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Closeout Report for IHSS Group 000-2

Original Process Waste Lines (OPWL)

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Environmental Restoration
Rocky Flats Environmental Technology Site

October 2005

ADMIN RECORD

IA-A-002865

Closeout Report
for IHSS Group 000-2

Original Process Waste Lines (OPWL)

Approval received from the Colorado Department of Public Health and Environment
(October 6, 2005).
Approval letter contained in the Administrative Record.

October 2005

Closeout Report
for IHSS Group 000-2

Original Process Waste Lines (OPWL)

October 2005

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ENCLOSURE

CD Containing Standardized Real and QC Accelerated Action Data

ACRONYMS AND ABBREVIATIONS

AL	action level
AR	Administrative Record
ASD	Analytical Services Division
AST	aboveground storage tank
bgs	below ground surface
BMP	best management practice
BZ	Buffer Zone
CA	Contamination Area
CAD/ROD	Corrective Action Decision/Record of Decision
CAS	Chemical Abstracts Service
CD	compact disc
CDPHE	Colorado Department of Public Health and Environment
CEARP	Comprehensive Environmental Assessment and Response Program
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
cm^2	square centimeter
COC	contaminant of concern
CPIR	Contingency Plan Implementation Report
cpm	counts per minute
CRA	Comprehensive Risk Assessment
D&D	Decontamination and Decommissioning
DOE	U.S. Department of Energy
dpm	disintegrations per minute
DQA	Data Quality Assessment
DQO	data quality objective
EPA	U.S. Environmental Protection Agency
ER	Environmental Restoration
ER RSOP	Environmental Restoration RFCA Standard Operating Protocol for Routine Soil Remediation
FIDLER	Field Instrument for the Detection of Low-Energy Radiation
ft	foot or feet
ft^3	cubic foot or feet
FY	Fiscal Year
HCL	hydrochloric acid
HEPA	high-efficiency particulate air
HNO_3	nitric acid
HPGe	high-purity germanium
HRR	Historical Release Report
HVAC	heating, ventilation, and air conditioning
IA	Industrial Area
IABZSAP	Industrial Area and Buffer Zone Sampling and Analysis Plan
IAG	Interagency Agreement
IASAP	Industrial Area Sampling and Analysis Plan
IHSS	Individual Hazardous Substance Site

IIR	Internal Investigation Report
IM/IRA	Interim Measure/Interim Remedial Action
ISOCS	In-Situ Counting System
K-H	Kaiser-Hill Company, L.L.C.
KOH	potassium hydroxide
LCS	laboratory control sample
LLW	low-level radioactive waste
LLMW	low-level mixed waste
ug/kg	micrograms per kilogram
ug/L	micrograms per liter
m	meter
MDL	method detection limit
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MS	matrix spike
MSD	matrix spike duplicate
NaI	sodium iodide
N/A	not applicable
nCi/g	nanocuries per gram
NFAA	No Further Accelerated Action
NLR	No Longer Representative
NPWL	New Process Waste Lines
OPWL	Original Process Waste Lines
OU	Operable Unit
PAC	Potential Area of Concern
PARCCS	precision, accuracy, representativeness, completeness, comparability, and sensitivity
PCB	polychlorinated biphenyl
PCE	tetrachloroethene
pCi/g	picocuries per gram
pCi/L	picocuries per liter
PCOC	potential contaminant of concern
ppm	parts per million
psig	pounds per square inch gauge
PVC	polyvinyl chloride
QC	quality control
RAO	remedial action objective
RCRA	Resource Conservation and Recovery Act
RCT	Radiological Control Technician
RFCA	Rocky Flats Cleanup Agreement
RFETS or Site	Rocky Flats Environmental Technology Site
RFI/RI	RCRA Facility Investigation/Remedial Investigation
RI/FS	Remedial Investigation/Feasibility Study
RIN	report identification number
RL	reporting limit
RLCR	Reconnaissance Level Characterization Report

RPD	relative percent difference
RSOP	RFCA Standard Operating Protocol for Routine Soil Remediation
SAP	Sampling and Analysis Plan
Sbd	sample beginning depth
SD	standard deviation
Sed	sample ending depth
SEP	Solar Evaporation Ponds
SOR	sum of ratios
SSRS	Subsurface Soil Risk Screen
SVOC	semivolatile organic compound
SWD	Soil Water Database
TCE	Trichloroethene
TRU	transuranic
UBC	Under Building Contamination
V&V	verification and validation
VOC	volatile organic compound
WRW	wildlife refuge worker
WSRIC	Waste Stream and Residue Identification and Characterization

EXECUTIVE SUMMARY

Individual Hazardous Substance Site (IHSS) Group 000-2 at the Rocky Flats Environmental Technology Site (RFETS or Site) in Golden, Colorado consists of the following IHSSs and Potential Areas of Concern (PACs):

- IHSS 000-121 – Original Process Waste Lines (OPWL);
- IHSS 000-121 – Tank 29 – OPWL (Tank 207);
- IHSS 000-121 – Tank 31 – OPWL;
- IHSS 000-162 – Radioactive Site 700 Area;
- PAC 100-602 – Building 123 Process Waste Line Break;
- IHSS 700-123.2 – Valve Vault West of Building 707;
- IHSS 700-127 – Low-Level Radioactive Waste Leak;
- IHSS 700-147.1 – Process Waste Line Leaks; and
- IHSS 700-149.1 – Effluent Lines.

IHSS Group 000-2 and other IHSS characterization and accelerated action documents were prepared by the U.S. Department of Energy (DOE) and approved by the regulatory agencies to, among other goals, implement the requirements of Rocky Flats Cleanup Agreement (RFCA) Attachment 14, Original Process Waste Lines (OPWL) Subsurface Soil Approach (DOE et al. 2003). This Closeout Report includes information and data on OPWL from all applicable IHSS Groups and thus it is a comprehensive summary of OPWL data and actions. For this report, the OPWL were divided into five primary areas: 100/400 Area, 500 Area, 700 Area, 800 Area, and Eastern OPWL Area.

The OPWL were a network of underground pipelines and 62 tanks in 40 tank locations, used to transport and temporarily store aqueous chemical and radioactive process wastes. Placed in service during 1952, with additions and repairs made to the system through 1975, the OPWL transported a variety of wastes including acids, bases, solvents, radionuclides, metals, oils, polychlorinated biphenyls (PCBs), biohazards, paints, and other chemicals (DOE 1992-2004).

Accelerated actions conducted at IHSS Group 000-2 consisted of characterization sampling of soil, excavation of radionuclide and semivolatile organic compound (SVOC) contaminated soil, and in-process and confirmation sampling of soil. Based upon the accelerated actions performed and analytical results of sampling, conditions at IHSS Group 000-2 include the following:

- A total of 655 soil samples were collected from 449 sampling locations (356 characterization locations, 7 in-process locations, and 86 confirmation locations).
- Approximately 17,000 feet (ft) of OPWL were excavated and disposed of from the Site.
- Approximately 14,700 ft of OPWL were grouted and left in place.

- During OPWL field operations, approximately 900 ft of OPWL were determined not to exist in locations that were previously shown on Site maps.
- All valve pits and manways associated with OPWL were removed.
- All tanks associated with OPWL were removed.
- The potential sources of contamination related to OPWL that existed in the soil external to the pipes at concentrations greater than RFCA wildlife refuge worker (WRW) soil action levels (ALs) were removed unless remediation was not required based on RFCA (DOE et al. 2003).
- Arsenic, benzo(a)pyrene, americium-241, and plutonium-239/240 are the residual contaminants remaining at concentrations or activities in the soil greater than RFCA WRW soil ALs.
- Backfilling of excavations and regrading have been completed.

All accelerated action objectives related to OPWL were achieved. Results of the accelerated action justify No Further Accelerated Action (NFAA) for IHSS Group 000-2. This justification is based on the following:

- Reported and suspected leaks were addressed in accordance RFCA Attachment 14 (DOE et al. 2003).
- The potential sources of contamination existing in soil at concentrations greater than RFCA WRW soil ALs were excavated in 11 locations and include the following:
  - 500 Area: Three excavations at Building 559 removed americium-241 and plutonium-239/240 contamination originally identified in soil characterization samples CD43-054, CD44-005, and CD44-009.
  - 700 Area: Seven excavations were required to remove contaminated soils in the 700 Area. Soil was excavated from two locations west of Building 771 to removed SVOC hotspots identified in soil characterization sampling locations CE47-012 and CE48-012. The tanks located southeast of Building 774 were removed and radionuclide contaminated soil from the area was removed. One excavation below the slab of Building 776 was required to remediate two radionuclide hotspots identified in characterization soil samples CF46-018 and CF46-062. One excavation northeast of Building 779 (near the SEP) was required to remove radionuclide contamination identified in soil characterization sample CJ46-057. This hotspot occurred because liquid leaked from the end of the pipe during removal operations. Soil was excavated from two locations in the Tank 207 area to remove radionuclide contamination identified in soil characterization samples CH47-000 and CH47-001.
  - Eastern OPWL Area: One excavation was required to remove radionuclide contamination identified in soil characterization sample CW46-001 ("Pond B-1 Dam Hotspot"). The hotspot was removed during the IHSS Group NE-1 (Ponds B-1, B-2, and B-3) sediment and soil removal action.
- Results of confirmation soil samples collected from the previously described excavations indicated that all residual contaminant activities and concentrations were

less than RFCA WRW soil ALs except for 3 sampling locations at Tanks 14 and 16 located southeast of Building 774.

- Analytical results of characterization and confirmation soil sampling indicate that activities and concentrations of residual contaminants are less than RFCA WRW soil ALs with the exception of seventeen locations that contained contaminants at activities or concentrations greater than RFCA WRW soil ALs. However, these locations did not require remediation based on RFCA and are shown on Figure 16 and described as follows:
  - 100/400 Area (2 locations): Soil characterization samples BV38-002 contained benzo(a)pyrene at a concentration of 3,700 ug/kg (WRW AL equals 3,470 ug/kg) at a depth of 10 to 11 ft bgs. Soil characterization sample BW38-004 contained arsenic at a concentration of 23 mg/kg (WRW AL equals 22.2 mg/kg) at a depth of 4.5 to 6.5 ft bgs. Because these two nonradionuclide contaminants were detected at depths greater than 6 inches from the surface, remediation was not required.
  - 700 Area (13 locations): Arsenic was detected at concentrations greater than the RFCA WRW soil AL at four sampling locations and americium-241 and/or plutonium-239/240 was detected at activities greater than the RFCA WRW soil ALs at nine locations.
  - Two sampling locations, CI46-001 and CJ46-DR01 (Building 779 Area), contained arsenic in subsurface soil at concentrations of 25.0 and 30.9 mg/kg, respectively. These two locations did not require remediation because the nonradionuclide contaminants were detected at depths greater than 6 inches from the surface. The sample interval containing the arsenic exceedance in CI46-001 was 3.5 to 4.5 ft bgs and the sample interval for CJ46-DR01 was at 7.5 to 7.51 ft bgs.
  - Two sampling locations, CJ48-000 and CJ48-001 (Building 771/774 Area north of the SEP), contained arsenic in the surface soil interval at concentrations of 36.3 and 31.1 mg/kg, respectively. These locations did not require remediation because they did not exceed the RFCA Tier I soil ALs.
  - Four sampling locations, CF46-065 (Building 776/777/778 Area), CH47-051 (Tank 207 Area), CJ46-000 and CJ46-002 (Building 779 Area), contained plutonium-239/240 ranging from 53.363 pCi/g to 223 pCi/g at depths greater than 3-ft below surface at activities less than 1 nCi/g; therefore, remediation of these locations was not required.
  - Five sampling locations, CG48-008, CG48-009, CH48-043, CH48-044, and CH48-045, located at Building 774, contained americium-241 and/or plutonium-239/240 ranging from 116.4 pCi/g to 1,220 pCi/g for americium-241 and from 116.4 pCi/g to 2,109 pCi/g for plutonium-239/240. These hot spots were all at depths greater than 6-ft below the final grade surface at activities less than 3 nCi/g; therefore, remediation of these locations was not required.
  - 800 Area (1 location): Soil characterization sample location CF33-010 contained arsenic at a concentration of 25.5 mg/kg. This location did not require remediation because the nonradionuclide contamination was greater than 6 inches

below surface (arsenic exceedance was present at 5 ft bgs).

- Eastern OPWL Area (1 location): Soil characterization sample location CQ44-003 contained plutonium-239/240 at an activity of 50.6 pCi/g. This location did not require remediation because the contamination was present at a depth greater than 3-ft below the surface (12 ft bgs).

- All valve pits and manways associated with OPWL were removed, thereby reducing the potential for future contaminant releases.
- Approximately 17,000 ft of OPWL were excavated and disposed of from the Site, eliminating more than half of the OPWL system and thereby reducing the potential future releases of contamination.
- Remaining OPWL (approximately 14, 700 ft) was tapped, drained, and grouted, further reducing potential future releases of contamination.
- All tanks associated with OPWL were removed and disposed of.
- In accordance with the Subsurface Soil Risk Screen (SSRS), subsurface soil in the area is not subject to significant erosion.
- Backfilling of excavations and regrading has been completed. Final grading of areas containing OPWL will be conducted as part of other projects.

IHSS Group 000-2 will be evaluated as part of the Sitewide Comprehensive Risk Assessment (CRA). The CRA is part of the Remedial Investigation/Feasibility Study (RI/FS) that will be conducted for the Site. The need for and extent of any more general, long-term stewardship activities will also be analyzed in the RI/FS and proposed as part of the preferred alternative in the Proposed Plan for the Site.

Currently, no IHSS Group-specific engineering controls or environmental monitoring are recommended as a result of the conditions remaining at IHSS Group 000-2. Institutional or physical controls are recommended to prevent digging or exposure of the remaining OPWL and residual contamination. Institutional controls and other long-term stewardship requirements for the Site will ultimately be contained in the Corrective Action Decision/Record of Decision (CAD/ROD). This Closeout Report and associated documentation will be retained as part of the Rocky Flats Administrative Record (AR) file.

1.0 INTRODUCTION

This Closeout Report summarizes accelerated action activities conducted at Individual Hazardous Substance Site (IHSS) Group 000-2,), at the Rocky Flats Environmental Technology Site (RFETS or Site) in Golden, Colorado. IHSS Group 000-2 consists of the following IHSSs and Potential Areas of Concern (PACs):

- IHSS 000-121 – Original Process Waste Lines (OPWL);
- IHSS 000-121 – Tank 29 – OPWL (Tank 207);
- IHSS 000-121 – Tank 31 – OPWL;
- IHSS 000-162 – Radioactive Site 700 Area;
- PAC 100-602 – Building 123 Process Waste Line Break;
- IHSS 700-123.2 – Valve Vault West of Building 707;
- IHSS 700-127 – Low-Level Radioactive Waste Leak;
- IHSS 700-147.1 – Process Waste Line Leaks; and
- IHSS 700-149.1 – Effluent Lines.

In addition to the previously listed IHSSs and PAC, portions of OPWL were addressed in other IHSS Group investigations. Accelerated actions related to OPWL in other IHSS Groups are also summarized in this OPWL Closeout Report. Other IHSS Groups that involved OPWL actions are listed in Table 1.

Table 1
Other IHSS Group Investigations Addressing OPWL Accelerated Actions

IHSS Group	IASAP Addendum	ER RSOP Notification	Data Summary/ Closeout Report
All	Phase I RFI/RI Work Plan OPWL OU 9 (DOE 1992a)	N/A	N/A
000-1	#IA-02-07 (DOE 2002a)	#02-08 (DOE 2002b)	Closeout Report (DOE 2003a)
100-1	#IA-04-04 (DOE 2003b)	N/A	Data Summary (DOE 2004a)
100-4	#IA-02-01 (DOE 2001a)	#02-01 (DOE 2002c)	Closeout Report(DOE 2003c)
400-3	#IA-03-06 (DOE 2003d)	N/A	Data Summary (DOE 2003e)
400-8	#IA-03-01 (DOE 2003f)	#03-06 (DOE 2003g)	Closeout Report (DOE 2004b)
500-3	#IA-03-12 (DOE 2003h)	#05-02 (DOE 2005a)	Closeout Report (DOE 2005b)
700-2	#IA-04-02 (DOE 2003i)	#04-05 (DOE 2003j)	Closeout Report (DOE 2005c)
700-3	#IA-03-04 (DOE 2003k)	#04-04 (DOE 2004c)	Closeout Report (DOE 2005g)
700-4	#IA-03-01 (DOE 2003f)	ER RSOP and Closeout (DOE 2004d)	Closeout Report (DOE 2004d)
700-7	#IA-03-15 (DOE 2003l)	#03-10 (DOE 2003m)	Closeout Report (DOE 2004e)
800-1	#IA-03-01 (DOE 2003f)	#03-12 (DOE 2003n)	Closeout Report (DOE 2004f)
800-3	#IA-04-06 (DOE 2004g)	#05-04 (DOE 2005d)	Closeout Report (DOE 2005e)
800-4	#IA-02-03 (DOE 2002d)	#02-03 (DOE 2002e)	Closeout Report (DOE 2003o)
800-5	#IA-02-04 (DOE 2002f)	#02-05 (DOE 2002g)	Data Summary (DOE 2004h)
800-6	#IA-02-01 (DOE 2001a)	#02-02 (DOE 2002h)	Closeout Report (DOE 2003p)
NE-1 (B-Ponds)	N/A	#04-11 (DOE 2004i)	Closeout Report (DOE 2005f)

IHSS Group 000-2 and other IHSS characterization and accelerated action documents were prepared by the U.S. Department of Energy (DOE) and approved by the regulatory agencies to, among other goals, implement the requirements of Rocky Flats Cleanup Agreement (RFCA) Attachment 14, OPWL Subsurface Soil Approach (DOE et al. 2003). This closeout report includes information and data on OPWL from all applicable IHSS Groups and thus is a comprehensive summary of OPWL data and actions.

Accelerated action activities, including OPWL characterization and removal, were planned and executed in accordance with the following documents:

- Industrial Area (IA) Sampling and Analysis Plan (SAP) (IASAP) (DOE 2001b),
- IASAP Addendum #IA-03-11 for IHSS Group 000-2 (DOE 2003q),
- Environmental Restoration (ER) Rocky Flats Cleanup Agreement (RFCA) Standard Operating Protocol (RSOP) for Routine Soil Remediation (ER RSOP) (DOE 2003r),
- IHSS Group 000-2 RSOP Notification #03-14 (DOE 2003s), and
- Other IASAP Addenda and RSOP Notifications addressing OPWL related actions in other IHSS Groups listed in Table 1.

This Closeout Report contains results from all IHSS Group 000-2 OPWL investigations. Soil samples from 449 locations are presented in this Closeout Report. To present these data in manageable groups, the Site was divided into five primary areas for this report. OPWL-related accelerated action activities and results are presented for each of the following areas:

- 100/400 Area;
- 500 Area;
- 700 Area;
- 800 Area; and
- Eastern OPWL Area.

The OPWL and associated tanks within these defined areas are shown on Figure 1.

This report contains the information necessary to demonstrate attainment of cleanup objectives and final closure of IHSS Group 000-2, including the following:

- Site characterization information;
- Description of site characterization activities;
- Site characterization data, including data tables and maps;
- Site accelerated action information;
- Description of accelerated action, including the rationale for the action;
- Map of the project area and dates and durations of specific remedial activities;
- Photographs documenting site remediation and reclamation activities;

- Confirmation sampling data, including data tables and location maps, as well as a comparison of the confirmation data to applicable cleanup goals;
- Deviations from the ER RSOP (DOE 2003r);
- The Subsurface Soil Risk Screen (SSRS), RFCA Attachment 5, Action Levels and Standards Framework for Surface Water, Ground Water, and Soils, Figure 3 (DOE et al. 2003);
- Near-term stewardship actions and long-term stewardship recommendations;
- Disposition of wastes;
- Site reclamation information;
- Table of No Longer Representative (NLR) locations that have been remediated. These data will be used to mark database records so they are not used in the Comprehensive Risk Assessment (CRA) or other Site analyses; and
- Data Quality Assessment (DQA), including comparisons of confirmation data with project data quality objectives (DQOs).

Approval of this Closeout Report constitutes regulatory agency concurrence that IHSS Group 000-2 is a No Further Accelerated Action (NFAA) Site. This information and NFAA determination will be documented in the Fiscal Year (FY) 2005 (05) Annual Update for the Historical Release Report (HRR).

1.1 Historical Information

The OPWL were a network of underground pipelines and 62 tanks in 40 tank locations, used to transport and temporarily store aqueous chemical and radioactive process wastes. Placed in service during 1952, with additions and repairs made to the system through 1975, the OPWL transported a variety of wastes including acids, bases, solvents, radionuclides, metals, oils, poly chlorinated biphenyls (PCBs), biohazards, paints and other chemicals (DOE 1992-2004).

Characterization information for IHSS Group 000-2 consists of historical process knowledge and analytical data. Historical information for IHSS Group 000-2 was derived from the original HRR (DOE 1992a) and annual updates (DOE 1992-2004), the Industrial Area Data Summary Report (DOE 2000a), and the IASAP (DOE 2001b). Summaries of historical information from IHSS Group 000-2 and other IHSS Groups are presented in Table 2.

Table 2
OPWL Historical Summary

Area	IHSS/PAC	IHSS Group	Description
100/400 500 700 800 Eastern OPWL	000-121 OPWL	000-2	The OPWL were a network of tanks and underground pipelines designated as IHSS 000-121. There were approximately 6 miles (33,000 feet [ft]) of underground pipelines that carried process waste from facilities generating waste to the Building 774 treatment facility. The OPWL were placed into service around 1952 with repairs and additions made to the system through 1975 (DOE 1992-2004). Leaks and releases were expected or confirmed at many locations within the OPWL. Between 1975 and 1984, the OPWL were replaced by the separate, double-contained New Process Waste Lines (NPWL). Some of the tanks and pipelines from the OPWL were removed, other lines were incorporated into the NPWL, and some tanks were converted into the plenum deluge system. The OPWL that was not replaced or removed remains in place and consists of 66 pipeline segments and 5 pipeline spurs. Most of the OPWL were located in highly congested areas with other active and inactive utility lines. Approximately 13,000 ft of pipeline was beneath buildings, with another 7,000 ft beneath asphalt or concrete. There are few engineering drawings for the OPWL, and, in some instances, the drawings that were found contain contradictory information (DOE 1992-2004). The pipelines ranged from 1 to 10 inches in diameter and were constructed of a variety of materials including black iron, cast iron, plastic, polyethylene, vitrified clay, cement/asbestos, saran-lined steel, stainless-steel, fiberglass, polyvinyl chloride (PVC), Pyrex, and Teflon. Twenty-nine concrete valve pits/manways provided access for operation and maintenance. These were included in the initial installation or added later at locations with persistent leaks such as at elbows, valves, and transitions from one pipe material to another (DOE 1992-2004). The OPWL were not a continuous flowing system. Wastes were accumulated in holding tanks within the buildings, then transferred to Building 774 in batches, generally by gravity feed. To complete some transfers, lift stations were utilized in a number of buildings/areas where needed to pump the collected waste into the gravity fed portions of the OPWL or the ponds. The wastes transported were various aqueous process wastes containing low-level radioactive materials, nitrates, caustics, and acids. Small quantities of other liquids were also handled including medical decontamination fluids, miscellaneous laboratory wastes, and laundry effluent. These process waste streams also contained metals, volatile organic compounds (VOCs), oil and grease, and cleaning compounds (DOE 1992-2004).
700	000-121 Tank 29 (OPWL Tank 207)	000-2	Tank T-29 was located in the 700 Area northeast of Building 776 and east of the cooling tower. Tank T-29 was a 200,000-gallon carbon steel aboveground storage tank (AST). A valve pit on the north side of Tank T-29 was also sampled. Tank T-29 was installed in 1952 and was reportedly abandoned in the mid-1980s. The tank was used to store untreated process waste from Building 774, including acids, bases, solvents, radionuclides, metals, chlorides, oils, and grease. No reported releases from this tank are known. As part of the Operable Unit (OU) 9 Phase I Resource Conservation and Recovery Act (RCRA) Facility Investigation/Remedial Investigation (RFI/RI) (DOE 1992b) radiological surveys, soil and tank sampling were conducted. Three High Purity Germanium (HPGe) survey locations surrounding Tank T-29 showed elevated activities of uranium-238 and uranium-235. Thorium-232 was slightly elevated at one station and americium-241 was elevated at all three locations. Plutonium-239/240 was also elevated.

Area	IHSS/PAC	IHSS Group	Description
			Results of three of the 48 sodium iodide (NaI) survey sites around Tank T-29 were greater than background levels. NaI activities ranged between 1,900 and 3,000 counts per minute (cpm) with background levels in the same range. A direct radiological survey of the interior of Tank T-29 for fixed and removable beta/gamma activity revealed 45,456 disintegrations per minute (dpm)/100 square centimeters (cm^2) at the plane of the opened inspection port. Activity dropped to 2,841 dpm/100 cm^2 at 8 inches above the port. The valve pit on the northern side of Tank T-29 showed areas of fixed and removable alpha contamination. The northeastern quadrant of the manhole cover had 208 dpm/100 cm^2 fixed and removable alpha contamination, and the concrete pad had 210 dpm/100 cm^2 fixed and removable alpha contamination. Two soil samples were collected and analyzed during the OU 9 Phase I RFI/RI. Americium-241, gross alpha, plutonium-239/240, copper, and silver were detected above background values. Methylene chloride was the only organic detected above 1.0 microgram per liter (ug/L). Four boreholes were drilled around Tank T-29. Americium-241 and plutonium-239/240 were detected above background, at a depth of 0 to 6 inches in all four boreholes. Lead was detected above background concentrations in the western, eastern, and southeastern boreholes. Methylene chloride was the only VOC detected, at a level of 1 microgram per kilogram (ug/kg). Cadmium and silver were detected above background in the eastern borehole. A liquid sample was collected at the Tank T-29 vault. Gross beta, uranium-233/234, and uranium-235 had elevated activities and americium-241, gross alpha, plutonium-239/240, and uranium-238 had significantly elevated activities. There were also elevated levels of metals including arsenic, barium, beryllium, cadmium, copper, silver, strontium, and vanadium. There were significantly elevated levels of iron, lead, manganese, potassium, sodium, and zinc. Radiological samples of Tank T-29 showed results for removable alpha and beta contamination on the base of the tank ranging from 2,970 to 6,020 dpm/100 cm^2 for alpha and less than 200 to 263 dpm/100 cm^2 for beta. The sides near the base of the tank had significantly lower removable activities. These data are available in the IA Data Summary Report (DOE 2000a).
Eastern OPWL	000-121 Tank 31	000-2	Tank 31 was reportedly located directly south of Building 990 at the end of P-39. The P-39 line ran into a manway northeast of Building 990 labeled P-39MWC. No evidence indicating the presence of Tank 31 has been found, including information contained in the OU 9 reports or in the building Reconnaissance Level Characterization Report (RLCR). However, there was a waste water holding basin adjacent to Building 990 may have been mistakenly associated with the OPWL system. When Building 990 and the waste water holding basin were excavated and removed, no evidence of any OPWL was found. In addition, field surveys conducted during the IHSS Group 000-2 field project did not locate this tank and associated OPWL from the north; therefore, it was concluded that these purported components of the OPWL system did not exist.
700	IHSS 000-162 Radioactive Site 700 Area	000-2	IHSS 162 is located along Eighth Street and extends from the southern end of Building 771 to the northern end of Building 850. Radiochemical activity was identified during groundwater monitoring activities in 1974. In response to this activity, Eighth Street was paved over to prevent mobilization of the affected material. In January 1981, an air sample collected during excavation activities at Eighth Street and Central Avenue yielded a long-lived alpha activity concentration,

Area	IHSS/PAC	IHSS Group	Description
			indicating the presence of residual activity in the area. Excavation crews were required to wet the surface soil prior to removal to reduce airborne dispersion of the soil (DOE 1992-2004). No releases occurring in IHSS 162 south of the 700 Area are documented. However, there are at least 10 other IHSSs involving radioactive waste overlapping or in close proximity to this IHSS. According to the HRR (DOE 1992a), it is possible that releases in the surrounding IHSSs may have affected this IHSS. HPGe survey data for locations in IHSS 162 did not indicate elevated activities in southern portions of the IHSS. HPGe survey data at northern locations indicated elevated activities for Th-232, uranium-238, americium-241, and plutonium-239/240. The proximity to Building 569 may have influenced the measurements. Twenty-three surface soil samples were collected in and around IHSS 162 as part of IA RFI/RIs. Organics, inorganics, and radionuclides were detected. These data are available in the IA Data Summary Report (DOE 2000a).
100/400	PAC 100-602 Building 123 Process Waste Line Break	000-2	On April 13, 1989, Valve Vault 17, a component of the NPWL system, located on Cottonwood Avenue between Buildings 443 and 444, was found flooded with approximately 1,200 gallons of aqueous waste. Subsequent investigation showed the source of the waste was a break in the process waste line in Manhole 1, south of Building 123. Leakage from the break had migrated into bedding material surrounding the pipe and ultimately reached Valve Vault 17 through either pipe bedding materials (that is, soil), or a PVC electrical conduit. The release also migrated into a section of the abandoned OPWL network (IHSS 121). Discharge of Building 123 process waste into the broken line was discontinued on April 18, 1989, five days after the release to Valve Vault 17 was first detected. The potentially affected area includes the process waste line between Manhole 2 and Valve Vault 18 (immediately south of Building 123), the process waste line between Valve Vaults 18 and 17, soil around Valve Vaults 18 and 17, and the OPWL between Manholes 2 and 3. In July 1989, groundwater containing blue dye, used several months earlier to trace the release, was observed seeping into excavations around Valve Vault 18. According to one report, the release may also have reached the storm sewer system (DOE 2001b). The release consisted of Building 123 process waste. Based on typical daily quantities of wastes discharged from Building 123, the following materials were likely released to the environment: • 25 gallons urine; • 12.5 gallons nitric acid (HNO_3) (unknown concentration); • 20 gallons hydrochloric acid (HCl) (unknown concentration); • 1.5 pounds ammonium thiocyanate; • 1.0 pound ammonium iodide; and • 2.5 gallons ammonium hydroxide (unknown concentration). The above materials would have been diluted in approximately 2,000 gallons of tap water. After process waste discharge to the broken line was discontinued, soil sampling was conducted to determine the source and extent of the release. A temporary aboveground line was installed, and a replacement underground line was planned for completion by June 1, 1989. Minor amounts of naturally occurring uranium were detected in soil and water samples collected after the release. Up to 140 picocuries per liter (pCi/L) alpha activity was recorded in samples of the waste from Valve Vault 17. One water

Area	IHSS/PAC	IHSS Group	Description
			sample from a manhole south of Building 123 also contained 8 percent ethylene glycol. Because the affected areas were near existing IHSSs scheduled for investigation and remediation activities (see PAC 400-122 and PAC 100-148), no cleanup was initiated. The release was documented in RCRA Contingency Plan Implementation Report (CPIR) No. 89-003 and in Rocky Flats Plant Internal Investigation Report (IIR) No. 89-55.
700	IHSS 700-123.2 Valve Vault West of Building 707	000-2	In December 1958, a leak occurred at an OPWL elbow in the valve vault located west of the present location of Building 707. Process waste followed the containment pipe and flowed into a ditch to the northeast of the present location of Building 707. Up to 4,050 gallons of process waste were released. Leaks occurred in the elbow connections of the OPWL due to joint expansion following the introduction of steam condensate from Building 881. The elbow was repaired and the line remained in use for another 10 years. In March 1973, this valve pit was replaced as part of an upgrade program for this section of the OPWL system. Interviewees for the Comprehensive Environmental Assessment and Response Program (CEARP) Report (DOE 1986) indicated that this vault overflowed a number of times prior to 1973. The liquid released contained uranium, solvents, oil, beryllium, HNO_3, HCl acids, and fluoride. A soil sample collected at the valve pit west of Building 707 in 1976 indicated 54 milligram per kilogram (mg/kg) nitrate and 0.145 dpm plutonium. No documentation was found that further details response to this occurrence or other occurrences at this location.
700	IHSS 700-127 Low-Level Radioactive Waste Leak	000-2	Persons interviewed for the CEARP recalled construction activities near Building 774 and west of Pond 207-C that resulted in breaking a low-level radioactive waste discharge line several times. This line carried liquids from the process waste treatment facility (Building 774) to the sanitary waste water treatment plant (Building 995). On October 14, 1957, a line that carried process waste between Building 774 and a 200,000-gallon waste holding tank (Tank 207) leaked at a joint. It was determined that the joint had not been properly packed during construction. The joint was repaired and the excavation backfilled by November 5, 1957. Another leak was detected in 1971 when the waste line between Building 774 and Building 995 was pressure tested. The liquid waste that flowed from Building 774 to Building 995 was high in nitrate and had small amounts of plutonium. In April 1982, the leaking section of line was replaced. The location of IHSS 127 defined in the Interagency Agreement (IAG) did not correspond with the location of any process waste lines located on RFETS utility drawings. The HRR indicates the location of the process waste line between Building 774 and Building 995 is approximately 70 ft west of the previously identified IAG location. It was proposed that the location of IHSS 127 be redefined to coincide with the location of the process waste line discussed as PAC 700-127.
700	IHSS 700-147.1 Process Waste Line Leaks	000-2	On September 27, 1955, a possible leak in the OPWL north of Building 881 was reported. Approximately 1 ft of process waste water was present in a manhole. In June 1959, monitoring and environmental samples showed low-level contamination along the OPWL from Building 881 to Building 774. In February 1960, the OPWL from Building 881 ruptured, releasing waste in the construction area near Building 777. On October 27, 1964, there was a break in the OPWL from Building 881 to Building 774 and process waste water was pumped into a ditch around the parking lot. In October 1964, an excavation was made in the 776 parking lot. In November

Area	IHSS/PAC	IHSS Group	Description
			1964, contaminated liquid wastes were released into the sanitary sewer due to breaks and leaks in the process waste line from Buildings 441, 444, 881, and 883. A May 1971 report stated that the transfer line from Building 444 and Building 881 to Building 774 had broken and leaked several times during the past 20 years. The leaks generally occurred east of Eighth Street and north of Central Avenue. The report states that nitrate migration in the soil from the leaking transfer line was traced by samples collected from shallow wells. Groundwater samples collected from monitoring wells located at various points east of where breaks had occurred indicated several hundred parts per million (ppm) nitrate. Typical constituents of waste discharged into the process waste system include uranium, plutonium, beryllium, acids, and solvents.
700	IHSS 700-149.1 Effluent Line	000-1 000-2	In 1972, two 1.5-inch polyvinyl chloride (PVC) pipes were installed to transfer wastes between Building 774 and the 207 SEP. These lines were abandoned in place in 1980 after the vapor compression evaporator in Building 374 was constructed. While still in use, sometime during June or July 1973, a contractor broke the plastic line that ran from the evaporation ponds to Building 774. Repairs were made and the water continued to be drawn to the ponds. In the late 1970s, an Original Process Waste Line (OPWL) break southeast of Building 774 resulted in a release of liquid that flowed around to the front of the building. Another, more detailed document reports that on July 21, 1980, an eight-year-old process waste line was discovered leaking southeast of Building 774. Process wastewater was observed seeping into the soil on the south side of the road southeast of Building 774. The leaking process wastewater flowed down slope, through a 30-ft culvert, along the east chainlink fence, and under the fence at the corner. From this point, the liquid flowed under the unpaved access road into a boggy area, the 771/774 Footing Drain Pond, north of Building 774 (PAC 700-1108). The vegetation in the boggy area was damaged where the spilled liquid formed a pool. It was estimated that approximately 1,000 gallons had leaked from the process waste line. The initial response to the July 1980 incident was to stop the flow through the waste line causing the leak to stop. When the soil dried, a Field Instrument for the Detection of Low-Energy Radiation (FIDLER) survey was conducted and verified that the flow did not go beyond the 771/774 Footing Drain Pond. On July 24, the broken waste line was excavated and the problem identified as a loose flange. Soil excavation began July 28, 1980; as soil was excavated, it was surveyed with radiation monitors. Low-level radioactive wastes containing caustics and acids were released to the environment. Analysis of the spilled water from the July 1980 incident indicated 2,500 picocuries per liter (pCi/L) total alpha activity, 4,000 pCi/L gross beta activity, 10,000 milligrams per liter (mg/L) nitrate, and a pH of 12. Other than repair of the pipeline in 1973, documentation was not found for any other response to the pipeline leak. IHSS 149.1 was characterized in accordance with IASAP #IA 02-07 (SEP) (DOE 2002a) and # IA-03-01 (700-4) (DOE 2003f). Two hundred and seventy feet of P-26 north of Pond 207A was removed. The remaining pipe ends in the SEP area were grouted (DOE 2003a).

Area	IHSS/PAC	IHSS Group	Description
700	IHSS 101	000-1	OPWL and valve pits were located in the SEP area. Most of the lines were installed in the 1950s and 1960s and included P-26, P-35, P-36, P-37, P-38, P-48, P-49, and P-50. It was noted that some of these lines (P-26, P-36, P-37, and P-38) leaked. IHSS 149.1 includes part of P-26. As described in the Closeout Report for IHSS Group 000-1 (DOE 2003a), OPWL within 3 feet of the surface were removed. This includes 270 feet of P-26 north of Pond 207A, approximately ten feet of P-36/P-37/P-38 southeast of Pond 207C and the valve pit, and approximately 100 feet of small OPWL segments through out the SEP area were removed. Remaining pipe ends were grouted.
700	IHSS 149.1	000-1	A 1.5-inch PVC pipe was installed in 1972 to transfer wastes between Building 774 and the 207 SEP. This line was abandoned in place in 1980 after the vapor compression evaporator in Building 374 was constructed. While in use, the plastic line that ran from the evaporation ponds to Building 774 was broken and repaired. In the late 1970s, an OPWL break southeast of Building 774 also resulted in a release of liquid that flowed around to the front of the building. On July 21, 1980, an OPWL were discovered leaking southeast of Building 774. It was estimated that approximately 1,000 gallons had leaked from the process waste line. IHSS 149.1 was characterized in accordance with IASAP #IA 02-07 (SEP) (DOE 2002a) and # IA-03-01 (700-4) (DOE 2003f). Two hundred and seventy feet of P-26 north of Pond 207A was removed. The remaining pipe ends in the SEP area were grouted (DOE 2003a).
100/400	Tank 1	100-1	Tank T-1 was located, along the southern side of Building 122 near the southeastern corner. Tank T-1 was an 800-gallon, stainless-steel underground tank that was installed in 1955 and then removed in January 1984. It held waste streams from Building 122, the Medical Facility, including wastes such as trace radionuclides and decontamination water with constituents such as bleach, soap, blood, and hydrogen peroxide. Efforts were made to locate Tank 1 as part of the UBC 122 characterization project, however it was confirmed that the tank had previously been removed (DOE 2004a).
100/400	IHSS 148	100-4	The eastern wing of Building 123 was encompassed by IHSS 148. OPWL beneath the building (P-1 and P-2) and associated sumps were in use from the start of operations in Building 123 until the OPWL were replaced by the NPWL. Building 123 was serviced by a 4-inch-diameter process waste line (P-1) buried beneath the north and east wings of the building. P-1 drained from west to east in the north wing, and from north to south in the east wing. A number of connections were made to the main pipe, some of which consisted of headers servicing process waste drains in the building. All OPWL and sumps were removed (DOE 2003c).
100/400	PAC 100-611	100-4	An inoperative pump in the Building 123 process waste transfer system caused the Building 123 scrubber system to overflow, spilling several hundred gallons of scrubbing solution into a bermed area outside of the building and into three pits beneath the floor of the building. The OPWL and Manhole 2 in PAC 100-611 were removed (DOE 2003c).
100/400	Tank 4	400-3	Tank 4 - OPWL Process Waste Pits were located in the southwestern portion of Building 447 which was demolished in 2004. Tank 4 and the process waste pits were removed.
100/400	Tank 5	400-3	Tank 5 - OPWL Process Waste Tanks were located in the northeastern portion of Building 444 and consisted of two tanks each with a volume of 4,000 gallons Tank 5 was installed in 1952 and was removed before Building 444 was demolished in 2005.

Area	IHSS/PAC	IHSS Group	Description
100/400	Tank 6	400-3	Tank 6 - OPWL Process Waste Floor Sump and Foundation Drain Floor, was located in northeastern portion of Building 444. Tank 6 consisted of an OPWL floor sump, installed in 1953 and removed when Building 444 was demolished in 2005.
100/400	IHSS 122	400-8	IHSS 122 partially underlies Building 441 and extends south of the building encompassing Tanks T-2 and T-3. Tanks T-2 and T-3 were two interconnected underground tanks south of Building 441. Both tanks were constructed of reinforced concrete and had a combined capacity of approximately 12,000 gallons (DOE 1996). The tanks were part of the OPWL system and were used to handle waste from Building 123, Building 441, and possibly Buildings 122 and 444. Tanks T-2 and T-3 were installed in 1952 and abandoned in June 1982 after reportedly being decontaminated, filled with gravel, and covered with concrete (DOE 2001b). Tanks 2 and 3 were removed in November and December 2003 (DOE 2004b). Both tanks had concrete covers. Tank T-3 had been previously pumped, cleaned of sludge, rinsed, and filled with polyurethane foam (DOE 1996). The northern tank, Tank T-2 (3,000 gallons), consisted of two chambers: a wet well for settling and a chamber containing a limestone bed for pH control. The limestone bed may be the source of references to the tanks being filled with gravel. Tank T-2 was wholly or partially beneath Building 441. Tank T-3 (9,000 gallons) was an underground holding tank with a cover consisting of three enclosed chambers that gave access to a control valve, the tank itself, and transfer pumps. Chamber access from the surface was through steel cover-plates. Tank T-3 was located underground directly outside the Building 441 footprint. Flow was from the (Tank T-2) wet well to the limestone bed and then to the (Tank T-3) holding tank. Because of the conversion of Building 441 to an office, waste was no longer generated from this source. However, the tanks may have received waste from Building 123 as late as June 1966. The tanks were originally installed 60 feet south of Building 441. In 1966, the Building 441 addition was constructed over approximately 7.5 feet of the northern part of the tank system (DOE 2001b). At this time, a footing wall was laid over Tank T-2 to accommodate construction.
100/400	Tank 2	400-8	See IHSS 122 Tank 2 was removed in November and December 2003 (DOE 2004b).
100/400	Tank 3	400-8	See IHSS 122 Tank 3 was removed in November and December 2003 (DOE 2004b). Tank T-3 had been previously pumped, cleaned of sludge, rinsed, and filled with polyurethane foam (DOE 1996).
500	UBC 528	500-3	Building 528 housed two storage tanks (Tank 7) and that held process wastes from the Building 559 analytical laboratories and plenum deluge water from Building 561. The tanks were pumped to Building 374 for treatment. Wastes from Building 559 include wash water and expired reagents, such as ferric sulfate, HNO_3, and potassium hydroxide (KOH); aqueous standards from the laboratory sinks; a waste solution containing solvents and acids; and waste water from the decontamination room. Waste from occasional building cleanup, maintenance, and refurbishing activities was transported to Building 559 for eventual disposition (DOE 2001b). Building 528 and associated tanks were removed in 2005 (DOE 2005b).
500	IHSS 159	500-3	IHSS 159 was located directly east of Building 559. When Building 559 began operation in March 1968, the OPWL consisted of Pyrex glass lines beneath the building and adjacent support buildings. Less than 1 year later, a break was discovered in the process waste line from the building to the pump house. In May

Area	IHSS/PAC	IHSS Group	Description
			1972, the southern half of the process waste line beneath Building 559 was discovered to be leaking. Additionally, the rupture of the process waste line from Building 559 to the process waste tank valve pit resulted in soil contamination. Typically, process waste consists of an aqueous solution with radioactive constituents. In 1968several hundred square feet of contaminated soil from over and around the process waste line to the process waste tank pit was removed. In 1972, a PVC pipe bypass of the Pyrex line beneath the south half of Building 559 was installed and the remaining lines were static leak-tested. In May 1972, 82 drums of contaminated soil were removed from over and around the process waste line from Building 559 to the process waste tank pit south of the building and disposed off site. The soil under the process waste line was not removed. Also in May 1972, the pit building was decontaminated. The OPWL P-17 and contaminated soil in IHSS 159 were removed in 2005 (DOE2005b).
500	Tank 7	500-3	Tank 7 was located within Building 528, which was referred to as the Building 559 Process Waste Pit, approximately 30 ft southeast of Building 559. Tank 7 consisted of two 2,000-gallon, in-sump steel tanks within an underground concrete vault. Tank 7 was reportedly installed in 1969 and received waste streams from Building 559, the Analytical Laboratory, including acids, bases, solvents, radionuclides, metals, pesticides, herbicides, and possibly PCBs. Building 528 and Tank 7 were removed in 2005 (DOE 2005b).
500	Tanks 33, 34, and 35	500-3	Based on field reconnaissance, it was concluded that these three tanks were a single tank located in the northwestern portion of Building 561. According to the Version 7.0 WSRIC Report, the function of the tank was to hold deluge water in case of a plenum fire in any of the four plenums housed in Building 561. Because this event did not occur, the tank was reportedly never used (DOE 2005b). These tanks were removed in 2005 (DOE 2005b).
700	Tanks 11 and 30	700-2	Tanks T-11 and T-30 were located on the eastern side of Building 707 in Building 731, which was referred to as the Building 707 Process Waste Pit. Tank T-11was composed of two 2,000-gallon concrete tanks within Building 731. Tank T-30 consisted of a 23,111-gallon underground concrete structure and a 100-gallon concrete sump. Tanks T-11 and T-30 were installed in 1959. In 1975, the concrete tanks were partially removed. The concrete wall separating the two tanks was removed along with part of the concrete tank surface, and new concrete was poured into the old process waste tanks and the 100-gallon sump. Recently, the area of the old process waste tanks served as a secondary containment for the Building 707 process waste and plenum deluge tanks. Original waste streams for these tanks originated from Building 707, including solvents, radionuclides, metals, and other wastes. A 100-gallon steel tank was reportedly filled with Raschig rings and was used to contain fire deluge from Building 707 but did not reportedly receive process waste. The piping that connected with this tank was removed in 1975. Any leak from this tank would have flowed to the T-11 and T-30 tanks. Tanks 11 and 30 along with Building 731 were removed (DOE 2005c).
700	UBC 707	700-2	OPWL P-14, P-15, and P-19 were present within IHSS Group 700-2. Several small segments of P-19 were removed. All other OPWL were left in place. The ends of all OPWL lines were grouted (DOE 2005c).

Area	IHSS/PAC	IHSS Group	Description
700	Tanks 9 and 10	700-3	Tanks T-9 and T-10 (also known as Tanks 776A/776C and 776B776D were located in Building 730, which was referred to as the Building 776 Process Waste Pit. These tanks were approximately 50 ft north of Building 776 and approximately 30 ft east of Building 701. Tank T-9 consisted of one 22,500-gallon underground concrete tank and one 4,500 gallon concrete underground storage tank. Tank T-10 consisted of one 4,500-gallon concrete underground tank. The T-9 tanks were installed in 1955 and were taken out of service in October 1984, at which time both chambers were cleaned, painted, and converted to plenum deluge catch tanks. These tanks originally received laundry waste from Building 778. The T-10 tanks were installed in 1955 and were abandoned in December 1982; however, these tanks reportedly were not cleaned when abandoned. Tank T-10 received waste streams from Building 776, Production Support, and Building 778, the Laundry. Waste streams for both sets of tanks included radionuclides, solvents, metals, and limited amounts of machinery and lubricating oils. Both T-9 and T-10 were removed during demolition of Building 730.
700	Tank 18		The Tank 18 sump was located at the west end of Building 778 where the laundry was located (DOE 2005g). The laundry was added to the building when plutonium laundry operations were consolidated on site. Decontaminated respirators were also cleaned in Building 778. Laundry wastewater was sent to Building 774, and later to Building 374, via the tank sump. When the Site first began operations, laundry wastes were discharged directly to North Walnut Creek. It is not known whether the tank sump leaked. Tank 18 and the tank sump was removed prior to building demolition (DOE 2005h)
700	IHSS 126.1 and 126.2		The westernmost and easternmost out-of-service process waste tanks (Tank 8) were housed below grade in Building 728. Tank 8 was located in the 700 Area within Building 728, which was referred to as the Building 771 Process Waste Pit. It was located approximately 30 ft north of Building 771. Tank 8 was also referred to as the westernmost and easternmost out-of-service process waste tanks. Tank 8 was housed below grade in Building 728. Tank 8 consisted of two 25,000-gallon underground concrete tanks. For clarity, these two tanks were designated T-8 (west) and T-8 (east). The combined exterior tank dimensions were 33 ft 6 inches (east-west) by 23 ft 5 inches (north-south) and 11 ft 8 inches high. The ceiling and wall thickness was 10 inches and the floor thickness was 1 ft. The tanks shared the inner wall. The bottom elevation of the tanks' interior was at 5,931 ft. The tanks were designed with a minimum cover of 3 ft of fill except for the area overlain by the building. The original design indicated that two pipes enter each tank from the south. The invert elevations of the pipes where they entered the tanks were 5,939 and 5,938 ft. The tanks had stored laundry water from the Building 771 laundry facility which ceased operations in the late 1950s. The pump house (Building 728) was a concrete structure situated directly above the tanks with dimensions of 14 ft 10 inches (east-west) by 7 ft 10 inches (north-south) and 7 ft 6 inches high. The south wall of the pump house was above the south wall of the tanks and contained manholes for access into the tanks and one sump pump for each tank as well as one sampling point into each tank. The pump house was partially underground so it did not appear as large as its dimensions indicate. Liquid process wastes that likely contained nitrate, plutonium, uranium, and various other organic and inorganic constituents were released to the environment. Building 728 and Tank 8 were removed in 2004.
700	Tank 8	700-4	Tank 8 was located in the 700 Area within Building 728, which was referred to as the Building 771 Process Waste Pit. It was located approximately 30 ft north of Building 771. Tank 8 was also referred to as the westernmost and easternmost out-of-service process waste tanks. Tank 8 was housed below grade in Building 728. Tank 8

Area	IHSS/PAC	IHSS Group	Description
			consisted of two 25,000-gallon underground concrete tanks. For clarity, these two tanks were designated T-8 (west) and T-8 (east). The combined exterior tank dimensions were 33 ft 6 inches (east-west) by 23 ft 5 inches (north-south) and 11 ft 8 inches high. The ceiling and wall thickness was 10 inches and the floor thickness was 1 ft. The tanks shared the inner wall. The bottom elevation of the tanks' interior was at 5,931 ft. The tanks were designed with a minimum cover of 3 ft of fill except for the area overlain by the building. The original design indicated that two pipes enter each tank from the south. The invert elevations of the pipes where they entered the tanks were 5,939 and 5,938 ft. The tanks had stored laundry water from the Building 771 laundry facility which ceased operations in the late 1950s. These two tanks were installed in 1952 and were reportedly taken out of service in May 1984, cleaned, painted, and converted to plenum deluge catch tanks for fire water from Building 771. The tanks originally received waste streams from Building 771, the plutonium and uranium Recovery Building, including radionuclides, acids, bases, solvents, metals, fuel oil, lubricating oil, PCBs, and photography laboratory wastes. Building 728 and Tank 8 was removed in 2004 (DOE 2005h).
700	Tank 12	700-4	Tank 12 was located at the northeastern corner of Building 771 at the northern end of OPWL P-22. Tank 12 consisted of two abandoned 20,000-gallon underground concrete tanks. Tank 12 was removed in 2004. (DOE 2005h).
700	Tank 13	700-4	Tank 13 was a 600 gallon abandoned sump located in Building 774. The sump was abandoned in 1972. The sump was removed in 2004 (DOE 2005h).
700	Tanks 14 and 16	700-4	Tanks T-14 and T-16 were located in the 700 Area on the eastern side of Building 774 underlying a chemical storage shed. Tank T-14, which was designated by RFETS as Tank 68, was a 30,000-gallon concrete underground tank. Tank T-16 consists of two 14,000-gallon concrete underground tanks underlying the chemical storage shed to the north of Tank T-14. The northernmost T-16 tank, which was referred to as T-16 (north), is designated by RFETS as Tank 66, while the other T-16 tank, which was referred to as T-16 (south), was designated by RFETS as Tank 67. These tanks were installed in 1952 and were reportedly abandoned in November 1989. The HRR (DOE 1992a) indicates that the tanks were to be closed in compliance with RCRA closure requirements, although confirmation of this is unavailable. These tanks were reportedly removed from the list of RCRA-permitted or RCRA interim status tanks before closure was conducted and were then transferred to OU 9. The tanks received waste streams from Building 774, the Process Waste Treatment Facility, including acids, bases, radionuclides, metals, and other wastes from RFETS processes. Releases from the tanks were documented, specifically from tank overflows in 1980 and 1981(DOE 1992a). The tanks and underlying contaminated soil were removed in 2003 (DOE 2004d). These tanks are also considered IHSSs 124.1, 124.2, and 124.3.
700	IHSSs 124.1, 124.2 and 124.3		IHSS 124.1 included Tank 68, a 30,000-gallon concrete underground tank. IHSS 124.2 consisted of Tank 66 a 14,000 gallon concrete underground tank, and IHSS 124.3 consisted of Tank 67 a 14,000 gallon concrete underground tank. These tanks were installed in 1952 and were reportedly abandoned in November 1989. The HRR (DOE 1992a) indicates that the tanks were to be closed in compliance with RCRA closure requirements, although confirmation of this is unavailable. These tanks were reportedly removed from the list of RCRA-permitted or RCRA interim status tanks before closure was conducted and were then transferred to OU 9. The tanks received waste streams from Building 774, the Process Waste Treatment Facility, including acids, bases, radionuclides, metals, and other wastes from RFETS processes. Releases from the tanks were documented, specifically from

Area	IHSS/PAC	IHSS Group	Description
			tank overflows in 1980 and 1981(DOE 1992a). The tanks and underlying contaminated soil were removed in 2003 (DOE 2004d).
700	Tank 15	700-4	Tank 15 consisted of two 7,500-Gallon Process Waste Tanks also referred to as 34W and 34E. Tank 15 was located in the southern portion of Building 774 and was reportedly used for americium solutions. The tanks were removed in 1974 when an addition was added to Building 774.
700	Tank 17	700-4	Tank 17 consisted of four concrete process waste tanks also referred to as 30, 31, 32, and 33. Tank 17 was located in the southern portion of Building 774 and was reportedly used for americium solutions. The tanks were removed in 1974 when an addition was added to Building 774.
700	Tank 36	700-4	Tank 36 was a steel carbon tetrachloride sump located in the western portion of Building 774. Tank 36 was removed in 2004 (DOE 2005h).
700	Tank 37	700-4	Tank 37 was a steel-lined concrete sump located in the western portion of Building 774. Tank 36 was removed in 2004 (DOE 2005h).
700	IHSSs 146.1 through 146.6	700-4	Six underground process waste holding tanks were located south of the original Building 774. Building 774, a liquid waste processing facility, was modified several times since its construction in 1952. During the construction of a southern addition in 1972, the tanks were removed. PAC 700-146 represents a six-chambered reinforced concrete structure south of Building 774. The chambers of the structure were referred to as Tanks 30, 31, 32, 33, 34W, and 34E. Tanks 30 and 33 had a 3,000-gallon capacity. The others had a 6,000-gallon capacity. It is unclear when they were first placed into service. Liquid waste was transferred to or from the tanks through OPWL. The area occupied by the tanks was 22.5 ft (east-west) by 32.5 ft (north-south). The walls of the tanks were 11 ft 8 inches high and the floor of the tanks was at the same approximate height as the second floor of Building 774. Ground elevation to the south of the tanks was approximately 5,965 ft. The ground surface south of Building 774 sloped steeply to the north and levels out near the top of the tanks. The process waste stored in the tanks was an aqueous solution with plutonium, uranium, acids, and caustics.
700	Tanks 19 and 20	700-7	Tanks 19, and 20 were located within the Building 779 subbasement and were believed to constitute two of four subbasement pits that contained process tanks (1A, 2A, 2B, and the T5 tank pit) (DOE 2004e). The process tanks were removed just prior to the FY00 building demolition (DOE 2000b). Inspection of the sub-basement during the IHSS Group 700-7 accelerated action confirmed no stand-alone tanks were present (DOE 2004e). Tank 19 consisted of two 1,000-gallon concrete sumps and Tank 20 consisted of two 8,000 gallon concrete sumps. Tanks 19 and 20 and four sumps were flow filled when the basement was flow filled and left in place.
700	Tank 38	700-7	Tank 38, a 1,000 gallon steel tank, was located within the Building 779 Tank 38 was one of several tanks located within the Building 779 concrete subbasement. The tank was removed just prior to the FY00 building demolition (DOE 2000b). Inspection of the sub-basement during the IHSS Group 700-7 accelerated action confirmed no tanks were present (DOE 2004e).
800	PAC 800-1204	800-1	PAC 1204 was located to the west and north of Building 865. PAC 1204 included Building 866 which held five process waste tanks that serviced Buildings 865 and 889. The tanks in Building 866 were closed pursuant to RCRA and removed prior to building demolition, which occurred during 2003 (DOE 2004f).
800	Tank 23	800-1	Tank 23 was located in Building 865 was a 6,000-gallon concrete tank. The tank in Building 865 was removed prior to building demolition, which occurred during 2003 (DOE 2004f). All OPWL were removed from beneath the building.

Area	IHSS/PAC	IHSS Group	Description
800	Tank 24 and Tank 32	800-2	Tank-24 and Tank-32 were located in Building 887 and the Building 881 Process Waste Pit. Tank T-32 was a 131,160-gallon concrete vault underlying Building 887 and served as secondary containment for the seven 2,700-gallon aboveground tanks (T-24 was one of the seven ASTs). Tanks T-24 and T-32 were installed in 1952 and received waste streams from Building 881, including radionuclides, solvents, metals, acids, bases, oils, and PCBs. Process waste from these tanks and tank pit was pumped uphill through P54. Tanks 24 and 32 as well as the OPWL north of these tanks were removed.
800	Tank 39	800-2	Tank 39 consisted of four 250-gallon steel process waste tanks located in Building 881. The tanks were reportedly removed in 1972.
800	Tanks 25 and 26	800-3	Tank 25 consisted of three 750-gallon steel tanks (also referred to as Tanks 18, 19) and Tank 26 consisted of three 750-gallon steel tanks (also referred to as Tanks 24, 25, 26) located in Building 883. These tanks had been removed prior to building demolition (DOE 2005e).
800	UBC 886	800-4	Building 886 contained several OPWL components, including Building 828, a below-grade concrete vault containing a sump, process waste tanks, and associated process waste lines. Tank T-21 was a 250-gallon floor sump located in the southeastern corner of the vault. Tank T-22 consisted of two, 250-gallon stainless steel tanks located on the floor of the vault. Tank T-27 was a 500-gallon portable tank that was located on a concrete pad north of Building 828. This tank was used to transfer process waste from Tanks T-21 and T-22 to the Site waste treatment facility. Tanks T-21 and T-22 were installed in 1963 and abandoned in 1978. It is unknown when Tank T-27 was installed. Tank T-22 held waste from the laboratories in Building 886, including radionuclides, laboratory soaps, janitorial cleaning fluids, and possible nitrates. Tank T-21 captured overflow from T-22. Tanks 21 and 22 were removed along with Building 828 and the associated OPWL in accordance with the IM/IRA Action Plan for the Building 886 Cluster (DOE 2003o). Tank 27 was decontaminated and removed in 1989 (DOE 2003o).
800	Tank 21 and Tank 22	800-6	Tank T-21 was a 250-gallon floor sump located in the southeastern corner of the vault. Tank T-22 consisted of two, 250-gallon stainless steel tanks located on the floor of the vault. Tanks T-21 and T-22 were installed in 1963 and abandoned in 1978. Tank T-22 held waste from the laboratories in Building 886, including radionuclides, laboratory soaps, janitorial cleaning fluids, and possible nitrates. Tank T-21 captured overflow from T-22. Tanks 21 and 22 were removed along with Building 828 and the associated OPWL in accordance with the IM/IRA Action Plan for the Building 886 Cluster (DOE 2003o).
800	Tank 27	800-4	Tank T-27 was a 500-gallon portable tank that was located on a concrete pad north of Building 828. This tank was used to transfer process waste from Tanks T-21 and T-22 to the Site waste treatment facility. It is unknown when Tank T-27 was installed. Tank 27 was decontaminated and removed in 1989 (DOE 2003o).
800	UBC 887	800-5	Building 887 housed process waste and sanitary waste holding tanks. Tank-24 and Tank-32 were located in Building 887 and the Building 881 Process Waste Pit. Tank T-32 was a 131,160-gallon concrete vault underlying Building 887 and served as secondary containment for the seven 2,700-gallon aboveground tanks (T-24 was one of the seven ASTs). Tanks T-24 and T-32 were installed in 1952 and received waste streams from Building 881, including radionuclides, solvents, metals, acids, bases, oils, and PCBs. Process waste from these tanks and tank pit was pumped uphill through P54. Tanks 24 and 32 as well as the OPWL north of these tanks were removed.

Area	IHSS/PAC	IHSS Group	Description
800	Tank 28	800-6	Tank 28 consisted of two 1,000-gallon concrete sumps located in Building 889. During Building 889 demolition, these sumps were removed, sprayed with Instacote™ and disposed of (DOE 2003p). Additionally, the portion of OPWL P-10 under the Building 889 slab was removed. The remaining end was filled with grout (DOE 2003p).
800	Tank 40	800-6	Tank T-40 was located west of Building 889. Tank T-40 was reportedly installed in the mid-1950s and was abandoned in 1981 or 1982. The tank consisted of two 400-gallon underground concrete tanks underlying a concrete vault approximately 7 ft deep. The two tanks were emptied, rinsed, and foamed in 1996. Tank 40 and the associated sump were removed in 2002 sprayed with Instacote™ and disposed of (DOE 2003p).
Eastern OPWL	IHSS Group NE-1	NE-1	The "Pond B-1 Dam Hot Spot" was located on the eastern side of the dam near the OPWL discharge point into Pond B-2. The OPWL has been removed from this area.

1.2 Accelerated Action

Based on historical information, anions/cations, glycol, herbicides, metals, PCBs, pesticides, radionuclides, sulfides, SVOCs, and VOCs were identified as potential contaminants of concern (PCOCs) in IHSS Group 000-2 soil and were the focus of accelerated actions conducted under IASAP Addendum #IA-03-11 (DOE 2003q) and other IASAP addenda (Table 1).

The sampling design specified in IASAP Addendum #IA-03-11 (DOE 2003q) and other addenda (Table 1) was based on RFCA Attachment 14 (DOE et al. 2003) and included the following elements:

- Soil associated with OPWL between 3 and 6 feet below the surface in areas with reported leaks will be characterized to 8 feet below the surface in accordance with the IASAP (DOE 2001b) at the leak location;
- If initial characterization results indicate soil activity is greater than 3 nanocuries per gram (nCi/g), additional sampling will be conducted as follows:
  - At locations perpendicular to the pipe run and 2 meters from the original sampling location;
  - At locations between 5 and 10 meters on either side of the original sampling location; and
  - At locations to adequately characterize soil to implement the SSRS (RFCA Attachment 5 [DOE et al. 2003]) based on step-out sampling.
- Soil associated with OPWLs will be characterized in accordance with the IASAP (DOE 2001b).

Based on the consultative process several sampling locations that targeted OPWL were sampled at deeper intervals, as necessary.

The known and suspected leak locations described in RFCA Attachment 14 and the ER RSOP Notification #03-14 (DOE 2003s) are shown on Figure 2. Known and suspected

OPWL leak locations and associated sampling locations are listed in Table 3. Twenty-three reported and 24 suspected OPWL leak locations were sampled in accordance with other IASAP Addenda listed in Table 3. Three RFCA-specified suspected leaks were not sampled as determined through the consultative process; however, three additional sampling locations were added along line P-15.

Table 3
Reported or Suspected OPWL Leaks

Leak Designation	IHSS Group	SAP Addendum	Sampling Location	Leak Description
Reported Leaks				
P14-1	000-2 IHSS 123.2	IA-03-11	CE42-002	Acid leaks at intersection of P-12 and P-14.
P-19-1	700-3	IA-03-04	CG44-005	Valve pit northeast of Building 707.
P-20-1	700-3	IA-03-04	CG46-006	Reported release at intersection of P-20 and P-21.
			CG48-018	
P-20-2	700-3	IA-03-04	CG46-005	Valve pit northeast of Building 707.
			CG46-017	
P-23-1	700-4	IA-03-01	CE49-000	Reported leak at Tank T-8.
P-27-1	700-3	IA-03-04	CH47-000	Reported release at intersection of P-27 and P-28.
P-27-5	700-4	IA-03-01	CH48-054	Leak south of road on July 21, 1980. Process wastewater flowed through a 30-foot culvert along fence and around to north side of Building 774 where it ended up in Bowman's Pond. Approximately 1,000 gallons leaked. Sampling indicated 2,500 pCi/L total alpha, 4,000 pCi/L total beta, 10,000 mg/L nitrate and a pH of 12.
P-29-1	700-4	IA-03-01	CH48-017	Area around Tanks T-14 and T-16 reported as area of release.
			CH48-018	
			CH48-019	
P-34-1	700-4	IA-03-01	CG48-004	Reported release at intersection of P-33 and P-34.
P-34-2	700-3	IA-03-11	CG48-004	Reported release at intersection of P-25 and P-34.
			CG47-005	
P-34-3	700-4	IA-03-01	CG48-005	Reported release in area of T-15 and T-17.
P-36-1	700-3	IA-03-04	CG46-007	Release reported at intersection of P-36 and P-20.
P-36-2	000-1	IA-02-07	CJ46-000	Release reported at valve pit west of Pond 207A.
			CJ46-001	
			CJ46-002	
			CJ46-003	
			CJ46-004	
			CJ46-057	
P-37-3	700-3	IA-03-04	CH46-052	Valves north of Building 777 were found to be leaking at a rate of 25 gallons per hour at 20 psig during leak testing.
P-42-1	700-3	IA-03-04	CH46-002	Reported release at intersection of P-42 and P-37.

