Calcium | 6-30-TP-03-0506 | N | | | FT | 37300 J | 10.7 | MG/KG |
| | SOIL | Calcium | 6-30-TP-03-1516 | N | | | FT | 21500 J | 10.1 | MG/KG |
| | SOIL | Chromium | 6-30-TP-03-0506 | N | | | FT | 6.9 J | 0.43 | MG/KG |
| | SOIL | Chromium | 6-30-TP-03-1516 | N | | | FT | 6.8 J | 0.4 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-03-0506 | N | | | FT | 4.9 J | 0.027 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-03-1516 | N | | | FT | 3.8 J | 0.025 | MG/KG |
| | SOIL | Copper | 6-30-TP-03-0506 | N | | | FT | 8.9 | 0.34 | MG/KG |
| | SOIL | Copper | 6-30-TP-03-1516 | N | | | FT | 6.4 | 0.32 | MG/KG |
| | SOIL | Gross Alpha | 6-30-TP-03-0506 | N | | | FT | 21.3 | 3.8 | PCI/G |
| | SOIL | Gross Beta | 6-30-TP-03-0506 | N | | | FT | 30.1 | 6.1 | PCI/G |
| | SOIL | Iron | 6-30-TP-03-0506 | N | | | FT | 9830 J | 2.4 | MG/KG |
| | SOIL | Iron | 6-30-TP-03-1516 | N | | | FT | 8610 J | 2.2 | MG/KG |
| | SOIL | Lead | 6-30-TP-03-0506 | N | | | FT | 6.4 | 0.053 | MG/KG |

TABLE 3

Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Field ID | QAQC Type | Depth From | Depth To | Depth Units | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **TP-03** | | | | | | | | | | |
| | SOIL | Lead | 6-30-TP-03-1516 | N | | | FT | 5 | 0.05 | MG/KG |
| | SOIL | Lead 212 | 6-30-TP-03-0506 | N | | | FT | 0.73 | 0.11 | PCI/G |
| | SOIL | Lead 214 | 6-30-TP-03-0506 | N | | | FT | 0.66 | 0.14 | PCI/G |
| | SOIL | Magnesium | 6-30-TP-03-0506 | N | | | FT | 3820 J | 6.1 | MG/KG |
| | SOIL | Magnesium | 6-30-TP-03-1516 | N | | | FT | 2980 J | 5.7 | MG/KG |
| | SOIL | Manganese | 6-30-TP-03-0506 | N | | | FT | 190 J | 0.064 | MG/KG |
| | SOIL | Manganese | 6-30-TP-03-1516 | N | | | FT | 165 J | 0.06 | MG/KG |
| | SOIL | Molybdenum | 6-30-TP-03-0506 | N | | | FT | 0.33 J | 0.056 | MG/KG |
| | SOIL | Molybdenum | 6-30-TP-03-1516 | N | | | FT | 0.28 J | 0.053 | MG/KG |
| | SOIL | Nickel | 6-30-TP-03-0506 | N | | | FT | 8.9 J | 0.053 | MG/KG |
| | SOIL | Nickel | 6-30-TP-03-1516 | N | | | FT | 8.3 J | 0.05 | MG/KG |
| | SOIL | Potassium | 6-30-TP-03-0506 | N | | | FT | 2160 J | 3.4 | MG/KG |
| | SOIL | Potassium | 6-30-TP-03-1516 | N | | | FT | 813 J | 3.2 | MG/KG |
| | SOIL | Potassium 40 | 6-30-TP-03-0506 | N | | | FT | 16.4 | 0.6 | PCI/G |
| | SOIL | Radium (226) | 6-30-TP-03-0506 | N | | | FT | 0.61 J | 0.15 | PCI/G |
| | SOIL | Silver | 6-30-TP-03-0506 | N | | | FT | 0.034 J | 0.021 | MG/KG |
| | SOIL | Thallium | 6-30-TP-03-0506 | N | | | FT | 0.084 J | 0.075 | MG/KG |
| | SOIL | Thallium 208 | 6-30-TP-03-0506 | N | | | FT | 0.231 | 0.1 | PCI/G |
| | SOIL | Thorium 228 | 6-30-TP-03-0506 | N | | | FT | 0.78 | 0.04 | PCI/G |
| | SOIL | Thorium 230 | 6-30-TP-03-0506 | N | | | FT | 0.87 J | 0.02 | PCI/G |
| | SOIL | Thorium 232 | 6-30-TP-03-0506 | N | | | FT | 0.76 | 0.03 | PCI/G |
| | SOIL | Uranium 233/234 | 6-30-TP-03-0506 | N | | | FT | 0.72 | 0.03 | PCI/G |
| | SOIL | Uranium 238 | 6-30-TP-03-0506 | N | | | FT | 0.74 | 0.02 | PCI/G |
| | SOIL | Vanadium | 6-30-TP-03-0506 | N | | | FT | 21.1 | 0.25 | MG/KG |
| | SOIL | Vanadium | 6-30-TP-03-1516 | N | | | FT | 14.5 | 0.24 | MG/KG |
| | SOIL | Zinc | 6-30-TP-03-0506 | N | | | FT | 26.6 J | 0.56 | MG/KG |
| | SOIL | Zinc | 6-30-TP-03-1516 | N | | | FT | 21 J | 0.52 | MG/KG |
| **TP-04** | | | | | | | | | | |
| | SOIL | Actinium 228 | 6-30-TP-04-0607 | N | | | FT | 0.66 | 0.34 | PCI/G |
| | SOIL | Aluminum | 6-30-TP-04-0607 | N | | | FT | 5930 J | 2.1 | MG/KG |
| | SOIL | Aluminum | 6-30-TP-04-1314 | N | | | FT | 6270 J | 2.1 | MG/KG |
| | SOIL | Antimony | 6-30-TP-04-0607 | N | | | FT | 0.13 J | 0.054 | MG/KG |
| | SOIL | Antimony | 6-30-TP-04-1314 | N | | | FT | 0.24 J | 0.054 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-04-0607 | N | | | FT | 3.3 | 0.22 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-04-1314 | N | | | FT | 3.3 | 0.22 | MG/KG |
| | SOIL | Barium | 6-30-TP-04-0607 | N | | | FT | 140 | 0.36 | MG/KG |
| | SOIL | Barium | 6-30-TP-04-1314 | N | | | FT | 280 J | 0.36 | MG/KG |
| | SOIL | Beryllium | 6-30-TP-04-0607 | N | | | FT | 0.37 | 0.026 | MG/KG |
| | SOIL | Beryllium | 6-30-TP-04-1314 | N | | | FT | 0.42 | 0.026 | MG/KG |
| | SOIL | Bismuth 214 | 6-30-TP-04-0607 | N | | | FT | 0.65 | 0.15 | PCI/G |
| | SOIL | Cadmium | 6-30-TP-04-0607 | N | | | FT | 0.082 | 0.0051 | MG/KG |
| | SOIL | Cadmium | 6-30-TP-04-1314 | N | | | FT | 0.091 | 0.0052 | MG/KG |

TABLE 3
Detects by Location
*Sorted by Location*

| Location | Matrix | Analyte | Field ID | QAQC Type | Depth From | Depth To | Depth Units | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **TP-04** | | | | | | | | | | |
| | SOIL | Calcium | 6-30-TP-04-0607 | N | | | FT | 27000 J | 10.3 | MG/KG |
| | SOIL | Calcium | 6-30-TP-04-1314 | N | | | FT | 24900 J | 10.3 | MG/KG |
| | SOIL | Chromium | 6-30-TP-04-0607 | N | | | FT | 7.8 | 0.41 | MG/KG |
| | SOIL | Chromium | 6-30-TP-04-1314 | N | | | FT | 11.7 J | 0.41 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-04-0607 | N | | | FT | 4.9 | 0.026 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-04-1314 | N | | | FT | 5.9 J | 0.026 | MG/KG |
| | SOIL | Copper | 6-30-TP-04-0607 | N | | | FT | 8.9 | 0.33 | MG/KG |
| | SOIL | Copper | 6-30-TP-04-1314 | N | | | FT | 10.3 J | 0.33 | MG/KG |
| | SOIL | Gross Alpha | 6-30-TP-04-0607 | N | | | FT | 19.5 | 3.3 | PCI/G |
| | SOIL | Gross Beta | 6-30-TP-04-0607 | N | | | FT | 27.8 J | 4.4 | PCI/G |
| | SOIL | Iron | 6-30-TP-04-0607 | N | | | FT | 10400 J | 2.3 | MG/KG |
| | SOIL | Iron | 6-30-TP-04-1314 | N | | | FT | 13600 J | 2.3 | MG/KG |
| | SOIL | Lead | 6-30-TP-04-0607 | N | | | FT | 7.5 J | 0.051 | MG/KG |
| | SOIL | Lead | 6-30-TP-04-1314 | N | | | FT | 7.9 J | 0.052 | MG/KG |
| | SOIL | Lead 212 | 6-30-TP-04-0607 | N | | | FT | 0.64 | 0.09 | PCI/G |
| | SOIL | Lead 214 | 6-30-TP-04-0607 | N | | | FT | 0.66 | 0.14 | PCI/G |
| | SOIL | Magnesium | 6-30-TP-04-0607 | N | | | FT | 4110 J | 5.8 | MG/KG |
| | SOIL | Magnesium | 6-30-TP-04-1314 | N | | | FT | 4740 J | 5.9 | MG/KG |
| | SOIL | Manganese | 6-30-TP-04-0607 | N | | | FT | 238 J | 0.062 | MG/KG |
| | SOIL | Manganese | 6-30-TP-04-1314 | N | | | FT | 290 J | 0.062 | MG/KG |
| | SOIL | Molybdenum | 6-30-TP-04-0607 | N | | | FT | 0.4 J | 0.054 | MG/KG |
| | SOIL | Molybdenum | 6-30-TP-04-1314 | N | | | FT | 0.72 | 0.054 | MG/KG |
| | SOIL | Nickel | 6-30-TP-04-0607 | N | | | FT | 9 J | 0.051 | MG/KG |
| | SOIL | Nickel | 6-30-TP-04-1314 | N | | | FT | 12.2 J | 0.052 | MG/KG |
| | SOIL | Potassium | 6-30-TP-04-0607 | N | | | FT | 1290 J | 3.3 | MG/KG |
| | SOIL | Potassium | 6-30-TP-04-1314 | N | | | FT | 1210 J | 3.3 | MG/KG |
| | SOIL | Potassium 40 | 6-30-TP-04-0607 | N | | | FT | 14.2 | 0.6 | PCI/G |
| | SOIL | Radium (226) | 6-30-TP-04-0607 | N | | | FT | 0.65 J | 0.15 | PCI/G |
| | SOIL | Radium 228 | 6-30-TP-04-0607 | N | | | FT | 0.66 J | 0.34 | PCI/G |
| | SOIL | Silver | 6-30-TP-04-0607 | N | | | FT | 0.037 J | 0.021 | MG/KG |
| | SOIL | Silver | 6-30-TP-04-1314 | N | | | FT | 0.035 J | 0.021 | MG/KG |
| | SOIL | Sodium | 6-30-TP-04-0607 | N | | | FT | 155 J | 8.8 | MG/KG |
| | SOIL | Sodium | 6-30-TP-04-1314 | N | | | FT | 131 J | 8.8 | MG/KG |
| | SOIL | Thallium | 6-30-TP-04-0607 | N | | | FT | 0.13 J | 0.072 | MG/KG |
| | SOIL | Thallium | 6-30-TP-04-1314 | N | | | FT | 0.14 J | 0.072 | MG/KG |
| | SOIL | Thallium 208 | 6-30-TP-04-0607 | N | | | FT | 0.169 | 0.076 | PCI/G |
| | SOIL | Thorium 228 | 6-30-TP-04-0607 | N | | | FT | 1 | 0.04 | PCI/G |
| | SOIL | Thorium 230 | 6-30-TP-04-0607 | N | | | FT | 0.87 | 0.04 | PCI/G |
| | SOIL | Thorium 232 | 6-30-TP-04-0607 | N | | | FT | 0.91 | 0.04 | PCI/G |
| | SOIL | Uranium 233/234 | 6-30-TP-04-0607 | N | | | FT | 0.72 | 0.05 | PCI/G |
| | SOIL | Uranium 235/236 | 6-30-TP-04-0607 | N | | | FT | 0.041 J | 0.036 | PCI/G |
| | SOIL | Uranium 238 | 6-30-TP-04-0607 | N | | | FT | 0.71 | 0.03 | PCI/G |

TABLE 3

Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Field ID | QAQC Type | Depth From | Depth To | Depth Units | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **TP-04** | | | | | | | | | | |
| | SOIL | Vanadium | 6-30-TP-04-0607 | N | | | FT | 20.4 | 0.24 | MG/KG |
| | SOIL | Vanadium | 6-30-TP-04-1314 | N | | | FT | 24.8 J | 0.24 | MG/KG |
| | SOIL | Zinc | 6-30-TP-04-0607 | N | | | FT | 26.6 J | 0.53 | MG/KG |
| | SOIL | Zinc | 6-30-TP-04-1314 | N | | | FT | 29.6 J | 0.54 | MG/KG |
| **TP-05** | | | | | | | | | | |
| | SOIL | Aluminum | 6-30-TP-05-0607 | N | | | FT | 6370 J | 2.1 | MG/KG |
| | SOIL | Aluminum | 6-30-TP-05-1314 | N | | | FT | 6150 J | 2.1 | MG/KG |
| | SOIL | Antimony | 6-30-TP-05-0607 | N | | | FT | 0.18 J | 0.054 | MG/KG |
| | SOIL | Antimony | 6-30-TP-05-1314 | N | | | FT | 0.14 J | 0.054 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-05-0607 | N | | | FT | 4.3 | 0.22 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-05-1314 | N | | | FT | 3.7 | 0.22 | MG/KG |
| | SOIL | Barium | 6-30-TP-05-0607 | N | | | FT | 149 | 0.36 | MG/KG |
| | SOIL | Barium | 6-30-TP-05-1314 | N | | | FT | 175 | 0.36 | MG/KG |
| | SOIL | Beryllium | 6-30-TP-05-0607 | N | | | FT | 0.41 | 0.026 | MG/KG |
| | SOIL | Beryllium | 6-30-TP-05-1314 | N | | | FT | 0.39 | 0.026 | MG/KG |
| | SOIL | Cadmium | 6-30-TP-05-0607 | N | | | FT | 0.17 | 0.0052 | MG/KG |
| | SOIL | Cadmium | 6-30-TP-05-1314 | N | | | FT | 0.1 | 0.0052 | MG/KG |
| | SOIL | Calcium | 6-30-TP-05-0607 | N | | | FT | 29600 J | 10.4 | MG/KG |
| | SOIL | Calcium | 6-30-TP-05-1314 | N | | | FT | 31000 J | 10.3 | MG/KG |
| | SOIL | Chromium | 6-30-TP-05-0607 | N | | | FT | 8.4 | 0.41 | MG/KG |
| | SOIL | Chromium | 6-30-TP-05-1314 | N | | | FT | 7.7 | 0.41 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-05-0607 | N | | | FT | 5.3 | 0.026 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-05-1314 | N | | | FT | 4.7 | 0.026 | MG/KG |
| | SOIL | Copper | 6-30-TP-05-0607 | N | | | FT | 9.1 | 0.33 | MG/KG |
| | SOIL | Copper | 6-30-TP-05-1314 | N | | | FT | 9.2 | 0.33 | MG/KG |
| | SOIL | Iron | 6-30-TP-05-0607 | N | | | FT | 11100 J | 2.3 | MG/KG |
| | SOIL | Iron | 6-30-TP-05-1314 | N | | | FT | 10300 J | 2.3 | MG/KG |
| | SOIL | Lead | 6-30-TP-05-0607 | N | | | FT | 9.4 J | 0.052 | MG/KG |
| | SOIL | Lead | 6-30-TP-05-1314 | N | | | FT | 7.9 J | 0.052 | MG/KG |
| | SOIL | Magnesium | 6-30-TP-05-0607 | N | | | FT | 4130 J | 5.9 | MG/KG |
| | SOIL | Magnesium | 6-30-TP-05-1314 | N | | | FT | 3770 J | 5.9 | MG/KG |
| | SOIL | Manganese | 6-30-TP-05-0607 | N | | | FT | 234 J | 0.062 | MG/KG |
| | SOIL | Manganese | 6-30-TP-05-1314 | N | | | FT | 215 J | 0.062 | MG/KG |
| | SOIL | Molybdenum | 6-30-TP-05-0607 | N | | | FT | 0.66 | 0.054 | MG/KG |
| | SOIL | Molybdenum | 6-30-TP-05-1314 | N | | | FT | 0.36 J | 0.054 | MG/KG |
| | SOIL | Nickel | 6-30-TP-05-0607 | N | | | FT | 9.4 J | 0.052 | MG/KG |
| | SOIL | Nickel | 6-30-TP-05-1314 | N | | | FT | 8.6 J | 0.052 | MG/KG |
| | SOIL | Potassium | 6-30-TP-05-0607 | N | | | FT | 1410 J | 3.3 | MG/KG |
| | SOIL | Potassium | 6-30-TP-05-1314 | N | | | FT | 1500 J | 3.3 | MG/KG |
| | SOIL | Silver | 6-30-TP-05-0607 | N | | | FT | 0.047 J | 0.021 | MG/KG |
| | SOIL | Silver | 6-30-TP-05-1314 | N | | | FT | 0.042 J | 0.021 | MG/KG |
| | SOIL | Sodium | 6-30-TP-05-0607 | N | | | FT | 93.1 J | 8.9 | MG/KG |

TABLE 3

Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Field ID | QAQC Type | Depth From | Depth To | Depth Units | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **TP-05** | | | | | | | | | | |
| | SOIL | Sodium | 6-30-TP-05-1314 | N | | | FT | 81.8 J | 8.9 | MG/KG |
| | SOIL | Thallium | 6-30-TP-05-0607 | N | | | FT | 0.12 J | 0.073 | MG/KG |
| | SOIL | Thallium | 6-30-TP-05-1314 | N | | | FT | 0.11 J | 0.072 | MG/KG |
| | SOIL | Vanadium | 6-30-TP-05-0607 | N | | | FT | 22.4 | 0.24 | MG/KG |
| | SOIL | Vanadium | 6-30-TP-05-1314 | N | | | FT | 20.9 | 0.24 | MG/KG |
| | SOIL | Zinc | 6-30-TP-05-0607 | N | | | FT | 30.9 J | 0.54 | MG/KG |
| | SOIL | Zinc | 6-30-TP-05-1314 | N | | | FT | 26.8 J | 0.54 | MG/KG |
| **TP-06** | | | | | | | | | | |
| | SOIL | Actinium 228 | 6-30-TP-06-1718 | N | | | FT | 0.92 | 0.4 | PCI/G |
| | SOIL | Aluminum | 6-30-TP-06-1718 | N | | | FT | 5920 J | 2.1 | MG/KG |
| | SOIL | Antimony | 6-30-TP-06-1718 | N | | | FT | 0.15 J | 0.055 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-06-1718 | N | | | FT | 3.9 | 0.22 | MG/KG |
| | SOIL | Barium | 6-30-TP-06-1718 | N | | | FT | 164 | 0.37 | MG/KG |
| | SOIL | Beryllium | 6-30-TP-06-1718 | N | | | FT | 0.38 | 0.026 | MG/KG |
| | SOIL | Bismuth 214 | 6-30-TP-06-1718 | N | | | FT | 0.73 | 0.16 | PCI/G |
| | SOIL | Cadmium | 6-30-TP-06-1718 | N | | | FT | 0.092 | 0.0052 | MG/KG |
| | SOIL | Calcium | 6-30-TP-06-1718 | N | | | FT | 30800 J | 10.5 | MG/KG |
| | SOIL | Chromium | 6-30-TP-06-1718 | N | | | FT | 7.5 | 0.42 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-06-1718 | N | | | FT | 4.6 | 0.026 | MG/KG |
| | SOIL | Copper | 6-30-TP-06-1718 | N | | | FT | 8.1 | 0.34 | MG/KG |
| | SOIL | Gross Alpha | 6-30-TP-06-1718 | N | | | FT | 21.5 | 3.6 | PCI/G |
| | SOIL | Gross Beta | 6-30-TP-06-1718 | N | | | FT | 30.6 | 5.9 | PCI/G |
| | SOIL | Iron | 6-30-TP-06-1718 | N | | | FT | 9730 J | 2.3 | MG/KG |
| | SOIL | Lead | 6-30-TP-06-1718 | N | | | FT | 8.4 J | 0.052 | MG/KG |
| | SOIL | Lead 212 | 6-30-TP-06-1718 | N | | | FT | 0.7 | 0.16 | PCI/G |
| | SOIL | Lead 214 | 6-30-TP-06-1718 | N | | | FT | 0.79 | 0.17 | PCI/G |
| | SOIL | Magnesium | 6-30-TP-06-1718 | N | | | FT | 3970 J | 5.9 | MG/KG |
| | SOIL | Manganese | 6-30-TP-06-1718 | N | | | FT | 189 J | 0.063 | MG/KG |
| | SOIL | Molybdenum | 6-30-TP-06-1718 | N | | | FT | 0.4 J | 0.055 | MG/KG |
| | SOIL | Nickel | 6-30-TP-06-1718 | N | | | FT | 8.8 J | 0.052 | MG/KG |
| | SOIL | Potassium | 6-30-TP-06-1718 | N | | | FT | 1390 J | 3.4 | MG/KG |
| | SOIL | Potassium 40 | 6-30-TP-06-1718 | N | | | FT | 14.2 | 1.1 | PCI/G |
| | SOIL | Radium (226) | 6-30-TP-06-1718 | N | | | FT | 0.73 J | 0.16 | PCI/G |
| | SOIL | Radium 228 | 6-30-TP-06-1718 | N | | | FT | 0.92 | 0.4 | PCI/G |
| | SOIL | Silver | 6-30-TP-06-1718 | N | | | FT | 0.042 J | 0.021 | MG/KG |
| | SOIL | Sodium | 6-30-TP-06-1718 | N | | | FT | 155 J | 9 | MG/KG |
| | SOIL | Thallium 208 | 6-30-TP-06-1718 | N | | | FT | 0.232 | 0.096 | PCI/G |
| | SOIL | Thorium 228 | 6-30-TP-06-1718 | N | | | FT | 0.88 | 0.04 | PCI/G |
| | SOIL | Thorium 230 | 6-30-TP-06-1718 | N | | | FT | 0.8 | 0.04 | PCI/G |
| | SOIL | Thorium 232 | 6-30-TP-06-1718 | N | | | FT | 0.85 | 0.04 | PCI/G |
| | SOIL | Uranium 233/234 | 6-30-TP-06-1718 | N | | | FT | 0.57 | 0.05 | PCI/G |
| | SOIL | Uranium 238 | 6-30-TP-06-1718 | N | | | FT | 0.59 | 0.05 | PCI/G |

TABLE 3

Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Field ID | QAQC Type | Depth From | Depth To | Depth Units | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **TP-06** | | | | | | | | | | |
| | SOIL | Vanadium | 6-30-TP-06-1718 | N | | | FT | 20.7 | 0.25 | MG/KG |
| | SOIL | Zinc | 6-30-TP-06-1718 | N | | | FT | 25 J | 0.55 | MG/KG |
| **TP-07** | | | | | | | | | | |
| | SOIL | Actinium 228 | 6-30-TP-07-0506 | N | | | FT | 0.8 | 0.43 | PCI/G |
| | SOIL | Aluminum | 6-30-TP-07-0506 | N | | | FT | 7610 J | 2.1 | MG/KG |
| | SOIL | Aluminum | 6-30-TP-07-1617 | N | | | FT | 4570 J | 2 | MG/KG |
| | SOIL | Antimony | 6-30-TP-07-0506 | N | | | FT | 0.14 J | 0.055 | MG/KG |
| | SOIL | Antimony | 6-30-TP-07-1617 | N | | | FT | 0.1 J | 0.053 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-07-0506 | N | | | FT | 3.6 | 0.22 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-07-1617 | N | | | FT | 2.2 | 0.22 | MG/KG |
| | SOIL | Barium | 6-30-TP-07-0506 | N | | | FT | 242 | 0.37 | MG/KG |
| | SOIL | Barium | 6-30-TP-07-1617 | N | | | FT | 72.5 | 0.35 | MG/KG |
| | SOIL | Beryllium | 6-30-TP-07-0506 | N | | | FT | 0.43 | 0.026 | MG/KG |
| | SOIL | Beryllium | 6-30-TP-07-1617 | N | | | FT | 0.33 | 0.025 | MG/KG |
| | SOIL | Bismuth 212 | 6-30-TP-07-0506 | N | | | FT | 0.72 | 0.63 | PCI/G |
| | SOIL | Bismuth 214 | 6-30-TP-07-0506 | N | | | FT | 0.76 | 0.14 | PCI/G |
| | SOIL | Cadmium | 6-30-TP-07-0506 | N | | | FT | 0.36 | 0.0052 | MG/KG |
| | SOIL | Cadmium | 6-30-TP-07-1617 | N | | | FT | 0.086 | 0.005 | MG/KG |
| | SOIL | Calcium | 6-30-TP-07-0506 | N | | | FT | 28700 J | 10.5 | MG/KG |
| | SOIL | Calcium | 6-30-TP-07-1617 | N | | | FT | 25700 J | 10.1 | MG/KG |
| | SOIL | Chromium | 6-30-TP-07-0506 | N | | | FT | 11.2 | 0.42 | MG/KG |
| | SOIL | Chromium | 6-30-TP-07-1617 | N | | | FT | 9.3 | 0.4 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-07-0506 | N | | | FT | 5.2 | 0.026 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-07-1617 | N | | | FT | 4.8 | 0.025 | MG/KG |
| | SOIL | Copper | 6-30-TP-07-0506 | N | | | FT | 32.1 | 0.33 | MG/KG |
| | SOIL | Copper | 6-30-TP-07-1617 | N | | | FT | 8.4 | 0.32 | MG/KG |
| | SOIL | Gross Alpha | 6-30-TP-07-0506 | N | | | FT | 28 | 3.8 | PCI/G |
| | SOIL | Gross Beta | 6-30-TP-07-0506 | N | | | FT | 33.3 | 4.6 | PCI/G |
| | SOIL | Iron | 6-30-TP-07-0506 | N | | | FT | 10300 J | 2.3 | MG/KG |
| | SOIL | Iron | 6-30-TP-07-1617 | N | | | FT | 11100 J | 2.2 | MG/KG |
| | SOIL | Lead | 6-30-TP-07-0506 | N | | | FT | 16.9 J | 0.052 | MG/KG |
| | SOIL | Lead | 6-30-TP-07-1617 | N | | | FT | 8.9 J | 0.05 | MG/KG |
| | SOIL | Lead 212 | 6-30-TP-07-0506 | N | | | FT | 0.63 | 0.15 | PCI/G |
| | SOIL | Lead 214 | 6-30-TP-07-0506 | N | | | FT | 0.77 | 0.15 | PCI/G |
| | SOIL | Magnesium | 6-30-TP-07-0506 | N | | | FT | 3860 J | 5.9 | MG/KG |
| | SOIL | Magnesium | 6-30-TP-07-1617 | N | | | FT | 3840 J | 5.7 | MG/KG |
| | SOIL | Manganese | 6-30-TP-07-0506 | N | | | FT | 210 J | 0.063 | MG/KG |
| | SOIL | Manganese | 6-30-TP-07-1617 | N | | | FT | 203 J | 0.061 | MG/KG |
| | SOIL | Molybdenum | 6-30-TP-07-0506 | N | | | FT | 0.4 J | 0.055 | MG/KG |
| | SOIL | Molybdenum | 6-30-TP-07-1617 | N | | | FT | 0.52 | 0.053 | MG/KG |
| | SOIL | Nickel | 6-30-TP-07-0506 | N | | | FT | 9.2 J | 0.052 | MG/KG |
| | SOIL | Nickel | 6-30-TP-07-1617 | N | | | FT | 9.9 J | 0.05 | MG/KG |

TABLE 3

Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Field ID | QAQC Type | Depth From | Depth To | Depth Units | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **TP-07** | | | | | | | | | | |
| | SOIL | Potassium | 6-30-TP-07-0506 | N | | | FT | 1160 J | 3.3 | MG/KG |
| | SOIL | Potassium | 6-30-TP-07-1617 | N | | | FT | 775 J | 3.2 | MG/KG |
| | SOIL | Potassium 40 | 6-30-TP-07-0506 | N | | | FT | 14.4 | 0.9 | PCI/G |
| | SOIL | Radium (226) | 6-30-TP-07-0506 | N | | | FT | 0.76 J | 0.14 | PCI/G |
| | SOIL | Radium 228 | 6-30-TP-07-0506 | N | | | FT | 0.8 | 0.43 | PCI/G |
| | SOIL | Silver | 6-30-TP-07-0506 | N | | | FT | 0.05 J | 0.021 | MG/KG |
| | SOIL | Silver | 6-30-TP-07-1617 | N | | | FT | 0.023 J | 0.02 | MG/KG |
| | SOIL | Sodium | 6-30-TP-07-0506 | N | | | FT | 312 J | 9 | MG/KG |
| | SOIL | Sodium | 6-30-TP-07-1617 | N | | | FT | 151 J | 8.7 | MG/KG |
| | SOIL | Thallium 208 | 6-30-TP-07-0506 | N | | | FT | 0.244 | 0.08 | PCI/G |
| | SOIL | Thorium 228 | 6-30-TP-07-0506 | N | | | FT | 0.88 | 0.06 | PCI/G |
| | SOIL | Thorium 230 | 6-30-TP-07-0506 | N | | | FT | 0.71 | 0.02 | PCI/G |
| | SOIL | Thorium 232 | 6-30-TP-07-0506 | N | | | FT | 0.79 | 0.02 | PCI/G |
| | SOIL | Uranium 233/234 | 6-30-TP-07-0506 | N | | | FT | 0.61 | 0.04 | PCI/G |
| | SOIL | Uranium 235/236 | 6-30-TP-07-0506 | N | | | FT | 0.025 J | 0.022 | PCI/G |
| | SOIL | Uranium 238 | 6-30-TP-07-0506 | N | | | FT | 0.63 | 0.03 | PCI/G |
| | SOIL | Vanadium | 6-30-TP-07-0506 | N | | | FT | 20.7 | 0.24 | MG/KG |
| | SOIL | Vanadium | 6-30-TP-07-1617 | N | | | FT | 19.4 | 0.24 | MG/KG |
| | SOIL | Zinc | 6-30-TP-07-0506 | N | | | FT | 119 J | 0.54 | MG/KG |
| | SOIL | Zinc | 6-30-TP-07-1617 | N | | | FT | 23.7 J | 0.53 | MG/KG |
| **TP-08** | | | | | | | | | | |
| | SOIL | Actinium 227 | 6-30-TP-08-1920 | N | | | FT | 0.53 | 0.5 | PCI/G |
| | SOIL | Actinium 228 | 6-30-TP-08-1920 | N | | | FT | 0.61 | 0.33 | PCI/G |
| | SOIL | Aluminum | 6-30-TP-08-1920 | N | | | FT | 5200 J | 2 | MG/KG |
| | SOIL | Antimony | 6-30-TP-08-1920 | N | | | FT | 0.13 J | 0.054 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-08-1920 | N | | | FT | 2.8 | 0.22 | MG/KG |
| | SOIL | Barium | 6-30-TP-08-1920 | N | | | FT | 103 | 0.36 | MG/KG |
| | SOIL | Beryllium | 6-30-TP-08-1920 | N | | | FT | 0.35 | 0.026 | MG/KG |
| | SOIL | Bismuth 212 | 6-30-TP-08-1920 | N | | | FT | 0.69 | 0.68 | PCI/G |
| | SOIL | Bismuth 214 | 6-30-TP-08-1920 | N | | | FT | 0.56 | 0.14 | PCI/G |
| | SOIL | Cadmium | 6-30-TP-08-1920 | N | | | FT | 0.091 | 0.0051 | MG/KG |
| | SOIL | Calcium | 6-30-TP-08-1920 | N | | | FT | 26400 J | 10.2 | MG/KG |
| | SOIL | Chromium | 6-30-TP-08-1920 | N | | | FT | 7.9 | 0.41 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-08-1920 | N | | | FT | 4.4 | 0.026 | MG/KG |
| | SOIL | Copper | 6-30-TP-08-1920 | N | | | FT | 7.8 | 0.33 | MG/KG |
| | SOIL | Gross Alpha | 6-30-TP-08-1920 | N | | | FT | 25.8 | 3.5 | PCI/G |
| | SOIL | Gross Beta | 6-30-TP-08-1920 | N | | | FT | 25.3 J | 4.2 | PCI/G |
| | SOIL | Iron | 6-30-TP-08-1920 | N | | | FT | 9060 J | 2.3 | MG/KG |
| | SOIL | Lead | 6-30-TP-08-1920 | N | | | FT | 7.6 J | 0.051 | MG/KG |
| | SOIL | Lead 212 | 6-30-TP-08-1920 | N | | | FT | 0.52 | 0.15 | PCI/G |
| | SOIL | Lead 214 | 6-30-TP-08-1920 | N | | | FT | 0.67 | 0.14 | PCI/G |
| | SOIL | Magnesium | 6-30-TP-08-1920 | N | | | FT | 3480 J | 5.8 | MG/KG |

TABLE 3

Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Field ID | QAQC Type | Depth From | Depth To | Depth Units | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **TP-08** | | | | | | | | | | |
| | SOIL | Manganese | 6-30-TP-08-1920 | N | | | FT | 183 J | 0.061 | MG/KG |
| | SOIL | Molybdenum | 6-30-TP-08-1920 | N | | | FT | 0.36 J | 0.054 | MG/KG |
| | SOIL | Nickel | 6-30-TP-08-1920 | N | | | FT | 8.3 J | 0.051 | MG/KG |
| | SOIL | Potassium | 6-30-TP-08-1920 | N | | | FT | 1000 J | 3.3 | MG/KG |
| | SOIL | Potassium 40 | 6-30-TP-08-1920 | N | | | FT | 13.1 | 0.8 | PCI/G |
| | SOIL | Radium (226) | 6-30-TP-08-1920 | N | | | FT | 0.56 J | 0.14 | PCI/G |
| | SOIL | Radium 228 | 6-30-TP-08-1920 | N | | | FT | 0.61 J | 0.33 | PCI/G |
| | SOIL | Silver | 6-30-TP-08-1920 | N | | | FT | 0.034 J | 0.02 | MG/KG |
| | SOIL | Sodium | 6-30-TP-08-1920 | N | | | FT | 74.4 J | 8.8 | MG/KG |
| | SOIL | Thallium 208 | 6-30-TP-08-1920 | N | | | FT | 0.189 | 0.077 | PCI/G |
| | SOIL | Thorium 228 | 6-30-TP-08-1920 | N | | | FT | 0.63 | 0.06 | PCI/G |
| | SOIL | Thorium 230 | 6-30-TP-08-1920 | N | | | FT | 0.73 | 0.05 | PCI/G |
| | SOIL | Thorium 232 | 6-30-TP-08-1920 | N | | | FT | 0.57 | 0.02 | PCI/G |
| | SOIL | Uranium 233/234 | 6-30-TP-08-1920 | N | | | FT | 0.62 | 0.05 | PCI/G |
| | SOIL | Uranium 235/236 | 6-30-TP-08-1920 | N | | | FT | 0.057 J | 0.039 | PCI/G |
| | SOIL | Uranium 238 | 6-30-TP-08-1920 | N | | | FT | 0.66 | 0.03 | PCI/G |
| | SOIL | Vanadium | 6-30-TP-08-1920 | N | | | FT | 18 | 0.24 | MG/KG |
| | SOIL | Zinc | 6-30-TP-08-1920 | N | | | FT | 21.4 J | 0.53 | MG/KG |
| **TP-09** | | | | | | | | | | |
| | SOIL | Actinium 228 | 6-30-TP-09-0708 | N | | | FT | 0.57 | 0.28 | PCI/G |
| | SOIL | Actinium 228 | 6-30-TP-09-2021 | N | | | FT | 0.46 | 0.21 | PCI/G |
| | SOIL | Aluminum | 6-30-TP-09-0708 | N | | | FT | 6550 J | 2.1 | MG/KG |
| | SOIL | Aluminum | 6-30-TP-09-2021 | N | | | FT | 5110 J | 2 | MG/KG |
| | SOIL | Antimony | 6-30-TP-09-0708 | N | | | FT | 0.12 J | 0.054 | MG/KG |
| | SOIL | Antimony | 6-30-TP-09-2021 | N | | | FT | 0.11 J | 0.053 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-09-0708 | N | | | FT | 3.2 | 0.22 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-09-2021 | N | | | FT | 2.7 | 0.22 | MG/KG |
| | SOIL | Barium | 6-30-TP-09-0708 | N | | | FT | 134 | 0.36 | MG/KG |
| | SOIL | Barium | 6-30-TP-09-2021 | N | | | FT | 108 | 0.36 | MG/KG |
| | SOIL | Barium-TCLP | 6-30-TP-09-2021 | N | | | FT | 567 J | 12.5 | UG/L |
| | SOIL | Beryllium | 6-30-TP-09-0708 | N | | | FT | 0.4 | 0.026 | MG/KG |
| | SOIL | Beryllium | 6-30-TP-09-2021 | N | | | FT | 0.34 | 0.026 | MG/KG |
| | SOIL | Bismuth 214 | 6-30-TP-09-0708 | N | | | FT | 0.69 | 0.14 | PCI/G |
| | SOIL | Bismuth 214 | 6-30-TP-09-2021 | N | | | FT | 0.61 | 0.12 | PCI/G |
| | SOIL | Cadmium | 6-30-TP-09-0708 | N | | | FT | 0.11 | 0.0052 | MG/KG |
| | SOIL | Cadmium | 6-30-TP-09-2021 | N | | | FT | 0.093 | 0.0051 | MG/KG |
| | SOIL | Calcium | 6-30-TP-09-0708 | N | | | FT | 26400 J | 10.4 | MG/KG |
| | SOIL | Calcium | 6-30-TP-09-2021 | N | | | FT | 25700 J | 10.2 | MG/KG |
| | SOIL | Chromium | 6-30-TP-09-0708 | N | | | FT | 8.5 | 0.41 | MG/KG |
| | SOIL | Chromium | 6-30-TP-09-2021 | N | | | FT | 8.4 | 0.41 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-09-0708 | N | | | FT | 5.4 | 0.026 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-09-2021 | N | | | FT | 4.8 | 0.025 | MG/KG |

TABLE 3
Detects by Location
*Sorted by Location*

| Location | Matrix | Analyte | Field ID | QAQC Type | Depth From | Depth To | Depth Units | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **TP-09** | | | | | | | | | | |
| | SOIL | Copper | 6-30-TP-09-0708 | N | | | FT | 9.9 | 0.33 | MG/KG |
| | SOIL | Copper | 6-30-TP-09-2021 | N | | | FT | 8.6 | 0.33 | MG/KG |
| | SOIL | Gross Alpha | 6-30-TP-09-0708 | N | | | FT | 26.3 | 4.4 | PCI/G |
| | SOIL | Gross Alpha | 6-30-TP-09-2021 | N | | | FT | 21.5 | 4.3 | PCI/G |
| | SOIL | Gross Beta | 6-30-TP-09-0708 | N | | | FT | 28.6 J | 4.6 | PCI/G |
| | SOIL | Gross Beta | 6-30-TP-09-2021 | N | | | FT | 27.5 J | 4.6 | PCI/G |
| | SOIL | Iron | 6-30-TP-09-0708 | N | | | FT | 10300 J | 2.3 | MG/KG |
| | SOIL | Iron | 6-30-TP-09-2021 | N | | | FT | 10900 J | 2.2 | MG/KG |
| | SOIL | Lead | 6-30-TP-09-0708 | N | | | FT | 8.2 J | 0.052 | MG/KG |
| | SOIL | Lead | 6-30-TP-09-2021 | N | | | FT | 9 J | 0.051 | MG/KG |
| | SOIL | Lead 212 | 6-30-TP-09-0708 | N | | | FT | 0.73 | 0.12 | PCI/G |
| | SOIL | Lead 212 | 6-30-TP-09-2021 | N | | | FT | 0.56 | 0.11 | PCI/G |
| | SOIL | Lead 214 | 6-30-TP-09-0708 | N | | | FT | 0.72 | 0.15 | PCI/G |
| | SOIL | Lead 214 | 6-30-TP-09-2021 | N | | | FT | 0.59 | 0.1 | PCI/G |
| | SOIL | Magnesium | 6-30-TP-09-0708 | N | | | FT | 4290 J | 5.9 | MG/KG |
| | SOIL | Magnesium | 6-30-TP-09-2021 | N | | | FT | 3780 J | 5.8 | MG/KG |
| | SOIL | Manganese | 6-30-TP-09-0708 | N | | | FT | 276 J | 0.062 | MG/KG |
| | SOIL | Manganese | 6-30-TP-09-2021 | N | | | FT | 219 J | 0.061 | MG/KG |
| | SOIL | Molybdenum | 6-30-TP-09-0708 | N | | | FT | 0.43 J | 0.054 | MG/KG |
| | SOIL | Molybdenum | 6-30-TP-09-2021 | N | | | FT | 0.54 | 0.053 | MG/KG |
| | SOIL | Nickel | 6-30-TP-09-0708 | N | | | FT | 11.2 J | 0.052 | MG/KG |
| | SOIL | Nickel | 6-30-TP-09-2021 | N | | | FT | 9 J | 0.051 | MG/KG |
| | SOIL | Potassium | 6-30-TP-09-0708 | N | | | FT | 1500 J | 3.3 | MG/KG |
| | SOIL | Potassium | 6-30-TP-09-2021 | N | | | FT | 998 J | 3.3 | MG/KG |
| | SOIL | Potassium 40 | 6-30-TP-09-0708 | N | | | FT | 14.3 | 0.9 | PCI/G |
| | SOIL | Potassium 40 | 6-30-TP-09-2021 | N | | | FT | 13.5 | 0.4 | PCI/G |
| | SOIL | Radium (226) | 6-30-TP-09-0708 | N | | | FT | 0.69 J | 0.14 | PCI/G |
| | SOIL | Radium (226) | 6-30-TP-09-2021 | N | | | FT | 0.61 J | 0.12 | PCI/G |
| | SOIL | Radium 228 | 6-30-TP-09-0708 | N | | | FT | 0.57 J | 0.28 | PCI/G |
| | SOIL | Radium 228 | 6-30-TP-09-2021 | N | | | FT | 0.46 J | 0.21 | PCI/G |
| | SOIL | Silver | 6-30-TP-09-0708 | N | | | FT | 0.042 J | 0.021 | MG/KG |
| | SOIL | Silver | 6-30-TP-09-2021 | N | | | FT | 0.033 J | 0.02 | MG/KG |
| | SOIL | Sodium | 6-30-TP-09-0708 | N | | | FT | 232 J | 8.9 | MG/KG |
| | SOIL | Sodium | 6-30-TP-09-2021 | N | | | FT | 120 J | 8.7 | MG/KG |
| | SOIL | Thallium | 6-30-TP-09-0708 | N | | | FT | 0.12 J | 0.072 | MG/KG |
| | SOIL | Thallium 208 | 6-30-TP-09-0708 | N | | | FT | 0.211 | 0.089 | PCI/G |
| | SOIL | Thallium 208 | 6-30-TP-09-2021 | N | | | FT | 0.191 | 0.056 | PCI/G |
| | SOIL | Thorium 228 | 6-30-TP-09-0708 | N | | | FT | 0.92 | 0.06 | PCI/G |
| | SOIL | Thorium 228 | 6-30-TP-09-2021 | N | | | FT | 0.89 | 0.04 | PCI/G |
| | SOIL | Thorium 230 | 6-30-TP-09-0708 | N | | | FT | 0.62 | 0.04 | PCI/G |
| | SOIL | Thorium 230 | 6-30-TP-09-2021 | N | | | FT | 0.68 | 0.05 | PCI/G |
| | SOIL | Thorium 232 | 6-30-TP-09-0708 | N | | | FT | 0.84 | 0.03 | PCI/G |

TABLE 3

Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Field ID | QAQC Type | Depth From | Depth To | Depth Units | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **TP-09** | | | | | | | | | | |
| | SOIL | Thorium 232 | 6-30-TP-09-2021 | N | | | FT | 0.82 | 0.03 | PCI/G |
| | SOIL | Uranium 233/234 | 6-30-TP-09-0708 | N | | | FT | 0.53 | 0.05 | PCI/G |
| | SOIL | Uranium 233/234 | 6-30-TP-09-2021 | N | | | FT | 0.88 | 0.05 | PCI/G |
| | SOIL | Uranium 235/236 | 6-30-TP-09-2021 | N | | | FT | 0.069 J | 0.037 | PCI/G |
| | SOIL | Uranium 238 | 6-30-TP-09-0708 | N | | | FT | 0.52 | 0.04 | PCI/G |
| | SOIL | Uranium 238 | 6-30-TP-09-2021 | N | | | FT | 0.7 | 0.04 | PCI/G |
| | SOIL | Vanadium | 6-30-TP-09-0708 | N | | | FT | 19.5 | 0.24 | MG/KG |
| | SOIL | Vanadium | 6-30-TP-09-2021 | N | | | FT | 19.5 | 0.24 | MG/KG |
| | SOIL | Zinc | 6-30-TP-09-0708 | N | | | FT | 27 J | 0.54 | MG/KG |
| | SOIL | Zinc | 6-30-TP-09-2021 | N | | | FT | 26.1 J | 0.53 | MG/KG |
| **TP-10** | | | | | | | | | | |
| | SOIL | Actinium 228 | 6-30-TP-10-0102 | N | | | FT | 0.76 | 0.33 | PCI/G |
| | SOIL | Aluminum | 6-30-TP-10-0102 | N | | | FT | 7690 J | 2.2 | MG/KG |
| | SOIL | Antimony | 6-30-TP-10-0102 | N | | | FT | 0.14 J | 0.057 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-10-0102 | N | | | FT | 3.6 | 0.23 | MG/KG |
| | SOIL | Barium | 6-30-TP-10-0102 | N | | | FT | 137 | 0.38 | MG/KG |
| | SOIL | Beryllium | 6-30-TP-10-0102 | N | | | FT | 0.47 | 0.027 | MG/KG |
| | SOIL | Bismuth 214 | 6-30-TP-10-0102 | N | | | FT | 0.74 | 0.12 | PCI/G |
| | SOIL | Cadmium | 6-30-TP-10-0102 | N | | | FT | 0.094 | 0.0054 | MG/KG |
| | SOIL | Calcium | 6-30-TP-10-0102 | N | | | FT | 13800 J | 10.8 | MG/KG |
| | SOIL | Chromium | 6-30-TP-10-0102 | N | | | FT | 9.2 | 0.43 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-10-0102 | N | | | FT | 5.7 | 0.027 | MG/KG |
| | SOIL | Copper | 6-30-TP-10-0102 | N | | | FT | 10.3 | 0.35 | MG/KG |
| | SOIL | Gross Alpha | 6-30-TP-10-0102 | N | | | FT | 20 | 4.4 | PCI/G |
| | SOIL | Gross Beta | 6-30-TP-10-0102 | N | | | FT | 28.8 J | 5.4 | PCI/G |
| | SOIL | Iron | 6-30-TP-10-0102 | N | | | FT | 11300 J | 2.4 | MG/KG |
| | SOIL | Lead | 6-30-TP-10-0102 | N | | | FT | 9.2 J | 0.054 | MG/KG |
| | SOIL | Lead 212 | 6-30-TP-10-0102 | N | | | FT | 0.62 | 0.18 | PCI/G |
| | SOIL | Lead 214 | 6-30-TP-10-0102 | N | | | FT | 0.74 | 0.13 | PCI/G |
| | SOIL | Magnesium | 6-30-TP-10-0102 | N | | | FT | 3810 J | 6.1 | MG/KG |
| | SOIL | Manganese | 6-30-TP-10-0102 | N | | | FT | 249 J | 0.065 | MG/KG |
| | SOIL | Mercury | 6-30-TP-10-0102 | N | | | FT | 0.015 J | 0.0072 | MG/KG |
| | SOIL | Molybdenum | 6-30-TP-10-0102 | N | | | FT | 0.44 J | 0.057 | MG/KG |
| | SOIL | Nickel | 6-30-TP-10-0102 | N | | | FT | 10 J | 0.054 | MG/KG |
| | SOIL | Potassium | 6-30-TP-10-0102 | N | | | FT | 1630 J | 3.5 | MG/KG |
| | SOIL | Potassium 40 | 6-30-TP-10-0102 | N | | | FT | 15.1 | 0.8 | PCI/G |
| | SOIL | Radium (226) | 6-30-TP-10-0102 | N | | | FT | 0.74 J | 0.12 | PCI/G |
| | SOIL | Radium 228 | 6-30-TP-10-0102 | N | | | FT | 0.76 | 0.33 | PCI/G |
| | SOIL | Silver | 6-30-TP-10-0102 | N | | | FT | 0.072 J | 0.022 | MG/KG |
| | SOIL | Sodium | 6-30-TP-10-0102 | N | | | FT | 197 J | 9.3 | MG/KG |
| | SOIL | Thallium | 6-30-TP-10-0102 | N | | | FT | 0.11 J | 0.076 | MG/KG |
| | SOIL | Thallium 208 | 6-30-TP-10-0102 | N | | | FT | 0.21 | 0.082 | PCI/G |