Leak Designation	IHSS Group	SAP Addendum	Sampling Location	Leak Description
			CH46-047	
			CH46-001	
P-42-3	700-3	IA-03-04	CH46-000	Valves on south side of Tank T-29 (207) reported to be leaking.
			CH46-036	
P-43-1	700-3	IA-03-04	CH47-001	Leak reported at valve pit north of Tank T-29 (207).
P-43-2	700-3	IA-03-04	CH46-003	Leak reported at valve pit southwest of Tank T-29 (207).
			CH46-036	
P-4-1	400-8	IA-03-01	BV38-004	Leak at intersection of P-4 and Tank T-3.
			BV38-003	
			BV38-014	
P-4-2	000-2	IA-03-11	CE38-000	Leak at intersection of P-4 and P-6. There is a manhole at this location that is 8 feet deep.
			CE38-001	
P-4-8	400-8	IA-03-01	BW38-002	Leak 30 feet east of driveway south of Building 441.
			BW38-008	
P-4-12	400-8	IA-03-01	BW38-001	Leak at check valve south of Building 441.
P-4-18	400-8	IA-03-01	BW38-002	Leak 31 feet east of driveway behind Building 441. This is likely in the same area as P4-8 above and could be the same leak.
			BW38-008	
P-4-19	400-8	IA-03-01	BW38-004	Leak reported 94 feet east of driveway behind Building 441.
P-5-1	400-3	IA-03-12	BY37-000	Leak occurred 8 feet inside fence toward Building 444.
P-5-2	400-3	IA-03-6	BX37-000	Possible leak found from leak test 8 feet out from Building 444.
P-40-2	000-2	IA-03-6	CW46-000	Leak reported at settling tank near B-2 pond. This line has been removed in this area.
			CW46-001	
Suspected Leaks				
P-4	000-2	IA-03-11	BW38-005	Leaks suspected at entire line.
			BW38-008	
			BX38-024	
			BX38-026	
			BX38-037	
			BY38-012	
			BY38-013	
			BY38-016	
			BZ38-014	
			CA38-011	
			CA38-012	
			CB38-006	
			CB38-007	
			CB38-008	
			CC38-000	
			CD38-000	

Leak Designation	IHSS Group	SAP Addendum	Sampling Location	Leak Description
			CD38-001	
			CD38-002	
			CE38-002-01	
P-14	700-2	IA-03-16	CE42-000	Leaks suspected at entire line.
			CE42-001	
			CF43-000	
			CF43-001	
			CG44-008	
			CG44-009	
			CG45-014	
P-15	700-2	IA-03-16	CE44-013	Leaks suspected at entire line.
			CF44-014	
			CF44-027	
			CG45-005	
P-16	500-3	IA-03-12	CE43-000	Leaks suspected at line/tank intersection.
			CE43-002	
P-17	500-3	IA-03-12	CD44-001	Leaks suspected at pipe join.
			CD43-018	
			CD43-054	
			CD43-055	
			CG43-030	
P-25/28/34	N/A	N/A	N/A	Leak not at a line or tank – not sampled.
P-26	000-1	IA-02-07	CH48-000	Leaks suspected at entire line.
			CH48-016	
			CH48-020	
			CH48-021	
			CH48-051	
			CI48-000	
			CI48-001	
			CI48-002	
			CI48-039	
			CI48-040	
			CJ48-041	
P-27	700-4	IA-03-01	CH48-022	P-27: Entire line was identified as an area of a reported release.
			CH48-023	
P-28	000-2	IA-03-11	CH47-003	Leaks suspected at entire line.
			CH47-006	
			CH48-024	
P-29	700-4	IA-03-01	CH46-009	A leak of 45 gallons per hour at a pressure of 20 psig detected during a 1971 leak test.
			CH47-000	
			CH47-003	
			CG47-006	
			CG47-044	
			CH48-022	

Leak Designation	IHSS Group	SAP Addendum	Sampling Location	Leak Description
			CH48-023	
			CH48-024	
P-32	700-3	IA-03-04	CF45-018	Leak suspected at pipe join.
			CF46-029	
P-34.1	700-3	IA-03-011	CH47-005	Leak suspected at line segment.
			CG47-035	
			CH47-044	
P-36/37/38	700-7	IA-03-15	CJ46-051	Leak suspected at pipe join.
			CJ46-056	
P-37	000-1	IA-02-07	CI46-000	North half of line west of Pond 207A has been reported as an area of release.
			CI46-001	
			CJ46-056	
P-38	700-7	IA-03-15	CI46-000	Leak suspected at line segment.
			CI46-001	
			CJ46-051	
			CJ46-056	
P-39	000-2	IA-03-11	CQ44-000	Leaks suspected at east outfall.
			CQ44-001	
			CQ44-002	
			CR44-000	
			CQ44-003	
			CP44-000	
			CR45-005	
P-40	000-2	IA-03-11	CV46-000	Leaks suspected at east outfall.
			CV46-001	
			CT45-000	
			CS45-000	
			CP44-002	
P-41	700-3	IA-03-04	CH46-013	Pipeline west of Building 779 identified as an area where a release occurred.
			CH46-012	
			CH46-011	
			CH45-001	
P-42	700-7	IA-03-15	CH45-001	Area around Building 779 was reported to have a pipeline release.
			CH46-011	
			CH46-012	
			CH46-013	
P-43 Tank 29 (Tank 207)	700-3	IA-03-04 and IA-03-11	CH46-010	Leaks suspected at pipe join.
			CH46-014	
			CH46-015	
			CH46-007	
			CH46-008	
			CH46-009	
			CH46-061	

Leak Designation	IHSS Group	SAP Addendum	Sampling Location	Leak Description
P-44	700-3	IA-03-04 and IA-03-11	CH46-000	Pipeline in area east of Building 703 reported to have a leak.
			CH46-010	
			CH46-015	
			CH46-036	
			CH46-048	
			CH46-061	
P-45	700-3	IA-03-11	CH46-014	Pipeline in area east of Building 703 reported to have a leak.
			CH46-015	
			CH46-038	
			CH46-046	
			CH47-051	

Soil samples related to OPWL were obtained from 449 locations. Fifty-six analyte detections associated with OPWL were reported at concentrations or activities greater than RFCA WRW soil ALs. A summary of accelerated action sampling and analyses is presented in Table 4.

Table 4
IHSS Group 000-2 Accelerated Action
Soil Sampling and Analysis Summary

Category	Planned Total	Actual Total
Number of Sampling Locations	**35** (IHSS Group 000-2 IASAP Addendum only)	**34** (IHSS Group 000-2 IASAP Addendum only) **415** (additional locations under IHSS Group 000-2 and other IHSS Groups) **449 Total**
Number of Samples	**42** (IHSS Group 000-2 IASAP Addendum only)	**41** (IHSS Group 000-2 IASAP Addendum only) **614** (additional samples under IHSS Group 000-2 and other IHSS Groups) **655 Total**
Number of Metals Analyses (SW-846 6010, 6010B, or 6200)	**42** (IHSS Group 000-2 IASAP Addendum Only)	**42** (IHSS Group 000-2 IASAP Addendum only) **517** (additional locations under IHSS Group 000-2 and other IHSS Groups)
Number of Radionuclide Analyses (alpha or gamma spectroscopy)	**42** (IHSS Group 000-2 IASAP Addendum Only)	**48** (IHSS Group 000-2 IASAP Addendum only) **699** (additional locations under IHSS Group 000-2 and other IHSS Groups)
Number of SVOC Analyses (SW-846 8270 or 8270B)	**3** (IHSS Group 000-2 IASAP Addendum Only)	**4** (IHSS Group 000-2 IASAP Addendum only) **149** (additional locations under IHSS Group 000-2 and other IHSS Groups)
Number of VOC Analyses (SW-846 8015A or 8260)	**39** (IHSS Group 000-2 IASAP Addendum Only)	**39** (IHSS Group 000-2 IASAP Addendum only) **427** (additional locations under IHSS Group 000-2 and other IHSS Groups)
Number of PCB Analyses (SW-846 8082)	None Proposed in IHSS Group 000-2 IASAP Addendum	**0** (IHSS Group 000-2 IASAP Addendum only) **30** (additional locations under IHSS Group 000-2 and other IHSS Groups)
Number of Pesticide Analyses (SW-846 8081)	None Proposed in IHSS Group 000-2 IASAP Addendum	**0** (IHSS Group 000-2 IASAP Addendum only) **2** (additional locations under IHSS Group 000-2 and other IHSS Groups)
Number of Herbicide Analyses (SW-846 8151A)	None Proposed in IHSS Group 000-2 IASAP Addendum	**0** (IHSS Group 000-2 IASAP Addendum only) **2** (additional locations under IHSS Group 000-2 and other IHSS Groups)
Number of Miscellaneous Analyses (Cyanide-SW9012B or SW9012A; Total Sulfides-SW9034 or SW9215 Prep SW9030B; Bromide, Chloride, Fluoride, ortho-Phosphate, and Sulfate SW9056 or E300.0 Prep E300.0)	None Proposed in IHSS Group 000-2 IASAP Addendum	**0** (IHSS Group 000-2 IASAP Addendum only) **14** (additional locations under IHSS Group 000-2 and other IHSS Groups)
Number of Nitrate/Nitrite Analyses (SW9056 or E300.0 Prep E300.0)	None Proposed in IHSS Group 000-2 IASAP Addendum	**0** (IHSS Group 000-2 IASAP Addendum only) **72** (additional locations under IHSS Group000-2 and other IHSS Groups)

Accelerated action objectives were developed for IHSS Group 000-2 and are described in ER RSOP Notification #03-14 (DOE 2003s) and RSOP Notifications for other IHSS Groups (Table 1).

The ER RSOP remedial action objectives (RAOs) included the following:

- Provide a remedy consistent with the RFETS goal of protection of human health and the environment;
- Provide a remedy that minimizes the need for long-term maintenance and institutional or engineering controls; and
- Minimize the spread of contaminants during implementation of accelerated actions.

The accelerated action remediation goals for IHSS Group 000-2 included the following:

- Remove all OPWL within 3 ft of the existing grade in accordance with RFCA Attachment 14 (DOE et al. 2003). Record the actual depth, elevation, composition, condition, and dimensions of OPWL components encountered, and the length of pipe removed. Collect confirmation samples in accordance with the IASAP (DOE 2001b).
- Remove OPWL valve pits and manways down to a minimum of 6 ft bgs. Remove OPWL valve pits deeper than 6 ft-bgs to the extent practicable in accordance with RFCA Attachment 14 (DOE et al. 2003), giving due consideration to the safety of workers. Collect confirmation samples in accordance with the IASAP (DOE 2001b).
- After an OPWL or associated valve pit is opened, and where safe and practical, the pipe will be grouted or foamed to minimize the possibility of mobilizing contamination inside of the OPWL. Conduct radiation surveys at all pipe ends. Record the coordinates of pipes ends and the grouting material used.
- Sample and analyze liquids that are found in OPWL components and require disposition. To minimize the risk of mobilizing and transporting contaminants into subsurface soil, flushing the OPWL is not anticipated or required.
- Remove soil contaminated with concentrations of plutonium and americium above the RFCA WRW soil ALs resulting from any leaks from OPWL within 3 ft of the ground surface to a depth of 3 ft in accordance with RFCA Attachment 14 (DOE et al. 2003).
- If the plutonium activity is greater than 3 nCi/g between 3 and 6 ft bgs and the areal or volumetric extent of contamination exceeds the trigger values provided in Attachment 14, Table A14-1 (DOE et al. 2003), remove radionuclide contamination to less than 1 nCi/g. If plutonium or americium is present below 6 ft, conduct a SSRS.
- If nonradionuclide or uranium contaminant concentrations greater than the RFCA WRW soil ALs extend below 6 inches from the surface, perform the SSRS to evaluate the potential risk of exposure and need for further accelerated action.
- If contaminated soil is removed, collect confirmation soil samples in accordance with the IASAP (DOE 2001b).

ER accelerated action activities were conducted at IHSS Group 000-2 between February 2002 and July 2005. Starting and ending dates of significant activities are listed in Table 5. Photographs of site activities are presented in Appendix B. All accelerated action objectives were achieved. Removal activities are described below.

Table 5
IHSS Group 000-2 and Other IHSS Groups
Approximate Dates of Accelerated Action Activities

Activity	Starting Date	Ending Date	Duration
Accelerated action characterization sampling	February 2002	July 2005	3 years 5 months (not continuous)
Accelerated action soil removal activities in conjunction with characterization, in-process, and confirmation sampling	January 2002	June 2005	3 years 5 months (not continuous)
Excavation backfilling and regrading activities	February 2002	July 2005	3 years 6 months (not continuous)

1.3 OPWL Disposition

All OPWL not dispositioned under other IHSS Group accelerated actions were removed as part of the IHSS Group 000-2 project. Approximately 5,300 feet of the 17,000 feet of OPWL excavated and removed was conducted during IHSS Group 000-2 accelerated action activities. Removed sections were cut into pieces, bagged, and placed into intermodal disposal containers. The OPWL were disposed of as low-level radioactive waste (LLW) and low-level mixed waste (LLMW). Remaining pipeline ends were grouted.

1.4 Confirmation Sampling

Confirmation samples were collected from 74 locations in areas associated with OPWL. Confirmation sampling analytical results with concentrations greater than background means plus two standard deviations or RLs are shown on Figures 12 through 15 and analytical results are listed in Table 12.

The enclosed compact disc (CD) contains the complete accelerated action data set for IHSS Group 000-2, including OPWL-related data derived from other IHSS Groups. The CD includes standardized real and quality control (QC) data, including Chemical Abstracts Service (CAS) numbers, analyte names, and units.

Accelerated action analytical data, OPWL disposition, soil removal activities, and confirmation sampling are discussed by area in Sections 2.0 through 5.0.

1.5 Manway and Valve Pit Removal

Historical records indicated there were originally 20 manways and valve pits as part of the OPWL system. Nine additional manways were located and identified as being part of the OPWL system during the course of field activities. All of the manways and valve pits (29 total) were completely removed as part of the IHSS Group 000-2 project. These

manways and valve pits ranged from approximately 3 ft to 16 ft below ground surface (bgs).

The 29 manways and valve pits were first completely exposed by excavating the soil from around the structure to their base. The OPWL penetrating the manways and valve pits were isolated and removed to a distance of 4 to 8 ft from the exterior of the manway/valve pit structure to facilitate the demolition of the structure without breaching the associated OPWL. The stub sections of the OPWL penetrating the manway/valve pit was grout plugged to contain any contamination. The manway/valve pits were demolished using heavy equipment hammers, processors, and excavators, taking care not to breach the OPWL that remained inside the structures. Once demolition was complete, the concrete debris and remaining sections of OPWL inside the manway/valve pits were removed by "bucket and thumb" excavators and the waste deposited into an approved waste container. The disposition of each manway or valve pit is listed in Table 6.

There were a small number of instances where the OPWL inside the manways/valve pits were breached during demolition. In these instances, soil samples were collected following debris removal to determine if any release of potential contamination to the soil had occurred. Gamma Spectroscopy measurements of these samples did not identify any spread of contamination. Once predetermined confirmation samples were collected, soil was initially analyzed by field screen gamma spectroscopy instrumentation as a "go/no-go" indicator of contamination levels. The excavation was backfilled pending final laboratory analytical results from the confirmation sample.

Table 6
OPWL Manway and Valve Pit Disposition

Description	MW/VV Number	MW/VV Description	VV/MW Status
Manway north of Tank 207	1	207MWN	Manway completely removed along with associated OPWL inside the manway.
Valve pit north of Tank 207	2	207VVN	Valve pit completely removed along with associated OPWL inside the manway.
Valve pit northeast of Tank 207	3	207VVNE	Valve pit completely removed along with associated OPWL inside the manway.
Manway northeast of Tank 207	4	207MWNE	Manway completely removed along with associated OPWL inside the manway.
Valve pit southeast of B703, southwest of Tank 207	5	207VVW	Valve pit completely removed along with associated OPWL inside the manway.
Valve pit north of B777, south of Tank 207	6	777VV	Valve pit completely removed along with associated OPWL inside the manway.
Manway southeast corner of B559	7	559MW	Manway completely removed along with associated OPWL inside the manway.
Manway east of B528, west of B707	8	528MWE	The 528 tank pit along with the T-7 tanks and all associated OPWL inside 528 pit completely removed during B559/561 demolition.
Manway northeast of B903	9	P39MWC	Manway completely removed along with associated OPWL inside the manway.

Description	MW/VV Number	MW/VV Description	VV/MW Status
Manway on P-39, southeast of 207 B Pond	10	P39MWW	Manway completely removed along with associated OPWL inside the manway.
Manway on P-39 , west of Sewage Treatment Plant	11	P39MWE	Manway completely removed along with associated OPWL inside the manway.
Manway northeast of B707	12	707MWNE	Manway completely removed along with associated OPWL inside the manway.
Manway west of B707	13	707MWW	Manway completely removed along with associated OPWL inside the manway.
Manway northwest of B707	14	707MWNW	Manway completely removed along with associated OPWL inside the manway.
Inspection manway southwest of B707	15	707MWSW	Manway was a narrow (approx. 2 sq') inspection manway. This is a pipe within a pipe configuration; however, both the inner and outer OPWL pipe passed, unbreached, through the bottom of the manway. The manway was completely removed without breaching either the inner or the outer pipes. The open ends of both the inner and outer pipes were grouted at 889MWN and 707MWW.
Manway north of B707	16	707MWN	Manway completely removed along with associated OPWL inside the manway.
Manway at intersection of P-4 and P-6, northwest of B883	17	883MWN	Manway completely removed along with associated OPWL inside the manway.
Inspection manway west of B883	18	883MWC	Manway was a narrow (approx. 2 sq') inspection manway. Since this is a pipe within a pipe configuration, the inner OPWL passed, unbreached, through the bottom of the manway. The manway was completely removed without breaching the inner OPWL. The open ends of the outer OPWL were grouted in both directions at this location. The inner OPWL was grouted at 883MWN and south open end of P-6 at B881.
Inspection manway west of B881	19	881MWW	Manway was a narrow (approx. 2 sq') inspection manway. Since this is a pipe within a pipe configuration, the inner OPWL passed, unbreached, through the bottom of the manway. The manway was completely removed without breaching the inner OPWL. The open ends of the outer OPWL were grouted in both directions at this location. The inner OPWL was grouted at 883MWN and the south open end of P-6 at B881.
Manway at intersection of P-10 and P-6 near VV-3	20	889MWS	Manway completely removed along with associated OPWL inside the manway.
Inspection manway on P-6, northwest of B889	21	889MWC	Manway was a narrow (approx. 2 sq') inspection manway. The OPWL running through this manway was completely removed due to the close proximity of this manway to 889MWS and 889MWN.
Manway northwest of B889 at intersection of P-6 and P-9	22	889MWN	Manway completely removed along with associated OPWL inside the manway.
Manway on P-16 northeast of B889	23	889MWE	Manway completely removed along with associated OPWL inside the manway.
Manway on P-38 northeast of B779 Pad Area	24	P-38MWN	Manway completely removed along with associated OPWL inside the manway.

Description	MW/VV Number	MW/VV Description	VV/MW Status
Manway on P-38, southeast of B779	25	P-38MWW	Manway completely removed along with associated OPWL inside the manway.
Manway east of B123	26	123MWN	Manway completely removed along with associated OPWL inside the manway.
Manway southeast of B123	27	123MWS	Manway completely removed along with associated OPWL inside the manway.
Manway west of 728 Tank Pit at B771	28	728 MW	Manway completely removed along with associated OPWL inside the manway.
Manway west of PACS 1 on P-13 line	29	PACS 1 MW	Manway was a narrow (approximately 2 sq ft) inspection manway. The OPWL passed, unbreached, through the bottom of the manway. The manway was completely removed without breaching the OPWL. The open ends of this OPWL were grouted at 889 MWN and 707 MWW.

1.6 OPWL Cutting and Grouting Process

Per RFCA Attachment 14, OPWL within 3 ft of final elevation were to be removed and disposed of as Low Level, Low Level Mixed, or TRU Waste depending on contamination levels. IP-1 waste containers, either the large intermodal type or the smaller type metal boxes, were approved and used exclusively to collect waste for shipment to approved waste depositories. The presence of sludge in the pipe mandated the use of the smaller IP-1 container. OPWL containing sludge was cut into 4 ft sections for the pipe to fit into the smaller IP-1 waste container. OPWL without sludge was cut into 14 ft sections to fit into the larger intermodal type waste container. Because the OPWL are known to be internally contaminated, once the exterior of the OPWL were exposed, the area around the OPWL was considered a Contamination Area (CA). As such, a Radiological Work Permit was prepared and approved which outlines the training requirements for personnel working in the CA, the work controls to contain the potential contamination, and the personal protective equipment (PPE) required to be worn the workers. Work controls mandated that a Radiological Control Technician (RCT) be present and oversee the work, 100 percent of the time when OPWL was exposed.

All of the OPWL were suspected to contain residual liquid from the rinsing evolution performed under a different project. As a result, each of the OPWL were tapped and drained prior to performing any pipe cuts. Equipment for the tap and drain evolution was set up in a completely contained configuration. Once the tap equipment was installed, a plastic tube was attached to the tap equipment and extended into a 5-gallon plastic container and sealed. A high-efficiency particulate air (HEPA) type filter was attached to the 5-gallon container to allow the air inside the 5-gallon container to vent. A plastic tube was inserted into the 5-gallon container and connected through a peristaltic pump to a 55-gallon drum or larger poly tank in the event the primary 5-gallon container did not provide enough capacity to collect the liquid drained from the OPWL. A plastic secondary containment was placed under the pipe tap equipment as well as under the 5-gallon plastic container to prevent any leaks of liquid from making contact with the surrounding soil.

In general, all pipe-cutting evolutions were performed either inside of a sealed containment bag or inside a containment box attached to a HEPA filtration system which provided negative air flow away from the workers performing the pipe cutting evolution. Both of these systems were supported by a secondary containment in the event residual liquid spilled from the primary containment. The secondary containment provided an extra layer of protection from potentially contaminated liquid leaking into the soil. There were isolated instances where small amounts of liquid from the OPWL leaked into the soil. During these events, samples of the liquid tainted soil were collected and analyzed using gamma spectroscopy methods. In all instances, gamma spectroscopy measurements indicated that no contamination migrated from the potentially contaminated liquid to the soil.

OPWL pipe segments were excavated and exposed primarily using excavator and backhoe type equipment. Soil excavated from around the OPWL was piled on the sides of the excavation and, as much as physical conditions allowed. Soil that was in direct contact with the OPWL was kept isolated until radiological surveys were conducted on the outside of the OPWL. In all cases, no contamination was detected from surveys of the exterior of the OPWL. There were a relatively small number of instances where the OPWL was inadvertently breached during excavation. When this occurred, RCTs performed an immediate survey of the breached pipe and a sample of the soil around the breached area was collected to determine if there was any release of contamination to the soil. In every case where this did occur, no contamination was detected in the soil.

Given the variety of composition of the OPWL, several different tools were utilized to cut pipe. Dressed in proper PPE, and accompanied by an RCT, workers prepared the pipes for cutting evolution by installing and applying the selected containment systems. The pipes were then sectioned; RCTs performed surveys of the exposed ends of the pipe, the equipment used to cut the pipe, and the personnel performing the evolution to detect contamination and to determine the potential for the spread of contamination. The sectioned ends of the pipes were then bagged and taped inside the pipe cutting containment to contain whatever contamination was present inside the pipe. The pipe sections were then staged inside the excavation for removal and waste packaging by an excavator. OPWL that were greater than 3 ft deep from the final elevation and authorized to remain in place by RFCA Attachment 14 were bagged and taped in preparation for grouting.

OPWL greater than 3 ft below final land configuration elevation were grouted as authorized in RFCA Attachment 14. An offsite contractor, Denver Grout, a subsidiary of Hayward Baker, was selected to provide the materials, equipment, and technical guidance based on their wide variety of experience in the industry, and the identification of an application which met the needs of the project. Envirocon, a subcontractor to Kaiser Hill provided the labor to perform the grouting evolution, under the direct supervision of Kaiser Hill. Envirocon personnel performing the grouting evolution were Radiological Worker II trained, wore the required PPE, and were under the immediate supervision of an RCT.

The ends of the OPWL were previously contained with plastic and tape. Once the foam and grout fill tubes and the vent tube was installed at the OPWL pipe opening, the fill tube pipes were surrounded by a grout plug which formed a bulkhead at the opening. The open end of the vent tube was inserted into a 5-gallon plastic container equipped with a HEPA filter. The vent was used to allow any back-pressure air to escape during the foaming and grouting evolution. The vent tube also served as an exit point for remaining incidental potentially contaminated liquid to escape the OPWL. Any liquid collected in the 5-gallon sealed plastic container was pumped to a transportable poly tank or a 55-gallon drum using a peristaltic pump and clear plastic tubing. The liquid was then sampled and disposed through the liquid waste processing system. This entire evolution was performed under controlled conditions, with primary and secondary containment systems to prevent any potential contamination present in the OPWL from being released to the atmosphere or the soil. The approved foaming and grouting protocol was as follows:

1. Foam plugs were inserted at roughly 70 ft into the OPWL to act as a bulkhead for the grouting process. The foam was a two-part expansive closed cell foam product combined inside the fill tube at the point of injection. This foam mixture was pressure pumped into the foam fill tube using calculated values that controlled the volume to create a 4 to 5 ft bulkhead inside the OPWL. Not all locations required the use of foam. The use of foam was limited to OPWL with internal diameters not in excess of 6 inches and could not used on fiberglass or PVC pipe. If required, a PVC foam fill tube was inserted into the OPWL to a depth of approximately. 70 ft or as far as possible pending refusal due to internal pipe configuration.
2. Grout with a 5 percent bentonite mix was then pumped at low pressure to fill the void between the foam "dam" and the bulkhead at the pipe opening. A grout fill tube was inserted to a depth of 65 feet or as far as possible pending refusal due to internal pipe configuration. Care was taken to avoid making contact with the foam "dam" with the internal end of the grout fill tube. Generally speaking, the grout fill tube was inserted to within 5 feet of the depth of the foam fill tube.
3. A short vent tube, 1 to 2 feet in length, equipped with a shut-off valve was inserted at the top of the pipe opening to provide an indicator as to when the pipe was completely full of grout.
4. The two fill tubes (or only the grout tube in the event a foam "dam" was not used) and vent tube was sealed in place at the pipe opening with a stiffer, quick-setting grout/cement to provide a bulkhead to keep the more liquid grout from running out of the OPWL.
5. The grout mixture was then be pumped into the OPWL through the grout fill tube until a continuous flow of grout was observed coming out of the vent tube. The valve on the vent tube was then closed and the grouted OPWL and allowed a minimum of 12 hours to set up and solidify.
6. Following the 12-hour set up time, the foam fill tube (if used), the grout fill tube, and the vent tube was cut off as close to bulkhead at the exposed end of the pipe. Any

voids between the bulkhead and the exposed end of the pipe will be hand packed with a stiffer, quick setting grout/cement to completely seal the exposed end of the OPWL.

7. Denver Grout personnel operated all foaming and grouting equipment located outside the contamination area (CA). Site personnel performed all work inside the CA.
8. Site Radiological Safety and Industrial Safety and Hygiene procedures was followed at all times.

A summary of OPWL grouting is presented in Table 7.

Table 7
OPWL Grouting Summary

Pipe Grouting Location	Pipe Designation	Pipe Diameter (in)	Pipe Composition	Pipe Depth (ft bgs)	Grout/Foam Comments
779 Northeast					
East	P-36	3	Stainless Steel	6.02	Foam/Grout Fill Lines @ 80'
	P-37	3	Steel	5.82	Foam/Grout Fill Lines @ 75'
	P-36 N	3	Stainless Steel	5.07	100% Grout. Pipe is approximately 30 ' long.
	P-36 S	3	Stainless Steel	5.07	Foam/Grout Fill Lines @ 65'
Center	P-38 W	10	Vitrified Clay	4.25	Foam/Grout Fill Lines @ 65'
	P-38 S	10	Vitrified Clay	4.48	Foam/Grout Fill Lines @ 60'. Refusal @ 60'.
207 Northeast Manway	P-38	10	Vitrified Clay	5.87	Foam/Grout Fill Lines @ 85'.
	P-61	6	Vitrified Clay	5.63	100% Grout
207 Valve Vault North	P-28 S	3	Stainless Steel	4.21	100% Grout. Grout fill line to 60'.
	P-29 S	3	Stainless Steel	4.21	100% Grout. Grout fill line to 60'.
	P-61 N	8	Vitrified Clay	3.66	100% Grout to P-61 in 207 NE Manway. Removed.
	P-61 S	4	Cast Iron	3.66	Foam/Grout Fill Lines @ 65'. Refusal @ 65'. Removed.
207 Valve Vault West	P-20	3	Stainless Steel	4.1	Foam/Grout Fill Lines @ 50'. Refusal @ 50'.
777 Valve Vault	P-36 W	3	Steel	4.15	Foam/Grout Fill Lines @ 85'
	P-37 W	3	Steel	4.65	Foam/Grout Fill Lines @ 55'. Refusal @ 55'.
	P-42 N-1	3	Steel	4.34	100% Grout
	P-42 N-2	3	Steel	4.65	100% Grout. Grout Fill Line to 40'.
	P-37	3	Steel	4.34	Foam/Grout Fill Lines @ 85'.
	P-41	3	Steel	4.09	Foam/Grout Fill Lines @ 55'. Refusal @ 55'.
730 Tank Pit	P-41 WS	3	Steel	5.96	Foam/Grout Fill Lines @ 65'.
	P-37 WN	3	Steel	6.05	Foam/Grout Fill Lines @ 65'.
P25 @ B774	P-25	3	Stainless Steel	3.75	Foam/Grout Fill Lines @ 75'.'
728 Tank Pit	P-23 N Inner	6	Fiberglass	3.95	100% Grout. Grout fill line to 50'.

Pipe Grouting Location	Pipe Designation	Pipe Diameter (in)	Pipe Composition	Pipe Depth (ft bgs)	Grout/Foam Comments
	P-23 N Outer	10	Fiberglass	4.1	100% Grout. Grout fill line to 30'. Refusal @ 30'.
	P-22 N	4	Cast Iron	4.1	Foam/Grout Fill Lines @ 10'. Refusal @ 10'.
	P-24 W	6	Cast Iron	4.23	Foam/Grout Fill Lines @ 35'. Refusal @ 35'.
P-23 @ Manhole 3	P-23 E Outer	6	Fiberglass	3.95	100% Grout to 728 Tank Pit
	P-23 S Inner	6	Fiberglass	3.97	Grout Fill Line @ 20'.
	P-23 S Outer	10	Fiberglass	4.1	Grout Fill Line @ 45'.
B 779 Slab	P-42 S-1	3	Steel	8.25	100% Grout from 777 Valve Vault
	P-42 S-2	3	Steel	8.07	100% Grout from 777 Valve Vault
P-38 West Manway	P-38 N	10	Vitrified Clay	4.68	Foam/Grout Fill Lines @ 50'. Refusal @ 50'.
	P-39 E	6	Vitrified Clay	5.35	Foam/Grout Fill Lines @ 80'.
P-39 West Manway	P-39 W	8	Vitrified Clay	4.91	Foam/Grout Fill Lines @ 70'.
	P-39 E	8	Vitrified Clay	5.33	100% Grout to P-39 MWC.
P-39 Center Manway	P-39 W	6	Vitrified Clay	3.37	100% Grout from P-39 MWW.
	P-39 E	6	Fiberglass	4.31	100% Grout to P-39 MWE
	P-39 WS	6	Vitrified Clay	7	100% Grout from P-39 MWC
	P-39 ES	6	Vitrified Clay	8.65	100% Grout to B995 Tanks
B889 East Manway-East	P-16 E-1	3	Stainless Steel	4.39	Foam/Grout @ 75'.
B889 East-Center	P-10	3	Stainless Steel	4.27	100% Grout to B889
B889 North Manway	P-6 N Inner	3	Reinforced Ribbed Rubber	5.55	100% Grout
	P-6 N Outer	4	Fiberglass	5.55	Grout Plugged. See Discussion 800 Area
	P-6 S Inner	3 Steel in	10" Clay	5.14	Grout Plug 100% Grout from 883 North MW
	P-6 S Outer	3 Steel in	10" Clay	5.14	Grout Plug 100% Grout from 883 North MW
	P-9	2.5	Stainless Steel	6.41	Foam/Grout @ 75'.
B883 North Manway	P-6 N Inner	3	Steel	3.65	100% Grout to 889 Center, P6 South Inner.
	P-6 N Outer	10	Clay	3.79	100% Grout.
	P-6 S Inner	3	Steel	3.65	100% Grout.
	P-6 S Outer	10	Clay	3.75	100% Grout.
B883 Center Manway	P-6 N Inner	3	Steel	4	Pass through, no foam/grout.
	P-6 N Outer	10	Clay	3.5	100% Grout to 883 North Manway, P-6S
	P-6 S Inner	3	Steel	3.96	Pass through, no foam/grout
	P-6 S Outer	10	Clay	3.5	Foam/Grout Fill Lines @ 55'. Refusal @ 55'.
P-9 @ B883	P-9	2.5	Stainless Steel	4.7	100% Grout to B889 MWN
P-6 South @ B881	P-6 South	3	Stainless Steel	4.13	Foam/Grout Fill Lines @ 65'. Refusal @ 65'.

Pipe Grouting Location	Pipe Designation	Pipe Diameter (in)	Pipe Composition	Pipe Depth (ft bgs)	Grout/Foam Comments
P-6 West @ B881	P-6 South-Outer	8	Clay	4.26	Grout Fill Lines at 30'.
	P-6 North-Outer	8	Clay	4.26	Grout Fill Lines at 30'.
P-4 Center @ B444	P-4 East	4	Cast Iron	4.75	100% Grout from P-4 West at B444.
	P-4 West	4	Cast Iron	4.89	100% Grout from P-4 West.
	P-5 North	4	Cast Iron	4.18	100% Grout from B444.
P-4 West	P-4 West	4	Cast Iron	3.52	100% Grout to P-4 West at B444
P-5 inside B444	P-5 w/i 444	4	Cast Iron	4.37	100% Grout to P-4 Center.
B707 West Manway	P-13 South-Inner	3	Reinforced Ribbed Rubber	6.62	100% from 889 North Manway
	P-13 South-Outer	4	Fiberglass	6.59	Grout Plugged. See Discussion B707.
	P-13 North	3	Stainless Steel	6.24	100% Grout to 528 Manway
B707 Northwest Manway	P-13 South	3	Stainless Steel	6.14	Grout Fill Line to 60'
	P-15 East	3	Stainless Steel	6.2	100% Grout to B707 MWN.
528 Manway	P-13 South	3	Stainless Steel	6.95	100% Grout from 707 West Manway
	P-15 South	3	Stainless Steel	6.8	Foam/Grout @ 75'.
	P-62 East	3	PVC	5.09	100% Grout from 528 Tank Pit
528 Tank Pit	P-62 East	3	PVC	3.85	100% Grout to 528 Manway
B707 North Manway	P-15 East	3	Stainless Steel	5.15	100% Grout to 707 Northeast Manway
	P-15 West	3	Stainless Steel	5.17	100% Grout from 707 Northwest Manway
B707 Northeast Manway	P-15 West	3	Stainless Steel	4.23	100% Grout to 707 North Manway
	P-20 East	3	Stainless Steel	4.26	Grout Fill Line @ 70'
447 Slab	P5 @ 447	3	Steel	N/A	100% Grout below slab. Stay in place.
P-19 @ B731	P-19 West	3	Stainless Steel	4.07	Grout Fill Line @ 65'

2.0 100/400 AREA ACCELERATED ACTION ACTIVITIES

Accelerated action sampling specifications and deviations, including potential contaminants of concern (PCOCs) and media sampled from IHSS Group 000-2 and other IHSS Groups within the 100/400 Area, are presented in Table 8. Deviations from planned sampling locations are also described in the table. Deviations of less than 3 feet are not considered significant. Results of accelerated action activities in the 100/400 Area including accelerated action characterization data, OPWL disposition, soil removal, and confirmation sampling are discussed in Sections 2.1 through 2.4.

2.1 100/400 Area Accelerated Action Data

The 100/400 Area includes samples collected as part of IHSS Group 000-2, 100-4, 400-3, and 400-8 project investigations. During sampling activities, 55 characterization and 24 confirmation locations were sampled. Two contaminants were detected in subsurface soil during the 100/400 Area characterization at concentrations greater than RFCA WRW soil ALs. One detection of arsenic was reported at a concentration of 23.0 milligrams mg/kg (WRW AL is 22.2 mg/kg), and one detection of benzo(a)pyrene was reported at a concentration of 3,700 ug/kg (WRW AL is 3,490). Analytical results of soil characterization sampling with concentrations greater than background means plus two standard deviations or RLs are shown on Figure 3. Analytical results for all accelerated action characterization samples are presented in Table 9. In addition, analytical results with activities or concentrations greater than RFCA WRW Soil AL exceedances are identified with bold text in Table 9.

2.2 100/400 Area OPWL Disposition

2.2.1 IHSS Summary

IHSS Group 100-1 – Under Building Contamination (UBC) 122 – Medical Facility

The Phase I RFI/RI Work Plan for Operable Unit 9 reports that tank T-1 was removed in January 1984 (DOE 1992b). During demolition of Building 122, the area the tank formerly occupied was excavated, and the tank was not found (DOE 2004a).

IHSS Group 100-4 – Under Building Contamination (UBC) 123 – Health Physics Laboratory

All OPWL beneath the building were removed to the junction with OPWL Manhole 2. An unanticipated pipeline was found beneath the northern section of the slab, south of the sumps, and removed (DOE 2003c).

IHSS Group 400-3 –UBC 444 – Fabrication Facility

Tank 4 was located in the southwestern portion of Building 447, which was demolished in 2004. Tank 5 was located in the northeastern portion of Building 444, which was demolished in 2005. Tank 5 consisted of two tanks each with a volume of 4,000 gallons that were installed in 1952. Tank 6 was located in the northeastern portion of Building 444, which was demolished in 2005. Tank 6 consisted of an OPWL floor sump installed in 1952.

Table 8
100/400 Area Accelerated Action Sampling Specifications and Deviations

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
100/400	B123 EMERGENCY S.E. PROCESS LINE	N/A	N/A	749070.820	2081728.460	Subsurface soil	6.0 - 6.01	Radionuclides	Collected as part of the Building 123 OPWL.
100/400	B123 METAL MANHOLE	N/A	N/A	749165.130	2081769.920	Sediment	0.0 - 1.5	Radionuclides	Collected as part of the Building 123 OPWL.
100/400	BU38-001	749136.392	2081723.239	749218.800	2081700.670	Subsurface soil	5 - 5.01	Radionuclides	Collected as part of the Building 123 OPWL. No significant change in location.
100/400	BU38-002	749036.094	2081724.613	749039.1	2081729.02	Subsurface soil	8 - 8.01	Radionuclides	Collected as part of the Building 123 OPWL. No significant change in location.
100/400	BU38-003	749031.973	2081657.748	749038.61	2081656.21	Subsurface soil	5 - 7	Radionuclides	Collected as part of the Building 123 OPWL. No significant change in location.
100/400	BU38-004	749063.573	2081658.206	749068.93	2081652.69	Surface soil Subsurface Soil	0.0 - 0.17 5 - 5.1	Radionuclides	Collected as part of the Building 123 OPWL. No significant change in location.
100/400	BU38-005	749093.8	2081657.29	749089.94	2081653.59	Subsurface soil	5 - 5.01	Radionuclides	Collected as part of the Building 123 OPWL. No significant change in location.
100/400	BU38-006	749105.249	2081657.748	749103.45	2081653.59	Subsurface soil	5 - 5.01	Radionuclides	Collected as part of the Building 123 OPWL. No significant change in location.
100/400	BU38-007	749146.925	2081657.29	749145.41	2081653.59	Subsurface soil	5 - 5.01	Radionuclides	Collected as part of the Building 123 OPWL. No significant change in location.
100/400	BU38-008	749125.4	2081661.87	749124	2081653.59	Subsurface soil	5 - 5.01	Radionuclides	Collected as part of the Building 123 OPWL. No significant change in location.
100/400	BU38-017	N/A	N/A	749003.637	2081729.928	Subsurface soil	4.5 - 6.5	Radionuclides, Metals, VOCs	Biased characterization sample proposed in 000-2 IASAP Addendum
100/400	BU39-003	749210.126	2081647.215	749195.15	2081642.68	Subsurface soil	2 - 2.01	Radionuclides	Collected as part of the Building 123 OPWL. No significant change in location.
100/400	BU39-004	749206.92	2081670.572	749194.75	2081676.72	Subsurface soil	2 - 2.01	Radionuclides	Collected as part of the Building 123 OPWL. No significant change in location.
100/400	BU39-005	749184.479	2081679.731	749184.9	2081682.58	Subsurface soil	2 - 2.01	Radionuclides	Collected as part of the Building 123 OPWL. No significant change in location.
100/400	BU39-006	749221.118	2081697.593	749220.8	2081698.67	Subsurface soil	4 - 4.01	Metals	Collected as part of the Building 123 OPWL. No significant change in location.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
100/400	BU39-007	749218.37	2081699.882	749218.8	2081700.67	Subsurface soil	4 - 4.01	Metals	Collected as part of the Building 123 OPWL. No significant change in location.
100/400	BU39-008	749218.828	2081695.303	749218.8	2081696.67	Subsurface soil	4 - 4.01	Metals	Collected as part of the Building 123 OPWL. No significant change in location.
100/400	BU39-011	749165.244	2081722.781	749164.49	2081729.47	Subsurface soil	2 - 2.01	Radionuclides	Collected as part of the Building 123 OPWL. No significant change in location.
100/400	BU39-012	749036.552	2081785.066	749222.8	2081696.67	Subsurface soil	4 - 4.01	Metals	Collected as part of the Building 123 OPWL. No significant change in location.
100/400	BU39-013	749036.094	2081757.588	749042.66	2081731.33	Subsurface soil	4 - 4.01	Metals	Collected as part of the Building 123 OPWL. No significant change in location.
100/400	BV38-002	749050.5	2081890.494	749050.5	2081890.49	Subsurface soil	10.0 - 11.0	Radionuclides, Metals, Nitrate, VOCs, SVOCs, PCBs	Biased, targeted underground tank, location not moved significantly, 5.5 ft deeper to get below Tank T-2, radionuclides and PCBs added.
100/400	BV38-003	749036.698	2081890.494	749036.635	2081887.616	Subsurface soil	12.5 - 17.0	Metals, Nitrate, VOCs, SVOCs	Biased, targeted underground tank, location moved 3 ft to get beneath tank, 8 ft deeper to get below Tank T-3.
100/400	BV38-004	749038.423	2081897.97	749034.349	2081895.612	Subsurface soil	12.5 - 15.5	Metals, Nitrate, VOCs, SVOCs	Biased, targeted under-ground tank, location moved 5 ft to get beneath tank, 8 ft deeper to get below Tank T-3.
100/400	BV38-005	749108.941	2081932.199	749115.398	2081920.712	Surface soil Subsurface soil	0.0 - 0.5 4.5 - 6.5	Radionuclides, Metals, Nitrate, VOCs, SVOCs	Biased, targeted UBC and OPWL, location moved 13 ft to sample actual OPWL, 0.5 ft deeper to sample actual OPWL.
100/400	BV38-006	749114.084	2081890.668	749116.481	2081889.571	Surface soil Subsurface soil	0.0 - 0.5 4.5 - 6.5	Radionuclides, Metals, Nitrate, VOCs, SVOCs	Biased, targeted UBC and OPWL, location moved 3 ft to sample actual OPWL, 2 ft deeper to sample actual OPWL.
100/400	BV38-007	749059.511	2081868.089	749059.504	2081868.115	Surface soil Subsurface soil	0.0 - 0.5 3.5 - 4.5	Metals, Nitrate, VOCs, SVOCs	Biased, targeted OPWL, location not moved significantly, 1 ft deeper to sample actual OPWL.
100/400	BV38-014	N/A	N/A	749031.126	2081917.055	Subsurface soil	0 - 1	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
100/400	BV39-001	749210.584	2081752.092	749206.052	2081745.878	Subsurface soil	2 - 2.01	Radionuclides	Waste sample

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
100/400	BV39-002	749182.762	2081889.344	749185.072	2081888.922	Surface soil Subsurface soil	2 - 2.5	Radionuclides, Metals, Nitrate, VOCs, SVOCs	Biased, targeted UBC and OPWL, location moved 2.5 ft to sample OPWL. Surface interval not obtained because soil removed. 0.5 ft shallower to sample actual OPWL. SAP Addendum initially assigned radionuclide and PCB samples to this location, should have been BV38-002, radionuclide sample collected here but no PCB sample.
100/400	BV39-003	749166.16	2081754.382	749164.4	2081753.57	Subsurface soil	2 - 2.01	Radionuclides	Collected as part of the Building 123 OPWL. No significant change in location.
100/400	BV39-003-01	749221.06	2081890.65	749213.804	2081888.65	Surface soil Subsurface soil	0.0 - 0.5 2.0 - 2.3	Radionuclides, Metals, Nitrate, VOCs, SVOCs	Biased, targeted UBC and OPWL, location moved 9 ft to sample OPWL, 0.5 ft shallower to sample OPWL, radionuclides added.
100/400	BV39-004	749182.287	2081922.153	749183.925	2081919.847	Surface soil Subsurface soil	0.0 - 0.5 2.0 - 2.5	Radionuclides, Metals, Nitrate, VOCs, SVOCs	Biased, targeted UBC and OPWL, location moved 3 ft to sample OPWL, 0.5 ft shallower to sample OPWL, radionuclides added.
100/400	BV39-007	N/A	N/A	749142.084	2081889.329	Subsurface soil	6.2 - 6.5	Radionuclides, Metals, Nitrate, VOCs, SVOCs	Added, biased, targeted UBC and OPWL, depth adjusted to sample beneath actual OPWL.
100/400	BW35-002	748552.885	2082068.888	748552.885	2082068.888	Subsurface soil	0.5 - 2.5	Metals, Radionuclides, VOCs	Refusal – "A" interval collected, "B" interval abandoned.
100/400	BW35-003	748549.846	2082054.842	748549.78	2082054.842	Surface soil subsurface soil	0 - 0.5 0.5 - 2.5	Metals, Radionuclides, VOCs	Bias sample for tank relocated due to existing equipment interference. Sample taken and building feature not compromised.
100/400	BW36-015	748596.279	2082067.739	748592.78	2082067.739	Surface soil subsurface soil	0 - 0.5 0.5 - 2.5	Metals, Radionuclides, VOCs	Original location placed sample outside the building and on the dock. Relocated back inside building for more representative location.
100/400	BW36-016	N/A	N/A	748564.360	2082125.641	Surface soil Subsurface soil	0.67 - 1.17 1.17 - 1.57	Metals, Radionuclides, VOCs	Biased to target OPWL
100/400	BW38-001	749032.098	2081949.725	749033.56	2081949.926	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 2.5 2.5 - 4.5 4.5 - 6.5 6.5 - 8.5	Radionuclides, Metals, Nitrate, VOCs, SVOCs, PCBs	Biased, targeted OPWL, location moved 3 ft to sample actual OPWL, began sampling at surface, deeper intervals added.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
100/400	BW38-002	749031.523	2081984.228	749032.942	2081984.363	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 2.5 2.5 - 4.5 4.5 - 6.5 6.5 - 8.5	Radionuclides, Metals, Nitrate, VOCs, SVOCs, PCBs	Biased, targeted OPWL, location moved 3 ft to sample actual OPWL, sampling began at surface, intervals added.
100/400	BW38-003	749114.076	2081948.752	749116.156	2081939.807	Surface soil Subsurface soil	0 - 0.5 4.0 - 4.0	Radionuclides, Metals, Nitrate, VOCs, SVOCs	Biased, targeted UBC and OPWL, location moved 10 ft to sample actual OPWL, depth adjusted to sample below OPWL.
100/400	BW38-004	N/A	N/A	749033.521	2082028.6	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 2.5 2.5 - 4.5 4.5 - 6.5 6.5 - 8.5	Radionuclides, Metals, Nitrate, VOCs, SVOCs, PCBs	Biased, added to sample OPWL, sampling began at surface, deeper intervals added.
100/400	BW38-005	N/A	N/A	749024.9466	2082120.497	Subsurface soil	2.5 - 4.5	Radionuclides, Metals, VOCs	Biased characterization sample proposed in 000-2 IASAP Addendum
100/400	BW38-008	N/A	N/A	749032.383	2082002.555	Subsurface soil	3 - 3.5	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
100/400	BW39-000	749244.681	2081948.377	749230.471	2081942.057	Subsurface soil	1.0 - 1.0 4.5 - 6.5	Radionuclides, Metals, Nitrate, VOCs, SVOCs	Biased, targeted UBC and OPWL, moved 15 ft to sample actual OPWL, 0-1 ft interval removed along with OPWL, sample collected from beneath former OPWL in undisturbed soil at 1 ft. Deeper interval not changed.
100/400	BW39-001	749199.514	2081948.386	749196.289	2081941.424	Surface soil Subsurface soil	0 - 0.5 2.0 - 2.0	Radionuclides, Metals, Nitrate, VOCs, SVOCs	Biased, targeted UBC and OPWL, moved 8 ft to sample actual OPWL, depth not changed.
100/400	BX35-002	N/A	N/A	748539.580	2082154.314	Surface soil Subsurface soil	0.75 - 1.25 1.25 - 1.65	Metals, Radionuclides, VOCs	Biased to target OPWL
100/400	BX36-008	748564.006	2082172.014	748563.98	2082172.014	Surface subsurface soil	0 - 0.5 0.5 - 2.5	Metals, Radionuclides, VOCs	Bias sample relocated due to equipment interference. New location samples different area of potential OPWL line. Refusal – "A" interval collected, "B" interval abandoned.
100/400	BX36-009	N/A	N/A	748563.652	2082219.449	Surface soil Subsurface soil	1.0 - 1.5 1.5 - 1.95	Metals, Radionuclides, VOCs	Biased to target OPWL

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
100/400	BX37-000	N/A	N/A	748911.267	2082331.807	Subsurface soil	2.5 - 4.5 4.5 - 6.5 6.5 - 8.5	Metals, Radionuclides, VOCs	Biased to target OPWL
100/400	BX38-024	N/A	N/A	749028.2145	2082237.827	Subsurface soil	2.5 - 4.5	Radionuclides, Metals, VOCs	Biased characterization sample proposed in 000-2 IASAP Addendum
100/400	BX38-026	N/A	N/A	749032.559	2082103.039	Subsurface soil	3 - 3.5	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
100/400	BX38-027	N/A	N/A	749032.983	2082264.698	Subsurface soil	4 - 4.5	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
100/400	BX38-037	N/A	N/A	749032.093	2082185.585	Subsurface soil	3.5 - 4	Radionuclides, Metals, VOCs	Additional biased characterization sample.
100/400	BY37-000	748949.837	2082379.209	748949.82	2082386.21	Subsurface soil	2.5 - 4.5 4.5 - 6.5 6.5 - 8.5	Metals, Radionuclides, VOCs	Bias sample relocated around utility and OPWL interference to better reflect actual OPWL location.
100/400	BY37-006	N/A	N/A	748949.82	2082386.21	Surface soil Subsurface soil	0.67 - 1.17 1.17 - 2.07	Metals, Radionuclides, VOCs	Biased to target OPWL
100/400	BY38-012	N/A	N/A	749015.1564	2082533.911	Subsurface soil	2.5 - 4.5	Radionuclides, Metals, VOCs	Biased characterization sample proposed in 000-2 IASAP Addendum.
100/400	BY38-013	N/A	N/A	749011.8503	2082413.426	Subsurface soil	2.5 - 4.5	Radionuclides, Metals, VOCs	Biased characterization sample proposed in 000-2 IASAP Addendum.
100/400	BY38-016	N/A	N/A	749034.65	2082417.63	Subsurface soil	4 - 4.5	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
100/400	BZ38-014	N/A	N/A	749003.378	2082647.433	Subsurface soil	2.5 - 4	Radionuclides, Metals, VOCs	Biased characterization sample proposed in 000-2 IASAP Addendum.
100/400	CA38-011	N/A	N/A	748998.905	2082749.12	Subsurface soil	2.5 - 4.4	Radionuclides, Metals, VOCs	Biased characterization sample proposed in 000-2 IASAP Addendum.
100/400	CA38-012	N/A	N/A	749009.942	2082836.508	Subsurface soil	2.5 - 3.4	Radionuclides, Metals, VOCs	Biased characterization sample proposed in 000-2 IASAP Addendum
100/400	CA38-013	N/A	N/A	749059.251	2082797.641	Subsurface soil	3.5 - 3.7	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
100/400	CA38-014	N/A	N/A	749009.125	2082896.271	Subsurface soil	3.5 - 3.7	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
100/400	CB38-006	N/A	N/A	749010.074	2082941.836	Subsurface soil	2.5 - 3.7	Radionuclides, Metals, VOCs	Biased characterization sample proposed in 000-2 IASAP Addendum
100/400	CB38-007	N/A	N/A	749018.056	2083034.793	Subsurface soil	2.4 - 4.4	Radionuclides, Metals, VOCs	Biased characterization sample proposed in 000-2 IASAP Addendum.
100/400	CB38-008	N/A	N/A	749009.744	2083001.161	Subsurface soil	4 - 4.5	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
100/400	CB38-009	N/A	N/A	749009.557	2083102.611	Subsurface soil	3.5 - 3.7	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
100/400	CC38-000	N/A	N/A	749011.998	2083230.455	Subsurface soil	2.5 - 3.8	Radionuclides, Metals, VOCs	Biased characterization sample proposed in 000-2 IASAP Addendum.
100/400	CC38-001-01	N/A	N/A	749010.851	2083203.538	Subsurface soil	3.5 - 3.7	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
100/400	CC38-002-01	N/A	N/A	749010.367	2083304.938	Subsurface soil	3.5 - 3.7	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
100/400	CD38-000	N/A	N/A	749018.437	2083516.965	Subsurface soil	2.5 - 4.5	Radionuclides, Metals, SVOCs, VOCs	Biased characterization sample proposed in 000-2 IASAP Addendum.
100/400	CD38-001	N/A	N/A	749015.187	2083429.068	Subsurface soil	3 - 4.5	Radionuclides, Metals, VOCs	Biased characterization sample proposed in 000-2 IASAP Addendum.
100/400	CD38-002	N/A	N/A	749013.311	2083341.419	Subsurface soil	2.5 - 4.5	Radionuclides, Metals, VOCs	Biased characterization sample proposed in 000-2 IASAP Addendum.
100/400	CD38-003	N/A	N/A	749011.379	2083398.941	Subsurface soil	3 - 3.2	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
100/400	CD38-004	N/A	N/A	749011.448	2083493.76	Subsurface soil	3.5 - 3.7	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
100/400	CE38-001-01	N/A	N/A	749013.729	2083669.087	Subsurface soil	3 - 3.5	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
100/400	CE38-002-01	N/A	N/A	749019.277	2083581.092	Subsurface soil	2.5- 3.0	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
100/400	CENTRAL PT ON S PWL	N/A	N/A	749035.331	2081676.505	Subsurface soil	5 - 5.01	Radionuclides	Sampled, but not planned.
100/400	NORTHERN PROCESS LINE	N/A	N/A	749196.120	2081663.750	Subsurface soil	0.0 - 1.5	Radionuclides	Confirmation Sample.
100/400	W. OF MANHOLE-2	N/A	N/A	749038.590	2081723.450	Subsurface soil	5 - 5.01	Radionuclides	Collected as part of the Building 123 OPWL.

Table 9
100/400 Area Soil Characterization Sampling Results Greater Than Background Means Plus Two Standard Deviations or Reporting Limits

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
100/400	000-2	BU38-017	749003.637	2081729.928	4.50	6.50	Aluminum	40000.000	228000	35373.170	-	mg/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	2-Methylnaphthalene	1300.000	20400000	-	39.000	ug/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	2-Methylphenol	74.000	36900000	-	51.000	ug/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	4-Methylphenol	350.000	3690000	-	67.000	ug/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Acenaphthene	3400.000	40800000	-	38.000	ug/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Anthracene	2800.000	204000000	-	29.000	ug/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Benzene	58.700	205000	-	26.000	ug/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Benzo(a)anthracene	3600.000	34900	-	30.000	ug/kg
100/400	**400-8**	**BV38-002**	**749050.508**	**2081890.466**	**10.00**	**11.00**	**Benzo(a)pyrene**	**3700.000**	**3490**	**-**	**49.000**	**ug/kg**
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Benzo(b)fluoranthene	2600.000	34900	-	35.000	ug/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Benzo(k)fluoranthene	3300.000	349000	-	39.000	ug/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Beryllium	190.000	921	14.200	-	mg/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Chloroform	1980.000	19200	-	345.000	ug/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Chrysene	4100.000	3490000	-	34.000	ug/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Dibenz(a,h)anthracene	940.000	3490	-	30.000	ug/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Dibenzofuran	1900.000	2950000	-	44.000	ug/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Ethylbenzene	214.000	4250000	-	26.000	ug/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Fluoranthene	7000.000	27200000	-	28.000	ug/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Fluorene	2700.000	40800000	-	42.000	ug/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Indeno(1,2,3-cd)pyrene	2000.000	34900	-	28.000	ug/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Lead	51.000	1000	24.970	-	mg/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Mercury	19.000	25200	1.520	-	mg/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Naphthalene	2490.000	3090000	-	345.000	ug/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Phenol	600.000	613000000	-	43.000	ug/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Pyrene	7800.000	22100000	-	160.000	ug/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Tetrachloroethene	18600.000	615000	-	695.000	ug/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Toluene	144.000	31300000	-	26.000	ug/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Trichloroethene	1630.000	19600	-	345.000	ug/kg
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Uranium, Total	57.000	2750	3.040	-	mg/kg
100/400	*400-8*	*BV38-002*	*749050.508*	*2081890.466*	*10.00*	*11.00*	*Uranium-234*	*4.175*	*300*	*2.640*	-	*pCi/g*

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Uranium-238	4.175	351	1.490	-	pCi/g
100/400	400-8	BV38-002	749050.508	2081890.466	10.00	11.00	Xylene	1120.000	2040000	-	52.100	ug/kg
100/400	400-8	BV38-003	749036.635	2081887.616	12.50	17.00	2-Methylnaphthalene	54.000	20400000	-	35.000	ug/kg
100/400	400-8	BV38-003	749036.635	2081887.616	12.50	17.00	Acenaphthene	110.000	40800000	-	34.000	ug/kg
100/400	400-8	BV38-003	749036.635	2081887.616	12.50	17.00	Anthracene	75.000	204000000	-	26.000	ug/kg
100/400	400-8	BV38-003	749036.635	2081887.616	12.50	17.00	Benzo(a)anthracene	95.000	34900	-	27.000	ug/kg
100/400	400-8	BV38-003	749036.635	2081887.616	12.50	17.00	Chrysene	120.000	3490000	-	31.000	ug/kg
100/400	400-8	BV38-003	749036.635	2081887.616	12.50	17.00	Dibenzofuran	73.000	2950000	-	40.000	ug/kg
100/400	400-8	BV38-003	749036.635	2081887.616	12.50	17.00	Fluoranthene	230.000	27200000	-	25.000	ug/kg
100/400	400-8	BV38-003	749036.635	2081887.616	12.50	17.00	Fluorene	89.000	40800000	-	38.000	ug/kg
100/400	400-8	BV38-003	749036.635	2081887.616	12.50	17.00	Naphthalene	36.200	3090000	-	5.230	ug/kg
100/400	400-8	BV38-003	749036.635	2081887.616	12.50	17.00	Phenol	44.000	613000000	-	39.000	ug/kg
100/400	400-8	BV38-003	749036.635	2081887.616	12.50	17.00	Pyrene	240.000	22100000	-	150.000	ug/kg
100/400	400-8	BV38-004	749035.733	2081912.907	12.50	15.50	1,2-Dichloropropane	71.600	345000	-	6.060	ug/kg
100/400	400-8	BV38-004	749035.733	2081912.907	12.50	15.50	Acenaphthene	84.000	40800000	-	36.000	ug/kg
100/400	400-8	BV38-004	749035.733	2081912.907	12.50	15.50	Anthracene	100.000	204000000	-	28.000	ug/kg
100/400	400-8	BV38-004	749035.733	2081912.907	12.50	15.50	Benzo(a)anthracene	220.000	34900	-	29.000	ug/kg
100/400	400-8	BV38-004	749035.733	2081912.907	12.50	15.50	Benzo(b)fluoranthene	170.000	34900	-	34.000	ug/kg
100/400	400-8	BV38-004	749035.733	2081912.907	12.50	15.50	Benzo(k)fluoranthene	230.000	349000	-	38.000	ug/kg
100/400	400-8	BV38-004	749035.733	2081912.907	12.50	15.50	Chrysene	270.000	3490000	-	33.000	ug/kg
100/400	400-8	BV38-004	749035.733	2081912.907	12.50	15.50	Fluoranthene	490.000	27200000	-	27.000	ug/kg
100/400	400-8	BV38-004	749035.733	2081912.907	12.50	15.50	Fluorene	65.000	40800000	-	40.000	ug/kg
100/400	400-8	BV38-004	749035.733	2081912.907	12.50	15.50	Indeno(1,2,3-cd)pyrene	130.000	34900	-	27.000	ug/kg
100/400	400-8	BV38-004	749035.733	2081912.907	12.50	15.50	Naphthalene	452.000	3090000	-	34.100	ug/kg
100/400	400-8	BV38-004	749035.733	2081912.907	12.50	15.50	Pyrene	560.000	22100000	-	160.000	ug/kg
100/400	400-8	BV38-004	749035.733	2081912.907	12.50	15.50	Tetrachloroethene	14.000	615000	-	6.060	ug/kg
100/400	400-8	BV38-005	749115.398	2081920.712	0.00	0.50	Acetone	5.100	102000000	-	4.800	ug/kg
100/400	400-8	BV38-005	749115.398	2081920.712	0.00	0.50	Aluminum	19000.000	228000	16902.000	-	mg/kg
100/400	400-8	BV38-005	749115.398	2081920.712	0.00	0.50	bis(2-Ethylhexyl)phthalate	120.000	1970000	-	76.000	ug/kg
100/400	400-8	BV38-005	749115.398	2081920.712	0.00	0.50	Butylbenzylphthalate	99.000	147000000	-	69.000	ug/kg
100/400	400-8	BV38-005	749115.398	2081920.712	0.00	0.50	Lithium	14.000	20400	11.550	-	mg/kg
100/400	400-8	BV38-005	749115.398	2081920.712	0.00	0.50	Mercury	0.580	25200	0.134	-	mg/kg
100/400	400-8	BV38-005	749115.398	2081920.712	0.00	0.50	Methylene chloride	0.950	2530000	-	0.840	ug/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
100/400	400-8	BV38-005	749115.398	2081920.712	0.00	0.50	Naphthalene	2.800	3090000	-	0.900	ug/kg
100/400	400-8	BV38-005	749115.398	2081920.712	0.00	0.50	Tin	3.200	613000	2.900	-	mg/kg
100/400	400-8	BV38-005	749115.398	2081920.712	5.00	5.01	Arsenic	14.000	22.2	13.140	-	mg/kg
100/400	400-8	BV38-005	749115.398	2081920.712	5.00	5.01	Benzo(a)anthracene	48.000	34900	-	46.000	ug/kg
100/400	400-8	BV38-005	749115.398	2081920.712	5.00	5.01	Chrysene	49.000	3490000	-	40.000	ug/kg
100/400	400-8	BV38-005	749115.398	2081920.712	5.00	5.01	Fluoranthene	130.000	27200000	-	46.000	ug/kg
100/400	400-8	BV38-005	749115.398	2081920.712	5.00	5.01	Lead	38.000	1000	24.970	-	mg/kg
100/400	400-8	BV38-005	749115.398	2081920.712	5.00	5.01	Pyrene	100.000	22100000	-	66.000	ug/kg
100/400	400-8	BV38-005	749115.398	2081920.712	5.00	5.01	Uranium-238	2.541	351	1.490	-	pCi/g
100/400	400-8	BV38-006	749116.481	2081889.571	0.00	0.50	Aluminum	25000.000	228000	16902.000	-	mg/kg
100/400	400-8	BV38-006	749116.481	2081889.571	0.00	0.50	Arsenic	11.000	22.2	10.090	-	mg/kg
100/400	400-8	BV38-006	749116.481	2081889.571	0.00	0.50	Beryllium	1.400	921	0.966	-	mg/kg
100/400	400-8	BV38-006	749116.481	2081889.571	0.00	0.50	Chromium	19.000	268	16.990	-	mg/kg
100/400	400-8	BV38-006	749116.481	2081889.571	0.00	0.50	Chrysene	46.000	3490000	-	38.000	ug/kg
100/400	400-8	BV38-006	749116.481	2081889.571	0.00	0.50	Fluoranthene	100.000	27200000	-	43.000	ug/kg
100/400	400-8	BV38-006	749116.481	2081889.571	0.00	0.50	Iron	19000.000	307000	18037.000	-	mg/kg
100/400	400-8	BV38-006	749116.481	2081889.571	0.00	0.50	Lithium	16.000	20400	11.550	-	mg/kg
100/400	400-8	BV38-006	749116.481	2081889.571	0.00	0.50	Mercury	0.510	25200	0.134	-	mg/kg
100/400	400-8	BV38-006	749116.481	2081889.571	0.00	0.50	Nickel	20.000	20400	14.910	-	mg/kg
100/400	400-8	BV38-006	749116.481	2081889.571	0.00	0.50	Pyrene	100.000	22100000	-	62.000	ug/kg
100/400	400-8	BV38-006	749116.481	2081889.571	0.00	0.50	Tin	3.000	613000	2.900	-	mg/kg
100/400	400-8	BV38-006	749116.481	2081889.571	0.00	0.50	Vanadium	52.000	7150	45.590	-	mg/kg
100/400	400-8	BV38-006	749116.481	2081889.571	4.50	6.50	Lead	100.000	1000	24.970	-	mg/kg
100/400	*400-8*	*BV38-006*	*749116.481*	*2081889.571*	*4.50*	*6.50*	*Uranium-234*	*2.717*	*300*	*2.640*	-	*pCi/g*
100/400	400-8	BV38-006	749116.481	2081889.571	4.50	6.50	Uranium-238	2.717	351	1.490	-	pCi/g
100/400	400-8	BV38-007	749059.504	2081868.115	0.00	0.50	Acenaphthene	61.000	40800000	-	49.000	ug/kg
100/400	400-8	BV38-007	749059.504	2081868.115	0.00	0.50	Benzo(a)anthracene	160.000	34900	-	42.000	ug/kg
100/400	400-8	BV38-007	749059.504	2081868.115	0.00	0.50	Benzo(a)pyrene	150.000	3490	-	56.000	ug/kg
100/400	400-8	BV38-007	749059.504	2081868.115	0.00	0.50	Benzo(b)fluoranthene	110.000	34900	-	69.000	ug/kg
100/400	400-8	BV38-007	749059.504	2081868.115	0.00	0.50	Benzo(k)fluoranthene	150.000	349000	-	74.000	ug/kg
100/400	400-8	BV38-007	749059.504	2081868.115	0.00	0.50	Chrysene	180.000	3490000	-	37.000	ug/kg
100/400	400-8	BV38-007	749059.504	2081868.115	0.00	0.50	Fluoranthene	360.000	27200000	-	42.000	ug/kg
100/400	400-8	BV38-007	749059.504	2081868.115	0.00	0.50	Lithium	12.000	20400	11.550	-	mg/kg
100/400	400-8	BV38-007	749059.504	2081868.115	0.00	0.50	Methylene chloride	2.000	2530000	-	0.870	ug/kg
100/400	400-8	BV38-007	749059.504	2081868.115	0.00	0.50	Pyrene	390.000	22100000	-	61.000	ug/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
100/400	000-2	BV38-014	749031.126	2081917.055	0.00	1.00	Acetone	32.000	102000000	-	5.200	ug/kg
100/400	000-2	BV38-014	749031.126	2081917.055	0.00	1.00	Methylene chloride	2.200	2530000	-	0.900	ug/kg
100/400	000-2	BV38-014	749031.126	2081917.055	0.00	1.00	Naphthalene	2.600	3090000	-	0.970	ug/kg
100/400	000-2	BV38-014	749031.126	2081917.055	0.00	1.00	Plutonium-239/240	0.052	50	0.020	-	pCi/g
100/400	000-2	BV38-014	749031.126	2081917.055	0.00	1.00	Uranium-235	0.150	8	0.120	-	pCi/g
100/400	000-2	BV38-014	749031.126	2081917.055	0.00	1.00	Uranium-238	1.550	351	1.490	-	pCi/g
100/400	400-8	BV39-002	749185.072	2081888.922	2.00	2.50	Lead	55.000	1000	24.970	-	mg/kg
100/400	400-8	BV39-002	749185.072	2081888.922	2.00	2.50	Uranium, Total	44.000	2750	3.040	-	mg/kg
100/400	*400-8*	*BV39-002*	*749185.072*	*2081888.922*	*2.00*	*2.50*	*Uranium-234*	*4.154*	*300*	*2.640*	-	*pCi/g*
100/400	400-8	BV39-002	749185.072	2081888.922	2.00	2.50	Uranium-235	0.170	8	0.120	-	pCi/g
100/400	400-8	BV39-002	749185.072	2081888.922	2.00	2.50	Uranium-238	4.154	351	1.490	-	pCi/g
100/400	400-8	BV39-003-01	749213.804	2081888.65	0.00	0.50	Aluminum	18000.000	228000	16902.000	-	mg/kg
100/400	400-8	BV39-003-01	749213.804	2081888.65	0.00	0.50	Benzo(a)anthracene	84.000	34900	-	43.000	ug/kg
100/400	400-8	BV39-003-01	749213.804	2081888.65	0.00	0.50	Benzo(a)pyrene	72.000	3490	-	56.000	ug/kg
100/400	400-8	BV39-003-01	749213.804	2081888.65	0.00	0.50	bis(2-Ethylhexyl)phthalate	130.000	1970000	-	77.000	ug/kg
100/400	400-8	BV39-003-01	749213.804	2081888.65	0.00	0.50	Butylbenzylphthalate	84.000	147000000	-	71.000	ug/kg
100/400	400-8	BV39-003-01	749213.804	2081888.65	0.00	0.50	Chrysene	86.000	3490000	-	38.000	ug/kg
100/400	400-8	BV39-003-01	749213.804	2081888.65	0.00	0.50	Fluoranthene	250.000	27200000	-	43.000	ug/kg
100/400	400-8	BV39-003-01	749213.804	2081888.65	0.00	0.50	Lithium	12.000	20400	11.550	-	mg/kg
100/400	400-8	BV39-003-01	749213.804	2081888.65	0.00	0.50	Mercury	0.140	25200	0.134	-	mg/kg
100/400	400-8	BV39-003-01	749213.804	2081888.65	0.00	0.50	Naphthalene	8.220	3090000	-	5.560	ug/kg
100/400	400-8	BV39-003-01	749213.804	2081888.65	0.00	0.50	Pyrene	230.000	22100000	-	62.000	ug/kg
100/400	*400-8*	*BV39-003-01*	*749213.804*	*2081888.65*	*0.00*	*0.50*	*Uranium-234*	*4.199*	*300*	*2.253*	-	*pCi/g*
100/400	400-8	BV39-003-01	749213.804	2081888.65	0.00	0.50	Uranium-238	4.199	351	2.000	-	pCi/g
100/400	400-8	BV39-003-01	749213.804	2081888.65	0.00	0.50	Zinc	120.000	307000	73.760	-	mg/kg
100/400	400-8	BV39-003-01	749213.804	2081888.65	2.00	2.30	Benzo(a)anthracene	62.000	34900	-	46.000	ug/kg
100/400	400-8	BV39-003-01	749213.804	2081888.65	2.00	2.30	Chrysene	60.000	3490000	-	40.000	ug/kg
100/400	400-8	BV39-003-01	749213.804	2081888.65	2.00	2.30	Fluoranthene	120.000	27200000	-	46.000	ug/kg
100/400	400-8	BV39-003-01	749213.804	2081888.65	2.00	2.30	Pyrene	120.000	22100000	-	66.000	ug/kg
100/400	*400-8*	*BV39-003-01*	*749213.804*	*2081888.65*	*2.00*	*2.30*	*Uranium-234*	*4.187*	*300*	*2.640*	-	*pCi/g*
100/400	400-8	BV39-003-01	749213.804	2081888.65	2.00	2.30	Uranium-235	0.182	8	0.120	-	pCi/g
100/400	400-8	BV39-003-01	749213.804	2081888.65	2.00	2.30	Uranium-238	4.187	351	1.490	-	pCi/g
100/400	400-8	BV39-004	749183.925	2081919.847	0.00	0.50	Aluminum	21000.000	228000	16902.000	-	mg/kg
100/400	400-8	BV39-004	749183.925	2081919.847	0.00	0.50	Beryllium	1.000	921	0.966	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
100/400	400-8	BV39-004	749183.925	2081919.847	0.00	0.50	Chromium	18.000	268	16.990	-	mg/kg
100/400	400-8	BV39-004	749183.925	2081919.847	0.00	0.50	Lithium	12.000	20400	11.550	-	mg/kg
100/400	400-8	BV39-004	749183.925	2081919.847	0.00	0.50	Nickel	15.000	20400	14.910	-	mg/kg
100/400	*400-8*	*BV39-004*	*749183.925*	*2081919.847*	*2.00*	*2.50*	*Uranium-234*	*3.672*	*300*	*2.640*	-	*pCi/g*
100/400	400-8	BV39-004	749183.925	2081919.847	2.00	2.50	Uranium-235	0.147	8	0.120	-	pCi/g
100/400	400-8	BV39-004	749183.925	2081919.847	2.00	2.50	Uranium-238	3.672	351	1.490	-	pCi/g
100/400	*400-8*	*BV39-007*	*749142.084*	*2081889.329*	*6.20*	*6.50*	*Uranium-234*	*4.320*	*300*	*2.640*	-	*pCi/g*
100/400	400-8	BV39-007	749142.084	2081889.329	6.20	6.50	Uranium-235	0.167	8	0.120	-	pCi/g
100/400	400-8	BV39-007	749142.084	2081889.329	6.20	6.50	Uranium-238	4.320	351	1.490	-	pCi/g
100/400	400-3	BW35-002	748552.885	2082068.888	0.83	1.13	Aluminum	21000.000	228000	16902.000	-	mg/kg
100/400	400-3	BW35-002	748552.885	2082068.888	0.83	1.13	Beryllium	0.990	921	0.966	-	mg/kg
100/400	400-3	BW35-002	748552.885	2082068.888	0.83	1.13	Chromium	19.000	268	16.990	-	mg/kg
100/400	400-3	BW35-002	748552.885	2082068.888	0.83	1.13	Cobalt	14.000	1550	10.910	-	mg/kg
100/400	400-3	BW35-002	748552.885	2082068.888	0.83	1.13	Copper	33.000	40900	18.060	-	mg/kg
100/400	400-3	BW35-002	748552.885	2082068.888	0.83	1.13	Lithium	12.000	20400	11.550	-	mg/kg
100/400	400-3	BW35-002	748552.885	2082068.888	0.83	1.13	Nickel	16.000	20400	14.910	-	mg/kg
100/400	400-3	BW35-002	748552.885	2082068.888	0.83	1.13	Strontium	51.000	613000	48.940	-	mg/kg
100/400	*400-3*	*BW35-002*	*748552.885*	*2082068.888*	*0.83*	*1.13*	*Uranium-234*	*3.484*	*300*	*2.253*	-	*pCi/g*
100/400	400-3	BW35-002	748552.885	2082068.888	0.83	1.13	Uranium-235	0.201	8	0.094	-	pCi/g
100/400	400-3	BW35-002	748552.885	2082068.888	0.83	1.13	Uranium-238	3.484	351	2.000	-	pCi/g
100/400	400-3	BW35-003	748549.78	2082054.842	0.00	0.50	Acetone	17.000	102000000	-	5.200	ug/kg
100/400	400-3	BW35-003	748549.78	2082054.842	0.00	0.50	Methylene chloride	1.200	2530000	-	0.900	ug/kg
100/400	400-3	BW35-003	748549.78	2082054.842	0.75	1.25	Beryllium	1.100	921	0.966	-	mg/kg
100/400	400-3	BW35-003	748549.78	2082054.842	0.75	1.25	Chromium	19.000	268	16.990	-	mg/kg
100/400	400-3	BW35-003	748549.78	2082054.842	0.75	1.25	Copper	20.000	40900	18.060	-	mg/kg
100/400	400-3	BW35-003	748549.78	2082054.842	0.75	1.25	Lithium	13.000	20400	11.550	-	mg/kg
100/400	400-3	BW35-003	748549.78	2082054.842	0.75	1.25	Uranium-235	0.210	8	0.094	-	pCi/g
100/400	400-3	BW35-003	748549.78	2082054.842	1.25	1.65	Aluminum	23000.000	228000	16902.000	-	mg/kg
100/400	400-3	BW35-003	748549.78	2082054.842	1.25	1.65	Beryllium	1.200	921	0.966	-	mg/kg
100/400	400-3	BW35-003	748549.78	2082054.842	1.25	1.65	Chromium	22.000	268	16.990	-	mg/kg
100/400	400-3	BW35-003	748549.78	2082054.842	1.25	1.65	Lithium	13.000	20400	11.550	-	mg/kg
100/400	400-3	BW35-003	748549.78	2082054.842	1.25	1.65	Methylene chloride	1.000	2530000	-	0.890	ug/kg
100/400	400-3	BW35-003	748549.78	2082054.842	1.25	1.65	Naphthalene	2.900	3090000	-	0.950	ug/kg
100/400	400-3	BW35-003	748549.78	2082054.842	1.25	1.65	Nickel	18.000	20400	14.910	-	mg/kg
100/400	400-3	BW35-003	748549.78	2082054.842	1.25	1.65	Uranium-235	0.466	8	0.094	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
100/400	400-3	BW36-015	748592.78	2082067.739	0.92	1.42	Aluminum	21000.000	228000	16902.000	-	mg/kg
100/400	400-3	BW36-015	748592.78	2082067.739	0.92	1.42	Beryllium	1.100	921	0.966	-	mg/kg
100/400	400-3	BW36-015	748592.78	2082067.739	0.92	1.42	Chromium	17.000	268	16.990	-	mg/kg
100/400	400-3	BW36-015	748592.78	2082067.739	0.92	1.42	Lithium	12.000	20400	11.550	-	mg/kg
100/400	*400-3*	*BW36-015*	*748592.78*	*2082067.739*	*0.92*	*1.42*	*Uranium-234*	*3.303*	*300*	*2.253*	-	*pCi/g*
100/400	400-3	BW36-015	748592.78	2082067.739	0.92	1.42	Uranium-238	3.303	351	2.000	-	pCi/g
100/400	*400-3*	*BW36-015*	*748592.78*	*2082067.739*	*1.42*	*1.82*	*Uranium-234*	*5.463*	*300*	*2.640*	-	*pCi/g*
100/400	400-3	BW36-015	748592.78	2082067.739	1.42	1.82	Uranium-235	0.309	8	0.120	-	pCi/g
100/400	400-3	BW36-015	748592.78	2082067.739	1.42	1.82	Uranium-238	5.463	351	1.490	-	pCi/g
100/400	400-3	BW36-016	748564.36	2082125.641	0.67	1.17	Aluminum	33000.000	228000	16902.000	-	mg/kg
100/400	400-3	BW36-016	748564.36	2082125.641	0.67	1.17	Beryllium	1.600	921	0.966	-	mg/kg
100/400	400-3	BW36-016	748564.36	2082125.641	0.67	1.17	Chromium	25.000	268	16.990	-	mg/kg
100/400	400-3	BW36-016	748564.36	2082125.641	0.67	1.17	Cobalt	34.000	1550	10.910	-	mg/kg
100/400	400-3	BW36-016	748564.36	2082125.641	0.67	1.17	Copper	80.000	40900	18.060	-	mg/kg
100/400	400-3	BW36-016	748564.36	2082125.641	0.67	1.17	Iron	21000.000	307000	18037.000	-	mg/kg
100/400	400-3	BW36-016	748564.36	2082125.641	0.67	1.17	Lithium	16.000	20400	11.550	-	mg/kg
100/400	400-3	BW36-016	748564.36	2082125.641	0.67	1.17	Nickel	21.000	20400	14.910	-	mg/kg
100/400	400-3	BW36-016	748564.36	2082125.641	0.67	1.17	Tin	7.700	613000	2.900	-	mg/kg
100/400	*400-3*	*BW36-016*	*748564.36*	*2082125.641*	*0.67*	*1.17*	*Uranium-234*	*3.090*	*300*	*2.253*	-	*pCi/g*
100/400	400-3	BW36-016	748564.36	2082125.641	0.67	1.17	Uranium-238	3.090	351	2.000	-	pCi/g
100/400	400-3	BW36-016	748564.36	2082125.641	0.67	1.17	Vanadium	51.000	7150	45.590	-	mg/kg
100/400	*400-3*	*BW36-016*	*748564.36*	*2082125.641*	*1.17*	*1.57*	*Uranium-234*	*4.794*	*300*	*2.640*	-	*pCi/g*
100/400	400-3	BW36-016	748564.36	2082125.641	1.17	1.57	Uranium-235	0.233	8	0.120	-	pCi/g
100/400	400-3	BW36-016	748564.36	2082125.641	1.17	1.57	Uranium-238	4.794	351	1.490	-	pCi/g
100/400	400-8	BW38-001	749033.56	2081949.926	0.00	0.50	Benzo(a)anthracene	49.000	34900	-	42.000	ug/kg
100/400	400-8	BW38-001	749033.56	2081949.926	0.00	0.50	Benzo(a)pyrene	57.000	3490	-	54.000	ug/kg
100/400	400-8	BW38-001	749033.56	2081949.926	0.00	0.50	Benzo(b)fluoranthene	72.000	34900	-	67.000	ug/kg
100/400	400-8	BW38-001	749033.56	2081949.926	0.00	0.50	Chrysene	120.000	3490000	-	36.000	ug/kg
100/400	400-8	BW38-001	749033.56	2081949.926	0.00	0.50	Copper	74.000	40900	18.060	-	mg/kg
100/400	400-8	BW38-001	749033.56	2081949.926	0.00	0.50	Fluoranthene	120.000	27200000	-	42.000	ug/kg
100/400	400-8	BW38-001	749033.56	2081949.926	0.00	0.50	Iron	21000.000	307000	18037.000	-	mg/kg
100/400	400-8	BW38-001	749033.56	2081949.926	0.00	0.50	Pyrene	81.000	22100000	-	60.000	ug/kg
100/400	400-8	BW38-001	749033.56	2081949.926	0.00	0.50	Strontium	65.000	613000	48.940	-	mg/kg
100/400	400-8	BW38-001	749033.56	2081949.926	0.00	0.50	Toluene	6.590	31300000	-	5.110	ug/kg
100/400	400-8	BW38-001	749033.56	2081949.926	0.00	0.50	Uranium-235	0.356	8	0.094	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
100/400	400-8	BW38-001	749033.56	2081949.926	0.00	0.50	Uranium-238	2.159	351	2.000	-	pCi/g
100/400	400-8	BW38-001	749033.56	2081949.926	0.00	0.50	Vanadium	56.000	7150	45.590	-	mg/kg
100/400	400-8	BW38-001	749033.56	2081949.926	0.50	2.50	Plutonium-239/240	0.565	50	0.020	-	pCi/g
100/400	400-8	BW38-001	749033.56	2081949.926	2.50	4.50	Aluminum	41000.000	228000	35373.170	-	mg/kg
100/400	400-8	BW38-001	749033.56	2081949.926	2.50	4.50	bis(2-Ethylhexyl)phthalate	150.000	1970000	-	83.000	ug/kg
100/400	*400-8*	*BW38-001*	*749033.56*	*2081949.926*	*2.50*	*4.50*	*Uranium-234*	*4.699*	*300*	*2.640*	-	*pCi/g*
100/400	400-8	BW38-001	749033.56	2081949.926	2.50	4.50	Uranium-238	4.699	351	1.490	-	pCi/g
100/400	*400-8*	*BW38-001*	*749033.56*	*2081949.926*	*4.50*	*6.50*	*Uranium-234*	*3.267*	*300*	*2.640*	-	*pCi/g*
100/400	400-8	BW38-001	749033.56	2081949.926	4.50	6.50	Uranium-238	3.267	351	1.490	-	pCi/g
100/400	*400-8*	*BW38-001*	*749033.56*	*2081949.926*	*6.50*	*8.50*	*Uranium-234*	*4.303*	*300*	*2.640*	-	*pCi/g*
100/400	400-8	BW38-001	749033.56	2081949.926	6.50	8.50	Uranium-238	4.303	351	1.490	-	pCi/g
100/400	400-8	BW38-002	749032.942	2081984.363	0.00	0.50	Benzo(a)anthracene	70.000	34900	-	41.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	0.00	0.50	Benzo(a)pyrene	80.000	3490	-	53.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	0.00	0.50	Benzo(b)fluoranthene	73.000	34900	-	66.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	0.00	0.50	Chrysene	110.000	3490000	-	36.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	0.00	0.50	Copper	32.000	40900	18.060	-	mg/kg
100/400	400-8	BW38-002	749032.942	2081984.363	0.00	0.50	Ethylbenzene	173.000	4250000	-	24.700	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	0.00	0.50	Fluoranthene	170.000	27200000	-	41.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	0.00	0.50	Indeno(1,2,3-cd)pyrene	75.000	34900	-	46.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	0.00	0.50	Pyrene	120.000	22100000	-	59.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	0.00	0.50	Strontium	53.000	613000	48.940	-	mg/kg
100/400	*400-8*	*BW38-002*	*749032.942*	*2081984.363*	*0.00*	*0.50*	*Uranium-234*	*3.172*	*300*	*2.253*	-	*pCi/g*
100/400	400-8	BW38-002	749032.942	2081984.363	0.00	0.50	Uranium-235	0.176	8	0.094	-	pCi/g
100/400	400-8	BW38-002	749032.942	2081984.363	0.00	0.50	Uranium-238	3.172	351	2.000	-	pCi/g
100/400	400-8	BW38-002	749032.942	2081984.363	0.00	0.50	Vanadium	54.000	7150	45.590	-	mg/kg
100/400	400-8	BW38-002	749032.942	2081984.363	0.00	0.50	Xylene	933.000	2040000	-	49.400	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	0.50	2.50	Benzo(a)anthracene	70.000	34900	-	43.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	0.50	2.50	Benzo(a)pyrene	72.000	3490	-	56.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	0.50	2.50	Benzo(b)fluoranthene	70.000	34900	-	70.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	0.50	2.50	Chrysene	67.000	3490000	-	38.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	0.50	2.50	Fluoranthene	140.000	27200000	-	43.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	0.50	2.50	Indeno(1,2,3-cd)pyrene	51.000	34900	-	49.000	ug/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
100/400	400-8	BW38-002	749032.942	2081984.363	0.50	2.50	Naphthalene	5.810	3090000	-	5.410	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	0.50	2.50	Pyrene	140.000	22100000	-	62.000	ug/kg
100/400	*400-8*	*BW38-002*	*749032.942*	*2081984.363*	*0.50*	*2.50*	*Uranium-234*	*5.258*	*300*	*2.640*	-	*pCi/g*
100/400	400-8	BW38-002	749032.942	2081984.363	0.50	2.50	Uranium-235	0.189	8	0.120	-	pCi/g
100/400	400-8	BW38-002	749032.942	2081984.363	0.50	2.50	Uranium-238	5.258	351	1.490	-	pCi/g
100/400	400-8	BW38-002	749032.942	2081984.363	2.50	4.50	Acenaphthene	330.000	40800000	-	48.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	2.50	4.50	Anthracene	370.000	204000000	-	69.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	2.50	4.50	Benzo(a)anthracene	710.000	34900	-	41.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	2.50	4.50	Benzo(a)pyrene	700.000	3490	-	54.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	2.50	4.50	Benzo(b)fluoranthene	740.000	34900	-	67.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	2.50	4.50	Benzo(k)fluoranthene	410.000	349000	-	72.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	2.50	4.50	Chrysene	790.000	3490000	-	36.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	2.50	4.50	Dibenz(a,h)anthracene	110.000	3490	-	66.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	2.50	4.50	Dibenzofuran	97.000	2950000	-	53.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	2.50	4.50	Fluoranthene	1800.000	27200000	-	41.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	2.50	4.50	Fluorene	220.000	40800000	-	57.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	2.50	4.50	Indeno(1,2,3-cd)pyrene	430.000	34900	-	47.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	2.50	4.50	Pyrene	1800.000	22100000	-	59.000	ug/kg
100/400	400-8	BW38-002	749032.942	2081984.363	2.50	4.50	Uranium-238	2.175	351	1.490	-	pCi/g
100/400	*400-8*	*BW38-002*	*749032.942*	*2081984.363*	*4.50*	*6.50*	*Uranium-234*	*3.104*	*300*	*2.640*	-	*pCi/g*
100/400	400-8	BW38-002	749032.942	2081984.363	4.50	6.50	Uranium-235	0.183	8	0.120	-	pCi/g
100/400	400-8	BW38-002	749032.942	2081984.363	4.50	6.50	Uranium-238	3.104	351	1.490	-	pCi/g
100/400	*400-8*	*BW38-002*	*749032.942*	*2081984.363*	*6.50*	*8.50*	*Uranium-234*	*3.767*	*300*	*2.640*	-	*pCi/g*
100/400	400-8	BW38-002	749032.942	2081984.363	6.50	8.50	Uranium-235	0.151	8	0.120	-	pCi/g
100/400	400-8	BW38-002	749032.942	2081984.363	6.50	8.50	Uranium-238	3.767	351	1.490	-	pCi/g
100/400	400-8	BW38-003	749116.156	2081939.807	0.00	0.50	Arsenic	17.700	22.2	10.090	-	mg/kg
100/400	400-8	BW38-003	749116.156	2081939.807	0.00	0.50	Barium	600.000	26400	141.260	-	mg/kg
100/400	400-8	BW38-003	749116.156	2081939.807	0.00	0.50	Butylbenzylphthalate	450.000	147000000	-	67.000	ug/kg
100/400	400-8	BW38-003	749116.156	2081939.807	0.00	0.50	Chromium	38.100	268	16.990	-	mg/kg
100/400	400-8	BW38-003	749116.156	2081939.807	0.00	0.50	Copper	36.600	40900	18.060	-	mg/kg
100/400	400-8	BW38-003	749116.156	2081939.807	0.00	0.50	Iron	40500.000	307000	18037.000	-	mg/kg
100/400	400-8	BW38-003	749116.156	2081939.807	0.00	0.50	Nickel	46.100	20400	14.910	-	mg/kg
100/400	400-8	BW38-003	749116.156	2081939.807	0.00	0.50	Strontium	157.000	613000	48.940	-	mg/kg
100/400	*400-8*	*BW38-003*	*749116.156*	*2081939.807*	*0.00*	*0.50*	*Uranium-234*	*2.875*	*300*	*2.253*	-	*pCi/g*

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
100/400	400-8	BW38-003	749116.156	2081939.807	0.00	0.50	Uranium-238	2.875	351	2.000	-	pCi/g
100/400	400-8	BW38-003	749116.156	2081939.807	0.00	0.50	Vanadium	154.000	7150	45.590	-	mg/kg
100/400	400-8	BW38-003	749116.156	2081939.807	4.00	4.10	Barium	551.000	26400	289.380	-	mg/kg
100/400	400-8	BW38-003	749116.156	2081939.807	4.00	4.10	Copper	38.600	40900	38.210	-	mg/kg
100/400	400-8	BW38-003	749116.156	2081939.807	4.00	4.10	Iron	42700.000	307000	41046.520	-	mg/kg
100/400	400-8	BW38-003	749116.156	2081939.807	4.00	4.10	Lead	942.000	1000	24.970	-	mg/kg
100/400	400-8	BW38-003	749116.156	2081939.807	4.00	4.10	Selenium	5.940	5110	4.800	-	mg/kg
100/400	*400-8*	*BW38-003*	*749116.156*	*2081939.807*	*4.00*	*4.10*	*Uranium-234*	*3.679*	*300*	*2.640*	-	*pCi/g*
100/400	400-8	BW38-003	749116.156	2081939.807	4.00	4.10	Uranium-235	0.188	8	0.120	-	pCi/g
100/400	400-8	BW38-003	749116.156	2081939.807	4.00	4.10	Uranium-238	3.679	351	1.490	-	pCi/g
100/400	400-8	BW38-003	749116.156	2081939.807	4.00	4.10	Vanadium	164.000	7150	88.490	-	mg/kg
100/400	400-8	BW38-004	749033.521	2082028.6	0.00	0.50	Benzo(a)anthracene	67.000	34900	-	41.000	ug/kg
100/400	400-8	BW38-004	749033.521	2082028.6	0.00	0.50	Benzo(a)pyrene	63.000	3490	-	54.000	ug/kg
100/400	400-8	BW38-004	749033.521	2082028.6	0.00	0.50	Benzo(b)fluoranthene	85.000	34900	-	67.000	ug/kg
100/400	400-8	BW38-004	749033.521	2082028.6	0.00	0.50	Chrysene	78.000	3490000	-	36.000	ug/kg
100/400	400-8	BW38-004	749033.521	2082028.6	0.00	0.50	Fluoranthene	130.000	27200000	-	41.000	ug/kg
100/400	400-8	BW38-004	749033.521	2082028.6	0.00	0.50	Pyrene	140.000	22100000	-	59.000	ug/kg
100/400	*400-8*	*BW38-004*	*749033.521*	*2082028.6*	*0.00*	*0.50*	*Uranium-234*	*3.400*	*300*	*2.253*	-	*pCi/g*
100/400	400-8	BW38-004	749033.521	2082028.6	0.00	0.50	Uranium-235	0.192	8	0.094	-	pCi/g
100/400	400-8	BW38-004	749033.521	2082028.6	0.00	0.50	Uranium-238	3.400	351	2.000	-	pCi/g
100/400	400-8	BW38-004	749033.521	2082028.6	0.50	2.50	Acenaphthene	130.000	40800000	-	49.000	ug/kg
100/400	400-8	BW38-004	749033.521	2082028.6	0.50	2.50	Anthracene	160.000	204000000	-	71.000	ug/kg
100/400	400-8	BW38-004	749033.521	2082028.6	0.50	2.50	Benzo(a)anthracene	360.000	34900	-	43.000	ug/kg
100/400	400-8	BW38-004	749033.521	2082028.6	0.50	2.50	Benzo(a)pyrene	370.000	3490	-	56.000	ug/kg
100/400	400-8	BW38-004	749033.521	2082028.6	0.50	2.50	Benzo(b)fluoranthene	470.000	34900	-	69.000	ug/kg
100/400	400-8	BW38-004	749033.521	2082028.6	0.50	2.50	Benzo(k)fluoranthene	170.000	349000	-	75.000	ug/kg
100/400	400-8	BW38-004	749033.521	2082028.6	0.50	2.50	Chrysene	420.000	3490000	-	37.000	ug/kg
100/400	400-8	BW38-004	749033.521	2082028.6	0.50	2.50	Dibenz(a,h)anthracene	75.000	3490	-	68.000	ug/kg
100/400	400-8	BW38-004	749033.521	2082028.6	0.50	2.50	Fluoranthene	930.000	27200000	-	43.000	ug/kg
100/400	400-8	BW38-004	749033.521	2082028.6	0.50	2.50	Fluorene	94.000	40800000	-	59.000	ug/kg
100/400	400-8	BW38-004	749033.521	2082028.6	0.50	2.50	Indeno(1,2,3-cd)pyrene	230.000	34900	-	48.000	ug/kg
100/400	400-8	BW38-004	749033.521	2082028.6	0.50	2.50	Pyrene	890.000	22100000	-	62.000	ug/kg
100/400	*400-8*	*BW38-004*	*749033.521*	*2082028.6*	*0.50*	*2.50*	*Uranium-234*	*3.913*	*300*	*2.640*	-	*pCi/g*
100/400	400-8	BW38-004	749033.521	2082028.6	0.50	2.50	Uranium-235	0.197	8	0.120	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
100/400	400-8	BW38-004	749033.521	2082028.6	0.50	2.50	Uranium-238	3.913	351	1.490	-	pCi/g
100/400	*400-8*	*BW38-004*	*749033.521*	*2082028.6*	*2.50*	*4.50*	*Uranium-234*	*4.046*	*300*	*2.640*	-	*pCi/g*
100/400	400-8	BW38-004	749033.521	2082028.6	2.50	4.50	Uranium-235	0.203	8	0.120	-	pCi/g
100/400	400-8	BW38-004	749033.521	2082028.6	2.50	4.50	Uranium-238	4.046	351	1.490	-	pCi/g
100/400	**400-8**	**BW38-004**	**749033.521**	**2082028.6**	**4.50**	**6.50**	**Arsenic**	**23.000**	**22.2**	**13.140**	**-**	**mg/kg**
100/400	*400-8*	*BW38-004*	*749033.521*	*2082028.6*	*4.50*	*6.50*	*Uranium-234*	*3.998*	*300*	*2.640*	-	*pCi/g*
100/400	400-8	BW38-004	749033.521	2082028.6	4.50	6.50	Uranium-235	0.238	8	0.120	-	pCi/g
100/400	400-8	BW38-004	749033.521	2082028.6	4.50	6.50	Uranium-238	3.998	351	1.490	-	pCi/g
100/400	400-8	BW38-004	749033.521	2082028.6	6.50	8.50	Methylene chloride	1.400	2530000	-	0.860	ug/kg
100/400	*000-2*	*BW38-005*	*749024.9466*	*2082120.497*	*2.50*	*4.50*	*Uranium-234*	*4.401*	*300*	*2.640*	-	*pCi/g*
100/400	000-2	BW38-005	749024.9466	2082120.497	2.50	4.50	Uranium-235	0.188	8	0.120	-	pCi/g
100/400	000-2	BW38-005	749024.9466	2082120.497	2.50	4.50	Uranium-238	4.401	351	1.490	-	pCi/g
100/400	000-2	BW38-008	749032.383	2082002.555	3.00	3.50	Lead	57.000	1000	24.970	-	mg/kg
100/400	000-2	BW38-008	749032.383	2082002.555	3.00	3.50	Naphthalene	3.000	3090000	-	1.000	ug/kg
100/400	400-8	BW39-000	749230.471	2081942.057	1.00	1.10	2-Methylnaphthalene	280.000	20400000	-	41.000	ug/kg
100/400	400-8	BW39-000	749230.471	2081942.057	1.00	1.10	Arsenic	17.500	22.2	13.140	-	mg/kg
100/400	400-8	BW39-000	749230.471	2081942.057	1.00	1.10	Barium	515.000	26400	289.380	-	mg/kg
100/400	400-8	BW39-000	749230.471	2081942.057	1.00	1.10	bis(2-Ethylhexyl)phthalate	350.000	1970000	-	83.000	ug/kg
100/400	400-8	BW39-000	749230.471	2081942.057	1.00	1.10	Butylbenzylphthalate	1300.000	147000000	-	75.000	ug/kg
100/400	400-8	BW39-000	749230.471	2081942.057	1.00	1.10	Copper	44.100	40900	38.210	-	mg/kg
100/400	400-8	BW39-000	749230.471	2081942.057	1.00	1.10	Fluoranthene	50.000	27200000	-	46.000	ug/kg
100/400	400-8	BW39-000	749230.471	2081942.057	1.00	1.10	Iron	41400.000	307000	41046.520	-	mg/kg
100/400	400-8	BW39-000	749230.471	2081942.057	1.00	1.10	Lead	80.400	1000	24.970	-	mg/kg
100/400	*400-8*	*BW39-000*	*749230.471*	*2081942.057*	*1.00*	*1.10*	*Uranium-234*	*4.684*	*300*	*2.640*	-	*pCi/g*
100/400	400-8	BW39-000	749230.471	2081942.057	1.00	1.10	Uranium-235	0.296	8	0.120	-	pCi/g
100/400	400-8	BW39-000	749230.471	2081942.057	1.00	1.10	Uranium-238	4.684	351	1.490	-	pCi/g
100/400	400-8	BW39-000	749230.471	2081942.057	1.00	1.10	Vanadium	159.000	7150	88.490	-	mg/kg
100/400	400-8	BW39-000	749230.471	2081942.057	4.50	6.50	Chromium	140.000	268	68.270	-	mg/kg
100/400	400-8	BW39-000	749230.471	2081942.057	4.50	6.50	Nickel	70.000	20400	62.210	-	mg/kg
100/400	*400-8*	*BW39-000*	*749230.471*	*2081942.057*	*4.50*	*6.50*	*Uranium-234*	*4.601*	*300*	*2.640*	-	*pCi/g*
100/400	400-8	BW39-000	749230.471	2081942.057	4.50	6.50	Uranium-235	0.270	8	0.120	-	pCi/g
100/400	400-8	BW39-000	749230.471	2081942.057	4.50	6.50	Uranium-238	4.601	351	1.490	-	pCi/g
100/400	400-8	BW39-001	749196.289	2081941.424	0.00	0.50	Arsenic	18.100	22.2	10.090	-	mg/kg
100/400	400-8	BW39-001	749196.289	2081941.424	0.00	0.50	Barium	546.000	26400	141.260	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
100/400	400-8	BW39-001	749196.289	2081941.424	0.00	0.50	Chromium	44.200	268	16.990	-	mg/kg
100/400	400-8	BW39-001	749196.289	2081941.424	0.00	0.50	Copper	60.300	40900	18.060	-	mg/kg
100/400	400-8	BW39-001	749196.289	2081941.424	0.00	0.50	Iron	41900.000	307000	18037.000	-	mg/kg
100/400	400-8	BW39-001	749196.289	2081941.424	0.00	0.50	Nickel	55.200	20400	14.910	-	mg/kg
100/400	400-8	BW39-001	749196.289	2081941.424	0.00	0.50	Strontium	153.000	613000	48.940	-	mg/kg
100/400	*400-8*	*BW39-001*	*749196.289*	*2081941.424*	*0.00*	*0.50*	*Uranium-234*	*3.722*	*300*	*2.253*	-	*pCi/g*
100/400	400-8	BW39-001	749196.289	2081941.424	0.00	0.50	Uranium-235	0.200	8	0.094	-	pCi/g
100/400	400-8	BW39-001	749196.289	2081941.424	0.00	0.50	Uranium-238	3.722	351	2.000	-	pCi/g
100/400	400-8	BW39-001	749196.289	2081941.424	0.00	0.50	Vanadium	162.000	7150	45.590	-	mg/kg
100/400	400-8	BW39-001	749196.289	2081941.424	2.00	2.10	Arsenic	13.300	22.2	13.140	-	mg/kg
100/400	400-8	BW39-001	749196.289	2081941.424	2.00	2.10	Barium	556.000	26400	289.380	-	mg/kg
100/400	400-8	BW39-001	749196.289	2081941.424	2.00	2.10	Copper	58.100	40900	38.210	-	mg/kg
100/400	400-8	BW39-001	749196.289	2081941.424	2.00	2.10	Iron	41400.000	307000	41046.520	-	mg/kg
100/400	*400-8*	*BW39-001*	*749196.289*	*2081941.424*	*2.00*	*2.10*	*Uranium-234*	*4.019*	*300*	*2.640*	-	*pCi/g*
100/400	400-8	BW39-001	749196.289	2081941.424	2.00	2.10	Uranium-235	0.179	8	0.120	-	pCi/g
100/400	400-8	BW39-001	749196.289	2081941.424	2.00	2.10	Uranium-238	4.019	351	1.490	-	pCi/g
100/400	400-8	BW39-001	749196.289	2081941.424	2.00	2.10	Vanadium	135.000	7150	88.490	-	mg/kg
100/400	400-3	BX35-002	748539.58	2082154.314	0.75	1.25	Aluminum	19000.000	228000	16902.000	-	mg/kg
100/400	400-3	BX35-002	748539.58	2082154.314	0.75	1.25	Beryllium	0.990	921	0.966	-	mg/kg
100/400	400-3	BX35-002	748539.58	2082154.314	0.75	1.25	Nickel	15.000	20400	14.910	-	mg/kg
100/400	*400-3*	*BX35-002*	*748539.58*	*2082154.314*	*0.75*	*1.25*	*Uranium-234*	*4.682*	*300*	*2.253*	-	*pCi/g*
100/400	400-3	BX35-002	748539.58	2082154.314	0.75	1.25	Uranium-235	0.163	8	0.094	-	pCi/g
100/400	400-3	BX35-002	748539.58	2082154.314	0.75	1.25	Uranium-238	4.682	351	2.000	-	pCi/g
100/400	*400-3*	*BX35-002*	*748539.58*	*2082154.314*	*1.25*	*1.65*	*Uranium-234*	*4.120*	*300*	*2.640*	-	*pCi/g*
100/400	400-3	BX35-002	748539.58	2082154.314	1.25	1.65	Uranium-235	0.207	8	0.120	-	pCi/g
100/400	400-3	BX35-002	748539.58	2082154.314	1.25	1.65	Uranium-238	4.120	351	1.490	-	pCi/g
100/400	400-3	BX36-008	748563.98	2082172.014	0.67	0.97	Aluminum	25000.000	228000	16902.000	-	mg/kg
100/400	400-3	BX36-008	748563.98	2082172.014	0.67	0.97	Beryllium	1.300	921	0.966	-	mg/kg
100/400	400-3	BX36-008	748563.98	2082172.014	0.67	0.97	Chromium	19.000	268	16.990	-	mg/kg
100/400	400-3	BX36-008	748563.98	2082172.014	0.67	0.97	Lithium	14.000	20400	11.550	-	mg/kg
100/400	400-3	BX36-008	748563.98	2082172.014	0.67	0.97	Nickel	17.000	20400	14.910	-	mg/kg
100/400	*400-3*	*BX36-008*	*748563.98*	*2082172.014*	*0.67*	*0.97*	*Uranium-234*	*6.716*	*300*	*2.253*	-	*pCi/g*
100/400	400-3	BX36-008	748563.98	2082172.014	0.67	0.97	Uranium-238	6.716	351	2.000	-	pCi/g
100/400	400-3	BX36-009	748563.652	2082219.449	1.00	1.50	Aluminum	28000.000	228000	16902.000	-	mg/kg
100/400	400-3	BX36-009	748563.652	2082219.449	1.00	1.50	Beryllium	1.300	921	0.966	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
100/400	400-3	BX36-009	748563.652	2082219.449	1.00	1.50	Chromium	20.000	268	16.990	-	mg/kg
100/400	400-3	BX36-009	748563.652	2082219.449	1.00	1.50	Lithium	15.000	20400	11.550	-	mg/kg
100/400	400-3	BX36-009	748563.652	2082219.449	1.00	1.50	Nickel	19.000	20400	14.910	-	mg/kg
100/400	400-3	BX36-009	748563.652	2082219.449	1.00	1.50	Strontium	59.000	613000	48.940	-	mg/kg
100/400	*400-3*	*BX36-009*	*748563.652*	*2082219.449*	*1.00*	*1.50*	*Uranium-234*	*3.868*	*300*	*2.253*	-	*pCi/g*
100/400	400-3	BX36-009	748563.652	2082219.449	1.00	1.50	Uranium-235	0.218	8	0.094	-	pCi/g
100/400	400-3	BX36-009	748563.652	2082219.449	1.00	1.50	Uranium-238	3.868	351	2.000	-	pCi/g
100/400	*400-3*	*BX36-009*	*748563.652*	*2082219.449*	*1.50*	*1.90*	*Uranium-234*	*3.766*	*300*	*2.640*	-	*pCi/g*
100/400	400-3	BX36-009	748563.652	2082219.449	1.50	1.90	Uranium-235	0.209	8	0.120	-	pCi/g
100/400	400-3	BX36-009	748563.652	2082219.449	1.50	1.90	Uranium-238	3.766	351	1.490	-	pCi/g
100/400	*400-3*	*BX37-000*	*748911.267*	*2082331.807*	*2.50*	*4.50*	*Uranium-234*	*4.554*	*300*	*2.640*	-	*pCi/g*
100/400	400-3	BX37-000	748911.267	2082331.807	2.50	4.50	Uranium-235	0.206	8	0.120	-	pCi/g
100/400	400-3	BX37-000	748911.267	2082331.807	2.50	4.50	Uranium-238	4.554	351	1.490	-	pCi/g
100/400	400-3	BX37-000	748911.267	2082331.807	4.50	6.50	Aluminum	36000.000	228000	35373.170	-	mg/kg
100/400	*400-3*	*BX37-000*	*748911.267*	*2082331.807*	*4.50*	*6.50*	*Uranium-234*	*3.959*	*300*	*2.640*	-	*pCi/g*
100/400	400-3	BX37-000	748911.267	2082331.807	4.50	6.50	Uranium-235	0.238	8	0.120	-	pCi/g
100/400	400-3	BX37-000	748911.267	2082331.807	4.50	6.50	Uranium-238	3.959	351	1.490	-	pCi/g
100/400	*400-3*	*BX37-000*	*748911.267*	*2082331.807*	*6.50*	*8.50*	*Uranium-234*	*3.771*	*300*	*2.640*	-	*pCi/g*
100/400	400-3	BX37-000	748911.267	2082331.807	6.50	8.50	Uranium-235	0.180	8	0.120	-	pCi/g
100/400	400-3	BX37-000	748911.267	2082331.807	6.50	8.50	Uranium-238	3.771	351	1.490	-	pCi/g
100/400	000-2	BX38-024	749028.2145	2082237.827	2.50	4.50	Acetone	11.000	102000000	-	5.100	ug/kg
100/400	000-2	BX38-026	749032.559	2082103.039	3.00	3.50	Arsenic	17.000	22.2	13.140	-	mg/kg
100/400	000-2	BX38-037	749032.093	2082185.585	3.50	4.00	Americium-241	0.278	76	0.020	-	pCi/g
100/400	000-2	BX38-037	749032.093	2082185.585	3.50	4.00	Naphthalene	1.000	3090000	-	0.990	ug/kg
100/400	*400-3*	*BY37-000*	*748949.82*	*2082386.21*	*2.50*	*4.50*	*Uranium-234*	*4.313*	*300*	*2.640*	-	*pCi/g*
100/400	400-3	BY37-000	748949.82	2082386.21	2.50	4.50	Uranium-235	0.232	8	0.120	-	pCi/g
100/400	400-3	BY37-000	748949.82	2082386.21	2.50	4.50	Uranium-238	4.313	351	1.490	-	pCi/g
100/400	*400-3*	*BY37-000*	*748949.82*	*2082386.21*	*4.50*	*6.50*	*Uranium-234*	*4.356*	*300*	*2.640*	-	*pCi/g*
100/400	400-3	BY37-000	748949.82	2082386.21	4.50	6.50	Uranium-235	0.235	8	0.120	-	pCi/g
100/400	400-3	BY37-000	748949.82	2082386.21	4.50	6.50	Uranium-238	4.356	351	1.490	-	pCi/g
100/400	400-3	BY37-000	748949.82	2082386.21	6.50	8.50	Uranium, Total	5.000	2750	3.040	-	mg/kg
100/400	*400-3*	*BY37-000*	*748949.82*	*2082386.21*	*6.50*	*8.50*	*Uranium-234*	*3.438*	*300*	*2.640*	-	*pCi/g*
100/400	400-3	BY37-000	748949.82	2082386.21	6.50	8.50	Uranium-235	0.218	8	0.120	-	pCi/g
100/400	400-3	BY37-000	748949.82	2082386.21	6.50	8.50	Uranium-238	3.438	351	1.490	-	pCi/g
100/400	400-3	BY37-006	748772.085	2082366.663	0.67	1.17	Aluminum	20000.000	228000	16902.000	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
100/400	400-3	BY37-006	748772.085	2082366.663	0.67	1.17	Chromium	17.000	268	16.990	-	mg/kg
100/400	400-3	BY37-006	748772.085	2082366.663	0.67	1.17	Lithium	12.000	20400	11.550	-	mg/kg
100/400	400-3	BY37-006	748772.085	2082366.663	0.67	1.17	Uranium, Total	9.800	2750	5.980	-	mg/kg
100/400	*400-3*	*BY37-006*	*748772.085*	*2082366.663*	*0.67*	*1.17*	*Uranium-234*	*3.926*	*300*	*2.253*	-	*pCi/g*
100/400	400-3	BY37-006	748772.085	2082366.663	0.67	1.17	Uranium-235	0.197	8	0.094	-	pCi/g
100/400	400-3	BY37-006	748772.085	2082366.663	0.67	1.17	Uranium-238	3.926	351	2.000	-	pCi/g
100/400	400-3	BY37-006	748772.085	2082366.663	1.17	2.07	Uranium, Total	4.800	2750	3.040	-	mg/kg
100/400	*400-3*	*BY37-006*	*748772.085*	*2082366.663*	*1.17*	*2.07*	*Uranium-234*	*8.383*	*300*	*2.640*	-	*pCi/g*
100/400	400-3	BY37-006	748772.085	2082366.663	1.17	2.07	Uranium-235	0.241	8	0.120	-	pCi/g
100/400	400-3	BY37-006	748772.085	2082366.663	1.17	2.07	Uranium-238	8.383	351	1.490	-	pCi/g
100/400	000-2	BY38-012	749015.1564	2082533.911	2.50	4.50	Toluene	7.950	31300000	-	6.060	ug/kg
100/400	*000-2*	*BY38-012*	*749015.1564*	*2082533.911*	*2.50*	*4.50*	*Uranium-234*	*5.083*	*300*	*2.640*	-	*pCi/g*
100/400	000-2	BY38-012	749015.1564	2082533.911	2.50	4.50	Uranium-235	0.297	8	0.120	-	pCi/g
100/400	000-2	BY38-012	749015.1564	2082533.911	2.50	4.50	Uranium-238	5.083	351	1.490	-	pCi/g
100/400	000-2	BY38-013	749011.8503	2082413.426	2.50	4.50	Aluminum	80000.000	228000	35373.170	-	mg/kg
100/400	000-2	BY38-013	749011.8503	2082413.426	2.50	4.50	Arsenic	21.000	22.2	13.140	-	mg/kg
100/400	000-2	BY38-013	749011.8503	2082413.426	2.50	4.50	Lithium	50.000	20400	34.660	-	mg/kg
100/400	000-2	BY38-013	749011.8503	2082413.426	2.50	4.50	Toluene	12.600	31300000	-	5.480	ug/kg
100/400	*000-2*	*BY38-013*	*749011.8503*	*2082413.426*	*2.50*	*4.50*	*Uranium-234*	*3.990*	*300*	*2.640*	-	*pCi/g*
100/400	000-2	BY38-013	749011.8503	2082413.426	2.50	4.50	Uranium-235	0.242	8	0.120	-	pCi/g
100/400	000-2	BY38-013	749011.8503	2082413.426	2.50	4.50	Uranium-238	3.990	351	1.490	-	pCi/g
100/400	000-2	BY38-013	749011.8503	2082413.426	2.50	4.50	Vanadium	120.000	7150	88.490	-	mg/kg
100/400	000-2	BY38-016	749034.65	2082417.63	4.00	4.50	Acetone	9.600	102000000	-	5.600	ug/kg
100/400	000-2	BZ38-014	749003.378	2082647.433	2.50	4.00	Aluminum	61000.000	228000	35373.170	-	mg/kg
100/400	000-2	BZ38-014	749003.378	2082647.433	2.50	4.00	Arsenic	16.000	22.2	13.140	-	mg/kg
100/400	*000-2*	*BZ38-014*	*749003.378*	*2082647.433*	*2.50*	*4.00*	*Uranium-234*	*4.536*	*300*	*2.640*	-	*pCi/g*
100/400	000-2	BZ38-014	749003.378	2082647.433	2.50	4.00	Uranium-235	0.267	8	0.120	-	pCi/g
100/400	000-2	BZ38-014	749003.378	2082647.433	2.50	4.00	Uranium-238	4.536	351	1.490	-	pCi/g
100/400	000-2	BZ38-014	749003.378	2082647.433	2.50	4.00	Vanadium	90.000	7150	88.490	-	mg/kg
100/400	000-2	CA38-011	748998.905	2082749.12	2.50	4.40	Acetone	130.000	102000000	-	123.000	ug/kg
100/400	000-2	CA38-011	748998.905	2082749.12	2.50	4.40	Aluminum	54000.000	228000	35373.170	-	mg/kg
100/400	000-2	CA38-011	748998.905	2082749.12	2.50	4.40	Arsenic	15.000	22.2	13.140	-	mg/kg
100/400	*000-2*	*CA38-011*	*748998.905*	*2082749.12*	*2.50*	*4.40*	*Uranium-234*	*4.590*	*300*	*2.640*	-	*pCi/g*
100/400	000-2	CA38-011	748998.905	2082749.12	2.50	4.40	Uranium-235	0.237	8	0.120	-	pCi/g
100/400	000-2	CA38-011	748998.905	2082749.12	2.50	4.40	Uranium-238	4.590	351	1.490	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
100/400	000-2	CA38-012	749009.942	2082836.508	2.50	3.40	Aluminum	42000.000	228000	35373.170	-	mg/kg
100/400	*000-2*	*CA38-012*	*749009.942*	*2082836.508*	*2.50*	*3.40*	*Uranium-234*	*5.180*	*300*	*2.640*	-	*pCi/g*
100/400	000-2	CA38-012	749009.942	2082836.508	2.50	3.40	Uranium-235	0.244	8	0.120	-	pCi/g
100/400	000-2	CA38-012	749009.942	2082836.508	2.50	3.40	Uranium-238	5.180	351	1.490	-	pCi/g
100/400	*000-2*	*CB38-006*	*749010.074*	*2082941.836*	*2.50*	*3.70*	*Uranium-234*	*3.512*	*300*	*2.640*	-	*pCi/g*
100/400	000-2	CB38-006	749010.074	2082941.836	2.50	3.70	Uranium-235	0.188	8	0.120	-	pCi/g
100/400	000-2	CB38-006	749010.074	2082941.836	2.50	3.70	Uranium-238	3.512	351	1.490	-	pCi/g
100/400	000-2	CB38-007	749018.056	2083034.793	2.40	4.40	Aluminum	54000.000	228000	35373.170	-	mg/kg
100/400	000-2	CB38-007	749018.056	2083034.793	2.40	4.40	Toluene	11.000	31300000	-	6.060	ug/kg
100/400	*000-2*	*CB38-007*	*749018.056*	*2083034.793*	*2.40*	*4.40*	*Uranium-234*	*3.958*	*300*	*2.640*	-	*pCi/g*
100/400	000-2	CB38-007	749018.056	2083034.793	2.40	4.40	Uranium-235	0.233	8	0.120	-	pCi/g
100/400	000-2	CB38-007	749018.056	2083034.793	2.40	4.40	Uranium-238	3.958	351	1.490	-	pCi/g
100/400	000-2	CB38-008	749009.744	2083001.161	4.00	4.50	2-Butanone	14.000	192000000	-	5.900	ug/kg
100/400	000-2	CB38-008	749009.744	2083001.161	4.00	4.50	Acetone	6.100	102000000	-	5.800	ug/kg
100/400	000-2	CB38-008	749009.744	2083001.161	4.00	4.50	Toluene	2.100	31300000	-	0.980	ug/kg
100/400	*000-2*	*CC38-000*	*749011.998*	*2083230.455*	*2.50*	*3.80*	*Uranium-234*	*4.063*	*300*	*2.640*	-	*pCi/g*
100/400	000-2	CC38-000	749011.998	2083230.455	2.50	3.80	Uranium-235	0.217	8	0.120	-	pCi/g
100/400	000-2	CC38-000	749011.998	2083230.455	2.50	3.80	Uranium-238	4.063	351	1.490	-	pCi/g
100/400	000-2	CD38-000	749018.437	2083516.965	2.50	4.50	Uranium-235	0.135	8	0.120	-	pCi/g
100/400	000-2	CD38-001	749015.187	2083429.068	3.00	4.50	Uranium-238	1.492	351	1.490	-	pCi/g
100/400	*000-2*	*CD38-002*	*749013.311*	*2083341.419*	*2.50*	*4.50*	*Uranium-234*	*3.958*	*300*	*2.640*	-	*pCi/g*
100/400	000-2	CD38-002	749013.311	2083341.419	2.50	4.50	Uranium-235	0.225	8	0.120	-	pCi/g
100/400	000-2	CD38-002	749013.311	2083341.419	2.50	4.50	Uranium-238	3.958	351	1.490	-	pCi/g
100/400	000-2	CE38-002-01	749019.277	2083581.092	2.50	3.00	Acetone	15.000	102000000	-	5.300	ug/kg
100/400	000-2	CE38-002-01	749019.277	2083581.092	2.50	3.00	Plutonium-239/240	0.126	50	0.020	-	pCi/g
100/400	000-2	CE38-002-01	749019.277	2083581.092	2.50	3.00	Uranium-238	1.710	351	1.490	-	pCi/g

IHSS Group 400-8 – UBC 441 – Office Building

Tanks T-2 and T-3 were completely removed. Prior to removal of Tank T-2, residual liquid, sludge, limestone, and other material in the tank chambers (e.g., the wet well and limestone bed) were sampled, removed, and packaged as LLMW. Liquids removed from both the wet well and limestone bed were transported to the 891-treatment facility. The holding tank had been previously filled with foam. The various chambers were cleaned and rinsed. Related rinse water was stabilized with absorbent and packaged for disposal as LLMW. Concrete samples were collected from the wet well and limestone bed. Based on the sampling results, all of the Tank T-2 and T-3 concrete was disposed of as LLMW. The condensate sump was disposed of as sanitary waste (DOE 2004b).

OPWL under the Building 441 slab and exiting the southern addition (from Tanks T-2 and T-3) were exposed, tapped and drained, and removed. Most of the lines were cast iron. Line P-3, west of Tank T-2, between Buildings 123 and 441 remained largely intact as it passed under Fourth Street. It was removed in the vicinity of the northern manhole west of Building 441and east of the foundation wall of 441 up to Tank T-2. Line P-4, east of Building 441, remained intact from 12 feet east of Tank T-3. The section of P-4 that was removed was cut, bagged, and removed between 3 and 12 feet east of Tank T-3. The 3-foot section of P-4 attached to Tank T-3 was removed with the tank (DOE 2004b).

Two OPWL manholes west of Fourth Street were removed along with the asphalt around the manholes. Clay pipelines associated with the manholes, extending approximately 2 feet east and west of the northern manhole and 2 feet west and ten feet north of the southern manhole were removed. The two manholes were not connected as implied on engineering drawings. The ends of pipelines remaining in the ground were filled with grout approximately 2 feet into the line. All segments removed were bagged and placed in LLW containers. The concrete base of each OPWL manhole was packaged and shipped off site as LLMW. The upper portions were packaged and shipped off site as LLW. The asphalt around the manholes was shipped off site as sanitary waste (DOE 2004b).

2.2.2 OPWL Pipe Summary

The disposition of OPWL in the 100 and 400 Areas is briefly described in the following sections.

OPWL P-1 and P-2

Both OPWL P-1 and P-2 in and around Building 123 and extending to the Building 123 MWS were completely removed during ER soil and pipeline removal (DOE 2003c).

OPWL P-3

The P-3 OPWL between the Building 123 MWS and the Building 123 MWN was completely removed. The P-3 OPWL extending across 3rd Street to Building 441 and the OPWL penetrating the B123 MWN from the north were left in place and grout plugged at the ends of the pipe at the MWS and at Building 441(the open ends of the OPWL were manually grouted using a stiff grout/cement mixture). This open end of the

pipe was hand packed with a stiff grout/cement mixture until no additional grout/cement could be forced into the exposed pipe opening.

OPWL P-4

The majority of P-4 was completely removed. An approximately 525 ft section of P-4 remains in place between the western side of 4th Street to the eastern side of 6th Street. This line segment was interrupted at the intersection of P-4 and P-5. Approximately 10 ft of P-4 and approximately 15 ft of P-5 were removed at this intersection. Because the eastern end of P-4 is lower in elevation than the western end, a grout plug was installed in P-4 on the western side of the intersection. The OPWL segment between 4th Street and the P-4/P-5 intersection was completely filled with grout from the western end of the OPWL at 4th Street. Additionally, the OPWL segment from the P-4/P-5 intersection to the eastern side of 6th Street was completely filled with grout from the eastern side of the P-4/P-5 intersection. These grout fills were completed using a grout plug on the low end (eastern end) of the OPWL and pumping grout through the grout fill tube on the high end (western end) until a continuous flow of grout was observed flowing through the vent tube on the high end.

OPWL P-5

P-5 was completely filled with grout from inside the basement of Building 444.

The section of P-5 at UBC 447 was filled with grout by flowing grout through three pipe openings in the slab until a continuous flow of grout was observed coming from the grout tubes at all three locations. The remainder of the pipe openings in the slab were grout plugged. The remainder of Buildings 441, 444, and 447 OPWL were completely removed.

The OPWL under Building 443 did not exist. These lines were not identified during either the stripout of systems and equipment or building slab and foundation excavation. It is suspected that these liens may have been in the pipe chases above the Building 443 slab and removed in the early 1980s during the conversion to NPWL.

2.2.3 Disposition of Manways and Valve Pits

The Building 123 MWN, along with the OPWL inside the manway, was completely removed. The Building 123 MWS, along with the OPWL inside the manway was completely removed. The OPWL between these tow manways was also removed.

2.2.4 Disposition of Process Waste Tanks and Tank Pits

Tank T-1

Tank 1, at the southeastern corner of Building 123 did not exist. Attempts were made to locate this tank through "pot holes" during the removal of the NPWL at Building 123. Interviews with site employees indicate this tank was removed when the OPWL was replaced by NPWL.

Tanks 2 Through 6

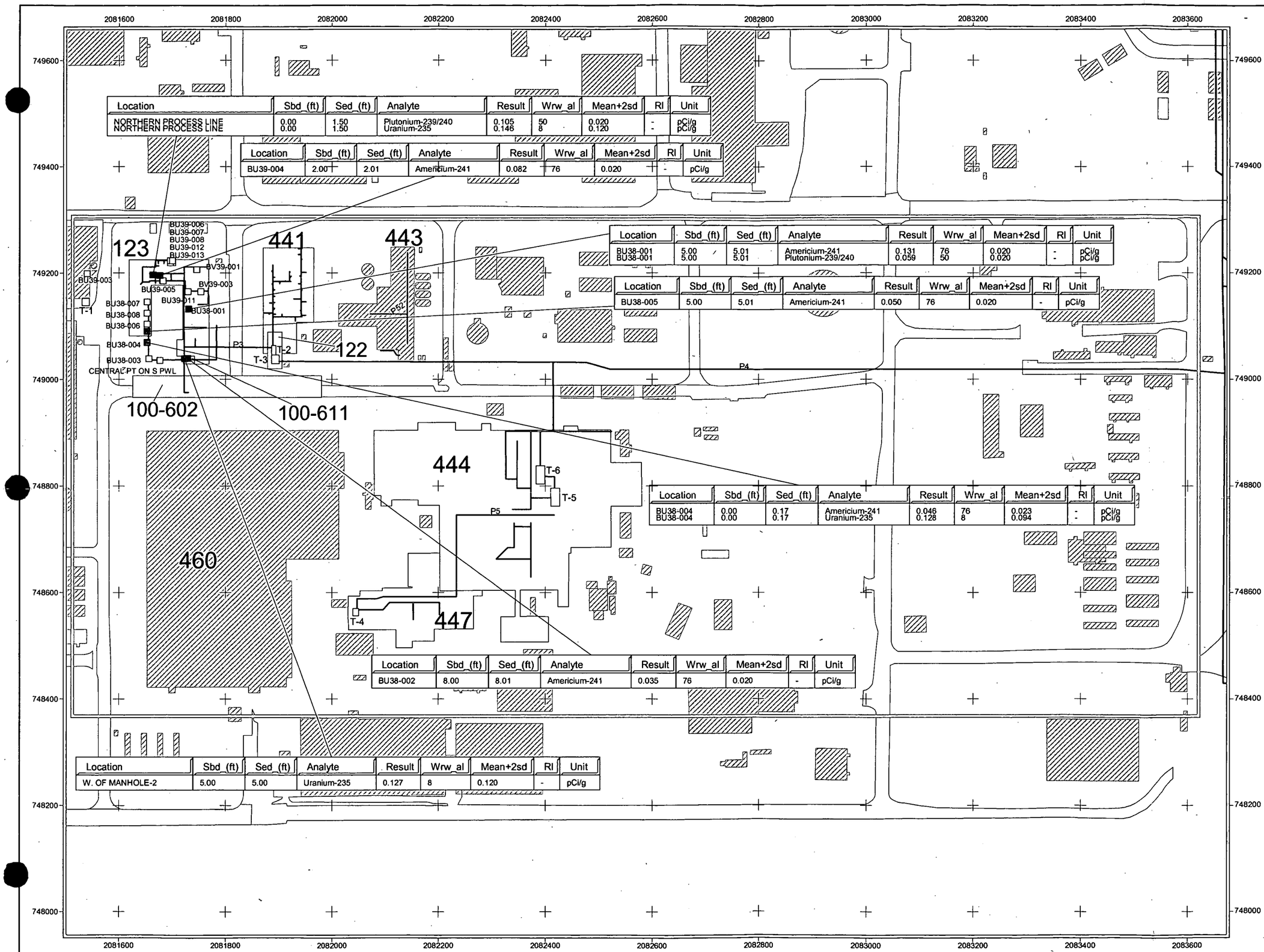
Tanks T-2 through T-6, as well as the tank pits associated with these tanks in Buildings 123, 447, and 444 were completely removed as part of building demolition or ER removal actions.

2.3 100/400 Area Soil Removal

Soil remediation was not required in the 100/400 Area based on RFCA, because the nonradionuclide contaminants were detected in subsurface soil at a depth greater than 6 inches (in) below the ground surface. The slab and OPWL at Building 123 were removed as part of the IHSS Group 100-4 project.

2.4 100/400 Area Confirmation Sampling

Confirmation samples were obtained from 24 locations in the 100/400 Area. Confirmation sampling was conducted as part of IHSS Group 100-4 (UBC 123). These samples were collected after excavation of the building slab and OPWL and prior to backfilling to verify accelerated action goals were being met (DOE 2003c). Results of all confirmation sampling in the 100/400 Area indicate all activities and concentrations are less than RFCA WRW soil ALs as shown on Figure 4. Analytical results of confirmation sampling in the 100/400 Area are listed in Table 10.



Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
NORTHERN PROCESS LINE	0.00	1.50	Plutonium-239/240	0.105	50	0.020	-	pCi/g
NORTHERN PROCESS LINE	0.00	1.50	Uranium-235	0.146	8	0.120	-	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
BU39-004	2.00	2.01	Americium-241	0.082	76	0.020	-	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
BU38-001	5.00	5.01	Americium-241	0.131	76	0.020	-	pCi/g
BU38-001	5.00	5.01	Plutonium-239/240	0.059	50	0.020	-	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
BU38-005	5.00	5.01	Americium-241	0.050	76	0.020	-	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
BU38-004	0.00	0.17	Americium-241	0.046	76	0.023	-	pCi/g
BU38-004	0.00	0.17	Uranium-235	0.128	8	0.094	-	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
BU38-002	8.00	8.01	Americium-241	0.035	76	0.020	-	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
W. OF MANHOLE-2	5.00	5.00	Uranium-235	0.127	8	0.120	-	pCi/g

Figure 4

100/400 Area Confirmation Soil Sampling Results Greater Than Background Means Plus Two Standard Deviations or RLs

KEY

- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs
- Building/structure
- Demolished structure
- IHSS, PAC or UBC
- Tank (removed)
- Paved area
- OPWL left in place
- OPWL removed
- OPWL does not exist

N W E S

100 0 100 Feet

Scale = 1:2,050

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Date: September 2005

Prepared by: RADMS

Prepared for: KAISER•HILL COMPANY

File: W:\Projects\Fy2005\000-2\COR\AV_Projects\opwl_cor_fig4_6_12_15_16.apr

Table 10
100/400 Area Confirmation Soil Sampling Results Greater Than Background Means Plus Two Standard Deviations or Reporting Limits

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
100/400	100-4	BU38-001	749131.89	2081730.799	5.00	5.01	Americium-241	0.131	76	0.020	-	pCi/g
100/400	100-4	BU38-001	749131.89	2081730.799	5.00	5.01	Plutonium-239/240	0.059	50	0.020	-	pCi/g
100/400	100-4	BU38-002	749039.101	2081729.023	8.00	8.01	Americium-241	0.035	76	0.020	-	pCi/g
100/400	100-4	BU38-004	749068.933	2081652.691	0.00	0.17	Americium-241	0.046	76	0.023	-	pCi/g
100/400	100-4	BU38-004	749068.933	2081652.691	0.00	0.17	Uranium-235	0.128	8	0.094	-	pCi/g
100/400	100-4	BU38-005	749089.941	2081652.691	5.00	5.01	Americium-241	0.050	76	0.020	-	pCi/g
100/400	100-4	BU39-004	749194.748	2081676.715	2.00	2.01	Americium-241	0.082	76	0.020	-	pCi/g
100/400	100-4	NORTHERN PROCESS LINE	749196.12	2081663.75	0.00	1.50	Plutonium-239/240	0.105	50	0.020	-	pCi/g

3.0 500 AREA ACCELERATED ACTION ACTIVITIES

Accelerated action sampling specifications and deviations, including potential contaminants of concern (PCOCs) and media sampled from IHSS Group 000-2 and other IHSS Groups within the 500 Area, are presented in Table 11. Deviations from planned sampling locations are also described in the table. Deviations of less than 3 feet are not considered significant. Results of accelerated action activities in the 500 Area including accelerated action characterization data, OPWL disposition, soil removal, and confirmation sampling are discussed in Sections 3.1 through 3.4.

3.1 500 Area Accelerated Action Data

The 500 Area includes samples collected as part of IHSS Group 500-3 project. Forty-two locations were sampled in the 500 Area including 25 characterization locations, 4 in-process locations, and 13 confirmation locations. Americium-241 and plutonium-239/240 were detected activities above their respective RFCA WRW soil ALs of 76 pCi/g and 50 pCi/g. All radionuclide exceedances of RFCA WRW soil ALs occurred below the slab at Building 559 – Service Analytical Laboratory. Amercium-241 was detected at activities greater than the RFCA WRW soil AL in one surface soil sample at an activity of 1,200 pCi/g and in one subsurface soil sample at an activity of 317.5 pCi/g. Plutonium-239/240 was detected at activities above the RFCA WRW soil AL in one surface soil sample (8,130 pCi/g) and four subsurface soil samples (ranging from 60.5 to 1,809.8 pCi/g). Analytical results of soil characterization and in-process sampling with concentrations greater than background means plus two standard deviations or RLs are shown on Figure 5. Analytical results for all accelerated action characterization samples are presented in Table 12. In addition, analytical results with activities or concentrations greater than RFCA WRW Soil AL exceedances are identified with bold text in Table 12.