TABLE 3

Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Field ID | QAQC Type | Depth From | Depth To | Depth Units | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **TP-10** | | | | | | | | | | |
| | SOIL | Thorium 228 | 6-30-TP-10-0102 | N | | | FT | 0.85 | 0.04 | PCI/G |
| | SOIL | Thorium 230 | 6-30-TP-10-0102 | N | | | FT | 0.71 | 0.04 | PCI/G |
| | SOIL | Thorium 232 | 6-30-TP-10-0102 | N | | | FT | 0.8 | 0.03 | PCI/G |
| | SOIL | Uranium 233/234 | 6-30-TP-10-0102 | N | | | FT | 0.74 | 0.03 | PCI/G |
| | SOIL | Uranium 235/236 | 6-30-TP-10-0102 | N | | | FT | 0.058 J | 0.036 | PCI/G |
| | SOIL | Uranium 238 | 6-30-TP-10-0102 | N | | | FT | 0.64 | 0.04 | PCI/G |
| | SOIL | Vanadium | 6-30-TP-10-0102 | N | | | FT | 20.8 | 0.25 | MG/KG |
| | SOIL | Zinc | 6-30-TP-10-0102 | N | | | FT | 27 J | 0.56 | MG/KG |
| **TP-11** | | | | | | | | | | |
| | SOIL | Actinium 228 | 6-30-TP-11-0910 | N | | | FT | 0.94 | 0.31 | PCI/G |
| | SOIL | Actinium 228 | 6-30-TP-11-1516 | N | | | FT | 0.94 | 0.8 | PCI/G |
| | SOIL | Aluminum | 6-30-TP-11-0910 | N | | | FT | 6840 J | 2.1 | MG/KG |
| | SOIL | Aluminum | 6-30-TP-11-1516 | N | | | FT | 5780 J | 2.1 | MG/KG |
| | SOIL | Antimony | 6-30-TP-11-0910 | N | | | FT | 0.19 J | 0.054 | MG/KG |
| | SOIL | Antimony | 6-30-TP-11-1516 | N | | | FT | 0.15 J | 0.054 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-11-0910 | N | | | FT | 4 | 0.22 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-11-1516 | N | | | FT | 3.3 | 0.22 | MG/KG |
| | SOIL | Barium | 6-30-TP-11-0910 | N | | | FT | 175 | 0.36 | MG/KG |
| | SOIL | Barium | 6-30-TP-11-1516 | N | | | FT | 138 | 0.36 | MG/KG |
| | SOIL | Barium-TCLP | 6-30-TP-11-0910 | N | | | FT | 1090 J | 12.5 | UG/L |
| | SOIL | Barium-TCLP | 6-30-TP-11-1516 | N | | | FT | 662 J | 12.5 | UG/L |
| | SOIL | Beryllium | 6-30-TP-11-0910 | N | | | FT | 0.41 | 0.026 | MG/KG |
| | SOIL | Beryllium | 6-30-TP-11-1516 | N | | | FT | 0.38 | 0.026 | MG/KG |
| | SOIL | Bismuth 214 | 6-30-TP-11-0910 | N | | | FT | 0.77 | 0.18 | PCI/G |
| | SOIL | Bismuth 214 | 6-30-TP-11-1516 | N | | | FT | 0.78 | 0.18 | PCI/G |
| | SOIL | Cadmium | 6-30-TP-11-0910 | N | | | FT | 0.14 | 0.0052 | MG/KG |
| | SOIL | Cadmium | 6-30-TP-11-1516 | N | | | FT | 0.099 | 0.0052 | MG/KG |
| | SOIL | Calcium | 6-30-TP-11-0910 | N | | | FT | 23700 J | 10.3 | MG/KG |
| | SOIL | Calcium | 6-30-TP-11-1516 | N | | | FT | 28500 J | 10.3 | MG/KG |
| | SOIL | Chromium | 6-30-TP-11-0910 | N | | | FT | 9 | 0.41 | MG/KG |
| | SOIL | Chromium | 6-30-TP-11-1516 | N | | | FT | 8.6 | 0.41 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-11-0910 | N | | | FT | 5.3 | 0.026 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-11-1516 | N | | | FT | 4.5 | 0.026 | MG/KG |
| | SOIL | Copper | 6-30-TP-11-0910 | N | | | FT | 9.4 | 0.33 | MG/KG |
| | SOIL | Copper | 6-30-TP-11-1516 | N | | | FT | 7.9 | 0.33 | MG/KG |
| | SOIL | Gross Alpha | 6-30-TP-11-0910 | N | | | FT | 27.4 | 3.9 | PCI/G |
| | SOIL | Gross Alpha | 6-30-TP-11-1516 | N | | | FT | 18.2 | 3.8 | PCI/G |
| | SOIL | Gross Beta | 6-30-TP-11-0910 | N | | | FT | 29.3 J | 5.4 | PCI/G |
| | SOIL | Gross Beta | 6-30-TP-11-1516 | N | | | FT | 27.2 J | 5 | PCI/G |
| | SOIL | Iron | 6-30-TP-11-0910 | N | | | FT | 10800 J | 2.3 | MG/KG |
| | SOIL | Iron | 6-30-TP-11-1516 | N | | | FT | 9820 J | 2.3 | MG/KG |
| | SOIL | Lead | 6-30-TP-11-0910 | N | | | FT | 40.5 J | 0.052 | MG/KG |

TABLE 3

Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Field ID | QAQC Type | Depth From | Depth To | Depth Units | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **TP-11** | | | | | | | | | | |
| | SOIL | Lead | 6-30-TP-11-1516 | N | | | FT | 7.3 J | 0.052 | MG/KG |
| | SOIL | Lead 212 | 6-30-TP-11-0910 | N | | | FT | 0.99 | 0.12 | PCI/G |
| | SOIL | Lead 212 | 6-30-TP-11-1516 | N | | | FT | 0.81 | 0.13 | PCI/G |
| | SOIL | Lead 214 | 6-30-TP-11-0910 | N | | | FT | 0.84 | 0.15 | PCI/G |
| | SOIL | Lead 214 | 6-30-TP-11-1516 | N | | | FT | 0.88 | 0.19 | PCI/G |
| | SOIL | Magnesium | 6-30-TP-11-0910 | N | | | FT | 3790 J | 5.8 | MG/KG |
| | SOIL | Magnesium | 6-30-TP-11-1516 | N | | | FT | 3730 J | 5.9 | MG/KG |
| | SOIL | Manganese | 6-30-TP-11-0910 | N | | | FT | 218 J | 0.062 | MG/KG |
| | SOIL | Manganese | 6-30-TP-11-1516 | N | | | FT | 187 J | 0.062 | MG/KG |
| | SOIL | Mercury | 6-30-TP-11-0910 | N | | | FT | 0.013 J | 0.0069 | MG/KG |
| | SOIL | Mercury | 6-30-TP-11-0910 | N | | | FT | 0.013 J | 0.0069 | MG/KG |
| | SOIL | Molybdenum | 6-30-TP-11-0910 | N | | | FT | 0.51 J | 0.054 | MG/KG |
| | SOIL | Molybdenum | 6-30-TP-11-1516 | N | | | FT | 0.54 | 0.054 | MG/KG |
| | SOIL | Nickel | 6-30-TP-11-0910 | N | | | FT | 9.5 J | 0.052 | MG/KG |
| | SOIL | Nickel | 6-30-TP-11-1516 | N | | | FT | 9.1 J | 0.052 | MG/KG |
| | SOIL | Potassium | 6-30-TP-11-0910 | N | | | FT | 1390 J | 3.3 | MG/KG |
| | SOIL | Potassium | 6-30-TP-11-1516 | N | | | FT | 1250 J | 3.3 | MG/KG |
| | SOIL | Potassium 40 | 6-30-TP-11-0910 | N | | | FT | 17.1 | 0.9 | PCI/G |
| | SOIL | Potassium 40 | 6-30-TP-11-1516 | N | | | FT | 13.4 | 1.2 | PCI/G |
| | SOIL | Radium (226) | 6-30-TP-11-0910 | N | | | FT | 0.77 J | 0.18 | PCI/G |
| | SOIL | Radium (226) | 6-30-TP-11-1516 | N | | | FT | 0.78 J | 0.18 | PCI/G |
| | SOIL | Radium 228 | 6-30-TP-11-0910 | N | | | FT | 0.94 | 0.31 | PCI/G |
| | SOIL | Radium 228 | 6-30-TP-11-1516 | N | | | FT | 0.94 | 0.8 | PCI/G |
| | SOIL | Silver | 6-30-TP-11-0910 | N | | | FT | 0.054 J | 0.021 | MG/KG |
| | SOIL | Silver | 6-30-TP-11-1516 | N | | | FT | 0.037 J | 0.021 | MG/KG |
| | SOIL | Sodium | 6-30-TP-11-0910 | N | | | FT | 55.4 J | 8.8 | MG/KG |
| | SOIL | Sodium | 6-30-TP-11-1516 | N | | | FT | 90 J | 8.9 | MG/KG |
| | SOIL | Thallium 208 | 6-30-TP-11-0910 | N | | | FT | 0.288 | 0.098 | PCI/G |
| | SOIL | Thallium 208 | 6-30-TP-11-1516 | N | | | FT | 0.29 | 0.092 | PCI/G |
| | SOIL | Thorium 228 | 6-30-TP-11-0910 | N | | | FT | 1.07 | 0.04 | PCI/G |
| | SOIL | Thorium 228 | 6-30-TP-11-1516 | N | | | FT | 1.13 | 0.04 | PCI/G |
| | SOIL | Thorium 230 | 6-30-TP-11-0910 | N | | | FT | 0.87 | 0.03 | PCI/G |
| | SOIL | Thorium 230 | 6-30-TP-11-1516 | N | | | FT | 1.03 | 0.02 | PCI/G |
| | SOIL | Thorium 232 | 6-30-TP-11-0910 | N | | | FT | 1.02 | 0.02 | PCI/G |
| | SOIL | Thorium 232 | 6-30-TP-11-1516 | N | | | FT | 0.95 | 0.03 | PCI/G |
| | SOIL | Uranium 233/234 | 6-30-TP-11-0910 | N | | | FT | 0.83 | 0.03 | PCI/G |
| | SOIL | Uranium 233/234 | 6-30-TP-11-1516 | N | | | FT | 0.84 | 0.05 | PCI/G |
| | SOIL | Uranium 238 | 6-30-TP-11-0910 | N | | | FT | 0.71 | 0.02 | PCI/G |
| | SOIL | Uranium 238 | 6-30-TP-11-1516 | N | | | FT | 0.83 | 0.03 | PCI/G |
| | SOIL | Vanadium | 6-30-TP-11-0910 | N | | | FT | 20.9 | 0.24 | MG/KG |
| | SOIL | Vanadium | 6-30-TP-11-1516 | N | | | FT | 19 | 0.24 | MG/KG |
| | SOIL | Zinc | 6-30-TP-11-0910 | N | | | FT | 30.4 J | 0.54 | MG/KG |

TABLE 3

Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Field ID | QAQC Type | Depth From | Depth To | Depth Units | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **TP-11** | | | | | | | | | | |
| | SOIL | Zinc | 6-30-TP-11-1516 | N | | | FT | 26.1 J | 0.54 | MG/KG |
| **TP-12** | | | | | | | | | | |
| | SOIL | Actinium 228 | 6-30-TP-12-0708 | N | | | FT | 0.93 | 0.37 | PCI/G |
| | SOIL | Actinium 228 | 6-30-TP-12-1819 | N | | | FT | 0.67 | 0.39 | PCI/G |
| | SOIL | Actinium 228 | 6-30-TP-1299-0708 | FD | | | FT | 0.94 | 0.35 | PCI/G |
| | SOIL | Aluminum | 6-30-TP-12-0708 | N | | | FT | 5550 J | 2.1 | MG/KG |
| | SOIL | Aluminum | 6-30-TP-12-1819 | N | | | FT | 4950 J | 2 | MG/KG |
| | SOIL | Aluminum | 6-30-TP-1299-0708 | FD | | | FT | 5760 J | 2 | MG/KG |
| | SOIL | Americium 241 | 6-30-TP-1299-0708 | FD | | | FT | 0.109 | 0.046 | PCI/G |
| | SOIL | Antimony | 6-30-TP-12-0708 | N | | | FT | 0.26 J | 0.054 | MG/KG |
| | SOIL | Antimony | 6-30-TP-12-1819 | N | | | FT | 0.077 J | 0.053 | MG/KG |
| | SOIL | Antimony | 6-30-TP-1299-0708 | FD | | | FT | 0.13 J | 0.053 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-12-0708 | N | | | FT | 4.3 | 0.22 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-12-1819 | N | | | FT | 1.9 | 0.22 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-1299-0708 | FD | | | FT | 3.3 | 0.22 | MG/KG |
| | SOIL | Barium | 6-30-TP-12-0708 | N | | | FT | 88.7 | 0.36 | MG/KG |
| | SOIL | Barium | 6-30-TP-12-1819 | N | | | FT | 117 | 0.35 | MG/KG |
| | SOIL | Barium | 6-30-TP-1299-0708 | FD | | | FT | 109 | 0.36 | MG/KG |
| | SOIL | Beryllium | 6-30-TP-12-0708 | N | | | FT | 0.35 | 0.026 | MG/KG |
| | SOIL | Beryllium | 6-30-TP-12-1819 | N | | | FT | 0.27 | 0.025 | MG/KG |
| | SOIL | Beryllium | 6-30-TP-1299-0708 | FD | | | FT | 0.38 | 0.026 | MG/KG |
| | SOIL | Bismuth 214 | 6-30-TP-12-0708 | N | | | FT | 0.86 | 0.15 | PCI/G |
| | SOIL | Bismuth 214 | 6-30-TP-12-1819 | N | | | FT | 0.6 | 0.15 | PCI/G |
| | SOIL | Bismuth 214 | 6-30-TP-1299-0708 | FD | | | FT | 0.71 | 0.19 | PCI/G |
| | SOIL | Cadmium | 6-30-TP-12-0708 | N | | | FT | 0.081 | 0.0052 | MG/KG |
| | SOIL | Cadmium | 6-30-TP-12-1819 | N | | | FT | 0.064 | 0.0051 | MG/KG |
| | SOIL | Cadmium | 6-30-TP-1299-0708 | FD | | | FT | 0.092 | 0.0051 | MG/KG |
| | SOIL | Calcium | 6-30-TP-12-0708 | N | | | FT | 24500 J | 10.3 | MG/KG |
| | SOIL | Calcium | 6-30-TP-12-1819 | N | | | FT | 14600 J | 10.1 | MG/KG |
| | SOIL | Calcium | 6-30-TP-1299-0708 | FD | | | FT | 24100 J | 10.2 | MG/KG |
| | SOIL | Chromium | 6-30-TP-12-0708 | N | | | FT | 7.7 | 0.41 | MG/KG |
| | SOIL | Chromium | 6-30-TP-12-1819 | N | | | FT | 11.9 | 0.4 | MG/KG |
| | SOIL | Chromium | 6-30-TP-1299-0708 | FD | | | FT | 7.4 | 0.41 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-12-0708 | N | | | FT | 4.4 | 0.026 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-12-1819 | N | | | FT | 6.3 | 0.025 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-1299-0708 | FD | | | FT | 4.7 | 0.025 | MG/KG |
| | SOIL | Copper | 6-30-TP-12-0708 | N | | | FT | 7.4 | 0.33 | MG/KG |
| | SOIL | Copper | 6-30-TP-12-1819 | N | | | FT | 9 | 0.32 | MG/KG |
| | SOIL | Copper | 6-30-TP-1299-0708 | FD | | | FT | 7.9 | 0.33 | MG/KG |
| | SOIL | Gross Alpha | 6-30-TP-12-0708 | N | | | FT | 23.5 | 4.8 | PCI/G |
| | SOIL | Gross Alpha | 6-30-TP-12-1819 | N | | | FT | 18.1 | 3.7 | PCI/G |
| | SOIL | Gross Alpha | 6-30-TP-1299-0708 | FD | | | FT | 29.7 | 3.1 | PCI/G |

TABLE 3

Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Field ID | QAQC Type | Depth From | Depth To | Depth Units | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **TP-12** | | | | | | | | | | |
| | SOIL | Gross Beta | 6-30-TP-12-0708 | N | | | FT | 36.2 | 7.3 | PCI/G |
| | SOIL | Gross Beta | 6-30-TP-12-1819 | N | | | FT | 28.8 J | 4.8 | PCI/G |
| | SOIL | Gross Beta | 6-30-TP-1299-0708 | FD | | | FT | 31.6 | 5.1 | PCI/G |
| | SOIL | Iron | 6-30-TP-12-0708 | N | | | FT | 8880 J | 2.3 | MG/KG |
| | SOIL | Iron | 6-30-TP-12-1819 | N | | | FT | 11200 J | 2.2 | MG/KG |
| | SOIL | Iron | 6-30-TP-1299-0708 | FD | | | FT | 9270 J | 2.2 | MG/KG |
| | SOIL | Lead | 6-30-TP-12-0708 | N | | | FT | 6.3 J | 0.052 | MG/KG |
| | SOIL | Lead | 6-30-TP-12-1819 | N | | | FT | 6.2 J | 0.051 | MG/KG |
| | SOIL | Lead | 6-30-TP-1299-0708 | FD | | | FT | 6.9 J | 0.051 | MG/KG |
| | SOIL | Lead 212 | 6-30-TP-12-0708 | N | | | FT | 0.84 | 0.19 | PCI/G |
| | SOIL | Lead 212 | 6-30-TP-12-1819 | N | | | FT | 0.73 | 0.14 | PCI/G |
| | SOIL | Lead 212 | 6-30-TP-1299-0708 | FD | | | FT | 0.74 | 0.17 | PCI/G |
| | SOIL | Lead 214 | 6-30-TP-12-0708 | N | | | FT | 0.83 | 0.16 | PCI/G |
| | SOIL | Lead 214 | 6-30-TP-12-1819 | N | | | FT | 0.64 | 0.13 | PCI/G |
| | SOIL | Lead 214 | 6-30-TP-1299-0708 | FD | | | FT | 0.76 | 0.15 | PCI/G |
| | SOIL | Magnesium | 6-30-TP-12-0708 | N | | | FT | 3460 J | 5.8 | MG/KG |
| | SOIL | Magnesium | 6-30-TP-12-1819 | N | | | FT | 4210 J | 5.7 | MG/KG |
| | SOIL | Magnesium | 6-30-TP-1299-0708 | FD | | | FT | 3400 J | 5.8 | MG/KG |
| | SOIL | Manganese | 6-30-TP-12-0708 | N | | | FT | 177 J | 0.062 | MG/KG |
| | SOIL | Manganese | 6-30-TP-12-1819 | N | | | FT | 205 J | 0.061 | MG/KG |
| | SOIL | Manganese | 6-30-TP-1299-0708 | FD | | | FT | 190 J | 0.061 | MG/KG |
| | SOIL | Molybdenum | 6-30-TP-12-0708 | N | | | FT | 0.29 J | 0.054 | MG/KG |
| | SOIL | Molybdenum | 6-30-TP-12-1819 | N | | | FT | 0.27 J | 0.053 | MG/KG |
| | SOIL | Molybdenum | 6-30-TP-1299-0708 | FD | | | FT | 0.3 J | 0.053 | MG/KG |
| | SOIL | Nickel | 6-30-TP-12-0708 | N | | | FT | 8.7 J | 0.052 | MG/KG |
| | SOIL | Nickel | 6-30-TP-12-1819 | N | | | FT | 11.2 J | 0.051 | MG/KG |
| | SOIL | Nickel | 6-30-TP-1299-0708 | FD | | | FT | 8.3 J | 0.051 | MG/KG |
| | SOIL | Potassium | 6-30-TP-12-0708 | N | | | FT | 1100 J | 3.3 | MG/KG |
| | SOIL | Potassium | 6-30-TP-12-1819 | N | | | FT | 1020 J | 3.2 | MG/KG |
| | SOIL | Potassium | 6-30-TP-1299-0708 | FD | | | FT | 1160 J | 3.3 | MG/KG |
| | SOIL | Potassium 40 | 6-30-TP-12-0708 | N | | | FT | 17.8 | 0.7 | PCI/G |
| | SOIL | Potassium 40 | 6-30-TP-12-1819 | N | | | FT | 16.8 | 0.8 | PCI/G |
| | SOIL | Potassium 40 | 6-30-TP-1299-0708 | FD | | | FT | 16.7 | 0.2 | PCI/G |
| | SOIL | Radium (226) | 6-30-TP-12-0708 | N | | | FT | 0.86 J | 0.15 | PCI/G |
| | SOIL | Radium (226) | 6-30-TP-12-1819 | N | | | FT | 0.6 J | 0.15 | PCI/G |
| | SOIL | Radium (226) | 6-30-TP-1299-0708 | FD | | | FT | 0.71 J | 0.19 | PCI/G |
| | SOIL | Radium 228 | 6-30-TP-12-0708 | N | | | FT | 0.93 | 0.37 | PCI/G |
| | SOIL | Radium 228 | 6-30-TP-12-1819 | N | | | FT | 0.67 J | 0.39 | PCI/G |
| | SOIL | Radium 228 | 6-30-TP-1299-0708 | FD | | | FT | 0.94 | 0.35 | PCI/G |
| | SOIL | Silver | 6-30-TP-12-0708 | N | | | FT | 0.041 J | 0.021 | MG/KG |
| | SOIL | Silver | 6-30-TP-12-1819 | N | | | FT | 0.023 J | 0.02 | MG/KG |
| | SOIL | Silver | 6-30-TP-1299-0708 | FD | | | FT | 0.046 J | 0.02 | MG/KG |

TABLE 3
Detects by Location
*Sorted by Location*

| Location | Matrix | Analyte | Field ID | QAQC Type | Depth From | Depth To | Depth Units | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **TP-12** | | | | | | | | | | |
| | SOIL | Sodium | 6-30-TP-12-0708 | N | | | FT | 213 J | 8.8 | MG/KG |
| | SOIL | Sodium | 6-30-TP-12-1819 | N | | | FT | 175 J | 8.7 | MG/KG |
| | SOIL | Sodium | 6-30-TP-1299-0708 | FD | | | FT | 219 J | 8.7 | MG/KG |
| | SOIL | Thallium 208 | 6-30-TP-12-0708 | N | | | FT | 0.316 | 0.094 | PCI/G |
| | SOIL | Thallium 208 | 6-30-TP-12-1819 | N | | | FT | 0.222 | 0.086 | PCI/G |
| | SOIL | Thallium 208 | 6-30-TP-1299-0708 | FD | | | FT | 0.39 | 0.08 | PCI/G |
| | SOIL | Thorium 228 | 6-30-TP-12-0708 | N | | | FT | 1.02 | 0.03 | PCI/G |
| | SOIL | Thorium 228 | 6-30-TP-12-1819 | N | | | FT | 0.84 | 0.03 | PCI/G |
| | SOIL | Thorium 228 | 6-30-TP-1299-0708 | FD | | | FT | 0.81 | 0.05 | PCI/G |
| | SOIL | Thorium 230 | 6-30-TP-12-0708 | N | | | FT | 0.89 | 0.03 | PCI/G |
| | SOIL | Thorium 230 | 6-30-TP-12-1819 | N | | | FT | 0.65 | 0.03 | PCI/G |
| | SOIL | Thorium 230 | 6-30-TP-1299-0708 | FD | | | FT | 0.8 | 0.03 | PCI/G |
| | SOIL | Thorium 232 | 6-30-TP-12-0708 | N | | | FT | 0.85 | 0.03 | PCI/G |
| | SOIL | Thorium 232 | 6-30-TP-12-1819 | N | | | FT | 0.88 | 0.03 | PCI/G |
| | SOIL | Thorium 232 | 6-30-TP-1299-0708 | FD | | | FT | 0.8 | 0.02 | PCI/G |
| | SOIL | Uranium 233/234 | 6-30-TP-12-0708 | N | | | FT | 0.68 | 0.05 | PCI/G |
| | SOIL | Uranium 233/234 | 6-30-TP-12-1819 | N | | | FT | 0.47 | 0.05 | PCI/G |
| | SOIL | Uranium 233/234 | 6-30-TP-1299-0708 | FD | | | FT | 0.53 | 0.05 | PCI/G |
| | SOIL | Uranium 235/236 | 6-30-TP-12-0708 | N | | | FT | 0.061 J | 0.051 | PCI/G |
| | SOIL | Uranium 238 | 6-30-TP-12-0708 | N | | | FT | 0.72 | 0.05 | PCI/G |
| | SOIL | Uranium 238 | 6-30-TP-12-1819 | N | | | FT | 0.35 | 0.04 | PCI/G |
| | SOIL | Uranium 238 | 6-30-TP-1299-0708 | FD | | | FT | 0.65 | 0.03 | PCI/G |
| | SOIL | Vanadium | 6-30-TP-12-0708 | N | | | FT | 17.4 | 0.24 | MG/KG |
| | SOIL | Vanadium | 6-30-TP-12-1819 | N | | | FT | 22.1 | 0.24 | MG/KG |
| | SOIL | Vanadium | 6-30-TP-1299-0708 | FD | | | FT | 17.3 | 0.24 | MG/KG |
| | SOIL | Zinc | 6-30-TP-12-0708 | N | | | FT | 21.1 J | 0.54 | MG/KG |
| | SOIL | Zinc | 6-30-TP-12-1819 | N | | | FT | 23.9 J | 0.53 | MG/KG |
| | SOIL | Zinc | 6-30-TP-1299-0708 | FD | | | FT | 22 J | 0.53 | MG/KG |
| **TP-13** | | | | | | | | | | |
| | SOIL | Actinium 228 | 6-30-TP-13-0708 | N | | | FT | 0.63 | 0.34 | PCI/G |
| | SOIL | Actinium 228 | 6-30-TP-1399-0708 | FD | | | FT | 0.72 | 0.28 | PCI/G |
| | SOIL | Aluminum | 6-30-TP-13-0708 | N | | | FT | 5690 J | 2 | MG/KG |
| | SOIL | Aluminum | 6-30-TP-13-1516 | N | | | FT | 5370 J | 2.1 | MG/KG |
| | SOIL | Aluminum | 6-30-TP-1399-0708 | FD | | | FT | 5500 J | 2 | MG/KG |
| | SOIL | Antimony | 6-30-TP-13-0708 | N | | | FT | 0.13 J | 0.053 | MG/KG |
| | SOIL | Antimony | 6-30-TP-13-1516 | N | | | FT | 0.13 J | 0.055 | MG/KG |
| | SOIL | Antimony | 6-30-TP-1399-0708 | FD | | | FT | 0.12 J | 0.054 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-13-0708 | N | | | FT | 3.4 | 0.22 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-13-1516 | N | | | FT | 3.3 | 0.22 | MG/KG |
| | SOIL | Arsenic | 6-30-TP-1399-0708 | FD | | | FT | 2.9 | 0.22 | MG/KG |
| | SOIL | Barium | 6-30-TP-13-0708 | N | | | FT | 197 | 0.36 | MG/KG |
| | SOIL | Barium | 6-30-TP-13-1516 | N | | | FT | 113 | 0.37 | MG/KG |

TABLE 3

Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Field ID | QAQC Type | Depth From | Depth To | Depth Units | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **TP-13** | | | | | | | | | | |
| | SOIL | Barium | 6-30-TP-1399-0708 | FD | | | FT | 190 | 0.36 | MG/KG |
| | SOIL | Beryllium | 6-30-TP-13-0708 | N | | | FT | 0.35 | 0.025 | MG/KG |
| | SOIL | Beryllium | 6-30-TP-13-1516 | N | | | FT | 0.33 | 0.026 | MG/KG |
| | SOIL | Beryllium | 6-30-TP-1399-0708 | FD | | | FT | 0.37 | 0.026 | MG/KG |
| | SOIL | Bismuth 214 | 6-30-TP-13-0708 | N | | | FT | 0.63 | 0.14 | PCI/G |
| | SOIL | Bismuth 214 | 6-30-TP-1399-0708 | FD | | | FT | 0.63 | 0.15 | PCI/G |
| | SOIL | Cadmium | 6-30-TP-13-0708 | N | | | FT | 0.11 | 0.0051 | MG/KG |
| | SOIL | Cadmium | 6-30-TP-13-1516 | N | | | FT | 0.12 | 0.0052 | MG/KG |
| | SOIL | Cadmium | 6-30-TP-1399-0708 | FD | | | FT | 0.1 | 0.0051 | MG/KG |
| | SOIL | Calcium | 6-30-TP-13-0708 | N | | | FT | 25800 J | 10.2 | MG/KG |
| | SOIL | Calcium | 6-30-TP-13-1516 | N | | | FT | 34700 J | 10.5 | MG/KG |
| | SOIL | Calcium | 6-30-TP-1399-0708 | FD | | | FT | 27400 J | 10.2 | MG/KG |
| | SOIL | Chromium | 6-30-TP-13-0708 | N | | | FT | 7.4 J | 0.41 | MG/KG |
| | SOIL | Chromium | 6-30-TP-13-1516 | N | | | FT | 7.6 J | 0.42 | MG/KG |
| | SOIL | Chromium | 6-30-TP-1399-0708 | FD | | | FT | 8.2 J | 0.41 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-13-0708 | N | | | FT | 5.2 J | 0.025 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-13-1516 | N | | | FT | 4.5 J | 0.026 | MG/KG |
| | SOIL | Cobalt | 6-30-TP-1399-0708 | FD | | | FT | 4.6 J | 0.026 | MG/KG |
| | SOIL | Copper | 6-30-TP-13-0708 | N | | | FT | 8.8 | 0.33 | MG/KG |
| | SOIL | Copper | 6-30-TP-13-1516 | N | | | FT | 7.9 | 0.34 | MG/KG |
| | SOIL | Copper | 6-30-TP-1399-0708 | FD | | | FT | 8.7 | 0.33 | MG/KG |
| | SOIL | Gross Alpha | 6-30-TP-13-0708 | N | | | FT | 20.2 | 3.6 | PCI/G |
| | SOIL | Gross Alpha | 6-30-TP-1399-0708 | FD | | | FT | 19.2 | 3.9 | PCI/G |
| | SOIL | Gross Beta | 6-30-TP-13-0708 | N | | | FT | 30.8 | 4.6 | PCI/G |
| | SOIL | Gross Beta | 6-30-TP-1399-0708 | FD | | | FT | 31.4 | 5.7 | PCI/G |
| | SOIL | Iron | 6-30-TP-13-0708 | N | | | FT | 10300 J | 2.2 | MG/KG |
| | SOIL | Iron | 6-30-TP-13-1516 | N | | | FT | 9950 J | 2.3 | MG/KG |
| | SOIL | Iron | 6-30-TP-1399-0708 | FD | | | FT | 10000 J | 2.3 | MG/KG |
| | SOIL | Lead | 6-30-TP-13-0708 | N | | | FT | 8.7 | 0.051 | MG/KG |
| | SOIL | Lead | 6-30-TP-13-1516 | N | | | FT | 7.2 | 0.052 | MG/KG |
| | SOIL | Lead | 6-30-TP-1399-0708 | FD | | | FT | 7.5 | 0.051 | MG/KG |
| | SOIL | Lead 212 | 6-30-TP-13-0708 | N | | | FT | 0.55 | 0.1 | PCI/G |
| | SOIL | Lead 212 | 6-30-TP-1399-0708 | FD | | | FT | 0.69 | 0.14 | PCI/G |
| | SOIL | Lead 214 | 6-30-TP-13-0708 | N | | | FT | 0.6 | 0.14 | PCI/G |
| | SOIL | Lead 214 | 6-30-TP-1399-0708 | FD | | | FT | 0.69 | 0.14 | PCI/G |
| | SOIL | Magnesium | 6-30-TP-13-0708 | N | | | FT | 3720 J | 5.8 | MG/KG |
| | SOIL | Magnesium | 6-30-TP-13-1516 | N | | | FT | 3560 J | 5.9 | MG/KG |
| | SOIL | Magnesium | 6-30-TP-1399-0708 | FD | | | FT | 3460 J | 5.8 | MG/KG |
| | SOIL | Manganese | 6-30-TP-13-0708 | N | | | FT | 253 J | 0.061 | MG/KG |
| | SOIL | Manganese | 6-30-TP-13-1516 | N | | | FT | 190 J | 0.063 | MG/KG |
| | SOIL | Manganese | 6-30-TP-1399-0708 | FD | | | FT | 194 J | 0.061 | MG/KG |
| | SOIL | Molybdenum | 6-30-TP-13-0708 | N | | | FT | 0.5 J | 0.053 | MG/KG |

TABLE 3

Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Field ID | QAQC Type | Depth From | Depth To | Depth Units | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **TP-13** | | | | | | | | | | |
| | SOIL | Molybdenum | 6-30-TP-13-1516 | N | | | FT | 0.49 J | 0.055 | MG/KG |
| | SOIL | Molybdenum | 6-30-TP-1399-0708 | FD | | | FT | 0.42 J | 0.054 | MG/KG |
| | SOIL | Nickel | 6-30-TP-13-0708 | N | | | FT | 8.5 J | 0.051 | MG/KG |
| | SOIL | Nickel | 6-30-TP-13-1516 | N | | | FT | 8.8 J | 0.052 | MG/KG |
| | SOIL | Nickel | 6-30-TP-1399-0708 | FD | | | FT | 8.3 J | 0.051 | MG/KG |
| | SOIL | Potassium | 6-30-TP-13-0708 | N | | | FT | 1460 J | 3.3 | MG/KG |
| | SOIL | Potassium | 6-30-TP-13-1516 | N | | | FT | 1170 J | 3.4 | MG/KG |
| | SOIL | Potassium | 6-30-TP-1399-0708 | FD | | | FT | 1190 J | 3.3 | MG/KG |
| | SOIL | Potassium 40 | 6-30-TP-13-0708 | N | | | FT | 16.1 | 1 | PCI/G |
| | SOIL | Potassium 40 | 6-30-TP-1399-0708 | FD | | | FT | 17.9 | 0.8 | PCI/G |
| | SOIL | Radium (226) | 6-30-TP-13-0708 | N | | | FT | 0.63 J | 0.14 | PCI/G |
| | SOIL | Radium (226) | 6-30-TP-1399-0708 | FD | | | FT | 0.63 J | 0.15 | PCI/G |
| | SOIL | Radium 228 | 6-30-TP-13-0708 | N | | | FT | 0.63 J | 0.34 | PCI/G |
| | SOIL | Radium 228 | 6-30-TP-1399-0708 | FD | | | FT | 0.72 | 0.28 | PCI/G |
| | SOIL | Silver | 6-30-TP-13-0708 | N | | | FT | 0.045 J | 0.02 | MG/KG |
| | SOIL | Silver | 6-30-TP-13-1516 | N | | | FT | 0.043 J | 0.021 | MG/KG |
| | SOIL | Silver | 6-30-TP-1399-0708 | FD | | | FT | 0.039 J | 0.02 | MG/KG |
| | SOIL | Sodium | 6-30-TP-13-0708 | N | | | FT | 299 J | 8.7 | MG/KG |
| | SOIL | Sodium | 6-30-TP-13-1516 | N | | | FT | 143 J | 9 | MG/KG |
| | SOIL | Sodium | 6-30-TP-1399-0708 | FD | | | FT | 300 J | 8.8 | MG/KG |
| | SOIL | Strontium 89 | 6-30-TP-13-0708 | N | | | FT | 1.26 J | 0.37 | PCI/G |
| | SOIL | Strontium 89 | 6-30-TP-1399-0708 | FD | | | FT | 1.14 J | 0.36 | PCI/G |
| | SOIL | Thallium | 6-30-TP-13-0708 | N | | | FT | 0.1 J | 0.071 | MG/KG |
| | SOIL | Thallium | 6-30-TP-13-1516 | N | | | FT | 0.08 J | 0.073 | MG/KG |
| | SOIL | Thallium 208 | 6-30-TP-13-0708 | N | | | FT | 0.201 | 0.075 | PCI/G |
| | SOIL | Thallium 208 | 6-30-TP-1399-0708 | FD | | | FT | 0.199 | 0.075 | PCI/G |
| | SOIL | Thorium 228 | 6-30-TP-13-0708 | N | | | FT | 0.85 | 0.08 | PCI/G |
| | SOIL | Thorium 228 | 6-30-TP-1399-0708 | FD | | | FT | 0.82 | 0.05 | PCI/G |
| | SOIL | Thorium 230 | 6-30-TP-13-0708 | N | | | FT | 0.74 | 0.03 | PCI/G |
| | SOIL | Thorium 230 | 6-30-TP-1399-0708 | FD | | | FT | 0.77 | 0.04 | PCI/G |
| | SOIL | Thorium 232 | 6-30-TP-13-0708 | N | | | FT | 0.95 | 0.04 | PCI/G |
| | SOIL | Thorium 232 | 6-30-TP-1399-0708 | FD | | | FT | 0.94 | 0.02 | PCI/G |
| | SOIL | Uranium 233/234 | 6-30-TP-13-0708 | N | | | FT | 0.75 | 0.05 | PCI/G |
| | SOIL | Uranium 233/234 | 6-30-TP-1399-0708 | FD | | | FT | 0.82 | 0.03 | PCI/G |
| | SOIL | Uranium 235/236 | 6-30-TP-13-0708 | N | | | FT | 0.047 J | 0.035 | PCI/G |
| | SOIL | Uranium 235/236 | 6-30-TP-1399-0708 | FD | | | FT | 0.059 J | 0.044 | PCI/G |
| | SOIL | Uranium 238 | 6-30-TP-13-0708 | N | | | FT | 0.7 | 0.04 | PCI/G |
| | SOIL | Uranium 238 | 6-30-TP-1399-0708 | FD | | | FT | 0.75 | 0.02 | PCI/G |
| | SOIL | Vanadium | 6-30-TP-13-0708 | N | | | FT | 19.7 | 0.24 | MG/KG |
| | SOIL | Vanadium | 6-30-TP-13-1516 | N | | | FT | 20.1 | 0.25 | MG/KG |
| | SOIL | Vanadium | 6-30-TP-1399-0708 | FD | | | FT | 18.6 | 0.24 | MG/KG |
| | SOIL | Zinc | 6-30-TP-13-0708 | N | | | FT | 29.4 J | 0.53 | MG/KG |

TABLE 3

Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Field ID | QAQC Type | Depth From | Depth To | Depth Units | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **TP-13** | | | | | | | | | | |
| | SOIL | Zinc | 6-30-TP-13-1516 | N | | | FT | 25.6 J | 0.55 | MG/KG |
| | SOIL | Zinc | 6-30-TP-1399-0708 | FD | | | FT | 25.1 J | 0.53 | MG/KG |

QA/QC Types
N = Normal Environmental Sample
FD = Field Duplicate

Qualifier Description
J = The analyte was positively identified, the quantitation is an estimate.
F = The analyte was positively identified but the associated numerical value is below the reporting limit (RL).
R = The data are unusable because of deficiencies in the ability to analyze the sample and meet quality control (QC) criteria.
B = The analyte was found in an associated blank, as well as in the sample.
M = A matrix effect was present.
S = To be applied to all field screening data.
T = Tentatively identified compound (using gas chromatography/mass spectrometry [GC/MS])
exclude = Data not used in risk assessment. More appropriate data exist for this analyte.
none = A flag is not applied. This placeholder is for calculating QC criteria issues without flagging.