3.2 500 Area OPWL Disposition

3.2.1 IHSS Summary

IHSS Group 500-3 – UBC 559 – Service Analytical Laboratory

Building 528 and Tank 7 were completely removed. All OPWL beneath and adjacent to Buildings 559 and 528 were removed (DOE 2005b).

3.2.2 OPWL Pipe Summary

OPWL P-16

P-16 was completely filled with grout from inside the Building 528 tank pit to the Building 528 MWE. Approximately 80 feet of the P-16 OPWL exiting the eastern side of the Building 528 tank pit to the Building 528 MWE was removed to facilitate the demolition of the Building 528 tank pit.

Table 11
500Area Accelerated Action Sampling Specifications and Deviations

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
500	CA42-036	N/A	N/A	750199.34	2083458.966	Subsurface soil	0 - 4.0	Radionuclides	Confirmation sample for UBC 559, room 130 hot spot excavation, northern side wall, composite.
500	CA42-039	N/A	N/A	750190.136	2083465.145	Subsurface soil	0 - 4.0	Radionuclides	Confirmation sample for UBC 559, room 130 hot spot excavation, eastern side wall, composite.
500	CC43-000	750138.932	2083320.144	750139.06	2083312.67	Subsurface soil	0 - 0.4	Metals, Radionuclides, VOCs	Relocated 7.5 ft west to target OPWL. B interval (0.5-2.5) not sampled due to shallow groundwater.
500	CC43-030	750132.021	2083258.184	750098.18	2083515.49	Subsurface soil	4.5 - 6.0 6.5 - 7.5	Metals, Radionuclides, VOCs	Biased sample originally targeted nonexistent OPWL on west side of Building 559. Sample was relocated to target an OPWL near the SE corner of Building 559. Offset 259.5 ft southeast.
500	CD43-000	750138.332	2083521.704	750131.995	2083521.803	Subsurface soil	6.5 - 8.5	Metals, Radionuclides, VOCs	Relocated to avoid HVAC equipment and target OPWL. Offset 6.3 ft. South.
500	CD43-002	750081	2083518	750075.86	2083439.93	Surface soil Subsurface soil	0 - 0.5 0.5 - 2.5	Metals, Radionuclides, VOCs	Statistical sample near OPWL
500	CD43-002-01	750080.929	2083517.608	750080.988	2083519.093	Surface soil Subsurface soil	0 - 0.5 0.5 - 2.5 6.5 - 8.5	Metals, Radionuclides, VOCs	Relocated to target OPWL.
500	CD43-004	750143.907	2083393.471	750139.06	2083361.67	Surface soil	0 - 0.5	Metals, Radionuclides, VOCs	Relocated to target OPWL in tunnel. Refusal at 0.5 because of cobbles. B interval (0.5-2.5) not sampled. Offset 32.2 ft. Southwest.
500	CD43-005	750099.492	2083453.011	750103.94	2083461.89	Surface soil Subsurface soil	0 - 0.5 0.5 - 0.9	Metals, Radionuclides, VOCs	Relocated to target OPWL. Refusal at 0.9 because of cobbles, however all analyses were completed. Offset 9.9 ft. Northeast.
500	CD43-006	750158.573	2083453.179	750159.96	2083449.84	Surface soil Subsurface soil	0 - 0.5 0.5 - 1.0	Metals, Radionuclides, VOCs	Relocated to target OPWL. Refusal at 1.0 because of cobbles, however all analyses were completed. Offset 3.6 ft. Northwest.
500	CD43-010	750048.704	2083488.194	750047.96	2083496.11	Subsurface soil	16.5 - 18.5 18.5 - 20.5 20.5 - 22.5	Metals, Radionuclides, VOCs	Relocated to the outside of Building 561 to target downgradient side of tank. Offset 8 ft. East.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
500	CD43-013	750056.048	2083526.551	750068.854	2083521.83	Subsurface soil	6.5 - 8.5 8.5 - 10.2 10.5 - 12.5 12.5 - 14.5 14.5 - 16.5 16.5 - 18.5 18.5 - 20.5 20.5 - 22.5	Metals, Radionuclides, VOCs	Relocated to target Tank 7 from the exterior of Building 528. Collected at the depth that the OPWL entered Building 528. Offset 13.6 ft. Northwest.
500	CD43-016	750102.31	2083505.241	750098.926	2083498.975	Surface soil Subsurface soil	0 - 0.5 0.5 - 2.5 6.5 - 8.5	Metals, Radionuclides, VOCs	Relocated to target OPWL. Offset 7.1 ft. Southwest.
500	CD43-018	750097.416	2083514.261	750097.401	2083514.302	Subsurface soil	6.5 - 8.5	Metals, Radionuclides, VOCs	Biased for 7-ft-deep OPWL. No significant change. in location.
500	CD43-034	N/A	N/A	750198.392	2083468.364	Subsurface soil	2.0 - 2.3	Radionuclides	OPWL characterization sample, east-west line, northeastern B559.
500	CD43-035	N/A	N/A	750199.742	2083478.123	Subsurface soil	2.0 - 2.3	Radionuclides	OPWL characterization sample, east-west line, northeastern B559.
500	CD43-036	N/A	N/A	750198.434	2083489.273	Subsurface soil	3.0 - 3.3	Radionuclides	OPWL characterization sample, east-west line, northeastern B559.
500	CD43-037	N/A	N/A	750088.96	2083519.33	Subsurface soil	8.0 - 8.3	Radionuclides	OPWL characterization sample, between Buildings 528 and 559.
500	CD43-038	N/A	N/A	750197.16	2083459.436	Subsurface soil	0.0-4.0	Radionuclides	Confirmation sample, UBC 559, room 130 hot spot excavation, northern side wall, composite.
500	CD43-039	N/A	N/A	750193.377	2083459.532	Subsurface soil	4.0-4.3	Radionuclides	Confirmation grab sample, UBC 559, room 130 hot spot excavation, center of pit.
500	CD43-041	N/A	N/A	750192.254	2083466.888	Subsurface soil	0.0-4.0	Radionuclides	Confirmation sample, UBC 559, room 130 hot spot excavation, eastern side wall, composite.
500	CD43-042	N/A	N/A	750190.131	2083451.486	Subsurface soil	0.0-4.5	Radionuclides	Confirmation sample, UBC 559, room 130 hot spot excavation, western side wall, composite.
500	CD43-044	N/A	N/A	750182.935	2083455.786	Subsurface soil	2.5-5.0	Radionuclides	Confirmation sample, UBC 559, room 130 hot spot excavation, southern side wall, composite. Concrete 0.0-2.5 ft.
500	CD43-054	N/A	N/A	750102.153	2083516.97	Subsurface soil	7.5 - 7.8	Radionuclides	OPWL characterization sample beneath manway between Buildings 528 and 559.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
500	CD43-055	N/A	N/A	750099.934	2083519.552	Subsurface soil	9.0 - 9.5	Metals, Radionuclides, VOCs	Confirmation sample for hot spot excavated beneath manway between Buildings 528 and 559.
500	CD44-001	750176.167	2083518.905	750171.709	2083521.036	Surface soil Subsurface soil	0 - 0.5 0.5 - 2.5 6.5 - 8.5	Metals, Radionuclides, VOCs	Statistical sample relocated to avoid conex box and HVAC equipment. Offset 14.1 ft. Southeast.
500	CD44-005	750184.794	2083463.207	750184.64	2083459.24	Surface soil	0 - 0.5	Metals, Radionuclides, VOCs	Relocated 4 ft west to target sump. The A interval sample contained radionuclide activities up to 30,000 cpm; therefore, to avoid cross-contaminating deeper soil, B interval was not collected.
500	CD44-006	N/A	N/A	750147.076	2083455.714	Subsurface soil	4.0 - 4.3	Radionuclides	OPWL characterization sample.
500	CD44-007	N/A	N/A	750156.945	2083470.888	Subsurface soil	4.0 - 4.3	Radionuclides	OPWL characterization sample.
500	CD44-008	N/A	N/A	750141.18	2083472.109	Subsurface soil	4.0 - 4.3	Radionuclides	Characterization sample adjacent to east end of B559 tunnel.
500	CD44-009	N/A	N/A	750125.19	2083465.114	Subsurface soil	5.0 - 5.3	Radionuclides	In-process sample collected at hot spot east of air tunnel.
500	CD44-010	N/A	N/A	750125.622	2083431.811	Subsurface soil	5.0 - 5.3	Radionuclides	Adjacent to south side of UBC 559 tunnel.
500	CD44-011	N/A	N/A	750127.319	2083374.294	Subsurface soil	5.0 - 5.3	Radionuclides	Adjacent to south side of UBC 559 tunnel.
500	CD44-012	N/A	N/A	750126.916	2083466.281	Subsurface soil	9.0 - 9.3	Radionuclides	In-process sample collected at hot spot east of air tunnel.
500	CD44-013	N/A	N/A	750124.718	2083467.964	Subsurface soil	9.0 - 9.3	Radionuclides	Confirmation sample, eastern side of hot spot east of air tunnel.
500	CD44-014	N/A	N/A	750122.689	2083466.845	Subsurface soil	9.0 - 9.3	Radionuclides	Confirmation sample, southern side of hot spot east of air tunnel.
500	CD44-015	N/A	N/A	750124.613	2083461.325	Subsurface soil	9.0 - 9.3	Radionuclides	In-process sample collected at hot spot east of air tunnel.
500	CD44-016	N/A	N/A	750124.973	2083466.293	Subsurface soil	9.0 - 9.3	Radionuclides	Confirmation sample, hot spot east of air tunnel, center of excavation.
500	CD44-017	N/A	N/A	750126.729	2083464.618	Subsurface soil	11.0 - 11.3	Radionuclides	Confirmation sample, northern side of hot spot east of air tunnel.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
500	CD44-018	N/A	N/A	750125.263	2083458.306	Subsurface soil	11.0 - 11.3	Radionuclides	Confirmation sample, western side of hot spot east of air tunnel.
500	CE37-002	N/A	N/A	748927.559	2083719.109	Surface soil Subsurface soil	0.0 - 0.5 2.4 - 4.5 4.5 - 6.5 6.5 - 8.5 8.5 - 10.5	Metals Radionuclides SVOCs VOCs	Biased location to target OPWL.
500	CE43-000	750051.504	2083563.59	750054.497	2083555.328	Subsurface soil	6.5 - 7.1 8.5 - 10.1 10.5 - 11.5 12.5 - 14.0 14.7 - 15.8 16.5 - 18.5 18.5 - 20.5 20.5 - 22.4	Metals, Radionuclides, VOCs	Relocated to target OPWL and Building 528 basement. Offset 8.8 ft. Northwest.
500	CE43-002	750053.397	2083540.803	750053	2083541	Surface soil Subsurface soil	0 - 0.5 0.5 - 1.5	Metals, Radionuclides, Radionuclides, VOCs	Statistical sample. No significant change. in location.
500	CE43-003	750057.613	2083550.064	750068.022	2083534.546	Subsurface soil	19.5 - 20.5 21.5 - 22.5	Metals, PCBs, Pesticides, Herbicides, Radionuclides, VOCs	Biased for tank and sump. Relocated to avoid OPWL line and building footer. Offset 18.7 ft. Northwest.

Table 12
500 Area Characterization and In-Process Soil Sampling Results Greater Than Background Means Plus Two Standard Deviations or Reporting Limits

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
500	500-3	CC43-000	750139.06	2083312.67	0.00	0.40	Barium	717.000	26400	141.260	-	mg/kg
500	500-3	CC43-000	750139.06	2083312.67	0.00	0.40	Chromium	32.400	268	16.990	-	mg/kg
500	500-3	CC43-000	750139.06	2083312.67	0.00	0.40	Cobalt	12.000	1550	10.910	-	mg/kg
500	500-3	CC43-000	750139.06	2083312.67	0.00	0.40	Copper	155.000	40900	18.060	-	mg/kg
500	500-3	CC43-000	750139.06	2083312.67	0.00	0.40	Iron	35700.000	307000	18037.000	-	mg/kg
500	500-3	CC43-000	750139.06	2083312.67	0.00	0.40	Manganese	627.000	3480	365.080	-	mg/kg
500	500-3	CC43-000	750139.06	2083312.67	0.00	0.40	Nickel	46.100	20400	14.910	-	mg/kg
500	500-3	CC43-000	750139.06	2083312.67	0.00	0.40	Strontium	246.000	613000	48.940	-	mg/kg
500	500-3	CC43-000	750139.06	2083312.67	0.00	0.40	Tin	30.400	613000	2.900	-	mg/kg
500	500-3	CC43-000	750139.06	2083312.67	0.00	0.40	Vanadium	58.600	7150	45.590	-	mg/kg
500	500-3	CC43-000	750139.06	2083312.67	0.00	0.40	Zinc	74.700	307000	73.760	-	mg/kg
500	500-3	CC43-030	750098.18	2083515.49	4.50	6.00	Americium-241	0.919	76	0.020	-	pCi/g
500	*500-3*	*CC43-030*	*750098.18*	*2083515.49*	*4.50*	*6.00*	*Plutonium-239/240*	*5.236*	*50*	*0.020*	-	*pCi/g*
500	500-3	CC43-030	750098.18	2083515.49	6.50	7.50	Uranium-235	0.159	8	0.120	-	pCi/g
500	500-3	CD43-002	750075.86	2083439.93	0.16	0.38	Acetone	4.800	102000000	-	4.600	ug/kg
500	500-3	CD43-002	750075.86	2083439.93	0.16	0.38	Ethylbenzene	5.500	4250000	-	1.200	ug/kg
500	500-3	CD43-002	750075.86	2083439.93	0.16	0.38	Methylene chloride	1.800	2530000	-	0.800	ug/kg
500	500-3	CD43-002	750075.86	2083439.93	0.16	0.38	Trichloroethene	1.100	19600	-	0.870	ug/kg
500	500-3	CD43-002	750075.86	2083439.93	0.16	0.38	Xylene	24.000	2040000	-	2.800	ug/kg
500	500-3	CD43-004	750139.06	2083361.67	0.00	0.50	Arsenic	17.700	22.2	10.090	-	mg/kg
500	500-3	CD43-004	750139.06	2083361.67	0.00	0.50	Barium	801.000	26400	141.260	-	mg/kg
500	500-3	CD43-004	750139.06	2083361.67	0.00	0.50	Chromium	54.900	268	16.990	-	mg/kg
500	500-3	CD43-004	750139.06	2083361.67	0.00	0.50	Cobalt	12.700	1550	10.910	-	mg/kg
500	500-3	CD43-004	750139.06	2083361.67	0.00	0.50	Iron	41600.000	307000	18037.000	-	mg/kg
500	500-3	CD43-004	750139.06	2083361.67	0.00	0.50	Manganese	670.000	3480	365.080	-	mg/kg
500	500-3	CD43-004	750139.06	2083361.67	0.00	0.50	Nickel	59.800	20400	14.910	-	mg/kg
500	500-3	CD43-004	750139.06	2083361.67	0.00	0.50	Strontium	216.000	613000	48.940	-	mg/kg
500	500-3	CD43-004	750139.06	2083361.67	0.00	0.50	Uranium-235	0.194	8	0.094	-	pCi/g
500	500-3	CD43-004	750139.06	2083361.67	0.00	0.50	Vanadium	111.000	7150	45.590	-	mg/kg
500	500-3	CD43-004	750139.06	2083361.67	0.00	0.50	Zinc	86.100	307000	73.760	-	mg/kg
500	*500-3*	*CD43-005*	*750103.94*	*2083461.89*	*0.00*	*0.50*	*Uranium-234*	*5.139*	*300*	*2.253*	-	*pCi/g*

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
500	500-3	CD43-005	750103.94	2083461.89	0.00	0.50	Uranium-235	0.245	8	0.094	-	pCi/g
500	500-3	CD43-005	750103.94	2083461.89	0.00	0.50	Uranium-238	5.139	351	2.000	-	pCi/g
500	500-3	CD43-006	750159.96	2083449.84	0.00	0.50	Uranium-235	0.127	8	0.094	-	pCi/g
500	500-3	CD43-010	750047.96	2083496.11	16.50	18.50	Trichloroethene	29.900	19600	-	6.220	ug/kg
500	500-3	CD43-010	750047.96	2083496.11	16.50	18.50	Uranium-235	0.165	8	0.120	-	pCi/g
500	500-3	CD43-010	750047.96	2083496.11	16.50	18.50	Uranium-238	2.008	351	1.490	-	pCi/g
500	500-3	CD43-010	750047.96	2083496.11	18.50	20.50	Trichloroethene	21.000	19600	-	5.460	ug/kg
500	500-3	CD43-010	750047.96	2083496.11	20.50	22.50	Trichloroethene	11.700	19600	-	5.700	ug/kg
500	500-3	CD43-010	750047.96	2083496.11	20.50	22.50	Uranium-235	0.124	8	0.120	-	pCi/g
500	500-3	CD43-013	750068.854	2083521.83	6.50	8.50	Americium-241	2.224	76	0.020	-	pCi/g
500	*500-3*	*CD43-013*	*750068.854*	*2083521.83*	*6.50*	*8.50*	*Plutonium-239/240*	*12.677*	*50*	*0.020*	-	*pCi/g*
500	500-3	CD43-013	750068.854	2083521.83	6.50	8.50	Uranium-238	1.626	351	1.490	-	pCi/g
500	500-3	CD43-013	750068.854	2083521.83	8.50	10.20	Americium-241	0.513	76	0.020	-	pCi/g
500	*500-3*	*CD43-013*	*750068.854*	*2083521.83*	*8.50*	*10.20*	*Plutonium-239/240*	*2.925*	*50*	*0.020*	-	*pCi/g*
500	500-3	CD43-013	750068.854	2083521.83	10.50	12.50	Americium-241	1.050	76	0.020	-	pCi/g
500	*500-3*	*CD43-013*	*750068.854*	*2083521.83*	*10.50*	*12.50*	*Plutonium-239/240*	*5.985*	*50*	*0.020*	-	*pCi/g*
500	500-3	CD43-013	750068.854	2083521.83	10.50	12.50	Uranium-235	0.224	8	0.120	-	pCi/g
500	500-3	CD43-013	750068.854	2083521.83	10.50	12.50	Uranium-238	1.554	351	1.490	-	pCi/g
500	500-3	CD43-013	750068.854	2083521.83	12.50	14.50	Uranium-235	0.139	8	0.120	-	pCi/g
500	500-3	CD43-013	750068.854	2083521.83	14.50	16.50	Americium-241	0.609	76	0.020	-	pCi/g
500	*500-3*	*CD43-013*	*750068.854*	*2083521.83*	*14.50*	*16.50*	*Plutonium-239/240*	*3.470*	*50*	*0.020*	-	*pCi/g*
500	500-3	CD43-013	750068.854	2083521.83	16.50	18.50	Arsenic	15.000	22.2	13.140	-	mg/kg
500	*500-3*	*CD43-013*	*750068.854*	*2083521.83*	*16.50*	*18.50*	*Uranium-234*	*3.284*	*300*	*2.640*	-	*pCi/g*
500	500-3	CD43-013	750068.854	2083521.83	16.50	18.50	Uranium-235	0.180	8	0.120	-	pCi/g
500	500-3	CD43-013	750068.854	2083521.83	16.50	18.50	Uranium-238	3.284	351	1.490	-	pCi/g
500	*500-3*	*CD43-013*	*750068.854*	*2083521.83*	*18.50*	*20.50*	*Uranium-234*	*4.637*	*300*	*2.640*	-	*pCi/g*
500	500-3	CD43-013	750068.854	2083521.83	18.50	20.50	Uranium-235	0.210	8	0.120	-	pCi/g
500	500-3	CD43-013	750068.854	2083521.83	18.50	20.50	Uranium-238	4.637	351	1.490	-	pCi/g
500	*500-3*	*CD43-013*	*750068.854*	*2083521.83*	*20.50*	*22.50*	*Uranium-234*	*3.439*	*300*	*2.640*	-	*pCi/g*
500	500-3	CD43-013	750068.854	2083521.83	20.50	22.50	Uranium-235	0.167	8	0.120	-	pCi/g
500	500-3	CD43-013	750068.854	2083521.83	20.50	22.50	Uranium-238	3.439	351	1.490	-	pCi/g
500	*500-3*	*CD43-016*	*750098.926*	*2083498.975*	*0.00*	*0.50*	*Uranium-234*	*3.840*	*300*	*2.253*	-	*pCi/g*
500	500-3	CD43-016	750098.926	2083498.975	0.00	0.50	Uranium-235	0.245	8	0.094	-	pCi/g
500	500-3	CD43-016	750098.926	2083498.975	0.00	0.50	Uranium-238	3.840	351	2.000	-	pCi/g
500	*500-3*	*CD43-016*	*750098.926*	*2083498.975*	*0.50*	*2.50*	*Uranium-234*	*4.627*	*300*	*2.640*	-	*pCi/g*

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
500	500-3	CD43-016	750098.926	2083498.975	0.50	2.50	Uranium-235	0.217	8	0.120	-	pCi/g
500	500-3	CD43-016	750098.926	2083498.975	0.50	2.50	Uranium-238	4.627	351	1.490	-	pCi/g
500	500-3	CD43-016	750098.926	2083498.975	6.50	8.50	Uranium-235	0.183	8	0.120	-	pCi/g
500	500-3	CD43-018	750097.401	2083514.302	6.50	8.50	Chromium	140.000	268	68.270	-	mg/kg
500	500-3	CD43-035	750199.742	2083478.123	2.00	2.30	Uranium-235	0.125	8	0.120	-	pCi/g
500	500-3	CD43-036	750198.434	2083489.273	3.00	3.30	Americium-241	1.159	76	0.020	-	pCi/g
500	*500-3*	*CD43-036*	*750198.434*	*2083489.273*	*3.00*	*3.30*	*Plutonium-239/240*	*6.606*	*50*	*0.020*	-	*pCi/g*
500	500-3	CD43-036	750198.434	2083489.273	3.00	3.30	Uranium-235	0.143	8	0.120	-	pCi/g
500	500-3	CD43-037	750088.96	2083519.33	8.00	8.30	Americium-241	1.510	76	0.020	-	pCi/g
500	*500-3*	*CD43-037*	*750088.96*	*2083519.33*	*8.00*	*8.30*	*Plutonium-239/240*	*8.607*	*50*	*0.020*	-	*pCi/g*
500	**500-3**	**CD43-054**	**750102.153**	**2083516.97**	**7.50**	**7.80**	**Americium-241**	**317.500**	**76**	**0.020**	-	**pCi/g**
500	***500-3***	***CD43-054***	***750102.153***	***2083516.97***	***7.50***	***7.80***	***Plutonium-239/240***	***1809.750***	***50***	***0.020***	-	***pCi/g***
500	500-3	CD44-001	750171.709	2083521.036	0.00	0.50	Aluminum	17000.000	228000	16902.000	-	mg/kg
500	*500-3*	*CD44-001*	*750171.709*	*2083521.036*	*0.00*	*0.50*	*Uranium-234*	*3.975*	*300*	*2.253*	-	*pCi/g*
500	500-3	CD44-001	750171.709	2083521.036	0.00	0.50	Uranium-235	0.242	8	0.094	-	pCi/g
500	500-3	CD44-001	750171.709	2083521.036	0.00	0.50	Uranium-238	3.975	351	2.000	-	pCi/g
500	*500-3*	*CD44-001*	*750171.709*	*2083521.036*	*0.50*	*2.50*	*Uranium-234*	*4.602*	*300*	*2.640*	-	*pCi/g*
500	500-3	CD44-001	750171.709	2083521.036	0.50	2.50	Uranium-235	0.209	8	0.120	-	pCi/g
500	500-3	CD44-001	750171.709	2083521.036	0.50	2.50	Uranium-238	4.602	351	1.490	-	pCi/g
500	500-3	CD44-005	750193.3	2083459.3	0.00	0.50	1,2,4-Trichlorobenzene	1.000	9230000	-	0.760	ug/kg
500	500-3	CD44-005	750193.3	2083459.3	0.00	0.50	4-Methyl-2-pentanone	5.100	16400000	-	4.200	ug/kg
500	500-3	CD44-005	750193.3	2083459.3	0.00	0.50	Acetone	18.000	102000000	-	4.900	ug/kg
500	**500-3**	**CD44-005**	**750193.3**	**2083459.3**	**0.00**	**0.50**	**Americium-241**	**1200.000**	**76**	**0.023**	-	**pCi/g**
500	500-3	CD44-005	750193.3	2083459.3	0.00	0.50	Copper	28.000	40900	18.060	-	mg/kg
500	500-3	CD44-005	750193.3	2083459.3	0.00	0.50	Naphthalene	1.800	3090000	-	0.920	ug/kg
500	**500-3**	**CD44-005**	**750193.3**	**2083459.3**	**0.00**	**0.50**	**Plutonium-239/240**	**8130.000**	**50**	**0.066**	-	**pCi/g**
500	500-3	CD44-005	750193.3	2083459.3	0.00	0.50	Trichloroethene	2.300	19600	-	0.930	ug/kg
500	500-3	CD44-005	750193.3	2083459.3	0.00	0.50	Uranium-234	3.110	300	2.253	-	pCi/g
500	500-3	CD44-005	750193.3	2083459.3	0.00	0.50	Xylene	4.300	2040000	-	3.000	ug/kg
500	500-3	CD44-006	750147.076	2083455.714	4.00	4.30	Plutonium-239/240	0.486	50	0.020	-	pCi/g
500	500-3	CD44-007	750156.945	2083470.888	4.00	4.30	Uranium-235	0.194	8	0.120	-	pCi/g
500	500-3	CD44-007	750156.945	2083470.888	4.00	4.30	Uranium-238	2.330	351	1.490	-	pCi/g
500	*500-3*	*CD44-008*	*750141.18*	*2083472.109*	*4.00*	*4.30*	*Uranium-234*	*3.156*	*300*	*2.640*	-	*pCi/g*
500	500-3	CD44-008	750141.18	2083472.109	4.00	4.30	Uranium-235	0.151	8	0.120	-	pCi/g
500	500-3	CD44-008	750141.18	2083472.109	4.00	4.30	Uranium-238	3.156	351	1.490	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
500	500-3	CD44-009	750125.19	2083465.114	5.00	5.30	Americium-241	10.620	76	0.020	-	pCi/g
500	***500-3***	***CD44-009***	***750125.19***	***2083465.114***	***5.00***	***5.30***	***Plutonium-239/240***	***60.534***	***50***	***0.020***	-	***pCi/g***
500	500-3	CD44-009	750125.19	2083465.114	5.00	5.30	Uranium-235	0.192	8	0.120	-	pCi/g
500	500-3	CD44-009	750125.19	2083465.114	5.00	5.30	Uranium-238	2.236	351	1.490	-	pCi/g
500	*500-3*	*CD44-010*	*750125.622*	*2083431.811*	*5.00*	*5.30*	*Uranium-234*	*3.270*	*300*	*2.640*	-	*pCi/g*
500	500-3	CD44-010	750125.622	2083431.811	5.00	5.30	Uranium-235	0.162	8	0.120	-	pCi/g
500	500-3	CD44-010	750125.622	2083431.811	5.00	5.30	Uranium-238	3.270	351	1.490	-	pCi/g
500	500-3	CD44-011	750127.319	2083374.294	5.00	5.30	Uranium-235	0.141	8	0.120	-	pCi/g
500	500-3	CD44-012	750126.916	2083466.281	9.00	9.30	Americium-241	13.100	76	0.020	-	pCi/g
500	***500-3***	***CD44-012***	***750126.916***	***2083466.281***	***9.00***	***9.30***	***Plutonium-239/240***	***74.670***	***50***	***0.020***	-	***pCi/g***
500	500-3	CD44-015	750124.613	2083461.325	9.00	9.30	Americium-241	27.690	76	0.020	-	pCi/g
500	***500-3***	***CD44-015***	***750124.613***	***2083461.325***	***9.00***	***9.30***	***Plutonium-239/240***	***157.833***	***50***	***0.020***	-	***pCi/g***
500	*500-3*	*CD44-015*	*750124.613*	*2083461.325*	*9.00*	*9.30*	*Uranium-234*	*4.631*	*300*	*2.640*	-	*pCi/g*
500	500-3	CD44-015	750124.613	2083461.325	9.00	9.30	Uranium-238	4.631	351	1.490	-	pCi/g
500	500-3	CE43-000	750054.497	2083555.328	6.50	7.10	Uranium-235	0.141	8	0.120	-	pCi/g
500	500-3	CE43-000	750054.497	2083555.328	6.50	7.10	Uranium-238	1.817	351	1.490	-	pCi/g
500	500-3	CE43-000	750054.497	2083555.328	8.50	10.10	Ethylbenzene	6.460	4250000	-	5.830	ug/kg
500	500-3	CE43-000	750054.497	2083555.328	8.50	10.10	Toluene	6.910	31300000	-	5.830	ug/kg
500	500-3	CE43-000	750054.497	2083555.328	8.50	10.10	Uranium-235	0.185	8	0.120	-	pCi/g
500	500-3	CE43-000	750054.497	2083555.328	8.50	10.10	Xylene	41.700	2040000	-	11.700	ug/kg
500	500-3	CE43-000	750054.497	2083555.328	10.50	11.50	Uranium-235	0.159	8	0.120	-	pCi/g
500	500-3	CE43-000	750054.497	2083555.328	14.70	15.80	Uranium-235	0.175	8	0.120	-	pCi/g
500	500-3	CE43-000	750054.497	2083555.328	16.50	18.50	Uranium-235	0.152	8	0.120	-	pCi/g
500	*500-3*	*CE43-000*	*750054.497*	*2083555.328*	*18.50*	*20.50*	*Uranium-234*	*4.585*	*300*	*2.640*	-	*pCi/g*
500	500-3	CE43-000	750054.497	2083555.328	18.50	20.50	Uranium-235	0.240	8	0.120	-	pCi/g
500	500-3	CE43-000	750054.497	2083555.328	18.50	20.50	Uranium-238	4.585	351	1.490	-	pCi/g
500	*500-3*	*CE43-000*	*750054.497*	*2083555.328*	*20.50*	*22.40*	*Uranium-234*	*4.066*	*300*	*2.640*	-	*pCi/g*
500	500-3	CE43-000	750054.497	2083555.328	20.50	22.40	Uranium-235	0.175	8	0.120	-	pCi/g
500	500-3	CE43-000	750054.497	2083555.328	20.50	22.40	Uranium-238	4.066	351	1.490	-	pCi/g
500	500-3	CE43-002	750053	2083541	0.00	0.50	Acetone	14.000	102000000	-	5.800	ug/kg
500	500-3	CE43-002	750053	2083541	0.00	0.50	Aluminum	20000.000	228000	16902.000	-	mg/kg
500	500-3	CE43-002	750053	2083541	0.00	0.50	Barium	180.000	26400	141.260	-	mg/kg
500	500-3	CE43-002	750053	2083541	0.00	0.50	Beryllium	1.600	921	0.966	-	mg/kg
500	500-3	CE43-002	750053	2083541	0.00	0.50	Chromium	23.000	268	16.990	-	mg/kg
500	500-3	CE43-002	750053	2083541	0.00	0.50	Copper	60.000	40900	18.060	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
500	500-3	CE43-002	750053	2083541	0.00	0.50	Methylene chloride	2.200	2530000	-	1.000	ug/kg
500	500-3	CE43-002	750053	2083541	0.00	0.50	Nickel	20.000	20400	14.910	-	mg/kg
500	500-3	CE43-002	750053	2083541	0.00	0.50	Strontium	97.000	613000	48.940	-	mg/kg
500	500-3	CE43-002	750053	2083541	0.00	0.50	Vanadium	78.000	7150	45.590	-	mg/kg
500	500-3	CE43-002	750053	2083541	0.50	1.50	Acetone	16.000	102000000	-	5.600	ug/kg
500	500-3	CE43-002	750053	2083541	0.50	1.50	Methylene chloride	2.000	2530000	-	0.980	ug/kg
500	500-3	CE43-002	750053	2083541	0.50	1.50	Uranium-235	0.140	8	0.120	-	pCi/g
500	500-3	CE43-003	750068.022	2083534.546	19.50	20.50	Naphthalene	19.000	3090000	-	6.420	ug/kg
500	500-3	CE43-003	750068.022	2083534.546	19.50	20.50	Xylene	14.900	2040000	-	12.800	ug/kg
500	500-3	CE43-003	750068.022	2083534.546	21.50	22.50	Ethylbenzene	8.810	4250000	-	6.040	ug/kg
500	500-3	CE43-003	750068.022	2083534.546	21.50	22.50	Toluene	10.600	31300000	-	6.040	ug/kg
500	500-3	CE43-003	750068.022	2083534.546	21.50	22.50	Xylene	46.100	2040000	-	12.100	ug/kg

OPWL P-17

The P-17 OPWL under the Building 559 slab that exited Building 559 on the northeastern corner and turned south through the Building 559 MW to the Building 528 tank pit; the P-17 OPWL that exited Building 559 at the southeastern corner and passed through the Building 559 MW to the Building 528 tank pit; and the P-62 OPWL that ran south out of Building 559 and through a tunnel structure;, were all completely removed during building demolition.

OPWL P-18

P-18, illustrated on Figure 5 as exiting the northwestern corner of Building 559 and entering Building 561 on the northeastern side, did not exist.

3.2.3 Disposition of Manways and Valve Pits

The Building 559 MW, along with the OPWL inside the manway was completely removed during the demolition of Building 559.

3.2.4 Disposition of Process Waste Tanks and Pits

Tank 7, inside the Building 528 tank pit along with the tank pit itself, were completely removed during building demolition. In addition, a tunnel structure which connected Building 559 to Building 561 containing a Rashig ring-filled tank used to collect plenum deluge water, were all completely removed during building demolition.

The tank structure illustrated inside Building 561 (western side), did not exist. The actual location of the tanks was in the northeast corner of the building. All three tanks were removed during building demolition.

3.3 500 Area Soil Removal

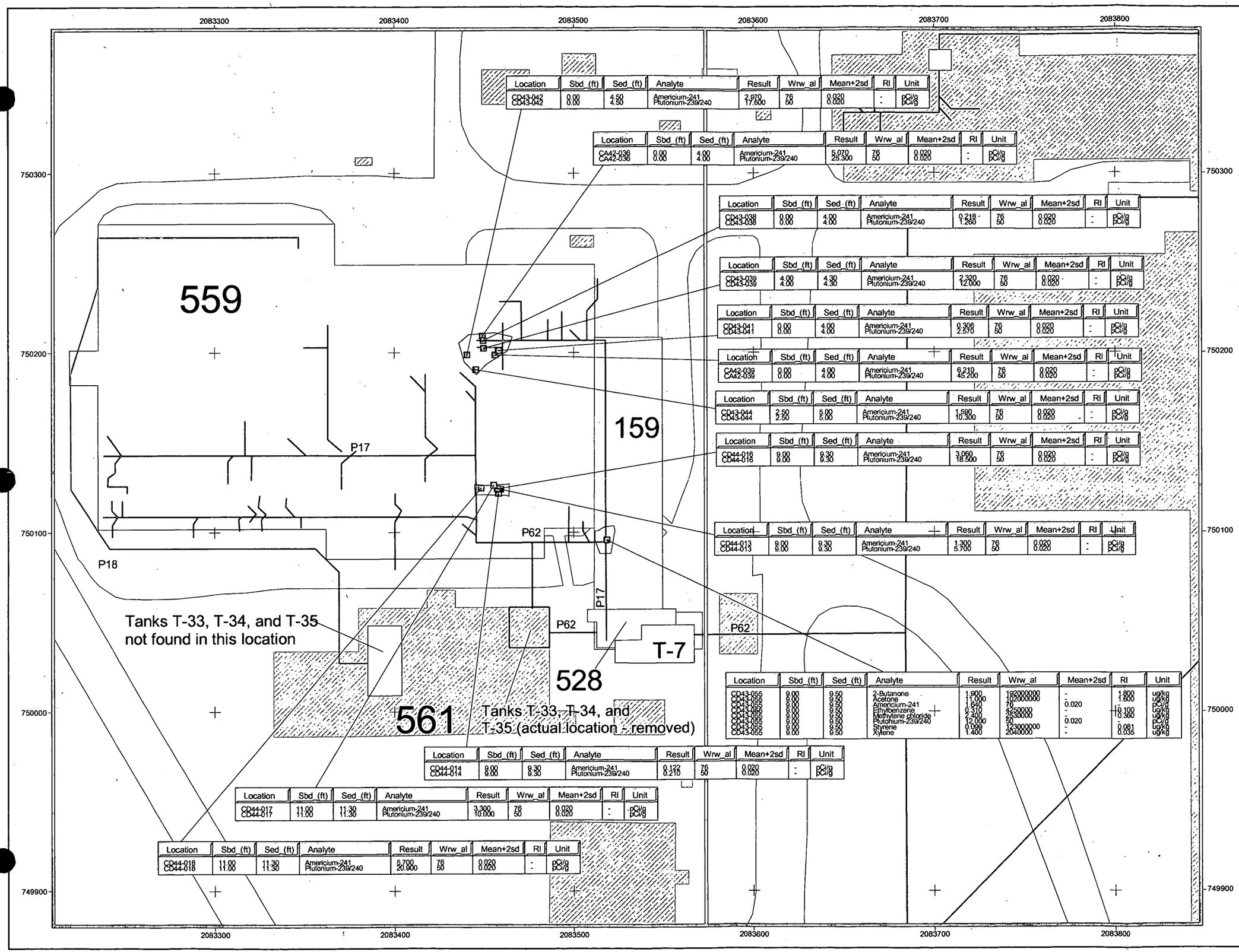
Remediation of radionuclide-contaminated soil was conducted at Building 559 – Service Analytical Laboratory as part of the IHSS Group 500-3 project. Accelerated action soil removal activities were conducted in accordance with ER RSOP Notification #05-02 (DOE 2005a).

Three excavations were completed in the 500 Area to remove radionuclide contaminants exceeding RFCA WRW soil ALs. One excavation, located in the northeast portion of Building 559 (Room 130), was approximately 16 ft by 25 ft and 4.5-ft deep when completed. Excavations at two additional areas identified during OPWL removal were both deeper than 3 ft below the final grade, and were remediated as Best Management Practices (BMPs) even though they did not require remediation under RFCA. The second excavation, located in southeast portion of Building 559 near an air tunnel, was approximately 5 ft by 15 ft and up to 11 ft deep. The third excavation, located at the manway between Buildings 559 and 528, was approximately 9 ft by 13 ft and 9 ft deep. Following the removal of contaminated soil, confirmation sampling in the excavations indicated radionuclide activities in the remaining soil were below RFCA WRW soil ALs.

Waste materials generated as part of the IHSS Group 500-3 accelerated action slab and soil removal included soil, concrete, nonfriable asbestos, and glass (Pyrex) piping. Contaminated OPWL piping (typically Pyrex) was tracked as Decontamination and Decommissioning (D&D) waste.

3.4 500 Area Confirmation Sampling

Confirmation samples were obtained from 14 locations in the 500 Area. Confirmation sampling was conducted as part of IHSS Group 500-3 (UBC 559). These samples were collected from three excavation areas in the IHSS Group 500-3 investigation area (DOE 2005b). Results of all confirmation sampling in the 500 Area indicate all activities and concentrations are less than RFCA WRW soil ALs as shown on Figure 6. Analytical results of confirmation sampling in the 500 Area are listed in Table 13.



Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD43-042 CD43-042	0.00 0.00	4.50 4.50	Americium-241 Plutonium-239/240	2.970 17.600	76 50	0.020 0.020	- -	pCi/g pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CA42-036 CA42-036	0.00 0.00	4.00 4.00	Americium-241 Plutonium-239/240	5.070 25.300	76 50	0.020 0.020	- -	pCi/g pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD43-038 CD43-038	0.00 0.00	4.00 4.00	Americium-241 Plutonium-239/240	0.218 1.260	76 50	0.020 0.020	- -	pCi/g pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD43-039 CD43-039	4.00 4.00	4.30 4.30	Americium-241 Plutonium-239/240	2.320 12.000	76 50	0.020 0.020	- -	pCi/g pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD43-041 CD43-041	0.00 0.00	4.00 4.00	Americium-241 Plutonium-239/240	0.306 2.570	76 50	0.020 0.020	- -	pCi/g pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CA42-039 CA42-039	0.00 0.00	4.00 4.00	Americium-241 Plutonium-239/240	6.210 45.200	76 50	0.020 0.020	- -	pCi/g pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD43-044 CD43-044	2.50 2.50	5.00 5.00	Americium-241 Plutonium-239/240	1.590 10.300	76 50	0.020 0.020	- -	pCi/g pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD44-016 CD44-016	9.00 9.00	9.30 9.30	Americium-241 Plutonium-239/240	3.060 18.500	76 50	0.020 0.020	- -	pCi/g pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD44-013 CD44-013	9.00 9.00	9.30 9.30	Americium-241 Plutonium-239/240	1.300 5.700	76 50	0.020 0.020	- -	pCi/g pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD43-055 CD43-055 CD43-055 CD43-055 CD43-055 CD43-055 CD43-055 CD43-055 CD43-055	9.00 9.00 9.00 9.00 9.00 9.00 9.00 9.00 9.00	9.50 9.50 9.50 9.50 9.50 9.50 9.50 9.50 9.50	2-Butanone Acetone Americium-241 Ethylbenzene Methylene chloride Plutonium-239/240 Styrene Xylene	1.900 11.000 1.640 0.310 2.400 12.000 0.000 1.400	192000000 102000000 76 6250000 2530000 50 123000000 2040000	- - 0.020 - - 0.020 - -	1.800 1.800 - 0.100 0.360 - 0.081 0.035	ug/kg ug/kg pCi/g ug/kg ug/kg pCi/g ug/kg ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD44-014 CD44-014	9.00 9.00	9.30 9.30	Americium-241 Plutonium-239/240	0.122 0.210	76 50	0.020 0.020	- -	pCi/g pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD44-017 CD44-017	11.00 11.00	11.30 11.30	Americium-241 Plutonium-239/240	3.300 10.000	76 50	0.020 0.020	- -	pCi/g pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD44-018 CD44-018	11.00 11.00	11.30 11.30	Americium-241 Plutonium-239/240	5.700 20.900	76 50	0.020 0.020	- -	pCi/g pCi/g

Figure 6

500 Area Confirmation Soil Sampling Results Greater Than Background Means Plus Two Standard Deviations or RLs

KEY

- Location with concentrations greater than background means plus two standard deviations or RLs
- Building/structure
- Demolished structure
- Tank (removed)
- IHSS, PAC, or UBC
- Paved area
- OPWL left in place
- OPWL removed
- OPWL does not exist
- Excavation

N W E S

30 0 30 Feet

Scale = 1:525

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Date: September 2005

Prepared by: RADMS

Prepared for: KAISER•HILL COMPANY

File: W:\Projects\Fy2005\000-2\COR\AV_Projects\opwl_cor_fig4_6_12_15_16.apr

Table 13
500 Area Confirmation Soil Sampling Results Greater Than Background Means Plus Two Standard Deviations or RLs

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
500	500-3	CA42-036	750199.34	2083458.966	0.00	4.00	Americium-241	5.070	76	0.020	-	pCi/g
500	500-3	CA42-036	750199.34	2083458.966	0.00	4.00	Plutonium-239/240	25.300	50	0.020	-	pCi/g
500	500-3	CA42-039	750190.136	2083465.145	0.00	4.00	Americium-241	6.210	76	0.020	-	pCi/g
500	500-3	CA42-039	750190.136	2083465.145	0.00	4.00	Plutonium-239/240	45.200	50	0.020	-	pCi/g
500	500-3	CD43-038	750197.16	2083459.436	0.00	4.00	Americium-241	0.218	76	0.020	-	pCi/g
500	500-3	CD43-038	750197.16	2083459.436	0.00	4.00	Plutonium-239/240	1.260	50	0.020	-	pCi/g
500	500-3	CD43-039	750193.377	2083459.532	4.00	4.30	Americium-241	2.320	76	0.020	-	pCi/g
500	500-3	CD43-039	750193.377	2083459.532	4.00	4.30	Plutonium-239/240	12.000	50	0.020	-	pCi/g
500	500-3	CD43-041	750192.254	2083466.888	0.00	4.00	Americium-241	0.306	76	0.020	-	pCi/g
500	500-3	CD43-041	750192.254	2083466.888	0.00	4.00	Plutonium-239/240	2.570	50	0.020	-	pCi/g
500	500-3	CD43-042	750190.131	2083451.486	0.00	4.50	Americium-241	2.970	76	0.020	-	pCi/g
500	500-3	CD43-042	750190.131	2083451.486	0.00	4.50	Plutonium-239/240	17.600	50	0.020	-	pCi/g
500	500-3	CD43-044	750182.935	2083455.786	2.50	5.00	Americium-241	1.590	76	0.020	-	pCi/g
500	500-3	CD43-044	750182.935	2083455.786	2.50	5.00	Plutonium-239/240	10.300	50	0.020	-	pCi/g
500	500-3	CD43-055	750099.934	2083519.552	9.00	9.50	2-Butanone	1.900	192000000	-	1.800	ug/kg
500	500-3	CD43-055	750099.934	2083519.552	9.00	9.50	Acetone	11.000	102000000	-	1.600	ug/kg
500	500-3	CD43-055	750099.934	2083519.552	9.00	9.50	Americium-241	1.640	76	0.020	-	pCi/g
500	500-3	CD43-055	750099.934	2083519.552	9.00	9.50	Ethylbenzene	0.310	4250000	-	0.100	ug/kg
500	500-3	CD43-055	750099.934	2083519.552	9.00	9.50	Methylene chloride	2.400	2530000	-	0.360	ug/kg
500	500-3	CD43-055	750099.934	2083519.552	9.00	9.50	Plutonium-239/240	12.000	50	0.020	-	pCi/g
500	500-3	CD43-055	750099.934	2083519.552	9.00	9.50	Styrene	0.099	123000000	-	0.081	ug/kg
500	500-3	CD43-055	750099.934	2083519.552	9.00	9.50	Xylene	1.400	2040000	-	0.035	ug/kg
500	500-3	CD44-013	750124.718	2083467.964	9.00	9.30	Americium-241	1.300	76	0.020	-	pCi/g
500	500-3	CD44-013	750124.718	2083467.964	9.00	9.30	Plutonium-239/240	5.700	50	0.020	-	pCi/g
500	500-3	CD44-014	750122.689	2083466.845	9.00	9.30	Americium-241	0.122	76	0.020	-	pCi/g
500	500-3	CD44-014	750122.689	2083466.845	9.00	9.30	Plutonium-239/240	0.210	50	0.020	-	pCi/g
500	500-3	CD44-016	750124.973	2083466.293	9.00	9.30	Americium-241	3.060	76	0.020	-	pCi/g
500	500-3	CD44-016	750124.973	2083466.293	9.00	9.30	Plutonium-239/240	18.500	50	0.020	-	pCi/g
500	500-3	CD44-017	750126.729	2083464.618	11.00	11.30	Americium-241	3.300	76	0.020	-	pCi/g
500	500-3	CD44-017	750126.729	2083464.618	11.00	11.30	Plutonium-239/240	10.000	50	0.020	-	pCi/g
500	500-3	CD44-018	750125.263	2083458.306	11.00	11.30	Americium-241	5.700	76	0.020	-	pCi/g
500	500-3	CD44-018	750125.263	2083458.306	11.00	11.30	Plutonium-239/240	20.900	50	0.020	-	pCi/g

4.0 700 AREA ACCELERATED ACTION ACTIVITIES

Accelerated action sampling specifications and deviations, including potential contaminants of concern (PCOCs) and media sampled from IHSS Group 000-2 and other IHSS Groups within the 700 Area, are presented in Table 14. Deviations from planned sampling locations are also described in the table. Deviations of less than 3 feet are not considered significant. Results of accelerated action activities in the 700 Area including accelerated action characterization data, OPWL disposition, soil removal, and confirmation sampling are discussed in Sections 4.1 through 4.4. In addition, results of a plutonium speciation study is discussed in Section 4.5.

The 700 Area includes OPWL-related soil samples collected under the IHSS Group 000-1, 000-2, 700-2, 700-3, 700-4, and 700-7 ER projects. Soil samples were collected at 233 locations related to OPWL in the 700 Area. For this Closeout Report, the 700 Area has been subdivided into five smaller areas as follows:

- Building 707;
- Building 771/774;
- Building 776/777/778;
- Building 779; and
- Tank T207.

4.1 700 Area Accelerated Action Data

700 Area – Building 707

The Building 707 area contained 25 soil characterization samples collected as part of the IHSS Group 000-2 and IHSS Group 700-2 ER projects. There were no RFCA WRW soil AL exceedances for any contaminants in soil collected from this area. Eight of these OPWL sampling locations were originally proposed in IHSS Group 700-2 and were transferred to the IHSS Group 000-2 project, as described in a July 21, 2004, Regulatory Contact Record (Appendix A). Analytical results of soil characterization sampling in the Building 707 area with concentrations greater than background means plus two standard deviations or RLs are shown on Figure 7. Analytical results for all 700 Area accelerated action characterization and in-process samples are presented in Table 15. In addition, analytical results with activities or concentrations greater than RFCA WRW Soil AL exceedances are identified with bold text in Table 15.

700 Area – Building 771/774

The Building 771/774 area contained soil samples collected as part of the IHSS Group 000-1, 000-2, 700-3, and 700-4 ER projects. Fifty-seven locations were sampled in the Building 771/774 area including 45 characterization locations, 4 in-process locations, and 8 confirmation locations. Detections of metals, radionuclides, and SVOCs at concentrations and activities greater than RFCA WRW soil ALs were reported in soil samples at 10 sampling locations.

Table 14
700 Area Accelerated Action Sampling Specifications and Deviations

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
700	B771UBC00201	N/A	N/A	750886.000	2083907.000	Subsurface soil	0 – 2 2 - 4	Metals, Radionuclides, SVOCs, VOCs, 8015A, 9010B, 9034, 9056	Biased to target OPWL
700	CE40-000	N/A	N/A	749380.143	2083664.265	Subsurface soil	9 - 10.5	Radionuclides, Metals, VOCs	Biased characterization sample proposed in 000-2 IASAP Addendum
700	CE42-000	749942.888	2083718.799	749946.459	2083715.774	Subsurface soil	2.50 - 4.50 4.50 - 6.50	Metals, Radionuclides, SVOCs, VOCs	Biased sample. Location moved approximately 4 ft northwest to target OPWL.
700	CE42-001	749916.847	2083689.502	749916.871	2083700.012	Subsurface soil	2.50 - 4.50 4.50 - 6.50	Metals, Radionuclides, SVOCs, VOCs	Biased sample to target OPWL. Moved approximately 10.5 ft east per utility locator's instructions due to charged line. Samples collected approximately 9 ft from OPWL that does not exist.
700	CE42-002	N/A	N/A	749876.397	2083663.983	Subsurface soil	2.50 - 3.30 4.50 - 5.80 6.50 - 7.70	Radionuclides, Metals, SVOCs, VOCs	Biased characterization sample proposed in 000-2 IASAP Addendum.
700	CE42-006	N/A	N/A	749823.733	2083669.253	Subsurface soil	6 - 6.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CE43-005	750160.301	2083666.338	750161.018	2083659.162	Subsurface soil	4.50 - 6.50 6.50 - 8.50	Metals, Radionuclides, SVOCs, VOCs	Biased sample to target OPWL. Moved approximately 7 ft west due to alarm and electrical lines.
700	CE44-006	750341.82	2083680.2	750341.82	2083680.2	Surface soil Subsurface soil	0 - 0.5 0.5 - 2.5	Metals, Radionuclides, VOCs (except A)	Biased characterization sample at Tank 18.
700	CE44-007	750324.89	2083680.2	750341.82	2083680.2	Surface soil Subsurface soil	1.4 - 1.9 1.9 - 2.4	Metals, Radionuclides, VOCs (except A)	Biased characterization sample at Tank 18.
700	CE44-013	750267.06	2083666.34	750265.365	2083668.645	Subsurface soil	4.50 - 6.50 6.50 - 8.50	Metals, Radionuclides, SVOCs, VOCs	Biased sample to target OPWL northwest of B707.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
700	CE44-039	N/A	N/A	750254.445	2083840.102	Subsurface soil	3 - 4	Metals, Radionuclides, VOCs	Biased sample to target OPWL.
700	CE45-103	N/A	N/A	750470.426	2083724.329	Subsurface soil	3.5 - 3.8	Radionuclides	Additional 700-3 samples collected in June 2005 after buildings were down.
700	CE45-106	N/A	N/A	750485.814	2083731.422	Subsurface soil	4.5 - 5	Radionuclides	Additional 700-3 samples collected in June 2005 after buildings were down.
700	CE47-002	750928.227	2083696.625	750928.227	2083696.625	Subsurface soil	0 - 0.5	Metals, Radionuclides, SVOCs, VOCs	No significant difference. Depth interval measured from beneath building.
700	CE47-012	750941.216	2083603.55	750941.287	2083603.58	Subsurface soil	0 - 0.5	Metals, Radionuclides, SVOCs	No significant difference.
700	CE47-021	N/A	N/A	750948.982	2083556.534	Subsurface soil	4.5 - 6.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CE47-022	750843.609	2083735.31	750843.609	2083735.31	Subsurface soil	0 - 0.5	Metals, Radionuclides, SVOCs, VOCs	No significant difference.
700	CE47-028	N/A	N/A	750941.1553	2083605.591	Surface soil	0 - 0.5	Radionuclides, Metals, SVOCs, VOCs	Confirmation sample on P23.
700	CE47-029	N/A	N/A	750941.163	2083601.228	Surface soil	0 - 0.5	Radionuclides, Metals, SVOCs, VOCs	In-process sample on P-23
700	CE47-030	N/A	N/A	750943.2451	2083603.496	Surface soil	0 - 0.5	Radionuclides, Metals, SVOCs, VOCs	Confirmation sample on P23.
700	CE47-031	N/A	N/A	750939.3699	2083603.484	Surface soil	0 - 0.5	Radionuclides, Metals, SVOCs, VOCs	Confirmation sample on P23.
700	CE47-032	N/A	N/A	750956.434	2083628.804	Surface soil	0 - 0.5	Radionuclides, Metals, SVOCs, VOCs	Confirmation sample on P23.
700	CE47-033	N/A	N/A	750940.528	2083593.003	Surface soil	0 - 0.5	Radionuclides, Metals, SVOCs, VOCs	Confirmation sample on P23.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
700	CE48-002	751051.826	2083713.215	751051.826	2083713.215	Subsurface soil	0 - 0.5	Metals, Radionuclides, SVOCs, VOCs	No significant difference. Depth interval measured from beneath building.
700	CE48-007	750986.102	2083683.056	750988.585	2083695.474	Subsurface soil	0 - 0.5	Metals, Radionuclides, SVOCs, VOCs	Proposed building sump locations moved to actual sump locations. Depth interval from beneath building/sump.
700	CE48-008	751140.525	2083694.258	751144.198	2083690.363	Surface soil	0 - 0.5	Metals, Radionuclides, SVOCs	Moved out from wall 5 feet to the northwest.
700	CE48-012	750964.474	2083631.029	750964.572	2083630.96	Surface soil	0 - 0.5	Metals, Radionuclides, SVOCs	No significant difference.
700	CE48-019	751024.237	2083556.864	751024.376	2083556.71	Surface soil	0 - 0.5	Metals, Radionuclides, SVOCs	No significant difference.
700	CE48-022	N/A	N/A	751130.854	2083554.201	Subsurface soil	4.5 - 6.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CE48-025	N/A	N/A	750993.441	2083684.818	Subsurface soil	0-0.5	Radionuclides, Metals, VOCs	Additional Sump Location. Depth interval measured from beneath building/sump
700	CE48-031	N/A	N/A	750966.456	2083630.699	Surface soil	0 - 0.5	Radionuclides, Metals, SVOCs, VOCs	Confirmation sample on P23.
700	CE48-032	N/A	N/A	750962.278	2083630.812	Surface soil	0 - 0.5	Radionuclides, Metals, SVOCs, VOCs	In-process sample on P-23
700	CE48-033	N/A	N/A	750964.423	2083632.844	Surface soil	0 - 0.5	Radionuclides, Metals, SVOCs, VOCs	In-process sample on P-23
700	CE48-034	N/A	N/A	750964.602	2083628.675	Surface soil	0 - 0.5	Radionuclides, Metals, SVOCs, VOCs	In-process sample on P-23
700	CE48-035	N/A	N/A	750961.182	2083636.127	Surface soil	0 - 0.5	Radionuclides, Metals, SVOCs, VOCs	Confirmation sample.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
700	CE48-036	N/A	N/A	750960.885	2083623.633	Surface soil	0 - 0.5	Radionuclides, Metals, SVOCs, VOCs	Confirmation sample.
700	CE49-000	751183.646	2083705.409	751185.7	2083697.46	Subsurface soil	4.5 - 6.5	Metals, Nitrates, Radionuclides	Relocated adjacent to OPWL
700	CE49-012	751178.113	2083609.849	751172.24	2083598.84	Subsurface soil	4.5 - 6.5	Radionuclides	Relocated approximately 10 feet west because of power line.
700	CF43-000	750021.013	2083787.158	750018.656	2083789.328	Subsurface soil	2.50 - 4.50 4.50 - 6.50	Metals, Radionuclides, SVOCs, VOCs	Biased sample to target OPWL.
700	CF43-001	749975.441	2083748.096	749974.909	2083748.53	Subsurface soil	2.50 - 4.50 4.50 - 6.50	Metals, Radionuclides, SVOCs, VOCs	Biased sample to target OPWL.
700	CF44-014	750266.247	2083852.35	750270.561	2083852.467	Subsurface soil	4.50 - 6.50 6.50 - 8.50	Metals, Radionuclides, SVOCs, VOCs	Biased sample to target OPWL. Sample offset approximately 4 ft north due to carbon tetrachloride tank and sewer line (Discussed in May 3, 2004, Contact Record to CDPHE).
700	CF44-026	N/A	N/A	750349.729	2083785.345	Subsurface soil	5 - 5.3	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
700	CF44-027	N/A	N/A	750266.081	2083826.587	Subsurface soil	6.5 - 8	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CF45-015	750560.57	2083773.93	750558.503	2083771.669	Surface soil Subsurface soil	0 - 0.5 0.5 - 2.5	Metals, Radionuclides, VOCs (except A)	Biased characterization sample at OPWL and NPWL
700	CF46-017	N/A	N/A	750652.05	2083912.6	Subsurface soil	0.67 - 1.17 1.17 - 1.67	Metals, Radionuclides, VOCs (except A)	Biased characterization targeting P-30.1.
700	CF46-018	750563.17	2083871.59	750563.679	2083872.804	Surface soil Subsurface soil	0 - 0.5 0.5 - 2.5	Metals, Radionuclides, VOCs (except A)	No significant difference
700	CF46-019	N/A	N/A	750652.05	2083912.6	Surface soil	0.0 - 0.5	Metals, Radionuclides, VOCs (except A)	Biased characterization targeting P-30.1.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
700	CF46-029	N/A	N/A	750667.878	2083872.183	Subsurface soil	2.5 - 4.5	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
700	CF46-062	N/A	N/A	750617.601	2083877.296	Surface soil	5 - 5.5	Radionuclides	Additional 700-3 samples collected in June 2005 after buildings were down.
700	CF46-065	N/A	N/A	750666.08	2083880.5	Subsurface soil	8.0 - 9.0	Radionuclides	Biased characterization targeting P-30:2.
700	CF47-005	750890.086	2083781.238	750895.053	2083793.656	Subsurface soil	0 - 0.8	Metals, Radionuclides, SVOCs	Proposed building sump locations moved to actual sump locations. Depth interval from beneath building/sump.
700	CF48-008	751156.268	2083872.525	751156.268	2083872.525	Surface soil	0 - 0.5	Metals, Radionuclides, SVOCs, VOCs	No significant difference. Depth interval measured from beneath building.
700	CF48-018	751112.331	2083930.956	751112.331	2083922.24	Subsurface soil	4.5 - 6.5	Radionuclides	Relocated to clear communication line.
700	CF49-007	751177.331	2083932.304	751177.223	2083932.293	Surface soil	0 - 0.5	Metals, Radionuclides	No significant difference.
700	CG42-010	749959.686	2083958.402	749957.29	2083953.61	Subsurface soil	4.5 - 6.5	Metals, Radionuclides, SVOCs, VOCs	Biased characterization sample originally proposed in 700-2 SAP Addendum - UBC 707 OPWL (P-19)
700	CG42-011	749828.609	2083956.666	749830.13	2083953.36	Subsurface soil	2.5-4.5	Metals, Radionuclides, SVOCs, VOCs	Biased characterization sample originally proposed in 700-2 SAP Addendum - UBC 707 OPWL (P-19)
700	CG42-012	749891.109	2083957.534	749891.85	2083953.76	Subsurface soil	2.5-4.5	Metals, Radionuclides, SVOCs, VOCs	Biased characterization sample originally proposed in 700-2 SAP Addendum - UBC 707 OPWL (P-19)
700	CG42-013	749811.248	2083957.534	749805	2083954.14	Subsurface soil	2.5-4.5	Metals, Radionuclides, SVOCs, VOCs	Biased characterization sample originally proposed in 700-2 SAP Addendum - UBC 707 OPWL (P-19)
700	CG43-011	750092.738	2083958.382	750092.738	2083958.382	Surface soil Subsurface soil	0.00 - 0.50 0.50 - 1.00	Metals, Radionuclides, SVOCs, VOCs	Statistical sample. First interval below slab. Deepest interval shortened because of refusal at 1 ft; however, full analytical suite obtained.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
700	CG43-016	750115.936	2084015.694	750111.422	2084007.863	Subsurface soil	11.00 - 13.00 13.00 - 15.00	Metals, Radionuclides, SVOCs, VOCs	Biased sample targeting UBC 731 and Tanks 11 and 30. Sample relocated approximately 9 ft southwest outside of building to avoid groundwater that would likely be encountered below the basement floor (discussed in July 9, 2004, Contact Record to CDPHE). First interval sampled at a depth approximately equal to the depth of the basement slab.
700	CG43-017	750120.276	2084027.846	750125.352	2084030.972	Subsurface soil	11.00 - 13.00 13.00 - 15.00	Metals, Radionuclides, SVOCs, VOCs	Biased sample targeting UBC 731 and Tanks 11 and 30. Sample relocated approximately 6 ft northeast outside of building to avoid groundwater that would likely be encountered below the basement floor (discussed in July 9, 2004, Contact Record to CDPHE). First interval sampled at a depth approximately equal to the depth of the basement slab.
700	CG43-020	750057.776	2083958.402	750054.58	2083953.8	Subsurface soil	4.5-6.5	Metals, Radionuclides, SVOCs, VOCs	Biased characterization sample originally proposed in 700-2 SAP Addendum - UBC 707 OPWL (P-19)
700	CG43-021	750110.727	2083956.666	750112.84	2083952.88	Subsurface soil	4.5-6.5	Metals, Radionuclides, SVOCs, VOCs	Biased characterization sample originally proposed in 700-2 SAP Addendum - UBC 707 OPWL (P-19)
700	CG43-023	750053.387	2083969.856	750053.44	2083972.78	Surface soil Subsurface soil	0.00 - 0.50 0.50 - 1.50	Metals, Radionuclides, SVOCs, VOCs	Biased sample targeting sump. Deepest interval shortened because of refusal at 1.5 ft; however, full analytical suite obtained.
700	CG44-005	N/A	N/A	750266.517	2084033.078	Surface soil Subsurface soil	0.0 - 0.5 1.5 - 2.5 2.5 - 3.5 4.5 - 6.5 6.5 - 8.5	Metals, Radionuclides, VOCs	Biased to target OPWL.
700	CG44-008	750337.7	2084086.921	750337.719	2084086.988	Subsurface soil	2.50 - 4.50 4.50 - 6.50	Metals, Radionuclides, SVOCs, VOCs	Biased sample to target OPWL.
700	CG44-009	750256.55	2084009.636	750256.438	2084009.619	Surface soil Subsurface soil	2.50 - 4.50 4.50 - 6.50	Metals, Radionuclides, SVOCs, VOCs	Biased sample to target OPWL.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
700	CG44-013	N/A	N/A	750191.189	2084016.638	Subsurface soil	3 - 3.5	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
700	CG45-032	N/A	N/A	750564.586	2083985.522	Surface soil	0 - 1	Radionuclides	Additional 700-3 samples collected in June 2005 after buildings were down.
700	CG45-033	N/A	N/A	750563.412	2084024.273	Surface soil	0 - 1	Radionuclides, Metals, VOCs	Replaced CG45-010 which was originally proposed in the IHSS Group 700-3 SAP Addendum #IA-03-04 (DOE 2003c).
700	CG46-005	750723.13	2084093.11	750723.086	2084093.06	Surface soil Subsurface soil	0 -0.5 1 - 2.5 3.5 - 4.5 4.5 - 6.5 7.5 - 8.5	Metals, Radionuclides, VOCs (except A)	Biased characterization location to investigate known OPWL leak; no significant change in location. Partial recovery from B, C and E intervals due to equipment refusal. No change in analytes.
700	CG46-006	750714.22	2084093.6	750713.1	2084093.321	Surface soil Subsurface soil	0 - 0.5 1.5 - 2.5 3.5 - 4.5 5 - 6.5 6.5 - 8.5	Metals, Radionuclides, VOCs (except A)	Biased characterization location to investigate known OPWL leak; no significant change in location. Partial recovery from B, C and D intervals due to equipment refusal. No change in analytes.
700	CG46-007	750696.64	2084093.35	750697.227	2084093.397	Surface soil Subsurface soil	0 -0.5 1 - 2.5 3.5 - 4.5 4.5 - 6.5 6.5 - 8.5	Metals, Radionuclides, VOCs (except A)	Biased characterization location to investigate known OPWL leak; no significant change in location. Partial recovery from B and C intervals due to equipment refusal. No change in analytes.
700	CG46-016	N/A	N/A	750712.526	2083981.84	Subsurface soil	6 - 8	Radionuclides, Metals, SVOCs, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
700	CG46-017	N/A	N/A	750723.128	2084094.903	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 2.5 2.5 - 4.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CG46-018	N/A	N/A	750714.915	2084094.867	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 2.5 2.5 - 4.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CG46-019	N/A	N/A	750719.768	2084101.766	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 2.5 2.5 - 4.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
700	CG46-020	N/A	N/A	750734.735	2084086.308	Surface soil	0 - 0.2	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CG46-021	N/A	N/A	750760.06	2084086.249	Surface soil	0 - 0.2	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CG46-036	N/A	N/A	750648.038	2083969.3	Subsurface soil	5 - 5.3	Radionuclides	Additional 700-3 samples collected in June 2005 after buildings were down.
700	CG47-002	750890.009	2084093.873	750889.982	2084093.865	Subsurface soil	4.5 - 6.5	Metals, Nitrates, Radionuclides	No significant difference.
700	CG47-003	750900.044	2084102.793	750900.03	2084102.832	Subsurface soil	4.5 - 6.5	Metals, Nitrates, Radionuclides	No significant difference.
700	CG47-004	750897.89	2084092.07	750897.859	2084089.329	Surface soil Subsurface soil	0 - 0.5 1 - 2.5 3.5 - 4.5 5.5 - 6.5 7.5 - 8.5	Metals, Radionuclides, VOCs (except A)	Biased characterization location to investigate known OPWL leak; no significant change in location. Partial recovery from B - D intervals due to equipment refusal. No change in analytes.
700	CG47-005	N/A	N/A	750890.216	2084094.626	Surface soil Subsurface soil	2.5 - 4.5 4.5 - 6.5 6.5 - 8.5	Radionuclides, Metals, VOCs	Biased characterization sample proposed in 000-2 IASAP Addendum.
700	CG47-035	N/A	N/A	750789.992	2084093.54	Subsurface soil	3.5 - 3.7	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
700	CG47-036	N/A	N/A	750860.911	2084093.659	Subsurface soil	3.5 - 4	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
700	CG47-037	N/A	N/A	750919.991	2084091.989	Subsurface soil	3.5 - 4	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CG47-038	N/A	N/A	750915.93	2084055.83	Subsurface soil	5 - 5.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CG47-039	N/A	N/A	750904.185	2084122.876	Subsurface soil	3 - 4.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CG48-004	751119.964	2084014.593	751137.63	2084011.53	Subsurface soil	4.5 - 6.5	Metals, Nitrates, Radionuclides	Moved approximately five feet north along P-26.
700	CG48-005	751012.903	2084095.811	751012.9	2084095.811	Subsurface soil	2.5 - 4.5	Metals, Nitrates, Radionuclides	No significant difference in location. Original collection interval specified as 4.5 – 6.5. .

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
700	CG48-007	751097.231	2084126.123	751097.231	2084126.123	Subsurface soil	0 - 0.5	Metals, Nitrates, Radionuclides, SVOCs	No significant difference. Depth interval measured from beneath building.
700	CG48-008	751068.741	2084126.045	751068.741	2084126.045	Subsurface soil	2.0 - 2.5	Metals, Nitrates, Radionuclides, SVOCs	Collected beneath groundwater sump in Room 103. Depth interval measured from beneath building.
700	CG48-009	751069.053	2084095.838	751069.053	2084095.838	Subsurface soil	0 - 0.5	Metals, Nitrates, Radionuclides, SVOCs	No significant difference. Depth interval measured from beneath building.
700	CG48-010	751082.557	2084110.2	751082.557	2084110.2	Subsurface soil	0 - 0.5	Metals, Nitrates, Radionuclides, SVOCs	No significant difference. Depth interval measured from beneath building.
700	CG48-011	751032.738	2084113.72	751032.738	2084113.72	Surface soil	0 - 0.5	Metals, Radionuclides	Tanks are ASTs, soil sampled 0-0.5
700	CG48-012	751013.428	2084114.856	751013.428	2084114.856	Surface soil	0 - 0.5	Metals, Radionuclides	Tanks are ASTs, soil sampled 0-0.5
700	CG48-018	751049.91	2084064.947	751049.91	2084064.95	Subsurface soil	0.5 - 2.5	Metals, Radionuclides, VOCs	No significant difference.
700	CG48-033	N/A	N/A	751007.305	2083999.08	Surface soil	0 - 0.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CH45-001	750523.181	2084204.782	750523.204	2084204.764	Subsurface soil	2.50 - 4.50 4.50 - 6.50	Radionuclides, Metals, VOCs	Biased location to target OPWL; no significant change in location.
700	CH45-028	750477.146	2084230.366	750477.146	2084230.366	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 2.5 2.5 - 4.5 4.5 - 6.5	Radionuclides, Metals, VOCs	Biased location to target UBC Site and OPWL; no significant change in location.
700	CH45-029	750501.451	2084268.56	750501.451	2084268.56	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 1.1 3.0 - 4.5 4.5 - 6.0	Radionuclides, Metals, VOCs	Biased location to target UBC Site and OPWL; no significant change in location; some intervals had partial sample recovery.
700	CH45-031	750497.111	2084332.796	750497.111	2084332.796	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 1.8 2.5 - 3.5 4.5 - 5.0	Radionuclides, Metals, VOCs	Biased location to target UBC Site and OPWL; no significant change in location; some intervals had partial sample recovery.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
700	CH45-066	750496.848	2084303.766	750496.715	2084311.994	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 1.0 2.5 - 3.5 4.5 - 5.5	Radionuclides, Metals, SVOCs, VOCs	Biased location to target UBC site and OPWL under slab; relocated 8 ft E to sample next to OPWL; depth of D interval reduced because of refusal.
700	CH45-067	750482.267	2084285.776	750480.854	2084285.799	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 2.5 2.5 - 3.5 4.5 - 5.5	Radionuclides, Metals, SVOCs, VOCs	Biased location to target UBC Site and OPWL under slab; relocated
700	CH45-094	N/A	N/A	750569.101	2084329.847	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 1.0	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CH45-095	N/A	N/A	750557.537	2084293.464	Surface soil	0 - 0.5	SVOCs	Additional biased characterization sample.
700	CH45-096	N/A	N/A	750569.101	2084329.847	Surface soil	0 - 0.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CH45-111	N/A	N/A	750569.101	2084329.847	Subsurface soil	3 - 3.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CH46-000	750704.07	2084153.76	750704.175	2084154.64	Surface soil Subsurface soil	0 - 0.5 1 - 2.5 3.5 - 4.5 5 - 6.5 6.5 - 8.5	Metals, Radionuclides, VOCs (except A)	Biased characterization location to investigate known OPWL leak; no significant change in location. Partial recovery from B, C and D intervals due to equipment refusal. No change in analytes.
700	CH46-001	750698.87	2084153.76	750694.659	2084162.96	Surface soil Subsurface soil	0 - 0.5 1 - 2.5 3.5 - 4.5 5 - 6.5 6.5 - 8.5	Metals, Radionuclides, VOCs (except A)	Biased characterization location to investigate known OPWL leak; moved 9 ft E and 4 ft S to target OPWL. Partial recovery from B – D intervals due to equipment refusal. No change in analytes.
700	CH46-002	750693.42	2084154.75	750694.278	2084163.553	Surface soil Subsurface soil	0 - 0.5 1 - 2.5 3.5 - 4.5 5.5 - 6.5 7.3 - 8.5	Metals, Radionuclides, VOCs (except A)	Biased characterization location to investigate known OPWL leak; moved 9 ft E to target OPWL. Partial recovery from B – E intervals due to equipment refusal. No change in analytes.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
700	CH46-003	750700.85	2084149.06	750699.28	2084146.312	Surface soil Subsurface soil	0 - 0.5 1 - 2.5 3.5 - 4.5 5.5 - 6.5 7.1 - 8	Metals, Radionuclides, VOCs (except A)	Biased characterization location to investigate known OPWL leak; no significant change in location. Partial recovery from B – E intervals due to equipment refusal. No change in analytes.
700	CH46-007	N/A	N/A	750742.152	2084196.926	Subsurface soil	3 - 3.5	Radionuclides, Metals, SVOCs, VOCs	Biased characterization sample.
700	CH46-008	N/A	N/A	750757.718	2084181.258	Subsurface soil	7 - 7.5	Radionuclides, Metals, PCBs, SVOCs, VOCs	Biased characterization sample.
700	CH46-009	N/A	N/A	750761.84	2084180.901	Subsurface soil	4.0 - 4.5 7.0 - 7.5	Radionuclides, Metals, PCBs, SVOCs, VOCs	Biased characterization sample.
700	CH46-010	N/A	N/A	750744.193	2084152.799	Subsurface soil	4.5 - 6.5	Metals, Radionuclides, VOCs	Biased characterization sample proposed in 000-2 IASAP Addendum.
700	CH46-011	750577.286	2084200.918	750577.277	2084200.896	Subsurface soil	3.0 - 4.5 5.0 - 6.5	Radionuclides, Metals, VOCs	Biased location to target OPWL; no significant change in location; intervals had partial recovery.
700	CH46-012	750646.844	2084202.85	750647.835	2084203.058	Subsurface soil	3.5 - 4.5 5.5 - 6.5	Radionuclides, Metals, VOCs	Biased location to target OPWL; no significant change in location; intervals had partial recovery.
700	CH46-013	750666.165	2084177.732	750673.158	2084177.106	Subsurface soil	3.5 - 4.5 4.5 - 6.5	Radionuclides, Metals, VOCs	Biased location to target OPWL; relocated 7.0 ft N and 0.6 ft W to sample target; B interval had partial recovery.
700	CH46-014	N/A	N/A	750709.027	2084170.768	Subsurface soil	4.5 - 6.5	Metals, Radionuclides, VOCs	Biased characterization sample proposed in 000-2 IASAP Addendum.
700	CH46-015	N/A	N/A	750723.535	2084154.358	Subsurface soil	4.5 - 6.5	Metals, Radionuclides, VOCs	Biased characterization sample proposed in 000-2 IASAP Addendum.
700	CH46-018	750564.796	2084319.267	750558.62	2084331.99	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 2.5	Radionuclides, Metals, VOCs	Biased location to target trenches; relocated 6.2 ft S and 13 ft E to sample target; added 2nd interval.
700	CH46-020	750629.467	2084294.841	750628.783	2084291.172	Subsurface soil	3.5 - 3.8	Radionuclides, Metals, VOCs	Biased location to target cleanout; relocated 0.7 ft S and 3.7 ft W to sample target; grab sample.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
700	CH46-021	750630.124	2084283.68	750629.293	2084281.787	Subsurface soil	3.5 - 3.8	Radionuclides, Metals, VOCs	Biased location to target cleanout; relocated 0.8 ft S and 1.9 ft W to sample target; grab sample.
700	CH46-022	750652.445	2084286.306	750647.98	2084281.455	Subsurface soil	3.0 - 3.3	Radionuclides, Metals, VOCs	Biased location to target cleanout; relocated 4.5 ft S and 4.9 ft W to sample target; grab sample.
700	CH46-023	750591.39	2084288.275	750587.002	2084282.945	Subsurface soil	4.0 - 4.3	Radionuclides, Metals, VOCs	Biased location to target cleanout; relocated 4.4 ft S and 5.3 ft W to sample target; grab sample.
700	CH46-024	750592.703	2084279.741	750572.07	2084283.816	Subsurface soil	3.5 - 3.8	Radionuclides, Metals, VOCs	Biased location to target cleanout; relocated 21 ft S and 4.1 ft E to sample target; grab sample.
700	CH46-026	750622.111	2084224.289	750631.68	2084225.699	Subsurface soil	3.0 - 3.3 3.5 - 5.5	Radionuclides, Metals, VOCs	Biased location to target OPWL; relocated 9.6 ft N and 1.4 ft E to sample target; 1st interval was a grab sample. Location was planned to characterize UBC Site and OPWL using Intervals A - D. CH46-054 was added at original location to characterize UBC Site (B interval only) (Regulatory Contact Record dated March 3, 2004, in Appendix A).
700	CH46-027	750609.958	2084288.525	750599.83	2084283.122	Subsurface soil	3.0 - 3.3 3.5 - 5.5	Radionuclides, Metals, VOCs	Biased location to target OPWL; relocated 10 ft S and 5.4 ft W to sample target; 1st interval was a grab sample. Location was planned to characterize UBC Site and OPWL using Intervals A - D. CH46-055 was added at original location to characterize UBC Site (B interval only) (Regulatory Contact Record dated March 3, 2004, in Appendix A).
700	CH46-035	N/A	N/A	750788.26	2084208.254	Subsurface soil	4 - 4.5	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
700	CH46-036	N/A	N/A	750702.505	2084152.497	Subsurface soil	3.5 - 4	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
700	CH46-038	N/A	N/A	750764.386	2084229.714	Subsurface soil	4 - 4.5	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
700	CH46-039	N/A	N/A	750789.995	2084209.415	Subsurface soil	4 - 4.5	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
700	CH46-044	N/A	N/A	750789.306	2084272.616	Subsurface soil	3.5 - 4	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CH46-045	N/A	N/A	750805.458	2084199.961	Subsurface soil	0.5 - 2.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CH46-046	N/A	N/A	750746.802	2084225.482	Subsurface soil	2 - 2.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CH46-047	N/A	N/A	750696.239	2084146.151	Subsurface soil	3.5 - 4	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CH46-048	N/A	N/A	750698.695	2084141.126	Subsurface soil	4 - 4.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CH46-051	N/A	N/A	750601.421	2084315.383	Subsurface soil	3 - 3.3	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CH46-052	N/A	N/A	750699.781	2084161.244	Subsurface soil	4.5 - 5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CH46-054	N/A	N/A	750622.108	2084224.277	Subsurface soil	0.5 - 2.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CH46-055	N/A	N/A	750609.945	2084288.585	Subsurface soil	0.5 - 2.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CH46-058	N/A	N/A	750700.426	2084596.772	Subsurface soil	4.5 - 5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CH46-061	N/A	N/A	750716.472	2084150.367	Subsurface soil	2.5 - 3	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CH47-000	750911.21	2084181.91	750918.018	2084180.313	Surface soil Subsurface soil	0 - 0.5 1 - 2.5 3 - 4.5 5 - 6.5 7 - 8.5	Metals, Radionuclides, VOCs (except A)	Biased characterization location to investigate known OPWL leak; moved 7 ft N to target OPWL. Subsurface intervals also used for confirmation that concentrations were less than RFCA WRW soil ALs. Partial recovery from B – E intervals due to equipment refusal. No change in analytes.
700	CH47-001	750780.57	2084182.48	750780.174	2084181.862	Surface soil Subsurface soil	0 - 0.5 0.5 - 2.5 3.5 - 4.5 5 - 6.5 6.5 - 8.5	Metals, Radionuclides, VOCs (except A)	Biased characterization location to investigate known OPWL leak; no significant change in location. Partial recovery from C and D intervals due to equipment refusal. No change in analytes.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
700	CH47-003	N/A	N/A	750850.902	2084183.359	Subsurface soil	4.5 - 6.5	Radionuclides, Metals, VOCs	Biased characterization sample proposed in Biased characterization sample proposed in 000-2 IASAP Addendum. Addendum.
700	CH47-004	N/A	N/A	750889.287	2084138.064	Subsurface soil	2.5 - 4.5 4.5 - 6.5 6.5 - 8.5	Radionuclides, Metals, VOCs	Biased characterization sample proposed in Biased characterization sample proposed in 000-2 IASAP Addendum. Addendum.
700	CH47-005	N/A	N/A	750778.516	2084151.083	Subsurface soil	2.5 - 4.5	Metals, Radionuclides, VOCs	Biased characterization sample proposed in 000-2 IASAP Addendum.
700	CH47-006	N/A	N/A	750946.559	2084182.224	Subsurface soil	4.5 - 6.5	Radionuclides, Metals, VOCs	Biased characterization sample proposed in Biased characterization sample proposed in 000-2 IASAP Addendum. Addendum.
700	CH47-025	N/A	N/A	750918.66	2084176.52	Surface soil	0 - 0.5	Radionuclides, Metals, VOCs	Confirmation sample on P28/29.
700	CH47-026	N/A	N/A	750921.59	2084181.14	Surface soil	0 - 0.5	Radionuclides, Metals, VOCs	Confirmation sample on P28/29.
700	CH47-027	N/A	N/A	750918.04	2084184.83	Surface soil	0 - 0.5	Radionuclides, Metals, VOCs	Confirmation sample on P28/29.
700	CH47-028	N/A	N/A	750914.34	2084180.65	Surface soil	0 - 0.5	Radionuclides, Metals, VOCs	Confirmation sample on P28/29.
700	CH47-029	N/A	N/A	750777.844	2084166.926	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 2.5 2.5 - 3.0	Radionuclides, Metals, VOCs	Confirmation sample on P28/29/46.
700	CH47-030	N/A	N/A	750804.74	2084183.93	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 2.5 2.5 - 3.0	Radionuclides, Metals, VOCs	Confirmation sample on P28/29/46.
700	CH47-031	N/A	N/A	750763.45	2084202.55	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 2.5 2.5 - 3.0	Radionuclides, Metals, VOCs	Confirmation sample on P28/29/46.
700	CH47-032	N/A	N/A	750748.01	2084180.85	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 2.5 2.5 - 3.0	Radionuclides, Metals, VOCs	Confirmation sample on P28/29/46.
700	CH47-043	N/A	N/A	750787.499	2084231.743	Subsurface soil	4 - 4.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CH47-044	N/A	N/A	750783.628	2084180.409	Subsurface soil	0.5 - 2.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
700	CH47-051	N/A	N/A	750767.124	2084233.635	Subsurface soil	10 - 10.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CH47-053	N/A	N/A	750844.479	2084175.566	Subsurface soil	5.5 - 5.8	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CH47-054	N/A	N/A	750789	2084176	Subsurface soil	5.5 - 6	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CH47-055	N/A	N/A	750760.48	2084177.81	Subsurface soil	5 - 5.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CH48-000	751019.513	2084272.542	751019.513	2084272.542	Subsurface Soil	4.5-6.5	Metals, Nitrate, Radionuclides	Potential Leaking OPWL. No change.
700	CH48-003	751023.055	2084147.496	751051.416	2084180.956	Subsurface Soil	4.5 - 6.5	Metals, Nitrates, Radionuclides	Relocated 30 feet northwest. Close to P-26.
700	CH48-004	750994.444	2084184.413	750994.441	2084184.407	Subsurface Soil	4.5 - 6.5	Metals, Nitrates, Radionuclides	No significant difference. Moved several feet north along OPWL.
700	CH48-016	N/A	N/A	751011.291	2084373.825	Subsurface soil	4.5 - 6.5	Radionuclides, Metals, 9056	Biased to target OPWL.
700	CH48-017	N/A	N/A	751040.548	2084157.88	Subsurface soil	5.5 - 7.5	Metals, Radionuclides, metals, 9056	Biased to target OPWL
700	CH48-018	N/A	N/A	751008.538	2084150.627	Subsurface soil	12.5 - 14.5	Metals, Radionuclides, metals, 9056	Biased to target OPWL
700	CH48-019	N/A	N/A	751017.524	2084166.664	Subsurface soil	11.5 - 13.5	Radionuclides, metals, 9056	Biased to target OPWL
700	CH48-020	751051.575	2084187.354	751051.722	2084187.54	Subsurface soil	4.5 - 6.5	Metals, Nitrates, Radionuclides	No significant difference.
700	CH48-021	751015.769	2084253.97	751015.76	2084253.99	Subsurface soil	4.5 - 6.5	Metals, Nitrates, Radionuclides	No significant difference.
700	CH48-022	N/A	N/A	750989.13	2084139.095	Subsurface soil	4.5 - 6.5	Radionuclides, Metals, VOCs	Biased characterization sample proposed in IHSS Group 000-2 IASAP Addendum.
700	CH48-023	N/A	N/A	750994.499	2084164.02	Subsurface soil	4.5 - 6.5	Radionuclides, Metals, VOCs	Biased characterization sample proposed in IHSS Group 000-2 IASAP Addendum.
700	CH48-024	N/A	N/A	750965.221	2084181.306	Subsurface soil	4.5 - 6.5	Radionuclides, Metals, VOCs	Biased characterization sample proposed in IHSS Group 000-2 IASAP Addendum.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
700	CH48-041	N/A	N/A	751051.26	2084143.9	Surface soil	0.0 - 0.5	Radionuclides, Metals, SVOCs, VOCs	Biased confirmation sample at Tanks 14 and 16.
700	CH48-042	N/A	N/A	751043.89	2084144.2	Surface soil	0.0 - 0.5	Radionuclides, Metals, SVOCs, VOCs	Biased confirmation sample at Tanks 14 and 16.
700	CH48-043	N/A	N/A	751037.76	2084143.8	Surface soil	0.0 - 0.5	Radionuclides, Metals, SVOCs, VOCs	Biased confirmation sample at Tanks 14 and 16.
700	CH48-044	N/A	N/A	751037.35	2084130.6	Surface soil	0.0 - 0.5	Radionuclides, Metals, SVOCs, VOCs	Biased confirmation sample at Tanks 14 and 16.
700	CH48-045	N/A	N/A	751025.5	2084130.6	Surface soil	0.0 - 0.5	Radionuclides,	Biased confirmation sample at Tanks 14 and 16.
700	CH48-046	N/A	N/A	751039.77	2084140.3	Surface soil	0.0 - 0.5	Radionuclides	Biased confirmation sample at Tanks 14 and 16.
700	CH48-050	N/A	N/A	751019.14	2084152.5	Surface soil	0.0 - 0.5	Radionuclides, Metals, SVOCs, VOCs	Biased confirmation sample at Tanks 14 and 16.
700	CH48-051	N/A	N/A	751055.922	2084184.839	Subsurface soil	2.5 - 4.5	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
700	CH48-054	N/A	N/A	750982.17	2084183.54	Subsurface soil	3 - 3.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CI45-012	750495.375	2084399.636	750494.062	2084394.873	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 2.5 2.5 - 4.5 4.5 - 6.5	Radionuclides, Metals, VOCs	Biased location to target UBC Site and OPWL; relocated 1.3 ft S and 4.8 ft W to be adjacent to OPWL.
700	CI46-000	750694.842	2084444.71	750694.85	2084444.683	Subsurface soil	2.5 - 4.5 4.5 - 6.5	Radionuclides, Metals, VOCs	Biased location to target OPWL; no significant change in location.
700	CI46-001	750694.842	2084340.544	750694.825	2084340.546	Subsurface soil	3.5 - 4.5 4.5 - 6.5	Radionuclides, Metals, VOCs	Biased location to target OPWL; no significant change in location; B interval had partial recovery.
700	CI46-006	N/A	N/A	750630.454	2084344.59	Subsurface soil	3 - 3.3 3.5 - 5.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
700	CI46-037	N/A	N/A	750781.262	2084229.537	Subsurface soil	2.5 - 3	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
700	CI46-038	N/A	N/A	750781.014	2084233.003	Subsurface soil	2.5 - 3	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
700	CI46-039	N/A	N/A	750603.023	2084346.304	Subsurface soil	3.5 - 3.8	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CI46-040	N/A	N/A	750633.348	2084344.133	Subsurface soil	0.5 - 2.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CI48-000	N/A	N/A	750996.427	2084427.654	Surface soil	0 - 3	Radionuclides, metals	Biased to target OPWL
700	CI48-001	N/A	N/A	751005.476	2084575.112	Subsurface soil	4.5 - 6.5	Radionuclides, metals, 9056	Biased to target OPWL
700	CI48-002	N/A	N/A	751007.846	2084475.687	Subsurface soil	4.5 - 6.5	Radionuclides, metals, 9056	Biased to target OPWL
700	CI48-039	N/A	N/A	751011.899	2084383.653	Subsurface soil	3.5 - 4	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
700	CI48-040	N/A	N/A	751003.261	2084526.232	Subsurface soil	3.5 - 4	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
700	CJ45-050	N/A	N/A	750385.048	2084597.163	Subsurface soil	4.5 - 6	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CJ46-000	750725.942	2084589.465	750700.806	2084597.275	Subsurface soil	11 - 11.01	Radionuclides	OPWL Valve Pit West of Pond 207A. Soil was analyzed for radionuclides, metals, and nitrates; offset because of field conditions
700	CJ46-001	750729.278	2084609.481	750700.423	2084605.759	Subsurface soil	11 - 11.01	Metals, Nitrate, Radionuclides	OPWL Valve Pit West of Pond 207A. Offset because of field conditions
700	CJ46-002	750722.606	2084599.473	750704.637	2084601.353	Subsurface soil	11 - 11.01	Metals, Nitrate, Radionuclides	OPWL Valve Pit West of Pond 207A. Offset because of field conditions
700	CJ46-003	750714.266	2084609.481	750693.713	2084602.402	Subsurface soil	11 - 11.01	Metals, Nitrate, Radionuclides	OPWL Valve Pit West of Pond 207A. Offset because of field conditions
700	CJ46-004	750714.266	2084591.133	750696.964	2084599.472	Subsurface soil	11 - 11.01	Metals, Nitrate, Radionuclides	OPWL Valve Pit West of Pond 207A. Offset because of field conditions

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
700	CJ46-005	750695.147	2084569.958	750700.154	2084569.404	Subsurface soil	2.5 - 3.5 5.5 - 6.5 3.5 - 4.0	Radionuclides, Metals, VOCs	Biased location to target OPWL; relocated 5.0 ft N and 0.6 ft W to sample target; intervals had partial recovery. A confirmation sample was collected at 3.5 - 4.0' after soil removal; analyzed only via alpha spectroscopy.
700	CJ46-051	N/A	N/A	750691.027	2084573.532	Subsurface soil	4 - 4.5	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
700	CJ46-052	N/A	N/A	750704.844	2084571.955	Subsurface soil	3 - 3.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CJ46-053	N/A	N/A	750703.552	2084565.722	Subsurface soil	3 - 3.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CJ46-054	N/A	N/A	750700.901	2084569.169	Subsurface soil	3 - 3.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CJ46-055	N/A	N/A	750706.955	2084569.248	Subsurface soil	3 - 3.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CJ46-056	N/A	N/A	750697.968	2084543.83	Subsurface soil	4 - 4.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CJ46-057	N/A	N/A	750700.242	2084595.655	Subsurface soil	9 - 9.5	Radionuclides, Metals, PCBs, SVOCs, VOCs	Additional biased characterization sample.
700	CJ46-058	N/A	N/A	750904.572	2084131.115	Subsurface soil	9 - 9.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
700	CJ46-DR01	N/A	N/A	750703.025	2084622.896	Subsurface soil	7.5 - 7.75	Metals, Nitrate, Radionuclides	Not in SAP Addendum; western side of Pond 207A
700	CJ46-DR03	N/A	N/A	750678.013	2084610.015	Surface soil	0.0 - 0.5	Metals, Radionuclides	Additional biased characterization sample collected near southwestern corner of Pond 207A.
700	CJ46-DR04	N/A	N/A	750678.013	2084610.015	Surface soil	0.0 - 0.5	Metals, Radionuclides	Additional biased characterization sample collected near southwestern corner of Pond 207A.
700	CJ46-DR05	N/A	N/A	750678.013	2084610.015	Surface soil	0.0 - 0.5	Metals, Radionuclides	Additional biased characterization sample collected near southwestern corner of Pond 207A.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
700	CJ46-DR06	N/A	N/A	750678.013	2084610.015	Surface soil	0.0 - 0.5	Metals, Radionuclides	Additional biased characterization sample collected near southwestern corner of Pond 207A.
700	CJ46-DR07	N/A	N/A	750678.013	2084610.015	Surface soil	0.0 - 0.5	Metals, Radionuclides	Additional biased characterization sample collected near southwestern corner of Pond 207A.
700	CJ48-000	750990.666	2084587.694	750990.666	2084587.694	Surface soil	0-0.5	Metals, Radionuclides	No change.
700	CJ48-001	750989.133	2084613.743	750989.133	2084613.743	Surface soil	0-0.5	Metals, Radionuclides	No change.
700	CJ48-041	N/A	N/A	750999.064	2084598.236	Subsurface soil	2.5 - 3	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
700	VALVE PIT #1	N/A	N/A	750700.944	2084601.421	Subsurface soil	8 - 8.01	Metals, Radionuclides	Not in SAP Addendum
776/777/778	CE44-006	2083680.18	750341.82	2083680.180	750341.820	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 2.5	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL, NPWL and Tank 18. No change in media or analytes.
776/777/778	CE44-007	2083680.18	750324.89	2083680.180	750324.890	Subsurface soil	1.4 - 1.9 1.9 - 2.4	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target NPWL bend. No change in media or analytes. First interval under slab. Partial recovery for second interval because of sampling refusal.
776/777/778	CE44-008	2083680.18	750307.97	2083680.180	750307.970	Subsurface soil	1.4 - 1.9 1.9 - 2.2	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL bend; moved 15 ft. north per CDPHE after concrete was encountered. No change in media or analytes. First interval under slab. Grab sample collected from 2nd interval.
776/777/778	CE44-009	2083663.26	750307.97	2083663.260	750307.970	Surface soil Subsurface soil	0.0 - 0.5 1.2 - 1.6	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target NPWL/OPWL intersection. No change in media or analytes. Partial recovery for second interval because of sampling refusal.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
776/777/778	CE44-011	2083634.61	750307.97	2083634.610	744307.970	Subsurface soil	1.0 - 1.5 1.5 - 2.0	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target NPWL/OPWL intersection; moved 6 ft north to avoid very thick concrete. No change in media or analytes. First interval under slab. Partial recovery for second interval because of sampling refusal.
776/777/778	CE45-022	2083701.02	750431.66	2083685.370	750447.410	Surface soil Subsurface soil	0.6 - 0.6 1.1 - 1.4	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL bend. No change in media or analytes. First interval under slab. Grab samples were collected.
776/777/778	CE45-023	2083685.39	750460.31	2083670.460	750477.230	Surface soil Subsurface soil	0.6 - 1.1 1.1 - 1.6	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL. No change in media or analytes. First interval under slab. Partial recovery for second interval because of sampling refusal.
776/777/778	CF45-016	2083775.23	750524.11	2083766.100	750534.300	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 1.4	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
776/777/778	CF45-018	2083874.19	750431.66	2083873.050	750447.410	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 0.8	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL intersection. No change in media or analytes. Grab sample collected from 2nd interval.
776/777/778	CF45-019	2083803.88	750425.15	2083783.580	750447.920	Surface soil	0.9 - 1.4	Radionuclides, Metals	Biased location to target OPWL. No change in analytes. First interval under slab. Large rock prevented sampling of second interval.
776/777/778	CF45-020	2083762.21	750430.36	2083742.440	750447.410	Surface soil Subsurface soil	0.6 - 1.1 1.1 - 1.5	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL intersection. No change in media or analytes. First interval under slab. Partial recovery for second interval because of sampling refusal.
776/777/778	CF46-017	2083910.65	750650.41	2083912.640	750652.050	Surface soil Subsurface soil	0.7 - 1.2 1.2 - 1.7	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL. No change in media or analytes. First interval under slab. Partial recovery for second interval because of sampling refusal.
776/777/778	CF46-019	2083746.59	750564.48	2083912.640	750652.050	Surface soil	0.0 - 0.5	Radionuclides, Metals	Biased location to target NPWL/OPWL intersection. No change in analytes. Could not sample second interval because of sampling refusal.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
776/777/778	CG45-011	2084095.55	750485.05	2084092.090	750489.570	Surface soil Subsurface soil	0.5 - 1.0 1.0 - 1.2	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL. No change in media or analytes. First interval under slab. Partial recovery for second interval because of sampling refusal.
776/777/778	CG45-012	2084074.71	750464.22	2084050.950	750482.670	Surface soil Subsurface soil	0.5 - 1.0 1.0 - 1.3	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL bend. No change in media or analytes. First interval under slab. Grab sample collected from 2nd interval.
776/777/778	CG45-013	2084076.02	750430.36	2084047.360	750445.860	Surface soil Subsurface soil	0.0 - 0.5 1.1 - 1.6	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL bend. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
776/777/778	CG45-014	2084092.94	750366.56	2084092.090	750370.790	Surface soil Subsurface soil	1.8 - 2.3 2.3 - 3.8	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL bend. No change in media or analytes. First interval under slab. Partial recovery for second interval because of sampling refusal.
776/777/778	CG46-008	2084001.80	750650.41	2084006.220	750648.450	Surface soil Subsurface soil	0.8 - 1.3 1.3 - 1.8	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL. No change in media or analytes. First interval under slab. Partial recovery for second interval because of sampling refusal.
776/777/778	CH44-001	2084163.26	750289.74	2084163.260	750289.740	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 2.5	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL. No change in media and analytes.
776/777/778	CH45-000	2084141.12	750485.05	2084148.650	750481.340	Surface soil Subsurface soil	0.0 - 0.5 1.0 - 1.5	Radionuclides, Metals, VOCs (except 1st interval)	Biased location to target OPWL bend. Moved 30 ft west. No change in media or analytes. Partial recovery for second interval because of sampling refusal.
776/777/778	CH46-004	2084154.14	750658.23	2084156.360	750652.050	Surface soil	0.7 - 1.2	Radionuclides, Metals	Biased location to target OPWL. No change in analytes. First interval under slab. Large rock prevented sampling of second interval.

Table 15
700 Area Characterization and In-Process Soil Sampling Results Greater Than Background Means Plus Two Standard Deviations or Reporting Limits

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (707)	000-2	CE40-000	749380.14	2083664.3	9.00	10.50	Acetone	14.000	102000000	-	5.100	ug/kg
700 (707)	000-2	CE40-000	749380.14	2083664.3	9.00	10.50	Cadmium	160.000	962	1.700	-	mg/kg
700 (707)	000-2	CE40-000	749380.14	2083664.3	9.00	10.50	Methylene chloride	1.500	2530000	-	0.880	ug/kg
700 (707)	000-2	CE40-000	749380.14	2083664.3	9.00	10.50	Uranium, Total	7.600	2750	3.040	-	mg/kg
700 (707)	000-2	CE40-000	749380.14	2083664.3	9.00	10.50	Uranium-234	4.440	300	2.640	-	pCi/g
700 (707)	000-2	CE40-000	749380.14	2083664.3	9.00	10.50	Uranium-235	0.815	8	0.120	-	pCi/g
700 (707)	000-2	CE40-000	749380.14	2083664.3	9.00	10.50	Uranium-238	8.480	351	1.490	-	pCi/g
700 (707)	700-2	CE42-000	749946.46	2083715.8	2.50	4.50	Barium	856.000	26400	289.380	-	mg/kg
700 (707)	700-2	CE42-000	749946.46	2083715.8	2.50	4.50	Uranium-235	0.124	8	0.120	-	pCi/g
700 (707)	700-2	CE42-000	749946.46	2083715.8	4.50	6.50	Barium	915.000	26400	289.380	-	mg/kg
700 (707)	700-2	CE42-001	749916.87	2083700	2.50	4.50	Barium	1210.000	26400	289.380	-	mg/kg
700 (707)	700-2	CE42-001	749916.87	2083700	2.50	4.50	bis(2-Ethylhexyl)phthalate	96.000	1970000	-	74.000	ug/kg
700 (707)	700-2	CE42-001	749916.87	2083700	2.50	4.50	Uranium-238	1.631	351	1.490	-	pCi/g
700 (707)	700-2	CE42-001	749916.87	2083700	4.50	6.50	Barium	989.000	26400	289.380	-	mg/kg
700 (707)	700-2	CE42-001	749916.87	2083700	4.50	6.50	bis(2-Ethylhexyl)phthalate	96.000	1970000	-	81.000	ug/kg
700 (707)	700-2	CE42-001	749916.87	2083700	4.50	6.50	Di-n-butylphthalate	130.000	73700000	-	23.000	ug/kg
700 (707)	700-2	CE42-001	749916.87	2083700	4.50	6.50	Strontium	217.000	613000	211.380	-	mg/kg
700 (707)	*700-2*	*CE42-001*	*749916.87*	*2083700*	*4.50*	*6.50*	*Uranium-234*	*3.284*	*300*	*2.640*	-	*pCi/g*
700 (707)	700-2	CE42-001	749916.87	2083700	4.50	6.50	Uranium-235	0.240	8	0.120	-	pCi/g
700 (707)	700-2	CE42-001	749916.87	2083700	4.50	6.50	Uranium-238	3.284	351	1.490	-	pCi/g
700 (707)	000-2	CE42-002	749876.4	2083664	2.50	3.30	Fluoranthene	45.000	27200000	-	23.000	ug/kg
700 (707)	000-2	CE42-002	749876.4	2083664	4.50	5.80	Benzo(a)anthracene	43.000	34900	-	26.000	ug/kg
700 (707)	000-2	CE42-002	749876.4	2083664	4.50	5.80	Chrysene	52.000	3490000	-	29.000	ug/kg
700 (707)	000-2	CE42-002	749876.4	2083664	4.50	5.80	Fluoranthene	100.000	27200000	-	24.000	ug/kg
700 (707)	*000-2*	*CE42-002*	*749876.4*	*2083664*	*4.50*	*5.80*	*Uranium-234*	*3.669*	*300*	*2.640*	-	*pCi/g*
700 (707)	000-2	CE42-002	749876.4	2083664	4.50	5.80	Uranium-235	0.254	8	0.120	-	pCi/g
700 (707)	000-2	CE42-002	749876.4	2083664	4.50	5.80	Uranium-238	3.669	351	1.490	-	pCi/g
700 (707)	000-2	CE42-002	749876.4	2083664	6.50	7.70	Uranium-235	0.196	8	0.120	-	pCi/g
700 (707)	000-2	CE42-002	749876.4	2083664	6.50	7.70	Uranium-238	1.997	351	1.490	-	pCi/g
700 (707)	000-2	CE42-006	749823.73	2083669.3	6.00	6.50	Naphthalene	1.400	3090000	-	1.000	ug/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (707)	700-2	CE43-005	750161.02	2083659.2	4.50	6.50	Barium	827.000	26400	289.380	-	mg/kg
700 (707)	700-2	CE43-005	750161.02	2083659.2	4.50	6.50	Copper	60.600	40900	38.210	-	mg/kg
700 (707)	700-2	CE43-005	750161.02	2083659.2	4.50	6.50	Uranium-235	0.134	8	0.120	-	pCi/g
700 (707)	700-2	CE43-005	750161.02	2083659.2	6.50	8.50	Barium	856.000	26400	289.380	-	mg/kg
700 (707)	700-2	CE43-005	750161.02	2083659.2	6.50	8.50	Copper	42.400	40900	38.210	-	mg/kg
700 (707)	700-2	CE43-005	750161.02	2083659.2	6.50	8.50	Uranium-235	0.122	8	0.120	-	pCi/g
700 (707)	700-2	CE44-013	750265.37	2083668.6	6.50	8.00	Acetone	15.000	102000000	-	5.500	ug/kg
700 (707)	700-2	CE44-013	750265.37	2083668.6	6.50	8.00	Benzo(b)fluoranthene	45.000	34900	-	33.000	ug/kg
700 (707)	700-2	CE44-013	750265.37	2083668.6	6.50	8.00	Diethylphthalate	170.000	590000000	-	36.000	ug/kg
700 (707)	700-2	CE44-013	750265.37	2083668.6	6.50	8.00	Fluoranthene	110.000	27200000	-	26.000	ug/kg
700 (707)	700-2	CE44-013	750265.37	2083668.6	6.50	8.00	Methylene chloride	2.300	2530000	-	0.960	ug/kg
700 (707)	700-2	CE44-013	750265.37	2083668.6	6.50	8.00	Naphthalene	1.700	3090000	-	1.000	ug/kg
700 (707)	700-2	CE44-013	750265.37	2083668.6	6.50	8.00	Plutonium-239/240	0.117	50	0.020	-	pCi/g
700 (707)	700-2	CE44-013	750265.37	2083668.6	6.50	8.00	Trichloroethene	1.300	19600	-	1.000	ug/kg
700 (707)	700-2	CF43-000	750018.66	2083789.3	2.50	4.50	Barium	955.000	26400	289.380	-	mg/kg
700 (707)	700-2	CF43-000	750018.66	2083789.3	2.50	4.50	Strontium	678.000	613000	211.380	-	mg/kg
700 (707)	700-2	CF43-000	750018.66	2083789.3	2.50	4.50	Uranium-238	1.884	351	1.490	-	pCi/g
700 (707)	700-2	CF43-000	750018.66	2083789.3	4.50	6.50	Barium	647.000	26400	289.380	-	mg/kg
700 (707)	700-2	CF43-000	750018.66	2083789.3	4.50	6.50	Strontium	357.000	613000	211.380	-	mg/kg
700 (707)	700-2	CF43-001	749974.91	2083748.5	2.50	4.50	Barium	1210.000	26400	289.380	-	mg/kg
700 (707)	700-2	CF43-001	749974.91	2083748.5	2.50	4.50	Benzo(a)pyrene	46.000	3490	-	44.000	ug/kg
700 (707)	700-2	CF43-001	749974.91	2083748.5	2.50	4.50	Benzo(b)fluoranthene	41.000	34900	-	32.000	ug/kg
700 (707)	700-2	CF43-001	749974.91	2083748.5	2.50	4.50	Cadmium	60.000	962	1.700	-	mg/kg
700 (707)	700-2	CF43-001	749974.91	2083748.5	2.50	4.50	Copper	60.900	40900	38.210	-	mg/kg
700 (707)	700-2	CF43-001	749974.91	2083748.5	2.50	4.50	Fluoranthene	77.000	27200000	-	25.000	ug/kg
700 (707)	700-2	CF43-001	749974.91	2083748.5	2.50	4.50	Manganese	940.000	3480	901.620	-	mg/kg
700 (707)	*700-2*	*CF43-001*	*749974.91*	*2083748.5*	*2.50*	*4.50*	*Uranium-234*	*7.280*	*300*	*2.640*	-	*pCi/g*
700 (707)	700-2	CF43-001	749974.91	2083748.5	2.50	4.50	Uranium-235	0.435	8	0.120	-	pCi/g
700 (707)	700-2	CF43-001	749974.91	2083748.5	2.50	4.50	Uranium-238	7.280	351	1.490	-	pCi/g
700 (707)	700-2	CF43-001	749974.91	2083748.5	2.50	4.50	Vanadium	90.000	7150	88.490	-	mg/kg
700 (707)	700-2	CF43-001	749974.91	2083748.5	4.50	6.50	Barium	1140.000	26400	289.380	-	mg/kg
700 (707)	700-2	CF43-001	749974.91	2083748.5	4.50	6.50	Cadmium	13.300	962	1.700	-	mg/kg
700 (707)	700-2	CF43-001	749974.91	2083748.5	4.50	6.50	Copper	39.300	40900	38.210	-	mg/kg
700 (707)	700-2	CF43-001	749974.91	2083748.5	4.50	6.50	Strontium	227.000	613000	211.380	-	mg/kg
700 (707)	*700-2*	*CF43-001*	*749974.91*	*2083748.5*	*4.50*	*6.50*	*Uranium-234*	*5.923*	*300*	*2.640*	-	*pCi/g*