TABLE 4

Maximum Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Maximum Result | Units |
|---|---|---|---|---|
| **SOIL BIN** | | | | |
| | SOIL | Actinium 228 | 0.78 | PCI/G |
| | SOIL | Americium 241 | 508 | PCI/G |
| | SOIL | Bismuth 214 | 0.56 | PCI/G |
| | SOIL | Cesium 137 | 13500 | PCI/G |
| | SOIL | Gross Alpha | 64300 | PCI/G |
| | SOIL | Gross Beta | 14000 | PCI/G |
| | SOIL | Lead 210 | 49.8 J | PCI/G |
| | SOIL | Lead 212 | 0.64 | PCI/G |
| | SOIL | Lead 214 | 0.6 | PCI/G |
| | SOIL | Potassium 40 | 25 | PCI/G |
| | SOIL | Radium (226) | 0.56 J | PCI/G |
| | SOIL | Radium 228 | 0.78 | PCI/G |
| | SOIL | Thallium 208 | 0.205 | PCI/G |
| **TP-01** | | | | |
| | SOIL | Actinium 228 | 0.74 | PCI/G |
| | SOIL | Aluminum | 6180 J | MG/KG |
| | SOIL | Antimony | 0.16 J | MG/KG |
| | SOIL | Arsenic | 3.6 | MG/KG |
| | SOIL | Barium | 139 J | MG/KG |
| | SOIL | Barium | 139 | MG/KG |
| | SOIL | Beryllium | 0.38 | MG/KG |
| | SOIL | Bismuth 214 | 0.77 | PCI/G |
| | SOIL | Cadmium | 0.13 | MG/KG |
| | SOIL | Calcium | 38900 J | MG/KG |
| | SOIL | Chromium | 8.6 J | MG/KG |
| | SOIL | Cobalt | 5.8 J | MG/KG |
| | SOIL | Copper | 7.6 | MG/KG |
| | SOIL | Copper | 10.2 J | MG/KG |
| | SOIL | Gross Alpha | 19.4 | PCI/G |
| | SOIL | Gross Beta | 28.9 J | PCI/G |
| | SOIL | Iron | 11000 J | MG/KG |
| | SOIL | Lead | 8.9 | MG/KG |
| | SOIL | Lead 212 | 0.66 | PCI/G |
| | SOIL | Lead 214 | 0.77 | PCI/G |
| | SOIL | Magnesium | 3540 J | MG/KG |
| | SOIL | Manganese | 244 J | MG/KG |
| | SOIL | Molybdenum | 0.73 | MG/KG |
| | SOIL | Molybdenum | 0.45 J | MG/KG |
| | SOIL | Nickel | 10.5 J | MG/KG |
| | SOIL | Potassium | 2310 J | MG/KG |
| | SOIL | Potassium 40 | 18.4 | PCI/G |
| | SOIL | Radium (226) | 0.77 J | PCI/G |
| | SOIL | Radium 228 | 0.74 | PCI/G |
| | SOIL | Silver | 0.044 J | MG/KG |
| | SOIL | Sodium | 99.3 J | MG/KG |
| | SOIL | Thallium | 0.18 J | MG/KG |
| | SOIL | Thallium 208 | 0.243 | PCI/G |

TABLE 4

Maximum Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Maximum Result | Units |
|---|---|---|---|---|
| **TP-01** | | | | |
| | SOIL | Thorium 228 | 0.62 | PCI/G |
| | SOIL | Thorium 230 | 0.52 J | PCI/G |
| | SOIL | Thorium 232 | 0.62 | PCI/G |
| | SOIL | Uranium 233/234 | 0.75 | PCI/G |
| | SOIL | Uranium 235/236 | 0.055 J | PCI/G |
| | SOIL | Uranium 238 | 0.7 | PCI/G |
| | SOIL | Vanadium | 22.6 J | MG/KG |
| | SOIL | Vanadium | 19 | MG/KG |
| | SOIL | Zinc | 29.2 J | MG/KG |
| **TP-02** | | | | |
| | SOIL | Actinium 228 | 0.81 | PCI/G |
| | SOIL | Americium 241 | 0.229 | PCI/G |
| | SOIL | Bismuth 214 | 0.62 | PCI/G |
| | SOIL | Cesium 137 | 3.52 | PCI/G |
| | SOIL | Gross Alpha | 30.8 | PCI/G |
| | SOIL | Gross Beta | 36.4 | PCI/G |
| | SOIL | Lead 212 | 0.63 | PCI/G |
| | SOIL | Lead 214 | 0.67 | PCI/G |
| | SOIL | Plutonium 239/40 | 5.28 | PCI/G |
| | SOIL | Potassium 40 | 15.3 | PCI/G |
| | SOIL | Radium (226) | 0.62 J | PCI/G |
| | SOIL | Radium 228 | 0.81 | PCI/G |
| | SOIL | Thallium 208 | 0.229 | PCI/G |
| | SOIL | Thorium 228 | 0.7 | PCI/G |
| | SOIL | Thorium 230 | 0.62 J | PCI/G |
| | SOIL | Thorium 232 | 0.61 | PCI/G |
| | SOIL | Uranium 233/234 | 0.67 | PCI/G |
| | SOIL | Uranium 238 | 0.65 | PCI/G |
| **TP-03** | | | | |
| | SOIL | Aluminum | 5790 J | MG/KG |
| | SOIL | Antimony | 0.13 J | MG/KG |
| | SOIL | Arsenic | 3.5 | MG/KG |
| | SOIL | Barium | 137 | MG/KG |
| | SOIL | Beryllium | 0.33 | MG/KG |
| | SOIL | Bismuth 214 | 0.61 | PCI/G |
| | SOIL | Cadmium | 0.095 | MG/KG |
| | SOIL | Calcium | 37300 J | MG/KG |
| | SOIL | Chromium | 6.9 J | MG/KG |
| | SOIL | Cobalt | 4.9 J | MG/KG |
| | SOIL | Copper | 8.9 | MG/KG |
| | SOIL | Gross Alpha | 21.3 | PCI/G |
| | SOIL | Gross Beta | 30.1 | PCI/G |
| | SOIL | Iron | 9830 J | MG/KG |
| | SOIL | Lead | 6.4 | MG/KG |
| | SOIL | Lead 212 | 0.73 | PCI/G |
| | SOIL | Lead 214 | 0.66 | PCI/G |

TABLE 4

Maximum Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Maximum Result | Units |
|---|---|---|---|---|
| **TP-03** | | | | |
| | SOIL | Magnesium | 3820 J | MG/KG |
| | SOIL | Manganese | 190 J | MG/KG |
| | SOIL | Molybdenum | 0.33 J | MG/KG |
| | SOIL | Nickel | 8.9 J | MG/KG |
| | SOIL | Potassium | 2160 J | MG/KG |
| | SOIL | Potassium 40 | 16.4 | PCI/G |
| | SOIL | Radium (226) | 0.61 J | PCI/G |
| | SOIL | Silver | 0.034 J | MG/KG |
| | SOIL | Thallium | 0.084 J | MG/KG |
| | SOIL | Thallium 208 | 0.231 | PCI/G |
| | SOIL | Thorium 228 | 0.78 | PCI/G |
| | SOIL | Thorium 230 | 0.87 J | PCI/G |
| | SOIL | Thorium 232 | 0.76 | PCI/G |
| | SOIL | Uranium 233/234 | 0.72 | PCI/G |
| | SOIL | Uranium 238 | 0.74 | PCI/G |
| | SOIL | Vanadium | 21.1 | MG/KG |
| | SOIL | Zinc | 26.6 J | MG/KG |
| **TP-04** | | | | |
| | SOIL | Actinium 228 | 0.66 | PCI/G |
| | SOIL | Aluminum | 6270 J | MG/KG |
| | SOIL | Antimony | 0.24 J | MG/KG |
| | SOIL | Arsenic | 3.3 | MG/KG |
| | SOIL | Barium | 280 J | MG/KG |
| | SOIL | Barium | 140 | MG/KG |
| | SOIL | Beryllium | 0.42 | MG/KG |
| | SOIL | Bismuth 214 | 0.65 | PCI/G |
| | SOIL | Cadmium | 0.091 | MG/KG |
| | SOIL | Calcium | 27000 J | MG/KG |
| | SOIL | Chromium | 11.7 J | MG/KG |
| | SOIL | Chromium | 7.8 | MG/KG |
| | SOIL | Cobalt | 4.9 | MG/KG |
| | SOIL | Cobalt | 5.9 J | MG/KG |
| | SOIL | Copper | 10.3 J | MG/KG |
| | SOIL | Copper | 8.9 | MG/KG |
| | SOIL | Gross Alpha | 19.5 | PCI/G |
| | SOIL | Gross Beta | 27.8 J | PCI/G |
| | SOIL | Iron | 13600 J | MG/KG |
| | SOIL | Lead | 7.9 J | MG/KG |
| | SOIL | Lead 212 | 0.64 | PCI/G |
| | SOIL | Lead 214 | 0.66 | PCI/G |
| | SOIL | Magnesium | 4740 J | MG/KG |
| | SOIL | Manganese | 290 J | MG/KG |
| | SOIL | Molybdenum | 0.72 | MG/KG |
| | SOIL | Molybdenum | 0.4 J | MG/KG |
| | SOIL | Nickel | 12.2 J | MG/KG |
| | SOIL | Potassium | 1290 J | MG/KG |
| | SOIL | Potassium 40 | 14.2 | PCI/G |

TABLE 4

Maximum Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Maximum Result | Units |
|---|---|---|---|---|
| **TP-04** | | | | |
| | SOIL | Radium (226) | 0.65 J | PCI/G |
| | SOIL | Radium 228 | 0.66 J | PCI/G |
| | SOIL | Silver | 0.037 J | MG/KG |
| | SOIL | Sodium | 155 J | MG/KG |
| | SOIL | Thallium | 0.14 J | MG/KG |
| | SOIL | Thallium 208 | 0.169 | PCI/G |
| | SOIL | Thorium 228 | 1 | PCI/G |
| | SOIL | Thorium 230 | 0.87 | PCI/G |
| | SOIL | Thorium 232 | 0.91 | PCI/G |
| | SOIL | Uranium 233/234 | 0.72 | PCI/G |
| | SOIL | Uranium 235/236 | 0.041 J | PCI/G |
| | SOIL | Uranium 238 | 0.71 | PCI/G |
| | SOIL | Vanadium | 20.4 | MG/KG |
| | SOIL | Vanadium | 24.8 J | MG/KG |
| | SOIL | Zinc | 29.6 J | MG/KG |
| **TP-05** | | | | |
| | SOIL | Aluminum | 6370 J | MG/KG |
| | SOIL | Antimony | 0.18 J | MG/KG |
| | SOIL | Arsenic | 4.3 | MG/KG |
| | SOIL | Barium | 175 | MG/KG |
| | SOIL | Beryllium | 0.41 | MG/KG |
| | SOIL | Cadmium | 0.17 | MG/KG |
| | SOIL | Calcium | 31000 J | MG/KG |
| | SOIL | Chromium | 8.4 | MG/KG |
| | SOIL | Cobalt | 5.3 | MG/KG |
| | SOIL | Copper | 9.2 | MG/KG |
| | SOIL | Iron | 11100 J | MG/KG |
| | SOIL | Lead | 9.4 J | MG/KG |
| | SOIL | Magnesium | 4130 J | MG/KG |
| | SOIL | Manganese | 234 J | MG/KG |
| | SOIL | Molybdenum | 0.36 J | MG/KG |
| | SOIL | Molybdenum | 0.66 | MG/KG |
| | SOIL | Nickel | 9.4 J | MG/KG |
| | SOIL | Potassium | 1500 J | MG/KG |
| | SOIL | Silver | 0.047 J | MG/KG |
| | SOIL | Sodium | 93.1 J | MG/KG |
| | SOIL | Thallium | 0.12 J | MG/KG |
| | SOIL | Vanadium | 22.4 | MG/KG |
| | SOIL | Zinc | 30.9 J | MG/KG |
| **TP-06** | | | | |
| | SOIL | Actinium 228 | 0.92 | PCI/G |
| | SOIL | Aluminum | 5920 J | MG/KG |
| | SOIL | Antimony | 0.15 J | MG/KG |
| | SOIL | Arsenic | 3.9 | MG/KG |
| | SOIL | Barium | 164 | MG/KG |
| | SOIL | Beryllium | 0.38 | MG/KG |

TABLE 4

Maximum Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Maximum Result | Units |
|---|---|---|---|---|
| **TP-06** | | | | |
| | SOIL | Bismuth 214 | 0.73 | PCI/G |
| | SOIL | Cadmium | 0.092 | MG/KG |
| | SOIL | Calcium | 30800 J | MG/KG |
| | SOIL | Chromium | 7.5 | MG/KG |
| | SOIL | Cobalt | 4.6 | MG/KG |
| | SOIL | Copper | 8.1 | MG/KG |
| | SOIL | Gross Alpha | 21.5 | PCI/G |
| | SOIL | Gross Beta | 30.6 | PCI/G |
| | SOIL | Iron | 9730 J | MG/KG |
| | SOIL | Lead | 8.4 J | MG/KG |
| | SOIL | Lead 212 | 0.7 | PCI/G |
| | SOIL | Lead 214 | 0.79 | PCI/G |
| | SOIL | Magnesium | 3970 J | MG/KG |
| | SOIL | Manganese | 189 J | MG/KG |
| | SOIL | Molybdenum | 0.4 J | MG/KG |
| | SOIL | Nickel | 8.8 J | MG/KG |
| | SOIL | Potassium | 1390 J | MG/KG |
| | SOIL | Potassium 40 | 14.2 | PCI/G |
| | SOIL | Radium (226) | 0.73 J | PCI/G |
| | SOIL | Radium 228 | 0.92 | PCI/G |
| | SOIL | Silver | 0.042 J | MG/KG |
| | SOIL | Sodium | 155 J | MG/KG |
| | SOIL | Thallium 208 | 0.232 | PCI/G |
| | SOIL | Thorium 228 | 0.88 | PCI/G |
| | SOIL | Thorium 230 | 0.8 | PCI/G |
| | SOIL | Thorium 232 | 0.85 | PCI/G |
| | SOIL | Uranium 233/234 | 0.57 | PCI/G |
| | SOIL | Uranium 238 | 0.59 | PCI/G |
| | SOIL | Vanadium | 20.7 | MG/KG |
| | SOIL | Zinc | 25 J | MG/KG |
| **TP-07** | | | | |
| | SOIL | Actinium 228 | 0.8 | PCI/G |
| | SOIL | Aluminum | 7610 J | MG/KG |
| | SOIL | Antimony | 0.14 J | MG/KG |
| | SOIL | Arsenic | 3.6 | MG/KG |
| | SOIL | Barium | 242 | MG/KG |
| | SOIL | Beryllium | 0.43 | MG/KG |
| | SOIL | Bismuth 212 | 0.72 | PCI/G |
| | SOIL | Bismuth 214 | 0.76 | PCI/G |
| | SOIL | Cadmium | 0.36 | MG/KG |
| | SOIL | Calcium | 28700 J | MG/KG |
| | SOIL | Chromium | 11.2 | MG/KG |
| | SOIL | Cobalt | 5.2 | MG/KG |
| | SOIL | Copper | 32.1 | MG/KG |
| | SOIL | Gross Alpha | 28 | PCI/G |
| | SOIL | Gross Beta | 33.3 | PCI/G |
| | SOIL | Iron | 11100 J | MG/KG |

TABLE 4

Maximum Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Maximum Result | Units |
|---|---|---|---|---|
| **TP-07** | | | | |
| | SOIL | Lead | 16.9 J | MG/KG |
| | SOIL | Lead 212 | 0.63 | PCI/G |
| | SOIL | Lead 214 | 0.77 | PCI/G |
| | SOIL | Magnesium | 3860 J | MG/KG |
| | SOIL | Manganese | 210 J | MG/KG |
| | SOIL | Molybdenum | 0.4 J | MG/KG |
| | SOIL | Molybdenum | 0.52 | MG/KG |
| | SOIL | Nickel | 9.9 J | MG/KG |
| | SOIL | Potassium | 1160 J | MG/KG |
| | SOIL | Potassium 40 | 14.4 | PCI/G |
| | SOIL | Radium (226) | 0.76 J | PCI/G |
| | SOIL | Radium 228 | 0.8 | PCI/G |
| | SOIL | Silver | 0.05 J | MG/KG |
| | SOIL | Sodium | 312 J | MG/KG |
| | SOIL | Thallium 208 | 0.244 | PCI/G |
| | SOIL | Thorium 228 | 0.88 | PCI/G |
| | SOIL | Thorium 230 | 0.71 | PCI/G |
| | SOIL | Thorium 232 | 0.79 | PCI/G |
| | SOIL | Uranium 233/234 | 0.61 | PCI/G |
| | SOIL | Uranium 235/236 | 0.025 J | PCI/G |
| | SOIL | Uranium 238 | 0.63 | PCI/G |
| | SOIL | Vanadium | 20.7 | MG/KG |
| | SOIL | Zinc | 119 J | MG/KG |
| **TP-08** | | | | |
| | SOIL | Actinium 227 | 0.53 | PCI/G |
| | SOIL | Actinium 228 | 0.61 | PCI/G |
| | SOIL | Aluminum | 5200 J | MG/KG |
| | SOIL | Antimony | 0.13 J | MG/KG |
| | SOIL | Arsenic | 2.8 | MG/KG |
| | SOIL | Barium | 103 | MG/KG |
| | SOIL | Beryllium | 0.35 | MG/KG |
| | SOIL | Bismuth 212 | 0.69 | PCI/G |
| | SOIL | Bismuth 214 | 0.56 | PCI/G |
| | SOIL | Cadmium | 0.091 | MG/KG |
| | SOIL | Calcium | 26400 J | MG/KG |
| | SOIL | Chromium | 7.9 | MG/KG |
| | SOIL | Cobalt | 4.4 | MG/KG |
| | SOIL | Copper | 7.8 | MG/KG |
| | SOIL | Gross Alpha | 25.8 | PCI/G |
| | SOIL | Gross Beta | 25.3 J | PCI/G |
| | SOIL | Iron | 9060 J | MG/KG |
| | SOIL | Lead | 7.6 J | MG/KG |
| | SOIL | Lead 212 | 0.52 | PCI/G |
| | SOIL | Lead 214 | 0.67 | PCI/G |
| | SOIL | Magnesium | 3480 J | MG/KG |
| | SOIL | Manganese | 183 J | MG/KG |
| | SOIL | Molybdenum | 0.36 J | MG/KG |

TABLE 4

Maximum Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Maximum Result | Units |
|---|---|---|---|---|
| **TP-08** | | | | |
| | SOIL | Nickel | 8.3 J | MG/KG |
| | SOIL | Potassium | 1000 J | MG/KG |
| | SOIL | Potassium 40 | 13.1 | PCI/G |
| | SOIL | Radium (226) | 0.56 J | PCI/G |
| | SOIL | Radium 228 | 0.61 J | PCI/G |
| | SOIL | Silver | 0.034 J | MG/KG |
| | SOIL | Sodium | 74.4 J | MG/KG |
| | SOIL | Thallium 208 | 0.189 | PCI/G |
| | SOIL | Thorium 228 | 0.63 | PCI/G |
| | SOIL | Thorium 230 | 0.73 | PCI/G |
| | SOIL | Thorium 232 | 0.57 | PCI/G |
| | SOIL | Uranium 233/234 | 0.62 | PCI/G |
| | SOIL | Uranium 235/236 | 0.057 J | PCI/G |
| | SOIL | Uranium 238 | 0.66 | PCI/G |
| | SOIL | Vanadium | 18 | MG/KG |
| | SOIL | Zinc | 21.4 J | MG/KG |
| **TP-09** | | | | |
| | SOIL | Actinium 228 | 0.57 | PCI/G |
| | SOIL | Aluminum | 6550 J | MG/KG |
| | SOIL | Antimony | 0.12 J | MG/KG |
| | SOIL | Arsenic | 3.2 | MG/KG |
| | SOIL | Barium | 134 | MG/KG |
| | SOIL | Barium-TCLP | 567 J | UG/L |
| | SOIL | Beryllium | 0.4 | MG/KG |
| | SOIL | Bismuth 214 | 0.69 | PCI/G |
| | SOIL | Cadmium | 0.11 | MG/KG |
| | SOIL | Calcium | 26400 J | MG/KG |
| | SOIL | Chromium | 8.5 | MG/KG |
| | SOIL | Cobalt | 5.4 | MG/KG |
| | SOIL | Copper | 9.9 | MG/KG |
| | SOIL | Gross Alpha | 26.3 | PCI/G |
| | SOIL | Gross Beta | 28.6 J | PCI/G |
| | SOIL | Iron | 10900 J | MG/KG |
| | SOIL | Lead | 9 J | MG/KG |
| | SOIL | Lead 212 | 0.73 | PCI/G |
| | SOIL | Lead 214 | 0.72 | PCI/G |
| | SOIL | Magnesium | 4290 J | MG/KG |
| | SOIL | Manganese | 276 J | MG/KG |
| | SOIL | Molybdenum | 0.43 J | MG/KG |
| | SOIL | Molybdenum | 0.54 | MG/KG |
| | SOIL | Nickel | 11.2 J | MG/KG |
| | SOIL | Potassium | 1500 J | MG/KG |
| | SOIL | Potassium 40 | 14.3 | PCI/G |
| | SOIL | Radium (226) | 0.69 J | PCI/G |
| | SOIL | Radium 228 | 0.57 J | PCI/G |
| | SOIL | Silver | 0.042 J | MG/KG |
| | SOIL | Sodium | 232 J | MG/KG |

TABLE 4

Maximum Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Maximum Result | Units |
|---|---|---|---|---|
| **TP-09** | | | | |
| | SOIL | Thallium | 0.12 J | MG/KG |
| | SOIL | Thallium 208 | 0.211 | PCI/G |
| | SOIL | Thorium 228 | 0.92 | PCI/G |
| | SOIL | Thorium 230 | 0.68 | PCI/G |
| | SOIL | Thorium 232 | 0.84 | PCI/G |
| | SOIL | Uranium 233/234 | 0.88 | PCI/G |
| | SOIL | Uranium 235/236 | 0.069 J | PCI/G |
| | SOIL | Uranium 238 | 0.7 | PCI/G |
| | SOIL | Vanadium | 19.5 | MG/KG |
| | SOIL | Zinc | 27 J | MG/KG |
| **TP-10** | | | | |
| | SOIL | Actinium 228 | 0.76 | PCI/G |
| | SOIL | Aluminum | 7690 J | MG/KG |
| | SOIL | Antimony | 0.14 J | MG/KG |
| | SOIL | Arsenic | 3.6 | MG/KG |
| | SOIL | Barium | 137 | MG/KG |
| | SOIL | Beryllium | 0.47 | MG/KG |
| | SOIL | Bismuth 214 | 0.74 | PCI/G |
| | SOIL | Cadmium | 0.094 | MG/KG |
| | SOIL | Calcium | 13800 J | MG/KG |
| | SOIL | Chromium | 9.2 | MG/KG |
| | SOIL | Cobalt | 5.7 | MG/KG |
| | SOIL | Copper | 10.3 | MG/KG |
| | SOIL | Gross Alpha | 20 | PCI/G |
| | SOIL | Gross Beta | 28.8 J | PCI/G |
| | SOIL | Iron | 11300 J | MG/KG |
| | SOIL | Lead | 9.2 J | MG/KG |
| | SOIL | Lead 212 | 0.62 | PCI/G |
| | SOIL | Lead 214 | 0.74 | PCI/G |
| | SOIL | Magnesium | 3810 J | MG/KG |
| | SOIL | Manganese | 249 J | MG/KG |
| | SOIL | Mercury | 0.015 J | MG/KG |
| | SOIL | Molybdenum | 0.44 J | MG/KG |
| | SOIL | Nickel | 10 J | MG/KG |
| | SOIL | Potassium | 1630 J | MG/KG |
| | SOIL | Potassium 40 | 15.1 | PCI/G |
| | SOIL | Radium (226) | 0.74 J | PCI/G |
| | SOIL | Radium 228 | 0.76 | PCI/G |
| | SOIL | Silver | 0.072 J | MG/KG |
| | SOIL | Sodium | 197 J | MG/KG |
| | SOIL | Thallium | 0.11 J | MG/KG |
| | SOIL | Thallium 208 | 0.21 | PCI/G |
| | SOIL | Thorium 228 | 0.85 | PCI/G |
| | SOIL | Thorium 230 | 0.71 | PCI/G |
| | SOIL | Thorium 232 | 0.8 | PCI/G |
| | SOIL | Uranium 233/234 | 0.74 | PCI/G |
| | SOIL | Uranium 235/236 | 0.058 J | PCI/G |

TABLE 4

Maximum Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Maximum Result | Units |
|---|---|---|---|---|
| **TP-10** | | | | |
| | SOIL | Uranium 238 | 0.64 | PCI/G |
| | SOIL | Vanadium | 20.8 | MG/KG |
| | SOIL | Zinc | 27 J | MG/KG |
| **TP-11** | | | | |
| | SOIL | Actinium 228 | 0.94 | PCI/G |
| | SOIL | Aluminum | 6840 J | MG/KG |
| | SOIL | Antimony | 0.19 J | MG/KG |
| | SOIL | Arsenic | 4 | MG/KG |
| | SOIL | Barium | 175 | MG/KG |
| | SOIL | Barium-TCLP | 1090 J | UG/L |
| | SOIL | Beryllium | 0.41 | MG/KG |
| | SOIL | Bismuth 214 | 0.78 | PCI/G |
| | SOIL | Cadmium | 0.14 | MG/KG |
| | SOIL | Calcium | 28500 J | MG/KG |
| | SOIL | Chromium | 9 | MG/KG |
| | SOIL | Cobalt | 5.3 | MG/KG |
| | SOIL | Copper | 9.4 | MG/KG |
| | SOIL | Gross Alpha | 27.4 | PCI/G |
| | SOIL | Gross Beta | 29.3 J | PCI/G |
| | SOIL | Iron | 10800 J | MG/KG |
| | SOIL | Lead | 40.5 J | MG/KG |
| | SOIL | Lead 212 | 0.99 | PCI/G |
| | SOIL | Lead 214 | 0.88 | PCI/G |
| | SOIL | Magnesium | 3790 J | MG/KG |
| | SOIL | Manganese | 218 J | MG/KG |
| | SOIL | Mercury | 0.013 J | MG/KG |
| | SOIL | Molybdenum | 0.51 J | MG/KG |
| | SOIL | Molybdenum | 0.54 | MG/KG |
| | SOIL | Nickel | 9.5 J | MG/KG |
| | SOIL | Potassium | 1390 J | MG/KG |
| | SOIL | Potassium 40 | 17.1 | PCI/G |
| | SOIL | Radium (226) | 0.78 J | PCI/G |
| | SOIL | Radium 228 | 0.94 | PCI/G |
| | SOIL | Silver | 0.054 J | MG/KG |
| | SOIL | Sodium | 90 J | MG/KG |
| | SOIL | Thallium 208 | 0.29 | PCI/G |
| | SOIL | Thorium 228 | 1.13 | PCI/G |
| | SOIL | Thorium 230 | 1.03 | PCI/G |
| | SOIL | Thorium 232 | 1.02 | PCI/G |
| | SOIL | Uranium 233/234 | 0.84 | PCI/G |
| | SOIL | Uranium 238 | 0.83 | PCI/G |
| | SOIL | Vanadium | 20.9 | MG/KG |
| | SOIL | Zinc | 30.4 J | MG/KG |
| **TP-12** | | | | |
| | SOIL | Actinium 228 | 0.94 | PCI/G |
| | SOIL | Aluminum | 5760 J | MG/KG |

TABLE 4

Maximum Detects by Location

*Sorted by Location*

| Location | Matrix | Analyte | Maximum Result | Units |
|---|---|---|---|---|
| **TP-12** | | | | |
| | SOIL | Americium 241 | 0.109 | PCI/G |
| | SOIL | Antimony | 0.26 J | MG/KG |
| | SOIL | Arsenic | 4.3 | MG/KG |
| | SOIL | Barium | 117 | MG/KG |
| | SOIL | Beryllium | 0.38 | MG/KG |
| | SOIL | Bismuth 214 | 0.86 | PCI/G |
| | SOIL | Cadmium | 0.092 | MG/KG |
| | SOIL | Calcium | 24500 J | MG/KG |
| | SOIL | Chromium | 11.9 | MG/KG |
| | SOIL | Cobalt | 6.3 | MG/KG |
| | SOIL | Copper | 9 | MG/KG |
| | SOIL | Gross Alpha | 29.7 | PCI/G |
| | SOIL | Gross Beta | 28.8 J | PCI/G |
| | SOIL | Gross Beta | 36.2 | PCI/G |
| | SOIL | Iron | 11200 J | MG/KG |
| | SOIL | Lead | 6.9 J | MG/KG |
| | SOIL | Lead 212 | 0.84 | PCI/G |
| | SOIL | Lead 214 | 0.83 | PCI/G |
| | SOIL | Magnesium | 4210 J | MG/KG |
| | SOIL | Manganese | 205 J | MG/KG |
| | SOIL | Molybdenum | 0.3 J | MG/KG |
| | SOIL | Nickel | 11.2 J | MG/KG |
| | SOIL | Potassium | 1160 J | MG/KG |
| | SOIL | Potassium 40 | 17.8 | PCI/G |
| | SOIL | Radium (226) | 0.86 J | PCI/G |
| | SOIL | Radium 228 | 0.67 J | PCI/G |
| | SOIL | Radium 228 | 0.94 | PCI/G |
| | SOIL | Silver | 0.046 J | MG/KG |
| | SOIL | Sodium | 219 J | MG/KG |
| | SOIL | Thallium 208 | 0.39 | PCI/G |
| | SOIL | Thorium 228 | 1.02 | PCI/G |
| | SOIL | Thorium 230 | 0.89 | PCI/G |
| | SOIL | Thorium 232 | 0.88 | PCI/G |
| | SOIL | Uranium 233/234 | 0.68 | PCI/G |
| | SOIL | Uranium 235/236 | 0.061 J | PCI/G |
| | SOIL | Uranium 238 | 0.72 | PCI/G |
| | SOIL | Vanadium | 22.1 | MG/KG |
| | SOIL | Zinc | 23.9 J | MG/KG |
| **TP-13** | | | | |
| | SOIL | Actinium 228 | 0.72 | PCI/G |
| | SOIL | Aluminum | 5690 J | MG/KG |
| | SOIL | Antimony | 0.13 J | MG/KG |
| | SOIL | Arsenic | 3.4 | MG/KG |
| | SOIL | Barium | 197 | MG/KG |
| | SOIL | Beryllium | 0.37 | MG/KG |
| | SOIL | Bismuth 214 | 0.63 | PCI/G |
| | SOIL | Cadmium | 0.12 | MG/KG |

TABLE 5

Results by Location

*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| **6-30-TP-01-0506 / F6J190101001** | | | | | | | | |
| | F6J190101 | **A01R** | SOIL | N | Iodine 129 | 0.03 U | 0.53 | PCI/G |
| | | | SOIL | N | Neptunium 237 | 0.006 U | 0.035 | PCI/G |
| | | | SOIL | N | Plutonium 238 | 0.004 U | 0.027 | PCI/G |
| | | | SOIL | N | Plutonium 239/40 | 0.008 U | 0.018 | PCI/G |
| | | | SOIL | N | Thorium 228 | 0.62 | 0.04 | PCI/G |
| | | | SOIL | N | Thorium 230 | 0.52 J | 0.03 | PCI/G |
| | | | SOIL | N | Thorium 232 | 0.62 | 0.03 | PCI/G |
| | | | SOIL | N | Uranium 233/234 | 0.75 | 0.02 | PCI/G |
| | | | SOIL | N | Uranium 235/236 | 0.055 J | 0.011 | PCI/G |
| | | | SOIL | N | Uranium 238 | 0.7 | 0.02 | PCI/G |
| | | **EML-AM-01** | SOIL | N | Americium 241 | -0.0031 U | 0.018 | PCI/G |
| | | **EML-SR-01** | SOIL | N | Strontium 89 | 0.09 U | 0.51 | PCI/G |
| | | **EML-SR-03** | SOIL | N | Strontium 90 | 0.36 U | 0.67 | PCI/G |
| | | **GA01R** | SOIL | N | Actinium 227 | 0.41 U | 0.49 | PCI/G |
| | | | SOIL | N | Actinium 228 | 0.74 | 0.33 | PCI/G |
| | | | SOIL | N | Bismuth 207 | 0.013 U | 0.068 | PCI/G |
| | | | SOIL | N | Bismuth 212 | 0.57 U | 0.86 | PCI/G |
| | | | SOIL | N | Bismuth 214 | 0.77 | 0.17 | PCI/G |
| | | | SOIL | N | Bismuth-210M | 0.048 U | 0.1 | PCI/G |
| | | | SOIL | N | Cesium 134 | 0.025 U | 0.083 | PCI/G |
| | | | SOIL | N | Cesium 137 | 0.081 U | 0.11 | PCI/G |
| | | | SOIL | N | Cobalt 57 | 0.004 U | 0.046 | PCI/G |
| | | | SOIL | N | Cobalt 58 | -0.019 U | 0.088 | PCI/G |
| | | | SOIL | N | Cobalt 60 | -0.031 U | 0.083 | PCI/G |
| | | | SOIL | N | Lead 210 | -0.06 U | 1.8 | PCI/G |
| | | | SOIL | N | Lead 212 | 0.66 | 0.15 | PCI/G |
| | | | SOIL | N | Lead 214 | 0.77 | 0.14 | PCI/G |
| | | | SOIL | N | Potassium 40 | 18.4 | 0.6 | PCI/G |
| | | | SOIL | N | Radium (226) | 0.77 J | 0.17 | PCI/G |
| | | | SOIL | N | Radium 228 | 0.74 | 0.33 | PCI/G |
| | | | SOIL | N | Thallium 208 | 0.243 | 0.07 | PCI/G |
| | | | SOIL | N | Thorium 234 | 0.86 U | 1 | PCI/G |
| | | | SOIL | N | Uranium 235 | 0.04 U | 0.4 | PCI/G |
| | | **SW6020** | SOIL | N | Aluminum | 6180 J | 2.1 | MG/KG |
| | | | SOIL | N | Antimony | 0.16 J | 0.054 | MG/KG |
| | | | SOIL | N | Arsenic | 3.6 | 0.22 | MG/KG |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J190101 | **SW6020** | SOIL | N | Barium | 139 J | 0.36 | MG/KG |
| | | | SOIL | N | Beryllium | 0.38 | 0.026 | MG/KG |
| | | | SOIL | N | Cadmium | 0.13 | 0.0052 | MG/KG |
| | | | SOIL | N | Calcium | 28600 J | 10.3 | MG/KG |
| | | | SOIL | N | Chromium | 8.3 J | 0.41 | MG/KG |
| | | | SOIL | N | Cobalt | 5.3 J | 0.026 | MG/KG |
| | | | SOIL | N | Copper | 10.2 J | 0.33 | MG/KG |
| | | | SOIL | N | Iron | 11000 J | 2.3 | MG/KG |
| | | | SOIL | N | Lead | 8.9 | 0.052 | MG/KG |
| | | | SOIL | N | Magnesium | 3540 J | 5.9 | MG/KG |
| | | | SOIL | N | Manganese | 225 J | 0.062 | MG/KG |
| | | | SOIL | N | Molybdenum | 0.45 J | 0.054 | MG/KG |
| | | | SOIL | N | Nickel | 9.3 J | 0.052 | MG/KG |
| | | | SOIL | N | Potassium | 2310 J | 3.3 | MG/KG |
| | | | SOIL | N | Selenium | 0.11 U | 0.11 | MG/KG |
| | | | SOIL | N | Silver | 0.044 J | 0.021 | MG/KG |
| | | | SOIL | N | Sodium | 82.8 J | 8.9 | MG/KG |
| | | | SOIL | N | Thallium | 0.18 J | 0.072 | MG/KG |
| | | | SOIL | N | Vanadium | 22.6 J | 0.24 | MG/KG |
| | | | SOIL | N | Zinc | 29.2 J | 0.54 | MG/KG |
| | | **SW7471A** | SOIL | N | Mercury | 0.0069 U | 0.0069 | MG/KG |
| | | **SW9310** | SOIL | N | Gross Alpha | 19.4 | 8.5 | PCI/G |
| | | | SOIL | N | Gross Beta | 28.9 J | 3.5 | PCI/G |
| **6-30-TP-01-1415 / F6J190101002** | | | | | | | | |
| | F6J190101 | **SW6020** | SOIL | N | Aluminum | 4880 J | 2 | MG/KG |
| | | | SOIL | N | Antimony | 0.13 J | 0.053 | MG/KG |
| | | | SOIL | N | Arsenic | 2.9 | 0.22 | MG/KG |
| | | | SOIL | N | Barium | 139 | 0.35 | MG/KG |
| | | | SOIL | N | Beryllium | 0.34 | 0.025 | MG/KG |
| | | | SOIL | N | Cadmium | 0.094 | 0.0051 | MG/KG |
| | | | SOIL | N | Calcium | 38900 J | 10.1 | MG/KG |
| | | | SOIL | N | Chromium | 8.6 J | 0.4 | MG/KG |
| | | | SOIL | N | Cobalt | 5.8 J | 0.025 | MG/KG |
| | | | SOIL | N | Copper | 7.6 | 0.32 | MG/KG |
| | | | SOIL | N | Iron | 9780 J | 2.2 | MG/KG |
| | | | SOIL | N | Lead | 6.1 | 0.051 | MG/KG |
| | | | SOIL | N | Magnesium | 3430 J | 5.7 | MG/KG |

TABLE 5

Results by Location

*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J190101 | **SW6020** | SOIL | N | Manganese | 244 J | 0.061 | MG/KG |
| | | | SOIL | N | Molybdenum | 0.73 | 0.053 | MG/KG |
| | | | SOIL | N | Nickel | 10.5 J | 0.051 | MG/KG |
| | | | SOIL | N | Potassium | 1130 J | 3.2 | MG/KG |
| | | | SOIL | N | Selenium | 0.11 U | 0.11 | MG/KG |
| | | | SOIL | N | Silver | 0.026 J | 0.02 | MG/KG |
| | | | SOIL | N | Sodium | 99.3 J | 8.7 | MG/KG |
| | | | SOIL | N | Thallium | 0.18 J | 0.071 | MG/KG |
| | | | SOIL | N | Vanadium | 19 | 0.24 | MG/KG |
| | | | SOIL | N | Zinc | 25.3 J | 0.53 | MG/KG |
| | | **SW7471A** | SOIL | N | Mercury | 0.0068 U | 0.0068 | MG/KG |
| **6-30-TP-02-0203 / F6J190101003** | | | | | | | | |
| | F6J190101 | **A01R** | SOIL | N | Iodine 129 | 0.005 U | 0.58 | PCI/G |
| | | | SOIL | N | Neptunium 237 | -0.0009 U | 0.021 | PCI/G |
| | | | SOIL | N | Plutonium 238 | 0.029 U | 0.03 | PCI/G |
| | | | SOIL | N | Plutonium 239/40 | 5.28 | 0.02 | PCI/G |
| | | | SOIL | N | Thorium 228 | 0.7 | 0.04 | PCI/G |
| | | | SOIL | N | Thorium 230 | 0.62 J | 0.03 | PCI/G |
| | | | SOIL | N | Thorium 232 | 0.61 | 0.02 | PCI/G |
| | | | SOIL | N | Uranium 233/234 | 0.67 | 0.03 | PCI/G |
| | | | SOIL | N | Uranium 235/236 | 0.025 U | 0.026 | PCI/G |
| | | | SOIL | N | Uranium 238 | 0.65 | 0.009 | PCI/G |
| | | **EML-AM-01** | SOIL | N | Americium 241 | 0.229 | 0.033 | PCI/G |
| | | **EML-SR-01** | SOIL | N | Strontium 89 | 0.01 U | 0.56 | PCI/G |
| | | **EML-SR-03** | SOIL | N | Strontium 90 | 0.35 U | 0.68 | PCI/G |
| | | **GA01R** | SOIL | N | Actinium 227 | -0.004 U | 0.45 | PCI/G |
| | | | SOIL | N | Actinium 228 | 0.81 | 0.26 | PCI/G |
| | | | SOIL | N | Americium 241 | 0.2 | 0.15 | PCI/G |
| | | | SOIL | N | Bismuth 207 | 0.023 U | 0.074 | PCI/G |
| | | | SOIL | N | Bismuth 212 | 0.53 U | 0.76 | PCI/G |
| | | | SOIL | N | Bismuth 214 | 0.62 | 0.15 | PCI/G |
| | | | SOIL | N | Bismuth-210M | -0.015 U | 0.11 | PCI/G |
| | | | SOIL | N | Cesium 134 | -0.016 U | 0.063 | PCI/G |
| | | | SOIL | N | Cesium 137 | 3.52 | 0.1 | PCI/G |
| | | | SOIL | N | Cobalt 57 | -0.004 U | 0.044 | PCI/G |
| | | | SOIL | N | Cobalt 58 | 0.018 U | 0.076 | PCI/G |
| | | | SOIL | N | Cobalt 60 | -0.008 U | 0.08 | PCI/G |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J190101 | **GA01R** | SOIL | N | Lead 210 | 1.05 U | 1.9 | PCI/G |
| | | | SOIL | N | Lead 212 | 0.63 | 0.13 | PCI/G |
| | | | SOIL | N | Lead 214 | 0.67 | 0.17 | PCI/G |
| | | | SOIL | N | Potassium 40 | 15.3 | 0.1 | PCI/G |
| | | | SOIL | N | Radium (226) | 0.62 J | 0.15 | PCI/G |
| | | | SOIL | N | Radium 228 | 0.81 | 0.26 | PCI/G |
| | | | SOIL | N | Thallium 208 | 0.229 | 0.063 | PCI/G |
| | | | SOIL | N | Thorium 234 | 0.57 U | 0.9 | PCI/G |
| | | | SOIL | N | Uranium 235 | -0.06 U | 0.36 | PCI/G |
| | | **SW9310** | SOIL | N | Gross Alpha | 30.8 | 3.8 | PCI/G |
| | | | SOIL | N | Gross Beta | 36.4 | 4.5 | PCI/G |
| **6-30-TP-03-0506 / F6J190101004** | | | | | | | | |
| | F6J190101 | **A01R** | SOIL | N | Iodine 129 | 0.002 U | 0.51 | PCI/G |
| | | | SOIL | N | Neptunium 237 | 0.001 U | 0.028 | PCI/G |
| | | | SOIL | N | Plutonium 238 | -0.002 U | 0.031 | PCI/G |
| | | | SOIL | N | Plutonium 239/40 | 0.002 U | 0.019 | PCI/G |
| | | | SOIL | N | Thorium 228 | 0.78 | 0.04 | PCI/G |
| | | | SOIL | N | Thorium 230 | 0.87 J | 0.02 | PCI/G |
| | | | SOIL | N | Thorium 232 | 0.76 | 0.03 | PCI/G |
| | | | SOIL | N | Uranium 233/234 | 0.72 | 0.03 | PCI/G |
| | | | SOIL | N | Uranium 235/236 | 0.028 U | 0.037 | PCI/G |
| | | | SOIL | N | Uranium 238 | 0.74 | 0.02 | PCI/G |
| | | **EML-AM-01** | SOIL | N | Americium 241 | -0.003 U | 0.022 | PCI/G |
| | | **EML-SR-01** | SOIL | N | Strontium 89 | 0.07 U | 0.56 | PCI/G |
| | | **EML-SR-03** | SOIL | N | Strontium 90 | 0.05 U | 0.73 | PCI/G |
| | | **GA01R** | SOIL | N | Actinium 227 | -0.0007 U | 0.39 | PCI/G |
| | | | SOIL | N | Actinium 228 | 0.32 U | 0.56 | PCI/G |
| | | | SOIL | N | Bismuth 207 | -0.011 U | 0.071 | PCI/G |
| | | | SOIL | N | Bismuth 212 | 0.4 U | 0.83 | PCI/G |
| | | | SOIL | N | Bismuth 214 | 0.61 | 0.15 | PCI/G |
| | | | SOIL | N | Bismuth-210M | -0.006 U | 0.087 | PCI/G |
| | | | SOIL | N | Cesium 134 | -0.007 U | 0.062 | PCI/G |
| | | | SOIL | N | Cesium 137 | 0.029 U | 0.097 | PCI/G |
| | | | SOIL | N | Cobalt 57 | 0.004 U | 0.045 | PCI/G |
| | | | SOIL | N | Cobalt 58 | 0.012 U | 0.09 | PCI/G |
| | | | SOIL | N | Cobalt 60 | 0.015 U | 0.098 | PCI/G |
| | | | SOIL | N | Lead 210 | 1.7 U | 2.3 | PCI/G |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J190101 | **GA01R** | SOIL | N | Lead 212 | 0.73 | 0.11 | PCI/G |
| | | | SOIL | N | Lead 214 | 0.66 | 0.14 | PCI/G |
| | | | SOIL | N | Potassium 40 | 16.4 | 0.6 | PCI/G |
| | | | SOIL | N | Radium (226) | 0.61 J | 0.15 | PCI/G |
| | | | SOIL | N | Radium 228 | 0.32 U | 0.56 | PCI/G |
| | | | SOIL | N | Thallium 208 | 0.231 | 0.1 | PCI/G |
| | | | SOIL | N | Thorium 234 | 0.41 U | 1 | PCI/G |
| | | | SOIL | N | Uranium 235 | 0.07 U | 0.39 | PCI/G |
| | | **SW6020** | SOIL | N | Aluminum | 5790 J | 2.1 | MG/KG |
| | | | SOIL | N | Antimony | 0.13 J | 0.056 | MG/KG |
| | | | SOIL | N | Arsenic | 3.5 | 0.23 | MG/KG |
| | | | SOIL | N | Barium | 137 | 0.37 | MG/KG |
| | | | SOIL | N | Beryllium | 0.33 | 0.027 | MG/KG |
| | | | SOIL | N | Cadmium | 0.095 | 0.0053 | MG/KG |
| | | | SOIL | N | Calcium | 37300 J | 10.7 | MG/KG |
| | | | SOIL | N | Chromium | 6.9 J | 0.43 | MG/KG |
| | | | SOIL | N | Cobalt | 4.9 J | 0.027 | MG/KG |
| | | | SOIL | N | Copper | 8.9 | 0.34 | MG/KG |
| | | | SOIL | N | Iron | 9830 J | 2.4 | MG/KG |
| | | | SOIL | N | Lead | 6.4 | 0.053 | MG/KG |
| | | | SOIL | N | Magnesium | 3820 J | 6.1 | MG/KG |
| | | | SOIL | N | Manganese | 190 J | 0.064 | MG/KG |
| | | | SOIL | N | Molybdenum | 0.33 J | 0.056 | MG/KG |
| | | | SOIL | N | Nickel | 8.9 J | 0.053 | MG/KG |
| | | | SOIL | N | Potassium | 2160 J | 3.4 | MG/KG |
| | | | SOIL | N | Selenium | 0.12 U | 0.12 | MG/KG |
| | | | SOIL | N | Silver | 0.034 J | 0.021 | MG/KG |
| | | | SOIL | N | Sodium | 37.5 U | 9.2 | MG/KG |
| | | | SOIL | N | Thallium | 0.084 J | 0.075 | MG/KG |
| | | | SOIL | N | Vanadium | 21.1 | 0.25 | MG/KG |
| | | | SOIL | N | Zinc | 26.6 J | 0.56 | MG/KG |
| | | **SW7471A** | SOIL | N | Mercury | 0.0071 U | 0.0071 | MG/KG |
| | | **SW9310** | SOIL | N | Gross Alpha | 21.3 | 3.8 | PCI/G |
| | | | SOIL | N | Gross Beta | 30.1 | 6.1 | PCI/G |
| **6-30-TP-03-1516 / F6J190101005** | | | | | | | | |
| | F6J190101 | **SW6020** | SOIL | N | Aluminum | 3660 J | 2 | MG/KG |
| | | | SOIL | N | Antimony | 0.086 J | 0.053 | MG/KG |

TABLE 5

Results by Location

*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J190101 | **SW6020** | SOIL | N | Arsenic | 1.4 | 0.21 | MG/KG |
| | | | SOIL | N | Barium | 74.4 | 0.35 | MG/KG |
| | | | SOIL | N | Beryllium | 0.26 | 0.025 | MG/KG |
| | | | SOIL | N | Cadmium | 0.073 | 0.005 | MG/KG |
| | | | SOIL | N | Calcium | 21500 J | 10.1 | MG/KG |
| | | | SOIL | N | Chromium | 6.8 J | 0.4 | MG/KG |
| | | | SOIL | N | Cobalt | 3.8 J | 0.025 | MG/KG |
| | | | SOIL | N | Copper | 6.4 | 0.32 | MG/KG |
| | | | SOIL | N | Iron | 8610 J | 2.2 | MG/KG |
| | | | SOIL | N | Lead | 5 | 0.05 | MG/KG |
| | | | SOIL | N | Magnesium | 2980 J | 5.7 | MG/KG |
| | | | SOIL | N | Manganese | 165 J | 0.06 | MG/KG |
| | | | SOIL | N | Molybdenum | 0.28 J | 0.053 | MG/KG |
| | | | SOIL | N | Nickel | 8.3 J | 0.05 | MG/KG |
| | | | SOIL | N | Potassium | 813 J | 3.2 | MG/KG |
| | | | SOIL | N | Selenium | 0.11 U | 0.11 | MG/KG |
| | | | SOIL | N | Silver | 0.02 U | 0.02 | MG/KG |
| | | | SOIL | N | Sodium | 40.2 U | 8.6 | MG/KG |
| | | | SOIL | N | Thallium | 0.07 U | 0.07 | MG/KG |
| | | | SOIL | N | Vanadium | 14.5 | 0.24 | MG/KG |
| | | | SOIL | N | Zinc | 21 J | 0.52 | MG/KG |
| | | **SW7471A** | SOIL | N | Mercury | 0.0067 U | 0.0067 | MG/KG |
| **6-30-TP-04-0607 / F6J220112002** | | | | | | | | |
| | F6J220112 | **A01R** | SOIL | N | Iodine 129 | -0.03 U | 0.67 | PCI/G |
| | | | SOIL | N | Neptunium 237 | -0.0009 U | 0.02 | PCI/G |
| | | | SOIL | N | Plutonium 238 | 0.004 U | 0.047 | PCI/G |
| | | | SOIL | N | Plutonium 239/40 | -0.0009 U | 0.02 | PCI/G |
| | | | SOIL | N | Thorium 228 | 1 | 0.04 | PCI/G |
| | | | SOIL | N | Thorium 230 | 0.87 | 0.04 | PCI/G |
| | | | SOIL | N | Thorium 232 | 0.91 | 0.04 | PCI/G |
| | | | SOIL | N | Uranium 233/234 | 0.72 | 0.05 | PCI/G |
| | | | SOIL | N | Uranium 235/236 | 0.041 J | 0.036 | PCI/G |
| | | | SOIL | N | Uranium 238 | 0.71 | 0.03 | PCI/G |
| | | **EML-AM-01** | SOIL | N | Americium 241 | -0.007 U | 0.051 | PCI/G |
| | | **EML-SR-01** | SOIL | N | Strontium 89 | 0.27 U | 0.7 | PCI/G |
| | | **EML-SR-03** | SOIL | N | Strontium 90 | -0.31 U | 0.65 | PCI/G |
| | | **GA01R** | SOIL | N | Actinium 227 | 0.14 U | 0.43 | PCI/G |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **GA01R** | SOIL | N | Actinium 228 | 0.66 | 0.34 | PCI/G |
| | | | SOIL | N | Bismuth 207 | 0.005 U | 0.067 | PCI/G |
| | | | SOIL | N | Bismuth 212 | 0.35 U | 0.77 | PCI/G |
| | | | SOIL | N | Bismuth 214 | 0.65 | 0.15 | PCI/G |
| | | | SOIL | N | Bismuth-210M | -0.022 U | 0.09 | PCI/G |
| | | | SOIL | N | Cesium 134 | -0.008 U | 0.064 | PCI/G |
| | | | SOIL | N | Cesium 137 | 0.019 U | 0.091 | PCI/G |
| | | | SOIL | N | Cobalt 57 | 0.009 U | 0.041 | PCI/G |
| | | | SOIL | N | Cobalt 58 | -0.025 U | 0.071 | PCI/G |
| | | | SOIL | N | Cobalt 60 | -0.006 U | 0.066 | PCI/G |
| | | | SOIL | N | Lead 210 | -0.28 U | 1.7 | PCI/G |
| | | | SOIL | N | Lead 212 | 0.64 | 0.09 | PCI/G |
| | | | SOIL | N | Lead 214 | 0.66 | 0.14 | PCI/G |
| | | | SOIL | N | Potassium 40 | 14.2 | 0.6 | PCI/G |
| | | | SOIL | N | Radium (226) | 0.65 J | 0.15 | PCI/G |
| | | | SOIL | N | Radium 228 | 0.66 J | 0.34 | PCI/G |
| | | | SOIL | N | Thallium 208 | 0.169 | 0.076 | PCI/G |
| | | | SOIL | N | Thorium 234 | 0.54 U | 0.95 | PCI/G |
| | | | SOIL | N | Uranium 235 | -0.007 U | 0.37 | PCI/G |
| | | **SW6020** | SOIL | N | Aluminum | 5930 J | 2.1 | MG/KG |
| | | | SOIL | N | Antimony | 0.13 J | 0.054 | MG/KG |
| | | | SOIL | N | Arsenic | 3.3 | 0.22 | MG/KG |
| | | | SOIL | N | Barium | 140 | 0.36 | MG/KG |
| | | | SOIL | N | Beryllium | 0.37 | 0.026 | MG/KG |
| | | | SOIL | N | Cadmium | 0.082 | 0.0051 | MG/KG |
| | | | SOIL | N | Calcium | 27000 J | 10.3 | MG/KG |
| | | | SOIL | N | Chromium | 7.8 | 0.41 | MG/KG |
| | | | SOIL | N | Cobalt | 4.9 | 0.026 | MG/KG |
| | | | SOIL | N | Copper | 8.9 | 0.33 | MG/KG |
| | | | SOIL | N | Iron | 10400 J | 2.3 | MG/KG |
| | | | SOIL | N | Lead | 7.5 J | 0.051 | MG/KG |
| | | | SOIL | N | Magnesium | 4110 J | 5.8 | MG/KG |
| | | | SOIL | N | Manganese | 238 J | 0.062 | MG/KG |
| | | | SOIL | N | Molybdenum | 0.4 J | 0.054 | MG/KG |
| | | | SOIL | N | Nickel | 9 J | 0.051 | MG/KG |
| | | | SOIL | N | Potassium | 1290 J | 3.3 | MG/KG |
| | | | SOIL | N | Selenium | 0.11 U | 0.11 | MG/KG |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **SW6020** | SOIL | N | Silver | 0.037 J | 0.021 | MG/KG |
| | | | SOIL | N | Sodium | 155 J | 8.8 | MG/KG |
| | | | SOIL | N | Thallium | 0.13 J | 0.072 | MG/KG |
| | | | SOIL | N | Vanadium | 20.4 | 0.24 | MG/KG |
| | | | SOIL | N | Zinc | 26.6 J | 0.53 | MG/KG |
| | | **SW7471A** | SOIL | N | Mercury | 0.0069 U | 0.0069 | MG/KG |
| | | **SW9310** | SOIL | N | Gross Alpha | 19.5 | 3.3 | PCI/G |
| | | | SOIL | N | Gross Beta | 27.8 J | 4.4 | PCI/G |
| **6-30-TP-04-1314 / F6J220112001** | | | | | | | | |
| | F6J220112 | **SW6020** | SOIL | N | Aluminum | 6270 J | 2.1 | MG/KG |
| | | | SOIL | N | Antimony | 0.24 J | 0.054 | MG/KG |
| | | | SOIL | N | Arsenic | 3.3 | 0.22 | MG/KG |
| | | | SOIL | N | Barium | 280 J | 0.36 | MG/KG |
| | | | SOIL | N | Beryllium | 0.42 | 0.026 | MG/KG |
| | | | SOIL | N | Cadmium | 0.091 | 0.0052 | MG/KG |
| | | | SOIL | N | Calcium | 24900 J | 10.3 | MG/KG |
| | | | SOIL | N | Chromium | 11.7 J | 0.41 | MG/KG |
| | | | SOIL | N | Cobalt | 5.9 J | 0.026 | MG/KG |
| | | | SOIL | N | Copper | 10.3 J | 0.33 | MG/KG |
| | | | SOIL | N | Iron | 13600 J | 2.3 | MG/KG |
| | | | SOIL | N | Lead | 7.9 J | 0.052 | MG/KG |
| | | | SOIL | N | Magnesium | 4740 J | 5.9 | MG/KG |
| | | | SOIL | N | Manganese | 290 J | 0.062 | MG/KG |
| | | | SOIL | N | Molybdenum | 0.72 | 0.054 | MG/KG |
| | | | SOIL | N | Nickel | 12.2 J | 0.052 | MG/KG |
| | | | SOIL | N | Potassium | 1210 J | 3.3 | MG/KG |
| | | | SOIL | N | Selenium | 0.11 U | 0.11 | MG/KG |
| | | | SOIL | N | Silver | 0.035 J | 0.021 | MG/KG |
| | | | SOIL | N | Sodium | 131 J | 8.8 | MG/KG |
| | | | SOIL | N | Thallium | 0.14 J | 0.072 | MG/KG |
| | | | SOIL | N | Vanadium | 24.8 J | 0.24 | MG/KG |
| | | | SOIL | N | Zinc | 29.6 J | 0.54 | MG/KG |
| | | **SW7471A** | SOIL | N | Mercury | 0.0069 U | 0.0069 | MG/KG |
| **6-30-TP-05-0607 / F6J220112004** | | | | | | | | |
| | F6J220112 | **SW6020** | SOIL | N | Aluminum | 6370 J | 2.1 | MG/KG |
| | | | SOIL | N | Antimony | 0.18 J | 0.054 | MG/KG |
| | | | SOIL | N | Arsenic | 4.3 | 0.22 | MG/KG |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **SW6020** | SOIL | N | Barium | 149 | 0.36 | MG/KG |
| | | | SOIL | N | Beryllium | 0.41 | 0.026 | MG/KG |
| | | | SOIL | N | Cadmium | 0.17 | 0.0052 | MG/KG |
| | | | SOIL | N | Calcium | 29600 J | 10.4 | MG/KG |
| | | | SOIL | N | Chromium | 8.4 | 0.41 | MG/KG |
| | | | SOIL | N | Cobalt | 5.3 | 0.026 | MG/KG |
| | | | SOIL | N | Copper | 9.1 | 0.33 | MG/KG |
| | | | SOIL | N | Iron | 11100 J | 2.3 | MG/KG |
| | | | SOIL | N | Lead | 9.4 J | 0.052 | MG/KG |
| | | | SOIL | N | Magnesium | 4130 J | 5.9 | MG/KG |
| | | | SOIL | N | Manganese | 234 J | 0.062 | MG/KG |
| | | | SOIL | N | Molybdenum | 0.66 | 0.054 | MG/KG |
| | | | SOIL | N | Nickel | 9.4 J | 0.052 | MG/KG |
| | | | SOIL | N | Potassium | 1410 J | 3.3 | MG/KG |
| | | | SOIL | N | Selenium | 0.11 U | 0.11 | MG/KG |
| | | | SOIL | N | Silver | 0.047 J | 0.021 | MG/KG |
| | | | SOIL | N | Sodium | 93.1 J | 8.9 | MG/KG |
| | | | SOIL | N | Thallium | 0.12 J | 0.073 | MG/KG |
| | | | SOIL | N | Vanadium | 22.4 | 0.24 | MG/KG |
| | | | SOIL | N | Zinc | 30.9 J | 0.54 | MG/KG |
| | | **SW7471A** | SOIL | N | Mercury | 0.0069 U | 0.0069 | MG/KG |
| **6-30-TP-05-1314 / F6J220112003** | | | | | | | | |
| | F6J220112 | **SW6020** | SOIL | N | Aluminum | 6150 J | 2.1 | MG/KG |
| | | | SOIL | N | Antimony | 0.14 J | 0.054 | MG/KG |
| | | | SOIL | N | Arsenic | 3.7 | 0.22 | MG/KG |
| | | | SOIL | N | Barium | 175 | 0.36 | MG/KG |
| | | | SOIL | N | Beryllium | 0.39 | 0.026 | MG/KG |
| | | | SOIL | N | Cadmium | 0.1 | 0.0052 | MG/KG |
| | | | SOIL | N | Calcium | 31000 J | 10.3 | MG/KG |
| | | | SOIL | N | Chromium | 7.7 | 0.41 | MG/KG |
| | | | SOIL | N | Cobalt | 4.7 | 0.026 | MG/KG |
| | | | SOIL | N | Copper | 9.2 | 0.33 | MG/KG |
| | | | SOIL | N | Iron | 10300 J | 2.3 | MG/KG |
| | | | SOIL | N | Lead | 7.9 J | 0.052 | MG/KG |
| | | | SOIL | N | Magnesium | 3770 J | 5.9 | MG/KG |
| | | | SOIL | N | Manganese | 215 J | 0.062 | MG/KG |
| | | | SOIL | N | Molybdenum | 0.36 J | 0.054 | MG/KG |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **SW6020** | SOIL | N | Nickel | 8.6 J | 0.052 | MG/KG |
| | | | SOIL | N | Potassium | 1500 J | 3.3 | MG/KG |
| | | | SOIL | N | Selenium | 0.11 U | 0.11 | MG/KG |
| | | | SOIL | N | Silver | 0.042 J | 0.021 | MG/KG |
| | | | SOIL | N | Sodium | 81.8 J | 8.9 | MG/KG |
| | | | SOIL | N | Thallium | 0.11 J | 0.072 | MG/KG |
| | | | SOIL | N | Vanadium | 20.9 | 0.24 | MG/KG |
| | | | SOIL | N | Zinc | 26.8 J | 0.54 | MG/KG |
| | | **SW7471A** | SOIL | N | Mercury | 0.0069 U | 0.0069 | MG/KG |
| **6-30-TP-06-1718 / F6J220112005** | | | | | | | | |
| | F6J220112 | **A01R** | SOIL | N | Iodine 129 | 0.003 U | 0.72 | PCI/G |
| | | | SOIL | N | Neptunium 237 | -0.006 U | 0.04 | PCI/G |
| | | | SOIL | N | Plutonium 238 | -0.004 U | 0.043 | PCI/G |
| | | | SOIL | N | Plutonium 239/40 | 0.019 U | 0.034 | PCI/G |
| | | | SOIL | N | Thorium 228 | 0.88 | 0.04 | PCI/G |
| | | | SOIL | N | Thorium 230 | 0.8 | 0.04 | PCI/G |
| | | | SOIL | N | Thorium 232 | 0.85 | 0.04 | PCI/G |
| | | | SOIL | N | Uranium 233/234 | 0.57 | 0.05 | PCI/G |
| | | | SOIL | N | Uranium 235/236 | 0.014 U | 0.052 | PCI/G |
| | | | SOIL | N | Uranium 238 | 0.59 | 0.05 | PCI/G |
| | | **EML-AM-01** | SOIL | N | Americium 241 | 0.018 U | 0.055 | PCI/G |
| | | **EML-SR-01** | SOIL | N | Strontium 89 | 0.05 U | 0.55 | PCI/G |
| | | **EML-SR-03** | SOIL | N | Strontium 90 | -0.14 U | 0.54 | PCI/G |
| | | **GA01R** | SOIL | N | Actinium 227 | 0.1 U | 0.44 | PCI/G |
| | | | SOIL | N | Actinium 228 | 0.92 | 0.4 | PCI/G |
| | | | SOIL | N | Bismuth 207 | -0.01 U | 0.076 | PCI/G |
| | | | SOIL | N | Bismuth 212 | 0.27 U | 0.89 | PCI/G |
| | | | SOIL | N | Bismuth 214 | 0.73 | 0.16 | PCI/G |
| | | | SOIL | N | Bismuth-210M | 0.066 U | 0.13 | PCI/G |
| | | | SOIL | N | Cesium 134 | 0.011 U | 0.077 | PCI/G |
| | | | SOIL | N | Cesium 137 | 0.006 U | 0.1 | PCI/G |
| | | | SOIL | N | Cobalt 57 | 0.019 U | 0.052 | PCI/G |
| | | | SOIL | N | Cobalt 58 | -0.0008 U | 0.094 | PCI/G |
| | | | SOIL | N | Cobalt 60 | 0.038 U | 0.13 | PCI/G |
| | | | SOIL | N | Lead 210 | 1.6 U | 2.5 | PCI/G |
| | | | SOIL | N | Lead 212 | 0.7 | 0.16 | PCI/G |
| | | | SOIL | N | Lead 214 | 0.79 | 0.17 | PCI/G |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **GA01R** | SOIL | N | Potassium 40 | 14.2 | 1.1 | PCI/G |
| | | | SOIL | N | Radium (226) | 0.73 J | 0.16 | PCI/G |
| | | | SOIL | N | Radium 228 | 0.92 | 0.4 | PCI/G |
| | | | SOIL | N | Thallium 208 | 0.232 | 0.096 | PCI/G |
| | | | SOIL | N | Thorium 234 | 0.34 U | 1.2 | PCI/G |
| | | | SOIL | N | Uranium 235 | 0.08 U | 0.45 | PCI/G |
| | | **SW6020** | SOIL | N | Aluminum | 5920 J | 2.1 | MG/KG |
| | | | SOIL | N | Antimony | 0.15 J | 0.055 | MG/KG |
| | | | SOIL | N | Arsenic | 3.9 | 0.22 | MG/KG |
| | | | SOIL | N | Barium | 164 | 0.37 | MG/KG |
| | | | SOIL | N | Beryllium | 0.38 | 0.026 | MG/KG |
| | | | SOIL | N | Cadmium | 0.092 | 0.0052 | MG/KG |
| | | | SOIL | N | Calcium | 30800 J | 10.5 | MG/KG |
| | | | SOIL | N | Chromium | 7.5 | 0.42 | MG/KG |
| | | | SOIL | N | Cobalt | 4.6 | 0.026 | MG/KG |
| | | | SOIL | N | Copper | 8.1 | 0.34 | MG/KG |
| | | | SOIL | N | Iron | 9730 J | 2.3 | MG/KG |
| | | | SOIL | N | Lead | 8.4 J | 0.052 | MG/KG |
| | | | SOIL | N | Magnesium | 3970 J | 5.9 | MG/KG |
| | | | SOIL | N | Manganese | 189 J | 0.063 | MG/KG |
| | | | SOIL | N | Molybdenum | 0.4 J | 0.055 | MG/KG |
| | | | SOIL | N | Nickel | 8.8 J | 0.052 | MG/KG |
| | | | SOIL | N | Potassium | 1390 J | 3.4 | MG/KG |
| | | | SOIL | N | Selenium | 0.11 U | 0.11 | MG/KG |
| | | | SOIL | N | Silver | 0.042 J | 0.021 | MG/KG |
| | | | SOIL | N | Sodium | 155 J | 9 | MG/KG |
| | | | SOIL | N | Thallium | 0.09 U | 0.073 | MG/KG |
| | | | SOIL | N | Vanadium | 20.7 | 0.25 | MG/KG |
| | | | SOIL | N | Zinc | 25 J | 0.55 | MG/KG |
| | | **SW7471A** | SOIL | N | Mercury | 0.007 U | 0.007 | MG/KG |
| | | **SW9310** | SOIL | N | Gross Alpha | 21.5 | 3.6 | PCI/G |
| | | | SOIL | N | Gross Beta | 30.6 | 5.9 | PCI/G |
| **6-30-TP-07-0506 / F6J220112007** | | | | | | | | |
| | F6J220112 | **A01R** | SOIL | N | Iodine 129 | 0.15 U | 0.58 | PCI/G |
| | | | SOIL | N | Neptunium 237 | -0.003 U | 0.026 | PCI/G |
| | | | SOIL | N | Plutonium 238 | 0.007 U | 0.057 | PCI/G |
| | | | SOIL | N | Plutonium 239/40 | -0.004 U | 0.032 | PCI/G |

TABLE 5

Results by Location

*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **A01R** | SOIL | N | Thorium 228 | 0.88 | 0.06 | PCI/G |
| | | | SOIL | N | Thorium 230 | 0.71 | 0.02 | PCI/G |
| | | | SOIL | N | Thorium 232 | 0.79 | 0.02 | PCI/G |
| | | | SOIL | N | Uranium 233/234 | 0.61 | 0.04 | PCI/G |
| | | | SOIL | N | Uranium 235/236 | 0.025 J | 0.022 | PCI/G |
| | | | SOIL | N | Uranium 238 | 0.63 | 0.03 | PCI/G |
| | | **EML-AM-01** | SOIL | N | Americium 241 | 0.037 U | 0.063 | PCI/G |
| | | **EML-SR-01** | SOIL | N | Strontium 89 | 0.09 U | 0.53 | PCI/G |
| | | **EML-SR-03** | SOIL | N | Strontium 90 | -0.11 U | 0.5 | PCI/G |
| | | **GA01R** | SOIL | N | Actinium 227 | 0.03 U | 0.38 | PCI/G |
| | | | SOIL | N | Actinium 228 | 0.8 | 0.43 | PCI/G |
| | | | SOIL | N | Bismuth 207 | 0.006 U | 0.072 | PCI/G |
| | | | SOIL | N | Bismuth 212 | 0.72 | 0.63 | PCI/G |
| | | | SOIL | N | Bismuth 214 | 0.76 | 0.14 | PCI/G |
| | | | SOIL | N | Bismuth-210M | -0.012 U | 0.084 | PCI/G |
| | | | SOIL | N | Cesium 134 | -0.004 U | 0.069 | PCI/G |
| | | | SOIL | N | Cesium 137 | 0.021 U | 0.097 | PCI/G |
| | | | SOIL | N | Cobalt 57 | 0.0003 U | 0.041 | PCI/G |
| | | | SOIL | N | Cobalt 58 | -0.001 U | 0.064 | PCI/G |
| | | | SOIL | N | Cobalt 60 | -0.031 U | 0.096 | PCI/G |
| | | | SOIL | N | Lead 210 | -0.28 U | 1.8 | PCI/G |
| | | | SOIL | N | Lead 212 | 0.63 | 0.15 | PCI/G |
| | | | SOIL | N | Lead 214 | 0.77 | 0.15 | PCI/G |
| | | | SOIL | N | Potassium 40 | 14.4 | 0.9 | PCI/G |
| | | | SOIL | N | Radium (226) | 0.76 J | 0.14 | PCI/G |
| | | | SOIL | N | Radium 228 | 0.8 | 0.43 | PCI/G |
| | | | SOIL | N | Thallium 208 | 0.244 | 0.08 | PCI/G |
| | | | SOIL | N | Thorium 234 | 0.73 U | 0.89 | PCI/G |
| | | | SOIL | N | Uranium 235 | 0.22 U | 0.37 | PCI/G |
| | | **SW6020** | SOIL | N | Aluminum | 7610 J | 2.1 | MG/KG |
| | | | SOIL | N | Antimony | 0.14 J | 0.055 | MG/KG |
| | | | SOIL | N | Arsenic | 3.6 | 0.22 | MG/KG |
| | | | SOIL | N | Barium | 242 | 0.37 | MG/KG |
| | | | SOIL | N | Beryllium | 0.43 | 0.026 | MG/KG |
| | | | SOIL | N | Cadmium | 0.36 | 0.0052 | MG/KG |
| | | | SOIL | N | Calcium | 28700 J | 10.5 | MG/KG |
| | | | SOIL | N | Chromium | 11.2 | 0.42 | MG/KG |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **SW6020** | SOIL | N | Cobalt | 5.2 | 0.026 | MG/KG |
| | | | SOIL | N | Copper | 32.1 | 0.33 | MG/KG |
| | | | SOIL | N | Iron | 10300 J | 2.3 | MG/KG |
| | | | SOIL | N | Lead | 16.9 J | 0.052 | MG/KG |
| | | | SOIL | N | Magnesium | 3860 J | 5.9 | MG/KG |
| | | | SOIL | N | Manganese | 210 J | 0.063 | MG/KG |
| | | | SOIL | N | Molybdenum | 0.4 J | 0.055 | MG/KG |
| | | | SOIL | N | Nickel | 9.2 J | 0.052 | MG/KG |
| | | | SOIL | N | Potassium | 1160 J | 3.3 | MG/KG |
| | | | SOIL | N | Selenium | 0.11 U | 0.11 | MG/KG |
| | | | SOIL | N | Silver | 0.05 J | 0.021 | MG/KG |
| | | | SOIL | N | Sodium | 312 J | 9 | MG/KG |
| | | | SOIL | N | Thallium | 0.077 U | 0.073 | MG/KG |
| | | | SOIL | N | Vanadium | 20.7 | 0.24 | MG/KG |
| | | | SOIL | N | Zinc | 119 J | 0.54 | MG/KG |
| | | **SW7471A** | SOIL | N | Mercury | 0.007 U | 0.007 | MG/KG |
| | | **SW9310** | SOIL | N | Gross Alpha | 28 | 3.8 | PCI/G |
| | | | SOIL | N | Gross Beta | 33.3 | 4.6 | PCI/G |
| **6-30-TP-07-1617 / F6J220112006** | | | | | | | | |
| | F6J220112 | **SW6020** | SOIL | N | Aluminum | 4570 J | 2 | MG/KG |
| | | | SOIL | N | Antimony | 0.1 J | 0.053 | MG/KG |
| | | | SOIL | N | Arsenic | 2.2 | 0.22 | MG/KG |
| | | | SOIL | N | Barium | 72.5 | 0.35 | MG/KG |
| | | | SOIL | N | Beryllium | 0.33 | 0.025 | MG/KG |
| | | | SOIL | N | Cadmium | 0.086 | 0.005 | MG/KG |
| | | | SOIL | N | Calcium | 25700 J | 10.1 | MG/KG |
| | | | SOIL | N | Chromium | 9.3 | 0.4 | MG/KG |
| | | | SOIL | N | Cobalt | 4.8 | 0.025 | MG/KG |
| | | | SOIL | N | Copper | 8.4 | 0.32 | MG/KG |
| | | | SOIL | N | Iron | 11100 J | 2.2 | MG/KG |
| | | | SOIL | N | Lead | 8.9 J | 0.05 | MG/KG |
| | | | SOIL | N | Magnesium | 3840 J | 5.7 | MG/KG |
| | | | SOIL | N | Manganese | 203 J | 0.061 | MG/KG |
| | | | SOIL | N | Molybdenum | 0.52 | 0.053 | MG/KG |
| | | | SOIL | N | Nickel | 9.9 J | 0.05 | MG/KG |
| | | | SOIL | N | Potassium | 775 J | 3.2 | MG/KG |
| | | | SOIL | N | Selenium | 0.11 U | 0.11 | MG/KG |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **SW6020** | SOIL | N | Silver | 0.023 J | 0.02 | MG/KG |
| | | | SOIL | N | Sodium | 151 J | 8.7 | MG/KG |
| | | | SOIL | N | Thallium | 0.071 U | 0.071 | MG/KG |
| | | | SOIL | N | Vanadium | 19.4 | 0.24 | MG/KG |
| | | | SOIL | N | Zinc | 23.7 J | 0.53 | MG/KG |
| | | **SW7471A** | SOIL | N | Mercury | 0.0067 U | 0.0067 | MG/KG |
| **6-30-TP-08-1920 / F6J220112008** | | | | | | | | |
| | F6J220112 | **A01R** | SOIL | N | Iodine 129 | 0.06 U | 0.58 | PCI/G |
| | | | SOIL | N | Neptunium 237 | 0.006 U | 0.028 | PCI/G |
| | | | SOIL | N | Plutonium 238 | 0.004 U | 0.088 | PCI/G |
| | | | SOIL | N | Plutonium 239/40 | 0.017 U | 0.051 | PCI/G |
| | | | SOIL | N | Thorium 228 | 0.63 | 0.06 | PCI/G |
| | | | SOIL | N | Thorium 230 | 0.73 | 0.05 | PCI/G |
| | | | SOIL | N | Thorium 232 | 0.57 | 0.02 | PCI/G |
| | | | SOIL | N | Uranium 233/234 | 0.62 | 0.05 | PCI/G |
| | | | SOIL | N | Uranium 235/236 | 0.057 J | 0.039 | PCI/G |
| | | | SOIL | N | Uranium 238 | 0.66 | 0.03 | PCI/G |
| | | **EML-AM-01** | SOIL | N | Americium 241 | 0.009 U | 0.042 | PCI/G |
| | | **EML-SR-01** | SOIL | N | Strontium 89 | 0.18 U | 0.64 | PCI/G |
| | | **EML-SR-03** | SOIL | N | Strontium 90 | -1.37 U | 0.83 | PCI/G |
| | | **GA01R** | SOIL | N | Actinium 227 | 0.53 | 0.5 | PCI/G |
| | | | SOIL | N | Actinium 228 | 0.61 | 0.33 | PCI/G |
| | | | SOIL | N | Bismuth 207 | 0.028 U | 0.081 | PCI/G |
| | | | SOIL | N | Bismuth 212 | 0.69 | 0.68 | PCI/G |
| | | | SOIL | N | Bismuth 214 | 0.56 | 0.14 | PCI/G |
| | | | SOIL | N | Bismuth-210M | 0.014 U | 0.096 | PCI/G |
| | | | SOIL | N | Cesium 134 | 0.038 U | 0.082 | PCI/G |
| | | | SOIL | N | Cesium 137 | 0.042 U | 0.093 | PCI/G |
| | | | SOIL | N | Cobalt 57 | 0.012 U | 0.047 | PCI/G |
| | | | SOIL | N | Cobalt 58 | -0.006 U | 0.082 | PCI/G |
| | | | SOIL | N | Cobalt 60 | -0.007 U | 0.085 | PCI/G |
| | | | SOIL | N | Lead 210 | 1 U | 2 | PCI/G |
| | | | SOIL | N | Lead 212 | 0.52 | 0.15 | PCI/G |
| | | | SOIL | N | Lead 214 | 0.67 | 0.14 | PCI/G |
| | | | SOIL | N | Potassium 40 | 13.1 | 0.8 | PCI/G |
| | | | SOIL | N | Radium (226) | 0.56 J | 0.14 | PCI/G |
| | | | SOIL | N | Radium 228 | 0.61 J | 0.33 | PCI/G |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **GA01R** | SOIL | N | Thallium 208 | 0.189 | 0.077 | PCI/G |
| | | | SOIL | N | Thorium 234 | 0.003 U | 1 | PCI/G |
| | | | SOIL | N | Uranium 235 | 0.05 U | 0.38 | PCI/G |
| | | **SW6020** | SOIL | N | Aluminum | 5200 J | 2 | MG/KG |
| | | | SOIL | N | Antimony | 0.13 J | 0.054 | MG/KG |
| | | | SOIL | N | Arsenic | 2.8 | 0.22 | MG/KG |
| | | | SOIL | N | Barium | 103 | 0.36 | MG/KG |
| | | | SOIL | N | Beryllium | 0.35 | 0.026 | MG/KG |
| | | | SOIL | N | Cadmium | 0.091 | 0.0051 | MG/KG |
| | | | SOIL | N | Calcium | 26400 J | 10.2 | MG/KG |
| | | | SOIL | N | Chromium | 7.9 | 0.41 | MG/KG |
| | | | SOIL | N | Cobalt | 4.4 | 0.026 | MG/KG |
| | | | SOIL | N | Copper | 7.8 | 0.33 | MG/KG |
| | | | SOIL | N | Iron | 9060 J | 2.3 | MG/KG |
| | | | SOIL | N | Lead | 7.6 J | 0.051 | MG/KG |
| | | | SOIL | N | Magnesium | 3480 J | 5.8 | MG/KG |
| | | | SOIL | N | Manganese | 183 J | 0.061 | MG/KG |
| | | | SOIL | N | Molybdenum | 0.36 J | 0.054 | MG/KG |
| | | | SOIL | N | Nickel | 8.3 J | 0.051 | MG/KG |
| | | | SOIL | N | Potassium | 1000 J | 3.3 | MG/KG |
| | | | SOIL | N | Selenium | 0.11 U | 0.11 | MG/KG |
| | | | SOIL | N | Silver | 0.034 J | 0.02 | MG/KG |
| | | | SOIL | N | Sodium | 74.4 J | 8.8 | MG/KG |
| | | | SOIL | N | Thallium | 0.072 U | 0.072 | MG/KG |
| | | | SOIL | N | Vanadium | 18 | 0.24 | MG/KG |
| | | | SOIL | N | Zinc | 21.4 J | 0.53 | MG/KG |
| | | **SW7471A** | SOIL | N | Mercury | 0.0068 U | 0.0068 | MG/KG |
| | | **SW9310** | SOIL | N | Gross Alpha | 25.8 | 3.5 | PCI/G |
| | | | SOIL | N | Gross Beta | 25.3 J | 4.2 | PCI/G |
| **6-30-TP-09-0708 / F6J220112010** | | | | | | | | |
| | F6J220112 | **A01R** | SOIL | N | Iodine 129 | 0.06 U | 0.55 | PCI/G |
| | | | SOIL | N | Neptunium 237 | -0.003 U | 0.033 | PCI/G |
| | | | SOIL | N | Plutonium 238 | 0.013 U | 0.041 | PCI/G |
| | | | SOIL | N | Plutonium 239/40 | 0.026 U | 0.027 | PCI/G |
| | | | SOIL | N | Thorium 228 | 0.92 | 0.06 | PCI/G |
| | | | SOIL | N | Thorium 230 | 0.62 | 0.04 | PCI/G |
| | | | SOIL | N | Thorium 232 | 0.84 | 0.03 | PCI/G |

TABLE 5

Results by Location

*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **A01R** | SOIL | N | Uranium 233/234 | 0.53 | 0.05 | PCI/G |
| | | | SOIL | N | Uranium 235/236 | 0.016 U | 0.021 | PCI/G |
| | | | SOIL | N | Uranium 238 | 0.52 | 0.04 | PCI/G |
| | | **EML-AM-01** | SOIL | N | Americium 241 | 0.015 U | 0.059 | PCI/G |
| | | **EML-SR-01** | SOIL | N | Strontium 89 | 0.38 U | 0.49 | PCI/G |
| | | **EML-SR-03** | SOIL | N | Strontium 90 | -0.4 U | 0.58 | PCI/G |
| | | **GA01R** | SOIL | N | Actinium 227 | 0.05 U | 0.42 | PCI/G |
| | | | SOIL | N | Actinium 228 | 0.57 | 0.28 | PCI/G |
| | | | SOIL | N | Bismuth 207 | -0.008 U | 0.072 | PCI/G |
| | | | SOIL | N | Bismuth 212 | 0.37 U | 0.88 | PCI/G |
| | | | SOIL | N | Bismuth 214 | 0.69 | 0.14 | PCI/G |
| | | | SOIL | N | Bismuth-210M | 0.042 U | 0.11 | PCI/G |
| | | | SOIL | N | Cesium 134 | -0.024 U | 0.058 | PCI/G |
| | | | SOIL | N | Cesium 137 | -0.032 U | 0.075 | PCI/G |
| | | | SOIL | N | Cobalt 57 | -0.009 U | 0.042 | PCI/G |
| | | | SOIL | N | Cobalt 58 | -0.013 U | 0.073 | PCI/G |
| | | | SOIL | N | Cobalt 60 | 0.027 U | 0.092 | PCI/G |
| | | | SOIL | N | Lead 210 | 0.7 U | 2.2 | PCI/G |
| | | | SOIL | N | Lead 212 | 0.73 | 0.12 | PCI/G |
| | | | SOIL | N | Lead 214 | 0.72 | 0.15 | PCI/G |
| | | | SOIL | N | Potassium 40 | 14.3 | 0.9 | PCI/G |
| | | | SOIL | N | Radium (226) | 0.69 J | 0.14 | PCI/G |
| | | | SOIL | N | Radium 228 | 0.57 J | 0.28 | PCI/G |
| | | | SOIL | N | Thallium 208 | 0.211 | 0.089 | PCI/G |
| | | | SOIL | N | Thorium 234 | 0.47 U | 1 | PCI/G |
| | | | SOIL | N | Uranium 235 | -0.05 U | 0.37 | PCI/G |
| | | **SW6020** | SOIL | N | Aluminum | 6550 J | 2.1 | MG/KG |
| | | | SOIL | N | Antimony | 0.12 J | 0.054 | MG/KG |
| | | | SOIL | N | Arsenic | 3.2 | 0.22 | MG/KG |
| | | | SOIL | N | Barium | 134 | 0.36 | MG/KG |
| | | | SOIL | N | Beryllium | 0.4 | 0.026 | MG/KG |
| | | | SOIL | N | Cadmium | 0.11 | 0.0052 | MG/KG |
| | | | SOIL | N | Calcium | 26400 J | 10.4 | MG/KG |
| | | | SOIL | N | Chromium | 8.5 | 0.41 | MG/KG |
| | | | SOIL | N | Cobalt | 5.4 | 0.026 | MG/KG |
| | | | SOIL | N | Copper | 9.9 | 0.33 | MG/KG |
| | | | SOIL | N | Iron | 10300 J | 2.3 | MG/KG |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **SW6020** | SOIL | N | Lead | 8.2 J | 0.052 | MG/KG |
| | | | SOIL | N | Magnesium | 4290 J | 5.9 | MG/KG |
| | | | SOIL | N | Manganese | 276 J | 0.062 | MG/KG |
| | | | SOIL | N | Molybdenum | 0.43 J | 0.054 | MG/KG |
| | | | SOIL | N | Nickel | 11.2 J | 0.052 | MG/KG |
| | | | SOIL | N | Potassium | 1500 J | 3.3 | MG/KG |
| | | | SOIL | N | Selenium | 0.11 U | 0.11 | MG/KG |
| | | | SOIL | N | Silver | 0.042 J | 0.021 | MG/KG |
| | | | SOIL | N | Sodium | 232 J | 8.9 | MG/KG |
| | | | SOIL | N | Thallium | 0.12 J | 0.072 | MG/KG |
| | | | SOIL | N | Vanadium | 19.5 | 0.24 | MG/KG |
| | | | SOIL | N | Zinc | 27 J | 0.54 | MG/KG |
| | | **SW7471A** | SOIL | N | Mercury | 0.0069 U | 0.0069 | MG/KG |
| | | **SW9310** | SOIL | N | Gross Alpha | 26.3 | 4.4 | PCI/G |
| | | | SOIL | N | Gross Beta | 28.6 J | 4.6 | PCI/G |
| **6-30-TP-09-2021 / F6J220112009** | | | | | | | | |
| | F6J220112 | **A01R** | SOIL | N | Iodine 129 | -0.2 U | 0.5 | PCI/G |
| | | | SOIL | N | Neptunium 237 | -0.003 U | 0.035 | PCI/G |
| | | | SOIL | N | Plutonium 238 | 0.002 U | 0.042 | PCI/G |
| | | | SOIL | N | Plutonium 239/40 | 0.007 U | 0.027 | PCI/G |
| | | | SOIL | N | Thorium 228 | 0.89 | 0.04 | PCI/G |
| | | | SOIL | N | Thorium 230 | 0.68 | 0.05 | PCI/G |
| | | | SOIL | N | Thorium 232 | 0.82 | 0.03 | PCI/G |
| | | | SOIL | N | Uranium 233/234 | 0.88 | 0.05 | PCI/G |
| | | | SOIL | N | Uranium 235/236 | 0.069 J | 0.037 | PCI/G |
| | | | SOIL | N | Uranium 238 | 0.7 | 0.04 | PCI/G |
| | | **EML-AM-01** | SOIL | N | Americium 241 | 0.033 U | 0.045 | PCI/G |
| | | **EML-SR-01** | SOIL | N | Strontium 89 | 0.37 U | 0.46 | PCI/G |
| | | **EML-SR-03** | SOIL | N | Strontium 90 | -0.28 U | 0.47 | PCI/G |
| | | **GA01R** | SOIL | N | Actinium 227 | 0.1 U | 0.3 | PCI/G |
| | | | SOIL | N | Actinium 228 | 0.46 | 0.21 | PCI/G |
| | | | SOIL | N | Bismuth 207 | -0.005 U | 0.045 | PCI/G |
| | | | SOIL | N | Bismuth 212 | 0.24 U | 0.58 | PCI/G |
| | | | SOIL | N | Bismuth 214 | 0.61 | 0.12 | PCI/G |
| | | | SOIL | N | Bismuth-210M | -0.019 U | 0.062 | PCI/G |
| | | | SOIL | N | Cesium 134 | 0.018 U | 0.054 | PCI/G |
| | | | SOIL | N | Cesium 137 | -0.012 U | 0.073 | PCI/G |

TABLE 5

Results by Location

*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **GA01R** | SOIL | N | Cobalt 57 | -0.006 U | 0.03 | PCI/G |
| | | | SOIL | N | Cobalt 58 | -0.031 U | 0.053 | PCI/G |
| | | | SOIL | N | Cobalt 60 | 0.03 U | 0.09 | PCI/G |
| | | | SOIL | N | Lead 210 | 0.67 U | 1.5 | PCI/G |
| | | | SOIL | N | Lead 212 | 0.56 | 0.11 | PCI/G |
| | | | SOIL | N | Lead 214 | 0.59 | 0.1 | PCI/G |
| | | | SOIL | N | Potassium 40 | 13.5 | 0.4 | PCI/G |
| | | | SOIL | N | Radium (226) | 0.61 J | 0.12 | PCI/G |
| | | | SOIL | N | Radium 228 | 0.46 J | 0.21 | PCI/G |
| | | | SOIL | N | Thallium 208 | 0.191 | 0.056 | PCI/G |
| | | | SOIL | N | Thorium 234 | 0.26 U | 0.71 | PCI/G |
| | | | SOIL | N | Uranium 235 | 0.16 U | 0.3 | PCI/G |
| | | **SW6010** | SOIL | N | Arsenic-TCLP | 74.3 U | 74.3 | UG/L |
| | | | SOIL | N | Barium-TCLP | 567 J | 12.5 | UG/L |
| | | | SOIL | N | Cadmium-TCLP | 5.7 U | 5.7 | UG/L |
| | | | SOIL | N | Chromium-TCLP | 19.3 U | 19.3 | UG/L |
| | | | SOIL | N | Lead-TCLP | 70.4 U | 70.4 | UG/L |
| | | | SOIL | N | Selenium-TCLP | 104 U | 104 | UG/L |
| | | | SOIL | N | Silver-TCLP | 13 U | 13 | UG/L |
| | | **SW6020** | SOIL | N | Aluminum | 5110 J | 2 | MG/KG |
| | | | SOIL | N | Antimony | 0.11 J | 0.053 | MG/KG |
| | | | SOIL | N | Arsenic | 2.7 | 0.22 | MG/KG |
| | | | SOIL | N | Barium | 108 | 0.36 | MG/KG |
| | | | SOIL | N | Beryllium | 0.34 | 0.026 | MG/KG |
| | | | SOIL | N | Cadmium | 0.093 | 0.0051 | MG/KG |
| | | | SOIL | N | Calcium | 25700 J | 10.2 | MG/KG |
| | | | SOIL | N | Chromium | 8.4 | 0.41 | MG/KG |
| | | | SOIL | N | Cobalt | 4.8 | 0.025 | MG/KG |
| | | | SOIL | N | Copper | 8.6 | 0.33 | MG/KG |
| | | | SOIL | N | Iron | 10900 J | 2.2 | MG/KG |
| | | | SOIL | N | Lead | 9 J | 0.051 | MG/KG |
| | | | SOIL | N | Magnesium | 3780 J | 5.8 | MG/KG |
| | | | SOIL | N | Manganese | 219 J | 0.061 | MG/KG |
| | | | SOIL | N | Molybdenum | 0.54 | 0.053 | MG/KG |
| | | | SOIL | N | Nickel | 9 J | 0.051 | MG/KG |
| | | | SOIL | N | Potassium | 998 J | 3.3 | MG/KG |
| | | | SOIL | N | Selenium | 0.11 U | 0.11 | MG/KG |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **SW6020** | SOIL | N | Silver | 0.033 J | 0.02 | MG/KG |
| | | | SOIL | N | Sodium | 120 J | 8.7 | MG/KG |
| | | | SOIL | N | Thallium | 0.097 U | 0.071 | MG/KG |
| | | | SOIL | N | Vanadium | 19.5 | 0.24 | MG/KG |
| | | | SOIL | N | Zinc | 26.1 J | 0.53 | MG/KG |
| | | **SW7470A** | SOIL | N | Mercury-TCLP | 0.46 U | 0.46 | UG/L |
| | | **SW7471A** | SOIL | N | Mercury | 0.0068 U | 0.0068 | MG/KG |
| | | **SW9310** | SOIL | N | Gross Alpha | 21.5 | 4.3 | PCI/G |
| | | | SOIL | N | Gross Beta | 27.5 J | 4.6 | PCI/G |
| **6-30-TP-10-0102 / F6J220112011** | | | | | | | | |
| | F6J220112 | **A01R** | SOIL | N | Iodine 129 | 0.1 U | 0.59 | PCI/G |
| | | | SOIL | N | Neptunium 237 | -0.003 U | 0.036 | PCI/G |
| | | | SOIL | N | Plutonium 238 | -0.006 U | 0.05 | PCI/G |
| | | | SOIL | N | Plutonium 239/40 | -0.004 U | 0.032 | PCI/G |
| | | | SOIL | N | Thorium 228 | 0.85 | 0.04 | PCI/G |
| | | | SOIL | N | Thorium 230 | 0.71 | 0.04 | PCI/G |
| | | | SOIL | N | Thorium 232 | 0.8 | 0.03 | PCI/G |
| | | | SOIL | N | Uranium 233/234 | 0.74 | 0.03 | PCI/G |
| | | | SOIL | N | Uranium 235/236 | 0.058 J | 0.036 | PCI/G |
| | | | SOIL | N | Uranium 238 | 0.64 | 0.04 | PCI/G |
| | | **EML-AM-01** | SOIL | N | Americium 241 | 0.006 U | 0.052 | PCI/G |
| | | **EML-SR-01** | SOIL | N | Strontium 89 | 0.15 U | 0.55 | PCI/G |
| | | **EML-SR-03** | SOIL | N | Strontium 90 | -0.03 U | 0.49 | PCI/G |
| | | **GA01R** | SOIL | N | Actinium 227 | 0.36 U | 0.44 | PCI/G |
| | | | SOIL | N | Actinium 228 | 0.76 | 0.33 | PCI/G |
| | | | SOIL | N | Bismuth 207 | 0.007 U | 0.069 | PCI/G |
| | | | SOIL | N | Bismuth 212 | 0.5 U | 0.85 | PCI/G |
| | | | SOIL | N | Bismuth 214 | 0.74 | 0.12 | PCI/G |
| | | | SOIL | N | Bismuth-210M | 0.01 U | 0.092 | PCI/G |
| | | | SOIL | N | Cesium 134 | 0.04 U | 0.073 | PCI/G |
| | | | SOIL | N | Cesium 137 | -0.029 U | 0.078 | PCI/G |
| | | | SOIL | N | Cobalt 57 | 0.012 U | 0.046 | PCI/G |
| | | | SOIL | N | Cobalt 58 | -0.002 U | 0.079 | PCI/G |
| | | | SOIL | N | Cobalt 60 | 0.004 U | 0.092 | PCI/G |
| | | | SOIL | N | Lead 210 | 0.4 U | 1.9 | PCI/G |
| | | | SOIL | N | Lead 212 | 0.62 | 0.18 | PCI/G |
| | | | SOIL | N | Lead 214 | 0.74 | 0.13 | PCI/G |

TABLE 5

Results by Location

*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **GA01R** | SOIL | N | Potassium 40 | 15.1 | 0.8 | PCI/G |
| | | | SOIL | N | Radium (226) | 0.74 J | 0.12 | PCI/G |
| | | | SOIL | N | Radium 228 | 0.76 | 0.33 | PCI/G |
| | | | SOIL | N | Thallium 208 | 0.21 | 0.082 | PCI/G |
| | | | SOIL | N | Thorium 234 | 0.6 U | 0.98 | PCI/G |
| | | | SOIL | N | Uranium 235 | 0.02 U | 0.37 | PCI/G |
| | | **SW6020** | SOIL | N | Aluminum | 7690 J | 2.2 | MG/KG |
| | | | SOIL | N | Antimony | 0.14 J | 0.057 | MG/KG |
| | | | SOIL | N | Arsenic | 3.6 | 0.23 | MG/KG |
| | | | SOIL | N | Barium | 137 | 0.38 | MG/KG |
| | | | SOIL | N | Beryllium | 0.47 | 0.027 | MG/KG |
| | | | SOIL | N | Cadmium | 0.094 | 0.0054 | MG/KG |
| | | | SOIL | N | Calcium | 13800 J | 10.8 | MG/KG |
| | | | SOIL | N | Chromium | 9.2 | 0.43 | MG/KG |
| | | | SOIL | N | Cobalt | 5.7 | 0.027 | MG/KG |
| | | | SOIL | N | Copper | 10.3 | 0.35 | MG/KG |
| | | | SOIL | N | Iron | 11300 J | 2.4 | MG/KG |
| | | | SOIL | N | Lead | 9.2 J | 0.054 | MG/KG |
| | | | SOIL | N | Magnesium | 3810 J | 6.1 | MG/KG |
| | | | SOIL | N | Manganese | 249 J | 0.065 | MG/KG |
| | | | SOIL | N | Molybdenum | 0.44 J | 0.057 | MG/KG |
| | | | SOIL | N | Nickel | 10 J | 0.054 | MG/KG |
| | | | SOIL | N | Potassium | 1630 J | 3.5 | MG/KG |
| | | | SOIL | N | Selenium | 0.12 U | 0.12 | MG/KG |
| | | | SOIL | N | Silver | 0.072 J | 0.022 | MG/KG |
| | | | SOIL | N | Sodium | 197 J | 9.3 | MG/KG |
| | | | SOIL | N | Thallium | 0.11 J | 0.076 | MG/KG |
| | | | SOIL | N | Vanadium | 20.8 | 0.25 | MG/KG |
| | | | SOIL | N | Zinc | 27 J | 0.56 | MG/KG |
| | | **SW7471A** | SOIL | N | Mercury | 0.015 J | 0.0072 | MG/KG |
| | | **SW9310** | SOIL | N | Gross Alpha | 20 | 4.4 | PCI/G |
| | | | SOIL | N | Gross Beta | 28.8 J | 5.4 | PCI/G |
| **6-30-TP-11-0910 / F6J220112012** | | | | | | | | |
| | F6J220112 | **A01R** | SOIL | N | Iodine 129 | -0.04 U | 0.59 | PCI/G |
| | | | SOIL | N | Neptunium 237 | 0.001 U | 0.03 | PCI/G |
| | | | SOIL | N | Plutonium 238 | 0.005 U | 0.046 | PCI/G |
| | | | SOIL | N | Plutonium 239/40 | 0.019 U | 0.025 | PCI/G |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **A01R** | SOIL | N | Thorium 228 | 1.07 | 0.04 | PCI/G |
| | | | SOIL | N | Thorium 230 | 0.87 | 0.03 | PCI/G |
| | | | SOIL | N | Thorium 232 | 1.02 | 0.02 | PCI/G |
| | | | SOIL | N | Uranium 233/234 | 0.83 | 0.03 | PCI/G |
| | | | SOIL | N | Uranium 235/236 | 0.014 U | 0.034 | PCI/G |
| | | | SOIL | N | Uranium 238 | 0.71 | 0.02 | PCI/G |
| | | **EML-AM-01** | SOIL | N | Americium 241 | 0.026 U | 0.054 | PCI/G |
| | | **EML-SR-01** | SOIL | N | Strontium 89 | -0.03 U | 0.51 | PCI/G |
| | | **EML-SR-03** | SOIL | N | Strontium 90 | -0.86 U | 0.66 | PCI/G |
| | | **GA01R** | SOIL | N | Actinium 227 | -0.03 U | 0.42 | PCI/G |
| | | | SOIL | N | Actinium 228 | 0.94 | 0.31 | PCI/G |
| | | | SOIL | N | Bismuth 207 | 0.015 U | 0.081 | PCI/G |
| | | | SOIL | N | Bismuth 212 | 0.33 U | 0.81 | PCI/G |
| | | | SOIL | N | Bismuth 214 | 0.77 | 0.18 | PCI/G |
| | | | SOIL | N | Bismuth-210M | 0.012 U | 0.1 | PCI/G |
| | | | SOIL | N | Cesium 134 | -0.022 U | 0.073 | PCI/G |
| | | | SOIL | N | Cesium 137 | 0.001 U | 0.11 | PCI/G |
| | | | SOIL | N | Cobalt 57 | -0.013 U | 0.045 | PCI/G |
| | | | SOIL | N | Cobalt 58 | 0.032 U | 0.1 | PCI/G |
| | | | SOIL | N | Cobalt 60 | 0.02 U | 0.11 | PCI/G |
| | | | SOIL | N | Lead 210 | -0.1 U | 2 | PCI/G |
| | | | SOIL | N | Lead 212 | 0.99 | 0.12 | PCI/G |
| | | | SOIL | N | Lead 214 | 0.84 | 0.15 | PCI/G |
| | | | SOIL | N | Potassium 40 | 17.1 | 0.9 | PCI/G |
| | | | SOIL | N | Radium (226) | 0.77 J | 0.18 | PCI/G |
| | | | SOIL | N | Radium 228 | 0.94 | 0.31 | PCI/G |
| | | | SOIL | N | Thallium 208 | 0.288 | 0.098 | PCI/G |
| | | | SOIL | N | Thorium 234 | 0.2 U | 1.1 | PCI/G |
| | | | SOIL | N | Uranium 235 | -0.05 U | 0.37 | PCI/G |
| | | **SW6010** | SOIL | N | Arsenic-TCLP | 74.3 U | 74.3 | UG/L |
| | | | SOIL | N | Barium-TCLP | 1090 J | 12.5 | UG/L |
| | | | SOIL | N | Cadmium-TCLP | 5.7 U | 5.7 | UG/L |
| | | | SOIL | N | Chromium-TCLP | 19.3 U | 19.3 | UG/L |
| | | | SOIL | N | Lead-TCLP | 70.4 U | 70.4 | UG/L |
| | | | SOIL | N | Selenium-TCLP | 104 U | 104 | UG/L |
| | | | SOIL | N | Silver-TCLP | 13 U | 13 | UG/L |
| | | **SW6020** | SOIL | N | Aluminum | 6840 J | 2.1 | MG/KG |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **SW6020** | SOIL | N | Antimony | 0.19 J | 0.054 | MG/KG |
| | | | SOIL | N | Arsenic | 4 | 0.22 | MG/KG |
| | | | SOIL | N | Barium | 175 | 0.36 | MG/KG |
| | | | SOIL | N | Beryllium | 0.41 | 0.026 | MG/KG |
| | | | SOIL | N | Cadmium | 0.14 | 0.0052 | MG/KG |
| | | | SOIL | N | Calcium | 23700 J | 10.3 | MG/KG |
| | | | SOIL | N | Chromium | 9 | 0.41 | MG/KG |
| | | | SOIL | N | Cobalt | 5.3 | 0.026 | MG/KG |
| | | | SOIL | N | Copper | 9.4 | 0.33 | MG/KG |
| | | | SOIL | N | Iron | 10800 J | 2.3 | MG/KG |
| | | | SOIL | N | Lead | 40.5 J | 0.052 | MG/KG |
| | | | SOIL | N | Magnesium | 3790 J | 5.8 | MG/KG |
| | | | SOIL | N | Manganese | 218 J | 0.062 | MG/KG |
| | | | SOIL | N | Molybdenum | 0.51 J | 0.054 | MG/KG |
| | | | SOIL | N | Nickel | 9.5 J | 0.052 | MG/KG |
| | | | SOIL | N | Potassium | 1390 J | 3.3 | MG/KG |
| | | | SOIL | N | Selenium | 0.11 U | 0.11 | MG/KG |
| | | | SOIL | N | Silver | 0.054 J | 0.021 | MG/KG |
| | | | SOIL | N | Sodium | 55.4 J | 8.8 | MG/KG |
| | | | SOIL | N | Thallium | 0.095 U | 0.072 | MG/KG |
| | | | SOIL | N | Vanadium | 20.9 | 0.24 | MG/KG |
| | | | SOIL | N | Zinc | 30.4 J | 0.54 | MG/KG |
| | | **SW7470A** | SOIL | N | Mercury-TCLP | 0.46 U | 0.46 | UG/L |
| | | **SW7471A** | SOIL | N | Mercury | 0.013 J | 0.0069 | MG/KG |
| | | **SW9310** | SOIL | N | Gross Alpha | 27.4 | 3.9 | PCI/G |
| | | | SOIL | N | Gross Beta | 29.3 J | 5.4 | PCI/G |
| **6-30-TP-11-1516 / F6J220112013** | | | | | | | | |
| | F6J220112 | **A01R** | SOIL | N | Iodine 129 | 0.13 U | 0.69 | PCI/G |
| | | | SOIL | N | Neptunium 237 | 0.024 U | 0.035 | PCI/G |
| | | | SOIL | N | Plutonium 238 | -0.062 U | 0.11 | PCI/G |
| | | | SOIL | N | Plutonium 239/40 | -0.015 U | 0.053 | PCI/G |
| | | | SOIL | N | Thorium 228 | 1.13 | 0.04 | PCI/G |
| | | | SOIL | N | Thorium 230 | 1.03 | 0.02 | PCI/G |
| | | | SOIL | N | Thorium 232 | 0.95 | 0.03 | PCI/G |
| | | | SOIL | N | Uranium 233/234 | 0.84 | 0.05 | PCI/G |
| | | | SOIL | N | Uranium 235/236 | 0.024 U | 0.036 | PCI/G |
| | | | SOIL | N | Uranium 238 | 0.83 | 0.03 | PCI/G |