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (707)	700-2	CF43-001	749974.91	2083748.5	4.50	6.50	Uranium-235	0.322	8	0.120	-	pCi/g
700 (707)	700-2	CF43-001	749974.91	2083748.5	4.50	6.50	Uranium-238	5.923	351	1.490	-	pCi/g
700 (707)	700-2	CF44-014	750270.56	2083852.5	4.50	6.50	Acetone	15.000	102000000	-	5.300	ug/kg
700 (707)	700-2	CF44-014	750270.56	2083852.5	4.50	6.50	Naphthalene	1.400	3090000	-	0.990	ug/kg
700 (707)	700-2	CF44-014	750270.56	2083852.5	6.50	8.50	Uranium, Total	3.100	2750	3.040	-	mg/kg
700 (707)	000-2	CF44-027	750266.08	2083826.6	6.50	8.00	1,1,1-Trichloroethane	1.700	79700000	-	1.200	ug/kg
700 (707)	000-2	CF44-027	750266.08	2083826.6	6.50	8.00	Carbon Tetrachloride	6.400	81500	-	1.500	ug/kg
700 (707)	000-2	CF44-027	750266.08	2083826.6	6.50	8.00	Chloroform	1.300	19200	-	1.100	ug/kg
700 (707)	000-2	CF44-027	750266.08	2083826.6	6.50	8.00	Methylene chloride	2.300	2530000	-	1.000	ug/kg
700 (707)	000-2	CF44-027	750266.08	2083826.6	6.50	8.00	Naphthalene	1.400	3090000	-	1.100	ug/kg
700 (707)	000-2	CF44-027	750266.08	2083826.6	6.50	8.00	Plutonium-239/240	0.166	50	0.020	-	pCi/g
700 (707)	000-2	CF44-027	750266.08	2083826.6	6.50	8.00	Tetrachloroethene	42.000	615000	-	1.200	ug/kg
700 (707)	000-2	CF44-027	750266.08	2083826.6	6.50	8.00	Trichloroethene	400.000	19600	-	0.540	ug/kg
700 (707)	700-2	CG42-010	749957.29	2083953.6	4.50	6.50	Strontium	300.000	613000	211.380	-	mg/kg
700 (707)	700-2	CG42-010	749957.29	2083953.6	4.50	6.50	Uranium-235	0.226	8	0.120	-	pCi/g
700 (707)	700-2	CG42-011	749830.13	2083953.4	2.50	4.50	Fluoranthene	75.000	27200000	-	27.000	ug/kg
700 (707)	700-2	CG42-011	749830.13	2083953.4	2.50	4.50	Naphthalene	5.530	3090000	-	5.180	ug/kg
700 (707)	700-2	CG42-011	749830.13	2083953.4	2.50	4.50	Uranium-235	0.213	8	0.120	-	pCi/g
700 (707)	700-2	CG42-012	749891.85	2083953.8	2.50	4.50	Uranium-235	0.268	8	0.120	-	pCi/g
700 (707)	700-2	CG42-012	749891.85	2083953.8	2.50	4.50	Uranium-238	1.492	351	1.490	-	pCi/g
700 (707)	700-2	CG42-013	749805	2083954.1	2.50	4.50	Hexachlorobutadiene	7.000	147000	-	1.700	ug/kg
700 (707)	700-2	CG42-013	749805	2083954.1	2.50	4.50	Methylene chloride	1.700	2530000	-	0.960	ug/kg
700 (707)	700-2	CG42-013	749805	2083954.1	2.50	4.50	Strontium	340.000	613000	211.380	-	mg/kg
700 (707)	700-2	CG43-011	750092.74	2083958.4	0.00	0.50	Di-n-butylphthalate	260.000	73700000	-	21.000	ug/kg
700 (707)	700-2	CG43-011	750092.74	2083958.4	0.00	0.50	Uranium-235	0.138	8	0.094	-	pCi/g
700 (707)	700-2	CG43-011	750092.74	2083958.4	0.50	1.00	Fluoranthene	63.000	27200000	-	23.000	ug/kg
700 (707)	700-2	CG43-016	750111.42	2084007.9	11.00	13.00	Acenaphthene	190.000	40800000	-	33.000	ug/kg
700 (707)	700-2	CG43-016	750111.42	2084007.9	11.00	13.00	Anthracene	100.000	204000000	-	25.000	ug/kg
700 (707)	700-2	CG43-016	750111.42	2084007.9	11.00	13.00	Benzo(a)anthracene	200.000	34900	-	26.000	ug/kg
700 (707)	700-2	CG43-016	750111.42	2084007.9	11.00	13.00	Benzo(a)pyrene	69.000	3490	-	43.000	ug/kg
700 (707)	700-2	CG43-016	750111.42	2084007.9	11.00	13.00	Chrysene	250.000	3490000	-	30.000	ug/kg
700 (707)	700-2	CG43-016	750111.42	2084007.9	11.00	13.00	Dibenzofuran	150.000	2950000	-	38.000	ug/kg
700 (707)	700-2	CG43-016	750111.42	2084007.9	11.00	13.00	Fluoranthene	1800.000	27200000	-	24.000	ug/kg
700 (707)	700-2	CG43-016	750111.42	2084007.9	11.00	13.00	Fluorene	290.000	40800000	-	36.000	ug/kg
700 (707)	700-2	CG43-016	750111.42	2084007.9	11.00	13.00	Pyrene	990.000	22100000	-	140.000	ug/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (707)	700-2	CG43-016	750111.42	2084007.9	13.00	15.00	Methylene chloride	4.600	2530000	-	0.940	ug/kg
700 (707)	700-2	CG43-017	750125.35	2084031	11.00	13.00	2-Methylnaphthalene	91.000	20400000	-	34.000	ug/kg
700 (707)	700-2	CG43-017	750125.35	2084031	11.00	13.00	Acenaphthene	670.000	40800000	-	33.000	ug/kg
700 (707)	700-2	CG43-017	750125.35	2084031	11.00	13.00	Anthracene	450.000	204000000	-	25.000	ug/kg
700 (707)	700-2	CG43-017	750125.35	2084031	11.00	13.00	Benzo(a)anthracene	880.000	34900	-	26.000	ug/kg
700 (707)	700-2	CG43-017	750125.35	2084031	11.00	13.00	Benzo(a)pyrene	760.000	3490	-	43.000	ug/kg
700 (707)	700-2	CG43-017	750125.35	2084031	11.00	13.00	Benzo(b)fluoranthene	700.000	34900	-	31.000	ug/kg
700 (707)	700-2	CG43-017	750125.35	2084031	11.00	13.00	Benzo(k)fluoranthene	480.000	349000	-	34.000	ug/kg
700 (707)	700-2	CG43-017	750125.35	2084031	11.00	13.00	Chrysene	860.000	3490000	-	30.000	ug/kg
700 (707)	700-2	CG43-017	750125.35	2084031	11.00	13.00	Dibenzofuran	370.000	2950000	-	38.000	ug/kg
700 (707)	700-2	CG43-017	750125.35	2084031	11.00	13.00	Fluoranthene	3000.000	27200000	-	24.000	ug/kg
700 (707)	700-2	CG43-017	750125.35	2084031	11.00	13.00	Fluorene	540.000	40800000	-	36.000	ug/kg
700 (707)	700-2	CG43-017	750125.35	2084031	11.00	13.00	Indeno(1,2,3-cd)pyrene	320.000	34900	-	24.000	ug/kg
700 (707)	700-2	CG43-017	750125.35	2084031	11.00	13.00	Naphthalene	22.300	3090000	-	5.400	ug/kg
700 (707)	700-2	CG43-017	750125.35	2084031	11.00	13.00	Pyrene	2000.000	22100000	-	140.000	ug/kg
700 (707)	700-2	CG43-017	750125.35	2084031	11.00	13.00	Uranium-238	2.440	351	1.490	-	pCi/g
700 (707)	700-2	CG43-017	750125.35	2084031	13.00	15.00	Uranium-235	0.173	8	0.120	-	pCi/g
700 (707)	700-2	CG43-017	750125.35	2084031	13.00	15.00	Uranium-238	1.752	351	1.490	-	pCi/g
700 (707)	700-2	CG43-020	750054.58	2083953.8	4.50	6.50	Uranium-235	0.146	8	0.120	-	pCi/g
700 (707)	700-2	CG43-021	750112.84	2083952.9	4.50	6.50	Uranium-235	0.142	8	0.120	-	pCi/g
700 (707)	700-2	CG43-021	750112.84	2083952.9	4.50	6.50	Uranium-238	2.056	351	1.490	-	pCi/g
700 (707)	700-2	CG43-023	750053.44	2083972.8	0.00	0.50	Arsenic	11.700	22.2	10.090	-	mg/kg
700 (707)	700-2	CG43-023	750053.44	2083972.8	0.00	0.50	Barium	1310.000	26400	141.260	-	mg/kg
700 (707)	700-2	CG43-023	750053.44	2083972.8	0.00	0.50	Chromium	23.300	268	16.990	-	mg/kg
700 (707)	700-2	CG43-023	750053.44	2083972.8	0.00	0.50	Iron	30600.000	307000	18037.000	-	mg/kg
700 (707)	700-2	CG43-023	750053.44	2083972.8	0.00	0.50	Nickel	33.900	20400	14.910	-	mg/kg
700 (707)	700-2	CG43-023	750053.44	2083972.8	0.00	0.50	Strontium	269.000	613000	48.940	-	mg/kg
700 (707)	*700-2*	*CG43-023*	*750053.44*	*2083972.8*	*0.00*	*0.50*	*Uranium-234*	*2.377*	*300*	*2.253*	-	*pCi/g*
700 (707)	700-2	CG43-023	750053.44	2083972.8	0.00	0.50	Uranium-235	0.123	8	0.094	-	pCi/g
700 (707)	700-2	CG43-023	750053.44	2083972.8	0.00	0.50	Uranium-238	2.377	351	2.000	-	pCi/g
700 (707)	700-2	CG43-023	750053.44	2083972.8	0.00	0.50	Vanadium	57.600	7150	45.590	-	mg/kg
700 (707)	700-2	CG43-023	750053.44	2083972.8	0.00	0.50	Zinc	104.000	307000	73.760	-	mg/kg
700 (707)	700-2	CG43-023	750053.44	2083972.8	0.50	1.50	Arsenic	14.200	22.2	13.140	-	mg/kg
700 (707)	700-2	CG43-023	750053.44	2083972.8	0.50	1.50	Barium	1350.000	26400	289.380	-	mg/kg
700 (707)	700-2	CG43-023	750053.44	2083972.8	0.50	1.50	Benzo(a)anthracene	45.000	34900	-	25.000	ug/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (707)	700-2	CG43-023	750053.44	2083972.8	0.50	1.50	Benzo(b)fluoranthene	55.000	34900	-	30.000	ug/kg
700 (707)	700-2	CG43-023	750053.44	2083972.8	0.50	1.50	Chrysene	50.000	3490000	-	28.000	ug/kg
700 (707)	700-2	CG43-023	750053.44	2083972.8	0.50	1.50	Fluoranthene	110.000	27200000	-	23.000	ug/kg
700 (707)	700-2	CG43-023	750053.44	2083972.8	0.50	1.50	Strontium	267.000	613000	211.380	-	mg/kg
700 (707)	700-2	CG43-023	750053.44	2083972.8	0.50	1.50	Uranium-235	0.238	8	0.120	-	pCi/g
700 (707)	700-2	CG43-023	750053.44	2083972.8	0.50	1.50	Zinc	153.000	307000	139.100	-	mg/kg
700 (707)	700-2	CG44-005	750266.52	2084033.1	0.00	0.50	Copper	33.000	40900	18.060	-	mg/kg
700 (707)	700-2	CG44-005	750266.52	2084033.1	0.00	0.50	Manganese	410.000	3480	365.080	-	mg/kg
700 (707)	700-2	CG44-005	750266.52	2084033.1	0.00	0.50	Strontium	88.000	613000	48.940	-	mg/kg
700 (707)	*700-2*	*CG44-005*	*750266.52*	*2084033.1*	*0.00*	*0.50*	*Uranium-234*	*4.404*	*300*	*2.253*	-	*pCi/g*
700 (707)	700-2	CG44-005	750266.52	2084033.1	0.00	0.50	Uranium-235	0.260	8	0.094	-	pCi/g
700 (707)	700-2	CG44-005	750266.52	2084033.1	0.00	0.50	Uranium-238	4.404	351	2.000	-	pCi/g
700 (707)	700-2	CG44-005	750266.52	2084033.1	0.00	0.50	Vanadium	47.000	7150	45.590	-	mg/kg
700 (707)	700-2	CG44-005	750266.52	2084033.1	0.00	0.50	Zinc	80.000	307000	73.760	-	mg/kg
700 (707)	700-2	CG44-005	750266.52	2084033.1	1.50	2.50	Ethylbenzene	36.300	4250000	-	6.520	ug/kg
700 (707)	700-2	CG44-005	750266.52	2084033.1	1.50	2.50	Toluene	40.400	31300000	-	11.900	ug/kg
700 (707)	700-2	CG44-005	750266.52	2084033.1	1.50	2.50	Uranium-235	0.167	8	0.120	-	pCi/g
700 (707)	700-2	CG44-005	750266.52	2084033.1	1.50	2.50	Xylene	207.000	2040000	-	13.000	ug/kg
700 (707)	700-2	CG44-005	750266.52	2084033.1	3.50	4.50	Uranium-238	1.569	351	1.490	-	pCi/g
700 (707)	700-2	CG44-005	750266.52	2084033.1	4.50	6.50	Uranium-235	0.205	8	0.120	-	pCi/g
700 (707)	700-2	CG44-005	750266.52	2084033.1	4.50	6.50	Uranium-238	2.023	351	1.490	-	pCi/g
700 (707)	700-2	CG44-005	750266.52	2084033.1	6.50	8.50	Iron	55000.000	307000	41046.520	-	mg/kg
700 (707)	*700-2*	*CG44-005*	*750266.52*	*2084033.1*	*6.50*	*8.50*	*Uranium-234*	*4.519*	*300*	*2.640*	-	*pCi/g*
700 (707)	700-2	CG44-005	750266.52	2084033.1	6.50	8.50	Uranium-238	4.519	351	1.490	-	pCi/g
700 (707)	700-2	CG44-009	750256.44	2084009.6	2.50	4.50	Barium	511.000	26400	289.380	-	mg/kg
700 (707)	700-2	CG44-009	750256.44	2084009.6	2.50	4.50	Copper	42.500	40900	38.210	-	mg/kg
700 (707)	700-2	CG44-009	750256.44	2084009.6	2.50	4.50	Strontium	260.000	613000	211.380	-	mg/kg
700 (707)	700-2	CG44-009	750256.44	2084009.6	4.50	6.50	Barium	572.000	26400	289.380	-	mg/kg
700 (707)	700-2	CG44-009	750256.44	2084009.6	4.50	6.50	Strontium	301.000	613000	211.380	-	mg/kg
700 (707)	700-2	CG44-009	750256.44	2084009.6	4.50	6.50	Uranium-235	0.131	8	0.120	-	pCi/g
700 (707)	000-2	CG44-013	750191.19	2084016.6	3.00	3.50	Carbon Tetrachloride	4.200	81500	-	1.200	ug/kg
700 (707)	000-2	CG44-013	750191.19	2084016.6	3.00	3.50	Uranium-235	0.135	8	0.120	-	pCi/g
700 (771/774)	700-4	CE47-002	750928.23	2083696.6	0.00	0.50	Arsenic	11.600	22.2	10.090	-	mg/kg
700 (771/774)	700-4	CE47-002	750928.23	2083696.6	0.00	0.50	Barium	680.000	26400	141.260	-	mg/kg
700 (771/774)	700-4	CE47-002	750928.23	2083696.6	0.00	0.50	Chromium	28.800	268	16.990	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (771/774)	700-4	CE47-002	750928.23	2083696.6	0.00	0.50	Copper	102.000	40900	18.060	-	mg/kg
700 (771/774)	700-4	CE47-002	750928.23	2083696.6	0.00	0.50	Iron	39100.000	307000	18037.000	-	mg/kg
700 (771/774)	700-4	CE47-002	750928.23	2083696.6	0.00	0.50	Manganese	579.000	3480	365.080	-	mg/kg
700 (771/774)	700-4	CE47-002	750928.23	2083696.6	0.00	0.50	Nickel	52.700	20400	14.910	-	mg/kg
700 (771/774)	700-4	CE47-002	750928.23	2083696.6	0.00	0.50	Strontium	203.000	613000	48.940	-	mg/kg
700 (771/774)	*700-4*	*CE47-002*	*750928.23*	*2083696.6*	*0.00*	*0.50*	*Uranium-234*	*2.900*	*300*	*2.253*	-	*pCi/g*
700 (771/774)	700-4	CE47-002	750928.23	2083696.6	0.00	0.50	Uranium-235	0.300	8	0.094	-	pCi/g
700 (771/774)	700-4	CE47-002	750928.23	2083696.6	0.00	0.50	Uranium-238	2.900	351	2.000	-	pCi/g
700 (771/774)	700-4	CE47-002	750928.23	2083696.6	0.00	0.50	Vanadium	164.000	7150	45.590	-	mg/kg
700 (771/774)	700-4	CE47-002	750928.23	2083696.6	0.00	0.50	Zinc	108.000	307000	73.760	-	mg/kg
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Acenaphthene	950.000	40800000	-	47.000	ug/kg
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Anthracene	5400.000	204000000	-	68.000	ug/kg
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Antimony	9.060	409	0.470	-	mg/kg
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Arsenic	10.600	22.2	10.090	-	mg/kg
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Barium	641.000	26400	141.260	-	mg/kg
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Benzo(a)anthracene	22000.000	34900	-	410.000	ug/kg
700 (771/774)	**700-4**	**CE47-012**	**750941.29**	**2083603.6**	**0.00**	**0.50**	**Benzo(a)pyrene**	**23000.000**	**3490**	**-**	**530.000**	**ug/kg**
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Benzo(b)fluoranthene	19000.000	34900	-	660.000	ug/kg
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Benzo(k)fluoranthene	20000.000	349000	-	710.000	ug/kg
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Chrysene	24000.000	3490000	-	350.000	ug/kg
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Copper	93.100	40900	18.060	-	mg/kg
700 (771/774)	**700-4**	**CE47-012**	**750941.29**	**2083603.6**	**0.00**	**0.50**	**Dibenz(a,h)anthracene**	**5500.000**	**3490**	**-**	**65.000**	**ug/kg**
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Dibenzofuran	330.000	2950000	-	52.000	ug/kg
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Fluoranthene	42000.000	27200000	-	410.000	ug/kg
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Fluorene	1300.000	40800000	-	56.000	ug/kg
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Indeno(1,2,3-cd)pyrene	16000.000	34900	-	460.000	ug/kg
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Iron	66900.000	307000	18037.000	-	mg/kg
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Manganese	1680.000	3480	365.080	-	mg/kg
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Nickel	56.100	20400	14.910	-	mg/kg
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Pyrene	41000.000	22100000	-	580.000	ug/kg
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Strontium	148.000	613000	48.940	-	mg/kg
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Tin	5.170	613000	2.900	-	mg/kg
700 (771/774)	*700-4*	*CE47-012*	*750941.29*	*2083603.6*	*0.00*	*0.50*	*Uranium-234*	*3.334*	*300*	*2.253*	-	*pCi/g*
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Uranium-235	0.186	8	0.094	-	pCi/g
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Uranium-238	3.334	351	2.000	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Vanadium	203.000	7150	45.590	-	mg/kg
700 (771/774)	700-4	CE47-012	750941.29	2083603.6	0.00	0.50	Zinc	241.000	307000	73.760	-	mg/kg
700 (771/774)	000-2	CE47-021	750948.98	2083556.5	4.50	6.50	Uranium-235	0.254	8	0.120	-	pCi/g
700 (771/774)	000-2	CE47-021	750948.98	2083556.5	4.50	6.50	Uranium-238	2.380	351	1.490	-	pCi/g
700 (771/774)	700-4	CE47-022	750928.23	2083696.6	2.00	2.50	Americium-241	0.041	76	0.023	-	pCi/g
700 (771/774)	700-4	CE47-022	750928.23	2083696.6	2.00	2.50	bis(2-Ethylhexyl)phthalate	150.000	1970000	-	85.000	ug/kg
700 (771/774)	700-4	CE47-022	750928.23	2083696.6	2.00	2.50	Cadmium	2.300	962	1.612	-	mg/kg
700 (771/774)	700-4	CE47-022	750928.23	2083696.6	2.00	2.50	Copper	22.000	40900	18.060	-	mg/kg
700 (771/774)	700-4	CE47-022	750928.23	2083696.6	2.00	2.50	Nickel	16.000	20400	14.910	-	mg/kg
700 (771/774)	700-4	CE47-022	750928.23	2083696.6	2.00	2.50	Strontium	51.000	613000	48.940	-	mg/kg
700 (771/774)	700-4	CE47-022	750928.23	2083696.6	2.00	2.50	Uranium-234	3.910	300	2.253	-	pCi/g
700 (771/774)	700-4	CE47-022	750928.23	2083696.6	2.00	2.50	Uranium-235	0.634	8	0.094	-	pCi/g
700 (771/774)	700-4	CE47-022	750928.23	2083696.6	2.00	2.50	Uranium-238	3.560	351	2.000	-	pCi/g
700 (771/774)	700-4	CE47-022	750928.23	2083696.6	2.00	2.50	Xylene	40.000	2040000	-	12.000	ug/kg
700 (771/774)	000-2	CE47-029	750941.16	2083601.2	0.00	0.50	Acenaphthene	320.000	40800000	-	130.000	ug/kg
700 (771/774)	000-2	CE47-029	750941.16	2083601.2	0.00	0.50	Anthracene	1800.000	204000000	-	98.000	ug/kg
700 (771/774)	000-2	CE47-029	750941.16	2083601.2	0.00	0.50	Benzo(a)anthracene	7600.000	34900	-	100.000	ug/kg
700 (771/774)	**000-2**	**CE47-029**	**750941.16**	**2083601.2**	**0.00**	**0.50**	**Benzo(a)pyrene**	**8400.000**	**3490**	**-**	**170.000**	**ug/kg**
700 (771/774)	000-2	CE47-029	750941.16	2083601.2	0.00	0.50	Benzo(b)fluoranthene	7600.000	34900	-	120.000	ug/kg
700 (771/774)	000-2	CE47-029	750941.16	2083601.2	0.00	0.50	Benzo(k)fluoranthene	6900.000	349000	-	130.000	ug/kg
700 (771/774)	000-2	CE47-029	750941.16	2083601.2	0.00	0.50	Chrysene	8900.000	3490000	-	120.000	ug/kg
700 (771/774)	000-2	CE47-029	750941.16	2083601.2	0.00	0.50	Dibenz(a,h)anthracene	2600.000	3490	-	100.000	ug/kg
700 (771/774)	000-2	CE47-029	750941.16	2083601.2	0.00	0.50	Fluoranthene	14000.000	27200000	-	94.000	ug/kg
700 (771/774)	000-2	CE47-029	750941.16	2083601.2	0.00	0.50	Fluorene	420.000	40800000	-	140.000	ug/kg
700 (771/774)	000-2	CE47-029	750941.16	2083601.2	0.00	0.50	Indeno(1,2,3-cd)pyrene	5400.000	34900	-	94.000	ug/kg
700 (771/774)	000-2	CE47-029	750941.16	2083601.2	0.00	0.50	Pyrene	12000.000	22100000	-	560.000	ug/kg
700 (771/774)	700-4	CE48-002	751051.83	2083713.2	1.00	1.50	Arsenic	13.800	22.2	10.090	-	mg/kg
700 (771/774)	700-4	CE48-002	751051.83	2083713.2	1.00	1.50	Barium	668.000	26400	141.260	-	mg/kg
700 (771/774)	700-4	CE48-002	751051.83	2083713.2	1.00	1.50	Chromium	38.500	268	16.990	-	mg/kg
700 (771/774)	700-4	CE48-002	751051.83	2083713.2	1.00	1.50	Copper	105.000	40900	18.060	-	mg/kg
700 (771/774)	700-4	CE48-002	751051.83	2083713.2	1.00	1.50	Iron	33500.000	307000	18037.000	-	mg/kg
700 (771/774)	700-4	CE48-002	751051.83	2083713.2	1.00	1.50	Manganese	395.000	3480	365.080	-	mg/kg
700 (771/774)	700-4	CE48-002	751051.83	2083713.2	1.00	1.50	Nickel	48.600	20400	14.910	-	mg/kg
700 (771/774)	700-4	CE48-002	751051.83	2083713.2	1.00	1.50	Strontium	198.000	613000	48.940	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (771/774)	700-4	CE48-002	751051.83	2083713.2	1.00	1.50	Tin	6.050	613000	2.900	-	mg/kg
700 (771/774)	700-4	CE48-002	751051.83	2083713.2	1.00	1.50	Vanadium	129.000	7150	45.590	-	mg/kg
700 (771/774)	700-4	CE48-002	751051.83	2083713.2	1.00	1.50	Zinc	116.000	307000	73.760	-	mg/kg
700 (771/774)	700-4	CE48-007	750986.1	2083683.1	0.80	1.30	Barium	566.000	26400	141.260	-	mg/kg
700 (771/774)	700-4	CE48-007	750986.1	2083683.1	0.80	1.30	Chromium	35.700	268	16.990	-	mg/kg
700 (771/774)	700-4	CE48-007	750986.1	2083683.1	0.80	1.30	Copper	70.600	40900	18.060	-	mg/kg
700 (771/774)	700-4	CE48-007	750986.1	2083683.1	0.80	1.30	Iron	24300.000	307000	18037.000	-	mg/kg
700 (771/774)	700-4	CE48-007	750986.1	2083683.1	0.80	1.30	Nickel	29.200	20400	14.910	-	mg/kg
700 (771/774)	700-4	CE48-007	750986.1	2083683.1	0.80	1.30	Strontium	113.000	613000	48.940	-	mg/kg
700 (771/774)	*700-4*	*CE48-007*	*750986.1*	*2083683.1*	*0.80*	*1.30*	*Uranium-234*	*2.800*	*300*	*2.253*	-	*pCi/g*
700 (771/774)	700-4	CE48-007	750986.1	2083683.1	0.80	1.30	Uranium-235	0.120	8	0.094	-	pCi/g
700 (771/774)	700-4	CE48-007	750986.1	2083683.1	0.80	1.30	Uranium-238	2.800	351	2.000	-	pCi/g
700 (771/774)	700-4	CE48-007	750986.1	2083683.1	0.80	1.30	Vanadium	107.000	7150	45.590	-	mg/kg
700 (771/774)	700-4	CE48-007	750986.1	2083683.1	0.80	1.30	Zinc	98.900	307000	73.760	-	mg/kg
700 (771/774)	700-4	CE48-008	751144.2	2083690.4	1.00	1.50	Uranium-235	0.312	8	0.094	-	pCi/g
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	2-Methylnaphthalene	910.000	20400000	-	38.000	ug/kg
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Acenaphthene	4600.000	40800000	-	48.000	ug/kg
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Anthracene	6200.000	204000000	-	70.000	ug/kg
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Arsenic	12.200	22.2	10.090	-	mg/kg
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Barium	192.000	26400	141.260	-	mg/kg
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Benzo(a)anthracene	16000.000	34900	-	420.000	ug/kg
700 (771/774)	**700-4**	**CE48-012**	**750964.57**	**2083631**	**0.00**	**0.50**	**Benzo(a)pyrene**	**16000.000**	**3490**	**-**	**550.000**	**ug/kg**
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Benzo(b)fluoranthene	13000.000	34900	-	680.000	ug/kg
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Benzo(k)fluoranthene	14000.000	349000	-	730.000	ug/kg
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Chromium	49.500	268	16.990	-	mg/kg
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Chrysene	19000.000	3490000	-	360.000	ug/kg
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Copper	67.800	40900	18.060	-	mg/kg
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Dibenz(a,h)anthracene	3100.000	3490	-	66.000	ug/kg
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Dibenzofuran	2700.000	2950000	-	54.000	ug/kg
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Fluoranthene	33000.000	27200000	-	420.000	ug/kg
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Fluorene	3600.000	40800000	-	58.000	ug/kg
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Indeno(1,2,3-cd)pyrene	9500.000	34900	-	470.000	ug/kg
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Iron	31100.000	307000	18037.000	-	mg/kg
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Manganese	368.000	3480	365.080	-	mg/kg
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Naphthalene	1000.000	3090000	-	45.000	ug/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Nickel	44.400	20400	14.910	-	mg/kg
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Pyrene	34000.000	22100000	-	600.000	ug/kg
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Strontium	134.000	613000	48.940	-	mg/kg
700 (771/774)	*700-4*	*CE48-012*	*750964.57*	*2083631*	*0.00*	*0.50*	*Uranium-234*	*4.243*	*300*	*2.253*	-	*pCi/g*
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Uranium-235	0.311	8	0.094	-	pCi/g
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Uranium-238	4.243	351	2.000	-	pCi/g
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Vanadium	145.000	7150	45.590	-	mg/kg
700 (771/774)	700-4	CE48-012	750964.57	2083631	0.00	0.50	Zinc	125.000	307000	73.760	-	mg/kg
700 (771/774)	700-4	CE48-019	751024.38	2083556.7	0.00	0.50	Arsenic	16.900	22.2	10.090	-	mg/kg
700 (771/774)	700-4	CE48-019	751024.38	2083556.7	0.00	0.50	Barium	729.000	26400	141.260	-	mg/kg
700 (771/774)	700-4	CE48-019	751024.38	2083556.7	0.00	0.50	Benzo(a)anthracene	110.000	34900	-	41.000	ug/kg
700 (771/774)	700-4	CE48-019	751024.38	2083556.7	0.00	0.50	Benzo(a)pyrene	140.000	3490	-	53.000	ug/kg
700 (771/774)	700-4	CE48-019	751024.38	2083556.7	0.00	0.50	Benzo(b)fluoranthene	120.000	34900	-	66.000	ug/kg
700 (771/774)	700-4	CE48-019	751024.38	2083556.7	0.00	0.50	Benzo(k)fluoranthene	130.000	349000	-	71.000	ug/kg
700 (771/774)	700-4	CE48-019	751024.38	2083556.7	0.00	0.50	Chromium	55.400	268	16.990	-	mg/kg
700 (771/774)	700-4	CE48-019	751024.38	2083556.7	0.00	0.50	Chrysene	150.000	3490000	-	36.000	ug/kg
700 (771/774)	700-4	CE48-019	751024.38	2083556.7	0.00	0.50	Copper	68.900	40900	18.060	-	mg/kg
700 (771/774)	700-4	CE48-019	751024.38	2083556.7	0.00	0.50	Fluoranthene	270.000	27200000	-	41.000	ug/kg
700 (771/774)	700-4	CE48-019	751024.38	2083556.7	0.00	0.50	Indeno(1,2,3-cd)pyrene	79.000	34900	-	46.000	ug/kg
700 (771/774)	700-4	CE48-019	751024.38	2083556.7	0.00	0.50	Iron	40300.000	307000	18037.000	-	mg/kg
700 (771/774)	700-4	CE48-019	751024.38	2083556.7	0.00	0.50	Lead	60.000	1000	54.620	-	mg/kg
700 (771/774)	700-4	CE48-019	751024.38	2083556.7	0.00	0.50	Manganese	692.000	3480	365.080	-	mg/kg
700 (771/774)	700-4	CE48-019	751024.38	2083556.7	0.00	0.50	Nickel	47.700	20400	14.910	-	mg/kg
700 (771/774)	700-4	CE48-019	751024.38	2083556.7	0.00	0.50	Pyrene	230.000	22100000	-	58.000	ug/kg
700 (771/774)	700-4	CE48-019	751024.38	2083556.7	0.00	0.50	Strontium	250.000	613000	48.940	-	mg/kg
700 (771/774)	700-4	CE48-019	751024.38	2083556.7	0.00	0.50	Uranium-235	0.169	8	0.094	-	pCi/g
700 (771/774)	700-4	CE48-019	751024.38	2083556.7	0.00	0.50	Uranium-238	2.134	351	2.000	-	pCi/g
700 (771/774)	700-4	CE48-019	751024.38	2083556.7	0.00	0.50	Vanadium	130.000	7150	45.590	-	mg/kg
700 (771/774)	700-4	CE48-019	751024.38	2083556.7	0.00	0.50	Zinc	228.000	307000	73.760	-	mg/kg
700 (771/774)	000-2	CE48-022	751130.85	2083554.2	4.50	6.50	Uranium-235	0.205	8	0.120	-	pCi/g
700 (771/774)	000-2	CE48-022	751130.85	2083554.2	4.50	6.50	Uranium-238	1.765	351	1.490	-	pCi/g
700 (771/774)	700-4	CE48-025	750993.44	2083684.8	0.75	1.25	Arsenic	10.800	22.2	10.090	-	mg/kg
700 (771/774)	700-4	CE48-025	750993.44	2083684.8	0.75	1.25	Barium	1020.000	26400	141.260	-	mg/kg
700 (771/774)	700-4	CE48-025	750993.44	2083684.8	0.75	1.25	Chromium	35.600	268	16.990	-	mg/kg
700 (771/774)	700-4	CE48-025	750993.44	2083684.8	0.75	1.25	Copper	57.900	40900	18.060	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (771/774)	700-4	CE48-025	750993.44	2083684.8	0.75	1.25	Di-n-butylphthalate	380.000	73700000	-	67.000	ug/kg
700 (771/774)	700-4	CE48-025	750993.44	2083684.8	0.75	1.25	Iron	24300.000	307000	18037.000	-	mg/kg
700 (771/774)	700-4	CE48-025	750993.44	2083684.8	0.75	1.25	Nickel	33.000	20400	14.910	-	mg/kg
700 (771/774)	700-4	CE48-025	750993.44	2083684.8	0.75	1.25	Strontium	150.000	613000	48.940	-	mg/kg
700 (771/774)	700-4	CE48-025	750993.44	2083684.8	0.75	1.25	Tin	5.470	613000	2.900	-	mg/kg
700 (771/774)	700-4	CE48-025	750993.44	2083684.8	0.75	1.25	Uranium-235	0.160	8	0.094	-	pCi/g
700 (771/774)	700-4	CE48-025	750993.44	2083684.8	0.75	1.25	Uranium-238	2.100	351	2.000	-	pCi/g
700 (771/774)	700-4	CE48-025	750993.44	2083684.8	0.75	1.25	Vanadium	107.000	7150	45.590	-	mg/kg
700 (771/774)	700-4	CE48-025	750993.44	2083684.8	0.75	1.25	Zinc	95.100	307000	73.760	-	mg/kg
700 (771/774)	000-2	CE48-032	750962.28	2083630.8	0.00	0.50	Acenaphthene	380.000	40800000	-	140.000	ug/kg
700 (771/774)	000-2	CE48-032	750962.28	2083630.8	0.00	0.50	Anthracene	1500.000	204000000	-	110.000	ug/kg
700 (771/774)	000-2	CE48-032	750962.28	2083630.8	0.00	0.50	Benzo(a)anthracene	4600.000	34900	-	120.000	ug/kg
700 (771/774)	**000-2**	**CE48-032**	**750962.28**	**2083630.8**	**0.00**	**0.50**	**Benzo(a)pyrene**	**5100.000**	**3490**	**-**	**190.000**	**ug/kg**
700 (771/774)	000-2	CE48-032	750962.28	2083630.8	0.00	0.50	Benzo(b)fluoranthene	4500.000	34900	-	130.000	ug/kg
700 (771/774)	000-2	CE48-032	750962.28	2083630.8	0.00	0.50	Benzo(k)fluoranthene	4200.000	349000	-	150.000	ug/kg
700 (771/774)	000-2	CE48-032	750962.28	2083630.8	0.00	0.50	Chrysene	5100.000	3490000	-	130.000	ug/kg
700 (771/774)	000-2	CE48-032	750962.28	2083630.8	0.00	0.50	Dibenz(a,h)anthracene	1500.000	3490	-	120.000	ug/kg
700 (771/774)	000-2	CE48-032	750962.28	2083630.8	0.00	0.50	Fluoranthene	9400.000	27200000	-	110.000	ug/kg
700 (771/774)	000-2	CE48-032	750962.28	2083630.8	0.00	0.50	Fluorene	470.000	40800000	-	160.000	ug/kg
700 (771/774)	000-2	CE48-032	750962.28	2083630.8	0.00	0.50	Indeno(1,2,3-cd)pyrene	3200.000	34900	-	110.000	ug/kg
700 (771/774)	000-2	CE48-032	750962.28	2083630.8	0.00	0.50	Pyrene	8100.000	22100000	-	620.000	ug/kg
700 (771/774)	000-2	CE48-033	750964.42	2083632.8	0.00	0.50	2-Methylnaphthalene	240.000	20400000	-	150.000	ug/kg
700 (771/774)	000-2	CE48-033	750964.42	2083632.8	0.00	0.50	Acenaphthene	2000.000	40800000	-	140.000	ug/kg
700 (771/774)	000-2	CE48-033	750964.42	2083632.8	0.00	0.50	Anthracene	4800.000	204000000	-	110.000	ug/kg
700 (771/774)	000-2	CE48-033	750964.42	2083632.8	0.00	0.50	Benzo(a)anthracene	12000.000	34900	-	110.000	ug/kg
700 (771/774)	**000-2**	**CE48-033**	**750964.42**	**2083632.8**	**0.00**	**0.50**	**Benzo(a)pyrene**	**12000.000**	**3490**	**-**	**180.000**	**ug/kg**
700 (771/774)	000-2	CE48-033	750964.42	2083632.8	0.00	0.50	Benzo(b)fluoranthene	10000.000	34900	-	130.000	ug/kg
700 (771/774)	000-2	CE48-033	750964.42	2083632.8	0.00	0.50	Benzo(k)fluoranthene	11000.000	349000	-	150.000	ug/kg
700 (771/774)	000-2	CE48-033	750964.42	2083632.8	0.00	0.50	Chrysene	14000.000	3490000	-	130.000	ug/kg
700 (771/774)	**000-2**	**CE48-033**	**750964.42**	**2083632.8**	**0.00**	**0.50**	**Dibenz(a,h)anthracene**	**3700.000**	**3490**	**-**	**110.000**	**ug/kg**
700 (771/774)	000-2	CE48-033	750964.42	2083632.8	0.00	0.50	Dibenzofuran	920.000	2950000	-	160.000	ug/kg
700 (771/774)	000-2	CE48-033	750964.42	2083632.8	0.00	0.50	Fluoranthene	25000.000	27200000	-	100.000	ug/kg
700 (771/774)	000-2	CE48-033	750964.42	2083632.8	0.00	0.50	Fluorene	1900.000	40800000	-	160.000	ug/kg
700 (771/774)	000-2	CE48-033	750964.42	2083632.8	0.00	0.50	Indeno(1,2,3-cd)pyrene	7600.000	34900	-	100.000	ug/kg
700 (771/774)	000-2	CE48-033	750964.42	2083632.8	0.00	0.50	Naphthalene	320.000	3090000	-	150.000	ug/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (771/774)	000-2	CE48-033	750964.42	2083632.8	0.00	0.50	Pyrene	22000.000	22100000	-	610.000	ug/kg
700 (771/774)	000-2	CE48-034	750964.6	2083628.7	0.00	0.50	Acenaphthene	14000.000	40800000	-	1800.000	ug/kg
700 (771/774)	000-2	CE48-034	750964.6	2083628.7	0.00	0.50	Anthracene	72000.000	204000000	-	1400.000	ug/kg
700 (771/774)	**000-2**	**CE48-034**	**750964.6**	**2083628.7**	**0.00**	**0.50**	**Benzo(a)anthracene**	**200000.000**	**34900**	**-**	**1400.000**	**ug/kg**
700 (771/774)	**000-2**	**CE48-034**	**750964.6**	**2083628.7**	**0.00**	**0.50**	**Benzo(a)pyrene**	**180000.000**	**3490**	**-**	**2300.000**	**ug/kg**
700 (771/774)	**000-2**	**CE48-034**	**750964.6**	**2083628.7**	**0.00**	**0.50**	**Benzo(b)fluoranthene**	**150000.000**	**34900**	**-**	**1700.000**	**ug/kg**
700 (771/774)	000-2	CE48-034	750964.6	2083628.7	0.00	0.50	Benzo(k)fluoranthene	130000.000	349000	-	1900.000	ug/kg
700 (771/774)	000-2	CE48-034	750964.6	2083628.7	0.00	0.50	Chrysene	210000.000	3490000	-	1600.000	ug/kg
700 (771/774)	**000-2**	**CE48-034**	**750964.6**	**2083628.7**	**0.00**	**0.50**	**Dibenz(a,h)anthracene**	**54000.000**	**3490**	**-**	**1400.000**	**ug/kg**
700 (771/774)	000-2	CE48-034	750964.6	2083628.7	0.00	0.50	Dibenzofuran	7000.000	2950000	-	2100.000	ug/kg
700 (771/774)	000-2	CE48-034	750964.6	2083628.7	0.00	0.50	Fluoranthene	380000.000	27200000	-	1300.000	ug/kg
700 (771/774)	000-2	CE48-034	750964.6	2083628.7	0.00	0.50	Fluorene	20000.000	40800000	-	2000.000	ug/kg
700 (771/774)	**000-2**	**CE48-034**	**750964.6**	**2083628.7**	**0.00**	**0.50**	**Indeno(1,2,3-cd)pyrene**	**110000.000**	**34900**	**-**	**1300.000**	**ug/kg**
700 (771/774)	000-2	CE48-034	750964.6	2083628.7	0.00	0.50	Pyrene	360000.000	22100000	-	7800.000	ug/kg
700 (771/774)	700-4	CE49-000	751185.7	2083697.5	5.50	7.50	Barium	548.000	26400	289.380	-	mg/kg
700 (771/774)	700-4	CE49-000	751185.7	2083697.5	5.50	7.50	Copper	134.000	40900	38.210	-	mg/kg
700 (771/774)	*700-4*	*CE49-000*	*751185.7*	*2083697.5*	*5.50*	*7.50*	*Uranium-234*	*4.204*	*300*	*2.640*	-	*pCi/g*
700 (771/774)	700-4	CE49-000	751185.7	2083697.5	5.50	7.50	Uranium-235	0.404	8	0.120	-	pCi/g
700 (771/774)	700-4	CE49-000	751185.7	2083697.5	5.50	7.50	Uranium-238	4.204	351	1.490	-	pCi/g
700 (771/774)	700-4	CE49-000	751185.7	2083697.5	5.50	7.50	Vanadium	149.000	7150	88.490	-	mg/kg
700 (771/774)	*700-4*	*CE49-012*	*751172.24*	*2083598.8*	*4.50*	*6.50*	*Uranium-234*	*3.059*	*300*	*2.640*	-	*pCi/g*
700 (771/774)	700-4	CE49-012	751172.24	2083598.8	4.50	6.50	Uranium-235	0.171	8	0.120	-	pCi/g
700 (771/774)	700-4	CE49-012	751172.24	2083598.8	4.50	6.50	Uranium-238	3.059	351	1.490	-	pCi/g
700 (771/774)	700-4	CF47-005	750890.09	2083781.2	0.58	1.08	Aluminum	21000.000	228000	16902.000	-	mg/kg
700 (771/774)	700-4	CF47-005	750890.09	2083781.2	0.58	1.08	Barium	150.000	26400	141.260	-	mg/kg
700 (771/774)	700-4	CF47-005	750890.09	2083781.2	0.58	1.08	Beryllium	0.990	921	0.966	-	mg/kg
700 (771/774)	700-4	CF47-005	750890.09	2083781.2	0.58	1.08	Chromium	17.000	268	16.990	-	mg/kg
700 (771/774)	700-4	CF47-005	750890.09	2083781.2	0.58	1.08	Lithium	17.000	20400	11.550	-	mg/kg
700 (771/774)	700-4	CF47-005	750890.09	2083781.2	0.58	1.08	Nickel	15.000	20400	14.910	-	mg/kg
700 (771/774)	700-4	CF48-008	751156.27	2083872.5	0.00	0.50	Anthracene	190.000	204000000	-	66.000	ug/kg
700 (771/774)	700-4	CF48-008	751156.27	2083872.5	0.00	0.50	Antimony	10.000	409	0.470	-	mg/kg
700 (771/774)	700-4	CF48-008	751156.27	2083872.5	0.00	0.50	Arsenic	17.800	22.2	10.090	-	mg/kg
700 (771/774)	700-4	CF48-008	751156.27	2083872.5	0.00	0.50	Barium	1030.000	26400	141.260	-	mg/kg
700 (771/774)	700-4	CF48-008	751156.27	2083872.5	0.00	0.50	bis(2-	75.000	1970000	-	71.000	ug/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
							Ethylhexyl)phthalate					
700 (771/774)	700-4	CF48-008	751156.27	2083872.5	0.00	0.50	Chromium	29.700	268	16.990	-	mg/kg
700 (771/774)	700-4	CF48-008	751156.27	2083872.5	0.00	0.50	Copper	133.000	40900	18.060	-	mg/kg
700 (771/774)	700-4	CF48-008	751156.27	2083872.5	0.00	0.50	Fluoranthene	180.000	27200000	-	39.000	ug/kg
700 (771/774)	700-4	CF48-008	751156.27	2083872.5	0.00	0.50	Iron	48600.000	307000	18037.000	-	mg/kg
700 (771/774)	700-4	CF48-008	751156.27	2083872.5	0.00	0.50	Manganese	707.000	3480	365.080	-	mg/kg
700 (771/774)	700-4	CF48-008	751156.27	2083872.5	0.00	0.50	Nickel	43.200	20400	14.910	-	mg/kg
700 (771/774)	700-4	CF48-008	751156.27	2083872.5	0.00	0.50	Pyrene	250.000	22100000	-	56.000	ug/kg
700 (771/774)	700-4	CF48-008	751156.27	2083872.5	0.00	0.50	Strontium	297.000	613000	48.940	-	mg/kg
700 (771/774)	700-4	CF48-008	751156.27	2083872.5	0.00	0.50	Tin	6.960	613000	2.900	-	mg/kg
700 (771/774)	*700-4*	*CF48-008*	*751156.27*	*2083872.5*	*0.00*	*0.50*	*Uranium-234*	*4.200*	*300*	*2.253*	-	*pCi/g*
700 (771/774)	700-4	CF48-008	751156.27	2083872.5	0.00	0.50	Uranium-238	4.200	351	2.000	-	pCi/g
700 (771/774)	700-4	CF48-008	751156.27	2083872.5	0.00	0.50	Zinc	262.000	307000	73.760	-	mg/kg
700 (771/774)	*700-4*	*CF48-018*	*751127.21*	*2083921.8*	*1.50*	*3.50*	*Uranium-234*	*3.323*	*300*	*2.253*	-	*pCi/g*
700 (771/774)	700-4	CF48-018	751127.21	2083921.8	1.50	3.50	Uranium-235	0.231	8	0.094	-	pCi/g
700 (771/774)	700-4	CF48-018	751127.21	2083921.8	1.50	3.50	Uranium-238	3.323	351	2.000	-	pCi/g
700 (771/774)	700-4	CF49-007	751177.22	2083932.3	0.00	0.50	Arsenic	11.800	22.2	10.090	-	mg/kg
700 (771/774)	700-4	CF49-007	751177.22	2083932.3	0.00	0.50	Barium	635.000	26400	141.260	-	mg/kg
700 (771/774)	700-4	CF49-007	751177.22	2083932.3	0.00	0.50	Chromium	46.700	268	16.990	-	mg/kg
700 (771/774)	700-4	CF49-007	751177.22	2083932.3	0.00	0.50	Copper	161.000	40900	18.060	-	mg/kg
700 (771/774)	700-4	CF49-007	751177.22	2083932.3	0.00	0.50	Iron	36100.000	307000	18037.000	-	mg/kg
700 (771/774)	700-4	CF49-007	751177.22	2083932.3	0.00	0.50	Manganese	402.000	3480	365.080	-	mg/kg
700 (771/774)	700-4	CF49-007	751177.22	2083932.3	0.00	0.50	Nickel	47.300	20400	14.910	-	mg/kg
700 (771/774)	700-4	CF49-007	751177.22	2083932.3	0.00	0.50	Strontium	214.000	613000	48.940	-	mg/kg
700 (771/774)	700-4	CF49-007	751177.22	2083932.3	0.00	0.50	Tin	4.270	613000	2.900	-	mg/kg
700 (771/774)	700-4	CF49-007	751177.22	2083932.3	0.00	0.50	Uranium-235	0.415	8	0.094	-	pCi/g
700 (771/774)	700-4	CF49-007	751177.22	2083932.3	0.00	0.50	Uranium-238	2.105	351	2.000	-	pCi/g
700 (771/774)	700-4	CF49-007	751177.22	2083932.3	0.00	0.50	Vanadium	152.000	7150	45.590	-	mg/kg
700 (771/774)	700-4	CF49-007	751177.22	2083932.3	0.00	0.50	Zinc	146.000	307000	73.760	-	mg/kg
700 (771/774)	700-4	CG48-005	751012.9	2084095.8	0.00	0.50	Aroclor-1254	42.000	12400	-	5.200	ug/kg
700 (771/774)	700-4	CG48-005	751012.9	2084095.8	0.00	0.50	Arsenic	10.200	22.2	10.090	-	mg/kg
700 (771/774)	700-4	CG48-005	751012.9	2084095.8	0.00	0.50	Barium	696.000	26400	141.260	-	mg/kg
700 (771/774)	700-4	CG48-005	751012.9	2084095.8	0.00	0.50	bis(2-Ethylhexyl)phthalate	240.000	1970000	-	77.000	ug/kg
700 (771/774)	700-4	CG48-005	751012.9	2084095.8	0.00	0.50	Chromium	29.200	268	16.990	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (771/774)	700-4	CG48-005	751012.9	2084095.8	0.00	0.50	Chrysene	69.000	3490000	-	38.000	ug/kg
700 (771/774)	700-4	CG48-005	751012.9	2084095.8	0.00	0.50	Copper	207.000	40900	18.060	-	mg/kg
700 (771/774)	700-4	CG48-005	751012.9	2084095.8	0.00	0.50	Fluoranthene	150.000	27200000	-	43.000	ug/kg
700 (771/774)	700-4	CG48-005	751012.9	2084095.8	0.00	0.50	Iron	38800.000	307000	18037.000	-	mg/kg
700 (771/774)	700-4	CG48-005	751012.9	2084095.8	0.00	0.50	Manganese	547.000	3480	365.080	-	mg/kg
700 (771/774)	700-4	CG48-005	751012.9	2084095.8	0.00	0.50	Nickel	48.200	20400	14.910	-	mg/kg
700 (771/774)	700-4	CG48-005	751012.9	2084095.8	0.00	0.50	Pyrene	150.000	22100000	-	62.000	ug/kg
700 (771/774)	700-4	CG48-005	751012.9	2084095.8	0.00	0.50	Strontium	286.000	613000	48.940	-	mg/kg
700 (771/774)	700-4	CG48-005	751012.9	2084095.8	0.00	0.50	Tin	10.700	613000	2.900	-	mg/kg
700 (771/774)	*700-4*	*CG48-005*	*751012.9*	*2084095.8*	*0.00*	*0.50*	*Uranium-234*	*5.428*	*300*	*2.253*	-	*pCi/g*
700 (771/774)	700-4	CG48-005	751012.9	2084095.8	0.00	0.50	Uranium-235	0.261	8	0.094	-	pCi/g
700 (771/774)	700-4	CG48-005	751012.9	2084095.8	0.00	0.50	Uranium-238	5.428	351	2.000	-	pCi/g
700 (771/774)	700-4	CG48-005	751012.9	2084095.8	0.00	0.50	Vanadium	118.000	7150	45.590	-	mg/kg
700 (771/774)	700-4	CG48-005	751012.9	2084095.8	0.00	0.50	Zinc	308.000	307000	73.760	-	mg/kg
700 (771/774)	700-4	CG48-007	751097.23	2084126.1	1.83	2.33	Americium-241	1.353	76	0.023	-	pCi/g
700 (771/774)	700-4	CG48-007	751097.23	2084126.1	1.83	2.33	Arsenic	13.700	22.2	10.090	-	mg/kg
700 (771/774)	700-4	CG48-007	751097.23	2084126.1	1.83	2.33	Barium	1700.000	26400	141.260	-	mg/kg
700 (771/774)	700-4	CG48-007	751097.23	2084126.1	1.83	2.33	Copper	230.000	40900	18.060	-	mg/kg
700 (771/774)	700-4	CG48-007	751097.23	2084126.1	1.83	2.33	Iron	23500.000	307000	18037.000	-	mg/kg
700 (771/774)	700-4	CG48-007	751097.23	2084126.1	1.83	2.33	Nickel	71.900	20400	14.910	-	mg/kg
700 (771/774)	*700-4*	*CG48-007*	*751097.23*	*2084126.1*	*1.83*	*2.33*	*Plutonium-239/240*	*7.712*	*50*	*0.066*	-	*pCi/g*
700 (771/774)	700-4	CG48-007	751097.23	2084126.1	1.83	2.33	Strontium	155.000	613000	48.940	-	mg/kg
700 (771/774)	700-4	CG48-007	751097.23	2084126.1	1.83	2.33	Tin	8.450	613000	2.900	-	mg/kg
700 (771/774)	*700-4*	*CG48-007*	*751097.23*	*2084126.1*	*1.83*	*2.33*	*Uranium-234*	*4.667*	*300*	*2.253*	-	*pCi/g*
700 (771/774)	700-4	CG48-007	751097.23	2084126.1	1.83	2.33	Uranium-238	4.667	351	2.000	-	pCi/g
700 (771/774)	700-4	CG48-007	751097.23	2084126.1	1.83	2.33	Vanadium	156.000	7150	45.590	-	mg/kg
700 (771/774)	700-4	CG48-007	751097.23	2084126.1	1.83	2.33	Zinc	189.000	307000	73.760	-	mg/kg
700 (771/774)	700-4	CG48-008	751068.74	2084126	0.12	0.62	Aluminum	23000.000	228000	16902.000	-	mg/kg
700 (771/774)	**700-4**	**CG48-008**	**751068.74**	**2084126**	**0.12**	**0.62**	**Americium-241**	**1220.000**	**76**	**0.023**	**-**	**pCi/g**
700 (771/774)	700-4	CG48-008	751068.74	2084126	0.12	0.62	Beryllium	1.400	921	0.966	-	mg/kg
700 (771/774)	700-4	CG48-008	751068.74	2084126	0.12	0.62	Chromium	21.000	268	16.990	-	mg/kg
700 (771/774)	700-4	CG48-008	751068.74	2084126	0.12	0.62	Lithium	18.000	20400	11.550	-	mg/kg
700 (771/774)	700-4	CG48-008	751068.74	2084126	0.12	0.62	Nickel	18.000	20400	14.910	-	mg/kg
700 (771/774)	**700-4**	**CG48-008**	**751068.74**	**2084126**	**0.12**	**0.62**	**Plutonium-239/240**	**1690.000**	**50**	**0.066**	**-**	**pCi/g**
700 (771/774)	700-4	CG48-008	751068.74	2084126	0.12	0.62	Strontium	83.000	613000	48.940	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (771/774)	700-4	CG48-008	751068.74	2084126	0.12	0.62	Uranium-234	2.940	300	2.253	-	pCi/g
700 (771/774)	700-4	CG48-008	751068.74	2084126	0.12	0.62	Vanadium	48.000	7150	45.590	-	mg/kg
700 (771/774)	700-4	CG48-008	751068.74	2084126	0.12	0.62	Zinc	97.000	307000	73.760	-	mg/kg
700 (771/774)	**700-4**	**CG48-008**	**751068.74**	**2084126**	**2.67**	**3.17**	**Americium-241**	**370.000**	**76**	**0.020**	**-**	**pCi/g**
700 (771/774)	700-4	CG48-008	751068.74	2084126	2.67	3.17	Barium	541.000	26400	289.380	-	mg/kg
700 (771/774)	***700-4***	***CG48-008***	***751068.74***	***2084126***	***2.67***	***3.17***	***Plutonium-239/240***	***2109.000***	***50***	***0.020***	**-**	***pCi/g***
700 (771/774)	*700-4*	*CG48-008*	*751068.74*	*2084126*	*2.67*	*3.17*	*Uranium-234*	*4.800*	*300*	*2.640*	-	*pCi/g*
700 (771/774)	700-4	CG48-008	751068.74	2084126	2.67	3.17	Uranium-235	0.430	8	0.120	-	pCi/g
700 (771/774)	700-4	CG48-008	751068.74	2084126	2.67	3.17	Uranium-238	4.800	351	1.490	-	pCi/g
700 (771/774)	700-4	CG48-008	751068.74	2084126	2.67	3.17	Vanadium	132.000	7150	88.490	-	mg/kg
700 (771/774)	**700-4**	**CG48-009**	**751069.05**	**2084095.8**	**0.00**	**0.50**	**Americium-241**	**116.400**	**76**	**0.023**	**-**	**pCi/g**
700 (771/774)	700-4	CG48-009	751069.05	2084095.8	0.00	0.50	Barium	488.000	26400	141.260	-	mg/kg
700 (771/774)	700-4	CG48-009	751069.05	2084095.8	0.00	0.50	Chromium	35.600	268	16.990	-	mg/kg
700 (771/774)	700-4	CG48-009	751069.05	2084095.8	0.00	0.50	Copper	32.900	40900	18.060	-	mg/kg
700 (771/774)	700-4	CG48-009	751069.05	2084095.8	0.00	0.50	Iron	20900.000	307000	18037.000	-	mg/kg
700 (771/774)	700-4	CG48-009	751069.05	2084095.8	0.00	0.50	Nickel	32.500	20400	14.910	-	mg/kg
700 (771/774)	***700-4***	***CG48-009***	***751069.05***	***2084095.8***	***0.00***	***0.50***	***Plutonium-239/240***	***663.480***	***50***	***0.066***	**-**	***pCi/g***
700 (771/774)	700-4	CG48-009	751069.05	2084095.8	0.00	0.50	Strontium	103.000	613000	48.940	-	mg/kg
700 (771/774)	*700-4*	*CG48-009*	*751069.05*	*2084095.8*	*0.00*	*0.50*	*Uranium-234*	*3.017*	*300*	*2.253*	-	*pCi/g*
700 (771/774)	700-4	CG48-009	751069.05	2084095.8	0.00	0.50	Uranium-235	0.336	8	0.094	-	pCi/g
700 (771/774)	700-4	CG48-009	751069.05	2084095.8	0.00	0.50	Uranium-238	3.017	351	2.000	-	pCi/g
700 (771/774)	700-4	CG48-009	751069.05	2084095.8	0.00	0.50	Zinc	91.200	307000	73.760	-	mg/kg
700 (771/774)	700-4	CG48-010	751082.56	2084110.2	0.00	0.50	Americium-241	1.289	76	0.023	-	pCi/g
700 (771/774)	700-4	CG48-010	751082.56	2084110.2	0.00	0.50	Arsenic	14.500	22.2	10.090	-	mg/kg
700 (771/774)	700-4	CG48-010	751082.56	2084110.2	0.00	0.50	Barium	583.000	26400	141.260	-	mg/kg
700 (771/774)	700-4	CG48-010	751082.56	2084110.2	0.00	0.50	Chromium	31.800	268	16.990	-	mg/kg
700 (771/774)	700-4	CG48-010	751082.56	2084110.2	0.00	0.50	Copper	130.000	40900	18.060	-	mg/kg
700 (771/774)	700-4	CG48-010	751082.56	2084110.2	0.00	0.50	Iron	23900.000	307000	18037.000	-	mg/kg
700 (771/774)	700-4	CG48-010	751082.56	2084110.2	0.00	0.50	Nickel	46.500	20400	14.910	-	mg/kg
700 (771/774)	*700-4*	*CG48-010*	*751082.56*	*2084110.2*	*0.00*	*0.50*	*Plutonium-239/240*	*7.347*	*50*	*0.066*	-	*pCi/g*
700 (771/774)	700-4	CG48-010	751082.56	2084110.2	0.00	0.50	Strontium	117.000	613000	48.940	-	mg/kg
700 (771/774)	700-4	CG48-010	751082.56	2084110.2	0.00	0.50	Tin	4.260	613000	2.900	-	mg/kg
700 (771/774)	*700-4*	*CG48-010*	*751082.56*	*2084110.2*	*0.00*	*0.50*	*Uranium-234*	*5.204*	*300*	*2.253*	-	*pCi/g*
700 (771/774)	700-4	CG48-010	751082.56	2084110.2	0.00	0.50	Uranium-235	0.279	8	0.094	-	pCi/g
700 (771/774)	700-4	CG48-010	751082.56	2084110.2	0.00	0.50	Uranium-238	5.204	351	2.000	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (771/774)	700-4	CG48-010	751082.56	2084110.2	0.00	0.50	Vanadium	211.000	7150	45.590	-	mg/kg
700 (771/774)	700-4	CG48-010	751082.56	2084110.2	0.00	0.50	Zinc	159.000	307000	73.760	-	mg/kg
700 (771/774)	700-4	CG48-011	751032.74	2084113.7	0.50	1.00	Arsenic	20.200	22.2	13.140	-	mg/kg
700 (771/774)	700-4	CG48-011	751032.74	2084113.7	0.50	1.00	Barium	764.000	26400	289.380	-	mg/kg
700 (771/774)	700-4	CG48-011	751032.74	2084113.7	0.50	1.00	Benzo(a)anthracene	110.000	34900	-	42.000	ug/kg
700 (771/774)	700-4	CG48-011	751032.74	2084113.7	0.50	1.00	Benzo(a)pyrene	150.000	3490	-	55.000	ug/kg
700 (771/774)	700-4	CG48-011	751032.74	2084113.7	0.50	1.00	Chrysene	200.000	3490000	-	37.000	ug/kg
700 (771/774)	700-4	CG48-011	751032.74	2084113.7	0.50	1.00	Copper	103.000	40900	38.210	-	mg/kg
700 (771/774)	700-4	CG48-011	751032.74	2084113.7	0.50	1.00	Indeno(1,2,3-cd)pyrene	51.000	34900	-	48.000	ug/kg
700 (771/774)	700-4	CG48-011	751032.74	2084113.7	0.50	1.00	Iron	42300.000	307000	41046.520	-	mg/kg
700 (771/774)	700-4	CG48-011	751032.74	2084113.7	0.50	1.00	Lead	35.800	1000	24.970	-	mg/kg
700 (771/774)	*700-4*	*CG48-011*	*751032.74*	*2084113.7*	*0.50*	*1.00*	*Uranium-234*	*3.400*	*300*	*2.640*	-	*pCi/g*
700 (771/774)	700-4	CG48-011	751032.74	2084113.7	0.50	1.00	Uranium-238	3.400	351	1.490	-	pCi/g
700 (771/774)	700-4	CG48-011	751032.74	2084113.7	0.50	1.00	Vanadium	136.000	7150	88.490	-	mg/kg
700 (771/774)	700-4	CG48-012	751013.43	2084114.9	0.00	0.50	Barium	675.000	26400	141.260	-	mg/kg
700 (771/774)	700-4	CG48-012	751013.43	2084114.9	0.00	0.50	Benzo(a)anthracene	230.000	34900	-	48.000	ug/kg
700 (771/774)	700-4	CG48-012	751013.43	2084114.9	0.00	0.50	Benzo(a)pyrene	320.000	3490	-	63.000	ug/kg
700 (771/774)	700-4	CG48-012	751013.43	2084114.9	0.00	0.50	Benzyl Alcohol	360.000	307000000	-	100.000	ug/kg
700 (771/774)	700-4	CG48-012	751013.43	2084114.9	0.00	0.50	Chromium	40.500	268	16.990	-	mg/kg
700 (771/774)	700-4	CG48-012	751013.43	2084114.9	0.00	0.50	Chrysene	450.000	3490000	-	42.000	ug/kg
700 (771/774)	700-4	CG48-012	751013.43	2084114.9	0.00	0.50	Copper	81.600	40900	18.060	-	mg/kg
700 (771/774)	700-4	CG48-012	751013.43	2084114.9	0.00	0.50	Iron	24100.000	307000	18037.000	-	mg/kg
700 (771/774)	700-4	CG48-012	751013.43	2084114.9	0.00	0.50	Nickel	38.300	20400	14.910	-	mg/kg
700 (771/774)	700-4	CG48-012	751013.43	2084114.9	0.00	0.50	Strontium	161.000	613000	48.940	-	mg/kg
700 (771/774)	700-4	CG48-012	751013.43	2084114.9	0.00	0.50	Tin	5.660	613000	2.900	-	mg/kg
700 (771/774)	700-4	CG48-012	751013.43	2084114.9	0.00	0.50	Uranium-235	0.100	8	0.094	-	pCi/g
700 (771/774)	700-4	CG48-012	751013.43	2084114.9	0.00	0.50	Vanadium	120.000	7150	45.590	-	mg/kg
700 (771/774)	700-4	CG48-012	751013.43	2084114.9	0.00	0.50	Xylene	17.000	2040000	-	12.000	ug/kg
700 (771/774)	700-4	CG48-012	751013.43	2084114.9	0.00	0.50	Zinc	103.000	307000	73.760	-	mg/kg
700 (771/774)	700-4	CG48-018	751049.91	2084065	0.50	2.50	Arsenic	16.400	22.2	13.140	-	mg/kg
700 (771/774)	700-4	CG48-018	751049.91	2084065	0.50	2.50	Barium	536.000	26400	289.380	-	mg/kg
700 (771/774)	700-4	CG48-018	751049.91	2084065	0.50	2.50	Copper	130.000	40900	38.210	-	mg/kg
700 (771/774)	700-4	CG48-018	751049.91	2084065	0.50	2.50	Lead	27.200	1000	24.970	-	mg/kg
700 (771/774)	700-4	CG48-018	751049.91	2084065	0.50	2.50	Uranium-235	0.177	8	0.120	-	pCi/g
700 (771/774)	700-4	CG48-018	751049.91	2084065	0.50	2.50	Vanadium	128.000	7150	88.490	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (771/774)	000-2	CG48-033	751007.31	2083999.1	0.00	0.50	Aluminum	18000.000	228000	16902.000	-	mg/kg
700 (771/774)	000-2	CG48-033	751007.31	2083999.1	0.00	0.50	Chromium	18.000	268	16.990	-	mg/kg
700 (771/774)	000-2	CG48-033	751007.31	2083999.1	0.00	0.50	Methylene chloride	1.500	2530000	-	0.880	ug/kg
700 (771/774)	000-2	CG48-033	751007.31	2083999.1	0.00	0.50	Nickel	18.000	20400	14.910	-	mg/kg
700 (771/774)	000-2	CG48-033	751007.31	2083999.1	0.00	0.50	Strontium	71.000	613000	48.940	-	mg/kg
700 (771/774)	000-1	CH48-000	751019.51	2084272.5	4.50	6.50	Barium	841.000	26400	289.380	-	mg/kg
700 (771/774)	000-1	CH48-000	751019.51	2084272.5	4.50	6.50	Copper	64.900	40900	38.210	-	mg/kg
700 (771/774)	700-4	CH48-003	751049.07	2084182.7	4.50	6.50	Arsenic	15.500	22.2	13.140	-	mg/kg
700 (771/774)	700-4	CH48-003	751049.07	2084182.7	4.50	6.50	Barium	545.000	26400	289.380	-	mg/kg
700 (771/774)	700-4	CH48-003	751049.07	2084182.7	4.50	6.50	Copper	94.100	40900	38.210	-	mg/kg
700 (771/774)	*700-4*	*CH48-003*	*751049.07*	*2084182.7*	*4.50*	*6.50*	*Uranium-234*	*4.018*	*300*	*2.640*	-	*pCi/g*
700 (771/774)	700-4	CH48-003	751049.07	2084182.7	4.50	6.50	Uranium-235	0.306	8	0.120	-	pCi/g
700 (771/774)	700-4	CH48-003	751049.07	2084182.7	4.50	6.50	Uranium-238	4.018	351	1.490	-	pCi/g
700 (771/774)	700-4	CH48-003	751049.07	2084182.7	4.50	6.50	Vanadium	153.000	7150	88.490	-	mg/kg
700 (771/774)	000-1	CH48-016	751011.29	2084373.8	4.50	6.50	Barium	1060.000	26400	289.380	-	mg/kg
700 (771/774)	000-1	CH48-016	751011.29	2084373.8	4.50	6.50	Copper	73.000	40900	38.210	-	mg/kg
700 (771/774)	000-1	CH48-016	751011.29	2084373.8	4.50	6.50	Uranium-238	1.900	351	1.490	-	pCi/g
700 (771/774)	700-3	CH48-017	751040.55	2084157.9	5.50	7.50	Americium-241	0.410	76	0.020	-	pCi/g
700 (771/774)	700-3	CH48-017	751040.55	2084157.9	5.50	7.50	Plutonium-239/240	0.603	50	0.020	-	pCi/g
700 (771/774)	700-3	CH48-018	751008.54	2084150.6	12.50	14.50	Americium-241	1.020	76	0.020	-	pCi/g
700 (771/774)	700-3	CH48-018	751008.54	2084150.6	12.50	14.50	Plutonium-239/240	2.060	50	0.020	-	pCi/g
700 (771/774)	700-3	CH48-019	751017.52	2084166.7	11.50	13.50	Barium	534.000	26400	289.380	-	mg/kg
700 (771/774)	700-3	CH48-019	751017.52	2084166.7	11.50	13.50	Copper	123.000	40900	38.210	-	mg/kg
700 (771/774)	*700-3*	*CH48-019*	*751017.52*	*2084166.7*	*11.50*	*13.50*	*Uranium-234*	*4.111*	*300*	*2.640*	-	*pCi/g*
700 (771/774)	700-3	CH48-019	751017.52	2084166.7	11.50	13.50	Uranium-235	0.228	8	0.120	-	pCi/g
700 (771/774)	700-3	CH48-019	751017.52	2084166.7	11.50	13.50	Uranium-238	4.111	351	1.490	-	pCi/g
700 (771/774)	700-3	CH48-019	751017.52	2084166.7	11.50	13.50	Vanadium	146.000	7150	88.490	-	mg/kg
700 (771/774)	700-4	CH48-020	751051.72	2084187.5	4.50	6.50	Arsenic	18.000	22.2	13.140	-	mg/kg
700 (771/774)	700-4	CH48-020	751051.72	2084187.5	4.50	6.50	Barium	554.000	26400	289.380	-	mg/kg
700 (771/774)	700-4	CH48-020	751051.72	2084187.5	4.50	6.50	Copper	74.100	40900	38.210	-	mg/kg
700 (771/774)	700-4	CH48-020	751051.72	2084187.5	4.50	6.50	Lead	25.100	1000	24.970	-	mg/kg
700 (771/774)	*700-4*	*CH48-020*	*751051.72*	*2084187.5*	*4.50*	*6.50*	*Uranium-234*	*3.174*	*300*	*2.640*	-	*pCi/g*
700 (771/774)	700-4	CH48-020	751051.72	2084187.5	4.50	6.50	Uranium-235	0.227	8	0.120	-	pCi/g
700 (771/774)	700-4	CH48-020	751051.72	2084187.5	4.50	6.50	Uranium-238	3.174	351	1.490	-	pCi/g
700 (771/774)	700-4	CH48-020	751051.72	2084187.5	4.50	6.50	Vanadium	161.000	7150	88.490	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (771/774)	700-4	CH48-021	751015.76	2084254	4.50	6.50	Arsenic	14.100	22.2	13.140	-	mg/kg
700 (771/774)	700-4	CH48-021	751015.76	2084254	4.50	6.50	Barium	579.000	26400	289.380	-	mg/kg
700 (771/774)	700-4	CH48-021	751015.76	2084254	4.50	6.50	Copper	98.900	40900	38.210	-	mg/kg
700 (771/774)	700-4	CH48-021	751015.76	2084254	4.50	6.50	Uranium-235	0.251	8	0.120	-	pCi/g
700 (771/774)	700-4	CH48-021	751015.76	2084254	4.50	6.50	Uranium-238	2.188	351	1.490	-	pCi/g
700 (771/774)	700-4	CH48-021	751015.76	2084254	4.50	6.50	Vanadium	173.000	7150	88.490	-	mg/kg
700 (771/774)	700-4	CH48-021	751015.76	2084254	4.50	6.50	Zinc	582.000	307000	139.100	-	mg/kg
700 (771/774)	000-2	CH48-051	751055.92	2084184.8	2.50	4.50	Americium-241	16.800	76	0.020	-	pCi/g
700 (771/774)	000-2	CH48-051	751055.92	2084184.8	2.50	4.50	Plutonium-239/240	4.630	50	0.020	-	pCi/g
700 (771/774)	000-1	CI48-000	750996.43	2084427.7	0.00	3.00	Barium	554.000	26400	141.260	-	mg/kg
700 (771/774)	000-1	CI48-000	750996.43	2084427.7	0.00	3.00	Chromium	38.800	268	16.990	-	mg/kg
700 (771/774)	000-1	CI48-000	750996.43	2084427.7	0.00	3.00	Copper	50.400	40900	18.060	-	mg/kg
700 (771/774)	000-1	CI48-000	750996.43	2084427.7	0.00	3.00	Iron	26900.000	307000	18037.000	-	mg/kg
700 (771/774)	000-1	CI48-000	750996.43	2084427.7	0.00	3.00	Nickel	23.800	20400	14.910	-	mg/kg
700 (771/774)	000-1	CI48-000	750996.43	2084427.7	0.00	3.00	Strontium	116.000	613000	48.940	-	mg/kg
700 (771/774)	*000-1*	*CI48-000*	*750996.43*	*2084427.7*	*0.00*	*3.00*	*Uranium-234*	*5.000*	*300*	*2.253*	-	*pCi/g*
700 (771/774)	000-1	CI48-000	750996.43	2084427.7	0.00	3.00	Uranium-235	0.300	8	0.094	-	pCi/g
700 (771/774)	000-1	CI48-000	750996.43	2084427.7	0.00	3.00	Uranium-238	5.000	351	2.000	-	pCi/g
700 (771/774)	000-1	CI48-000	750996.43	2084427.7	0.00	3.00	Vanadium	113.000	7150	45.590	-	mg/kg
700 (771/774)	000-1	CI48-000	750996.43	2084427.7	0.00	3.00	Zinc	79.500	307000	73.760	-	mg/kg
700 (771/774)	000-1	CI48-001	751005.48	2084575.1	4.50	6.50	Barium	590.000	26400	289.380	-	mg/kg
700 (771/774)	000-1	CI48-001	751005.48	2084575.1	4.50	6.50	Copper	48.600	40900	38.210	-	mg/kg
700 (771/774)	*000-1*	*CI48-001*	*751005.48*	*2084575.1*	*4.50*	*6.50*	*Uranium-234*	*3.100*	*300*	*2.640*	-	*pCi/g*
700 (771/774)	000-1	CI48-001	751005.48	2084575.1	4.50	6.50	Uranium-235	0.160	8	0.120	-	pCi/g
700 (771/774)	000-1	CI48-001	751005.48	2084575.1	4.50	6.50	Uranium-238	3.100	351	1.490	-	pCi/g
700 (771/774)	000-1	CI48-002	751007.85	2084475.7	4.50	6.50	Barium	500.000	26400	289.380	-	mg/kg
700 (771/774)	000-1	CI48-002	751007.85	2084475.7	4.50	6.50	Copper	41.100	40900	38.210	-	mg/kg
700 (771/774)	*000-1*	*CI48-002*	*751007.85*	*2084475.7*	*4.50*	*6.50*	*Uranium-234*	*4.100*	*300*	*2.640*	-	*pCi/g*
700 (771/774)	000-1	CI48-002	751007.85	2084475.7	4.50	6.50	Uranium-235	0.210	8	0.120	-	pCi/g
700 (771/774)	000-1	CI48-002	751007.85	2084475.7	4.50	6.50	Uranium-238	4.100	351	1.490	-	pCi/g
700 (771/774)	000-1	CI48-002	751007.85	2084475.7	4.50	6.50	Vanadium	88.900	7150	88.490	-	mg/kg
700 (771/774)	000-2	CI48-039	751011.9	2084383.7	3.50	4.00	Plutonium-239/240	0.250	50	0.020	-	pCi/g
700 (771/774)	000-2	CI48-040	751003.26	2084526.2	3.50	4.00	Americium-241	0.140	76	0.020	-	pCi/g
700 (771/774)	000-2	CI48-040	751003.26	2084526.2	3.50	4.00	Plutonium-239/240	0.225	50	0.020	-	pCi/g
700 (771/774)	000-1	CJ48-000	750990.67	2084587.7	0.00	0.50	Antimony	9.340	409	0.470	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (771/774)	**000-1**	**CJ48-000**	**750990.67**	**2084587.7**	**0.00**	**0.50**	**Arsenic**	**36.300**	**22.2**	**10.090**	**-**	**mg/kg**
700 (771/774)	000-1	CJ48-000	750990.67	2084587.7	0.00	0.50	Barium	624.000	26400	141.260	-	mg/kg
700 (771/774)	000-1	CJ48-000	750990.67	2084587.7	0.00	0.50	Copper	45.500	40900	18.060	-	mg/kg
700 (771/774)	000-1	CJ48-000	750990.67	2084587.7	0.00	0.50	Strontium	428.000	613000	48.940	-	mg/kg
700 (771/774)	*000-1*	*CJ48-000*	*750990.67*	*2084587.7*	*0.00*	*0.50*	*Uranium-234*	*4.100*	*300*	*2.253*	-	*pCi/g*
700 (771/774)	000-1	CJ48-000	750990.67	2084587.7	0.00	0.50	Uranium-235	0.160	8	0.094	-	pCi/g
700 (771/774)	000-1	CJ48-000	750990.67	2084587.7	0.00	0.50	Uranium-238	4.100	351	2.000	-	pCi/g
700 (771/774)	000-1	CJ48-000	750990.67	2084587.7	0.00	0.50	Vanadium	82.800	7150	45.590	-	mg/kg
700 (771/774)	000-1	CJ48-001	750989.13	2084613.7	0.00	0.50	Antimony	12.700	409	0.470	-	mg/kg
700 (771/774)	**000-1**	**CJ48-001**	**750989.13**	**2084613.7**	**0.00**	**0.50**	**Arsenic**	**31.100**	**22.2**	**10.090**	**-**	**mg/kg**
700 (771/774)	000-1	CJ48-001	750989.13	2084613.7	0.00	0.50	Barium	669.000	26400	141.260	-	mg/kg
700 (771/774)	000-1	CJ48-001	750989.13	2084613.7	0.00	0.50	Chromium	23.300	268	16.990	-	mg/kg
700 (771/774)	000-1	CJ48-001	750989.13	2084613.7	0.00	0.50	Copper	55.000	40900	18.060	-	mg/kg
700 (771/774)	000-1	CJ48-001	750989.13	2084613.7	0.00	0.50	Strontium	430.000	613000	48.940	-	mg/kg
700 (771/774)	*000-1*	*CJ48-001*	*750989.13*	*2084613.7*	*0.00*	*0.50*	*Uranium-234*	*2.400*	*300*	*2.253*	-	*pCi/g*
700 (771/774)	000-1	CJ48-001	750989.13	2084613.7	0.00	0.50	Uranium-238	2.400	351	2.000	-	pCi/g
700 (771/774)	000-1	CJ48-001	750989.13	2084613.7	0.00	0.50	Vanadium	98.100	7150	45.590	-	mg/kg
700 (771/774)	000-2	CJ48-041	750999.06	2084598.2	2.50	3.00	Americium-241	0.172	76	0.020	-	pCi/g
700 (771/774)	000-2	CJ48-041	750999.06	2084598.2	2.50	3.00	Plutonium-239/240	0.156	50	0.020	-	pCi/g
700 (776/777/778)	700-3	CE44-006	750341.82	2083680.2	0.00	0.50	Manganese	660.000	3480	365.080	-	mg/kg
700 (776/777/778)	*700-3*	*CE44-006*	*750341.82*	*2083680.2*	*0.00*	*0.50*	*Uranium-234*	*4.469*	*300*	*2.253*	-	*pCi/g*
700 (776/777/778)	700-3	CE44-006	750341.82	2083680.2	0.00	0.50	Uranium-235	0.337	8	0.094	-	pCi/g
700 (776/777/778)	700-3	CE44-006	750341.82	2083680.2	0.00	0.50	Uranium-238	4.469	351	2.000	-	pCi/g
700 (776/777/778)	*700-3*	*CE44-006*	*750341.82*	*2083680.2*	*0.50*	*2.50*	*Uranium-234*	*5.367*	*300*	*2.640*	-	*pCi/g*
700 (776/777/778)	700-3	CE44-006	750341.82	2083680.2	0.50	2.50	Uranium-235	0.354	8	0.120	-	pCi/g
700 (776/777/778)	700-3	CE44-006	750341.82	2083680.2	0.50	2.50	Uranium-238	5.367	351	1.490	-	pCi/g
700 (776/777/778)	700-3	CE44-007	750324.89	2083680.2	1.40	1.90	Aluminum	21000.000	228000	16902.000	-	mg/kg
700 (776/777/778)	700-3	CE44-007	750324.89	2083680.2	1.40	1.90	Chromium	29.000	268	16.990	-	mg/kg
700 (776/777/778)	700-3	CE44-007	750324.89	2083680.2	1.40	1.90	Lithium	15.000	20400	11.550	-	mg/kg
700 (776/777/778)	700-3	CE44-007	750324.89	2083680.2	1.40	1.90	Nickel	22.000	20400	14.910	-	mg/kg
700 (776/777/778)	700-3	CE44-007	750324.89	2083680.2	1.90	2.40	Acetone	5.900	102000000	-	5.200	ug/kg
700 (776/777/778)	700-3	CE44-007	750324.89	2083680.2	1.90	2.40	Methylene chloride	1.500	2530000	-	0.910	ug/kg
700 (776/777/778)	700-3	CE44-007	750324.89	2083680.2	1.90	2.40	Uranium, Total	3.100	2750	3.040	-	mg/kg
700 (776/777/778)	700-3	CE44-008	750307.97	2083680.2	1.40	1.90	Aluminum	17000.000	228000	16902.000	-	mg/kg
700 (776/777/778)	700-3	CE44-008	750307.97	2083680.2	1.40	1.90	Lithium	13.000	20400	11.550	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (776/777/778)	700-3	CE44-008	750307.97	2083680.2	1.40	1.90	Uranium-235	0.136	8	0.094	-	pCi/g
700 (776/777/778)	700-3	CE44-008	750307.97	2083680.2	1.90	2.20	Uranium-235	0.158	8	0.120	-	pCi/g
700 (776/777/778)	700-3	CE44-009	750307.97	2083663.3	0.00	0.50	Chromium	26.000	268	16.990	-	mg/kg
700 (776/777/778)	700-3	CE44-009	750307.97	2083663.3	0.00	0.50	Cobalt	17.000	1550	10.910	-	mg/kg
700 (776/777/778)	700-3	CE44-009	750307.97	2083663.3	0.00	0.50	Copper	34.000	40900	18.060	-	mg/kg
700 (776/777/778)	700-3	CE44-009	750307.97	2083663.3	0.00	0.50	Nickel	17.000	20400	14.910	-	mg/kg
700 (776/777/778)	*700-3*	*CE44-009*	*750307.97*	*2083663.3*	*0.00*	*0.50*	*Uranium-234*	*6.053*	*300*	*2.253*	-	*pCi/g*
700 (776/777/778)	700-3	CE44-009	750307.97	2083663.3	0.00	0.50	Uranium-235	0.285	8	0.094	-	pCi/g
700 (776/777/778)	700-3	CE44-009	750307.97	2083663.3	0.00	0.50	Uranium-238	6.053	351	2.000	-	pCi/g
700 (776/777/778)	*700-3*	*CE44-009*	*750307.97*	*2083663.3*	*1.17*	*1.57*	*Uranium-234*	*4.677*	*300*	*2.640*	-	*pCi/g*
700 (776/777/778)	700-3	CE44-009	750307.97	2083663.3	1.17	1.57	Uranium-235	0.183	8	0.120	-	pCi/g
700 (776/777/778)	700-3	CE44-009	750307.97	2083663.3	1.17	1.57	Uranium-238	4.677	351	1.490	-	pCi/g
700 (776/777/778)	700-3	CE45-022	750447.41	2083685.4	0.60	1.10	Cobalt	14.000	1550	10.910	-	mg/kg
700 (776/777/778)	700-3	CE45-022	750447.41	2083685.4	0.60	1.10	Copper	43.000	40900	18.060	-	mg/kg
700 (776/777/778)	*700-3*	*CE45-022*	*750447.41*	*2083685.4*	*0.60*	*1.10*	*Uranium-234*	*3.814*	*300*	*2.253*	-	*pCi/g*
700 (776/777/778)	700-3	CE45-022	750447.41	2083685.4	0.60	1.10	Uranium-235	0.198	8	0.094	-	pCi/g
700 (776/777/778)	700-3	CE45-022	750447.41	2083685.4	0.60	1.10	Uranium-238	3.814	351	2.000	-	pCi/g
700 (776/777/778)	700-3	CE45-022	750447.41	2083685.4	1.10	1.40	Ethylbenzene	17.600	4250000	-	5.390	ug/kg
700 (776/777/778)	700-3	CE45-022	750447.41	2083685.4	1.10	1.40	Toluene	7.520	31300000	-	5.390	ug/kg
700 (776/777/778)	*700-3*	*CE45-022*	*750447.41*	*2083685.4*	*1.10*	*1.40*	*Uranium-234*	*4.443*	*300*	*2.640*	-	*pCi/g*
700 (776/777/778)	700-3	CE45-022	750447.41	2083685.4	1.10	1.40	Uranium-235	0.261	8	0.120	-	pCi/g
700 (776/777/778)	700-3	CE45-022	750447.41	2083685.4	1.10	1.40	Uranium-238	4.443	351	1.490	-	pCi/g
700 (776/777/778)	700-3	CE45-022	750447.41	2083685.4	1.10	1.40	Xylene	111.000	2040000	-	10.800	ug/kg
700 (776/777/778)	700-3	CE45-023	750477.23	2083670.5	0.60	1.10	Cobalt	13.000	1550	10.910	-	mg/kg
700 (776/777/778)	700-3	CE45-023	750477.23	2083670.5	0.60	1.10	Copper	32.000	40900	18.060	-	mg/kg
700 (776/777/778)	*700-3*	*CE45-023*	*750477.23*	*2083670.5*	*0.60*	*1.10*	*Uranium-234*	*4.047*	*300*	*2.253*	-	*pCi/g*
700 (776/777/778)	700-3	CE45-023	750477.23	2083670.5	0.60	1.10	Uranium-235	0.227	8	0.094	-	pCi/g
700 (776/777/778)	700-3	CE45-023	750477.23	2083670.5	0.60	1.10	Uranium-238	4.047	351	2.000	-	pCi/g
700 (776/777/778)	*700-3*	*CE45-023*	*750477.23*	*2083670.5*	*1.10*	*1.60*	*Uranium-234*	*4.460*	*300*	*2.640*	-	*pCi/g*
700 (776/777/778)	700-3	CE45-023	750477.23	2083670.5	1.10	1.60	Uranium-235	0.191	8	0.120	-	pCi/g
700 (776/777/778)	700-3	CE45-023	750477.23	2083670.5	1.10	1.60	Uranium-238	4.460	351	1.490	-	pCi/g
700 (776/777/778)	700-3	CE45-103	750470.43	2083724.3	3.50	3.80	Americium-241	1.130	76	0.020	-	pCi/g
700 (776/777/778)	700-3	CE45-103	750470.43	2083724.3	3.50	3.80	Plutonium-239/240	6.270	50	0.020	-	pCi/g
700 (776/777/778)	700-3	CE45-106	750485.81	2083731.4	4.50	5.00	Americium-241	0.144	76	0.020	-	pCi/g
700 (776/777/778)	700-3	CE45-106	750485.81	2083731.4	4.50	5.00	Plutonium-239/240	0.726	50	0.020	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (776/777/778)	000-2	CF44-026	750349.73	2083785.3	5.00	5.30	Acetone	5.100	102000000	-	1.600	ug/kg
700 (776/777/778)	000-2	CF44-026	750349.73	2083785.3	5.00	5.30	Tetrachloroethene	0.350	615000	-	0.200	ug/kg
700 (776/777/778)	700-3	CF45-015	750558.5	2083771.7	2.00	2.30	Americium-241	5.234	76	0.023	-	pCi/g
700 (776/777/778)	700-3	CF45-015	750558.5	2083771.7	2.00	2.30	Arsenic	20.000	22.2	10.090	-	mg/kg
700 (776/777/778)	700-3	CF45-015	750558.5	2083771.7	2.00	2.30	Barium	790.000	26400	141.260	-	mg/kg
700 (776/777/778)	700-3	CF45-015	750558.5	2083771.7	2.00	2.30	Chromium	28.000	268	16.990	-	mg/kg
700 (776/777/778)	700-3	CF45-015	750558.5	2083771.7	2.00	2.30	Copper	58.200	40900	18.060	-	mg/kg
700 (776/777/778)	700-3	CF45-015	750558.5	2083771.7	2.00	2.30	Iron	44200.000	307000	18037.000	-	mg/kg
700 (776/777/778)	700-3	CF45-015	750558.5	2083771.7	2.00	2.30	Manganese	835.000	3480	365.080	-	mg/kg
700 (776/777/778)	700-3	CF45-015	750558.5	2083771.7	2.00	2.30	Nickel	55.500	20400	14.910	-	mg/kg
700 (776/777/778)	*700-3*	*CF45-015*	*750558.5*	*2083771.7*	*2.00*	*2.30*	*Plutonium-239/240*	*29.834*	*50*	*0.066*	-	*pCi/g*
700 (776/777/778)	700-3	CF45-015	750558.5	2083771.7	2.00	2.30	Strontium	264.000	613000	48.940	-	mg/kg
700 (776/777/778)	700-3	CF45-015	750558.5	2083771.7	2.00	2.30	Tin	7.000	613000	2.900	-	mg/kg
700 (776/777/778)	700-3	CF45-015	750558.5	2083771.7	2.00	2.30	Vanadium	113.000	7150	45.590	-	mg/kg
700 (776/777/778)	700-3	CF45-015	750558.5	2083771.7	2.00	2.30	Zinc	106.000	307000	73.760	-	mg/kg
700 (776/777/778)	700-3	CF45-015	750558.5	2083771.7	3.00	3.30	Arsenic	21.600	22.2	13.140	-	mg/kg
700 (776/777/778)	700-3	CF45-015	750558.5	2083771.7	3.00	3.30	Barium	641.000	26400	289.380	-	mg/kg
700 (776/777/778)	700-3	CF45-015	750558.5	2083771.7	3.00	3.30	Copper	56.500	40900	38.210	-	mg/kg
700 (776/777/778)	700-3	CF45-015	750558.5	2083771.7	3.00	3.30	Iron	45800.000	307000	41046.520	-	mg/kg
700 (776/777/778)	700-3	CF45-015	750558.5	2083771.7	3.00	3.30	Manganese	1310.000	3480	901.620	-	mg/kg
700 (776/777/778)	700-3	CF45-015	750558.5	2083771.7	3.00	3.30	Nickel	63.700	20400	62.210	-	mg/kg
700 (776/777/778)	700-3	CF45-015	750558.5	2083771.7	3.00	3.30	Uranium-235	0.147	8	0.120	-	pCi/g
700 (776/777/778)	700-3	CF45-015	750558.5	2083771.7	3.00	3.30	Uranium-238	1.863	351	1.490	-	pCi/g
700 (776/777/778)	700-3	CF45-015	750558.5	2083771.7	3.00	3.30	Vanadium	111.000	7150	88.490	-	mg/kg
700 (776/777/778)	700-3	CF45-016	750534.3	2083766.1	0.00	0.50	Cobalt	19.000	1550	10.910	-	mg/kg
700 (776/777/778)	700-3	CF45-016	750534.3	2083766.1	0.00	0.50	Copper	55.000	40900	18.060	-	mg/kg
700 (776/777/778)	*700-3*	*CF45-016*	*750534.3*	*2083766.1*	*0.00*	*0.50*	*Uranium-234*	*2.993*	*300*	*2.253*	-	*pCi/g*
700 (776/777/778)	700-3	CF45-016	750534.3	2083766.1	0.00	0.50	Uranium-235	0.177	8	0.094	-	pCi/g
700 (776/777/778)	700-3	CF45-016	750534.3	2083766.1	0.00	0.50	Uranium-238	2.993	351	2.000	-	pCi/g
700 (776/777/778)	700-3	CF45-016	750534.3	2083766.1	0.50	1.40	Copper	52.000	40900	38.210	-	mg/kg
700 (776/777/778)	700-3	CF45-016	750534.3	2083766.1	0.50	1.40	Uranium-235	0.162	8	0.120	-	pCi/g
700 (776/777/778)	700-3	CF45-016	750534.3	2083766.1	0.50	1.40	Uranium-238	1.690	351	1.490	-	pCi/g
700 (776/777/778)	700-3	CF45-018	750447.41	2083873.1	0.00	0.50	Chromium	20.000	268	16.990	-	mg/kg
700 (776/777/778)	700-3	CF45-018	750447.41	2083873.1	0.00	0.50	Cobalt	17.000	1550	10.910	-	mg/kg
700 (776/777/778)	700-3	CF45-018	750447.41	2083873.1	0.00	0.50	Copper	44.000	40900	18.060	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (776/777/778)	700-3	CF45-018	750447.41	2083873.1	0.00	0.50	Lithium	13.000	20400	11.550	-	mg/kg
700 (776/777/778)	700-3	CF45-018	750447.41	2083873.1	0.00	0.50	Nickel	15.000	20400	14.910	-	mg/kg
700 (776/777/778)	*700-3*	*CF45-018*	*750447.41*	*2083873.1*	*0.00*	*0.50*	*Uranium-234*	*4.145*	*300*	*2.253*	-	*pCi/g*
700 (776/777/778)	700-3	CF45-018	750447.41	2083873.1	0.00	0.50	Uranium-235	0.227	8	0.094	-	pCi/g
700 (776/777/778)	700-3	CF45-018	750447.41	2083873.1	0.00	0.50	Uranium-238	4.145	351	2.000	-	pCi/g
700 (776/777/778)	700-3	CF45-018	750447.41	2083873.1	0.50	0.80	Lead	34.000	1000	24.970	-	mg/kg
700 (776/777/778)	*700-3*	*CF45-018*	*750447.41*	*2083873.1*	*0.50*	*0.80*	*Uranium-234*	*4.355*	*300*	*2.640*	-	*pCi/g*
700 (776/777/778)	700-3	CF45-018	750447.41	2083873.1	0.50	0.80	Uranium-235	0.203	8	0.120	-	pCi/g
700 (776/777/778)	700-3	CF45-018	750447.41	2083873.1	0.50	0.80	Uranium-238	4.355	351	1.490	-	pCi/g
700 (776/777/778)	700-3	CF45-019	750447.92	2083783.6	0.88	1.38	Aluminum	33000.000	228000	16902.000	-	mg/kg
700 (776/777/778)	700-3	CF45-019	750447.92	2083783.6	0.88	1.38	Beryllium	1.200	921	0.966	-	mg/kg
700 (776/777/778)	700-3	CF45-019	750447.92	2083783.6	0.88	1.38	Chromium	26.000	268	16.990	-	mg/kg
700 (776/777/778)	700-3	CF45-019	750447.92	2083783.6	0.88	1.38	Iron	19000.000	307000	18037.000	-	mg/kg
700 (776/777/778)	700-3	CF45-019	750447.92	2083783.6	0.88	1.38	Lithium	17.000	20400	11.550	-	mg/kg
700 (776/777/778)	700-3	CF45-019	750447.92	2083783.6	0.88	1.38	Nickel	18.000	20400	14.910	-	mg/kg
700 (776/777/778)	*700-3*	*CF45-019*	*750447.92*	*2083783.6*	*0.88*	*1.38*	*Uranium-234*	*3.342*	*300*	*2.253*	-	*pCi/g*
700 (776/777/778)	700-3	CF45-019	750447.92	2083783.6	0.88	1.38	Uranium-238	3.342	351	2.000	-	pCi/g
700 (776/777/778)	700-3	CF45-019	750447.92	2083783.6	0.88	1.38	Vanadium	48.000	7150	45.590	-	mg/kg
700 (776/777/778)	700-3	CF45-020	750447.41	2083742.4	0.60	1.10	Chromium	20.000	268	16.990	-	mg/kg
700 (776/777/778)	700-3	CF45-020	750447.41	2083742.4	0.60	1.10	Cobalt	12.000	1550	10.910	-	mg/kg
700 (776/777/778)	700-3	CF45-020	750447.41	2083742.4	0.60	1.10	Copper	32.000	40900	18.060	-	mg/kg
700 (776/777/778)	*700-3*	*CF45-020*	*750447.41*	*2083742.4*	*0.60*	*1.10*	*Uranium-234*	*3.071*	*300*	*2.253*	-	*pCi/g*
700 (776/777/778)	700-3	CF45-020	750447.41	2083742.4	0.60	1.10	Uranium-238	3.071	351	2.000	-	pCi/g
700 (776/777/778)	700-3	CF45-020	750447.41	2083742.4	1.10	1.50	Arsenic	14.000	22.2	13.140	-	mg/kg
700 (776/777/778)	700-3	CF46-017	750652.05	2083912.6	0.67	1.17	Copper	23.000	40900	18.060	-	mg/kg
700 (776/777/778)	*700-3*	*CF46-017*	*750652.05*	*2083912.6*	*0.67*	*1.17*	*Uranium-234*	*2.530*	*300*	*2.253*	-	*pCi/g*
700 (776/777/778)	700-3	CF46-017	750652.05	2083912.6	0.67	1.17	Uranium-238	2.530	351	2.000	-	pCi/g
700 (776/777/778)	700-3	CF46-018	750563.68	2083872.8	2.00	2.30	Americium-241	27.070	76	0.023	-	pCi/g
700 (776/777/778)	700-3	CF46-018	750563.68	2083872.8	2.00	2.30	Arsenic	18.100	22.2	10.090	-	mg/kg
700 (776/777/778)	700-3	CF46-018	750563.68	2083872.8	2.00	2.30	Barium	658.000	26400	141.260	-	mg/kg
700 (776/777/778)	700-3	CF46-018	750563.68	2083872.8	2.00	2.30	Chromium	53.000	268	16.990	-	mg/kg
700 (776/777/778)	700-3	CF46-018	750563.68	2083872.8	2.00	2.30	Copper	40.100	40900	18.060	-	mg/kg
700 (776/777/778)	700-3	CF46-018	750563.68	2083872.8	2.00	2.30	Iron	43400.000	307000	18037.000	-	mg/kg
700 (776/777/778)	700-3	CF46-018	750563.68	2083872.8	2.00	2.30	Nickel	55.000	20400	14.910	-	mg/kg
700 (776/777/778)	***700-3***	***CF46-018***	***750563.68***	***2083872.8***	***2.00***	***2.30***	***Plutonium-239/240***	***154.299***	***50***	***0.066***	-	***pCi/g***

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (776/777/778)	700-3	CF46-018	750563.68	2083872.8	2.00	2.30	Strontium	209.000	613000	48.940	-	mg/kg
700 (776/777/778)	700-3	CF46-018	750563.68	2083872.8	2.00	2.30	Tin	6.880	613000	2.900	-	mg/kg
700 (776/777/778)	700-3	CF46-018	750563.68	2083872.8	2.00	2.30	Vanadium	107.000	7150	45.590	-	mg/kg
700 (776/777/778)	700-3	CF46-018	750563.68	2083872.8	2.00	2.30	Zinc	124.000	307000	73.760	-	mg/kg
700 (776/777/778)	700-3	CF46-018	750563.68	2083872.8	3.00	3.30	Americium-241	45.350	76	0.020	-	pCi/g
700 (776/777/778)	700-3	CF46-018	750563.68	2083872.8	3.00	3.30	Barium	585.000	26400	289.380	-	mg/kg
700 (776/777/778)	700-3	CF46-018	750563.68	2083872.8	3.00	3.30	Copper	47.200	40900	38.210	-	mg/kg
700 (776/777/778)	***700-3***	***CF46-018***	***750563.68***	***2083872.8***	***3.00***	***3.30***	***Plutonium-239/240***	***258.495***	***50***	***0.020***	-	***pCi/g***
700 (776/777/778)	700-3	CF46-018	750563.68	2083872.8	3.00	3.30	Strontium	264.000	613000	211.380	-	mg/kg
700 (776/777/778)	*700-3*	*CF46-018*	*750563.68*	*2083872.8*	*3.00*	*3.30*	*Uranium-234*	*3.593*	*300*	*2.640*	-	*pCi/g*
700 (776/777/778)	700-3	CF46-018	750563.68	2083872.8	3.00	3.30	Uranium-235	0.211	8	0.120	-	pCi/g
700 (776/777/778)	700-3	CF46-018	750563.68	2083872.8	3.00	3.30	Uranium-238	3.593	351	1.490	-	pCi/g
700 (776/777/778)	700-3	CF46-018	750563.68	2083872.8	3.00	3.30	Zinc	302.000	307000	139.100	-	mg/kg
700 (776/777/778)	700-3	CF46-019	750652.05	2083912.6	0.00	0.50	Chromium	40.000	268	16.990	-	mg/kg
700 (776/777/778)	700-3	CF46-019	750652.05	2083912.6	0.00	0.50	Cobalt	26.000	1550	10.910	-	mg/kg
700 (776/777/778)	700-3	CF46-019	750652.05	2083912.6	0.00	0.50	Copper	80.000	40900	18.060	-	mg/kg
700 (776/777/778)	700-3	CF46-019	750652.05	2083912.6	0.00	0.50	Lithium	13.000	20400	11.550	-	mg/kg
700 (776/777/778)	700-3	CF46-019	750652.05	2083912.6	0.00	0.50	Nickel	22.000	20400	14.910	-	mg/kg
700 (776/777/778)	700-3	CF46-019	750652.05	2083912.6	0.00	0.50	Tin	4.700	613000	2.900	-	mg/kg
700 (776/777/778)	700-3	CF46-019	750652.05	2083912.6	0.00	0.50	Uranium-235	0.173	8	0.094	-	pCi/g
700 (776/777/778)	000-2	CF46-029	750667.88	2083872.2	2.50	4.50	Methylene chloride	2.100	2530000	-	0.910	ug/kg
700 (776/777/778)	000-2	CF46-029	750667.88	2083872.2	2.50	4.50	Plutonium-239/240	0.191	50	0.020	-	pCi/g
700 (776/777/778)	**700-3**	**CF46-062**	**750617.6**	**2083877.3**	**3.50**	**3.70**	**Americium-241**	**333.100**	**76**	**0.020**	-	**pCi/g**
700 (776/777/778)	***700-3***	***CF46-062***	***750617.6***	***2083877.3***	***3.50***	***3.70***	***Plutonium-239/240***	***1898.670***	***50***	***0.020***	-	***pCi/g***
700 (776/777/778)	*700-3*	*CF46-062*	*750617.6*	*2083877.3*	*3.50*	*3.70*	*Uranium-234*	*2.686*	*300*	*2.640*	-	*pCi/g*
700 (776/777/778)	700-3	CF46-062	750617.6	2083877.3	3.50	3.70	Uranium-238	2.686	351	1.490	-	pCi/g
700 (776/777/778)	700-3	CF46-065	750666.08	2083880.5	8.00	9.00	Americium-241	9.362	76	0.020	-	pCi/g
700 (776/777/778)	***700-3***	***CF46-065***	***750666.08***	***2083880.5***	***8.00***	***9.00***	***Plutonium-239/240***	***53.363***	***50***	***0.020***	-	***pCi/g***
700 (776/777/778)	*700-3*	*CF46-065*	*750666.08*	*2083880.5*	*8.00*	*9.00*	*Uranium-234*	*4.056*	*300*	*2.640*	-	*pCi/g*
700 (776/777/778)	700-3	CF46-065	750666.08	2083880.5	8.00	9.00	Uranium-238	4.056	351	1.490	-	pCi/g
700 (776/777/778)	*700-3*	*CF46-066*	*750657.46*	*2083895.7*	*6.00*	*7.00*	*Uranium-234*	*3.489*	*300*	*2.640*	-	*pCi/g*
700 (776/777/778)	700-3	CF46-066	750657.46	2083895.7	6.00	7.00	Uranium-235	0.156	8	0.120	-	pCi/g
700 (776/777/778)	700-3	CF46-066	750657.46	2083895.7	6.00	7.00	Uranium-238	3.489	351	1.490	-	pCi/g
700 (776/777/778)	700-2	CG44-008	750337.72	2084087	2.50	4.50	Acenaphthene	100.000	40800000	-	33.000	ug/kg
700 (776/777/778)	700-2	CG44-008	750337.72	2084087	2.50	4.50	Anthracene	140.000	204000000	-	25.000	ug/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (776/777/778)	700-2	CG44-008	750337.72	2084087	2.50	4.50	Barium	1120.000	26400	289.380	-	mg/kg
700 (776/777/778)	700-2	CG44-008	750337.72	2084087	2.50	4.50	Benzo(a)anthracene	250.000	34900	-	26.000	ug/kg
700 (776/777/778)	700-2	CG44-008	750337.72	2084087	2.50	4.50	Benzo(a)pyrene	210.000	3490	-	42.000	ug/kg
700 (776/777/778)	700-2	CG44-008	750337.72	2084087	2.50	4.50	Benzo(b)fluoranthene	360.000	34900	-	30.000	ug/kg
700 (776/777/778)	700-2	CG44-008	750337.72	2084087	2.50	4.50	Chrysene	270.000	3490000	-	29.000	ug/kg
700 (776/777/778)	700-2	CG44-008	750337.72	2084087	2.50	4.50	Dibenz(a,h)anthracene	46.000	3490	-	26.000	ug/kg
700 (776/777/778)	700-2	CG44-008	750337.72	2084087	2.50	4.50	Fluoranthene	550.000	27200000	-	24.000	ug/kg
700 (776/777/778)	700-2	CG44-008	750337.72	2084087	2.50	4.50	Fluorene	81.000	40800000	-	36.000	ug/kg
700 (776/777/778)	700-2	CG44-008	750337.72	2084087	2.50	4.50	Indeno(1,2,3-cd)pyrene	110.000	34900	-	24.000	ug/kg
700 (776/777/778)	700-2	CG44-008	750337.72	2084087	2.50	4.50	Pyrene	520.000	22100000	-	140.000	ug/kg
700 (776/777/778)	700-2	CG44-008	750337.72	2084087	2.50	4.50	Uranium-238	1.660	351	1.490	-	pCi/g
700 (776/777/778)	700-2	CG44-008	750337.72	2084087	2.50	4.50	Vanadium	104.000	7150	88.490	-	mg/kg
700 (776/777/778)	700-2	CG44-008	750337.72	2084087	2.50	4.50	Zinc	150.000	307000	139.100	-	mg/kg
700 (776/777/778)	700-2	CG44-008	750337.72	2084087	4.50	6.50	Barium	780.000	26400	289.380	-	mg/kg
700 (776/777/778)	700-2	CG44-008	750337.72	2084087	4.50	6.50	Uranium-235	0.126	8	0.120	-	pCi/g
700 (776/777/778)	700-3	CG45-011	750489.57	2084092.1	0.50	1.00	Chromium	17.000	268	16.990	-	mg/kg
700 (776/777/778)	700-3	CG45-011	750489.57	2084092.1	0.50	1.00	Copper	22.000	40900	18.060	-	mg/kg
700 (776/777/778)	700-3	CG45-011	750489.57	2084092.1	1.00	1.20	Naphthalene	23.000	3090000	-	4.940	ug/kg
700 (776/777/778)	700-3	CG45-011	750489.57	2084092.1	1.00	1.20	Uranium-235	0.144	8	0.120	-	pCi/g
700 (776/777/778)	700-3	CG45-012	750482.67	2084051	0.50	1.00	Chromium	20.000	268	16.990	-	mg/kg
700 (776/777/778)	700-3	CG45-012	750482.67	2084051	0.50	1.00	Cobalt	34.000	1550	10.910	-	mg/kg
700 (776/777/778)	700-3	CG45-012	750482.67	2084051	0.50	1.00	Copper	93.000	40900	18.060	-	mg/kg
700 (776/777/778)	700-3	CG45-012	750482.67	2084051	0.50	1.00	Tin	8.200	613000	2.900	-	mg/kg
700 (776/777/778)	*700-3*	*CG45-012*	*750482.67*	*2084051*	*0.50*	*1.00*	*Uranium-234*	*4.881*	*300*	*2.253*	-	*pCi/g*
700 (776/777/778)	700-3	CG45-012	750482.67	2084051	0.50	1.00	Uranium-235	0.231	8	0.094	-	pCi/g
700 (776/777/778)	700-3	CG45-012	750482.67	2084051	0.50	1.00	Uranium-238	4.881	351	2.000	-	pCi/g
700 (776/777/778)	700-3	CG45-012	750482.67	2084051	1.00	1.30	Uranium-235	0.243	8	0.120	-	pCi/g
700 (776/777/778)	700-3	CG45-012	750482.67	2084051	1.00	1.30	Uranium-238	2.215	351	1.490	-	pCi/g
700 (776/777/778)	700-3	CG45-013	750445.86	2084047.4	0.00	0.50	Chromium	21.000	268	16.990	-	mg/kg
700 (776/777/778)	700-3	CG45-013	750445.86	2084047.4	0.00	0.50	Nickel	15.000	20400	14.910	-	mg/kg
700 (776/777/778)	*700-3*	*CG45-013*	*750445.86*	*2084047.4*	*0.00*	*0.50*	*Uranium-234*	*4.565*	*300*	*2.253*	-	*pCi/g*
700 (776/777/778)	700-3	CG45-013	750445.86	2084047.4	0.00	0.50	Uranium-235	0.252	8	0.094	-	pCi/g
700 (776/777/778)	700-3	CG45-013	750445.86	2084047.4	0.00	0.50	Uranium-238	4.565	351	2.000	-	pCi/g
700 (776/777/778)	700-3	CG45-013	750445.86	2084047.4	0.00	0.50	Zinc	160.000	307000	73.760	-	mg/kg
700 (776/777/778)	700-3	CG45-013	750445.86	2084047.4	1.13	1.63	Lead	560.000	1000	24.970	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (776/777/778)	*700-3*	*CG45-013*	*750445.86*	*2084047.4*	*1.13*	*1.63*	*Uranium-234*	*5.523*	*300*	*2.640*	-	*pCi/g*
700 (776/777/778)	700-3	CG45-013	750445.86	2084047.4	1.13	1.63	Uranium-235	0.220	8	0.120	-	pCi/g
700 (776/777/778)	700-3	CG45-013	750445.86	2084047.4	1.13	1.63	Uranium-238	5.523	351	1.490	-	pCi/g
700 (776/777/778)	700-3	CG45-014	750370.79	2084092.1	1.83	2.33	Chromium	21.000	268	16.990	-	mg/kg
700 (776/777/778)	700-3	CG45-014	750370.79	2084092.1	1.83	2.33	Lithium	13.000	20400	11.550	-	mg/kg
700 (776/777/778)	700-3	CG45-014	750370.79	2084092.1	1.83	2.33	Nickel	17.000	20400	14.910	-	mg/kg
700 (776/777/778)	700-3	CG45-014	750370.79	2084092.1	1.83	2.33	Strontium	49.000	613000	48.940	-	mg/kg
700 (776/777/778)	700-3	CG45-014	750370.79	2084092.1	1.83	2.33	Uranium-235	0.142	8	0.094	-	pCi/g
700 (776/777/778)	700-3	CG45-014	750370.79	2084092.1	2.33	3.83	Acetone	14.000	102000000	-	5.100	ug/kg
700 (776/777/778)	700-3	CG45-014	750370.79	2084092.1	2.33	3.83	Methylene chloride	2.000	2530000	-	0.880	ug/kg
700 (776/777/778)	700-3	CG45-014	750370.79	2084092.1	2.33	3.83	Naphthalene	3.400	3090000	-	0.940	ug/kg
700 (776/777/778)	*700-3*	*CG45-032*	*750564.59*	*2083985.5*	*0.00*	*1.00*	*Uranium-234*	*2.944*	*300*	*2.253*	-	*pCi/g*
700 (776/777/778)	700-3	CG45-032	750564.59	2083985.5	0.00	1.00	Uranium-238	2.944	351	2.000	-	pCi/g
700 (776/777/778)	700-3	CG45-033	750563.41	2084024.3	0.00	1.00	Arsenic	19.500	22.2	10.090	-	mg/kg
700 (776/777/778)	700-3	CG45-033	750563.41	2084024.3	0.00	1.00	Barium	793.000	26400	141.260	-	mg/kg
700 (776/777/778)	700-3	CG45-033	750563.41	2084024.3	0.00	1.00	Chromium	21.900	268	16.990	-	mg/kg
700 (776/777/778)	700-3	CG45-033	750563.41	2084024.3	0.00	1.00	Iron	24800.000	307000	18037.000	-	mg/kg
700 (776/777/778)	700-3	CG45-033	750563.41	2084024.3	0.00	1.00	Nickel	28.100	20400	14.910	-	mg/kg
700 (776/777/778)	700-3	CG45-033	750563.41	2084024.3	0.00	1.00	Strontium	223.000	613000	48.940	-	mg/kg
700 (776/777/778)	700-3	CG45-033	750563.41	2084024.3	0.00	1.00	Tin	10.400	613000	2.900	-	mg/kg
700 (776/777/778)	700-3	CG45-033	750563.41	2084024.3	0.00	1.00	Uranium-235	0.217	8	0.094	-	pCi/g
700 (776/777/778)	700-3	CG45-033	750563.41	2084024.3	0.00	1.00	Uranium-238	2.183	351	2.000	-	pCi/g
700 (776/777/778)	700-3	CG45-033	750563.41	2084024.3	0.00	1.00	Vanadium	53.800	7150	45.590	-	mg/kg
700 (776/777/778)	700-3	CG45-033	750563.41	2084024.3	0.00	1.00	Zinc	100.000	307000	73.760	-	mg/kg
700 (776/777/778)	700-3	CG46-008	750648.45	2084006.2	0.75	1.25	Copper	21.000	40900	18.060	-	mg/kg
700 (776/777/778)	700-3	CG46-008	750648.45	2084006.2	0.75	1.25	Uranium-235	0.203	8	0.094	-	pCi/g
700 (776/777/778)	700-3	CG46-008	750648.45	2084006.2	0.75	1.25	Uranium-238	2.003	351	2.000	-	pCi/g
700 (776/777/778)	700-3	CG46-008	750648.45	2084006.2	1.25	1.75	Uranium-235	0.153	8	0.120	-	pCi/g
700 (776/777/778)	000-2	CG46-016	750712.53	2083981.8	6.00	8.00	Acetone	5.900	102000000	-	5.100	ug/kg
700 (776/777/778)	000-2	CG46-016	750712.53	2083981.8	6.00	8.00	Methylene chloride	3.700	2530000	-	0.890	ug/kg
700 (776/777/778)	000-2	CG46-016	750712.53	2083981.8	6.00	8.00	Naphthalene	1.300	3090000	-	0.960	ug/kg
700 (776/777/778)	700-3	CG46-036	750648.04	2083969.3	5.00	5.30	Americium-241	0.758	76	0.020	-	pCi/g
700 (776/777/778)	700-3	CG46-036	750648.04	2083969.3	5.00	5.30	Plutonium-239/240	2.910	50	0.020	-	pCi/g
700 (776/777/778)	700-3	CH44-001	750289.74	2084163.3	0.00	0.50	Antimony	0.950	409	0.470	-	mg/kg
700 (776/777/778)	700-3	CH44-001	750289.74	2084163.3	0.00	0.50	Copper	23.000	40900	18.060	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (776/777/778)	700-3	CH44-001	750289.74	2084163.3	0.00	0.50	Uranium-235	0.106	8	0.094	-	pCi/g
700 (776/777/778)	700-3	CH44-001	750289.74	2084163.3	0.50	2.50	Uranium-235	0.131	8	0.120	-	pCi/g
700 (776/777/778)	700-3	CH44-001	750289.74	2084163.3	0.50	2.50	Uranium-238	1.616	351	1.490	-	pCi/g
700 (776/777/778)	700-3	CH45-000	750481.34	2084148.7	1.00	1.50	Uranium-235	0.190	8	0.120	-	pCi/g
700 (776/777/778)	700-3	CH46-004	750652.05	2084156.4	0.67	1.17	Aluminum	35000.000	228000	16902.000	-	mg/kg
700 (776/777/778)	700-3	CH46-004	750652.05	2084156.4	0.67	1.17	Chromium	29.000	268	16.990	-	mg/kg
700 (776/777/778)	700-3	CH46-004	750652.05	2084156.4	0.67	1.17	Iron	22000.000	307000	18037.000	-	mg/kg
700 (776/777/778)	700-3	CH46-004	750652.05	2084156.4	0.67	1.17	Lithium	23.000	20400	11.550	-	mg/kg
700 (776/777/778)	700-3	CH46-004	750652.05	2084156.4	0.67	1.17	Nickel	26.000	20400	14.910	-	mg/kg
700 (776/777/778)	700-3	CH46-004	750652.05	2084156.4	0.67	1.17	Strontium	110.000	613000	48.940	-	mg/kg
700 (776/777/778)	700-3	CH46-004	750652.05	2084156.4	0.67	1.17	Uranium-235	0.144	8	0.094	-	pCi/g
700 (776/777/778)	700-3	CH46-004	750652.05	2084156.4	0.67	1.17	Vanadium	56.000	7150	45.590	-	mg/kg
700 (779)	700-3	CE44-011	744307.97	2083634.6	1.00	1.50	Copper	22.000	40900	18.060	-	mg/kg
700 (779)	700-3	CE44-011	744307.97	2083634.6	1.00	1.50	Lithium	12.000	20400	11.550	-	mg/kg
700 (779)	*700-3*	*CE44-011*	*744307.97*	*2083634.6*	*1.00*	*1.50*	*Uranium-234*	*4.702*	*300*	*2.253*	-	*pCi/g*
700 (779)	700-3	CE44-011	744307.97	2083634.6	1.00	1.50	Uranium-235	0.259	8	0.094	-	pCi/g
700 (779)	700-3	CE44-011	744307.97	2083634.6	1.00	1.50	Uranium-238	4.702	351	2.000	-	pCi/g
700 (779)	700-3	CE44-011	744307.97	2083634.6	1.00	1.50	Zinc	190.000	307000	73.760	-	mg/kg
700 (779)	*700-3*	*CE44-011*	*744307.97*	*2083634.6*	*1.50*	*2.00*	*Uranium-234*	*4.837*	*300*	*2.640*	-	*pCi/g*
700 (779)	700-3	CE44-011	744307.97	2083634.6	1.50	2.00	Uranium-235	0.263	8	0.120	-	pCi/g
700 (779)	700-3	CE44-011	744307.97	2083634.6	1.50	2.00	Uranium-238	4.837	351	1.490	-	pCi/g
700 (779)	700-7	CH45-001	750523.2	2084204.8	2.50	4.50	Toluene	7.500	31300000	-	5.750	ug/kg
700 (779)	*700-7*	*CH45-001*	*750523.2*	*2084204.8*	*2.50*	*4.50*	*Uranium-234*	*3.473*	*300*	*2.640*	-	*pCi/g*
700 (779)	700-7	CH45-001	750523.2	2084204.8	2.50	4.50	Uranium-235	0.168	8	0.120	-	pCi/g
700 (779)	700-7	CH45-001	750523.2	2084204.8	2.50	4.50	Uranium-238	3.473	351	1.490	-	pCi/g
700 (779)	700-7	CH45-001	750523.2	2084204.8	4.50	6.50	Uranium-235	0.129	8	0.120	-	pCi/g
700 (779)	700-7	CH45-001	750523.2	2084204.8	4.50	6.50	Uranium-238	2.133	351	1.490	-	pCi/g
700 (779)	700-7	CH45-028	750477.15	2084230.4	0.00	0.50	Acetone	24.000	102000000	-	5.300	ug/kg
700 (779)	700-7	CH45-028	750477.15	2084230.4	0.00	0.50	Strontium	74.000	613000	48.940	-	mg/kg
700 (779)	700-7	CH45-028	750477.15	2084230.4	2.50	4.50	Acetone	6.300	102000000	-	4.900	ug/kg
700 (779)	700-7	CH45-028	750477.15	2084230.4	4.50	6.50	Acetone	6.500	102000000	-	5.400	ug/kg
700 (779)	700-7	CH45-029	750501.45	2084268.6	0.00	0.50	Aluminum	19000.000	228000	16902.000	-	mg/kg
700 (779)	700-7	CH45-029	750501.45	2084268.6	0.00	0.50	Americium-241	0.249	76	0.023	-	pCi/g
700 (779)	*700-7*	*CH45-029*	*750501.45*	*2084268.6*	*0.00*	*0.50*	*Plutonium-239/240*	*1.418*	*50*	*0.066*	-	*pCi/g*
700 (779)	*700-7*	*CH45-029*	*750501.45*	*2084268.6*	*0.50*	*1.10*	*Uranium-234*	*3.379*	*300*	*2.640*	-	*pCi/g*

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (779)	700-7	CH45-029	750501.45	2084268.6	0.50	1.10	Uranium-235	0.204	8	0.120	-	pCi/g
700 (779)	700-7	CH45-029	750501.45	2084268.6	0.50	1.10	Uranium-238	3.379	351	1.490	-	pCi/g
700 (779)	*700-7*	*CH45-029*	*750501.45*	*2084268.6*	*3.00*	*4.50*	*Uranium-234*	*4.133*	*300*	*2.640*	-	*pCi/g*
700 (779)	700-7	CH45-029	750501.45	2084268.6	3.00	4.50	Uranium-235	0.216	8	0.120	-	pCi/g
700 (779)	700-7	CH45-029	750501.45	2084268.6	3.00	4.50	Uranium-238	4.133	351	1.490	-	pCi/g
700 (779)	700-7	CH45-029	750501.45	2084268.6	4.50	6.00	Uranium-235	0.169	8	0.120	-	pCi/g
700 (779)	700-7	CH45-031	750497.11	2084332.8	0.00	0.50	Aluminum	23000.000	228000	16902.000	-	mg/kg
700 (779)	700-7	CH45-031	750497.11	2084332.8	0.00	0.50	Americium-241	0.367	76	0.023	-	pCi/g
700 (779)	700-7	CH45-031	750497.11	2084332.8	0.00	0.50	Chromium	18.000	268	16.990	-	mg/kg
700 (779)	700-7	CH45-031	750497.11	2084332.8	0.00	0.50	Lithium	13.000	20400	11.550	-	mg/kg
700 (779)	700-7	CH45-031	750497.11	2084332.8	0.00	0.50	Naphthalene	239.000	3090000	-	6.100	ug/kg
700 (779)	700-7	CH45-031	750497.11	2084332.8	0.00	0.50	Nickel	17.000	20400	14.910	-	mg/kg
700 (779)	*700-7*	*CH45-031*	*750497.11*	*2084332.8*	*0.00*	*0.50*	*Plutonium-239/240*	*2.093*	*50*	*0.066*	-	*pCi/g*
700 (779)	700-7	CH45-031	750497.11	2084332.8	0.50	1.80	Naphthalene	58.900	3090000	-	6.440	ug/kg
700 (779)	*700-7*	*CH45-031*	*750497.11*	*2084332.8*	*0.50*	*1.80*	*Uranium-234*	*4.901*	*300*	*2.640*	-	*pCi/g*
700 (779)	700-7	CH45-031	750497.11	2084332.8	0.50	1.80	Uranium-235	0.340	8	0.120	-	pCi/g
700 (779)	700-7	CH45-031	750497.11	2084332.8	0.50	1.80	Uranium-238	4.901	351	1.490	-	pCi/g
700 (779)	700-7	CH45-031	750497.11	2084332.8	2.50	3.50	Naphthalene	90.100	3090000	-	5.440	ug/kg
700 (779)	*700-7*	*CH45-031*	*750497.11*	*2084332.8*	*2.50*	*3.50*	*Uranium-234*	*4.471*	*300*	*2.640*	-	*pCi/g*
700 (779)	700-7	CH45-031	750497.11	2084332.8	2.50	3.50	Uranium-235	0.223	8	0.120	-	pCi/g
700 (779)	700-7	CH45-031	750497.11	2084332.8	2.50	3.50	Uranium-238	4.471	351	1.490	-	pCi/g
700 (779)	700-7	CH45-031	750497.11	2084332.8	4.50	5.00	Naphthalene	20.700	3090000	-	6.200	ug/kg
700 (779)	700-7	CH45-031	750497.11	2084332.8	4.50	5.00	Uranium-235	0.191	8	0.120	-	pCi/g
700 (779)	700-7	CH45-066	750496.72	2084312	0.00	0.50	Acetone	15.000	102000000	-	5.600	ug/kg
700 (779)	700-7	CH45-066	750496.72	2084312	0.00	0.50	Aluminum	29000.000	228000	16902.000	-	mg/kg
700 (779)	700-7	CH45-066	750496.72	2084312	0.00	0.50	Benzo(a)anthracene	47.000	34900	-	29.000	ug/kg
700 (779)	700-7	CH45-066	750496.72	2084312	0.00	0.50	Chromium	22.000	268	16.990	-	mg/kg
700 (779)	700-7	CH45-066	750496.72	2084312	0.00	0.50	Chrysene	50.000	3490000	-	33.000	ug/kg
700 (779)	700-7	CH45-066	750496.72	2084312	0.00	0.50	Lithium	17.000	20400	11.550	-	mg/kg
700 (779)	700-7	CH45-066	750496.72	2084312	0.00	0.50	Mercury	0.250	25200	0.134	-	mg/kg
700 (779)	700-7	CH45-066	750496.72	2084312	0.00	0.50	Methylene chloride	1.700	2530000	-	0.980	ug/kg
700 (779)	700-7	CH45-066	750496.72	2084312	0.00	0.50	Nickel	21.000	20400	14.910	-	mg/kg
700 (779)	700-7	CH45-066	750496.72	2084312	0.00	0.50	Plutonium-239/240	0.234	50	0.066	-	pCi/g
700 (779)	700-7	CH45-066	750496.72	2084312	0.50	1.00	Acetone	17.000	102000000	-	5.500	ug/kg
700 (779)	700-7	CH45-066	750496.72	2084312	0.50	1.00	Americium-241	0.255	76	0.020	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (779)	700-7	CH45-066	750496.72	2084312	0.50	1.00	Benzo(a)anthracene	53.000	34900	-	29.000	ug/kg
700 (779)	700-7	CH45-066	750496.72	2084312	0.50	1.00	Chrysene	58.000	3490000	-	32.000	ug/kg
700 (779)	700-7	CH45-066	750496.72	2084312	0.50	1.00	Methylene chloride	1.700	2530000	-	0.960	ug/kg
700 (779)	700-7	CH45-066	750496.72	2084312	0.50	1.00	Plutonium-239/240	1.680	50	0.020	-	pCi/g
700 (779)	700-7	CH45-066	750496.72	2084312	0.50	1.00	Tetrachloroethene	1.500	615000	-	1.200	ug/kg
700 (779)	700-7	CH45-066	750496.72	2084312	0.50	1.00	Uranium-235	0.421	8	0.120	-	pCi/g
700 (779)	700-7	CH45-066	750496.72	2084312	2.50	3.50	Acetone	22.000	102000000	-	5.800	ug/kg
700 (779)	700-7	CH45-066	750496.72	2084312	2.50	3.50	Plutonium-239/240	0.474	50	0.020	-	pCi/g
700 (779)	700-7	CH45-066	750496.72	2084312	2.50	3.50	Tetrachloroethene	1.300	615000	-	1.200	ug/kg
700 (779)	700-7	CH45-066	750496.72	2084312	2.50	3.50	Uranium-235	0.550	8	0.120	-	pCi/g
700 (779)	700-7	CH45-066	750496.72	2084312	4.50	5.50	Acetone	11.000	102000000	-	4.900	ug/kg
700 (779)	700-7	CH45-066	750496.72	2084312	4.50	5.50	Americium-241	0.182	76	0.020	-	pCi/g
700 (779)	700-7	CH45-066	750496.72	2084312	4.50	5.50	Benzo(a)anthracene	59.000	34900	-	26.000	ug/kg
700 (779)	700-7	CH45-066	750496.72	2084312	4.50	5.50	Chrysene	71.000	3490000	-	29.000	ug/kg
700 (779)	700-7	CH45-066	750496.72	2084312	4.50	5.50	Fluoranthene	140.000	27200000	-	23.000	ug/kg
700 (779)	700-7	CH45-066	750496.72	2084312	4.50	5.50	Methylene chloride	1.900	2530000	-	0.850	ug/kg
700 (779)	700-7	CH45-066	750496.72	2084312	4.50	5.50	Plutonium-239/240	0.411	50	0.020	-	pCi/g
700 (779)	700-7	CH45-066	750496.72	2084312	4.50	5.50	Pyrene	140.000	22100000	-	140.000	ug/kg
700 (779)	700-7	CH45-066	750496.72	2084312	4.50	5.50	Tetrachloroethene	1.300	615000	-	1.100	ug/kg
700 (779)	700-7	CH45-067	750480.85	2084285.8	0.00	0.50	Aluminum	21000.000	228000	16902.000	-	mg/kg
700 (779)	700-7	CH45-067	750480.85	2084285.8	0.00	0.50	Benzo(a)anthracene	51.000	34900	-	26.000	ug/kg
700 (779)	700-7	CH45-067	750480.85	2084285.8	0.00	0.50	Beryllium	0.980	921	0.966	-	mg/kg
700 (779)	700-7	CH45-067	750480.85	2084285.8	0.00	0.50	Chrysene	52.000	3490000	-	30.000	ug/kg
700 (779)	700-7	CH45-067	750480.85	2084285.8	0.00	0.50	Fluoranthene	94.000	27200000	-	24.000	ug/kg
700 (779)	700-7	CH45-067	750480.85	2084285.8	0.00	0.50	Lithium	12.000	20400	11.550	-	mg/kg
700 (779)	700-7	CH45-067	750480.85	2084285.8	0.00	0.50	Nickel	16.000	20400	14.910	-	mg/kg
700 (779)	*700-7*	*CH45-067*	*750480.85*	*2084285.8*	*0.00*	*0.50*	*Uranium-234*	*2.834*	*300*	*2.253*	-	*pCi/g*
700 (779)	700-7	CH45-067	750480.85	2084285.8	0.00	0.50	Uranium-235	0.219	8	0.094	-	pCi/g
700 (779)	700-7	CH45-067	750480.85	2084285.8	0.00	0.50	Uranium-238	2.834	351	2.000	-	pCi/g
700 (779)	*700-7*	*CH45-067*	*750480.85*	*2084285.8*	*0.50*	*2.50*	*Uranium-234*	*3.857*	*300*	*2.640*	-	*pCi/g*
700 (779)	700-7	CH45-067	750480.85	2084285.8	0.50	2.50	Uranium-235	0.201	8	0.120	-	pCi/g
700 (779)	700-7	CH45-067	750480.85	2084285.8	0.50	2.50	Uranium-238	3.857	351	1.490	-	pCi/g
700 (779)	700-7	CH45-067	750480.85	2084285.8	2.50	3.50	Fluoranthene	46.000	27200000	-	24.000	ug/kg
700 (779)	700-7	CH45-067	750480.85	2084285.8	2.50	3.50	Uranium-235	0.136	8	0.120	-	pCi/g
700 (779)	700-7	CH45-067	750480.85	2084285.8	4.50	5.50	Benzo(a)anthracene	63.000	34900	-	25.000	ug/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (779)	700-7	CH45-067	750480.85	2084285.8	4.50	5.50	Benzo(a)pyrene	51.000	3490	-	41.000	ug/kg
700 (779)	700-7	CH45-067	750480.85	2084285.8	4.50	5.50	Benzo(b)fluoranthene	40.000	34900	-	30.000	ug/kg
700 (779)	700-7	CH45-067	750480.85	2084285.8	4.50	5.50	Benzo(k)fluoranthene	54.000	349000	-	33.000	ug/kg
700 (779)	700-7	CH45-067	750480.85	2084285.8	4.50	5.50	Chrysene	67.000	3490000	-	28.000	ug/kg
700 (779)	700-7	CH45-067	750480.85	2084285.8	4.50	5.50	Fluoranthene	170.000	27200000	-	23.000	ug/kg
700 (779)	700-7	CH45-067	750480.85	2084285.8	4.50	5.50	Pyrene	150.000	22100000	-	140.000	ug/kg
700 (779)	700-7	CH45-067	750480.85	2084285.8	4.50	5.50	Uranium-235	0.167	8	0.120	-	pCi/g
700 (779)	700-7	CH45-067	750480.85	2084285.8	4.50	5.50	Uranium-238	1.965	351	1.490	-	pCi/g
700 (779)	**000-2**	**CH45-094**	**750569.1**	**2084329.8**	**0.00**	**0.50**	**Americium-241**	**117.600**	**76**	**0.023**	**-**	**pCi/g**
700 (779)	***000-2***	***CH45-094***	***750569.1***	***2084329.8***	***0.00***	***0.50***	***Plutonium-239/240***	***670.320***	***50***	***0.066***	***-***	***pCi/g***
700 (779)	000-2	CH45-094	750569.1	2084329.8	0.50	1.00	Americium-241	26.250	76	0.020	-	pCi/g
700 (779)	***000-2***	***CH45-094***	***750569.1***	***2084329.8***	***0.50***	***1.00***	***Plutonium-239/240***	***149.625***	***50***	***0.020***	***-***	***pCi/g***
700 (779)	000-2	CH45-094	750569.1	2084329.8	0.50	1.00	Uranium-235	0.249	8	0.120	-	pCi/g
700 (779)	000-2	CH45-095	750557.54	2084293.5	0.00	0.50	Chromium	20.000	268	16.990	-	mg/kg
700 (779)	000-2	CH45-095	750557.54	2084293.5	0.00	0.50	Copper	21.000	40900	18.060	-	mg/kg
700 (779)	000-2	CH45-095	750557.54	2084293.5	0.00	0.50	Iron	51000.000	307000	18037.000	-	mg/kg
700 (779)	000-2	CH45-095	750557.54	2084293.5	0.00	0.50	Lead	360.000	1000	54.620	-	mg/kg
700 (779)	000-2	CH45-095	750557.54	2084293.5	0.00	0.50	Lithium	180.000	20400	11.550	-	mg/kg
700 (779)	000-2	CH45-096	750569.1	2084329.8	0.00	0.50	Aluminum	26000.000	228000	16902.000	-	mg/kg
700 (779)	000-2	CH45-096	750569.1	2084329.8	0.00	0.50	Chromium	20.000	268	16.990	-	mg/kg
700 (779)	000-2	CH45-096	750569.1	2084329.8	0.00	0.50	Lithium	22.000	20400	11.550	-	mg/kg
700 (779)	000-2	CH45-096	750569.1	2084329.8	0.00	0.50	Nickel	20.000	20400	14.910	-	mg/kg
700 (779)	*700-7*	*CH46-011*	*750577.28*	*2084200.9*	*5.00*	*6.50*	*Uranium-234*	*2.930*	*300*	*2.640*	-	*pCi/g*
700 (779)	700-7	CH46-011	750577.28	2084200.9	5.00	6.50	Uranium-235	0.202	8	0.120	-	pCi/g
700 (779)	700-7	CH46-011	750577.28	2084200.9	5.00	6.50	Uranium-238	2.930	351	1.490	-	pCi/g
700 (779)	700-7	CH46-012	750647.84	2084203.1	3.50	4.50	Toluene	26.300	31300000	-	5.150	ug/kg
700 (779)	*700-7*	*CH46-012*	*750647.84*	*2084203.1*	*3.50*	*4.50*	*Uranium-234*	*3.602*	*300*	*2.640*	-	*pCi/g*
700 (779)	700-7	CH46-012	750647.84	2084203.1	3.50	4.50	Uranium-235	0.251	8	0.120	-	pCi/g
700 (779)	700-7	CH46-012	750647.84	2084203.1	3.50	4.50	Uranium-238	3.602	351	1.490	-	pCi/g
700 (779)	700-7	CH46-012	750647.84	2084203.1	3.50	4.50	Xylene	29.900	2040000	-	10.300	ug/kg
700 (779)	700-7	CH46-012	750647.84	2084203.1	5.50	6.50	Iron	45000.000	307000	41046.520	-	mg/kg
700 (779)	700-7	CH46-012	750647.84	2084203.1	5.50	6.50	Naphthalene	36.200	3090000	-	5.360	ug/kg
700 (779)	*700-7*	*CH46-012*	*750647.84*	*2084203.1*	*5.50*	*6.50*	*Uranium-234*	*4.001*	*300*	*2.640*	-	*pCi/g*
700 (779)	700-7	CH46-012	750647.84	2084203.1	5.50	6.50	Uranium-235	0.239	8	0.120	-	pCi/g
700 (779)	700-7	CH46-012	750647.84	2084203.1	5.50	6.50	Uranium-238	4.001	351	1.490	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (779)	700-7	CH46-018	750558.62	2084332	0.00	0.50	Acetone	25.000	102000000	-	5.400	ug/kg
700 (779)	700-7	CH46-018	750558.62	2084332	0.00	0.50	Aluminum	29000.000	228000	16902.000	-	mg/kg
700 (779)	700-7	CH46-018	750558.62	2084332	0.00	0.50	Beryllium	1.300	921	0.966	-	mg/kg
700 (779)	700-7	CH46-018	750558.62	2084332	0.00	0.50	Chromium	21.000	268	16.990	-	mg/kg
700 (779)	700-7	CH46-018	750558.62	2084332	0.00	0.50	Cobalt	11.000	1550	10.910	-	mg/kg
700 (779)	700-7	CH46-018	750558.62	2084332	0.00	0.50	Lithium	32.000	20400	11.550	-	mg/kg
700 (779)	700-7	CH46-018	750558.62	2084332	0.00	0.50	Mercury	0.140	25200	0.134	-	mg/kg
700 (779)	700-7	CH46-018	750558.62	2084332	0.00	0.50	Naphthalene	1.500	3090000	-	1.000	ug/kg
700 (779)	700-7	CH46-018	750558.62	2084332	0.00	0.50	Nickel	21.000	20400	14.910	-	mg/kg
700 (779)	700-7	CH46-018	750558.62	2084332	0.50	2.50	Naphthalene	1.200	3090000	-	0.990	ug/kg
700 (779)	700-7	CH46-020	750628.78	2084291.2	3.50	3.80	Plutonium-239/240	0.187	50	0.020	-	pCi/g
700 (779)	700-7	CH46-020	750628.78	2084291.2	3.50	3.80	Uranium-235	0.278	8	0.120	-	pCi/g
700 (779)	700-7	CH46-021	750629.29	2084281.8	3.50	3.80	Acetone	6.000	102000000	-	5.600	ug/kg
700 (779)	700-7	CH46-022	750647.98	2084281.5	3.00	3.30	Uranium-235	0.131	8	0.120	-	pCi/g
700 (779)	700-7	CH46-023	750587	2084282.9	4.00	4.30	Acetone	7.900	102000000	-	5.300	ug/kg
700 (779)	700-7	CH46-023	750587	2084282.9	4.00	4.30	Methylene chloride	1.100	2530000	-	0.920	ug/kg
700 (779)	700-7	CH46-023	750587	2084282.9	4.00	4.30	Plutonium-239/240	0.297	50	0.020	-	pCi/g
700 (779)	700-7	CH46-024	750572.07	2084283.8	3.50	3.80	Methylene chloride	1.000	2530000	-	0.880	ug/kg
700 (779)	700-7	CH46-024	750572.07	2084283.8	3.50	3.80	Plutonium-239/240	0.091	50	0.020	-	pCi/g
700 (779)	700-7	CH46-026	750631.68	2084225.7	3.00	3.30	Acetone	7.400	102000000	-	6.000	ug/kg
700 (779)	700-7	CH46-026	750631.68	2084225.7	3.00	3.30	Plutonium-239/240	0.131	50	0.020	-	pCi/g
700 (779)	700-7	CH46-026	750631.68	2084225.7	3.50	5.50	Americium-241	0.425	76	0.020	-	pCi/g
700 (779)	700-7	CH46-026	750631.68	2084225.7	3.50	5.50	Plutonium-239/240	0.599	50	0.020	-	pCi/g
700 (779)	700-7	CH46-027	750599.83	2084283.1	3.00	3.30	Acetone	7.200	102000000	-	5.300	ug/kg
700 (779)	000-2	CH46-054	750622.11	2084224.3	0.50	2.50	Arsenic	14.000	22.2	13.140	-	mg/kg
700 (779)	000-2	CH46-054	750622.11	2084224.3	0.50	2.50	Uranium-235	0.172	8	0.120	-	pCi/g
700 (779)	*000-2*	*CH46-055*	*750609.95*	*2084288.6*	*0.50*	*2.50*	*Uranium-234*	*3.105*	*300*	*2.640*	-	*pCi/g*
700 (779)	000-2	CH46-055	750609.95	2084288.6	0.50	2.50	Uranium-235	0.169	8	0.120	-	pCi/g
700 (779)	000-2	CH46-055	750609.95	2084288.6	0.50	2.50	Uranium-238	3.105	351	1.490	-	pCi/g
700 (779)	700-7	CI45-012	750494.06	2084394.9	0.00	0.50	Acetone	2840.000	102000000	-	558.000	ug/kg
700 (779)	700-7	CI45-012	750494.06	2084394.9	0.00	0.50	Aluminum	41000.000	228000	16902.000	-	mg/kg
700 (779)	700-7	CI45-012	750494.06	2084394.9	0.00	0.50	Arsenic	15.000	22.2	10.090	-	mg/kg
700 (779)	700-7	CI45-012	750494.06	2084394.9	0.00	0.50	Beryllium	1.900	921	0.966	-	mg/kg
700 (779)	700-7	CI45-012	750494.06	2084394.9	0.00	0.50	Chromium	32.000	268	16.990	-	mg/kg
700 (779)	700-7	CI45-012	750494.06	2084394.9	0.00	0.50	Cobalt	11.000	1550	10.910	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (779)	700-7	CI45-012	750494.06	2084394.9	0.00	0.50	Ethylbenzene	23.100	4250000	-	6.490	ug/kg
700 (779)	700-7	CI45-012	750494.06	2084394.9	0.00	0.50	Iron	24000.000	307000	18037.000	-	mg/kg
700 (779)	700-7	CI45-012	750494.06	2084394.9	0.00	0.50	Lithium	28.000	20400	11.550	-	mg/kg
700 (779)	700-7	CI45-012	750494.06	2084394.9	0.00	0.50	Mercury	0.150	25200	0.134	-	mg/kg
700 (779)	700-7	CI45-012	750494.06	2084394.9	0.00	0.50	Naphthalene	7.010	3090000	-	6.490	ug/kg
700 (779)	700-7	CI45-012	750494.06	2084394.9	0.00	0.50	Nickel	29.000	20400	14.910	-	mg/kg
700 (779)	*700-7*	*CI45-012*	*750494.06*	*2084394.9*	*0.00*	*0.50*	*Uranium-234*	*4.688*	*300*	*2.253*	-	*pCi/g*
700 (779)	700-7	CI45-012	750494.06	2084394.9	0.00	0.50	Uranium-235	0.223	8	0.094	-	pCi/g
700 (779)	700-7	CI45-012	750494.06	2084394.9	0.00	0.50	Uranium-238	4.688	351	2.000	-	pCi/g
700 (779)	700-7	CI45-012	750494.06	2084394.9	0.00	0.50	Vanadium	72.000	7150	45.590	-	mg/kg
700 (779)	700-7	CI45-012	750494.06	2084394.9	0.00	0.50	Xylene	115.000	2040000	-	13.000	ug/kg
700 (779)	700-7	CI45-012	750494.06	2084394.9	0.50	2.50	Aluminum	62000.000	228000	35373.170	-	mg/kg
700 (779)	**700-7**	**CI45-012**	**750494.06**	**2084394.9**	**0.50**	**2.50**	**Arsenic**	**24.000**	**22.2**	**13.140**	**-**	**mg/kg**
700 (779)	700-7	CI45-012	750494.06	2084394.9	0.50	2.50	Lithium	38.000	20400	34.660	-	mg/kg
700 (779)	700-7	CI45-012	750494.06	2084394.9	0.50	2.50	Uranium, Total	3.600	2750	3.040	-	mg/kg
700 (779)	700-7	CI45-012	750494.06	2084394.9	0.50	2.50	Uranium-235	0.173	8	0.120	-	pCi/g
700 (779)	700-7	CI45-012	750494.06	2084394.9	0.50	2.50	Vanadium	120.000	7150	88.490	-	mg/kg
700 (779)	700-7	CI45-012	750494.06	2084394.9	2.50	4.50	Arsenic	18.000	22.2	13.140	-	mg/kg
700 (779)	700-7	CI45-012	750494.06	2084394.9	2.50	4.50	Barium	290.000	26400	289.380	-	mg/kg
700 (779)	700-7	CI45-012	750494.06	2084394.9	2.50	4.50	Manganese	1600.000	3480	901.620	-	mg/kg
700 (779)	700-7	CI45-012	750494.06	2084394.9	4.50	6.50	Uranium-235	0.128	8	0.120	-	pCi/g
700 (779)	700-7	CI46-000	750694.85	2084444.7	2.50	4.50	Americium-241	1.001	76	0.020	-	pCi/g
700 (779)	*700-7*	*CI46-000*	*750694.85*	*2084444.7*	*2.50*	*4.50*	*Plutonium-239/240*	*5.706*	*50*	*0.020*	-	*pCi/g*
700 (779)	700-7	CI46-000	750694.85	2084444.7	2.50	4.50	Toluene	6.280	31300000	-	5.560	ug/kg
700 (779)	*700-7*	*CI46-000*	*750694.85*	*2084444.7*	*2.50*	*4.50*	*Uranium-234*	*4.995*	*300*	*2.640*	-	*pCi/g*
700 (779)	700-7	CI46-000	750694.85	2084444.7	2.50	4.50	Uranium-235	0.331	8	0.120	-	pCi/g
700 (779)	700-7	CI46-000	750694.85	2084444.7	2.50	4.50	Uranium-238	4.995	351	1.490	-	pCi/g
700 (779)	700-7	CI46-000	750694.85	2084444.7	2.50	4.50	Xylene	19.200	2040000	-	11.100	ug/kg
700 (779)	*700-7*	*CI46-000*	*750694.85*	*2084444.7*	*4.50*	*6.50*	*Uranium-234*	*2.780*	*300*	*2.640*	-	*pCi/g*
700 (779)	700-7	CI46-000	750694.85	2084444.7	4.50	6.50	Uranium-235	0.181	8	0.120	-	pCi/g
700 (779)	700-7	CI46-000	750694.85	2084444.7	4.50	6.50	Uranium-238	2.780	351	1.490	-	pCi/g
700 (779)	700-7	CI46-001	750694.83	2084340.5	3.50	4.50	Aluminum	44000.000	228000	35373.170	-	mg/kg
700 (779)	**700-7**	**CI46-001**	**750694.83**	**2084340.5**	**3.50**	**4.50**	**Arsenic**	**25.000**	**22.2**	**13.140**	**-**	**mg/kg**
700 (779)	700-7	CI46-001	750694.83	2084340.5	3.50	4.50	Uranium-235	0.123	8	0.120	-	pCi/g
700 (779)	700-7	CI46-001	750694.83	2084340.5	3.50	4.50	Uranium-238	1.793	351	1.490	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (779)	700-7	CI46-001	750694.83	2084340.5	3.50	4.50	Vanadium	100.000	7150	88.490	-	mg/kg
700 (779)	*700-7*	*CI46-001*	*750694.83*	*2084340.5*	*4.50*	*6.50*	*Uranium-234*	*3.175*	*300*	*2.640*	-	*pCi/g*
700 (779)	700-7	CI46-001	750694.83	2084340.5	4.50	6.50	Uranium-238	3.175	351	1.490	-	pCi/g
700 (779)	000-2	CI46-006	750630.45	2084344.6	3.00	3.30	Acetone	5.800	102000000	-	5.300	ug/kg
700 (779)	000-2	CI46-006	750630.45	2084344.6	3.00	3.30	Uranium-235	0.173	8	0.120	-	pCi/g
700 (779)	000-2	CI46-039	750603.02	2084346.3	3.50	3.80	Acetone	7.800	102000000	-	5.600	ug/kg
700 (779)	000-2	CI46-039	750603.02	2084346.3	3.50	3.80	Plutonium-239/240	0.211	50	0.020	-	pCi/g
700 (779)	000-2	CI46-039	750603.02	2084346.3	3.50	3.80	Uranium-235	0.198	8	0.120	-	pCi/g
700 (779)	000-2	CI46-040	750633.35	2084344.1	0.50	2.50	Uranium-235	0.146	8	0.120	-	pCi/g
700 (779)	000-2	CI46-040	750633.35	2084344.1	0.50	2.50	Uranium-238	1.497	351	1.490	-	pCi/g
700 (779)	000-2	CJ45-050	750385.05	2084597.2	4.50	6.00	Americium-241	0.160	76	0.020	-	pCi/g
700 (779)	000-2	CJ45-050	750385.05	2084597.2	4.50	6.00	Naphthalene	1.500	3090000	-	0.980	ug/kg
700 (779)	000-2	CJ45-050	750385.05	2084597.2	4.50	6.00	Plutonium-239/240	2.220	50	0.020	-	pCi/g
700 (779)	000-1	CJ46-000	750700.81	2084597.3	11.00	11.01	Americium-241	26.000	76	0.020	-	pCi/g
700 (779)	000-1	CJ46-000	750700.81	2084597.3	11.00	11.01	Arsenic	15.300	22.2	13.140	-	mg/kg
700 (779)	000-1	CJ46-000	750700.81	2084597.3	11.00	11.01	Barium	739.000	26400	289.380	-	mg/kg
700 (779)	000-1	CJ46-000	750700.81	2084597.3	11.00	11.01	Cadmium	7.330	962	1.700	-	mg/kg
700 (779)	000-1	CJ46-000	750700.81	2084597.3	11.00	11.01	Chromium	78.800	268	68.270	-	mg/kg
700 (779)	000-1	CJ46-000	750700.81	2084597.3	11.00	11.01	Copper	81.200	40900	38.210	-	mg/kg
700 (779)	000-1	CJ46-000	750700.81	2084597.3	11.00	11.01	Lead	44.700	1000	24.970	-	mg/kg
700 (779)	000-1	CJ46-000	750700.81	2084597.3	11.00	11.01	Nickel	65.300	20400	62.210	-	mg/kg
700 (779)	***000-1***	***CJ46-000***	***750700.81***	***2084597.3***	***11.00***	***11.01***	***Plutonium-239/240***	***148.200***	***50***	***0.020***	-	***pCi/g***
700 (779)	000-1	CJ46-000	750700.81	2084597.3	11.00	11.01	Strontium	261.000	613000	211.380	-	mg/kg
700 (779)	*000-1*	*CJ46-000*	*750700.81*	*2084597.3*	*11.00*	*11.01*	*Uranium-234*	*13.000*	*300*	*2.640*	-	*pCi/g*
700 (779)	000-1	CJ46-000	750700.81	2084597.3	11.00	11.01	Uranium-238	13.000	351	1.490	-	pCi/g
700 (779)	000-1	CJ46-000	750700.81	2084597.3	11.00	11.01	Vanadium	205.000	7150	88.490	-	mg/kg
700 (779)	000-1	CJ46-000	750700.81	2084597.3	11.00	11.01	Zinc	274.000	307000	139.100	-	mg/kg
700 (779)	000-1	CJ46-001	750700.42	2084605.8	11.00	11.01	Americium-241	4.900	76	0.020	-	pCi/g
700 (779)	000-1	CJ46-001	750700.42	2084605.8	11.00	11.01	Barium	631.000	26400	289.380	-	mg/kg
700 (779)	000-1	CJ46-001	750700.42	2084605.8	11.00	11.01	Cadmium	9.310	962	1.700	-	mg/kg
700 (779)	000-1	CJ46-001	750700.42	2084605.8	11.00	11.01	Copper	63.900	40900	38.210	-	mg/kg
700 (779)	000-1	CJ46-001	750700.42	2084605.8	11.00	11.01	Lead	25.500	1000	24.970	-	mg/kg
700 (779)	*000-1*	*CJ46-001*	*750700.42*	*2084605.8*	*11.00*	*11.01*	*Plutonium-239/240*	*27.930*	*50*	*0.020*	-	*pCi/g*
700 (779)	000-1	CJ46-001	750700.42	2084605.8	11.00	11.01	Strontium	268.000	613000	211.380	-	mg/kg
700 (779)	*000-1*	*CJ46-001*	*750700.42*	*2084605.8*	*11.00*	*11.01*	*Uranium-234*	*6.620*	*300*	*2.640*	-	*pCi/g*

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (779)	000-1	CJ46-001	750700.42	2084605.8	11.00	11.01	Uranium-235	0.249	8	0.120	-	pCi/g
700 (779)	000-1	CJ46-001	750700.42	2084605.8	11.00	11.01	Uranium-238	6.620	351	1.490	-	pCi/g
700 (779)	000-1	CJ46-001	750700.42	2084605.8	11.00	11.01	Vanadium	183.000	7150	88.490	-	mg/kg
700 (779)	000-1	CJ46-002	750704.64	2084601.4	11.00	11.01	Americium-241	32.000	76	0.020	-	pCi/g
700 (779)	000-1	CJ46-002	750704.64	2084601.4	11.00	11.01	Arsenic	13.400	22.2	13.140	-	mg/kg
700 (779)	000-1	CJ46-002	750704.64	2084601.4	11.00	11.01	Barium	809.000	26400	289.380	-	mg/kg
700 (779)	000-1	CJ46-002	750704.64	2084601.4	11.00	11.01	Copper	61.400	40900	38.210	-	mg/kg
700 (779)	000-1	CJ46-002	750704.64	2084601.4	11.00	11.01	Lead	47.200	1000	24.970	-	mg/kg
700 (779)	***000-1***	***CJ46-002***	***750704.64***	***2084601.4***	***11.00***	***11.01***	***Plutonium-239/240***	***182.400***	***50***	***0.020***	***-***	***pCi/g***
700 (779)	000-1	CJ46-002	750704.64	2084601.4	11.00	11.01	Strontium	230.000	613000	211.380	-	mg/kg
700 (779)	*000-1*	*CJ46-002*	*750704.64*	*2084601.4*	*11.00*	*11.01*	*Uranium-234*	*29.000*	*300*	*2.640*	-	*pCi/g*
700 (779)	000-1	CJ46-002	750704.64	2084601.4	11.00	11.01	Uranium-238	29.000	351	1.490	-	pCi/g
700 (779)	000-1	CJ46-002	750704.64	2084601.4	11.00	11.01	Vanadium	145.000	7150	88.490	-	mg/kg
700 (779)	000-1	CJ46-002	750704.64	2084601.4	11.00	11.01	Zinc	260.000	307000	139.100	-	mg/kg
700 (779)	000-1	CJ46-003	750693.71	2084602.4	11.00	11.01	Americium-241	1.000	76	0.020	-	pCi/g
700 (779)	000-1	CJ46-003	750693.71	2084602.4	11.00	11.01	Arsenic	18.100	22.2	13.140	-	mg/kg
700 (779)	000-1	CJ46-003	750693.71	2084602.4	11.00	11.01	Barium	842.000	26400	289.380	-	mg/kg
700 (779)	000-1	CJ46-003	750693.71	2084602.4	11.00	11.01	Copper	79.400	40900	38.210	-	mg/kg
700 (779)	000-1	CJ46-003	750693.71	2084602.4	11.00	11.01	Lead	29.400	1000	24.970	-	mg/kg
700 (779)	*000-1*	*CJ46-003*	*750693.71*	*2084602.4*	*11.00*	*11.01*	*Plutonium-239/240*	*5.700*	*50*	*0.020*	-	*pCi/g*
700 (779)	000-1	CJ46-003	750693.71	2084602.4	11.00	11.01	Strontium	238.000	613000	211.380	-	mg/kg
700 (779)	*000-1*	*CJ46-003*	*750693.71*	*2084602.4*	*11.00*	*11.01*	*Uranium-234*	*4.700*	*300*	*2.640*	-	*pCi/g*
700 (779)	000-1	CJ46-003	750693.71	2084602.4	11.00	11.01	Uranium-235	0.250	8	0.120	-	pCi/g
700 (779)	000-1	CJ46-003	750693.71	2084602.4	11.00	11.01	Uranium-238	4.700	351	1.490	-	pCi/g
700 (779)	000-1	CJ46-003	750693.71	2084602.4	11.00	11.01	Vanadium	155.000	7150	88.490	-	mg/kg
700 (779)	000-1	CJ46-004	750696.96	2084599.5	11.00	11.01	Americium-241	5.500	76	0.020	-	pCi/g
700 (779)	000-1	CJ46-004	750696.96	2084599.5	11.00	11.01	Arsenic	13.400	22.2	13.140	-	mg/kg
700 (779)	000-1	CJ46-004	750696.96	2084599.5	11.00	11.01	Barium	664.000	26400	289.380	-	mg/kg
700 (779)	000-1	CJ46-004	750696.96	2084599.5	11.00	11.01	Copper	64.900	40900	38.210	-	mg/kg
700 (779)	000-1	CJ46-004	750696.96	2084599.5	11.00	11.01	Lead	29.800	1000	24.970	-	mg/kg
700 (779)	*000-1*	*CJ46-004*	*750696.96*	*2084599.5*	*11.00*	*11.01*	*Plutonium-239/240*	*31.350*	*50*	*0.020*	-	*pCi/g*
700 (779)	*000-1*	*CJ46-004*	*750696.96*	*2084599.5*	*11.00*	*11.01*	*Uranium-234*	*6.900*	*300*	*2.640*	-	*pCi/g*
700 (779)	000-1	CJ46-004	750696.96	2084599.5	11.00	11.01	Uranium-235	0.210	8	0.120	-	pCi/g
700 (779)	000-1	CJ46-004	750696.96	2084599.5	11.00	11.01	Uranium-238	6.900	351	1.490	-	pCi/g
700 (779)	000-1	CJ46-004	750696.96	2084599.5	11.00	11.01	Vanadium	221.000	7150	88.490	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (779)	000-1	CJ46-004	750696.96	2084599.5	11.00	11.01	Zinc	173.000	307000	139.100	-	mg/kg
700 (779)	000-2	CJ46-051	750691.03	2084573.5	4.00	4.50	1,2,4-Trichlorobenzene	1.800	9230000	-	0.850	ug/kg
700 (779)	000-2	CJ46-051	750691.03	2084573.5	4.00	4.50	Acetone	40.000	102000000	-	5.500	ug/kg
700 (779)	000-2	CJ46-051	750691.03	2084573.5	4.00	4.50	Americium-241	1.240	76	0.020	-	pCi/g
700 (779)	000-2	CJ46-051	750691.03	2084573.5	4.00	4.50	Naphthalene	3.000	3090000	-	1.000	ug/kg
700 (779)	000-2	CJ46-051	750691.03	2084573.5	4.00	4.50	Plutonium-239/240	3.010	50	0.020	-	pCi/g
700 (779)	000-2	CJ46-056	750697.97	2084543.8	4.00	4.50	Americium-241	0.220	76	0.020	-	pCi/g
700 (779)	*000-2*	*CJ46-056*	*750697.97*	*2084543.8*	*4.00*	*4.50*	*Plutonium-239/240*	*1.252*	*50*	*0.020*	-	*pCi/g*
700 (779)	000-2	CJ46-056	750697.97	2084543.8	4.00	4.50	Uranium-235	0.168	8	0.120	-	pCi/g
700 (779)	000-2	CJ46-057	750700.24	2084595.7	9.00	9.50	2-Butanone	615.000	192000000	-	277.000	ug/kg
700 (779)	000-2	CJ46-057	750700.24	2084595.7	9.00	9.50	Acenaphthene	100.000	40800000	-	66.000	ug/kg
700 (779)	000-2	CJ46-057	750700.24	2084595.7	9.00	9.50	Acetone	520.000	102000000	-	277.000	ug/kg
700 (779)	**000-2**	**CJ46-057**	**750700.24**	**2084595.7**	**9.00**	**9.50**	**Americium-241**	**4230.000**	**76**	**0.020**	**-**	**pCi/g**
700 (779)	000-2	CJ46-057	750700.24	2084595.7	9.00	9.50	Anthracene	150.000	204000000	-	50.000	ug/kg
700 (779)	000-2	CJ46-057	750700.24	2084595.7	9.00	9.50	Benzo(a)anthracene	300.000	34900	-	53.000	ug/kg
700 (779)	000-2	CJ46-057	750700.24	2084595.7	9.00	9.50	Benzo(a)pyrene	290.000	3490	-	85.000	ug/kg
700 (779)	000-2	CJ46-057	750700.24	2084595.7	9.00	9.50	Benzo(b)fluoranthene	240.000	34900	-	61.000	ug/kg
700 (779)	000-2	CJ46-057	750700.24	2084595.7	9.00	9.50	Benzo(k)fluoranthene	250.000	349000	-	68.000	ug/kg
700 (779)	000-2	CJ46-057	750700.24	2084595.7	9.00	9.50	bis(2-Ethylhexyl)phthalate	350.000	1970000	-	150.000	ug/kg
700 (779)	000-2	CJ46-057	750700.24	2084595.7	9.00	9.50	Butylbenzylphthalate	140000.000	147000000	-	2800.000	ug/kg
700 (779)	000-2	CJ46-057	750700.24	2084595.7	9.00	9.50	Chrysene	300.000	3490000	-	59.000	ug/kg
700 (779)	000-2	CJ46-057	750700.24	2084595.7	9.00	9.50	Di-n-butylphthalate	370.000	73700000	-	44.000	ug/kg
700 (779)	000-2	CJ46-057	750700.24	2084595.7	9.00	9.50	Fluoranthene	860.000	27200000	-	48.000	ug/kg
700 (779)	000-2	CJ46-057	750700.24	2084595.7	9.00	9.50	Indeno(1,2,3-cd)pyrene	160.000	34900	-	48.000	ug/kg
700 (779)	000-2	CJ46-057	750700.24	2084595.7	9.00	9.50	Phenol	180.000	613000000	-	74.000	ug/kg
700 (779)	***000-2***	***CJ46-057***	***750700.24***	***2084595.7***	***9.00***	***9.50***	***Plutonium-239/240***	***24111.000***	***50***	***0.020***	**-**	***pCi/g***
700 (779)	000-2	CJ46-057	750700.24	2084595.7	9.00	9.50	Pyrene	660.000	22100000	-	280.000	ug/kg
700 (779)	000-2	CJ46-057	750700.24	2084595.7	9.00	9.50	Styrene	136.000	123000000	-	13.900	ug/kg
700 (779)	000-2	CJ46-057	750700.24	2084595.7	9.00	9.50	Toluene	176.000	31300000	-	13.900	ug/kg
700 (779)	000-2	CJ46-057	750700.24	2084595.7	9.00	9.50	Uranium, Total	8.600	2750	3.040	-	mg/kg
700 (779)	*000-2*	*CJ46-057*	*750700.24*	*2084595.7*	*9.00*	*9.50*	*Uranium-234*	*45.640*	*300*	*2.640*	-	*pCi/g*
700 (779)	000-2	CJ46-057	750700.24	2084595.7	9.00	9.50	Uranium-235	0.765	8	0.120	-	pCi/g
700 (779)	000-2	CJ46-057	750700.24	2084595.7	9.00	9.50	Uranium-238	45.640	351	1.490	-	pCi/g
700 (779)	**000-1**	**CJ46-DR01**	**750703.03**	**2084622.9**	**7.50**	**7.51**	**Arsenic**	**30.900**	**22.2**	**13.140**	**-**	**mg/kg**