TABLE 5

Results by Location

*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **EML-AM-01** | SOIL | N | Americium 241 | 0.018 U | 0.16 | PCI/G |
| | | **EML-SR-01** | SOIL | N | Strontium 89 | -0.27 U | 0.55 | PCI/G |
| | | **EML-SR-03** | SOIL | N | Strontium 90 | -0.25 U | 0.58 | PCI/G |
| | | **GA01R** | SOIL | N | Actinium 227 | 0.02 U | 0.44 | PCI/G |
| | | | SOIL | N | Actinium 228 | 0.94 | 0.8 | PCI/G |
| | | | SOIL | N | Bismuth 207 | -0.014 U | 0.068 | PCI/G |
| | | | SOIL | N | Bismuth 212 | 0.19 U | 0.94 | PCI/G |
| | | | SOIL | N | Bismuth 214 | 0.78 | 0.18 | PCI/G |
| | | | SOIL | N | Bismuth-210M | -0.043 U | 0.1 | PCI/G |
| | | | SOIL | N | Cesium 134 | -0.011 U | 0.071 | PCI/G |
| | | | SOIL | N | Cesium 137 | -0.025 U | 0.094 | PCI/G |
| | | | SOIL | N | Cobalt 57 | 0.009 U | 0.058 | PCI/G |
| | | | SOIL | N | Cobalt 58 | 0.044 U | 0.11 | PCI/G |
| | | | SOIL | N | Cobalt 60 | -0.02 U | 0.12 | PCI/G |
| | | | SOIL | N | Lead 210 | -0.2 U | 2.5 | PCI/G |
| | | | SOIL | N | Lead 212 | 0.81 | 0.13 | PCI/G |
| | | | SOIL | N | Lead 214 | 0.88 | 0.19 | PCI/G |
| | | | SOIL | N | Potassium 40 | 13.4 | 1.2 | PCI/G |
| | | | SOIL | N | Radium (226) | 0.78 J | 0.18 | PCI/G |
| | | | SOIL | N | Radium 228 | 0.94 | 0.8 | PCI/G |
| | | | SOIL | N | Thallium 208 | 0.29 | 0.092 | PCI/G |
| | | | SOIL | N | Thorium 234 | 1.02 U | 1.3 | PCI/G |
| | | | SOIL | N | Uranium 235 | 0.12 U | 0.46 | PCI/G |
| | | **SW6010** | SOIL | N | Arsenic-TCLP | 74.3 U | 74.3 | UG/L |
| | | | SOIL | N | Barium-TCLP | 662 J | 12.5 | UG/L |
| | | | SOIL | N | Cadmium-TCLP | 5.7 U | 5.7 | UG/L |
| | | | SOIL | N | Chromium-TCLP | 19.3 U | 19.3 | UG/L |
| | | | SOIL | N | Lead-TCLP | 70.4 U | 70.4 | UG/L |
| | | | SOIL | N | Selenium-TCLP | 104 U | 104 | UG/L |
| | | | SOIL | N | Silver-TCLP | 13 U | 13 | UG/L |
| | | **SW6020** | SOIL | N | Aluminum | 5780 J | 2.1 | MG/KG |
| | | | SOIL | N | Antimony | 0.15 J | 0.054 | MG/KG |
| | | | SOIL | N | Arsenic | 3.3 | 0.22 | MG/KG |
| | | | SOIL | N | Barium | 138 | 0.36 | MG/KG |
| | | | SOIL | N | Beryllium | 0.38 | 0.026 | MG/KG |
| | | | SOIL | N | Cadmium | 0.099 | 0.0052 | MG/KG |
| | | | SOIL | N | Calcium | 28500 J | 10.3 | MG/KG |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **SW6020** | SOIL | N | Chromium | 8.6 | 0.41 | MG/KG |
| | | | SOIL | N | Cobalt | 4.5 | 0.026 | MG/KG |
| | | | SOIL | N | Copper | 7.9 | 0.33 | MG/KG |
| | | | SOIL | N | Iron | 9820 J | 2.3 | MG/KG |
| | | | SOIL | N | Lead | 7.3 J | 0.052 | MG/KG |
| | | | SOIL | N | Magnesium | 3730 J | 5.9 | MG/KG |
| | | | SOIL | N | Manganese | 187 J | 0.062 | MG/KG |
| | | | SOIL | N | Molybdenum | 0.54 | 0.054 | MG/KG |
| | | | SOIL | N | Nickel | 9.1 J | 0.052 | MG/KG |
| | | | SOIL | N | Potassium | 1250 J | 3.3 | MG/KG |
| | | | SOIL | N | Selenium | 0.11 U | 0.11 | MG/KG |
| | | | SOIL | N | Silver | 0.037 J | 0.021 | MG/KG |
| | | | SOIL | N | Sodium | 90 J | 8.9 | MG/KG |
| | | | SOIL | N | Thallium | 0.076 U | 0.072 | MG/KG |
| | | | SOIL | N | Vanadium | 19 | 0.24 | MG/KG |
| | | | SOIL | N | Zinc | 26.1 J | 0.54 | MG/KG |
| | | **SW7470A** | SOIL | N | Mercury-TCLP | 0.46 U | 0.46 | UG/L |
| | | **SW7471A** | SOIL | N | Mercury | 0.0069 U | 0.0069 | MG/KG |
| | | **SW9310** | SOIL | N | Gross Alpha | 18.2 | 3.8 | PCI/G |
| | | | SOIL | N | Gross Beta | 27.2 J | 5 | PCI/G |
| **6-30-TP-12-0708 / F6J220112015** | | | | | | | | |
| | F6J220112 | **A01R** | SOIL | N | Iodine 129 | 0.11 U | 0.62 | PCI/G |
| | | | SOIL | N | Neptunium 237 | 0.07 U | 0.07 | PCI/G |
| | | | SOIL | N | Plutonium 238 | 0.004 U | 0.029 | PCI/G |
| | | | SOIL | N | Plutonium 239/40 | 0.012 U | 0.016 | PCI/G |
| | | | SOIL | N | Thorium 228 | 1.02 | 0.03 | PCI/G |
| | | | SOIL | N | Thorium 230 | 0.89 | 0.03 | PCI/G |
| | | | SOIL | N | Thorium 232 | 0.85 | 0.03 | PCI/G |
| | | | SOIL | N | Uranium 233/234 | 0.68 | 0.05 | PCI/G |
| | | | SOIL | N | Uranium 235/236 | 0.061 J | 0.051 | PCI/G |
| | | | SOIL | N | Uranium 238 | 0.72 | 0.05 | PCI/G |
| | | **EML-AM-01** | SOIL | N | Americium 241 | -0.006 U | 0.077 | PCI/G |
| | | **EML-SR-01** | SOIL | N | Strontium 89 | -0.02 U | 0.46 | PCI/G |
| | | **EML-SR-03** | SOIL | N | Strontium 90 | 0.01 U | 0.47 | PCI/G |
| | | **GA01R** | SOIL | N | Actinium 227 | 0.13 U | 0.46 | PCI/G |
| | | | SOIL | N | Actinium 228 | 0.93 | 0.37 | PCI/G |
| | | | SOIL | N | Bismuth 207 | -0.011 U | 0.074 | PCI/G |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **GA01R** | SOIL | N | Bismuth 212 | 0.4 U | 0.74 | PCI/G |
| | | | SOIL | N | Bismuth 214 | 0.86 | 0.15 | PCI/G |
| | | | SOIL | N | Bismuth-210M | -0.008 U | 0.092 | PCI/G |
| | | | SOIL | N | Cesium 134 | -0.033 U | 0.068 | PCI/G |
| | | | SOIL | N | Cesium 137 | -0.046 U | 0.11 | PCI/G |
| | | | SOIL | N | Cobalt 57 | 0.019 U | 0.054 | PCI/G |
| | | | SOIL | N | Cobalt 58 | -0.026 U | 0.086 | PCI/G |
| | | | SOIL | N | Cobalt 60 | -0.024 U | 0.11 | PCI/G |
| | | | SOIL | N | Lead 210 | 0.4 U | 2.3 | PCI/G |
| | | | SOIL | N | Lead 212 | 0.84 | 0.19 | PCI/G |
| | | | SOIL | N | Lead 214 | 0.83 | 0.16 | PCI/G |
| | | | SOIL | N | Potassium 40 | 17.8 | 0.7 | PCI/G |
| | | | SOIL | N | Radium (226) | 0.86 J | 0.15 | PCI/G |
| | | | SOIL | N | Radium 228 | 0.93 | 0.37 | PCI/G |
| | | | SOIL | N | Thallium 208 | 0.316 | 0.094 | PCI/G |
| | | | SOIL | N | Thorium 234 | 0.44 U | 1.1 | PCI/G |
| | | | SOIL | N | Uranium 235 | 0.15 U | 0.42 | PCI/G |
| | | **SW6020** | SOIL | N | Aluminum | 5550 J | 2.1 | MG/KG |
| | | | SOIL | N | Antimony | 0.26 J | 0.054 | MG/KG |
| | | | SOIL | N | Arsenic | 4.3 | 0.22 | MG/KG |
| | | | SOIL | N | Barium | 88.7 | 0.36 | MG/KG |
| | | | SOIL | N | Beryllium | 0.35 | 0.026 | MG/KG |
| | | | SOIL | N | Cadmium | 0.081 | 0.0052 | MG/KG |
| | | | SOIL | N | Calcium | 24500 J | 10.3 | MG/KG |
| | | | SOIL | N | Chromium | 7.7 | 0.41 | MG/KG |
| | | | SOIL | N | Cobalt | 4.4 | 0.026 | MG/KG |
| | | | SOIL | N | Copper | 7.4 | 0.33 | MG/KG |
| | | | SOIL | N | Iron | 8880 J | 2.3 | MG/KG |
| | | | SOIL | N | Lead | 6.3 J | 0.052 | MG/KG |
| | | | SOIL | N | Magnesium | 3460 J | 5.8 | MG/KG |
| | | | SOIL | N | Manganese | 177 J | 0.062 | MG/KG |
| | | | SOIL | N | Molybdenum | 0.29 J | 0.054 | MG/KG |
| | | | SOIL | N | Nickel | 8.7 J | 0.052 | MG/KG |
| | | | SOIL | N | Potassium | 1100 J | 3.3 | MG/KG |
| | | | SOIL | N | Selenium | 0.11 U | 0.11 | MG/KG |
| | | | SOIL | N | Silver | 0.041 J | 0.021 | MG/KG |
| | | | SOIL | N | Sodium | 213 J | 8.8 | MG/KG |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **SW6020** | SOIL | N | Thallium | 0.073 U | 0.072 | MG/KG |
| | | | SOIL | N | Vanadium | 17.4 | 0.24 | MG/KG |
| | | | SOIL | N | Zinc | 21.1 J | 0.54 | MG/KG |
| | | **SW7471A** | SOIL | N | Mercury | 0.0069 U | 0.0069 | MG/KG |
| | | **SW9310** | SOIL | N | Gross Alpha | 23.5 | 4.8 | PCI/G |
| | | | SOIL | N | Gross Beta | 36.2 | 7.3 | PCI/G |
| **6-30-TP-12-1819 / F6J220112014** | | | | | | | | |
| | F6J220112 | **A01R** | SOIL | N | Iodine 129 | 0.03 U | 0.55 | PCI/G |
| | | | SOIL | N | Neptunium 237 | -0.003 U | 0.035 | PCI/G |
| | | | SOIL | N | Plutonium 238 | -0.005 U | 0.049 | PCI/G |
| | | | SOIL | N | Plutonium 239/40 | -0.004 U | 0.036 | PCI/G |
| | | | SOIL | N | Thorium 228 | 0.84 | 0.03 | PCI/G |
| | | | SOIL | N | Thorium 230 | 0.65 | 0.03 | PCI/G |
| | | | SOIL | N | Thorium 232 | 0.88 | 0.03 | PCI/G |
| | | | SOIL | N | Uranium 233/234 | 0.47 | 0.05 | PCI/G |
| | | | SOIL | N | Uranium 235/236 | 0.026 U | 0.057 | PCI/G |
| | | | SOIL | N | Uranium 238 | 0.35 | 0.04 | PCI/G |
| | | **EML-AM-01** | SOIL | N | Americium 241 | 0.006 U | 0.079 | PCI/G |
| | | **EML-SR-01** | SOIL | N | Strontium 89 | 0.27 U | 0.37 | PCI/G |
| | | **EML-SR-03** | SOIL | N | Strontium 90 | 0.008 U | 0.55 | PCI/G |
| | | **GA01R** | SOIL | N | Actinium 227 | 0.26 U | 0.44 | PCI/G |
| | | | SOIL | N | Actinium 228 | 0.67 | 0.39 | PCI/G |
| | | | SOIL | N | Bismuth 207 | -0.021 U | 0.06 | PCI/G |
| | | | SOIL | N | Bismuth 212 | 0.61 U | 0.89 | PCI/G |
| | | | SOIL | N | Bismuth 214 | 0.6 | 0.15 | PCI/G |
| | | | SOIL | N | Bismuth-210M | -0.008 U | 0.093 | PCI/G |
| | | | SOIL | N | Cesium 134 | -0.035 U | 0.066 | PCI/G |
| | | | SOIL | N | Cesium 137 | -0.019 U | 0.071 | PCI/G |
| | | | SOIL | N | Cobalt 57 | 0.017 U | 0.045 | PCI/G |
| | | | SOIL | N | Cobalt 58 | 0.002 U | 0.088 | PCI/G |
| | | | SOIL | N | Cobalt 60 | -0.009 U | 0.078 | PCI/G |
| | | | SOIL | N | Lead 210 | 0.54 U | 1.8 | PCI/G |
| | | | SOIL | N | Lead 212 | 0.73 | 0.14 | PCI/G |
| | | | SOIL | N | Lead 214 | 0.64 | 0.13 | PCI/G |
| | | | SOIL | N | Potassium 40 | 16.8 | 0.8 | PCI/G |
| | | | SOIL | N | Radium (226) | 0.6 J | 0.15 | PCI/G |
| | | | SOIL | N | Radium 228 | 0.67 J | 0.39 | PCI/G |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **GA01R** | SOIL | N | Thallium 208 | 0.222 | 0.086 | PCI/G |
| | | | SOIL | N | Thorium 234 | 0.69 U | 0.95 | PCI/G |
| | | | SOIL | N | Uranium 235 | 0.09 U | 0.39 | PCI/G |
| | | **SW6020** | SOIL | N | Aluminum | 4950 J | 2 | MG/KG |
| | | | SOIL | N | Antimony | 0.077 J | 0.053 | MG/KG |
| | | | SOIL | N | Arsenic | 1.9 | 0.22 | MG/KG |
| | | | SOIL | N | Barium | 117 | 0.35 | MG/KG |
| | | | SOIL | N | Beryllium | 0.27 | 0.025 | MG/KG |
| | | | SOIL | N | Cadmium | 0.064 | 0.0051 | MG/KG |
| | | | SOIL | N | Calcium | 14600 J | 10.1 | MG/KG |
| | | | SOIL | N | Chromium | 11.9 | 0.4 | MG/KG |
| | | | SOIL | N | Cobalt | 6.3 | 0.025 | MG/KG |
| | | | SOIL | N | Copper | 9 | 0.32 | MG/KG |
| | | | SOIL | N | Iron | 11200 J | 2.2 | MG/KG |
| | | | SOIL | N | Lead | 6.2 J | 0.051 | MG/KG |
| | | | SOIL | N | Magnesium | 4210 J | 5.7 | MG/KG |
| | | | SOIL | N | Manganese | 205 J | 0.061 | MG/KG |
| | | | SOIL | N | Molybdenum | 0.27 J | 0.053 | MG/KG |
| | | | SOIL | N | Nickel | 11.2 J | 0.051 | MG/KG |
| | | | SOIL | N | Potassium | 1020 J | 3.2 | MG/KG |
| | | | SOIL | N | Selenium | 0.11 U | 0.11 | MG/KG |
| | | | SOIL | N | Silver | 0.023 J | 0.02 | MG/KG |
| | | | SOIL | N | Sodium | 175 J | 8.7 | MG/KG |
| | | | SOIL | N | Thallium | 0.071 U | 0.071 | MG/KG |
| | | | SOIL | N | Vanadium | 22.1 | 0.24 | MG/KG |
| | | | SOIL | N | Zinc | 23.9 J | 0.53 | MG/KG |
| | | **SW7471A** | SOIL | N | Mercury | 0.0068 U | 0.0068 | MG/KG |
| | | **SW9310** | SOIL | N | Gross Alpha | 18.1 | 3.7 | PCI/G |
| | | | SOIL | N | Gross Beta | 28.8 J | 4.8 | PCI/G |
| **6-30-TP-1299-0708 / F6J220112016** | | | | | | | | |
| | F6J220112 | **A01R** | SOIL | FD | Iodine 129 | -0.04 U | 0.58 | PCI/G |
| | | | SOIL | FD | Neptunium 237 | -0.002 U | 0.025 | PCI/G |
| | | | SOIL | FD | Plutonium 238 | 0.008 U | 0.03 | PCI/G |
| | | | SOIL | FD | Plutonium 239/40 | 0.019 U | 0.03 | PCI/G |
| | | | SOIL | FD | Thorium 228 | 0.81 | 0.05 | PCI/G |
| | | | SOIL | FD | Thorium 230 | 0.8 | 0.03 | PCI/G |
| | | | SOIL | FD | Thorium 232 | 0.8 | 0.02 | PCI/G |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **A01R** | SOIL | FD | Uranium 233/234 | 0.53 | 0.05 | PCI/G |
| | | | SOIL | FD | Uranium 235/236 | 0.01 U | 0.027 | PCI/G |
| | | | SOIL | FD | Uranium 238 | 0.65 | 0.03 | PCI/G |
| | | **EML-AM-01** | SOIL | FD | Americium 241 | 0.109 | 0.046 | PCI/G |
| | | **EML-SR-01** | SOIL | FD | Strontium 89 | -0.36 U | 0.59 | PCI/G |
| | | **EML-SR-03** | SOIL | FD | Strontium 90 | -0.52 U | 0.88 | PCI/G |
| | | **GA01R** | SOIL | FD | Actinium 227 | 0.09 U | 0.45 | PCI/G |
| | | | SOIL | FD | Actinium 228 | 0.94 | 0.35 | PCI/G |
| | | | SOIL | FD | Bismuth 207 | 0.01 U | 0.09 | PCI/G |
| | | | SOIL | FD | Bismuth 212 | 0.58 U | 1 | PCI/G |
| | | | SOIL | FD | Bismuth 214 | 0.71 | 0.19 | PCI/G |
| | | | SOIL | FD | Bismuth-210M | -0.04 U | 0.095 | PCI/G |
| | | | SOIL | FD | Cesium 134 | 0.056 U | 0.091 | PCI/G |
| | | | SOIL | FD | Cesium 137 | -0.038 U | 0.081 | PCI/G |
| | | | SOIL | FD | Cobalt 57 | 0.032 U | 0.053 | PCI/G |
| | | | SOIL | FD | Cobalt 58 | 0.016 U | 0.1 | PCI/G |
| | | | SOIL | FD | Cobalt 60 | 0.031 U | 0.13 | PCI/G |
| | | | SOIL | FD | Lead 210 | 0.2 U | 2.3 | PCI/G |
| | | | SOIL | FD | Lead 212 | 0.74 | 0.17 | PCI/G |
| | | | SOIL | FD | Lead 214 | 0.76 | 0.15 | PCI/G |
| | | | SOIL | FD | Potassium 40 | 16.7 | 0.2 | PCI/G |
| | | | SOIL | FD | Radium (226) | 0.71 J | 0.19 | PCI/G |
| | | | SOIL | FD | Radium 228 | 0.94 | 0.35 | PCI/G |
| | | | SOIL | FD | Thallium 208 | 0.39 | 0.08 | PCI/G |
| | | | SOIL | FD | Thorium 234 | 0.35 U | 1.2 | PCI/G |
| | | | SOIL | FD | Uranium 235 | -0.08 U | 0.43 | PCI/G |
| | | **SW6020** | SOIL | FD | Aluminum | 5760 J | 2 | MG/KG |
| | | | SOIL | FD | Antimony | 0.13 J | 0.053 | MG/KG |
| | | | SOIL | FD | Arsenic | 3.3 | 0.22 | MG/KG |
| | | | SOIL | FD | Barium | 109 | 0.36 | MG/KG |
| | | | SOIL | FD | Beryllium | 0.38 | 0.026 | MG/KG |
| | | | SOIL | FD | Cadmium | 0.092 | 0.0051 | MG/KG |
| | | | SOIL | FD | Calcium | 24100 J | 10.2 | MG/KG |
| | | | SOIL | FD | Chromium | 7.4 | 0.41 | MG/KG |
| | | | SOIL | FD | Cobalt | 4.7 | 0.025 | MG/KG |
| | | | SOIL | FD | Copper | 7.9 | 0.33 | MG/KG |
| | | | SOIL | FD | Iron | 9270 J | 2.2 | MG/KG |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J220112 | **SW6020** | SOIL | FD | Lead | 6.9 J | 0.051 | MG/KG |
| | | | SOIL | FD | Magnesium | 3400 J | 5.8 | MG/KG |
| | | | SOIL | FD | Manganese | 190 J | 0.061 | MG/KG |
| | | | SOIL | FD | Molybdenum | 0.3 J | 0.053 | MG/KG |
| | | | SOIL | FD | Nickel | 8.3 J | 0.051 | MG/KG |
| | | | SOIL | FD | Potassium | 1160 J | 3.3 | MG/KG |
| | | | SOIL | FD | Selenium | 0.11 U | 0.11 | MG/KG |
| | | | SOIL | FD | Silver | 0.046 J | 0.02 | MG/KG |
| | | | SOIL | FD | Sodium | 219 J | 8.7 | MG/KG |
| | | | SOIL | FD | Thallium | 0.077 U | 0.071 | MG/KG |
| | | | SOIL | FD | Vanadium | 17.3 | 0.24 | MG/KG |
| | | | SOIL | FD | Zinc | 22 J | 0.53 | MG/KG |
| | | **SW7471A** | SOIL | FD | Mercury | 0.0068 U | 0.0068 | MG/KG |
| | | **SW9310** | SOIL | FD | Gross Alpha | 29.7 | 3.1 | PCI/G |
| | | | SOIL | FD | Gross Beta | 31.6 | 5.1 | PCI/G |
| **6-30-TP-13-0708 / F6J240227002** | | | | | | | | |
| | F6J240227 | **A01R** | SOIL | N | Iodine 129 | -0.1 U | 0.6 | PCI/G |
| | | | SOIL | N | Neptunium 237 | -0.005 U | 0.032 | PCI/G |
| | | | SOIL | N | Plutonium 238 | -0.046 U | 0.1 | PCI/G |
| | | | SOIL | N | Plutonium 239/40 | -0.005 U | 0.055 | PCI/G |
| | | | SOIL | N | Thorium 228 | 0.85 | 0.08 | PCI/G |
| | | | SOIL | N | Thorium 230 | 0.74 | 0.03 | PCI/G |
| | | | SOIL | N | Thorium 232 | 0.95 | 0.04 | PCI/G |
| | | | SOIL | N | Uranium 233/234 | 0.75 | 0.05 | PCI/G |
| | | | SOIL | N | Uranium 235/236 | 0.047 J | 0.035 | PCI/G |
| | | | SOIL | N | Uranium 238 | 0.7 | 0.04 | PCI/G |
| | | **EML-AM-01** | SOIL | N | Americium 241 | 0.037 U | 0.041 | PCI/G |
| | | **EML-SR-01** | SOIL | N | Strontium 89 | 1.26 J | 0.37 | PCI/G |
| | | **EML-SR-03** | SOIL | N | Strontium 90 | 0.04 U | 0.47 | PCI/G |
| | | **GA01R** | SOIL | N | Actinium 227 | 0.1 U | 0.44 | PCI/G |
| | | | SOIL | N | Actinium 228 | 0.63 | 0.34 | PCI/G |
| | | | SOIL | N | Bismuth 207 | -0.014 U | 0.06 | PCI/G |
| | | | SOIL | N | Bismuth 212 | 0.54 U | 0.84 | PCI/G |
| | | | SOIL | N | Bismuth 214 | 0.63 | 0.14 | PCI/G |
| | | | SOIL | N | Bismuth-210M | -0.0002 U | 0.087 | PCI/G |
| | | | SOIL | N | Cesium 134 | -0.002 U | 0.056 | PCI/G |
| | | | SOIL | N | Cesium 137 | 0.024 U | 0.091 | PCI/G |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J240227 | **GA01R** | SOIL | N | Cobalt 57 | -0.006 U | 0.043 | PCI/G |
| | | | SOIL | N | Cobalt 58 | -0.0005 U | 0.074 | PCI/G |
| | | | SOIL | N | Cobalt 60 | 0.014 U | 0.096 | PCI/G |
| | | | SOIL | N | Lead 210 | 0.48 U | 1.8 | PCI/G |
| | | | SOIL | N | Lead 212 | 0.55 | 0.1 | PCI/G |
| | | | SOIL | N | Lead 214 | 0.6 | 0.14 | PCI/G |
| | | | SOIL | N | Potassium 40 | 16.1 | 1 | PCI/G |
| | | | SOIL | N | Radium (226) | 0.63 J | 0.14 | PCI/G |
| | | | SOIL | N | Radium 228 | 0.63 J | 0.34 | PCI/G |
| | | | SOIL | N | Thallium 208 | 0.201 | 0.075 | PCI/G |
| | | | SOIL | N | Thorium 234 | 0.15 U | 0.88 | PCI/G |
| | | | SOIL | N | Uranium 235 | 0.13 U | 0.35 | PCI/G |
| | | **SW6020** | SOIL | N | Aluminum | 5690 J | 2 | MG/KG |
| | | | SOIL | N | Antimony | 0.13 J | 0.053 | MG/KG |
| | | | SOIL | N | Arsenic | 3.4 | 0.22 | MG/KG |
| | | | SOIL | N | Barium | 197 | 0.36 | MG/KG |
| | | | SOIL | N | Beryllium | 0.35 | 0.025 | MG/KG |
| | | | SOIL | N | Cadmium | 0.11 | 0.0051 | MG/KG |
| | | | SOIL | N | Calcium | 25800 J | 10.2 | MG/KG |
| | | | SOIL | N | Chromium | 7.4 J | 0.41 | MG/KG |
| | | | SOIL | N | Cobalt | 5.2 J | 0.025 | MG/KG |
| | | | SOIL | N | Copper | 8.8 | 0.33 | MG/KG |
| | | | SOIL | N | Iron | 10300 J | 2.2 | MG/KG |
| | | | SOIL | N | Lead | 8.7 | 0.051 | MG/KG |
| | | | SOIL | N | Magnesium | 3720 J | 5.8 | MG/KG |
| | | | SOIL | N | Manganese | 253 J | 0.061 | MG/KG |
| | | | SOIL | N | Molybdenum | 0.5 J | 0.053 | MG/KG |
| | | | SOIL | N | Nickel | 8.5 J | 0.051 | MG/KG |
| | | | SOIL | N | Potassium | 1460 J | 3.3 | MG/KG |
| | | | SOIL | N | Selenium | 0.11 U | 0.11 | MG/KG |
| | | | SOIL | N | Silver | 0.045 J | 0.02 | MG/KG |
| | | | SOIL | N | Sodium | 299 J | 8.7 | MG/KG |
| | | | SOIL | N | Thallium | 0.1 J | 0.071 | MG/KG |
| | | | SOIL | N | Vanadium | 19.7 | 0.24 | MG/KG |
| | | | SOIL | N | Zinc | 29.4 J | 0.53 | MG/KG |
| | | **SW7471A** | SOIL | N | Mercury | 0.0068 U | 0.0068 | MG/KG |
| | | **SW9310** | SOIL | N | Gross Alpha | 20.2 | 3.6 | PCI/G |

TABLE 5

Results by Location

*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J240227 | **SW9310** | SOIL | N | Gross Beta | 30.8 | 4.6 | PCI/G |
| **6-30-TP-13-1516 / F6J240227001** | | | | | | | | |
| | F6J240227 | **SW6020** | SOIL | N | Aluminum | 5370 J | 2.1 | MG/KG |
| | | | SOIL | N | Antimony | 0.13 J | 0.055 | MG/KG |
| | | | SOIL | N | Arsenic | 3.3 | 0.22 | MG/KG |
| | | | SOIL | N | Barium | 113 | 0.37 | MG/KG |
| | | | SOIL | N | Beryllium | 0.33 | 0.026 | MG/KG |
| | | | SOIL | N | Cadmium | 0.12 | 0.0052 | MG/KG |
| | | | SOIL | N | Calcium | 34700 J | 10.5 | MG/KG |
| | | | SOIL | N | Chromium | 7.6 J | 0.42 | MG/KG |
| | | | SOIL | N | Cobalt | 4.5 J | 0.026 | MG/KG |
| | | | SOIL | N | Copper | 7.9 | 0.34 | MG/KG |
| | | | SOIL | N | Iron | 9950 J | 2.3 | MG/KG |
| | | | SOIL | N | Lead | 7.2 | 0.052 | MG/KG |
| | | | SOIL | N | Magnesium | 3560 J | 5.9 | MG/KG |
| | | | SOIL | N | Manganese | 190 J | 0.063 | MG/KG |
| | | | SOIL | N | Molybdenum | 0.49 J | 0.055 | MG/KG |
| | | | SOIL | N | Nickel | 8.8 J | 0.052 | MG/KG |
| | | | SOIL | N | Potassium | 1170 J | 3.4 | MG/KG |
| | | | SOIL | N | Selenium | 0.11 U | 0.11 | MG/KG |
| | | | SOIL | N | Silver | 0.043 J | 0.021 | MG/KG |
| | | | SOIL | N | Sodium | 143 J | 9 | MG/KG |
| | | | SOIL | N | Thallium | 0.08 J | 0.073 | MG/KG |
| | | | SOIL | N | Vanadium | 20.1 | 0.25 | MG/KG |
| | | | SOIL | N | Zinc | 25.6 J | 0.55 | MG/KG |
| | | **SW7471A** | SOIL | N | Mercury | 0.007 U | 0.007 | MG/KG |
| **6-30-TP-1399-0708 / F6J240227003** | | | | | | | | |
| | F6J240227 | **A01R** | SOIL | FD | Iodine 129 | -0.07 U | 0.6 | PCI/G |
| | | | SOIL | FD | Neptunium 237 | -0.002 U | 0.024 | PCI/G |
| | | | SOIL | FD | Plutonium 238 | -0.02 U | 0.094 | PCI/G |
| | | | SOIL | FD | Plutonium 239/40 | -0.016 U | 0.077 | PCI/G |
| | | | SOIL | FD | Thorium 228 | 0.82 | 0.05 | PCI/G |
| | | | SOIL | FD | Thorium 230 | 0.77 | 0.04 | PCI/G |
| | | | SOIL | FD | Thorium 232 | 0.94 | 0.02 | PCI/G |
| | | | SOIL | FD | Uranium 233/234 | 0.82 | 0.03 | PCI/G |
| | | | SOIL | FD | Uranium 235/236 | 0.059 J | 0.044 | PCI/G |
| | | | SOIL | FD | Uranium 238 | 0.75 | 0.02 | PCI/G |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J240227 | **EML-AM-01** | SOIL | FD | Americium 241 | -0.003 U | 0.075 | PCI/G |
| | | **EML-SR-01** | SOIL | FD | Strontium 89 | 1.14 J | 0.36 | PCI/G |
| | | **EML-SR-03** | SOIL | FD | Strontium 90 | 0.03 U | 0.45 | PCI/G |
| | | **GA01R** | SOIL | FD | Actinium 227 | -0.02 U | 0.37 | PCI/G |
| | | | SOIL | FD | Actinium 228 | 0.72 | 0.28 | PCI/G |
| | | | SOIL | FD | Bismuth 207 | 0.021 U | 0.072 | PCI/G |
| | | | SOIL | FD | Bismuth 212 | 0.26 U | 0.8 | PCI/G |
| | | | SOIL | FD | Bismuth 214 | 0.63 | 0.15 | PCI/G |
| | | | SOIL | FD | Bismuth-210M | 0.001 U | 0.081 | PCI/G |
| | | | SOIL | FD | Cesium 134 | -0.019 U | 0.059 | PCI/G |
| | | | SOIL | FD | Cesium 137 | 0.049 U | 0.11 | PCI/G |
| | | | SOIL | FD | Cobalt 57 | -0.01 U | 0.041 | PCI/G |
| | | | SOIL | FD | Cobalt 58 | 0.005 U | 0.078 | PCI/G |
| | | | SOIL | FD | Cobalt 60 | -0.034 U | 0.076 | PCI/G |
| | | | SOIL | FD | Lead 210 | 0.52 U | 1.8 | PCI/G |
| | | | SOIL | FD | Lead 212 | 0.69 | 0.14 | PCI/G |
| | | | SOIL | FD | Lead 214 | 0.69 | 0.14 | PCI/G |
| | | | SOIL | FD | Potassium 40 | 17.9 | 0.8 | PCI/G |
| | | | SOIL | FD | Radium (226) | 0.63 J | 0.15 | PCI/G |
| | | | SOIL | FD | Radium 228 | 0.72 | 0.28 | PCI/G |
| | | | SOIL | FD | Thallium 208 | 0.199 | 0.075 | PCI/G |
| | | | SOIL | FD | Thorium 234 | 0.37 U | 0.87 | PCI/G |
| | | | SOIL | FD | Uranium 235 | 0.1 U | 0.35 | PCI/G |
| | | **SW6020** | SOIL | FD | Aluminum | 5500 J | 2 | MG/KG |
| | | | SOIL | FD | Antimony | 0.12 J | 0.054 | MG/KG |
| | | | SOIL | FD | Arsenic | 2.9 | 0.22 | MG/KG |
| | | | SOIL | FD | Barium | 190 | 0.36 | MG/KG |
| | | | SOIL | FD | Beryllium | 0.37 | 0.026 | MG/KG |
| | | | SOIL | FD | Cadmium | 0.1 | 0.0051 | MG/KG |
| | | | SOIL | FD | Calcium | 27400 J | 10.2 | MG/KG |
| | | | SOIL | FD | Chromium | 8.2 J | 0.41 | MG/KG |
| | | | SOIL | FD | Cobalt | 4.6 J | 0.026 | MG/KG |
| | | | SOIL | FD | Copper | 8.7 | 0.33 | MG/KG |
| | | | SOIL | FD | Iron | 10000 J | 2.3 | MG/KG |
| | | | SOIL | FD | Lead | 7.5 | 0.051 | MG/KG |
| | | | SOIL | FD | Magnesium | 3460 J | 5.8 | MG/KG |
| | | | SOIL | FD | Manganese | 194 J | 0.061 | MG/KG |

TABLE 5
Results by Location
*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6J240227 | **SW6020** | SOIL | FD | Molybdenum | 0.42 J | 0.054 | MG/KG |
| | | | SOIL | FD | Nickel | 8.3 J | 0.051 | MG/KG |
| | | | SOIL | FD | Potassium | 1190 J | 3.3 | MG/KG |
| | | | SOIL | FD | Selenium | 0.11 U | 0.11 | MG/KG |
| | | | SOIL | FD | Silver | 0.039 J | 0.02 | MG/KG |
| | | | SOIL | FD | Sodium | 300 J | 8.8 | MG/KG |
| | | | SOIL | FD | Thallium | 0.072 U | 0.072 | MG/KG |
| | | | SOIL | FD | Vanadium | 18.6 | 0.24 | MG/KG |
| | | | SOIL | FD | Zinc | 25.1 J | 0.53 | MG/KG |
| | | **SW7471A** | SOIL | FD | Mercury | 0.0068 U | 0.0068 | MG/KG |
| | | **SW9310** | SOIL | FD | Gross Alpha | 19.2 | 3.9 | PCI/G |
| | | | SOIL | FD | Gross Beta | 31.4 | 5.7 | PCI/G |
| **RW-06 BIO 001 / F6K100189001** | | | | | | | | |
| | F6K10189 | **GA01R** | SOIL | N | Actinium 227 | -0.24 U | 0.57 | PCI/G |
| | | | SOIL | N | Actinium 228 | 0.78 | 0.28 | PCI/G |
| | | | SOIL | N | Americium 241 | 508 | 1 | PCI/G |
| | | | SOIL | N | Bismuth 207 | -0.031 U | 0.079 | PCI/G |
| | | | SOIL | N | Bismuth 212 | 0.33 U | 0.63 | PCI/G |
| | | | SOIL | N | Bismuth 214 | 0.56 | 0.19 | PCI/G |
| | | | SOIL | N | Bismuth-210M | -0.031 U | 0.15 | PCI/G |
| | | | SOIL | N | Cesium 134 | 0.002 U | 0.083 | PCI/G |
| | | | SOIL | N | Cesium 137 | 11.7 | 0.1 | PCI/G |
| | | | SOIL | N | Cobalt 57 | -0.029 U | 0.071 | PCI/G |
| | | | SOIL | N | Cobalt 58 | 0.0009 U | 0.081 | PCI/G |
| | | | SOIL | N | Cobalt 60 | -0.026 U | 0.094 | PCI/G |
| | | | SOIL | N | Lead 210 | 49.8 J | 12 | PCI/G |
| | | | SOIL | N | Lead 212 | 0.64 | 0.18 | PCI/G |
| | | | SOIL | N | Lead 214 | 0.6 | 0.25 | PCI/G |
| | | | SOIL | N | Potassium 40 | 17.2 | 0.8 | PCI/G |
| | | | SOIL | N | Radium (226) | 0.56 J | 0.19 | PCI/G |
| | | | SOIL | N | Radium 228 | 0.78 | 0.28 | PCI/G |
| | | | SOIL | N | Thallium 208 | 0.205 | 0.1 | PCI/G |
| | | | SOIL | N | Thorium 234 | -0.009 U | 1.6 | PCI/G |
| | | | SOIL | N | Uranium 235 | 0.54 U | 0.58 | PCI/G |
| | | **SW9310** | SOIL | N | Gross Alpha | 64300 | 30 | PCI/G |
| | | | SOIL | N | Gross Beta | 1670 | 10 | PCI/G |
| **RW-06 BIO 002 / F6K100189002** | | | | | | | | |

TABLE 5

Results by Location

*Sorted by Field ID and Method*

| Field ID / LabSampleID | SDG | Method | Matrix | QAQC Type | Analyte | Result | MDL | Units |
|---|---|---|---|---|---|---|---|---|
| | F6K10189 | **GA01R** | SOIL | N | Actinium 227 | -3.3 U | 11 | PCI/G |
| | | | SOIL | N | Actinium 228 | -0.1 U | 4.5 | PCI/G |
| | | | SOIL | N | Americium 241 | 60.2 | 2.2 | PCI/G |
| | | | SOIL | N | Bismuth 207 | -0.1 U | 1.5 | PCI/G |
| | | | SOIL | N | Bismuth 212 | 6 U | 12 | PCI/G |
| | | | SOIL | N | Bismuth 214 | -0.1 U | 1.5 | PCI/G |
| | | | SOIL | N | Bismuth-210M | -0.9 U | 3.5 | PCI/G |
| | | | SOIL | N | Cesium 134 | -0.03 U | 1.5 | PCI/G |
| | | | SOIL | N | Cesium 137 | 13500 | 2 | PCI/G |
| | | | SOIL | N | Cobalt 57 | 0.32 U | 1 | PCI/G |
| | | | SOIL | N | Cobalt 58 | 0.03 U | 1.3 | PCI/G |
| | | | SOIL | N | Cobalt 60 | -0.07 U | 0.36 | PCI/G |
| | | | SOIL | N | Lead 210 | -4 U | 21 | PCI/G |
| | | | SOIL | N | Lead 212 | 1.6 U | 3.7 | PCI/G |
| | | | SOIL | N | Lead 214 | -0.1 U | 6.2 | PCI/G |
| | | | SOIL | N | Potassium 40 | 25 | 2.7 | PCI/G |
| | | | SOIL | N | Radium (226) | -0.1 U | 1.5 | PCI/G |
| | | | SOIL | N | Radium 228 | -0.1 U | 4.5 | PCI/G |
| | | | SOIL | N | Thallium 208 | 0.8 U | 2.2 | PCI/G |
| | | | SOIL | N | Thorium 234 | 7 U | 14 | PCI/G |
| | | | SOIL | N | Uranium 235 | 0.1 U | 9 | PCI/G |
| | | **SW9310** | SOIL | N | Gross Alpha | 121 | 23 | PCI/G |
| | | | SOIL | N | Gross Beta | 14000 | 10 | PCI/G |

QA/QC Types
N = Normal Environmental Sample
FD = Field Duplicate

**Qualifier Description:**

J = The analyte was positively identified, the quantitation is an estimate.
U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection limit (MDL).
F = The analyte was positively identified but the associated numerical value is below the reporting limit (RL).
R = The data are unusable because of deficiencies in the ability to analyze the sample and meet quality control (QC) criteria.
B = The analyte was found in an associated blank, as well as in the sample.
M = A matrix effect was present.
S = To be applied to all field screening data.
T = Tentatively identified compound (using gas chromatography/mass spectrometry [GC/MS])
UM = Same as "U", and a matrix effect was present.
UB = Same as "U", and the analyte was found in an associated blank.
exclude = Data not used in risk assessment. More appropriate data exist for this analyte.
none = A flag is not applied. This placeholder is for calculating QC criteria issues without flagging.

* The most severe flag for each analyte becomes the final validation flag

TABLE 6

Statistics by Analyte

*Sorted by Method and Analyte*

| Method | Analyte | Units | Total Number of Analyses | Number Detected Analytes | Number Rejected Analytes | Number Non-Detected Analytes | Minimum Value of Non-Detects | Maximum Value of Non-Detects | Minimum Value of Detects | Maximum Value of Detects |
|---|---|---|---|---|---|---|---|---|---|---|
| A01R | | | | | | | | | | |
| | Iodine 129 | PCI/G | 17 | 0 | 0 | 17 | -0.2 | 0.15 | | |
| | Neptunium 237 | PCI/G | 17 | 0 | 0 | 17 | -0.006 | 0.07 | | |
| | Plutonium 238 | PCI/G | 17 | 0 | 0 | 17 | -0.062 | 0.029 | | |
| | Plutonium 239/40 | PCI/G | 17 | 1 | 0 | 16 | -0.016 | 0.026 | 5.28 | 5.28 |
| | Thorium 228 | PCI/G | 17 | 17 | 0 | 0 | | | 0.62 | 1.13 |
| | Thorium 230 | PCI/G | 17 | 17 | 0 | 0 | | | 0.52 | 1.03 |
| | Thorium 232 | PCI/G | 17 | 17 | 0 | 0 | | | 0.57 | 1.02 |
| | Uranium 233/234 | PCI/G | 17 | 17 | 0 | 0 | | | 0.47 | 0.88 |
| | Uranium 235/236 | PCI/G | 17 | 9 | 0 | 8 | 0.01 | 0.028 | 0.025 | 0.069 |
| | Uranium 238 | PCI/G | 17 | 17 | 0 | 0 | | | 0.35 | 0.83 |
| EML-AM-01M | | | | | | | | | | |
| | Americium 241 | PCI/G | 17 | 2 | 0 | 15 | -0.007 | 0.037 | 0.109 | 0.229 |
| EML-SR-01M | | | | | | | | | | |
| | Strontium 89 | PCI/G | 17 | 2 | 0 | 15 | -0.36 | 0.38 | 1.14 | 1.26 |
| EML-SR-03M | | | | | | | | | | |
| | Strontium 90 | PCI/G | 17 | 0 | 0 | 17 | -1.37 | 0.36 | | |
| GA01R | | | | | | | | | | |
| | Actinium 227 | PCI/G | 19 | 1 | 0 | 18 | -3.3 | 0.41 | 0.53 | 0.53 |
| | Actinium 228 | PCI/G | 19 | 17 | 0 | 2 | -0.1 | 0.32 | 0.46 | 0.94 |
| | Americium 241 | PCI/G | 3 | 3 | 0 | 0 | | | 0.2 | 508 |
| | Bismuth 207 | PCI/G | 19 | 0 | 0 | 19 | -0.1 | 0.028 | | |
| | Bismuth 212 | PCI/G | 19 | 2 | 0 | 17 | 0.19 | 6 | 0.69 | 0.72 |
| | Bismuth 214 | PCI/G | 19 | 18 | 0 | 1 | -0.1 | -0.1 | 0.56 | 0.86 |
| | Bismuth-210M | PCI/G | 19 | 0 | 0 | 19 | -0.9 | 0.066 | | |
| | Cesium 134 | PCI/G | 19 | 0 | 0 | 19 | -0.035 | 0.056 | | |
| | Cesium 137 | PCI/G | 19 | 3 | 0 | 16 | -0.046 | 0.081 | 3.52 | 13500 |
| | Cobalt 57 | PCI/G | 19 | 0 | 0 | 19 | -0.029 | 0.32 | | |
| | Cobalt 58 | PCI/G | 19 | 0 | 0 | 19 | -0.031 | 0.044 | | |
| | Cobalt 60 | PCI/G | 19 | 0 | 0 | 19 | -0.07 | 0.038 | | |
| | Lead 210 | PCI/G | 19 | 1 | 0 | 18 | -4 | 1.7 | 49.8 | 49.8 |
| | Lead 212 | PCI/G | 19 | 18 | 0 | 1 | 1.6 | 1.6 | 0.52 | 0.99 |
| | Lead 214 | PCI/G | 19 | 18 | 0 | 1 | -0.1 | -0.1 | 0.59 | 0.88 |
| | Potassium 40 | PCI/G | 19 | 19 | 0 | 0 | | | 13.1 | 25 |
| | Radium (226) | PCI/G | 19 | 18 | 0 | 1 | -0.1 | -0.1 | 0.56 | 0.86 |
| | Radium 228 | PCI/G | 19 | 17 | 0 | 2 | -0.1 | 0.32 | 0.46 | 0.94 |
| | Thallium 208 | PCI/G | 19 | 18 | 0 | 1 | 0.8 | 0.8 | 0.169 | 0.39 |
| | Thorium 234 | PCI/G | 19 | 0 | 0 | 19 | -0.009 | 7 | | |
| | Uranium 235 | PCI/G | 19 | 0 | 0 | 19 | -0.08 | 0.54 | | |
| SW6010 | | | | | | | | | | |
| | Barium-TCLP | UG/L | 3 | 3 | 0 | 0 | | | 567 | 1090 |
| | Cadmium-TCLP | UG/L | 3 | 0 | 0 | 3 | 5.7 | 5.7 | | |
| | Chromium-TCLP | UG/L | 3 | 0 | 0 | 3 | 19.3 | 19.3 | | |

TABLE 6

Statistics by Analyte

*Sorted by Method and Analyte*

| Method | Analyte | Units | Total Number of Analyses | Number Detected Analytes | Number Rejected Analytes | Number Non-Detected Analytes | Minimum Value of Non-Detects | Maximum Value of Non-Detects | Minimum Value of Detects | Maximum Value of Detects |
|---|---|---|---|---|---|---|---|---|---|---|
| | Lead-TCLP | UG/L | 3 | 0 | 0 | 3 | 70.4 | 70.4 | | |
| | Silver-TCLP | UG/L | 3 | 0 | 0 | 3 | 13 | 13 | | |
| SW6020 | | | | | | | | | | |
| | Aluminum | MG/KG | 23 | 23 | 0 | 0 | | | 3660 | 7690 |
| | Antimony | MG/KG | 23 | 23 | 0 | 0 | | | 0.077 | 0.26 |
| | Arsenic | MG/KG | 23 | 23 | 0 | 0 | | | 1.4 | 4.3 |
| | Barium | MG/KG | 23 | 23 | 0 | 0 | | | 72.5 | 280 |
| | Beryllium | MG/KG | 23 | 23 | 0 | 0 | | | 0.26 | 0.47 |
| | Cadmium | MG/KG | 23 | 23 | 0 | 0 | | | 0.064 | 0.36 |
| | Calcium | MG/KG | 23 | 23 | 0 | 0 | | | 13800 | 38900 |
| | Chromium | MG/KG | 23 | 23 | 0 | 0 | | | 6.8 | 11.9 |
| | Cobalt | MG/KG | 23 | 23 | 0 | 0 | | | 3.8 | 6.3 |
| | Copper | MG/KG | 23 | 23 | 0 | 0 | | | 6.4 | 32.1 |
| | Iron | MG/KG | 23 | 23 | 0 | 0 | | | 8610 | 13600 |
| | Lead | MG/KG | 23 | 23 | 0 | 0 | | | 5 | 40.5 |
| | Magnesium | MG/KG | 23 | 23 | 0 | 0 | | | 2980 | 4740 |
| | Manganese | MG/KG | 23 | 23 | 0 | 0 | | | 165 | 290 |
| | Molybdenum | MG/KG | 23 | 23 | 0 | 0 | | | 0.27 | 0.73 |
| | Nickel | MG/KG | 23 | 23 | 0 | 0 | | | 8.3 | 12.2 |
| | Potassium | MG/KG | 23 | 23 | 0 | 0 | | | 775 | 2310 |
| | Selenium | MG/KG | 23 | 0 | 0 | 23 | 0.11 | 0.12 | | |
| | Silver | MG/KG | 23 | 22 | 0 | 1 | 0.02 | 0.02 | 0.023 | 0.072 |
| | Sodium | MG/KG | 23 | 21 | 0 | 2 | 37.5 | 40.2 | 55.4 | 312 |
| | Thallium | MG/KG | 23 | 11 | 0 | 12 | 0.07 | 0.097 | 0.08 | 0.18 |
| | Vanadium | MG/KG | 23 | 23 | 0 | 0 | | | 14.5 | 24.8 |
| | Zinc | MG/KG | 23 | 23 | 0 | 0 | | | 21 | 119 |
| SW7470A | | | | | | | | | | |
| | Mercury | MG/KG | 3 | 1 | 0 | 2 | 0.0068 | 0.0069 | 0.013 | 0.013 |
| | Mercury-TCLP | UG/L | 6 | 0 | 0 | 6 | 0.46 | 0.46 | | |
| SW7471A | | | | | | | | | | |
| | Mercury | MG/KG | 23 | 2 | 0 | 21 | 0.0067 | 0.0071 | 0.013 | 0.015 |
| SW9310 | | | | | | | | | | |
| | Gross Alpha | PCI/G | 19 | 19 | 0 | 0 | | | 18.1 | 64300 |
| | Gross Beta | PCI/G | 19 | 19 | 0 | 0 | | | 25.3 | 14000 |

TABLE 7
Holding Time
*Sorted by Method, Matrix, and Field ID*

| Method | Matrix | Field ID | QAQC Type | Holding time - Type* | Sample Date | Extract Date | Analysis Date |
|---|---|---|---|---|---|---|---|
| **A01R** | SOIL | 6-30-TP-01-0506 | N | 3 Days - E | 10/17/2006 | 10/20/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-01-0506 | N | 3 Days - E | 10/17/2006 | 10/20/2006 | 11/9/2006 |
| | SOIL | 6-30-TP-01-0506 | N | 2 Days - E | 10/17/2006 | 10/19/2006 | 10/19/2006 |
| | SOIL | 6-30-TP-02-0203 | N | 2 Days - E | 10/17/2006 | 10/19/2006 | 10/20/2006 |
| | SOIL | 6-30-TP-02-0203 | N | 3 Days - E | 10/17/2006 | 10/20/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-02-0203 | N | 3 Days - E | 10/17/2006 | 10/20/2006 | 11/9/2006 |
| | SOIL | 6-30-TP-02-0203 | N | 24 Days - E | 10/17/2006 | 11/10/2006 | 11/12/2006 |
| | SOIL | 6-30-TP-03-0506 | N | 3 Days - E | 10/17/2006 | 10/20/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-03-0506 | N | 2 Days - E | 10/17/2006 | 10/19/2006 | 10/25/2006 |
| | SOIL | 6-30-TP-03-0506 | N | 3 Days - E | 10/17/2006 | 10/20/2006 | 11/9/2006 |
| | SOIL | 6-30-TP-04-0607 | N | 6 Days - E | 10/18/2006 | 10/24/2006 | 10/30/2006 |
| | SOIL | 6-30-TP-04-0607 | N | 5 Days - E | 10/18/2006 | 10/23/2006 | 10/23/2006 |
| | SOIL | 6-30-TP-04-0607 | N | 6 Days - E | 10/18/2006 | 10/24/2006 | 11/10/2006 |
| | SOIL | 6-30-TP-06-1718 | N | 5 Days - E | 10/18/2006 | 10/23/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-06-1718 | N | 6 Days - E | 10/18/2006 | 10/24/2006 | 10/30/2006 |
| | SOIL | 6-30-TP-06-1718 | N | 6 Days - E | 10/18/2006 | 10/24/2006 | 11/10/2006 |
| | SOIL | 6-30-TP-07-0506 | N | 4 Days - E | 10/19/2006 | 10/23/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-07-0506 | N | 5 Days - E | 10/19/2006 | 10/24/2006 | 10/30/2006 |
| | SOIL | 6-30-TP-07-0506 | N | 5 Days - E | 10/19/2006 | 10/24/2006 | 11/10/2006 |
| | SOIL | 6-30-TP-08-1920 | N | 4 Days - E | 10/19/2006 | 10/23/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-08-1920 | N | 5 Days - E | 10/19/2006 | 10/24/2006 | 11/10/2006 |
| | SOIL | 6-30-TP-08-1920 | N | 5 Days - E | 10/19/2006 | 10/24/2006 | 10/31/2006 |
| | SOIL | 6-30-TP-08-1920 | N | 5 Days - E | 10/19/2006 | 10/24/2006 | 10/30/2006 |
| | SOIL | 6-30-TP-09-0708 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 11/10/2006 |
| | SOIL | 6-30-TP-09-0708 | N | 3 Days - E | 10/20/2006 | 10/23/2006 | 10/25/2006 |
| | SOIL | 6-30-TP-09-0708 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 10/31/2006 |
| | SOIL | 6-30-TP-09-0708 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 10/30/2006 |
| | SOIL | 6-30-TP-09-2021 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 10/31/2006 |
| | SOIL | 6-30-TP-09-2021 | N | 3 Days - E | 10/20/2006 | 10/23/2006 | 10/25/2006 |
| | SOIL | 6-30-TP-09-2021 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 10/30/2006 |
| | SOIL | 6-30-TP-09-2021 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 11/10/2006 |
| | SOIL | 6-30-TP-10-0102 | N | 3 Days - E | 10/20/2006 | 10/23/2006 | 10/25/2006 |
| | SOIL | 6-30-TP-10-0102 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 10/31/2006 |
| | SOIL | 6-30-TP-10-0102 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 11/10/2006 |
| | SOIL | 6-30-TP-10-0102 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 10/30/2006 |
| | SOIL | 6-30-TP-11-0910 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 11/10/2006 |
| | SOIL | 6-30-TP-11-0910 | N | 3 Days - E | 10/20/2006 | 10/23/2006 | 10/25/2006 |
| | SOIL | 6-30-TP-11-0910 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 10/30/2006 |
| | SOIL | 6-30-TP-11-0910 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 10/31/2006 |

TABLE 7
Holding Time
*Sorted by Method, Matrix, and Field ID*

| Method | Matrix | Field ID | QAQC Type | Holding time - Type* | Sample Date | Extract Date | Analysis Date |
|---|---|---|---|---|---|---|---|
| **A01R** | SOIL | 6-30-TP-11-1516 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 10/30/2006 |
| | SOIL | 6-30-TP-11-1516 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 10/31/2006 |
| | SOIL | 6-30-TP-11-1516 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 11/10/2006 |
| | SOIL | 6-30-TP-11-1516 | N | 3 Days - E | 10/20/2006 | 10/23/2006 | 10/25/2006 |
| | SOIL | 6-30-TP-12-0708 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 10/31/2006 |
| | SOIL | 6-30-TP-12-0708 | N | 3 Days - E | 10/20/2006 | 10/23/2006 | 10/27/2006 |
| | SOIL | 6-30-TP-12-0708 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 10/30/2006 |
| | SOIL | 6-30-TP-12-0708 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 11/10/2006 |
| | SOIL | 6-30-TP-12-0708 | N | 25 Days - E | 10/20/2006 | 11/14/2006 | 11/16/2006 |
| | SOIL | 6-30-TP-12-1819 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 11/10/2006 |
| | SOIL | 6-30-TP-12-1819 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 10/31/2006 |
| | SOIL | 6-30-TP-12-1819 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 10/30/2006 |
| | SOIL | 6-30-TP-12-1819 | N | 3 Days - E | 10/20/2006 | 10/23/2006 | 10/25/2006 |
| | SOIL | 6-30-TP-1299-0708 | FD | 4 Days - E | 10/20/2006 | 10/24/2006 | 10/30/2006 |
| | SOIL | 6-30-TP-1299-0708 | FD | 4 Days - E | 10/20/2006 | 10/24/2006 | 10/31/2006 |
| | SOIL | 6-30-TP-1299-0708 | FD | 3 Days - E | 10/20/2006 | 10/23/2006 | 10/27/2006 |
| | SOIL | 6-30-TP-1299-0708 | FD | 4 Days - E | 10/20/2006 | 10/24/2006 | 11/10/2006 |
| | SOIL | 6-30-TP-13-0708 | N | 3 Days - E | 10/23/2006 | 10/26/2006 | 11/1/2006 |
| | SOIL | 6-30-TP-13-0708 | N | 3 Days - E | 10/23/2006 | 10/26/2006 | 11/9/2006 |
| | SOIL | 6-30-TP-13-0708 | N | 2 Days - E | 10/23/2006 | 10/25/2006 | 10/27/2006 |
| | SOIL | 6-30-TP-1399-0708 | FD | 15 Days - E | 10/23/2006 | 11/7/2006 | 11/14/2006 |
| | SOIL | 6-30-TP-1399-0708 | FD | 3 Days - E | 10/23/2006 | 10/26/2006 | 11/9/2006 |
| | SOIL | 6-30-TP-1399-0708 | FD | 3 Days - E | 10/23/2006 | 10/26/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-1399-0708 | FD | 3 Days - E | 10/23/2006 | 10/26/2006 | 11/1/2006 |
| | SOIL | 6-30-TP-1399-0708 | FD | 2 Days - E | 10/23/2006 | 10/25/2006 | 10/28/2006 |
| **EML-AM-01M** | SOIL | 6-30-TP-01-0506 | N | 3 Days - E | 10/17/2006 | 10/20/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-02-0203 | N | 3 Days - E | 10/17/2006 | 10/20/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-03-0506 | N | 3 Days - E | 10/17/2006 | 10/20/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-04-0607 | N | 6 Days - E | 10/18/2006 | 10/24/2006 | 10/31/2006 |
| | SOIL | 6-30-TP-06-1718 | N | 6 Days - E | 10/18/2006 | 10/24/2006 | 11/1/2006 |
| | SOIL | 6-30-TP-07-0506 | N | 5 Days - E | 10/19/2006 | 10/24/2006 | 11/1/2006 |
| | SOIL | 6-30-TP-08-1920 | N | 14 Days - E | 10/19/2006 | 11/2/2006 | 11/6/2006 |
| | SOIL | 6-30-TP-09-0708 | N | 13 Days - E | 10/20/2006 | 11/2/2006 | 11/6/2006 |
| | SOIL | 6-30-TP-09-2021 | N | 13 Days - E | 10/20/2006 | 11/2/2006 | 11/6/2006 |
| | SOIL | 6-30-TP-10-0102 | N | 13 Days - E | 10/20/2006 | 11/2/2006 | 11/6/2006 |
| | SOIL | 6-30-TP-11-0910 | N | 13 Days - E | 10/20/2006 | 11/2/2006 | 11/6/2006 |
| | SOIL | 6-30-TP-11-1516 | N | 13 Days - E | 10/20/2006 | 11/2/2006 | 11/6/2006 |
| | SOIL | 6-30-TP-12-0708 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 10/31/2006 |
| | SOIL | 6-30-TP-12-1819 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 10/31/2006 |

TABLE 7
Holding Time
*Sorted by Method, Matrix, and Field ID*

| Method | Matrix | Field ID | QAQC Type | Holding time - Type* | Sample Date | Extract Date | Analysis Date |
|---|---|---|---|---|---|---|---|
| **EML-AM-01M** | SOIL | 6-30-TP-1299-0708 | FD | 13 Days - E | 10/20/2006 | 11/2/2006 | 11/6/2006 |
| | SOIL | 6-30-TP-13-0708 | N | 15 Days - E | 10/23/2006 | 11/7/2006 | 11/14/2006 |
| | SOIL | 6-30-TP-1399-0708 | FD | 15 Days - E | 10/23/2006 | 11/7/2006 | 11/14/2006 |
| **EML-SR-01M** | SOIL | 6-30-TP-01-0506 | N | 2 Days - E | 10/17/2006 | 10/19/2006 | 11/1/2006 |
| | SOIL | 6-30-TP-02-0203 | N | 2 Days - E | 10/17/2006 | 10/19/2006 | 11/1/2006 |
| | SOIL | 6-30-TP-03-0506 | N | 2 Days - E | 10/17/2006 | 10/19/2006 | 11/1/2006 |
| | SOIL | 6-30-TP-04-0607 | N | 5 Days - E | 10/18/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-06-1718 | N | 5 Days - E | 10/18/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-07-0506 | N | 4 Days - E | 10/19/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-08-1920 | N | 4 Days - E | 10/19/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-09-0708 | N | 3 Days - E | 10/20/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-09-2021 | N | 3 Days - E | 10/20/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-10-0102 | N | 3 Days - E | 10/20/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-11-0910 | N | 3 Days - E | 10/20/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-11-1516 | N | 3 Days - E | 10/20/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-12-0708 | N | 3 Days - E | 10/20/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-12-1819 | N | 3 Days - E | 10/20/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-1299-0708 | FD | 3 Days - E | 10/20/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-13-0708 | N | 1 Days - E | 10/23/2006 | 10/24/2006 | 11/8/2006 |
| | SOIL | 6-30-TP-1399-0708 | FD | 1 Days - E | 10/23/2006 | 10/24/2006 | 11/8/2006 |
| **EML-SR-03M** | SOIL | 6-30-TP-01-0506 | N | 2 Days - E | 10/17/2006 | 10/19/2006 | 11/1/2006 |
| | SOIL | 6-30-TP-02-0203 | N | 2 Days - E | 10/17/2006 | 10/19/2006 | 11/1/2006 |
| | SOIL | 6-30-TP-03-0506 | N | 2 Days - E | 10/17/2006 | 10/19/2006 | 11/1/2006 |
| | SOIL | 6-30-TP-04-0607 | N | 5 Days - E | 10/18/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-06-1718 | N | 5 Days - E | 10/18/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-07-0506 | N | 4 Days - E | 10/19/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-08-1920 | N | 4 Days - E | 10/19/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-09-0708 | N | 3 Days - E | 10/20/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-09-2021 | N | 3 Days - E | 10/20/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-10-0102 | N | 3 Days - E | 10/20/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-11-0910 | N | 3 Days - E | 10/20/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-11-1516 | N | 3 Days - E | 10/20/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-12-0708 | N | 3 Days - E | 10/20/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-12-1819 | N | 3 Days - E | 10/20/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-1299-0708 | FD | 3 Days - E | 10/20/2006 | 10/23/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-13-0708 | N | 1 Days - E | 10/23/2006 | 10/24/2006 | 11/7/2006 |
| | SOIL | 6-30-TP-1399-0708 | FD | 1 Days - E | 10/23/2006 | 10/24/2006 | 11/7/2006 |
| **GA01R** | SOIL | 6-30-TP-01-0506 | N | 6 Days - E | 10/17/2006 | 10/23/2006 | 11/14/2006 |
| | SOIL | 6-30-TP-02-0203 | N | 6 Days - E | 10/17/2006 | 10/23/2006 | 11/14/2006 |

TABLE 7
Holding Time
*Sorted by Method, Matrix, and Field ID*

| Method | Matrix | Field ID | QAQC Type | Holding time - Type* | Sample Date | Extract Date | Analysis Date |
|---|---|---|---|---|---|---|---|
| **GA01R** | SOIL | 6-30-TP-03-0506 | N | 6 Days - E | 10/17/2006 | 10/23/2006 | 11/14/2006 |
| | SOIL | 6-30-TP-04-0607 | N | 6 Days - E | 10/18/2006 | 10/24/2006 | 11/15/2006 |
| | SOIL | 6-30-TP-06-1718 | N | 6 Days - E | 10/18/2006 | 10/24/2006 | 11/15/2006 |
| | SOIL | 6-30-TP-07-0506 | N | 5 Days - E | 10/19/2006 | 10/24/2006 | 11/16/2006 |
| | SOIL | 6-30-TP-08-1920 | N | 5 Days - E | 10/19/2006 | 10/24/2006 | 11/15/2006 |
| | SOIL | 6-30-TP-09-0708 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 11/15/2006 |
| | SOIL | 6-30-TP-09-2021 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 11/15/2006 |
| | SOIL | 6-30-TP-10-0102 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 11/15/2006 |
| | SOIL | 6-30-TP-11-0910 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 11/15/2006 |
| | SOIL | 6-30-TP-11-1516 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 11/15/2006 |
| | SOIL | 6-30-TP-12-0708 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 11/15/2006 |
| | SOIL | 6-30-TP-12-1819 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 11/15/2006 |
| | SOIL | 6-30-TP-1299-0708 | FD | 4 Days - E | 10/20/2006 | 10/24/2006 | 11/15/2006 |
| | SOIL | 6-30-TP-13-0708 | N | 4 Days - E | 10/23/2006 | 10/27/2006 | 11/17/2006 |
| | SOIL | 6-30-TP-1399-0708 | FD | 4 Days - E | 10/23/2006 | 10/27/2006 | 11/17/2006 |
| | SOIL | RW-06 BIO 001 | N | 9 Days - E | 11/6/2006 | 11/15/2006 | 11/16/2006 |
| | SOIL | RW-06 BIO 001 | N | 11 Days - E | 11/6/2006 | 11/17/2006 | 12/8/2006 |
| | SOIL | RW-06 BIO 002 | N | 9 Days - E | 11/6/2006 | 11/15/2006 | 11/16/2006 |
| | SOIL | RW-06 BIO 002 | N | 11 Days - E | 11/6/2006 | 11/17/2006 | 12/8/2006 |
| **SW6010** | SOIL | 6-30-TP-09-2021 | N | 13 Days - A | 10/20/2006 | 10/26/2006 | 11/2/2006 |
| | SOIL | 6-30-TP-11-0910 | N | 21 Days - A | 10/20/2006 | 10/26/2006 | 11/10/2006 |
| | SOIL | 6-30-TP-11-1516 | N | 21 Days - A | 10/20/2006 | 10/26/2006 | 11/10/2006 |
| **SW6020** | SOIL | 6-30-TP-01-0506 | N | 15 Days - E | 10/17/2006 | 11/1/2006 | 11/14/2006 |
| | SOIL | 6-30-TP-01-0506 | N | 15 Days - E | 10/17/2006 | 11/1/2006 | 11/11/2006 |
| | SOIL | 6-30-TP-01-1415 | N | 15 Days - E | 10/17/2006 | 11/1/2006 | 11/14/2006 |
| | SOIL | 6-30-TP-01-1415 | N | 15 Days - E | 10/17/2006 | 11/1/2006 | 11/11/2006 |
| | SOIL | 6-30-TP-03-0506 | N | 15 Days - E | 10/17/2006 | 11/1/2006 | 11/14/2006 |
| | SOIL | 6-30-TP-03-0506 | N | 15 Days - E | 10/17/2006 | 11/1/2006 | 11/11/2006 |
| | SOIL | 6-30-TP-03-1516 | N | 15 Days - E | 10/17/2006 | 11/1/2006 | 11/11/2006 |
| | SOIL | 6-30-TP-03-1516 | N | 15 Days - E | 10/17/2006 | 11/1/2006 | 11/14/2006 |
| | SOIL | 6-30-TP-04-0607 | N | 14 Days - E | 10/18/2006 | 11/1/2006 | 11/11/2006 |
| | SOIL | 6-30-TP-04-1314 | N | 14 Days - E | 10/18/2006 | 11/1/2006 | 11/11/2006 |
| | SOIL | 6-30-TP-05-0607 | N | 14 Days - E | 10/18/2006 | 11/1/2006 | 11/11/2006 |
| | SOIL | 6-30-TP-05-1314 | N | 14 Days - E | 10/18/2006 | 11/1/2006 | 11/11/2006 |
| | SOIL | 6-30-TP-06-1718 | N | 14 Days - E | 10/18/2006 | 11/1/2006 | 11/11/2006 |
| | SOIL | 6-30-TP-07-0506 | N | 13 Days - E | 10/19/2006 | 11/1/2006 | 11/11/2006 |
| | SOIL | 6-30-TP-07-1617 | N | 13 Days - E | 10/19/2006 | 11/1/2006 | 11/11/2006 |
| | SOIL | 6-30-TP-08-1920 | N | 13 Days - E | 10/19/2006 | 11/1/2006 | 11/11/2006 |
| | SOIL | 6-30-TP-09-0708 | N | 12 Days - E | 10/20/2006 | 11/1/2006 | 11/11/2006 |

TABLE 7
Holding Time
*Sorted by Method, Matrix, and Field ID*

| Method | Matrix | Field ID | QAQC Type | Holding time - Type* | Sample Date | Extract Date | Analysis Date |
|---|---|---|---|---|---|---|---|
| **SW6020** | SOIL | 6-30-TP-09-2021 | N | 12 Days - E | 10/20/2006 | 11/1/2006 | 11/11/2006 |
| | SOIL | 6-30-TP-10-0102 | N | 12 Days - E | 10/20/2006 | 11/1/2006 | 11/11/2006 |
| | SOIL | 6-30-TP-11-0910 | N | 12 Days - E | 10/20/2006 | 11/1/2006 | 11/11/2006 |
| | SOIL | 6-30-TP-11-1516 | N | 12 Days - E | 10/20/2006 | 11/1/2006 | 11/11/2006 |
| | SOIL | 6-30-TP-12-0708 | N | 12 Days - E | 10/20/2006 | 11/1/2006 | 11/11/2006 |
| | SOIL | 6-30-TP-12-1819 | N | 12 Days - E | 10/20/2006 | 11/1/2006 | 11/11/2006 |
| | SOIL | 6-30-TP-1299-0708 | FD | 12 Days - E | 10/20/2006 | 11/1/2006 | 11/11/2006 |
| | SOIL | 6-30-TP-13-0708 | N | 9 Days - E | 10/23/2006 | 11/1/2006 | 11/11/2006 |
| | SOIL | 6-30-TP-13-0708 | N | 9 Days - E | 10/23/2006 | 11/1/2006 | 11/14/2006 |
| | SOIL | 6-30-TP-13-1516 | N | 9 Days - E | 10/23/2006 | 11/1/2006 | 11/14/2006 |
| | SOIL | 6-30-TP-13-1516 | N | 9 Days - E | 10/23/2006 | 11/1/2006 | 11/11/2006 |
| | SOIL | 6-30-TP-1399-0708 | FD | 9 Days - E | 10/23/2006 | 11/1/2006 | 11/14/2006 |
| | SOIL | 6-30-TP-1399-0708 | FD | 9 Days - E | 10/23/2006 | 11/1/2006 | 11/11/2006 |
| **SW7470A** | SOIL | 6-30-TP-09-2021 | N | 5 Days - E | 10/20/2006 | 10/25/2006 | 10/25/2006 |
| | SOIL | 6-30-TP-11-0910 | N | 5 Days - E | 10/20/2006 | 10/25/2006 | 10/25/2006 |
| | SOIL | 6-30-TP-11-1516 | N | 5 Days - E | 10/20/2006 | 10/25/2006 | 10/25/2006 |
| | SOIL | 6-30-TP-09-2021 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-11-0910 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-11-1516 | N | 4 Days - E | 10/20/2006 | 10/24/2006 | 10/24/2006 |
| **SW7471A** | SOIL | 6-30-TP-01-0506 | N | 7 Days - A | 10/17/2006 | 10/24/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-01-1415 | N | 7 Days - A | 10/17/2006 | 10/24/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-03-0506 | N | 7 Days - A | 10/17/2006 | 10/24/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-03-1516 | N | 7 Days - A | 10/17/2006 | 10/24/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-04-0607 | N | 6 Days - A | 10/18/2006 | 10/24/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-04-1314 | N | 6 Days - A | 10/18/2006 | 10/24/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-05-0607 | N | 6 Days - A | 10/18/2006 | 10/24/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-05-1314 | N | 6 Days - A | 10/18/2006 | 10/24/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-06-1718 | N | 6 Days - A | 10/18/2006 | 10/24/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-07-0506 | N | 5 Days - A | 10/19/2006 | 10/24/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-07-1617 | N | 5 Days - A | 10/19/2006 | 10/24/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-08-1920 | N | 5 Days - A | 10/19/2006 | 10/24/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-09-0708 | N | 4 Days - A | 10/20/2006 | 10/24/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-09-2021 | N | 4 Days - A | 10/20/2006 | 10/24/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-10-0102 | N | 4 Days - A | 10/20/2006 | 10/24/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-11-0910 | N | 4 Days - A | 10/20/2006 | 10/24/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-11-1516 | N | 4 Days - A | 10/20/2006 | 10/24/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-12-0708 | N | 4 Days - A | 10/20/2006 | 10/24/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-12-1819 | N | 4 Days - A | 10/20/2006 | 10/24/2006 | 10/24/2006 |
| | SOIL | 6-30-TP-1299-0708 | FD | 4 Days - A | 10/20/2006 | 10/24/2006 | 10/24/2006 |

TABLE 7

Holding Time

*Sorted by Method, Matrix, and Field ID*

| Method | Matrix | Field ID | QAQC Type | Holding time - Type* | Sample Date | Extract Date | Analysis Date |
|---|---|---|---|---|---|---|---|
| **SW7471A** | SOIL | 6-30-TP-13-0708 | N | 2 Days - A | 10/23/2006 | 10/25/2006 | 10/25/2006 |
| | SOIL | 6-30-TP-13-1516 | N | 2 Days - A | 10/23/2006 | 10/25/2006 | 10/25/2006 |
| | SOIL | 6-30-TP-1399-0708 | FD | 2 Days - A | 10/23/2006 | 10/25/2006 | 10/25/2006 |
| **SW9310** | SOIL | 6-30-TP-01-0506 | N | 22 Days - E | 10/17/2006 | 11/8/2006 | 11/9/2006 |
| | SOIL | 6-30-TP-02-0203 | N | 22 Days - E | 10/17/2006 | 11/8/2006 | 11/9/2006 |
| | SOIL | 6-30-TP-03-0506 | N | 22 Days - E | 10/17/2006 | 11/8/2006 | 11/9/2006 |
| | SOIL | 6-30-TP-04-0607 | N | 21 Days - E | 10/18/2006 | 11/8/2006 | 11/9/2006 |
| | SOIL | 6-30-TP-06-1718 | N | 21 Days - E | 10/18/2006 | 11/8/2006 | 11/9/2006 |
| | SOIL | 6-30-TP-07-0506 | N | 20 Days - E | 10/19/2006 | 11/8/2006 | 11/9/2006 |
| | SOIL | 6-30-TP-08-1920 | N | 20 Days - E | 10/19/2006 | 11/8/2006 | 11/9/2006 |
| | SOIL | 6-30-TP-09-0708 | N | 19 Days - E | 10/20/2006 | 11/8/2006 | 11/9/2006 |
| | SOIL | 6-30-TP-09-2021 | N | 19 Days - E | 10/20/2006 | 11/8/2006 | 11/9/2006 |
| | SOIL | 6-30-TP-10-0102 | N | 19 Days - E | 10/20/2006 | 11/8/2006 | 11/9/2006 |
| | SOIL | 6-30-TP-11-0910 | N | 19 Days - E | 10/20/2006 | 11/8/2006 | 11/9/2006 |
| | SOIL | 6-30-TP-11-1516 | N | 19 Days - E | 10/20/2006 | 11/8/2006 | 11/9/2006 |
| | SOIL | 6-30-TP-12-0708 | N | 19 Days - E | 10/20/2006 | 11/8/2006 | 11/9/2006 |
| | SOIL | 6-30-TP-12-1819 | N | 19 Days - E | 10/20/2006 | 11/8/2006 | 11/9/2006 |
| | SOIL | 6-30-TP-1299-0708 | FD | 19 Days - E | 10/20/2006 | 11/8/2006 | 11/9/2006 |
| | SOIL | 6-30-TP-13-0708 | N | 16 Days - E | 10/23/2006 | 11/8/2006 | 11/9/2006 |
| | SOIL | 6-30-TP-1399-0708 | FD | 16 Days - E | 10/23/2006 | 11/8/2006 | 11/9/2006 |
| | SOIL | RW-06 BIO 001 | N | 5 Days - E | 11/6/2006 | 11/11/2006 | 11/15/2006 |
| | SOIL | RW-06 BIO 002 | N | 5 Days - E | 11/6/2006 | 11/11/2006 | 11/15/2006 |

* Holding Time 'A' = Analysis holding time, 'E' = Extraction holding time
QA/QC Types:
N = Normal Environmental Sample
FD = Field Duplicate

TABLE 8

Blank Contamination

*Sorted by SDG and Method*

| SDG | Method | Matrix | Blank Type* | Blank ID | Analyte | Analysis Date | Result | MDL | Flag | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **F6J190101** | | | | | | | | | | |
| | **A01R** | SOIL | LB | F6J190000528B | Iodine 129 | 10/25/2006 | 0.12 | 0.61 | U | PCI/G |
| | | | LB | F6J200000303B | Neptunium 237 | 11/9/2006 | 0.001 | 0.029 | U | PCI/G |
| | | | LB | F6K100000492B | Neptunium 237 | 11/12/2006 | -0.011 | 0.04 | U | PCI/G |
| | | | LB | F6J200000306B | Plutonium 238 | 10/24/2006 | 0.005 | 0.031 | U | PCI/G |
| | | | LB | F6J200000306B | Plutonium 239/40 | 10/24/2006 | 0.011 | 0.019 | U | PCI/G |
| | | | LB | F6J200000307B | Thorium 228 | 11/9/2006 | 0.0003 | 0.03 | U | PCI/G |
| | | | LB | F6J200000307B | Thorium 230 | 11/9/2006 | 0.057 | 0.024 | J | PCI/G |
| | | | LB | F6J200000307B | Thorium 232 | 11/9/2006 | 0.014 | 0.021 | U | PCI/G |
| | | | LB | F6J200000308B | Uranium 233/234 | 10/24/2006 | 0.033 | 0.008 | J | PCI/G |
| | | | LB | F6J200000308B | Uranium 235/236 | 10/24/2006 | 0.011 | 0.01 | J | PCI/G |
| | | | LB | F6J200000308B | Uranium 238 | 10/24/2006 | 0.019 | 0.019 | U | PCI/G |
| | **EML-AM-01** | | LB | F6J200000302B | Americium 241 | 10/24/2006 | 0.01 | 0.026 | U | PCI/G |
| | **EML-SR-01** | | LB | F6J190000111B | Strontium 89 | 11/1/2006 | 0.08 | 0.44 | U | PCI/G |
| | **EML-SR-03** | | LB | F6J190000113B | Strontium 90 | 11/1/2006 | 0.07 | 0.58 | U | PCI/G |
| | **GA01R** | | LB | F6J230000261B | Actinium 227 | 11/14/2006 | -0.05 | 0.26 | U | PCI/G |
| | | | LB | F6J230000261B | Actinium 228 | 11/14/2006 | 0.07 | 0.27 | U | PCI/G |
| | | | LB | F6J230000261B | Bismuth 207 | 11/14/2006 | 0.022 | 0.048 | U | PCI/G |
| | | | LB | F6J230000261B | Bismuth 212 | 11/14/2006 | 0.01 | 0.52 | U | PCI/G |
| | | | LB | F6J230000261B | Bismuth 214 | 11/14/2006 | 0.028 | 0.14 | U | PCI/G |
| | | | LB | F6J230000261B | Bismuth-210M | 11/14/2006 | 0.009 | 0.066 | U | PCI/G |
| | | | LB | F6J230000261B | Cesium 134 | 11/14/2006 | -0.047 | 0.047 | U | PCI/G |
| | | | LB | F6J230000261B | Cesium 137 | 11/14/2006 | -0.005 | 0.045 | U | PCI/G |
| | | | LB | F6J230000261B | Cobalt 57 | 11/14/2006 | 0.012 | 0.029 | U | PCI/G |
| | | | LB | F6J230000261B | Cobalt 58 | 11/14/2006 | -0.004 | 0.056 | U | PCI/G |
| | | | LB | F6J230000261B | Cobalt 60 | 11/14/2006 | 0.013 | 0.043 | U | PCI/G |
| | | | LB | F6J230000261B | Lead 210 | 11/14/2006 | 0.18 | 1.3 | U | PCI/G |
| | | | LB | F6J230000261B | Lead 212 | 11/14/2006 | 0.003 | 0.085 | U | PCI/G |
| | | | LB | F6J230000261B | Lead 214 | 11/14/2006 | 0.067 | 0.13 | U | PCI/G |
| | | | LB | F6J230000261B | Potassium 40 | 11/14/2006 | 0.05 | 0.87 | U | PCI/G |
| | | | LB | F6J230000261B | Radium (226) | 11/14/2006 | 0.028 | 0.14 | U | PCI/G |

TABLE 8

Blank Contamination

*Sorted by SDG and Method*

| SDG | Method | Matrix | Blank Type* | Blank ID | Analyte | Analysis Date | Result | MDL | Flag | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **F6J190101** | | | | | | | | | | |
| | **GA01R** | SOIL | LB | F6J230000261B | Radium 228 | 11/14/2006 | 0.07 | 0.27 | U | PCI/G |
| | | | LB | F6J230000261B | Thallium 208 | 11/14/2006 | 0.01 | 0.067 | U | PCI/G |
| | | | LB | F6J230000261B | Thorium 234 | 11/14/2006 | -0.09 | 0.51 | U | PCI/G |
| | | | LB | F6J230000261B | Uranium 235 | 11/14/2006 | 0.01 | 0.22 | U | PCI/G |
| | **SW6020** | | LB | F6K010000107B | Aluminum | 11/11/2006 | 2.9 | 2 | J | MG/KG |
| | | | LB | F6K010000107B | Antimony | 11/11/2006 | 0.052 | 0.052 | U | MG/KG |
| | | | LB | F6K010000107B | Arsenic | 11/11/2006 | 0.21 | 0.21 | U | MG/KG |
| | | | LB | F6K010000107B | Barium | 11/11/2006 | 0.35 | 0.35 | U | MG/KG |
| | | | LB | F6K010000107B | Beryllium | 11/11/2006 | 0.025 | 0.025 | U | MG/KG |
| | | | LB | F6K010000107B | Cadmium | 11/11/2006 | 0.005 | 0.005 | U | MG/KG |
| | | | LB | F6K010000107B | Calcium | 11/11/2006 | 18.4 | 10 | J | MG/KG |
| | | | LB | F6K010000107B | Chromium | 11/11/2006 | 0.58 | 0.4 | J | MG/KG |
| | | | LB | F6K010000107B | Cobalt | 11/11/2006 | 0.025 | 0.025 | U | MG/KG |
| | | | LB | F6K010000107B | Copper | 11/11/2006 | 0.32 | 0.32 | U | MG/KG |
| | | | LB | F6K010000107B | Iron | 11/11/2006 | 75.3 | 2.2 | | MG/KG |
| | | | LB | F6K010000107B | Lead | 11/11/2006 | 0.05 | 0.05 | U | MG/KG |
| | | | LB | F6K010000107B | Magnesium | 11/11/2006 | 5.7 | 5.7 | U | MG/KG |
| | | | LB | F6K010000107B | Manganese | 11/11/2006 | 0.62 | 0.06 | | MG/KG |
| | | | LB | F6K010000107B | Molybdenum | 11/11/2006 | 0.052 | 0.052 | U | MG/KG |
| | | | LB | F6K010000107B | Nickel | 11/11/2006 | 0.13 | 0.05 | J | MG/KG |
| | | | LB | F6K010000107B | Potassium | 11/11/2006 | 3.4 | 3.2 | J | MG/KG |
| | | | LB | F6K010000107B | Selenium | 11/11/2006 | 0.11 | 0.11 | U | MG/KG |
| | | | LB | F6K010000107B | Silver | 11/11/2006 | 0.02 | 0.02 | U | MG/KG |
| | | | LB | F6K010000107B | Sodium | 11/11/2006 | 9.8 | 8.6 | J | MG/KG |
| | | | LB | F6K010000107B | Thallium | 11/11/2006 | 0.07 | 0.07 | U | MG/KG |
| | | | LB | F6K010000107B | Vanadium | 11/11/2006 | 0.23 | 0.23 | U | MG/KG |
| | | | LB | F6K010000107B | Zinc | 11/14/2006 | 1.4 | 0.52 | J | MG/KG |
| | **SW7470A** | | LB | F6J230000155B | Mercury | 10/24/2006 | 0.0067 | 0.007 | U | MG/KG |
| | **SW7471A** | | LB | F6J230000155B | Mercury | 10/24/2006 | 0.0067 | 0.007 | U | MG/KG |
| | **SW9310** | | LB | F6K070000444B | Gross Alpha | 11/9/2006 | 2 | 4.8 | U | PCI/G |

TABLE 8

Blank Contamination

*Sorted by SDG and Method*

| SDG | Method | Matrix | Blank Type* | Blank ID | Analyte | Analysis Date | Result | MDL | Flag | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **F6J190101** | | | | | | | | | | |
| | **SW9310** | SOIL | LB | F6K070000444B | Gross Beta | 11/9/2006 | 6 | 3.8 | J | PCI/G |
| **F6J220112** | | | | | | | | | | |
| | **A01R** | SOIL | LB | F6J230000145B | Iodine 129 | 10/27/2006 | 0.01 | 0.71 | U | PCI/G |
| | | | LB | F6K140000180B | Neptunium 237 | 11/16/2006 | 0.057 | 0.05 | J | PCI/G |
| | | | LB | F6J240000384B | Neptunium 237 | 11/10/2006 | -0.004 | 0.03 | U | PCI/G |
| | | | LB | F6J240000381B | Plutonium 238 | 10/30/2006 | -0.011 | 0.045 | U | PCI/G |
| | | | LB | F6J240000381B | Plutonium 239/40 | 10/30/2006 | 0.023 | 0.024 | U | PCI/G |
| | | | LB | F6J240000385B | Thorium 228 | 11/10/2006 | 0.006 | 0.028 | U | PCI/G |
| | | | LB | F6J240000385B | Thorium 230 | 11/10/2006 | 0.063 | 0.013 | J | PCI/G |
| | | | LB | F6J240000385B | Thorium 232 | 11/10/2006 | 0.004 | 0.021 | U | PCI/G |
| | | | LB | F6J240000382B | Uranium 233/234 | 10/31/2006 | 0.009 | 0.035 | U | PCI/G |
| | | | LB | F6J240000382B | Uranium 235/236 | 10/31/2006 | -0.003 | 0.039 | U | PCI/G |
| | | | LB | F6J240000382B | Uranium 238 | 10/31/2006 | 0.017 | 0.032 | U | PCI/G |
| | **EML-AM-01** | | LB | F6J240000380B | Americium 241 | 10/30/2006 | -0.004 | 0.083 | U | PCI/G |
| | | | LB | F6J240000380B | Americium 241 | 10/30/2006 | -0.004 | 0.083 | U | PCI/G |
| | | | LB | F6K020000233B | Americium 241 | 11/6/2006 | 0.012 | 0.032 | U | PCI/G |
| | | | LB | F6K020000233B | Americium 241 | 11/6/2006 | 0.012 | 0.032 | U | PCI/G |
| | **EML-SR-01** | | LB | F6J230000171B | Strontium 89 | 11/2/2006 | -0.02 | 0.35 | U | PCI/G |
| | | | LB | F6J230000171B | Strontium 89 | 11/2/2006 | -0.02 | 0.35 | U | PCI/G |
| | **EML-SR-03** | | LB | F6J230000172B | Strontium 90 | 11/2/2006 | -0.26 | 0.52 | U | PCI/G |
| | | | LB | F6J230000172B | Strontium 90 | 11/2/2006 | -0.26 | 0.52 | U | PCI/G |
| | **GA01R** | | LB | F6J230000296B | Actinium 227 | 11/15/2006 | -0.12 | 0.26 | U | PCI/G |
| | | | LB | F6J230000296B | Actinium 227 | 11/15/2006 | -0.12 | 0.26 | U | PCI/G |
| | | | LB | F6J230000296B | Actinium 228 | 11/15/2006 | 0.2 | 0.34 | U | PCI/G |
| | | | LB | F6J230000296B | Actinium 228 | 11/15/2006 | 0.2 | 0.34 | U | PCI/G |
| | | | LB | F6J230000296B | Bismuth 207 | 11/15/2006 | 0.013 | 0.05 | U | PCI/G |
| | | | LB | F6J230000296B | Bismuth 207 | 11/15/2006 | 0.013 | 0.05 | U | PCI/G |
| | | | LB | F6J230000296B | Bismuth 212 | 11/15/2006 | 0.04 | 0.46 | U | PCI/G |
| | | | LB | F6J230000296B | Bismuth 212 | 11/15/2006 | 0.04 | 0.46 | U | PCI/G |
| | | | LB | F6J230000296B | Bismuth 214 | 11/15/2006 | 0.074 | 0.14 | U | PCI/G |

TABLE 8

Blank Contamination

*Sorted by SDG and Method*

| SDG | Method | Matrix | Blank Type* | Blank ID | Analyte | Analysis Date | Result | MDL | Flag | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **F6J220112** | | | | | | | | | | |
| | **GA01R** | SOIL | LB | F6J230000296B | Bismuth 214 | 11/15/2006 | 0.074 | 0.14 | U | PCI/G |
| | | | LB | F6J230000296B | Bismuth-210M | 11/15/2006 | 0.007 | 0.058 | U | PCI/G |
| | | | LB | F6J230000296B | Bismuth-210M | 11/15/2006 | 0.007 | 0.058 | U | PCI/G |
| | | | LB | F6J230000296B | Cesium 134 | 11/15/2006 | -0.003 | 0.061 | U | PCI/G |
| | | | LB | F6J230000296B | Cesium 134 | 11/15/2006 | -0.003 | 0.061 | U | PCI/G |
| | | | LB | F6J230000296B | Cesium 137 | 11/15/2006 | -0.005 | 0.05 | U | PCI/G |
| | | | LB | F6J230000296B | Cesium 137 | 11/15/2006 | -0.005 | 0.05 | U | PCI/G |
| | | | LB | F6J230000296B | Cobalt 57 | 11/15/2006 | -0.0002 | 0.025 | U | PCI/G |
| | | | LB | F6J230000296B | Cobalt 57 | 11/15/2006 | -0.0002 | 0.025 | U | PCI/G |
| | | | LB | F6J230000296B | Cobalt 58 | 11/15/2006 | 0.004 | 0.046 | U | PCI/G |
| | | | LB | F6J230000296B | Cobalt 58 | 11/15/2006 | 0.004 | 0.046 | U | PCI/G |
| | | | LB | F6J230000296B | Cobalt 60 | 11/15/2006 | -0.02 | 0.048 | U | PCI/G |
| | | | LB | F6J230000296B | Cobalt 60 | 11/15/2006 | -0.02 | 0.048 | U | PCI/G |
| | | | LB | F6J230000296B | Lead 210 | 11/15/2006 | -0.16 | 1.2 | U | PCI/G |
| | | | LB | F6J230000296B | Lead 210 | 11/15/2006 | -0.16 | 1.2 | U | PCI/G |
| | | | LB | F6J230000296B | Lead 212 | 11/15/2006 | 0.028 | 0.1 | U | PCI/G |
| | | | LB | F6J230000296B | Lead 212 | 11/15/2006 | 0.028 | 0.1 | U | PCI/G |
| | | | LB | F6J230000296B | Lead 214 | 11/15/2006 | 0.018 | 0.12 | U | PCI/G |
| | | | LB | F6J230000296B | Lead 214 | 11/15/2006 | 0.018 | 0.12 | U | PCI/G |
| | | | LB | F6J230000296B | Potassium 40 | 11/15/2006 | 0.11 | 0.79 | U | PCI/G |
| | | | LB | F6J230000296B | Potassium 40 | 11/15/2006 | 0.11 | 0.79 | U | PCI/G |
| | | | LB | F6J230000296B | Radium (226) | 11/15/2006 | 0.074 | 0.14 | U | PCI/G |
| | | | LB | F6J230000296B | Radium (226) | 11/15/2006 | 0.074 | 0.14 | U | PCI/G |
| | | | LB | F6J230000296B | Radium 228 | 11/15/2006 | 0.2 | 0.34 | U | PCI/G |
| | | | LB | F6J230000296B | Radium 228 | 11/15/2006 | 0.2 | 0.34 | U | PCI/G |
| | | | LB | F6J230000296B | Thallium 208 | 11/15/2006 | 0.0004 | 0.063 | U | PCI/G |
| | | | LB | F6J230000296B | Thallium 208 | 11/15/2006 | 0.0004 | 0.063 | U | PCI/G |
| | | | LB | F6J230000296B | Thorium 234 | 11/15/2006 | -0.28 | 0.58 | U | PCI/G |
| | | | LB | F6J230000296B | Thorium 234 | 11/15/2006 | -0.28 | 0.58 | U | PCI/G |
| | | | LB | F6J230000296B | Uranium 235 | 11/15/2006 | 0.13 | 0.26 | U | PCI/G |

TABLE 8

Blank Contamination

*Sorted by SDG and Method*

| SDG | Method | Matrix | Blank Type* | Blank ID | Analyte | Analysis Date | Result | MDL | Flag | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **F6J220112** | | | | | | | | | | |
| | **GA01R** | SOIL | LB | F6J230000296B | Uranium 235 | 11/15/2006 | 0.13 | 0.26 | U | PCI/G |
| | **SW6010** | | LB | F6J240000420B | Arsenic-TCLP | 11/2/2006 | 74.28 | 74.28 | U | UG/L |
| | | | LB | F6J240000420B | Arsenic-TCLP | 11/2/2006 | 74.28 | 74.28 | U | UG/L |
| | | | LB | F6J240000422B | Arsenic-TCLP | 11/10/2006 | 74.3 | 74.3 | U | UG/L |
| | | | LB | F6J240000422B | Arsenic-TCLP | 11/10/2006 | 74.3 | 74.3 | U | UG/L |
| | | | LB | F6J240000422B | Barium-TCLP | 11/10/2006 | 17.2 | 12.5 | J | UG/L |
| | | | LB | F6J240000420B | Barium-TCLP | 11/2/2006 | 18 | 12.5 | J | UG/L |
| | | | LB | F6J240000422B | Barium-TCLP | 11/10/2006 | 17.2 | 12.5 | J | UG/L |
| | | | LB | F6J240000420B | Barium-TCLP | 11/2/2006 | 18 | 12.5 | J | UG/L |
| | | | LB | F6J240000420B | Cadmium-TCLP | 11/2/2006 | 5.69 | 5.69 | U | UG/L |
| | | | LB | F6J240000422B | Cadmium-TCLP | 11/10/2006 | 5.7 | 5.7 | U | UG/L |
| | | | LB | F6J240000422B | Cadmium-TCLP | 11/10/2006 | 5.7 | 5.7 | U | UG/L |
| | | | LB | F6J240000420B | Cadmium-TCLP | 11/2/2006 | 5.69 | 5.69 | U | UG/L |
| | | | LB | F6J240000422B | Chromium-TCLP | 11/10/2006 | 19.3 | 19.3 | U | UG/L |
| | | | LB | F6J240000420B | Chromium-TCLP | 11/2/2006 | 19.32 | 19.32 | U | UG/L |
| | | | LB | F6J240000422B | Chromium-TCLP | 11/10/2006 | 19.3 | 19.3 | U | UG/L |
| | | | LB | F6J240000420B | Chromium-TCLP | 11/2/2006 | 19.32 | 19.32 | U | UG/L |
| | | | LB | F6J240000422B | Lead-TCLP | 11/10/2006 | 70.4 | 70.4 | U | UG/L |
| | | | LB | F6J240000422B | Lead-TCLP | 11/10/2006 | 70.4 | 70.4 | U | UG/L |
| | | | LB | F6J240000420B | Lead-TCLP | 11/2/2006 | 70.42 | 70.42 | U | UG/L |
| | | | LB | F6J240000420B | Lead-TCLP | 11/2/2006 | 70.42 | 70.42 | U | UG/L |
| | | | LB | F6J240000420B | Selenium-TCLP | 11/2/2006 | 103.8 | 103.8 | U | UG/L |
| | | | LB | F6J240000420B | Selenium-TCLP | 11/2/2006 | 103.8 | 103.8 | U | UG/L |
| | | | LB | F6J240000422B | Selenium-TCLP | 11/10/2006 | 104 | 104 | U | UG/L |
| | | | LB | F6J240000422B | Selenium-TCLP | 11/10/2006 | 104 | 104 | U | UG/L |
| | | | LB | F6J240000420B | Silver-TCLP | 11/2/2006 | 13.02 | 13.02 | U | UG/L |
| | | | LB | F6J240000420B | Silver-TCLP | 11/2/2006 | 13.02 | 13.02 | U | UG/L |
| | | | LB | F6J240000422B | Silver-TCLP | 11/10/2006 | 13 | 13 | U | UG/L |
| | | | LB | F6J240000422B | Silver-TCLP | 11/10/2006 | 13 | 13 | U | UG/L |
| | **SW6020** | | LB | F6K010000109B | Aluminum | 11/11/2006 | 3.6 | 2 | J | MG/KG |

TABLE 8

Blank Contamination

*Sorted by SDG and Method*

| SDG | Method | Matrix | Blank Type* | Blank ID | Analyte | Analysis Date | Result | MDL | Flag | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **F6J220112** | | | | | | | | | | |
| | **SW6020** | SOIL | LB | F6K010000109B | Aluminum | 11/11/2006 | 3.6 | 2 | J | MG/KG |
| | | | LB | F6K010000109B | Antimony | 11/11/2006 | 0.052 | 0.052 | U | MG/KG |
| | | | LB | F6K010000109B | Antimony | 11/11/2006 | 0.052 | 0.052 | U | MG/KG |
| | | | LB | F6K010000109B | Arsenic | 11/11/2006 | 0.21 | 0.21 | U | MG/KG |
| | | | LB | F6K010000109B | Arsenic | 11/11/2006 | 0.21 | 0.21 | U | MG/KG |
| | | | LB | F6K010000109B | Barium | 11/11/2006 | 0.35 | 0.35 | U | MG/KG |
| | | | LB | F6K010000109B | Barium | 11/11/2006 | 0.35 | 0.35 | U | MG/KG |
| | | | LB | F6K010000109B | Beryllium | 11/11/2006 | 0.025 | 0.025 | U | MG/KG |
| | | | LB | F6K010000109B | Beryllium | 11/11/2006 | 0.025 | 0.025 | U | MG/KG |
| | | | LB | F6K010000109B | Cadmium | 11/11/2006 | 0.005 | 0.005 | U | MG/KG |
| | | | LB | F6K010000109B | Cadmium | 11/11/2006 | 0.005 | 0.005 | U | MG/KG |
| | | | LB | F6K010000109B | Calcium | 11/11/2006 | 18.6 | 10 | J | MG/KG |
| | | | LB | F6K010000109B | Calcium | 11/11/2006 | 18.6 | 10 | J | MG/KG |
| | | | LB | F6K010000109B | Chromium | 11/11/2006 | 0.4 | 0.4 | U | MG/KG |
| | | | LB | F6K010000109B | Chromium | 11/11/2006 | 0.4 | 0.4 | U | MG/KG |
| | | | LB | F6K010000109B | Cobalt | 11/11/2006 | 0.025 | 0.025 | U | MG/KG |
| | | | LB | F6K010000109B | Cobalt | 11/11/2006 | 0.025 | 0.025 | U | MG/KG |
| | | | LB | F6K010000109B | Copper | 11/11/2006 | 0.32 | 0.32 | U | MG/KG |
| | | | LB | F6K010000109B | Copper | 11/11/2006 | 0.32 | 0.32 | U | MG/KG |
| | | | LB | F6K010000109B | Iron | 11/11/2006 | 2.4 | 2.2 | J | MG/KG |
| | | | LB | F6K010000109B | Iron | 11/11/2006 | 2.4 | 2.2 | J | MG/KG |
| | | | LB | F6K010000109B | Lead | 11/11/2006 | 0.057 | 0.05 | J | MG/KG |
| | | | LB | F6K010000109B | Lead | 11/11/2006 | 0.057 | 0.05 | J | MG/KG |
| | | | LB | F6K010000109B | Magnesium | 11/11/2006 | 5.7 | 5.7 | U | MG/KG |
| | | | LB | F6K010000109B | Magnesium | 11/11/2006 | 5.7 | 5.7 | U | MG/KG |
| | | | LB | F6K010000109B | Manganese | 11/11/2006 | 0.082 | 0.06 | J | MG/KG |
| | | | LB | F6K010000109B | Manganese | 11/11/2006 | 0.082 | 0.06 | J | MG/KG |
| | | | LB | F6K010000109B | Molybdenum | 11/11/2006 | 0.052 | 0.052 | U | MG/KG |
| | | | LB | F6K010000109B | Molybdenum | 11/11/2006 | 0.052 | 0.052 | U | MG/KG |
| | | | LB | F6K010000109B | Nickel | 11/11/2006 | 0.15 | 0.05 | J | MG/KG |

TABLE 8

Blank Contamination

*Sorted by SDG and Method*

| SDG | Method | Matrix | Blank Type* | Blank ID | Analyte | Analysis Date | Result | MDL | Flag | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **F6J220112** | | | | | | | | | | |
| | **SW6020** | SOIL | LB | F6K010000109B | Nickel | 11/11/2006 | 0.15 | 0.05 | J | MG/KG |
| | | | LB | F6K010000109B | Potassium | 11/11/2006 | 4.8 | 3.2 | J | MG/KG |
| | | | LB | F6K010000109B | Potassium | 11/11/2006 | 4.8 | 3.2 | J | MG/KG |
| | | | LB | F6K010000109B | Selenium | 11/11/2006 | 0.11 | 0.11 | U | MG/KG |
| | | | LB | F6K010000109B | Selenium | 11/11/2006 | 0.11 | 0.11 | U | MG/KG |
| | | | LB | F6K010000109B | Silver | 11/11/2006 | 0.02 | 0.02 | U | MG/KG |
| | | | LB | F6K010000109B | Silver | 11/11/2006 | 0.02 | 0.02 | U | MG/KG |
| | | | LB | F6K010000109B | Sodium | 11/11/2006 | 10.1 | 8.6 | J | MG/KG |
| | | | LB | F6K010000109B | Sodium | 11/11/2006 | 10.1 | 8.6 | J | MG/KG |
| | | | LB | F6K010000109B | Thallium | 11/11/2006 | 0.07 | 0.07 | U | MG/KG |
| | | | LB | F6K010000109B | Thallium | 11/11/2006 | 0.07 | 0.07 | U | MG/KG |
| | | | LB | F6K010000109B | Vanadium | 11/11/2006 | 0.23 | 0.23 | U | MG/KG |
| | | | LB | F6K010000109B | Vanadium | 11/11/2006 | 0.23 | 0.23 | U | MG/KG |
| | | | LB | F6K010000109B | Zinc | 11/11/2006 | 1.2 | 0.52 | J | MG/KG |
| | | | LB | F6K010000109B | Zinc | 11/11/2006 | 1.2 | 0.52 | J | MG/KG |
| | **SW7470A** | | LB | F6J230000155B | Mercury | 10/24/2006 | 0.0067 | 0.007 | U | MG/KG |
| | | | LB | F6J230000155B | Mercury | 10/24/2006 | 0.0067 | 0.007 | U | MG/KG |
| | | | LB | F6J240000420B | Mercury-TCLP | 10/25/2006 | 2.3175 | 2.318 | U | UG/L |
| | | | LB | F6J240000422B | Mercury-TCLP | 10/25/2006 | 0.46 | 0.46 | U | UG/L |
| | | | LB | F6J240000420B | Mercury-TCLP | 10/25/2006 | 2.3175 | 2.318 | U | UG/L |
| | | | LB | F6J240000422B | Mercury-TCLP | 10/25/2006 | 0.46 | 0.46 | U | UG/L |
| | **SW7471A** | | LB | F6J230000155B | Mercury | 10/24/2006 | 0.0067 | 0.007 | U | MG/KG |
| | | | LB | F6J230000155B | Mercury | 10/24/2006 | 0.0067 | 0.007 | U | MG/KG |
| | **SW9310** | | LB | F6K070000444B | Gross Alpha | 11/9/2006 | 2 | 4.8 | U | PCI/G |
| | | | LB | F6K070000444B | Gross Beta | 11/9/2006 | 6 | 3.8 | J | PCI/G |
| **F6J240227** | | | | | | | | | | |
| | **A01R** | SOIL | LB | F6J250000104B | Iodine 129 | 10/30/2006 | -0.2 | 0.8 | U | PCI/G |
| | | | LB | F6J260000255B | Neptunium 237 | 11/9/2006 | 0.023 | 0.024 | U | PCI/G |
| | | | LB | F6K070000249B | Plutonium 238 | 11/14/2006 | 0.008 | 0.028 | U | PCI/G |
| | | | LB | F6J260000256B | Plutonium 238 | 11/1/2006 | 0.006 | 0.028 | U | PCI/G |

TABLE 8

Blank Contamination

*Sorted by SDG and Method*

| SDG | Method | Matrix | Blank Type* | Blank ID | Analyte | Analysis Date | Result | MDL | Flag | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **F6J240227** | | | | | | | | | | |
| | **A01R** | SOIL | LB | F6K070000249B | Plutonium 239/40 | 11/14/2006 | 0.01 | 0.023 | U | PCI/G |
| | | | LB | F6J260000256B | Plutonium 239/40 | 11/1/2006 | 0.004 | 0.021 | U | PCI/G |
| | | | LB | F6J260000257B | Thorium 228 | 11/9/2006 | -0.005 | 0.033 | U | PCI/G |
| | | | LB | F6J260000257B | Thorium 230 | 11/9/2006 | 0.083 | 0.026 | J | PCI/G |
| | | | LB | F6J260000257B | Thorium 232 | 11/9/2006 | 0.003 | 0.026 | U | PCI/G |
| | | | LB | F6J260000259B | Uranium 233/234 | 11/1/2006 | 0.015 | 0.038 | U | PCI/G |
| | | | LB | F6J260000259B | Uranium 235/236 | 11/1/2006 | 0 | 0.02 | U | PCI/G |
| | | | LB | F6J260000259B | Uranium 238 | 11/1/2006 | 0.003 | 0.035 | U | PCI/G |
| | **EML-AM-01** | | LB | F6K070000248B | Americium 241 | 11/15/2006 | 0.002 | 0.042 | U | PCI/G |
| | **EML-SR-01** | | LB | F6J240000444B | Strontium 89 | 11/8/2006 | 0.17 | 0.37 | U | PCI/G |
| | **EML-SR-03** | | LB | F6J240000445B | Strontium 90 | 11/7/2006 | -0.05 | 0.43 | U | PCI/G |
| | **GA01R** | | LB | F6J270000562B | Actinium 227 | 11/17/2006 | -0.15 | 0.29 | U | PCI/G |
| | | | LB | F6J270000562B | Actinium 228 | 11/17/2006 | 0.12 | 0.32 | U | PCI/G |
| | | | LB | F6J270000562B | Bismuth 207 | 11/17/2006 | 0.024 | 0.062 | U | PCI/G |
| | | | LB | F6J270000562B | Bismuth 212 | 11/17/2006 | -0.03 | 0.45 | U | PCI/G |
| | | | LB | F6J270000562B | Bismuth 214 | 11/17/2006 | 0.061 | 0.18 | U | PCI/G |
| | | | LB | F6J270000562B | Bismuth-210M | 11/17/2006 | -0.02 | 0.059 | U | PCI/G |
| | | | LB | F6J270000562B | Cesium 134 | 11/17/2006 | -0.01 | 0.053 | U | PCI/G |
| | | | LB | F6J270000562B | Cesium 137 | 11/17/2006 | 0.022 | 0.07 | U | PCI/G |
| | | | LB | F6J270000562B | Cobalt 57 | 11/17/2006 | -0.003 | 0.028 | U | PCI/G |
| | | | LB | F6J270000562B | Cobalt 58 | 11/17/2006 | 0.0001 | 0.052 | U | PCI/G |
| | | | LB | F6J270000562B | Cobalt 60 | 11/17/2006 | -0.007 | 0.018 | U | PCI/G |
| | | | LB | F6J270000562B | Lead 210 | 11/17/2006 | -0.18 | 1.5 | U | PCI/G |
| | | | LB | F6J270000562B | Lead 212 | 11/17/2006 | -0.021 | 0.096 | U | PCI/G |
| | | | LB | F6J270000562B | Lead 214 | 11/17/2006 | 0.004 | 0.14 | U | PCI/G |
| | | | LB | F6J270000562B | Potassium 40 | 11/17/2006 | 0.3 | 1.1 | U | PCI/G |
| | | | LB | F6J270000562B | Radium (226) | 11/17/2006 | 0.061 | 0.18 | U | PCI/G |
| | | | LB | F6J270000562B | Radium 228 | 11/17/2006 | 0.12 | 0.32 | U | PCI/G |
| | | | LB | F6J270000562B | Thallium 208 | 11/17/2006 | 0.016 | 0.078 | U | PCI/G |
| | | | LB | F6J270000562B | Thorium 234 | 11/17/2006 | 0.09 | 0.62 | U | PCI/G |

TABLE 8

Blank Contamination

*Sorted by SDG and Method*

| SDG | Method | Matrix | Blank Type* | Blank ID | Analyte | Analysis Date | Result | MDL | Flag | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **F6J240227** | | | | | | | | | | |
| | **GA01R** | SOIL | LB | F6J270000562B | Uranium 235 | 11/17/2006 | 0.13 | 0.28 | U | PCI/G |
| | **SW6020** | | LB | F6K010000107B | Aluminum | 11/11/2006 | 2.9 | 2 | J | MG/KG |
| | | | LB | F6K010000107B | Antimony | 11/11/2006 | 0.052 | 0.052 | U | MG/KG |
| | | | LB | F6K010000107B | Arsenic | 11/11/2006 | 0.21 | 0.21 | U | MG/KG |
| | | | LB | F6K010000107B | Barium | 11/11/2006 | 0.35 | 0.35 | U | MG/KG |
| | | | LB | F6K010000107B | Beryllium | 11/11/2006 | 0.025 | 0.025 | U | MG/KG |
| | | | LB | F6K010000107B | Cadmium | 11/11/2006 | 0.005 | 0.005 | U | MG/KG |
| | | | LB | F6K010000107B | Calcium | 11/11/2006 | 18.4 | 10 | J | MG/KG |
| | | | LB | F6K010000107B | Chromium | 11/11/2006 | 0.58 | 0.4 | J | MG/KG |
| | | | LB | F6K010000107B | Cobalt | 11/11/2006 | 0.025 | 0.025 | U | MG/KG |
| | | | LB | F6K010000107B | Copper | 11/11/2006 | 0.32 | 0.32 | U | MG/KG |
| | | | LB | F6K010000107B | Iron | 11/11/2006 | 75.3 | 2.2 | | MG/KG |
| | | | LB | F6K010000107B | Lead | 11/11/2006 | 0.05 | 0.05 | U | MG/KG |
| | | | LB | F6K010000107B | Magnesium | 11/11/2006 | 5.7 | 5.7 | U | MG/KG |
| | | | LB | F6K010000107B | Manganese | 11/11/2006 | 0.62 | 0.06 | | MG/KG |
| | | | LB | F6K010000107B | Molybdenum | 11/11/2006 | 0.052 | 0.052 | U | MG/KG |
| | | | LB | F6K010000107B | Nickel | 11/11/2006 | 0.13 | 0.05 | J | MG/KG |
| | | | LB | F6K010000107B | Potassium | 11/11/2006 | 3.4 | 3.2 | J | MG/KG |
| | | | LB | F6K010000107B | Selenium | 11/11/2006 | 0.11 | 0.11 | U | MG/KG |
| | | | LB | F6K010000107B | Silver | 11/11/2006 | 0.02 | 0.02 | U | MG/KG |
| | | | LB | F6K010000107B | Sodium | 11/11/2006 | 9.8 | 8.6 | J | MG/KG |
| | | | LB | F6K010000107B | Thallium | 11/11/2006 | 0.07 | 0.07 | U | MG/KG |
| | | | LB | F6K010000107B | Vanadium | 11/11/2006 | 0.23 | 0.23 | U | MG/KG |
| | | | LB | F6K010000107B | Zinc | 11/14/2006 | 1.4 | 0.52 | J | MG/KG |
| | **SW7471A** | | LB | F6J250000175B | Mercury | 10/25/2006 | 0.0067 | 0.007 | U | MG/KG |
| | **SW9310** | | LB | F6K070000444B | Gross Alpha | 11/9/2006 | 2 | 4.8 | U | PCI/G |
| | | | LB | F6K070000444B | Gross Beta | 11/9/2006 | 6 | 3.8 | J | PCI/G |
| **F6K10189** | | | | | | | | | | |
| | **GA01R** | SOIL | LB | F6K150000478B | Actinium 227 | 11/16/2006 | 0.008 | 0.19 | U | PCI/G |
| | | | LB | F6K170000357B | Actinium 227 | 12/8/2006 | -0.27 | 0.21 | U | PCI/G |

TABLE 8

Blank Contamination

*Sorted by SDG and Method*

| SDG | Method | Matrix | Blank Type* | Blank ID | Analyte | Analysis Date | Result | MDL | Flag | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **F6K10189** | | | | | | | | | | |
| | **GA01R** | SOIL | LB | F6K170000357B | Actinium 228 | 12/8/2006 | -0.001 | 0.19 | U | PCI/G |
| | | | LB | F6K150000478B | Actinium 228 | 11/16/2006 | 0.11 | 0.25 | U | PCI/G |
| | | | LB | F6K170000357B | Bismuth 207 | 12/8/2006 | -0.011 | 0.047 | U | PCI/G |
| | | | LB | F6K170000357B | Bismuth 212 | 12/8/2006 | -0.21 | 0.45 | U | PCI/G |
| | | | LB | F6K150000478B | Bismuth 212 | 11/16/2006 | 0.17 | 0.52 | U | PCI/G |
| | | | LB | F6K150000478B | Bismuth 214 | 11/16/2006 | 0.034 | 0.14 | U | PCI/G |
| | | | LB | F6K170000357B | Bismuth 214 | 12/8/2006 | 0.004 | 0.12 | U | PCI/G |
| | | | LB | F6K150000478B | Bismuth-207 | 11/16/2006 | -0.008 | 0.031 | U | PCI/G |
| | | | LB | F6K170000357B | Bismuth-210M | 12/8/2006 | 0.008 | 0.056 | U | PCI/G |
| | | | LB | F6K150000478B | Bismuth-210M | 11/16/2006 | -0.012 | 0.056 | U | PCI/G |
| | | | LB | F6K170000357B | Cesium 134 | 12/8/2006 | 0.006 | 0.059 | U | PCI/G |
| | | | LB | F6K150000478B | Cesium 134 | 11/16/2006 | -0.021 | 0.049 | U | PCI/G |
| | | | LB | F6K170000357B | Cesium 137 | 12/8/2006 | -0.032 | 0.041 | U | PCI/G |
| | | | LB | F6K150000478B | Cesium 137 | 11/16/2006 | 0.011 | 0.078 | U | PCI/G |
| | | | LB | F6K170000357B | Cobalt 57 | 12/8/2006 | -0.005 | 0.028 | U | PCI/G |
| | | | LB | F6K150000478B | Cobalt 57 | 11/16/2006 | -0.003 | 0.022 | U | PCI/G |
| | | | LB | F6K170000357B | Cobalt 58 | 12/8/2006 | 0.005 | 0.052 | U | PCI/G |
| | | | LB | F6K150000478B | Cobalt 58 | 11/16/2006 | -0.002 | 0.044 | U | PCI/G |
| | | | LB | F6K150000478B | Cobalt 60 | 11/16/2006 | 0.002 | 0.055 | U | PCI/G |
| | | | LB | F6K170000357B | Cobalt 60 | 12/8/2006 | -0.021 | 0.02 | U | PCI/G |
| | | | LB | F6K150000478B | Lead 210 | 11/16/2006 | 0.12 | 1.2 | U | PCI/G |
| | | | LB | F6K170000357B | Lead 210 | 12/8/2006 | 0.52 | 1.7 | U | PCI/G |
| | | | LB | F6K170000357B | Lead 212 | 12/8/2006 | 0.081 | 0.12 | U | PCI/G |
| | | | LB | F6K150000478B | Lead 212 | 11/16/2006 | 0.067 | 0.042 | | PCI/G |
| | | | LB | F6K170000357B | Lead 214 | 12/8/2006 | -0.007 | 0.1 | U | PCI/G |
| | | | LB | F6K150000478B | Lead 214 | 11/16/2006 | 0.077 | 0.12 | U | PCI/G |
| | | | LB | F6K170000357B | Potassium 40 | 12/8/2006 | -0.08 | 0.79 | U | PCI/G |
| | | | LB | F6K150000478B | Potassium 40 | 11/16/2006 | 0.28 | 0.85 | U | PCI/G |
| | | | LB | F6K170000357B | Radium (226) | 12/8/2006 | 0.004 | 0.12 | U | PCI/G |
| | | | LB | F6K150000478B | Radium 226 | 11/16/2006 | 0.034 | 0.14 | U | PCI/G |

TABLE 8

Blank Contamination

*Sorted by SDG and Method*

| SDG | Method | Matrix | Blank Type* | Blank ID | Analyte | Analysis Date | Result | MDL | Flag | Units |
|---|---|---|---|---|---|---|---|---|---|---|
| **F6K10189** | | | | | | | | | | |
| | **GA01R** | SOIL | LB | F6K170000357B | Radium 228 | 12/8/2006 | -0.001 | 0.19 | U | PCI/G |
| | | | LB | F6K170000357B | Thallium 208 | 12/8/2006 | 0.018 | 0.077 | U | PCI/G |
| | | | LB | F6K150000478B | Thallium 208 | 11/16/2006 | 0.026 | 0.062 | U | PCI/G |
| | | | LB | F6K150000478B | Thorium 234 | 11/16/2006 | -0.02 | 0.46 | U | PCI/G |
| | | | LB | F6K170000357B | Thorium 234 | 12/8/2006 | 0.22 | 0.59 | U | PCI/G |
| | | | LB | F6K170000357B | Uranium 235 | 12/8/2006 | -0.02 | 0.23 | U | PCI/G |
| | | | LB | F6K150000478B | Uranium 235 | 11/16/2006 | 0.048 | 0.16 | U | PCI/G |
| | **SW9310** | | LB | F6K100000472B | Gross Alpha | 11/15/2006 | 0.8 | 6.8 | U | PCI/G |
| | | | LB | F6K100000472B | Gross Beta | 11/15/2006 | 2.5 | 3.8 | U | PCI/G |

* Blank Type
LB = Method Blank
EB = Equipment Blank
TB = Trip Blank
AB = Ambient Blank

Qualifier Description
U = The analyte was analyzed for, but not detected. The associated numerical value is at or below the method detection limit (MDL).
F = The analyte was positively identified but the associated numerical value is below the reporting limit (RL).
none = A flag is not applied. This placeholder is for calculating QC criteria issues without flagging.

TABLE 9

LCS Recovery

*Sorted by SDG and Method*

| SDG | Method | Matrix | LabSample ID | Analyte | % Recovery | Lower Control Limit | Upper Control Limit |
|---|---|---|---|---|---|---|---|
| **F6J190101** | | | | | | | |
| | **A01R** | SOIL | F6J190000528C | Iodine 129 | 118 | 85 | 123 |
| | | SOIL | F6J200000303C | Neptunium 237 | 99 | 77 | 114 |
| | | SOIL | F6J200000306C | Plutonium 238 | 100 | 69 | 120 |
| | | SOIL | F6J200000306C | Plutonium 239/40 | 104 | 78 | 118 |
| | | SOIL | F6J200000307C | Thorium 230 | 99 | 68 | 128 |
| | | SOIL | F6J200000308C | Uranium 233/234 | 94 | 75 | 125 |
| | | SOIL | F6J200000308C | Uranium 238 | 96 | 75 | 122 |
| | | SOIL | F6K100000492C | Neptunium 237 | 94 | 77 | 114 |
| | **EML-AM-0** | SOIL | F6J200000302C | Americium 241 | 100 | 80 | 121 |
| | **EML-SR-0** | SOIL | F6J190000111C | Strontium 89 | 101 | 74 | 114 |
| | **EML-SR-0** | SOIL | F6J190000113C | Strontium 90 | 109 | 60 | 150 |
| | **GA01R** | SOIL | F6J230000261C | Radium (226) | 98 | 75 | 108 |
| | | SOIL | F6J230000261C | Thorium 232 | 115 | 77 | 125 |
| | **SW6020** | SOIL | F6K010000107C | Aluminum | 98 | 80 | 120 |
| | | SOIL | F6K010000107C | Antimony | 100 | 80 | 120 |
| | | SOIL | F6K010000107C | Arsenic | 98 | 80 | 120 |
| | | SOIL | F6K010000107C | Barium | 97 | 80 | 120 |
| | | SOIL | F6K010000107C | Beryllium | 97 | 80 | 120 |
| | | SOIL | F6K010000107C | Cadmium | 99 | 80 | 120 |
| | | SOIL | F6K010000107C | Calcium | 95 | 80 | 120 |
| | | SOIL | F6K010000107C | Chromium | 96 | 80 | 120 |
| | | SOIL | F6K010000107C | Cobalt | 96 | 80 | 120 |
| | | SOIL | F6K010000107C | Copper | 93 | 80 | 120 |
| | | SOIL | F6K010000107C | Iron | 97 | 80 | 120 |
| | | SOIL | F6K010000107C | Lead | 98 | 80 | 120 |
| | | SOIL | F6K010000107C | Magnesium | 95 | 80 | 120 |
| | | SOIL | F6K010000107C | Manganese | 97 | 80 | 120 |
| | | SOIL | F6K010000107C | Molybdenum | 104 | 80 | 120 |
| | | SOIL | F6K010000107C | Nickel | 96 | 80 | 120 |
| | | SOIL | F6K010000107C | Potassium | 98 | 80 | 120 |
| | | SOIL | F6K010000107C | Selenium | 96 | 80 | 120 |
| | | SOIL | F6K010000107C | Silver | 102 | 75 | 120 |
| | | SOIL | F6K010000107C | Sodium | 96 | 80 | 120 |
| | | SOIL | F6K010000107C | Thallium | 98 | 80 | 120 |
| | | SOIL | F6K010000107C | Vanadium | 97 | 80 | 120 |
| | | SOIL | F6K010000107C | Zinc | 92 | 80 | 120 |
| | **SW7470A** | SOIL | F6J230000155C | Mercury | 106 | 80 | 120 |
| | **SW7471A** | SOIL | F6J230000155C | Mercury | 106 | 80 | 120 |
| | **SW9310** | SOIL | F6K070000444C | Gross Alpha | 77 | 36 | 126 |
| | | SOIL | F6K070000444C | Gross Beta | 85 | 70 | 136 |
| **F6J220112** | | | | | | | |
| | **A01R** | SOIL | F6J230000145C | Iodine 129 | 118 | 85 | 123 |

TABLE 9

LCS Recovery

*Sorted by SDG and Method*

| SDG | Method | Matrix | LabSample ID | Analyte | % Recovery | Lower Control Limit | Upper Control Limit |
|---|---|---|---|---|---|---|---|
| **F6J220112** | | | | | | | |
| | **A01R** | SOIL | F6J240000381C | Plutonium 238 | 74 | 69 | 120 |
| | | SOIL | F6J240000381C | Plutonium 239/40 | 96 | 78 | 118 |
| | | SOIL | F6J240000382C | Uranium 233/234 | 91 | 75 | 125 |
| | | SOIL | F6J240000382C | Uranium 238 | 85 | 75 | 122 |
| | | SOIL | F6J240000384C | Neptunium 237 | 98 | 77 | 114 |
| | | SOIL | F6J240000385C | Thorium 230 | 98 | 68 | 128 |
| | | SOIL | F6K140000180C | Neptunium 237 | 104 | 77 | 114 |
| | **EML-AM-0** | SOIL | F6J240000380C | Americium 241 | 86 | 80 | 121 |
| | | SOIL | F6K020000233C | Americium 241 | 97 | 80 | 121 |
| | **EML-SR-0** | SOIL | F6J230000171C | Strontium 89 | 102 | 74 | 114 |
| | **EML-SR-0** | SOIL | F6J230000172C | Strontium 90 | 106 | 60 | 150 |
| | **GA01R** | SOIL | F6J230000296C | Radium (226) | 100 | 75 | 108 |
| | | SOIL | F6J230000296C | Thorium 232 | 113 | 77 | 125 |
| | **SW6010** | WATER | F6J260000319C | Arsenic-TCLP | 108 | 75 | 125 |
| | | WATER | F6J260000319C | Barium-TCLP | 107 | 75 | 125 |
| | | WATER | F6J260000319C | Cadmium-TCLP | 108 | 75 | 125 |
| | | WATER | F6J260000319C | Chromium-TCLP | 105 | 75 | 125 |
| | | WATER | F6J260000319C | Lead-TCLP | 105 | 75 | 125 |
| | | WATER | F6J260000319C | Selenium-TCLP | 115 | 75 | 125 |
| | | WATER | F6J260000319C | Silver-TCLP | 106 | 75 | 125 |
| | | WATER | F6J260000321C | Arsenic-TCLP | 105 | 75 | 125 |
| | | WATER | F6J260000321C | Barium-TCLP | 95 | 75 | 125 |
| | | WATER | F6J260000321C | Cadmium-TCLP | 100 | 75 | 125 |
| | | WATER | F6J260000321C | Chromium-TCLP | 97 | 75 | 125 |
| | | WATER | F6J260000321C | Lead-TCLP | 96 | 75 | 125 |
| | | WATER | F6J260000321C | Selenium-TCLP | 107 | 75 | 125 |
| | | WATER | F6J260000321C | Silver-TCLP | 96 | 75 | 125 |
| | **SW6020** | SOIL | F6K010000109C | Aluminum | 96 | 80 | 120 |
| | | SOIL | F6K010000109C | Antimony | 98 | 80 | 120 |
| | | SOIL | F6K010000109C | Arsenic | 95 | 80 | 120 |
| | | SOIL | F6K010000109C | Barium | 98 | 80 | 120 |
| | | SOIL | F6K010000109C | Beryllium | 98 | 80 | 120 |
| | | SOIL | F6K010000109C | Cadmium | 95 | 80 | 120 |
| | | SOIL | F6K010000109C | Calcium | 96 | 80 | 120 |
| | | SOIL | F6K010000109C | Chromium | 96 | 80 | 120 |
| | | SOIL | F6K010000109C | Cobalt | 94 | 80 | 120 |
| | | SOIL | F6K010000109C | Copper | 92 | 80 | 120 |
| | | SOIL | F6K010000109C | Iron | 95 | 80 | 120 |
| | | SOIL | F6K010000109C | Lead | 99 | 80 | 120 |
| | | SOIL | F6K010000109C | Magnesium | 96 | 80 | 120 |
| | | SOIL | F6K010000109C | Manganese | 96 | 80 | 120 |
| | | SOIL | F6K010000109C | Molybdenum | 101 | 80 | 120 |

TABLE 9

LCS Recovery

*Sorted by SDG and Method*

| SDG | Method | Matrix | LabSample ID | Analyte | % Recovery | Lower Control Limit | Upper Control Limit |
|---|---|---|---|---|---|---|---|
| **F6J220112** | | | | | | | |
| | **SW6020** | SOIL | F6K010000109C | Nickel | 94 | 80 | 120 |
| | | SOIL | F6K010000109C | Potassium | 98 | 80 | 120 |
| | | SOIL | F6K010000109C | Selenium | 93 | 80 | 120 |
| | | SOIL | F6K010000109C | Silver | 99 | 75 | 120 |
| | | SOIL | F6K010000109C | Sodium | 95 | 80 | 120 |
| | | SOIL | F6K010000109C | Thallium | 99 | 80 | 120 |
| | | SOIL | F6K010000109C | Vanadium | 97 | 80 | 120 |
| | | SOIL | F6K010000109C | Zinc | 92 | 80 | 120 |
| | **SW7470A** | SOIL | F6J230000155C | Mercury | 106 | 80 | 120 |
| | | WATER | F6J250000201C | Mercury-TCLP | 102 | 88 | 111 |
| | | WATER | F6J250000203C | Mercury-TCLP | 99 | 88 | 111 |
| | **SW7471A** | SOIL | F6J230000155C | Mercury | 106 | 80 | 120 |
| | **SW9310** | SOIL | F6K070000444C | Gross Alpha | 77 | 36 | 126 |
| | | SOIL | F6K070000444C | Gross Beta | 85 | 70 | 136 |
| **F6J240227** | | | | | | | |
| | **A01R** | SOIL | F6J250000104C | Iodine 129 | 109 | 85 | 123 |
| | | SOIL | F6J260000255C | Neptunium 237 | 102 | 77 | 114 |
| | | SOIL | F6J260000256C | Plutonium 238 | 96 | 69 | 120 |
| | | SOIL | F6J260000256C | Plutonium 239/40 | 93 | 78 | 118 |
| | | SOIL | F6J260000257C | Thorium 230 | 100 | 68 | 128 |
| | | SOIL | F6J260000259C | Uranium 233/234 | 99 | 75 | 125 |
| | | SOIL | F6J260000259C | Uranium 238 | 86 | 75 | 122 |
| | | SOIL | F6K070000249C | Plutonium 238 | 104 | 69 | 120 |
| | | SOIL | F6K070000249C | Plutonium 239/40 | 104 | 78 | 118 |
| | **EML-AM-0** | SOIL | F6K070000248C | Americium 241 | 98 | 80 | 121 |
| | **EML-SR-0** | SOIL | F6J240000444C | Strontium 89 | 88 | 74 | 114 |
| | **EML-SR-0** | SOIL | F6J240000445C | Strontium 90 | 77 | 60 | 150 |
| | **GA01R** | SOIL | F6J270000562C | Radium (226) | 100 | 75 | 108 |
| | | SOIL | F6J270000562C | Thorium 232 | 111 | 77 | 125 |
| | **SW6020** | SOIL | F6K010000107C | Aluminum | 98 | 80 | 120 |
| | | SOIL | F6K010000107C | Antimony | 100 | 80 | 120 |
| | | SOIL | F6K010000107C | Arsenic | 98 | 80 | 120 |
| | | SOIL | F6K010000107C | Barium | 97 | 80 | 120 |
| | | SOIL | F6K010000107C | Beryllium | 97 | 80 | 120 |
| | | SOIL | F6K010000107C | Cadmium | 99 | 80 | 120 |
| | | SOIL | F6K010000107C | Calcium | 95 | 80 | 120 |
| | | SOIL | F6K010000107C | Chromium | 96 | 80 | 120 |
| | | SOIL | F6K010000107C | Cobalt | 96 | 80 | 120 |
| | | SOIL | F6K010000107C | Copper | 93 | 80 | 120 |
| | | SOIL | F6K010000107C | Iron | 97 | 80 | 120 |
| | | SOIL | F6K010000107C | Lead | 98 | 80 | 120 |
| | | SOIL | F6K010000107C | Magnesium | 95 | 80 | 120 |

TABLE 9

LCS Recovery

*Sorted by SDG and Method*

| SDG | Method | Matrix | LabSample ID | Analyte | % Recovery | Lower Control Limit | Upper Control Limit |
|---|---|---|---|---|---|---|---|
| **F6J240227** | | | | | | | |
| | **SW6020** | SOIL | F6K010000107C | Manganese | 97 | 80 | 120 |
| | | SOIL | F6K010000107C | Molybdenum | 104 | 80 | 120 |
| | | SOIL | F6K010000107C | Nickel | 96 | 80 | 120 |
| | | SOIL | F6K010000107C | Potassium | 98 | 80 | 120 |
| | | SOIL | F6K010000107C | Selenium | 96 | 80 | 120 |
| | | SOIL | F6K010000107C | Silver | 102 | 75 | 120 |
| | | SOIL | F6K010000107C | Sodium | 96 | 80 | 120 |
| | | SOIL | F6K010000107C | Thallium | 98 | 80 | 120 |
| | | SOIL | F6K010000107C | Vanadium | 97 | 80 | 120 |
| | | SOIL | F6K010000107C | Zinc | 92 | 80 | 120 |
| | **SW7471A** | SOIL | F6J250000175C | Mercury | 103 | 80 | 120 |
| | **SW9310** | SOIL | F6K070000444C | Gross Alpha | 77 | 36 | 126 |
| | | SOIL | F6K070000444C | Gross Beta | 85 | 70 | 136 |
| **F6K10189** | | | | | | | |
| | **GA01R** | SOIL | F6K150000478C | Americium 241 | 99 | 80 | 121 |
| | | SOIL | F6K150000478C | Cesium 137 | 106 | | |
| | | SOIL | F6K150000478C | Cobalt 60 | 98 | | |
| | | SOIL | F6K170000357C | Radium (226) | 98 | 75 | 108 |
| | | SOIL | F6K170000357C | Thorium 232 | 109 | 77 | 125 |
| | **SW9310** | SOIL | F6K100000472C | Gross Beta | 85 | 70 | 136 |

TABLE 10

Matrix Spike Recovery

*Sorted by SDG and Method*

| SDG | Method | Matrix | Field ID | QAQC Type | Analyte | Dilution | % Recovery | Lower Control Limit | Upper Control Limit |
|---|---|---|---|---|---|---|---|---|---|
| **F6J190101** | | | | | | | | | |
| | **SW6020** | SOIL | **6-30-TP-01-0506MS** | **MS** | **Aluminum** | 1 | **0** | **80** | **120** |
| | | SOIL | **6-30-TP-01-0506MS** | **MS** | **Antimony** | 1 | **41** | **80** | **120** |
| | | SOIL | 6-30-TP-01-0506MS | MS | Arsenic | 1 | 95 | 80 | 120 |
| | | SOIL | **6-30-TP-01-0506MS** | **MS** | **Barium** | 1 | **238** | **80** | **120** |
| | | SOIL | **6-30-TP-01-0506MS** | **MS** | **Beryllium** | 1 | **79** | **80** | **120** |
| | | SOIL | 6-30-TP-01-0506MS | MS | Cadmium | 1 | 102 | 80 | 120 |
| | | SOIL | **6-30-TP-01-0506MS** | **MS** | **Calcium** | 1 | **328** | **80** | **120** |
| | | SOIL | **6-30-TP-01-0506MS** | **MS** | **Chromium** | 1 | **58** | **80** | **120** |
| | | SOIL | **6-30-TP-01-0506MS** | **MS** | **Cobalt** | 1 | **73** | **80** | **120** |
| | | SOIL | **6-30-TP-01-0506MS** | **MS** | **Copper** | 1 | **51** | **80** | **120** |
| | | SOIL | **6-30-TP-01-0506MS** | **MS** | **Iron** | 1 | **0** | **80** | **120** |
| | | SOIL | 6-30-TP-01-0506MS | MS | Lead | 1 | 96 | 80 | 120 |
| | | SOIL | **6-30-TP-01-0506MS** | **MS** | **Magnesium** | 1 | **55** | **80** | **120** |
| | | SOIL | **6-30-TP-01-0506MS** | **MS** | **Manganese** | 1 | **232** | **80** | **120** |
| | | SOIL | 6-30-TP-01-0506MS | MS | Molybdenum | 1 | 100 | 80 | 120 |
| | | SOIL | **6-30-TP-01-0506MS** | **MS** | **Nickel** | 1 | **72** | **80** | **120** |
| | | SOIL | **6-30-TP-01-0506MS** | **MS** | **Potassium** | 1 | **61** | **80** | **120** |
| | | SOIL | 6-30-TP-01-0506MS | MS | Selenium | 1 | 91 | 80 | 120 |
| | | SOIL | 6-30-TP-01-0506MS | MS | Silver | 1 | 97 | 75 | 120 |
| | | SOIL | **6-30-TP-01-0506MS** | **MS** | **Sodium** | 1 | **73** | **80** | **120** |
| | | SOIL | 6-30-TP-01-0506MS | MS | Thallium | 1 | 96 | 80 | 120 |
| | | SOIL | **6-30-TP-01-0506MS** | **MS** | **Vanadium** | 1 | **68** | **80** | **120** |
| | | SOIL | **6-30-TP-01-0506MS** | **MS** | **Zinc** | 1 | **45** | **80** | **120** |
| | | SOIL | **6-30-TP-01-0506MSD** | **SD** | **Aluminum** | 1 | **0** | **80** | **120** |
| | | SOIL | **6-30-TP-01-0506MSD** | **SD** | **Antimony** | 1 | **39** | **80** | **120** |
| | | SOIL | 6-30-TP-01-0506MSD | SD | Arsenic | 1 | 95 | 80 | 120 |
| | | SOIL | **6-30-TP-01-0506MSD** | **SD** | **Barium** | 1 | **143** | **80** | **120** |
| | | SOIL | 6-30-TP-01-0506MSD | SD | Beryllium | 1 | 82 | 80 | 120 |
| | | SOIL | 6-30-TP-01-0506MSD | SD | Cadmium | 1 | 103 | 80 | 120 |
| | | SOIL | **6-30-TP-01-0506MSD** | **SD** | **Calcium** | 1 | **1110** | **80** | **120** |
| | | SOIL | **6-30-TP-01-0506MSD** | **SD** | **Chromium** | 1 | **69** | **80** | **120** |
| | | SOIL | 6-30-TP-01-0506MSD | SD | Cobalt | 1 | 80 | 80 | 120 |
| | | SOIL | **6-30-TP-01-0506MSD** | **SD** | **Copper** | 1 | **75** | **80** | **120** |
| | | SOIL | **6-30-TP-01-0506MSD** | **SD** | **Iron** | 1 | **0** | **80** | **120** |
| | | SOIL | 6-30-TP-01-0506MSD | SD | Lead | 1 | 90 | 80 | 120 |
| | | SOIL | **6-30-TP-01-0506MSD** | **SD** | **Magnesium** | 1 | **76** | **80** | **120** |
| | | SOIL | **6-30-TP-01-0506MSD** | **SD** | **Manganese** | 1 | **53** | **80** | **120** |
| | | SOIL | 6-30-TP-01-0506MSD | SD | Molybdenum | 1 | 97 | 80 | 120 |
| | | SOIL | **6-30-TP-01-0506MSD** | **SD** | **Nickel** | 1 | **78** | **80** | **120** |
| | | SOIL | **6-30-TP-01-0506MSD** | **SD** | **Potassium** | 1 | **68** | **80** | **120** |

TABLE 10

Matrix Spike Recovery

*Sorted by SDG and Method*

| SDG | Method | Matrix | Field ID | QAQC Type | Analyte | Dilution | % Recovery | Lower Control Limit | Upper Control Limit |
|---|---|---|---|---|---|---|---|---|---|
| **F6J190101** | | | | | | | | | |
| | **SW6020** | SOIL | 6-30-TP-01-0506MSD | SD | Selenium | 1 | 91 | 80 | 120 |
| | | SOIL | 6-30-TP-01-0506MSD | SD | Silver | 1 | 94 | 75 | 120 |
| | | SOIL | 6-30-TP-01-0506MSD | SD | Sodium | 1 | 81 | 80 | 120 |
| | | SOIL | 6-30-TP-01-0506MSD | SD | Thallium | 1 | 97 | 80 | 120 |
| | | SOIL | **6-30-TP-01-0506MSD** | **SD** | **Vanadium** | 1 | **73** | **80** | **120** |
| | | SOIL | **6-30-TP-01-0506MSD** | **SD** | **Zinc** | 1 | **61** | **80** | **120** |
| | **SW7471A** | SOIL | 6-30-TP-01-0506MS | MS | Mercury | 1 | 120 | 80 | 120 |
| | | SOIL | 6-30-TP-01-0506MSD | SD | Mercury | 1 | 114 | 80 | 120 |
| **F6J220112** | | | | | | | | | |
| | **SW6010** | WATER | 6-30-TP-11-0910MS | MS | Arsenic-TCLP | 1 | 104 | 75 | 125 |
| | | WATER | 6-30-TP-11-0910MS | MS | Barium-TCLP | 1 | 101 | 75 | 125 |
| | | WATER | 6-30-TP-11-0910MS | MS | Cadmium-TCLP | 1 | 102 | 75 | 125 |
| | | WATER | 6-30-TP-11-0910MS | MS | Chromium-TCLP | 1 | 95 | 75 | 125 |
| | | WATER | 6-30-TP-11-0910MS | MS | Lead-TCLP | 1 | 97 | 75 | 125 |
| | | WATER | 6-30-TP-11-0910MS | MS | Selenium-TCLP | 1 | 106 | 75 | 125 |
| | | WATER | 6-30-TP-11-0910MS | MS | Silver-TCLP | 1 | 106 | 75 | 125 |
| | | WATER | 6-30-TP-11-0910MSD | SD | Arsenic-TCLP | 1 | 100 | 75 | 125 |
| | | WATER | 6-30-TP-11-0910MSD | SD | Barium-TCLP | 1 | 96 | 75 | 125 |
| | | WATER | 6-30-TP-11-0910MSD | SD | Cadmium-TCLP | 1 | 99 | 75 | 125 |
| | | WATER | 6-30-TP-11-0910MSD | SD | Chromium-TCLP | 1 | 93 | 75 | 125 |
| | | WATER | 6-30-TP-11-0910MSD | SD | Lead-TCLP | 1 | 94 | 75 | 125 |
| | | WATER | 6-30-TP-11-0910MSD | SD | Selenium-TCLP | 1 | 102 | 75 | 125 |
| | | WATER | 6-30-TP-11-0910MSD | SD | Silver-TCLP | 1 | 101 | 75 | 125 |
| | **SW6020** | SOIL | **6-30-TP-04-1314MS** | **MS** | **Aluminum** | 1 | **0** | **80** | **120** |
| | | SOIL | **6-30-TP-04-1314MS** | **MS** | **Antimony** | 1 | **40** | **80** | **120** |
| | | SOIL | 6-30-TP-04-1314MS | MS | Arsenic | 1 | 88 | 80 | 120 |
| | | SOIL | **6-30-TP-04-1314MS** | **MS** | **Barium** | 1 | **0** | **80** | **120** |
| | | SOIL | **6-30-TP-04-1314MS** | **MS** | **Beryllium** | 1 | **75** | **80** | **120** |
| | | SOIL | 6-30-TP-04-1314MS | MS | Cadmium | 1 | 95 | 80 | 120 |
| | | SOIL | **6-30-TP-04-1314MS** | **MS** | **Calcium** | 1 | **0** | **80** | **120** |
| | | SOIL | **6-30-TP-04-1314MS** | **MS** | **Chromium** | 1 | **53** | **80** | **120** |
| | | SOIL | **6-30-TP-04-1314MS** | **MS** | **Cobalt** | 1 | **70** | **80** | **120** |
| | | SOIL | **6-30-TP-04-1314MS** | **MS** | **Copper** | 1 | **49** | **80** | **120** |
| | | SOIL | **6-30-TP-04-1314MS** | **MS** | **Iron** | 1 | **0** | **80** | **120** |
| | | SOIL | 6-30-TP-04-1314MS | MS | Lead | 1 | 84 | 80 | 120 |
| | | SOIL | **6-30-TP-04-1314MS** | **MS** | **Magnesium** | 1 | **38** | **80** | **120** |
| | | SOIL | **6-30-TP-04-1314MS** | **MS** | **Manganese** | 1 | **0** | **80** | **120** |
| | | SOIL | 6-30-TP-04-1314MS | MS | Molybdenum | 1 | 98 | 80 | 120 |
| | | SOIL | **6-30-TP-04-1314MS** | **MS** | **Nickel** | 1 | **65** | **80** | **120** |
| | | SOIL | **6-30-TP-04-1314MS** | **MS** | **Potassium** | 1 | **68** | **80** | **120** |

TABLE 10
Matrix Spike Recovery
*Sorted by SDG and Method*

| SDG | Method | Matrix | Field ID | QAQC Type | Analyte | Dilution | % Recovery | Lower Control Limit | Upper Control Limit |
|---|---|---|---|---|---|---|---|---|---|
| **F6J220112** | | | | | | | | | |
| | **SW6020** | SOIL | 6-30-TP-04-1314MS | MS | Selenium | 1 | 86 | 80 | 120 |
| | | SOIL | 6-30-TP-04-1314MS | MS | Silver | 1 | 92 | 75 | 120 |
| | | SOIL | **6-30-TP-04-1314MS** | **MS** | **Sodium** | 1 | **72** | **80** | **120** |
| | | SOIL | 6-30-TP-04-1314MS | MS | Thallium | 1 | 92 | 80 | 120 |
| | | SOIL | **6-30-TP-04-1314MS** | **MS** | **Vanadium** | 1 | **56** | **80** | **120** |
| | | SOIL | **6-30-TP-04-1314MS** | **MS** | **Zinc** | 1 | **42** | **80** | **120** |
| | | SOIL | **6-30-TP-04-1314MSD** | **SD** | **Aluminum** | 1 | **0** | **80** | **120** |
| | | SOIL | **6-30-TP-04-1314MSD** | **SD** | **Antimony** | 1 | **44** | **80** | **120** |
| | | SOIL | 6-30-TP-04-1314MSD | SD | Arsenic | 1 | 97 | 80 | 120 |
| | | SOIL | **6-30-TP-04-1314MSD** | **SD** | **Barium** | 1 | **0** | **80** | **120** |
| | | SOIL | **6-30-TP-04-1314MSD** | **SD** | **Beryllium** | 1 | **78** | **80** | **120** |
| | | SOIL | 6-30-TP-04-1314MSD | SD | Cadmium | 1 | 106 | 80 | 120 |
| | | SOIL | **6-30-TP-04-1314MSD** | **SD** | **Calcium** | 1 | **0** | **80** | **120** |
| | | SOIL | 6-30-TP-04-1314MSD | SD | Chromium | 1 | 111 | 80 | 120 |
| | | SOIL | **6-30-TP-04-1314MSD** | **SD** | **Cobalt** | 1 | **77** | **80** | **120** |
| | | SOIL | 6-30-TP-04-1314MSD | SD | Copper | 1 | 88 | 80 | 120 |
| | | SOIL | **6-30-TP-04-1314MSD** | **SD** | **Iron** | 1 | **0** | **80** | **120** |
| | | SOIL | 6-30-TP-04-1314MSD | SD | Lead | 1 | 97 | 80 | 120 |
| | | SOIL | **6-30-TP-04-1314MSD** | **SD** | **Magnesium** | 1 | **66** | **80** | **120** |
| | | SOIL | **6-30-TP-04-1314MSD** | **SD** | **Manganese** | 1 | **0** | **80** | **120** |
| | | SOIL | 6-30-TP-04-1314MSD | SD | Molybdenum | 1 | 105 | 80 | 120 |
| | | SOIL | 6-30-TP-04-1314MSD | SD | Nickel | 1 | 88 | 80 | 120 |
| | | SOIL | **6-30-TP-04-1314MSD** | **SD** | **Potassium** | 1 | **78** | **80** | **120** |
| | | SOIL | 6-30-TP-04-1314MSD | SD | Selenium | 1 | 91 | 80 | 120 |
| | | SOIL | 6-30-TP-04-1314MSD | SD | Silver | 1 | 99 | 75 | 120 |
| | | SOIL | **6-30-TP-04-1314MSD** | **SD** | **Sodium** | 1 | **78** | **80** | **120** |
| | | SOIL | 6-30-TP-04-1314MSD | SD | Thallium | 1 | 97 | 80 | 120 |
| | | SOIL | **6-30-TP-04-1314MSD** | **SD** | **Vanadium** | 1 | **74** | **80** | **120** |
| | | SOIL | **6-30-TP-04-1314MSD** | **SD** | **Zinc** | 1 | **51** | **80** | **120** |
| | **SW7470A** | WATER | 6-30-TP-11-0910MS | MS | Mercury-TCLP | 1 | 102 | 88 | 111 |
| | | WATER | 6-30-TP-11-0910MSD | SD | Mercury-TCLP | 1 | 100 | 88 | 111 |
| **F6J240227** | | | | | | | | | |
| | **SW7471A** | SOIL | 6-30-TP-13-1516MS | MS | Mercury | 1 | 108 | 80 | 120 |
| | | SOIL | 6-30-TP-13-1516MSD | SD | Mercury | 1 | 110 | 80 | 120 |

QA/QC Types
MS = Matrix Spike
SD = Matrix Spike Duplicate

TABLE 11

Tracer Recovery

*Sorted by SDG and Method*

| SDG | Method | Field ID | QAQC Type | Surrogate | Dilution | % Recovery | Lower Control Limit | Upper Control Limit |
|---|---|---|---|---|---|---|---|---|
| **F6J190101** | | | | | | | | |
| | **A01R** | 6-30-TP-01-0506 | N | Neptunium 239 | 1 | 108 | 30 | 105 |
| | | 6-30-TP-01-0506 | N | Plutonium 242 Tracer | 1 | 92 | 30 | 105 |
| | | 6-30-TP-01-0506 | N | Thorium 229 | 1 | 70 | 30 | 105 |
| | | 6-30-TP-01-0506 | N | Uranium-232 | 1 | 68 | 30 | 105 |
| | | 6-30-TP-02-0203 | N | Neptunium 239 | 1 | 108 | 30 | 105 |
| | | 6-30-TP-02-0203 | N | Plutonium 242 Tracer | 1 | 99 | 30 | 105 |
| | | 6-30-TP-02-0203 | N | Thorium 229 | 1 | 73 | 30 | 105 |
| | | 6-30-TP-02-0203 | N | Uranium-232 | 1 | 63 | 30 | 105 |
| | | 6-30-TP-03-0506 | N | Neptunium 239 | 1 | 107 | 30 | 105 |
| | | 6-30-TP-03-0506 | N | Plutonium 242 Tracer | 1 | 90 | 30 | 105 |
| | | 6-30-TP-03-0506 | N | Thorium 229 | 1 | 63 | 30 | 105 |
| | | 6-30-TP-03-0506 | N | Uranium-232 | 1 | 64 | 30 | 105 |
| | **EML-AM-01M** | 6-30-TP-01-0506 | N | Americium 243 | 1 | 85 | 30 | 105 |
| | | 6-30-TP-02-0203 | N | Americium 243 | 1 | 89 | 30 | 105 |
| | | 6-30-TP-03-0506 | N | Americium 243 | 1 | 95 | 30 | 105 |
| | **EML-SR-01M** | 6-30-TP-01-0506 | N | Sr Tracer | 1 | 72 | 30 | 105 |
| | | 6-30-TP-02-0203 | N | Sr Tracer | 1 | 72 | 30 | 105 |
| | | 6-30-TP-03-0506 | N | Sr Tracer | 1 | 68 | 30 | 105 |
| | **EML-SR-03M** | 6-30-TP-01-0506 | N | Sr Tracer | 1 | 72 | 30 | 105 |
| | | 6-30-TP-01-0506 | N | Yttrium | 1 | 97 | 30 | 105 |
| | | 6-30-TP-02-0203 | N | Sr Tracer | 1 | 72 | 30 | 105 |
| | | 6-30-TP-02-0203 | N | Yttrium | 1 | 99 | 30 | 105 |
| | | 6-30-TP-03-0506 | N | Sr Tracer | 1 | 68 | 30 | 105 |
| | | 6-30-TP-03-0506 | N | Yttrium | 1 | 90 | 30 | 105 |
| **F6J220112** | | | | | | | | |
| | **A01R** | 6-30-TP-04-0607 | N | Neptunium 239 | 1 | 109 | 30 | 105 |
| | | 6-30-TP-04-0607 | N | Plutonium 242 Tracer | 1 | 97 | 30 | 105 |
| | | 6-30-TP-04-0607 | N | Thorium 229 | 1 | 58 | 30 | 105 |
| | | 6-30-TP-04-0607 | N | Uranium-232 | 1 | 68 | 30 | 105 |
| | | 6-30-TP-06-1718 | N | Neptunium 239 | 1 | 102 | 30 | 105 |
| | | 6-30-TP-06-1718 | N | Plutonium 242 Tracer | 1 | 81 | 30 | 105 |
| | | 6-30-TP-06-1718 | N | Thorium 229 | 1 | 71 | 30 | 105 |
| | | 6-30-TP-06-1718 | N | Uranium-232 | 1 | 61 | 30 | 105 |
| | | 6-30-TP-07-0506 | N | Neptunium 239 | 1 | 107 | 30 | 105 |
| | | 6-30-TP-07-0506 | N | Plutonium 242 Tracer | 1 | 85 | 30 | 105 |
| | | 6-30-TP-07-0506 | N | Thorium 229 | 1 | 54 | 30 | 105 |
| | | 6-30-TP-07-0506 | N | Uranium-232 | 1 | 75 | 30 | 105 |
| | | 6-30-TP-08-1920 | N | Neptunium 239 | 1 | 110 | 30 | 105 |

TABLE 11

Tracer Recovery

*Sorted by SDG and Method*

| SDG | Method | Field ID | QAQC Type | Surrogate | Dilution | % Recovery | Lower Control Limit | Upper Control Limit |
|---|---|---|---|---|---|---|---|---|
| **F6J220112** | | | | | | | | |
| | **A01R** | 6-30-TP-08-1920 | N | Plutonium 242 Tracer | 1 | 46 | 30 | 105 |
| | | 6-30-TP-08-1920 | N | Thorium 229 | 1 | 53 | 30 | 105 |
| | | 6-30-TP-08-1920 | N | Uranium-232 | 1 | 40 | 30 | 105 |
| | | 6-30-TP-09-0708 | N | Neptunium 239 | 1 | 100 | 30 | 105 |
| | | 6-30-TP-09-0708 | N | Plutonium 242 Tracer | 1 | 85 | 30 | 105 |
| | | 6-30-TP-09-0708 | N | Thorium 229 | 1 | 60 | 30 | 105 |
| | | 6-30-TP-09-0708 | N | Uranium-232 | 1 | 74 | 30 | 105 |
| | | 6-30-TP-09-2021 | N | Neptunium 239 | 1 | 101 | 30 | 105 |
| | | 6-30-TP-09-2021 | N | Plutonium 242 Tracer | 1 | 93 | 30 | 105 |
| | | 6-30-TP-09-2021 | N | Thorium 229 | 1 | 81 | 30 | 105 |
| | | 6-30-TP-09-2021 | N | Uranium-232 | 1 | 65 | 30 | 105 |
| | | 6-30-TP-10-0102 | N | Neptunium 239 | 1 | 95 | 30 | 105 |
| | | 6-30-TP-10-0102 | N | Plutonium 242 Tracer | 1 | 83 | 30 | 105 |
| | | 6-30-TP-10-0102 | N | Thorium 229 | 1 | 70 | 30 | 105 |
| | | 6-30-TP-10-0102 | N | Uranium-232 | 1 | 68 | 30 | 105 |
| | | 6-30-TP-11-0910 | N | Neptunium 239 | 1 | 108 | 30 | 105 |
| | | 6-30-TP-11-0910 | N | Plutonium 242 Tracer | 1 | 83 | 30 | 105 |
| | | 6-30-TP-11-0910 | N | Thorium 229 | 1 | 68 | 30 | 105 |
| | | 6-30-TP-11-0910 | N | Uranium-232 | 1 | 74 | 30 | 105 |
| | | 6-30-TP-11-1516 | N | Neptunium 239 | 1 | 93 | 30 | 105 |
| | | 6-30-TP-11-1516 | N | Plutonium 242 Tracer | 1 | 86 | 30 | 105 |
| | | 6-30-TP-11-1516 | N | Thorium 229 | 1 | 69 | 30 | 105 |
| | | 6-30-TP-11-1516 | N | Uranium-232 | 1 | 68 | 30 | 105 |
| | | 6-30-TP-12-0708 | N | Neptunium 239 | 1 | 102 | 30 | 105 |
| | | 6-30-TP-12-0708 | N | Plutonium 242 Tracer | 1 | 80 | 30 | 105 |
| | | 6-30-TP-12-0708 | N | Thorium 229 | 1 | 85 | 30 | 105 |
| | | 6-30-TP-12-0708 | N | Uranium-232 | 1 | 62 | 30 | 105 |
| | | 6-30-TP-12-1819 | N | Neptunium 239 | 1 | 102 | 30 | 105 |
| | | 6-30-TP-12-1819 | N | Plutonium 242 Tracer | 1 | 73 | 30 | 105 |
| | | 6-30-TP-12-1819 | N | Thorium 229 | 1 | 76 | 30 | 105 |
| | | 6-30-TP-12-1819 | N | Uranium-232 | 1 | 51 | 30 | 105 |
| | | 6-30-TP-1299-0708 | FD | Neptunium 239 | 1 | 102 | 30 | 105 |
| | | 6-30-TP-1299-0708 | FD | Plutonium 242 Tracer | 1 | 89 | 30 | 105 |
| | | 6-30-TP-1299-0708 | FD | Thorium 229 | 1 | 68 | 30 | 105 |
| | | 6-30-TP-1299-0708 | FD | Uranium-232 | 1 | 61 | 30 | 105 |
| | **EML-AM-01M** | 6-30-TP-04-0607 | N | Americium 243 | 1 | 55 | 30 | 105 |
| | | 6-30-TP-06-1718 | N | Americium 243 | 1 | 53 | 30 | 105 |
| | | 6-30-TP-07-0506 | N | Americium 243 | 1 | 48 | 30 | 105 |

TABLE 11

Tracer Recovery

*Sorted by SDG and Method*

| SDG | Method | Field ID | QAQC Type | Surrogate | Dilution | % Recovery | Lower Control Limit | Upper Control Limit |
|---|---|---|---|---|---|---|---|---|
| **F6J220112** | | | | | | | | |
| | **EML-AM-01M** | 6-30-TP-08-1920 | N | Americium 243 | 1 | 93 | 30 | 105 |
| | | 6-30-TP-09-0708 | N | Americium 243 | 1 | 99 | 30 | 105 |
| | | 6-30-TP-09-2021 | N | Americium 243 | 1 | 93 | 30 | 105 |
| | | 6-30-TP-10-0102 | N | Americium 243 | 1 | 90 | 30 | 105 |
| | | 6-30-TP-11-0910 | N | Americium 243 | 1 | 93 | 30 | 105 |
| | | 6-30-TP-11-1516 | N | Americium 243 | 1 | 96 | 30 | 105 |
| | | 6-30-TP-12-0708 | N | Americium 243 | 1 | 51 | 30 | 105 |
| | | 6-30-TP-12-1819 | N | Americium 243 | 1 | 34 | 30 | 105 |
| | | 6-30-TP-1299-0708 | FD | Americium 243 | 1 | 96 | 30 | 105 |
| | **EML-SR-01M** | 6-30-TP-04-0607 | N | Sr Tracer | 1 | 53 | 30 | 105 |
| | | 6-30-TP-06-1718 | N | Sr Tracer | 1 | 66 | 30 | 105 |
| | | 6-30-TP-07-0506 | N | Sr Tracer | 1 | 70 | 30 | 105 |
| | | 6-30-TP-08-1920 | N | Sr Tracer | 1 | 56 | 30 | 105 |
| | | 6-30-TP-09-0708 | N | Sr Tracer | 1 | 68 | 30 | 105 |
| | | 6-30-TP-09-2021 | N | Sr Tracer | 1 | 74 | 30 | 105 |
| | | 6-30-TP-10-0102 | N | Sr Tracer | 1 | 67 | 30 | 105 |
| | | 6-30-TP-11-0910 | N | Sr Tracer | 1 | 70 | 30 | 105 |
| | | 6-30-TP-11-1516 | N | Sr Tracer | 1 | 58 | 30 | 105 |
| | | 6-30-TP-12-0708 | N | Sr Tracer | 1 | 76 | 30 | 105 |
| | | 6-30-TP-12-1819 | N | Sr Tracer | 1 | 72 | 30 | 105 |
| | | 6-30-TP-1299-0708 | FD | Sr Tracer | 1 | 51 | 30 | 105 |
| | **EML-SR-03M** | 6-30-TP-04-0607 | N | Sr Tracer | 1 | 53 | 30 | 105 |
| | | 6-30-TP-04-0607 | N | Yttrium | 1 | 108 | 30 | 105 |
| | | 6-30-TP-06-1718 | N | Sr Tracer | 1 | 66 | 30 | 105 |
| | | 6-30-TP-06-1718 | N | Yttrium | 1 | 103 | 30 | 105 |
| | | 6-30-TP-07-0506 | N | Sr Tracer | 1 | 70 | 30 | 105 |
| | | 6-30-TP-07-0506 | N | Yttrium | 1 | 94 | 30 | 105 |
| | | 6-30-TP-08-1920 | N | Sr Tracer | 1 | 56 | 30 | 105 |
| | | 6-30-TP-08-1920 | N | Yttrium | 1 | 105 | 30 | 105 |
| | | 6-30-TP-09-0708 | N | Sr Tracer | 1 | 68 | 30 | 105 |
| | | 6-30-TP-09-0708 | N | Yttrium | 1 | 101 | 30 | 105 |
| | | 6-30-TP-09-2021 | N | Sr Tracer | 1 | 74 | 30 | 105 |
| | | 6-30-TP-09-2021 | N | Yttrium | 1 | 109 | 30 | 105 |
| | | 6-30-TP-10-0102 | N | Sr Tracer | 1 | 67 | 30 | 105 |
| | | 6-30-TP-10-0102 | N | Yttrium | 1 | 101 | 30 | 105 |
| | | 6-30-TP-11-0910 | N | Sr Tracer | 1 | 70 | 30 | 105 |
| | | 6-30-TP-11-0910 | N | Yttrium | 1 | 106 | 30 | 105 |
| | | 6-30-TP-11-1516 | N | Sr Tracer | 1 | 58 | 30 | 105 |

TABLE 11

Tracer Recovery

*Sorted by SDG and Method*

| SDG | Method | Field ID | QAQC Type | Surrogate | Dilution | % Recovery | Lower Control Limit | Upper Control Limit |
|---|---|---|---|---|---|---|---|---|
| **F6J220112** | | | | | | | | |
| | **EML-SR-03M** | 6-30-TP-11-1516 | N | Yttrium | 1 | 104 | 30 | 105 |
| | | 6-30-TP-12-0708 | N | Sr Tracer | 1 | 76 | 30 | 105 |
| | | 6-30-TP-12-0708 | N | Yttrium | 1 | 98 | 30 | 105 |
| | | 6-30-TP-12-1819 | N | Sr Tracer | 1 | 72 | 30 | 105 |
| | | 6-30-TP-12-1819 | N | Yttrium | 1 | 106 | 30 | 105 |
| | | 6-30-TP-1299-0708 | FD | Sr Tracer | 1 | 51 | 30 | 105 |
| | | 6-30-TP-1299-0708 | FD | Yttrium | 1 | 103 | 30 | 105 |
| **F6J240227** | | | | | | | | |
| | **A01R** | 6-30-TP-13-0708 | N | Neptunium 239 | 1 | 108 | 30 | 105 |
| | | 6-30-TP-13-0708 | N | Plutonium 242 Tracer | 1 | 92 | 30 | 105 |
| | | 6-30-TP-13-0708 | N | Thorium 229 | 1 | 48 | 30 | 105 |
| | | 6-30-TP-13-0708 | N | Uranium-232 | 1 | 70 | 30 | 105 |
| | | 6-30-TP-1399-0708 | FD | Neptunium 239 | 1 | 99 | 30 | 105 |
| | | 6-30-TP-1399-0708 | FD | Plutonium 242 Tracer | 1 | 82 | 30 | 105 |
| | | 6-30-TP-1399-0708 | FD | Plutonium 242 Tracer | 2 | 86 | 30 | 105 |
| | | 6-30-TP-1399-0708 | FD | Thorium 229 | 1 | 57 | 30 | 105 |
| | | 6-30-TP-1399-0708 | FD | Uranium-232 | 1 | 68 | 30 | 105 |
| | **EML-AM-01M** | 6-30-TP-13-0708 | N | Americium 243 | 2 | 96 | 30 | 105 |
| | | 6-30-TP-1399-0708 | FD | Americium 243 | 2 | 85 | 30 | 105 |
| | **EML-SR-01M** | 6-30-TP-13-0708 | N | Sr Tracer | 1 | 109 | 30 | 105 |
| | | 6-30-TP-1399-0708 | FD | Sr Tracer | 1 | 106 | 30 | 105 |
| | **EML-SR-03M** | 6-30-TP-13-0708 | N | Sr Tracer | 1 | 109 | 30 | 105 |
| | | 6-30-TP-13-0708 | N | Yttrium | 1 | 93 | 30 | 105 |
| | | 6-30-TP-1399-0708 | FD | Sr Tracer | 1 | 106 | 30 | 105 |
| | | 6-30-TP-1399-0708 | FD | Yttrium | 1 | 106 | 30 | 105 |

QA/QC Types
N = Normal Environmental Sample
FD = Field Duplicate

TABLE 12
Field Duplicate Precision
*Sorted by SDG and Method*

| SDG | Method | Matrix | Analyte | Normal Sample | Result | Field Duplicate | Result | Calculated RPD | Criteria |
|---|---|---|---|---|---|---|---|---|---|
| **F6J220112** | | | | | | | | | |
| | **A01R** | SOIL | Thorium 228 | 6-30-TP-12-0708 | 1.02 | 6-30-TP-1299-0708 | 0.81 | 22.95 | 40 |
| | | SOIL | Thorium 230 | 6-30-TP-12-0708 | 0.89 | 6-30-TP-1299-0708 | 0.8 | 10.65 | 40 |
| | | SOIL | Thorium 232 | 6-30-TP-12-0708 | 0.85 | 6-30-TP-1299-0708 | 0.8 | 6.06 | 40 |
| | | SOIL | Uranium 233/234 | 6-30-TP-12-0708 | 0.68 | 6-30-TP-1299-0708 | 0.53 | 24.79 | 40 |
| | | SOIL | Uranium 238 | 6-30-TP-12-0708 | 0.72 | 6-30-TP-1299-0708 | 0.65 | 10.22 | 40 |
| | **GA01R** | SOIL | Actinium 228 | 6-30-TP-12-0708 | 0.93 | 6-30-TP-1299-0708 | 0.94 | 1.07 | 40 |
| | | SOIL | Bismuth 214 | 6-30-TP-12-0708 | 0.86 | 6-30-TP-1299-0708 | 0.71 | 19.11 | 40 |
| | | SOIL | Lead 212 | 6-30-TP-12-0708 | 0.84 | 6-30-TP-1299-0708 | 0.74 | 12.66 | 40 |
| | | SOIL | Lead 214 | 6-30-TP-12-0708 | 0.83 | 6-30-TP-1299-0708 | 0.76 | 8.81 | 40 |
| | | SOIL | Potassium 40 | 6-30-TP-12-0708 | 17.8 | 6-30-TP-1299-0708 | 16.7 | 6.38 | 40 |
| | | SOIL | Radium (226) | 6-30-TP-12-0708 | 0.86 | 6-30-TP-1299-0708 | 0.71 | NC | 40 |
| | | SOIL | Radium 228 | 6-30-TP-12-0708 | 0.93 | 6-30-TP-1299-0708 | 0.94 | 1.07 | 40 |
| | | SOIL | Thallium 208 | 6-30-TP-12-0708 | 0.316 | 6-30-TP-1299-0708 | 0.39 | 20.96 | 40 |
| | **SW6020** | SOIL | Aluminum | 6-30-TP-12-0708 | 5550 | 6-30-TP-1299-0708 | 5760 | 3.71 | 20 |
| | | SOIL | Antimony | 6-30-TP-12-0708 | 0.26 | 6-30-TP-1299-0708 | 0.13 | NC | 20 |
| | | SOIL | Arsenic | 6-30-TP-12-0708 | 4.3 | 6-30-TP-1299-0708 | 3.3 | 26.32 | 20 |
| | | SOIL | Barium | 6-30-TP-12-0708 | 88.7 | 6-30-TP-1299-0708 | 109 | 20.54 | 20 |
| | | SOIL | Beryllium | 6-30-TP-12-0708 | 0.35 | 6-30-TP-1299-0708 | 0.38 | 8.22 | 20 |
| | | SOIL | Cadmium | 6-30-TP-12-0708 | 0.081 | 6-30-TP-1299-0708 | 0.092 | 12.72 | 20 |
| | | SOIL | Calcium | 6-30-TP-12-0708 | 24500 | 6-30-TP-1299-0708 | 24100 | 1.65 | 20 |
| | | SOIL | Chromium | 6-30-TP-12-0708 | 7.7 | 6-30-TP-1299-0708 | 7.4 | 3.97 | 20 |
| | | SOIL | Cobalt | 6-30-TP-12-0708 | 4.4 | 6-30-TP-1299-0708 | 4.7 | 6.59 | 20 |
| | | SOIL | Copper | 6-30-TP-12-0708 | 7.4 | 6-30-TP-1299-0708 | 7.9 | 6.54 | 20 |
| | | SOIL | Iron | 6-30-TP-12-0708 | 8880 | 6-30-TP-1299-0708 | 9270 | 4.3 | 20 |
| | | SOIL | Lead | 6-30-TP-12-0708 | 6.3 | 6-30-TP-1299-0708 | 6.9 | 9.09 | 20 |
| | | SOIL | Magnesium | 6-30-TP-12-0708 | 3460 | 6-30-TP-1299-0708 | 3400 | 1.75 | 20 |
| | | SOIL | Manganese | 6-30-TP-12-0708 | 177 | 6-30-TP-1299-0708 | 190 | 7.08 | 20 |
| | | SOIL | Molybdenum | 6-30-TP-12-0708 | 0.29 | 6-30-TP-1299-0708 | 0.3 | NC | 20 |
| | | SOIL | Nickel | 6-30-TP-12-0708 | 8.7 | 6-30-TP-1299-0708 | 8.3 | 4.71 | 20 |
| | | SOIL | Potassium | 6-30-TP-12-0708 | 1100 | 6-30-TP-1299-0708 | 1160 | 5.31 | 20 |
| | | SOIL | Silver | 6-30-TP-12-0708 | 0.041 | 6-30-TP-1299-0708 | 0.046 | NC | 20 |
| | | SOIL | Sodium | 6-30-TP-12-0708 | 213 | 6-30-TP-1299-0708 | 219 | 2.78 | 20 |
| | | SOIL | Vanadium | 6-30-TP-12-0708 | 17.4 | 6-30-TP-1299-0708 | 17.3 | 0.58 | 20 |
| | | SOIL | Zinc | 6-30-TP-12-0708 | 21.1 | 6-30-TP-1299-0708 | 22 | 4.18 | 20 |

'NC' = Not Calculated. RPD is calculated if both the normal and duplicate results are greater than the reporting limit.
RPDs for actual validation may be calculated differently.

TABLE 12
Field Duplicate Precision
*Sorted by SDG and Method*

| SDG | Method | Matrix | Analyte | Normal Sample | Result | Field Duplicate | Result | Calculated RPD | Criteria |
|---|---|---|---|---|---|---|---|---|---|
| | **SW9310** | SOIL | Gross Alpha | 6-30-TP-12-0708 | 23.5 | 6-30-TP-1299-0708 | 29.7 | 23.31 | 40 |
| | | SOIL | Gross Beta | 6-30-TP-12-0708 | 36.2 | 6-30-TP-1299-0708 | 31.6 | 13.57 | 40 |
| **F6J240227** | | | | | | | | | |
| | **A01R** | SOIL | Thorium 228 | 6-30-TP-13-0708 | 0.85 | 6-30-TP-1399-0708 | 0.82 | 3.59 | 40 |
| | | SOIL | Thorium 230 | 6-30-TP-13-0708 | 0.74 | 6-30-TP-1399-0708 | 0.77 | 3.97 | 40 |
| | | SOIL | Thorium 232 | 6-30-TP-13-0708 | 0.95 | 6-30-TP-1399-0708 | 0.94 | 1.06 | 40 |
| | | SOIL | Uranium 233/234 | 6-30-TP-13-0708 | 0.75 | 6-30-TP-1399-0708 | 0.82 | 8.92 | 40 |
| | | SOIL | Uranium 235/236 | 6-30-TP-13-0708 | 0.047 | 6-30-TP-1399-0708 | 0.059 | NC | 40 |
| | | SOIL | Uranium 238 | 6-30-TP-13-0708 | 0.7 | 6-30-TP-1399-0708 | 0.75 | 6.9 | 40 |
| | **EML-SR-01** | SOIL | Strontium 89 | 6-30-TP-13-0708 | 1.26 | 6-30-TP-1399-0708 | 1.14 | NC | 40 |
| | **GA01R** | SOIL | Actinium 228 | 6-30-TP-13-0708 | 0.63 | 6-30-TP-1399-0708 | 0.72 | 13.33 | 40 |
| | | SOIL | Bismuth 214 | 6-30-TP-13-0708 | 0.63 | 6-30-TP-1399-0708 | 0.63 | 0 | 40 |
| | | SOIL | Lead 212 | 6-30-TP-13-0708 | 0.55 | 6-30-TP-1399-0708 | 0.69 | 22.58 | 40 |
| | | SOIL | Lead 214 | 6-30-TP-13-0708 | 0.6 | 6-30-TP-1399-0708 | 0.69 | 13.95 | 40 |
| | | SOIL | Potassium 40 | 6-30-TP-13-0708 | 16.1 | 6-30-TP-1399-0708 | 17.9 | 10.59 | 40 |
| | | SOIL | Radium (226) | 6-30-TP-13-0708 | 0.63 | 6-30-TP-1399-0708 | 0.63 | NC | 40 |
| | | SOIL | Radium 228 | 6-30-TP-13-0708 | 0.63 | 6-30-TP-1399-0708 | 0.72 | NC | 40 |
| | | SOIL | Thallium 208 | 6-30-TP-13-0708 | 0.201 | 6-30-TP-1399-0708 | 0.199 | 1 | 40 |
| | **SW6020** | SOIL | Aluminum | 6-30-TP-13-0708 | 5690 | 6-30-TP-1399-0708 | 5500 | 3.4 | 20 |
| | | SOIL | Antimony | 6-30-TP-13-0708 | 0.13 | 6-30-TP-1399-0708 | 0.12 | NC | 20 |
| | | SOIL | Arsenic | 6-30-TP-13-0708 | 3.4 | 6-30-TP-1399-0708 | 2.9 | 15.87 | 20 |
| | | SOIL | Barium | 6-30-TP-13-0708 | 197 | 6-30-TP-1399-0708 | 190 | 3.62 | 20 |
| | | SOIL | Beryllium | 6-30-TP-13-0708 | 0.35 | 6-30-TP-1399-0708 | 0.37 | 5.56 | 20 |
| | | SOIL | Cadmium | 6-30-TP-13-0708 | 0.11 | 6-30-TP-1399-0708 | 0.1 | 9.52 | 20 |
| | | SOIL | Calcium | 6-30-TP-13-0708 | 25800 | 6-30-TP-1399-0708 | 27400 | 6.02 | 20 |
| | | SOIL | Chromium | 6-30-TP-13-0708 | 7.4 | 6-30-TP-1399-0708 | 8.2 | 10.26 | 20 |
| | | SOIL | Cobalt | 6-30-TP-13-0708 | 5.2 | 6-30-TP-1399-0708 | 4.6 | 12.24 | 20 |
| | | SOIL | Copper | 6-30-TP-13-0708 | 8.8 | 6-30-TP-1399-0708 | 8.7 | 1.14 | 20 |
| | | SOIL | Iron | 6-30-TP-13-0708 | 10300 | 6-30-TP-1399-0708 | 10000 | 2.96 | 20 |
| | | SOIL | Lead | 6-30-TP-13-0708 | 8.7 | 6-30-TP-1399-0708 | 7.5 | 14.81 | 20 |
| | | SOIL | Magnesium | 6-30-TP-13-0708 | 3720 | 6-30-TP-1399-0708 | 3460 | 7.24 | 20 |
| | | SOIL | Manganese | 6-30-TP-13-0708 | 253 | 6-30-TP-1399-0708 | 194 | 26.4 | 20 |
| | | SOIL | Molybdenum | 6-30-TP-13-0708 | 0.5 | 6-30-TP-1399-0708 | 0.42 | NC | 20 |
| | | SOIL | Nickel | 6-30-TP-13-0708 | 8.5 | 6-30-TP-1399-0708 | 8.3 | 2.38 | 20 |
| | | SOIL | Potassium | 6-30-TP-13-0708 | 1460 | 6-30-TP-1399-0708 | 1190 | 20.38 | 20 |

'NC' = Not Calculated. RPD is calculated if both the normal and duplicate results are greater than the reporting limit.
RPDs for actual validation may be calculated differently.

TABLE 12

Field Duplicate Precision

*Sorted by SDG and Method*

| SDG | Method | Matrix | Analyte | Normal Sample | Result | Field Duplicate | Result | Calculated RPD | Criteria |
|---|---|---|---|---|---|---|---|---|---|
| | **SW6020** | SOIL | Silver | 6-30-TP-13-0708 | 0.045 | 6-30-TP-1399-0708 | 0.039 | NC | 20 |
| | | SOIL | Sodium | 6-30-TP-13-0708 | 299 | 6-30-TP-1399-0708 | 300 | 0.33 | 20 |
| | | SOIL | Vanadium | 6-30-TP-13-0708 | 19.7 | 6-30-TP-1399-0708 | 18.6 | 5.74 | 20 |
| | | SOIL | Zinc | 6-30-TP-13-0708 | 29.4 | 6-30-TP-1399-0708 | 25.1 | 15.78 | 20 |
| | **SW9310** | SOIL | Gross Alpha | 6-30-TP-13-0708 | 20.2 | 6-30-TP-1399-0708 | 19.2 | 5.08 | 40 |
| | | SOIL | Gross Beta | 6-30-TP-13-0708 | 30.8 | 6-30-TP-1399-0708 | 31.4 | 1.93 | 40 |

'NC' = Not Calculated. RPD is calculated if both the normal and duplicate results are greater than the reporting limit.
RPDs for actual validation may be calculated differently.

TABLE 13

Lab Replicate Precision

*Sorted by SDG and Method*

| SDG | Method | Matrix | Analyte | Normal Sample | Result | Lab Duplicate | Result | Calculated RPD | Criteria |
|---|---|---|---|---|---|---|---|---|---|
| **F6J190101** | | | | | | | | | |
| | **GA01R** | SOIL | Actinium 228 | 6-30-TP-01-0506 | 0.74 | 6-30-TP-01-0506-LR | 0.76 | 2.67 | 40 |
| | | SOIL | Bismuth 214 | 6-30-TP-01-0506 | 0.77 | 6-30-TP-01-0506-LR | 0.64 | 18.44 | 40 |
| | | SOIL | Lead 212 | 6-30-TP-01-0506 | 0.66 | 6-30-TP-01-0506-LR | 0.53 | 21.85 | 40 |
| | | SOIL | Lead 214 | 6-30-TP-01-0506 | 0.77 | 6-30-TP-01-0506-LR | 0.65 | 16.9 | 40 |
| | | SOIL | Potassium 40 | 6-30-TP-01-0506 | 18.4 | 6-30-TP-01-0506-LR | 15.7 | 15.84 | 40 |
| | | SOIL | Radium (226) | 6-30-TP-01-0506 | 0.77 J | 6-30-TP-01-0506-LR | 0.64 J | NC | 40 |
| | | SOIL | Radium 228 | 6-30-TP-01-0506 | 0.74 | 6-30-TP-01-0506-LR | 0.76 | 2.67 | 40 |
| | | SOIL | Thallium 208 | 6-30-TP-01-0506 | 0.243 | 6-30-TP-01-0506-LR | 0.26 | 6.76 | 40 |
| **F6J220112** | | | | | | | | | |
| | **A01R** | SOIL | Thorium 228 | 6-30-TP-04-0607 | 1 | 6-30-TP-04-0607-LR | 0.91 | 9.42 | 40 |
| | | SOIL | Thorium 230 | 6-30-TP-04-0607 | 0.87 | 6-30-TP-04-0607-LR | 0.96 | 9.84 | 40 |
| | | SOIL | Thorium 232 | 6-30-TP-04-0607 | 0.91 | 6-30-TP-04-0607-LR | 0.77 | 16.67 | 40 |
| | | SOIL | Uranium 233/234 | 6-30-TP-04-0607 | 0.72 | 6-30-TP-04-0607-LR | 0.9 | 22.22 | 40 |
| | | SOIL | Uranium 235/236 | 6-30-TP-04-0607 | 0.041 J | 6-30-TP-04-0607-LR | 0.06 J | NC | 40 |
| | | SOIL | Uranium 238 | 6-30-TP-04-0607 | 0.71 | 6-30-TP-04-0607-LR | 0.67 | 5.8 | 40 |
| | **GA01R** | SOIL | Actinium 228 | 6-30-TP-04-0607 | 0.66 | 6-30-TP-04-0607-LR | 0.83 | 22.82 | 40 |
| | | SOIL | Bismuth 214 | 6-30-TP-04-0607 | 0.65 | 6-30-TP-04-0607-LR | 0.5 | 26.09 | 40 |
| | | SOIL | Lead 212 | 6-30-TP-04-0607 | 0.64 | 6-30-TP-04-0607-LR | 0.66 | 3.08 | 40 |
| | | SOIL | Lead 214 | 6-30-TP-04-0607 | 0.66 | 6-30-TP-04-0607-LR | 0.66 | 0 | 40 |
| | | SOIL | Potassium 40 | 6-30-TP-04-0607 | 14.2 | 6-30-TP-04-0607-LR | 14.6 | 2.78 | 40 |
| | | SOIL | Radium (226) | 6-30-TP-04-0607 | 0.65 J | 6-30-TP-04-0607-LR | 0.5 J | NC | 40 |
| | | SOIL | Radium 228 | 6-30-TP-04-0607 | 0.66 J | 6-30-TP-04-0607-LR | 0.83 | NC | 40 |
| | | SOIL | Thallium 208 | 6-30-TP-04-0607 | 0.169 | 6-30-TP-04-0607-LR | 0.176 | 4.06 | 40 |
| **F6J240227** | | | | | | | | | |
| | **A01R** | SOIL | Thorium 228 | 6-30-TP-13-0708 | 0.85 | 6-30-TP-13-0708-LR | 0.73 | 15.19 | 40 |
| | | SOIL | Thorium 230 | 6-30-TP-13-0708 | 0.74 | 6-30-TP-13-0708-LR | 0.61 | 19.26 | 40 |
| | | SOIL | Thorium 232 | 6-30-TP-13-0708 | 0.95 | 6-30-TP-13-0708-LR | 0.75 | 23.53 | 40 |
| | | SOIL | Uranium 233/234 | 6-30-TP-13-0708 | 0.75 | 6-30-TP-13-0708-LR | 0.75 | 0 | 40 |
| | | SOIL | Uranium 238 | 6-30-TP-13-0708 | 0.7 | 6-30-TP-13-0708-LR | 0.56 | 22.22 | 40 |
| | **EML-SR-01** | SOIL | Strontium 89 | 6-30-TP-13-0708 | 1.26 J | 6-30-TP-13-0708-LR | 1.28 J | NC | 40 |
| | **GA01R** | SOIL | Actinium 228 | 6-30-TP-13-0708 | 0.63 | 6-30-TP-13-0708-LR | 0.76 | 18.71 | 40 |
| | | SOIL | Bismuth 214 | 6-30-TP-13-0708 | 0.63 | 6-30-TP-13-0708-LR | 0.5 | 23.01 | 40 |
| | | SOIL | Lead 212 | 6-30-TP-13-0708 | 0.55 | 6-30-TP-13-0708-LR | 0.55 | 0 | 40 |

'NC' = Not Calculated. RPD is calculated if both the normal and duplicate results are greater than the reporting limit.
RPDs for actual validation may be calculated differently.

TABLE 13

Lab Replicate Precision

*Sorted by SDG and Method*

| SDG | Method | Matrix | Analyte | Normal Sample | Result | Lab Duplicate | Result | Calculated RPD | Criteria |
|---|---|---|---|---|---|---|---|---|---|
| | **GA01R** | SOIL | Lead 214 | 6-30-TP-13-0708 | 0.6 | 6-30-TP-13-0708-LR | 0.6 | 0 | 40 |
| | | SOIL | Potassium 40 | 6-30-TP-13-0708 | 16.1 | 6-30-TP-13-0708-LR | 13.5 | 17.57 | 40 |
| | | SOIL | Radium (226) | 6-30-TP-13-0708 | 0.63 J | 6-30-TP-13-0708-LR | 0.5 J | NC | 40 |
| | | SOIL | Radium 228 | 6-30-TP-13-0708 | 0.63 J | 6-30-TP-13-0708-LR | 0.76 | NC | 40 |
| | | SOIL | Thallium 208 | 6-30-TP-13-0708 | 0.201 | 6-30-TP-13-0708-LR | 0.235 | 15.6 | 40 |
| **F6K10189** | | | | | | | | | |
| | **GA01R** | SOIL | Actinium 228 | RW-06 BIO 001 | 0.78 | RW-06 BIO 001-LR | 0.62 | 22.86 | 40 |
| | | SOIL | Americium 241 | RW-06 BIO 001 | 508 | RW-06 BIO 001-LR | 513 | 0.98 | 40 |
| | | SOIL | Bismuth 214 | RW-06 BIO 001 | 0.56 | RW-06 BIO 001-LR | 0.62 | 10.17 | 40 |
| | | SOIL | Cesium 137 | RW-06 BIO 001 | 11.7 | RW-06 BIO 001-LR | 11.7 | 0 | 40 |
| | | SOIL | Lead 210 | RW-06 BIO 001 | 49.8 | RW-06 BIO 001-LR | 50 | 0.4 | 40 |
| | | SOIL | Lead 212 | RW-06 BIO 001 | 0.64 | RW-06 BIO 001-LR | 0.6 | 6.45 | 40 |
| | | SOIL | Lead 214 | RW-06 BIO 001 | 0.6 | RW-06 BIO 001-LR | 0.65 | 8 | 40 |
| | | SOIL | Potassium 40 | RW-06 BIO 001 | 17.2 | RW-06 BIO 001-LR | 17.6 | 2.3 | 40 |
| | | SOIL | Radium (226) | RW-06 BIO 001 | 0.56 J | RW-06 BIO 001-LR | 0.62 J | NC | 40 |
| | | SOIL | Radium 228 | RW-06 BIO 001 | 0.78 | RW-06 BIO 001-LR | 0.62 J | NC | 40 |
| | | SOIL | Thallium 208 | RW-06 BIO 001 | 0.205 | RW-06 BIO 001-LR | 0.193 | 6.03 | 40 |
| | **SW9310** | SOIL | Gross Alpha | RW-06 BIO 001 | 64300 | RW-06 BIO 001-LR | 52500 | 20.21 | 40 |
| | | SOIL | Gross Beta | RW-06 BIO 001 | 1670 | RW-06 BIO 001-LR | 1500 | 10.73 | 40 |

'NC' = Not Calculated. RPD is calculated if both the normal and duplicate results are greater than the reporting limit.
RPDs for actual validation may be calculated differently.