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (779)	000-1	CJ46-DR01	750703.03	2084622.9	7.50	7.51	Barium	893.000	26400	289.380	-	mg/kg
700 (779)	000-1	CJ46-DR01	750703.03	2084622.9	7.50	7.51	Cadmium	4.670	962	1.700	-	mg/kg
700 (779)	000-1	CJ46-DR01	750703.03	2084622.9	7.50	7.51	Chromium	69.800	268	68.270	-	mg/kg
700 (779)	000-1	CJ46-DR01	750703.03	2084622.9	7.50	7.51	Copper	54.400	40900	38.210	-	mg/kg
700 (779)	000-1	CJ46-DR01	750703.03	2084622.9	7.50	7.51	Iron	58000.000	307000	41046.520	-	mg/kg
700 (779)	000-1	CJ46-DR01	750703.03	2084622.9	7.50	7.51	Nickel	105.000	20400	62.210	-	mg/kg
700 (779)	*000-1*	*CJ46-DR01*	*750703.03*	*2084622.9*	*7.50*	*7.51*	*Uranium-234*	*11.000*	*300*	*2.640*	-	*pCi/g*
700 (779)	000-1	CJ46-DR01	750703.03	2084622.9	7.50	7.51	Uranium-235	0.400	8	0.120	-	pCi/g
700 (779)	000-1	CJ46-DR01	750703.03	2084622.9	7.50	7.51	Uranium-238	11.000	351	1.490	-	pCi/g
700 (779)	000-1	CJ46-DR01	750703.03	2084622.9	7.50	7.51	Vanadium	267.000	7150	88.490	-	mg/kg
700 (779)	000-1	CJ46-DR01	750703.03	2084622.9	7.50	7.51	Zinc	188.000	307000	139.100	-	mg/kg
700 (T207)	700-3	CG46-005	750723.09	2084093.1	0.00	0.50	Antimony	14.000	409	0.470	-	mg/kg
700 (T207)	700-3	CG46-005	750723.09	2084093.1	0.00	0.50	Chromium	18.000	268	16.990	-	mg/kg
700 (T207)	700-3	CG46-005	750723.09	2084093.1	0.00	0.50	Copper	47.000	40900	18.060	-	mg/kg
700 (T207)	700-3	CG46-005	750723.09	2084093.1	0.00	0.50	Mercury	0.200	25200	0.134	-	mg/kg
700 (T207)	*700-3*	*CG46-005*	*750723.09*	*2084093.1*	*0.00*	*0.50*	*Uranium-234*	*4.492*	*300*	*2.253*	-	*pCi/g*
700 (T207)	700-3	CG46-005	750723.09	2084093.1	0.00	0.50	Uranium-235	0.273	8	0.094	-	pCi/g
700 (T207)	700-3	CG46-005	750723.09	2084093.1	0.00	0.50	Uranium-238	4.492	351	2.000	-	pCi/g
700 (T207)	700-3	CG46-005	750723.09	2084093.1	0.00	0.50	Zinc	270.000	307000	73.760	-	mg/kg
700 (T207)	700-3	CG46-005	750723.09	2084093.1	1.00	2.50	Americium-241	0.208	76	0.020	-	pCi/g
700 (T207)	700-3	CG46-005	750723.09	2084093.1	1.00	2.50	Ethylbenzene	1.600	4250000	-	1.300	ug/kg
700 (T207)	700-3	CG46-005	750723.09	2084093.1	1.00	2.50	Naphthalene	1.600	3090000	-	0.930	ug/kg
700 (T207)	700-3	CG46-005	750723.09	2084093.1	1.00	2.50	Plutonium-239/240	0.305	50	0.020	-	pCi/g
700 (T207)	700-3	CG46-005	750723.09	2084093.1	1.00	2.50	Toluene	3.700	31300000	-	0.850	ug/kg
700 (T207)	700-3	CG46-005	750723.09	2084093.1	1.00	2.50	Xylene	6.800	2040000	-	3.000	ug/kg
700 (T207)	700-3	CG46-005	750723.09	2084093.1	3.50	4.50	Americium-241	0.263	76	0.020	-	pCi/g
700 (T207)	700-3	CG46-005	750723.09	2084093.1	3.50	4.50	Cadmium	20.000	962	1.700	-	mg/kg
700 (T207)	700-3	CG46-005	750723.09	2084093.1	3.50	4.50	Cobalt	31.000	1550	29.040	-	mg/kg
700 (T207)	700-3	CG46-005	750723.09	2084093.1	3.50	4.50	Manganese	1300.000	3480	901.620	-	mg/kg
700 (T207)	*700-3*	*CG46-005*	*750723.09*	*2084093.1*	*3.50*	*4.50*	*Plutonium-239/240*	*1.498*	*50*	*0.020*	-	*pCi/g*
700 (T207)	700-3	CG46-005	750723.09	2084093.1	3.50	4.50	Uranium, Total	12.000	2750	3.040	-	mg/kg
700 (T207)	*700-3*	*CG46-005*	*750723.09*	*2084093.1*	*3.50*	*4.50*	*Uranium-234*	*3.370*	*300*	*2.640*	-	*pCi/g*
700 (T207)	700-3	CG46-005	750723.09	2084093.1	3.50	4.50	Uranium-235	0.195	8	0.120	-	pCi/g
700 (T207)	700-3	CG46-005	750723.09	2084093.1	3.50	4.50	Uranium-238	3.370	351	1.490	-	pCi/g
700 (T207)	700-3	CG46-005	750723.09	2084093.1	4.50	6.50	Cadmium	7.100	962	1.700	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (T207)	700-3	CG46-005	750723.09	2084093.1	4.50	6.50	Uranium, Total	28.000	2750	3.040	-	mg/kg
700 (T207)	*700-3*	*CG46-005*	*750723.09*	*2084093.1*	*4.50*	*6.50*	*Uranium-234*	*6.217*	*300*	*2.640*	-	*pCi/g*
700 (T207)	700-3	CG46-005	750723.09	2084093.1	4.50	6.50	Uranium-235	0.325	8	0.120	-	pCi/g
700 (T207)	700-3	CG46-005	750723.09	2084093.1	4.50	6.50	Uranium-238	6.217	351	1.490	-	pCi/g
700 (T207)	700-3	CG46-005	750723.09	2084093.1	7.50	8.50	Cadmium	2.900	962	1.700	-	mg/kg
700 (T207)	700-3	CG46-005	750723.09	2084093.1	7.50	8.50	Uranium, Total	6.600	2750	3.040	-	mg/kg
700 (T207)	*700-3*	*CG46-005*	*750723.09*	*2084093.1*	*7.50*	*8.50*	*Uranium-234*	*3.529*	*300*	*2.640*	-	*pCi/g*
700 (T207)	700-3	CG46-005	750723.09	2084093.1	7.50	8.50	Uranium-235	0.200	8	0.120	-	pCi/g
700 (T207)	700-3	CG46-005	750723.09	2084093.1	7.50	8.50	Uranium-238	3.529	351	1.490	-	pCi/g
700 (T207)	700-3	CG46-006	750713.1	2084093.3	0.00	0.50	Americium-241	0.442	76	0.023	-	pCi/g
700 (T207)	700-3	CG46-006	750713.1	2084093.3	0.00	0.50	Antimony	1.100	409	0.470	-	mg/kg
700 (T207)	700-3	CG46-006	750713.1	2084093.3	0.00	0.50	Barium	290.000	26400	141.260	-	mg/kg
700 (T207)	700-3	CG46-006	750713.1	2084093.3	0.00	0.50	Cadmium	1.700	962	1.612	-	mg/kg
700 (T207)	700-3	CG46-006	750713.1	2084093.3	0.00	0.50	Chromium	20.000	268	16.990	-	mg/kg
700 (T207)	700-3	CG46-006	750713.1	2084093.3	0.00	0.50	Copper	59.000	40900	18.060	-	mg/kg
700 (T207)	700-3	CG46-006	750713.1	2084093.3	0.00	0.50	Lithium	12.000	20400	11.550	-	mg/kg
700 (T207)	700-3	CG46-006	750713.1	2084093.3	0.00	0.50	Mercury	0.520	25200	0.134	-	mg/kg
700 (T207)	*700-3*	*CG46-006*	*750713.1*	*2084093.3*	*0.00*	*0.50*	*Plutonium-239/240*	*2.517*	*50*	*0.066*	-	*pCi/g*
700 (T207)	700-3	CG46-006	750713.1	2084093.3	0.00	0.50	Uranium-235	0.168	8	0.094	-	pCi/g
700 (T207)	700-3	CG46-006	750713.1	2084093.3	0.00	0.50	Zinc	310.000	307000	73.760	-	mg/kg
700 (T207)	700-3	CG46-006	750713.1	2084093.3	1.50	2.50	Americium-241	0.405	76	0.020	-	pCi/g
700 (T207)	700-3	CG46-006	750713.1	2084093.3	1.50	2.50	Cadmium	3.700	962	1.700	-	mg/kg
700 (T207)	700-3	CG46-006	750713.1	2084093.3	1.50	2.50	Ethylbenzene	6.180	4250000	-	4.910	ug/kg
700 (T207)	700-3	CG46-006	750713.1	2084093.3	1.50	2.50	Naphthalene	6.300	3090000	-	4.910	ug/kg
700 (T207)	*700-3*	*CG46-006*	*750713.1*	*2084093.3*	*1.50*	*2.50*	*Plutonium-239/240*	*2.309*	*50*	*0.020*	-	*pCi/g*
700 (T207)	700-3	CG46-006	750713.1	2084093.3	1.50	2.50	Toluene	40.500	31300000	-	4.910	ug/kg
700 (T207)	700-3	CG46-006	750713.1	2084093.3	1.50	2.50	Uranium-235	0.192	8	0.120	-	pCi/g
700 (T207)	700-3	CG46-006	750713.1	2084093.3	1.50	2.50	Uranium-238	1.794	351	1.490	-	pCi/g
700 (T207)	700-3	CG46-006	750713.1	2084093.3	1.50	2.50	Xylene	43.800	2040000	-	9.830	ug/kg
700 (T207)	700-3	CG46-006	750713.1	2084093.3	1.50	2.50	Zinc	150.000	307000	139.100	-	mg/kg
700 (T207)	700-3	CG46-006	750713.1	2084093.3	3.50	4.50	Americium-241	0.591	76	0.020	-	pCi/g
700 (T207)	700-3	CG46-006	750713.1	2084093.3	3.50	4.50	Cadmium	32.000	962	1.700	-	mg/kg
700 (T207)	700-3	CG46-006	750713.1	2084093.3	3.50	4.50	Copper	41.000	40900	38.210	-	mg/kg
700 (T207)	700-3	CG46-006	750713.1	2084093.3	3.50	4.50	Lead	25.000	1000	24.970	-	mg/kg
700 (T207)	700-3	CG46-006	750713.1	2084093.3	3.50	4.50	Mercury	1.900	25200	1.520	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (T207)	*700-3*	*CG46-006*	*750713.1*	*2084093.3*	*3.50*	*4.50*	*Plutonium-239/240*	*3.368*	*50*	*0.020*	-	*pCi/g*
700 (T207)	700-3	CG46-006	750713.1	2084093.3	3.50	4.50	Uranium, Total	5.300	2750	3.040	-	mg/kg
700 (T207)	*700-3*	*CG46-006*	*750713.1*	*2084093.3*	*3.50*	*4.50*	*Uranium-234*	*3.863*	*300*	*2.640*	-	*pCi/g*
700 (T207)	700-3	CG46-006	750713.1	2084093.3	3.50	4.50	Uranium-235	0.343	8	0.120	-	pCi/g
700 (T207)	700-3	CG46-006	750713.1	2084093.3	3.50	4.50	Uranium-238	3.863	351	1.490	-	pCi/g
700 (T207)	700-3	CG46-006	750713.1	2084093.3	5.00	6.50	Cadmium	11.000	962	1.700	-	mg/kg
700 (T207)	700-3	CG46-006	750713.1	2084093.3	5.00	6.50	Uranium, Total	94.000	2750	3.040	-	mg/kg
700 (T207)	*700-3*	*CG46-006*	*750713.1*	*2084093.3*	*5.00*	*6.50*	*Uranium-234*	*16.570*	*300*	*2.640*	-	*pCi/g*
700 (T207)	700-3	CG46-006	750713.1	2084093.3	5.00	6.50	Uranium-235	0.709	8	0.120	-	pCi/g
700 (T207)	700-3	CG46-006	750713.1	2084093.3	5.00	6.50	Uranium-238	16.570	351	1.490	-	pCi/g
700 (T207)	700-3	CG46-006	750713.1	2084093.3	6.50	8.50	Cadmium	8.500	962	1.700	-	mg/kg
700 (T207)	*700-3*	*CG46-006*	*750713.1*	*2084093.3*	*6.50*	*8.50*	*Uranium-234*	*4.565*	*300*	*2.640*	-	*pCi/g*
700 (T207)	700-3	CG46-006	750713.1	2084093.3	6.50	8.50	Uranium-235	0.247	8	0.120	-	pCi/g
700 (T207)	700-3	CG46-006	750713.1	2084093.3	6.50	8.50	Uranium-238	4.565	351	1.490	-	pCi/g
700 (T207)	700-3	CG46-007	750697.23	2084093.4	0.00	0.50	Copper	27.000	40900	18.060	-	mg/kg
700 (T207)	*700-3*	*CG46-007*	*750697.23*	*2084093.4*	*0.00*	*0.50*	*Uranium-234*	*4.111*	*300*	*2.253*	-	*pCi/g*
700 (T207)	700-3	CG46-007	750697.23	2084093.4	0.00	0.50	Uranium-235	0.222	8	0.094	-	pCi/g
700 (T207)	700-3	CG46-007	750697.23	2084093.4	0.00	0.50	Uranium-238	4.111	351	2.000	-	pCi/g
700 (T207)	700-3	CG46-007	750697.23	2084093.4	0.00	0.50	Zinc	170.000	307000	73.760	-	mg/kg
700 (T207)	700-3	CG46-007	750697.23	2084093.4	1.00	2.50	Ethylbenzene	15.200	4250000	-	5.120	ug/kg
700 (T207)	700-3	CG46-007	750697.23	2084093.4	1.00	2.50	Naphthalene	9.150	3090000	-	5.120	ug/kg
700 (T207)	700-3	CG46-007	750697.23	2084093.4	1.00	2.50	Toluene	82.400	31300000	-	5.120	ug/kg
700 (T207)	*700-3*	*CG46-007*	*750697.23*	*2084093.4*	*1.00*	*2.50*	*Uranium-234*	*3.183*	*300*	*2.640*	-	*pCi/g*
700 (T207)	700-3	CG46-007	750697.23	2084093.4	1.00	2.50	Uranium-235	0.239	8	0.120	-	pCi/g
700 (T207)	700-3	CG46-007	750697.23	2084093.4	1.00	2.50	Uranium-238	3.183	351	1.490	-	pCi/g
700 (T207)	700-3	CG46-007	750697.23	2084093.4	1.00	2.50	Xylene	106.000	2040000	-	10.300	ug/kg
700 (T207)	*700-3*	*CG46-007*	*750697.23*	*2084093.4*	*3.50*	*4.50*	*Uranium-234*	*4.289*	*300*	*2.640*	-	*pCi/g*
700 (T207)	700-3	CG46-007	750697.23	2084093.4	3.50	4.50	Uranium-235	0.237	8	0.120	-	pCi/g
700 (T207)	700-3	CG46-007	750697.23	2084093.4	3.50	4.50	Uranium-238	4.289	351	1.490	-	pCi/g
700 (T207)	*700-3*	*CG46-007*	*750697.23*	*2084093.4*	*4.50*	*6.50*	*Uranium-234*	*8.403*	*300*	*2.640*	-	*pCi/g*
700 (T207)	700-3	CG46-007	750697.23	2084093.4	4.50	6.50	Uranium-235	0.410	8	0.120	-	pCi/g
700 (T207)	700-3	CG46-007	750697.23	2084093.4	4.50	6.50	Uranium-238	8.403	351	1.490	-	pCi/g
700 (T207)	*700-3*	*CG46-007*	*750697.23*	*2084093.4*	*6.50*	*8.50*	*Uranium-234*	*5.129*	*300*	*2.640*	-	*pCi/g*
700 (T207)	700-3	CG46-007	750697.23	2084093.4	6.50	8.50	Uranium-235	0.235	8	0.120	-	pCi/g
700 (T207)	700-3	CG46-007	750697.23	2084093.4	6.50	8.50	Uranium-238	5.129	351	1.490	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (T207)	*000-2*	*CG46-017*	*750723.13*	*2084094.9*	*0.00*	*0.50*	*Uranium-234*	*4.719*	*300*	*2.253*	-	*pCi/g*
700 (T207)	000-2	CG46-017	750723.13	2084094.9	0.00	0.50	Uranium-235	0.267	8	0.094	-	pCi/g
700 (T207)	000-2	CG46-017	750723.13	2084094.9	0.00	0.50	Uranium-238	4.719	351	2.000	-	pCi/g
700 (T207)	*000-2*	*CG46-017*	*750723.13*	*2084094.9*	*0.50*	*2.50*	*Uranium-234*	*5.831*	*300*	*2.640*	-	*pCi/g*
700 (T207)	000-2	CG46-017	750723.13	2084094.9	0.50	2.50	Uranium-235	0.266	8	0.120	-	pCi/g
700 (T207)	000-2	CG46-017	750723.13	2084094.9	0.50	2.50	Uranium-238	5.831	351	1.490	-	pCi/g
700 (T207)	*000-2*	*CG46-017*	*750723.13*	*2084094.9*	*2.50*	*4.50*	*Uranium-234*	*6.687*	*300*	*2.640*	-	*pCi/g*
700 (T207)	000-2	CG46-017	750723.13	2084094.9	2.50	4.50	Uranium-235	0.287	8	0.120	-	pCi/g
700 (T207)	000-2	CG46-017	750723.13	2084094.9	2.50	4.50	Uranium-238	6.687	351	1.490	-	pCi/g
700 (T207)	000-2	CG46-018	750714.92	2084094.9	0.00	0.50	Americium-241	0.760	76	0.023	-	pCi/g
700 (T207)	*000-2*	*CG46-018*	*750714.92*	*2084094.9*	*0.00*	*0.50*	*Plutonium-239/240*	*4.331*	*50*	*0.066*	-	*pCi/g*
700 (T207)	*000-2*	*CG46-018*	*750714.92*	*2084094.9*	*0.00*	*0.50*	*Uranium-234*	*3.760*	*300*	*2.253*	-	*pCi/g*
700 (T207)	000-2	CG46-018	750714.92	2084094.9	0.00	0.50	Uranium-235	0.344	8	0.094	-	pCi/g
700 (T207)	000-2	CG46-018	750714.92	2084094.9	0.00	0.50	Uranium-238	3.760	351	2.000	-	pCi/g
700 (T207)	000-2	CG46-018	750714.92	2084094.9	0.50	2.50	Americium-241	0.502	76	0.020	-	pCi/g
700 (T207)	*000-2*	*CG46-018*	*750714.92*	*2084094.9*	*0.50*	*2.50*	*Plutonium-239/240*	*2.861*	*50*	*0.020*	-	*pCi/g*
700 (T207)	*000-2*	*CG46-018*	*750714.92*	*2084094.9*	*0.50*	*2.50*	*Uranium-234*	*4.705*	*300*	*2.640*	-	*pCi/g*
700 (T207)	000-2	CG46-018	750714.92	2084094.9	0.50	2.50	Uranium-235	0.304	8	0.120	-	pCi/g
700 (T207)	000-2	CG46-018	750714.92	2084094.9	0.50	2.50	Uranium-238	4.705	351	1.490	-	pCi/g
700 (T207)	000-2	CG46-018	750714.92	2084094.9	2.50	4.50	Americium-241	1.530	76	0.020	-	pCi/g
700 (T207)	*000-2*	*CG46-018*	*750714.92*	*2084094.9*	*2.50*	*4.50*	*Plutonium-239/240*	*8.721*	*50*	*0.020*	-	*pCi/g*
700 (T207)	*000-2*	*CG46-018*	*750714.92*	*2084094.9*	*2.50*	*4.50*	*Uranium-234*	*7.748*	*300*	*2.640*	-	*pCi/g*
700 (T207)	000-2	CG46-018	750714.92	2084094.9	2.50	4.50	Uranium-235	0.570	8	0.120	-	pCi/g
700 (T207)	000-2	CG46-018	750714.92	2084094.9	2.50	4.50	Uranium-238	7.748	351	1.490	-	pCi/g
700 (T207)	000-2	CG46-019	750719.77	2084101.8	0.00	0.50	Uranium-235	0.172	8	0.094	-	pCi/g
700 (T207)	000-2	CG46-019	750719.77	2084101.8	0.50	2.50	Uranium-235	0.182	8	0.120	-	pCi/g
700 (T207)	000-2	CG46-019	750719.77	2084101.8	0.50	2.50	Uranium-238	2.502	351	1.490	-	pCi/g
700 (T207)	*000-2*	*CG46-019*	*750719.77*	*2084101.8*	*2.50*	*4.50*	*Uranium-234*	*5.591*	*300*	*2.640*	-	*pCi/g*
700 (T207)	000-2	CG46-019	750719.77	2084101.8	2.50	4.50	Uranium-235	0.206	8	0.120	-	pCi/g
700 (T207)	000-2	CG46-019	750719.77	2084101.8	2.50	4.50	Uranium-238	5.591	351	1.490	-	pCi/g
700 (T207)	700-4	CG47-003	750900.03	2084102.8	4.50	6.50	Americium-241	0.356	76	0.020	-	pCi/g
700 (T207)	700-4	CG47-003	750900.03	2084102.8	4.50	6.50	Arsenic	20.000	22.2	13.140	-	mg/kg
700 (T207)	700-4	CG47-003	750900.03	2084102.8	4.50	6.50	Plutonium-239/240	0.142	50	0.020	-	pCi/g
700 (T207)	700-4	CG47-003	750900.03	2084102.8	4.50	6.50	Uranium-235	0.260	8	0.120	-	pCi/g
700 (T207)	700-4	CG47-003	750900.03	2084102.8	4.50	6.50	Vanadium	100.000	7150	88.490	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (T207)	*700-3*	*CG47-004*	*750897.86*	*2084089.3*	*0.00*	*0.50*	*Uranium-234*	*5.071*	*300*	*2.253*	-	*pCi/g*
700 (T207)	700-3	CG47-004	750897.86	2084089.3	0.00	0.50	Uranium-235	0.273	8	0.094	-	pCi/g
700 (T207)	700-3	CG47-004	750897.86	2084089.3	0.00	0.50	Uranium-238	5.071	351	2.000	-	pCi/g
700 (T207)	*700-3*	*CG47-004*	*750897.86*	*2084089.3*	*1.00*	*2.50*	*Uranium-234*	*4.599*	*300*	*2.640*	-	*pCi/g*
700 (T207)	700-3	CG47-004	750897.86	2084089.3	1.00	2.50	Uranium-235	0.248	8	0.120	-	pCi/g
700 (T207)	700-3	CG47-004	750897.86	2084089.3	1.00	2.50	Uranium-238	4.599	351	1.490	-	pCi/g
700 (T207)	*700-3*	*CG47-004*	*750897.86*	*2084089.3*	*3.50*	*4.50*	*Uranium-234*	*5.099*	*300*	*2.640*	-	*pCi/g*
700 (T207)	700-3	CG47-004	750897.86	2084089.3	3.50	4.50	Uranium-235	0.257	8	0.120	-	pCi/g
700 (T207)	700-3	CG47-004	750897.86	2084089.3	3.50	4.50	Uranium-238	5.099	351	1.490	-	pCi/g
700 (T207)	700-3	CG47-004	750897.86	2084089.3	5.50	6.50	Uranium-238	1.793	351	1.490	-	pCi/g
700 (T207)	700-3	CG47-004	750897.86	2084089.3	7.50	8.50	Uranium-235	0.141	8	0.120	-	pCi/g
700 (T207)	000-2	CG47-005	750890.22	2084094.6	2.50	4.50	Cadmium	3.500	962	1.700	-	mg/kg
700 (T207)	000-2	CG47-005	750890.22	2084094.6	2.50	4.50	Methylene chloride	1.600	2530000	-	0.820	ug/kg
700 (T207)	000-2	CG47-005	750890.22	2084094.6	2.50	4.50	Toluene	1.600	31300000	-	0.800	ug/kg
700 (T207)	000-2	CG47-005	750890.22	2084094.6	2.50	4.50	Uranium, Total	3.300	2750	3.040	-	mg/kg
700 (T207)	000-2	CG47-005	750890.22	2084094.6	2.50	4.50	Xylene	5.300	2040000	-	2.900	ug/kg
700 (T207)	000-2	CG47-005	750890.22	2084094.6	4.50	6.50	1,2,4-Trichlorobenzene	0.880	9230000	-	0.790	ug/kg
700 (T207)	000-2	CG47-005	750890.22	2084094.6	4.50	6.50	Cadmium	12.000	962	1.700	-	mg/kg
700 (T207)	000-2	CG47-005	750890.22	2084094.6	4.50	6.50	Methylene chloride	1.800	2530000	-	0.890	ug/kg
700 (T207)	000-2	CG47-005	750890.22	2084094.6	4.50	6.50	Naphthalene	2.100	3090000	-	0.950	ug/kg
700 (T207)	000-2	CG47-005	750890.22	2084094.6	4.50	6.50	Uranium, Total	4.800	2750	3.040	-	mg/kg
700 (T207)	000-2	CG47-005	750890.22	2084094.6	4.50	6.50	Uranium-235	0.234	8	0.120	-	pCi/g
700 (T207)	000-2	CG47-005	750890.22	2084094.6	4.50	6.50	Uranium-238	4.120	351	1.490	-	pCi/g
700 (T207)	000-2	CG47-005	750890.22	2084094.6	6.50	8.50	Methylene chloride	1.300	2530000	-	0.940	ug/kg
700 (T207)	000-2	CG47-005	750890.22	2084094.6	6.50	8.50	Uranium, Total	3.500	2750	3.040	-	mg/kg
700 (T207)	000-2	CG47-035	750789.99	2084093.5	3.50	3.70	Plutonium-239/240	0.276	50	0.020	-	pCi/g
700 (T207)	000-2	CG47-036	750860.91	2084093.7	3.50	4.00	Americium-241	1.770	76	0.020	-	pCi/g
700 (T207)	000-2	CG47-036	750860.91	2084093.7	3.50	4.00	Cadmium	7.200	962	1.700	-	mg/kg
700 (T207)	000-2	CG47-036	750860.91	2084093.7	3.50	4.00	Mercury	3.200	25200	1.520	-	mg/kg
700 (T207)	000-2	CG47-036	750860.91	2084093.7	3.50	4.00	Naphthalene	1.200	3090000	-	0.980	ug/kg
700 (T207)	000-2	CG47-036	750860.91	2084093.7	3.50	4.00	Plutonium-239/240	1.530	50	0.020	-	pCi/g
700 (T207)	000-2	CG47-036	750860.91	2084093.7	3.50	4.00	Tetrachloroethene	2.500	615000	-	1.100	ug/kg
700 (T207)	000-2	CG47-036	750860.91	2084093.7	3.50	4.00	Uranium, Total	4.000	2750	3.040	-	mg/kg
700 (T207)	000-2	CG47-036	750860.91	2084093.7	3.50	4.00	Uranium-234	2.770	300	2.640	-	pCi/g
700 (T207)	000-2	CG47-036	750860.91	2084093.7	3.50	4.00	Uranium-235	0.195	8	0.120	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (T207)	000-2	CG47-036	750860.91	2084093.7	3.50	4.00	Uranium-238	3.160	351	1.490	-	pCi/g
700 (T207)	000-2	CG47-037	750919.99	2084092	3.50	4.00	Naphthalene	1.300	3090000	-	1.000	ug/kg
700 (T207)	000-2	CG47-037	750919.99	2084092	3.50	4.00	Plutonium-239/240	0.260	50	0.020	-	pCi/g
700 (T207)	000-2	CG47-037	750919.99	2084092	3.50	4.00	Uranium-235	0.124	8	0.120	-	pCi/g
700 (T207)	000-2	CG47-038	750915.93	2084055.8	5.00	5.50	Aluminum	37000.000	228000	35373.170	-	mg/kg
700 (T207)	000-2	CG47-038	750915.93	2084055.8	5.00	5.50	Americium-241	0.957	76	0.020	-	pCi/g
700 (T207)	000-2	CG47-038	750915.93	2084055.8	5.00	5.50	Naphthalene	1.700	3090000	-	1.000	ug/kg
700 (T207)	000-2	CG47-038	750915.93	2084055.8	5.00	5.50	Plutonium-239/240	0.530	50	0.020	-	pCi/g
700 (T207)	000-2	CG47-039	750904.19	2084122.9	3.00	4.50	Americium-241	0.691	76	0.020	-	pCi/g
700 (T207)	000-2	CG47-039	750904.19	2084122.9	3.00	4.50	Methylene chloride	2.200	2530000	-	0.970	ug/kg
700 (T207)	000-2	CG47-039	750904.19	2084122.9	3.00	4.50	Naphthalene	1.200	3090000	-	1.000	ug/kg
700 (T207)	000-2	CG47-039	750904.19	2084122.9	3.00	4.50	Plutonium-239/240	0.738	50	0.020	-	pCi/g
700 (T207)	700-3	CH46-000	750704.18	2084154.6	0.00	0.50	Americium-241	0.254	76	0.023	-	pCi/g
700 (T207)	700-3	CH46-000	750704.18	2084154.6	0.00	0.50	Chromium	28.000	268	16.990	-	mg/kg
700 (T207)	700-3	CH46-000	750704.18	2084154.6	0.00	0.50	Copper	21.000	40900	18.060	-	mg/kg
700 (T207)	700-3	CH46-000	750704.18	2084154.6	0.00	0.50	Plutonium-239/240	0.340	50	0.066	-	pCi/g
700 (T207)	700-3	CH46-000	750704.18	2084154.6	0.00	0.50	Zinc	120.000	307000	73.760	-	mg/kg
700 (T207)	700-3	CH46-000	750704.18	2084154.6	1.00	2.50	Americium-241	0.295	76	0.020	-	pCi/g
700 (T207)	700-3	CH46-000	750704.18	2084154.6	1.00	2.50	Methylene chloride	2.000	2530000	-	0.860	ug/kg
700 (T207)	700-3	CH46-000	750704.18	2084154.6	1.00	2.50	Plutonium-239/240	0.182	50	0.020	-	pCi/g
700 (T207)	700-3	CH46-000	750704.18	2084154.6	1.00	2.50	Uranium-234	2.820	300	2.640	-	pCi/g
700 (T207)	700-3	CH46-000	750704.18	2084154.6	1.00	2.50	Uranium-235	0.338	8	0.120	-	pCi/g
700 (T207)	700-3	CH46-000	750704.18	2084154.6	3.50	4.50	Aluminum	37000.000	228000	35373.170	-	mg/kg
700 (T207)	700-3	CH46-000	750704.18	2084154.6	3.50	4.50	Americium-241	0.142	76	0.020	-	pCi/g
700 (T207)	700-3	CH46-000	750704.18	2084154.6	3.50	4.50	Methylene chloride	1.500	2530000	-	0.810	ug/kg
700 (T207)	700-3	CH46-000	750704.18	2084154.6	5.00	6.50	Acetone	13.000	102000000	-	5.300	ug/kg
700 (T207)	700-3	CH46-000	750704.18	2084154.6	5.00	6.50	Methylene chloride	1.700	2530000	-	0.910	ug/kg
700 (T207)	700-3	CH46-000	750704.18	2084154.6	6.50	8.50	Methylene chloride	1.500	2530000	-	0.830	ug/kg
700 (T207)	700-3	CH46-001	750694.66	2084163	0.00	0.50	Lithium	12.000	20400	11.550	-	mg/kg
700 (T207)	*700-3*	*CH46-001*	*750694.66*	*2084163*	*0.00*	*0.50*	*Uranium-234*	*4.064*	*300*	*2.253*	-	*pCi/g*
700 (T207)	700-3	CH46-001	750694.66	2084163	0.00	0.50	Uranium-235	0.210	8	0.094	-	pCi/g
700 (T207)	700-3	CH46-001	750694.66	2084163	0.00	0.50	Uranium-238	4.064	351	2.000	-	pCi/g
700 (T207)	700-3	CH46-001	750694.66	2084163	1.00	2.50	Americium-241	0.375	76	0.020	-	pCi/g
700 (T207)	700-3	CH46-001	750694.66	2084163	1.00	2.50	Ethylbenzene	18.100	4250000	-	5.210	ug/kg
700 (T207)	700-3	CH46-001	750694.66	2084163	1.00	2.50	Naphthalene	5.720	3090000	-	5.210	ug/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (T207)	*700-3*	*CH46-001*	*750694.66*	*2084163*	*1.00*	*2.50*	*Plutonium-239/240*	*2.137*	*50*	*0.020*	-	*pCi/g*
700 (T207)	700-3	CH46-001	750694.66	2084163	1.00	2.50	Toluene	42.600	31300000	-	5.210	ug/kg
700 (T207)	700-3	CH46-001	750694.66	2084163	1.00	2.50	Uranium-235	0.178	8	0.120	-	pCi/g
700 (T207)	700-3	CH46-001	750694.66	2084163	1.00	2.50	Xylene	139.000	2040000	-	10.400	ug/kg
700 (T207)	*700-3*	*CH46-001*	*750694.66*	*2084163*	*3.50*	*4.50*	*Uranium-234*	*5.337*	*300*	*2.640*	-	*pCi/g*
700 (T207)	700-3	CH46-001	750694.66	2084163	3.50	4.50	Uranium-235	0.304	8	0.120	-	pCi/g
700 (T207)	700-3	CH46-001	750694.66	2084163	3.50	4.50	Uranium-238	5.337	351	1.490	-	pCi/g
700 (T207)	700-3	CH46-001	750694.66	2084163	5.00	6.50	Uranium, Total	9.400	2750	3.040	-	mg/kg
700 (T207)	*700-3*	*CH46-001*	*750694.66*	*2084163*	*5.00*	*6.50*	*Uranium-234*	*5.538*	*300*	*2.640*	-	*pCi/g*
700 (T207)	700-3	CH46-001	750694.66	2084163	5.00	6.50	Uranium-235	0.240	8	0.120	-	pCi/g
700 (T207)	700-3	CH46-001	750694.66	2084163	5.00	6.50	Uranium-238	5.538	351	1.490	-	pCi/g
700 (T207)	700-3	CH46-002	750694.28	2084163.6	0.00	0.50	Antimony	0.950	409	0.470	-	mg/kg
700 (T207)	*700-3*	*CH46-002*	*750694.28*	*2084163.6*	*0.00*	*0.50*	*Uranium-234*	*3.544*	*300*	*2.253*	-	*pCi/g*
700 (T207)	700-3	CH46-002	750694.28	2084163.6	0.00	0.50	Uranium-235	0.178	8	0.094	-	pCi/g
700 (T207)	700-3	CH46-002	750694.28	2084163.6	0.00	0.50	Uranium-238	3.544	351	2.000	-	pCi/g
700 (T207)	700-3	CH46-002	750694.28	2084163.6	0.00	0.50	Zinc	160.000	307000	73.760	-	mg/kg
700 (T207)	700-3	CH46-002	750694.28	2084163.6	1.00	2.50	Toluene	5.310	31300000	-	4.770	ug/kg
700 (T207)	700-3	CH46-002	750694.28	2084163.6	1.00	2.50	Uranium-235	0.136	8	0.120	-	pCi/g
700 (T207)	700-3	CH46-002	750694.28	2084163.6	1.00	2.50	Zinc	140.000	307000	139.100	-	mg/kg
700 (T207)	700-3	CH46-002	750694.28	2084163.6	3.50	4.50	Americium-241	0.347	76	0.020	-	pCi/g
700 (T207)	700-3	CH46-002	750694.28	2084163.6	3.50	4.50	Ethylbenzene	9.360	4250000	-	5.150	ug/kg
700 (T207)	*700-3*	*CH46-002*	*750694.28*	*2084163.6*	*3.50*	*4.50*	*Plutonium-239/240*	*1.977*	*50*	*0.020*	-	*pCi/g*
700 (T207)	700-3	CH46-002	750694.28	2084163.6	3.50	4.50	Toluene	19.900	31300000	-	5.150	ug/kg
700 (T207)	700-3	CH46-002	750694.28	2084163.6	3.50	4.50	Uranium-235	0.151	8	0.120	-	pCi/g
700 (T207)	700-3	CH46-002	750694.28	2084163.6	3.50	4.50	Xylene	72.100	2040000	-	10.300	ug/kg
700 (T207)	700-3	CH46-002	750694.28	2084163.6	3.50	4.50	Zinc	140.000	307000	139.100	-	mg/kg
700 (T207)	700-3	CH46-002	750694.28	2084163.6	5.50	6.50	Americium-241	0.866	76	0.020	-	pCi/g
700 (T207)	700-3	CH46-002	750694.28	2084163.6	5.50	6.50	Naphthalene	4.920	3090000	-	4.850	ug/kg
700 (T207)	*700-3*	*CH46-002*	*750694.28*	*2084163.6*	*5.50*	*6.50*	*Plutonium-239/240*	*4.934*	*50*	*0.020*	-	*pCi/g*
700 (T207)	700-3	CH46-002	750694.28	2084163.6	5.50	6.50	Uranium-235	0.123	8	0.120	-	pCi/g
700 (T207)	*700-3*	*CH46-002*	*750694.28*	*2084163.6*	*7.25*	*8.50*	*Uranium-234*	*3.715*	*300*	*2.640*	-	*pCi/g*
700 (T207)	700-3	CH46-002	750694.28	2084163.6	7.25	8.50	Uranium-235	0.196	8	0.120	-	pCi/g
700 (T207)	700-3	CH46-002	750694.28	2084163.6	7.25	8.50	Uranium-238	3.715	351	1.490	-	pCi/g
700 (T207)	*700-3*	*CH46-003*	*750699.28*	*2084146.3*	*0.00*	*0.50*	*Uranium-234*	*3.172*	*300*	*2.253*	-	*pCi/g*
700 (T207)	700-3	CH46-003	750699.28	2084146.3	0.00	0.50	Uranium-235	0.167	8	0.094	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (T207)	700-3	CH46-003	750699.28	2084146.3	0.00	0.50	Uranium-238	3.172	351	2.000	-	pCi/g
700 (T207)	700-3	CH46-003	750699.28	2084146.3	0.00	0.50	Zinc	91.000	307000	73.760	-	mg/kg
700 (T207)	700-3	CH46-003	750699.28	2084146.3	1.00	2.50	Ethylbenzene	20.700	4250000	-	5.160	ug/kg
700 (T207)	700-3	CH46-003	750699.28	2084146.3	1.00	2.50	Toluene	79.400	31300000	-	5.160	ug/kg
700 (T207)	*700-3*	*CH46-003*	*750699.28*	*2084146.3*	*1.00*	*2.50*	*Uranium-234*	*3.130*	*300*	*2.640*	-	*pCi/g*
700 (T207)	700-3	CH46-003	750699.28	2084146.3	1.00	2.50	Uranium-235	0.194	8	0.120	-	pCi/g
700 (T207)	700-3	CH46-003	750699.28	2084146.3	1.00	2.50	Uranium-238	3.130	351	1.490	-	pCi/g
700 (T207)	700-3	CH46-003	750699.28	2084146.3	1.00	2.50	Xylene	131.000	2040000	-	10.300	ug/kg
700 (T207)	700-3	CH46-003	750699.28	2084146.3	3.50	4.50	Americium-241	0.404	76	0.020	-	pCi/g
700 (T207)	*700-3*	*CH46-003*	*750699.28*	*2084146.3*	*3.50*	*4.50*	*Plutonium-239/240*	*2.302*	*50*	*0.020*	-	*pCi/g*
700 (T207)	700-3	CH46-003	750699.28	2084146.3	3.50	4.50	Uranium-235	0.163	8	0.120	-	pCi/g
700 (T207)	700-3	CH46-003	750699.28	2084146.3	5.50	6.50	Copper	46.000	40900	38.210	-	mg/kg
700 (T207)	700-3	CH46-003	750699.28	2084146.3	5.50	6.50	Uranium-235	0.176	8	0.120	-	pCi/g
700 (T207)	700-3	CH46-003	750699.28	2084146.3	5.50	6.50	Uranium-238	1.605	351	1.490	-	pCi/g
700 (T207)	000-2	CH46-007	750742.15	2084196.9	3.00	3.50	Aluminum	57000.000	228000	35373.170	-	mg/kg
700 (T207)	000-2	CH46-007	750742.15	2084196.9	3.00	3.50	Arsenic	19.000	22.2	13.140	-	mg/kg
700 (T207)	000-2	CH46-007	750742.15	2084196.9	3.00	3.50	Lithium	35.000	20400	34.660	-	mg/kg
700 (T207)	000-2	CH46-007	750742.15	2084196.9	3.00	3.50	Methylene chloride	1.300	2530000	-	1.000	ug/kg
700 (T207)	000-2	CH46-007	750742.15	2084196.9	3.00	3.50	Vanadium	98.000	7150	88.490	-	mg/kg
700 (T207)	000-2	CH46-008	750757.72	2084181.3	7.00	7.50	Acetone	63.000	102000000	-	5.500	ug/kg
700 (T207)	000-2	CH46-008	750757.72	2084181.3	7.00	7.50	Aluminum	51000.000	228000	35373.170	-	mg/kg
700 (T207)	000-2	CH46-008	750757.72	2084181.3	7.00	7.50	Americium-241	0.187	76	0.020	-	pCi/g
700 (T207)	000-2	CH46-008	750757.72	2084181.3	7.00	7.50	Benzo(a)anthracene	54.000	34900	-	46.000	ug/kg
700 (T207)	000-2	CH46-008	750757.72	2084181.3	7.00	7.50	Chrysene	55.000	3490000	-	40.000	ug/kg
700 (T207)	000-2	CH46-008	750757.72	2084181.3	7.00	7.50	Fluoranthene	66.000	27200000	-	46.000	ug/kg
700 (T207)	000-2	CH46-008	750757.72	2084181.3	7.00	7.50	Methylene chloride	1.300	2530000	-	0.950	ug/kg
700 (T207)	000-2	CH46-009	750761.84	2084180.9	4.00	4.50	Americium-241	0.702	76	0.020	-	pCi/g
700 (T207)	000-2	CH46-009	750761.84	2084180.9	4.00	4.50	Arsenic	17.200	22.2	13.140	-	mg/kg
700 (T207)	000-2	CH46-009	750761.84	2084180.9	4.00	4.50	Barium	582.000	26400	289.380	-	mg/kg
700 (T207)	000-2	CH46-009	750761.84	2084180.9	4.00	4.50	Copper	41.500	40900	38.210	-	mg/kg
700 (T207)	000-2	CH46-009	750761.84	2084180.9	4.00	4.50	Iron	68900.000	307000	41046.520	-	mg/kg
700 (T207)	000-2	CH46-009	750761.84	2084180.9	4.00	4.50	Lead	69.100	1000	24.970	-	mg/kg
700 (T207)	000-2	CH46-009	750761.84	2084180.9	4.00	4.50	Nickel	82.300	20400	62.210	-	mg/kg
700 (T207)	*000-2*	*CH46-009*	*750761.84*	*2084180.9*	*4.00*	*4.50*	*Plutonium-239/240*	*4.002*	*50*	*0.020*	-	*pCi/g*
700 (T207)	*000-2*	*CH46-009*	*750761.84*	*2084180.9*	*4.00*	*4.50*	*Uranium-234*	*3.361*	*300*	*2.640*	-	*pCi/g*

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (T207)	000-2	CH46-009	750761.84	2084180.9	4.00	4.50	Uranium-235	0.203	8	0.120	-	pCi/g
700 (T207)	000-2	CH46-009	750761.84	2084180.9	4.00	4.50	Uranium-238	3.361	351	1.490	-	pCi/g
700 (T207)	000-2	CH46-009	750761.84	2084180.9	4.00	4.50	Vanadium	172.000	7150	88.490	-	mg/kg
700 (T207)	000-2	CH46-009	750761.84	2084180.9	7.00	7.50	2-Methylnaphthalene	62.000	20400000	-	47.000	ug/kg
700 (T207)	000-2	CH46-009	750761.84	2084180.9	7.00	7.50	Acenaphthene	270.000	40800000	-	60.000	ug/kg
700 (T207)	000-2	CH46-009	750761.84	2084180.9	7.00	7.50	Americium-241	0.943	76	0.020	-	pCi/g
700 (T207)	000-2	CH46-009	750761.84	2084180.9	7.00	7.50	Anthracene	320.000	204000000	-	87.000	ug/kg
700 (T207)	000-2	CH46-009	750761.84	2084180.9	7.00	7.50	Benzo(a)anthracene	360.000	34900	-	52.000	ug/kg
700 (T207)	000-2	CH46-009	750761.84	2084180.9	7.00	7.50	Benzo(a)pyrene	330.000	3490	-	68.000	ug/kg
700 (T207)	000-2	CH46-009	750761.84	2084180.9	7.00	7.50	Benzo(b)fluoranthene	320.000	34900	-	85.000	ug/kg
700 (T207)	000-2	CH46-009	750761.84	2084180.9	7.00	7.50	Benzo(k)fluoranthene	250.000	349000	-	91.000	ug/kg
700 (T207)	000-2	CH46-009	750761.84	2084180.9	7.00	7.50	Chrysene	370.000	3490000	-	46.000	ug/kg
700 (T207)	000-2	CH46-009	750761.84	2084180.9	7.00	7.50	Dibenz(a,h)anthracene	90.000	3490	-	83.000	ug/kg
700 (T207)	000-2	CH46-009	750761.84	2084180.9	7.00	7.50	Dibenzofuran	110.000	2950000	-	67.000	ug/kg
700 (T207)	000-2	CH46-009	750761.84	2084180.9	7.00	7.50	Fluoranthene	840.000	27200000	-	52.000	ug/kg
700 (T207)	000-2	CH46-009	750761.84	2084180.9	7.00	7.50	Fluorene	210.000	40800000	-	73.000	ug/kg
700 (T207)	000-2	CH46-009	750761.84	2084180.9	7.00	7.50	Indeno(1,2,3-cd)pyrene	180.000	34900	-	59.000	ug/kg
700 (T207)	000-2	CH46-009	750761.84	2084180.9	7.00	7.50	Methylene chloride	1.400	2530000	-	1.100	ug/kg
700 (T207)	000-2	CH46-009	750761.84	2084180.9	7.00	7.50	Plutonium-239/240	3.220	50	0.020	-	pCi/g
700 (T207)	000-2	CH46-009	750761.84	2084180.9	7.00	7.50	Pyrene	840.000	22100000	-	75.000	ug/kg
700 (T207)	700-3	CH46-010	750744.19	2084152.8	4.50	6.50	Uranium-235	0.130	8	0.120	-	pCi/g
700 (T207)	*700-7*	*CH46-013*	*750673.16*	*2084177.1*	*3.50*	*4.50*	*Uranium-234*	*4.035*	*300*	*2.640*	-	*pCi/g*
700 (T207)	700-7	CH46-013	750673.16	2084177.1	3.50	4.50	Uranium-235	0.271	8	0.120	-	pCi/g
700 (T207)	700-7	CH46-013	750673.16	2084177.1	3.50	4.50	Uranium-238	4.035	351	1.490	-	pCi/g
700 (T207)	700-7	CH46-013	750673.16	2084177.1	4.50	6.50	Uranium-238	2.005	351	1.490	-	pCi/g
700 (T207)	700-3	CH46-014	750709.03	2084170.8	4.50	6.50	Aluminum	43000.000	228000	35373.170	-	mg/kg
700 (T207)	700-3	CH46-014	750709.03	2084170.8	4.50	6.50	Plutonium-239/240	0.345	50	0.020	-	pCi/g
700 (T207)	700-3	CH46-015	750723.54	2084154.4	4.50	6.50	Uranium-235	0.145	8	0.120	-	pCi/g
700 (T207)	700-3	CH46-015	750723.54	2084154.4	4.50	6.50	Uranium-238	2.193	351	1.490	-	pCi/g
700 (T207)	000-2	CH46-035	750788.26	2084208.3	4.00	4.50	1,2,4-Trichlorobenzene	1.900	9230000	-	0.900	ug/kg
700 (T207)	000-2	CH46-035	750788.26	2084208.3	4.00	4.50	Acetone	69.000	102000000	-	5.800	ug/kg
700 (T207)	000-2	CH46-035	750788.26	2084208.3	4.00	4.50	Americium-241	0.239	76	0.020	-	pCi/g
700 (T207)	000-2	CH46-035	750788.26	2084208.3	4.00	4.50	Methylene chloride	1.400	2530000	-	1.000	ug/kg
700 (T207)	000-2	CH46-035	750788.26	2084208.3	4.00	4.50	Naphthalene	3.500	3090000	-	1.100	ug/kg
700 (T207)	000-2	CH46-035	750788.26	2084208.3	4.00	4.50	Plutonium-239/240	0.167	50	0.020	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (T207)	000-2	CH46-036	750702.51	2084152.5	3.50	4.00	Americium-241	0.830	76	0.020	-	pCi/g
700 (T207)	000-2	CH46-036	750702.51	2084152.5	3.50	4.00	Copper	94.000	40900	38.210	-	mg/kg
700 (T207)	000-2	CH46-036	750702.51	2084152.5	3.50	4.00	Naphthalene	15.000	3090000	-	1.000	ug/kg
700 (T207)	000-2	CH46-036	750702.51	2084152.5	3.50	4.00	Plutonium-239/240	1.380	50	0.020	-	pCi/g
700 (T207)	000-2	CH46-036	750702.51	2084152.5	3.50	4.00	Tetrachloroethene	2.800	615000	-	1.200	ug/kg
700 (T207)	000-2	CH46-036	750702.51	2084152.5	3.50	4.00	Uranium, Total	5.900	2750	3.040	-	mg/kg
700 (T207)	000-2	CH46-036	750702.51	2084152.5	3.50	4.00	Uranium-235	0.244	8	0.120	-	pCi/g
700 (T207)	000-2	CH46-036	750702.51	2084152.5	3.50	4.00	Uranium-238	2.480	351	1.490	-	pCi/g
700 (T207)	000-2	CH46-038	750764.39	2084229.7	4.00	4.50	Acetone	66.000	102000000	-	4.800	ug/kg
700 (T207)	000-2	CH46-038	750764.39	2084229.7	4.00	4.50	Naphthalene	2.600	3090000	-	0.900	ug/kg
700 (T207)	000-2	CH46-039	750790	2084209.4	4.00	4.50	1,2,4-Trichlorobenzene	0.770	9230000	-	0.760	ug/kg
700 (T207)	000-2	CH46-039	750790	2084209.4	4.00	4.50	Acetone	60.000	102000000	-	4.900	ug/kg
700 (T207)	000-2	CH46-039	750790	2084209.4	4.00	4.50	Americium-241	1.150	76	0.020	-	pCi/g
700 (T207)	000-2	CH46-039	750790	2084209.4	4.00	4.50	Methylene chloride	1.000	2530000	-	0.860	ug/kg
700 (T207)	000-2	CH46-039	750790	2084209.4	4.00	4.50	Naphthalene	7.900	3090000	-	0.920	ug/kg
700 (T207)	000-2	CH46-039	750790	2084209.4	4.00	4.50	Plutonium-239/240	0.472	50	0.020	-	pCi/g
700 (T207)	000-2	CH46-044	750789.31	2084272.6	3.50	4.00	Acetone	15.000	102000000	-	5.400	ug/kg
700 (T207)	000-2	CH46-044	750789.31	2084272.6	3.50	4.00	Americium-241	3.740	76	0.020	-	pCi/g
700 (T207)	000-2	CH46-044	750789.31	2084272.6	3.50	4.00	Naphthalene	14.000	3090000	-	1.000	ug/kg
700 (T207)	000-2	CH46-044	750789.31	2084272.6	3.50	4.00	Plutonium-239/240	1.480	50	0.020	-	pCi/g
700 (T207)	000-2	CH46-045	750805.46	2084200	0.50	2.50	Acetone	7.100	102000000	-	4.900	ug/kg
700 (T207)	000-2	CH46-045	750805.46	2084200	0.50	2.50	Americium-241	1.020	76	0.023	-	pCi/g
700 (T207)	000-2	CH46-045	750805.46	2084200	0.50	2.50	Plutonium-239/240	0.495	50	0.066	-	pCi/g
700 (T207)	000-2	CH46-045	750805.46	2084200	0.50	2.50	Uranium-234	2.470	300	2.253	-	pCi/g
700 (T207)	000-2	CH46-045	750805.46	2084200	0.50	2.50	Uranium-235	0.253	8	0.094	-	pCi/g
700 (T207)	000-2	CH46-045	750805.46	2084200	0.50	2.50	Uranium-238	2.160	351	2.000	-	pCi/g
700 (T207)	000-2	CH46-046	750746.8	2084225.5	2.00	2.50	Naphthalene	0.900	3090000	-	0.880	ug/kg
700 (T207)	000-2	CH46-047	750696.24	2084146.2	3.50	4.00	2-Butanone	9.100	192000000	-	5.700	ug/kg
700 (T207)	000-2	CH46-047	750696.24	2084146.2	3.50	4.00	Acetone	40.000	102000000	-	5.600	ug/kg
700 (T207)	000-2	CH46-047	750696.24	2084146.2	3.50	4.00	Americium-241	0.455	76	0.020	-	pCi/g
700 (T207)	000-2	CH46-047	750696.24	2084146.2	3.50	4.00	Copper	53.000	40900	38.210	-	mg/kg
700 (T207)	000-2	CH46-047	750696.24	2084146.2	3.50	4.00	Naphthalene	2.200	3090000	-	1.000	ug/kg
700 (T207)	000-2	CH46-047	750696.24	2084146.2	3.50	4.00	Plutonium-239/240	0.756	50	0.020	-	pCi/g
700 (T207)	000-2	CH46-047	750696.24	2084146.2	3.50	4.00	Tetrachloroethene	1.300	615000	-	1.200	ug/kg
700 (T207)	000-2	CH46-047	750696.24	2084146.2	3.50	4.00	Uranium-235	0.133	8	0.120	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (T207)	000-2	CH46-047	750696.24	2084146.2	3.50	4.00	Zinc	140.000	307000	139.100	-	mg/kg
700 (T207)	000-2	CH46-048	750698.7	2084141.1	4.00	4.50	Naphthalene	72.400	3090000	-	5.520	ug/kg
700 (T207)	000-2	CH46-048	750698.7	2084141.1	4.00	4.50	Uranium-235	0.137	8	0.120	-	pCi/g
700 (T207)	000-2	CH46-052	750699.78	2084161.2	4.50	5.00	Americium-241	4.910	76	0.020	-	pCi/g
700 (T207)	000-2	CH46-052	750699.78	2084161.2	4.50	5.00	Chromium	74.000	268	68.270	-	mg/kg
700 (T207)	000-2	CH46-052	750699.78	2084161.2	4.50	5.00	Naphthalene	1.600	3090000	-	1.100	ug/kg
700 (T207)	000-2	CH46-052	750699.78	2084161.2	4.50	5.00	Plutonium-239/240	4.870	50	0.020	-	pCi/g
700 (T207)	000-2	CH46-052	750699.78	2084161.2	4.50	5.00	Tetrachloroethene	1.400	615000	-	1.300	ug/kg
700 (T207)	000-2	CH46-061	750716.47	2084150.4	2.50	3.00	Acetone	5.800	102000000	-	5.200	ug/kg
700 (T207)	000-2	CH46-061	750716.47	2084150.4	2.50	3.00	Tetrachloroethene	1.600	615000	-	1.100	ug/kg
700 (T207)	700-3	CH47-000	750918.02	2084180.3	0.00	0.50	Americium-241	12.900	76	0.023	-	pCi/g
700 (T207)	700-3	CH47-000	750918.02	2084180.3	0.00	0.50	Beryllium	1.400	921	0.966	-	mg/kg
700 (T207)	700-3	CH47-000	750918.02	2084180.3	0.00	0.50	Chromium	17.000	268	16.990	-	mg/kg
700 (T207)	***700-3***	***CH47-000***	***750918.02***	***2084180.3***	***0.00***	***0.50***	***Plutonium-239/240***	***73.530***	***50***	***0.066***	-	***pCi/g***
700 (T207)	*700-3*	*CH47-000*	*750918.02*	*2084180.3*	*0.00*	*0.50*	*Uranium-234*	*4.140*	*300*	*2.253*	-	*pCi/g*
700 (T207)	700-3	CH47-000	750918.02	2084180.3	0.00	0.50	Uranium-235	0.232	8	0.094	-	pCi/g
700 (T207)	700-3	CH47-000	750918.02	2084180.3	0.00	0.50	Uranium-238	4.140	351	2.000	-	pCi/g
700 (T207)	700-3	CH47-000	750918.02	2084180.3	1.00	2.50	Americium-241	3.615	76	0.020	-	pCi/g
700 (T207)	700-3	CH47-000	750918.02	2084180.3	1.00	2.50	Naphthalene	14.800	3090000	-	5.580	ug/kg
700 (T207)	*700-3*	*CH47-000*	*750918.02*	*2084180.3*	*1.00*	*2.50*	*Plutonium-239/240*	*20.606*	*50*	*0.020*	-	*pCi/g*
700 (T207)	*700-3*	*CH47-000*	*750918.02*	*2084180.3*	*1.00*	*2.50*	*Uranium-234*	*3.441*	*300*	*2.640*	-	*pCi/g*
700 (T207)	700-3	CH47-000	750918.02	2084180.3	1.00	2.50	Uranium-235	0.180	8	0.120	-	pCi/g
700 (T207)	700-3	CH47-000	750918.02	2084180.3	1.00	2.50	Uranium-238	3.441	351	1.490	-	pCi/g
700 (T207)	700-3	CH47-000	750918.02	2084180.3	3.00	4.50	Americium-241	1.758	76	0.020	-	pCi/g
700 (T207)	700-3	CH47-000	750918.02	2084180.3	3.00	4.50	Naphthalene	7.920	3090000	-	6.230	ug/kg
700 (T207)	*700-3*	*CH47-000*	*750918.02*	*2084180.3*	*3.00*	*4.50*	*Plutonium-239/240*	*10.021*	*50*	*0.020*	-	*pCi/g*
700 (T207)	700-3	CH47-000	750918.02	2084180.3	3.00	4.50	Uranium-238	2.189	351	1.490	-	pCi/g
700 (T207)	700-3	CH47-000	750918.02	2084180.3	5.00	6.50	Americium-241	1.475	76	0.020	-	pCi/g
700 (T207)	*700-3*	*CH47-000*	*750918.02*	*2084180.3*	*5.00*	*6.50*	*Plutonium-239/240*	*8.408*	*50*	*0.020*	-	*pCi/g*
700 (T207)	*700-3*	*CH47-000*	*750918.02*	*2084180.3*	*7.00*	*8.50*	*Uranium-234*	*3.654*	*300*	*2.640*	-	*pCi/g*
700 (T207)	700-3	CH47-000	750918.02	2084180.3	7.00	8.50	Uranium-235	0.208	8	0.120	-	pCi/g
700 (T207)	700-3	CH47-000	750918.02	2084180.3	7.00	8.50	Uranium-238	3.654	351	1.490	-	pCi/g
700 (T207)	700-3	CH47-001	750780.17	2084181.9	0.00	0.50	Aluminum	23000.000	228000	16902.000	-	mg/kg
700 (T207)	700-3	CH47-001	750780.17	2084181.9	0.00	0.50	Americium-241	50.820	76	0.023	-	pCi/g
700 (T207)	700-3	CH47-001	750780.17	2084181.9	0.00	0.50	Beryllium	1.200	921	0.966	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (T207)	700-3	CH47-001	750780.17	2084181.9	0.00	0.50	Chromium	23.000	268	16.990	-	mg/kg
700 (T207)	700-3	CH47-001	750780.17	2084181.9	0.00	0.50	Lithium	18.000	20400	11.550	-	mg/kg
700 (T207)	700-3	CH47-001	750780.17	2084181.9	0.00	0.50	Nickel	19.000	20400	14.910	-	mg/kg
700 (T207)	***700-3***	***CH47-001***	***750780.17***	***2084181.9***	***0.00***	***0.50***	***Plutonium-239/240***	***289.674***	***50***	***0.066***	-	***pCi/g***
700 (T207)	*700-3*	*CH47-001*	*750780.17*	*2084181.9*	*0.00*	*0.50*	*Uranium-234*	*4.244*	*300*	*2.253*	-	*pCi/g*
700 (T207)	700-3	CH47-001	750780.17	2084181.9	0.00	0.50	Uranium-238	4.244	351	2.000	-	pCi/g
700 (T207)	700-3	CH47-001	750780.17	2084181.9	0.00	0.50	Zinc	74.000	307000	73.760	-	mg/kg
700 (T207)	700-3	CH47-001	750780.17	2084181.9	0.50	2.50	Americium-241	12.980	76	0.020	-	pCi/g
700 (T207)	700-3	CH47-001	750780.17	2084181.9	0.50	2.50	Naphthalene	490.000	3090000	-	27.100	ug/kg
700 (T207)	***700-3***	***CH47-001***	***750780.17***	***2084181.9***	***0.50***	***2.50***	***Plutonium-239/240***	***73.986***	***50***	***0.020***	-	***pCi/g***
700 (T207)	700-3	CH47-001	750780.17	2084181.9	0.50	2.50	Uranium-235	0.269	8	0.120	-	pCi/g
700 (T207)	700-3	CH47-001	750780.17	2084181.9	0.50	2.50	Uranium-238	2.171	351	1.490	-	pCi/g
700 (T207)	**700-3**	**CH47-001**	**750780.17**	**2084181.9**	**3.50**	**4.50**	**Americium-241**	**102.200**	**76**	**0.020**	-	**pCi/g**
700 (T207)	700-3	CH47-001	750780.17	2084181.9	3.50	4.50	Lead	31.000	1000	24.970	-	mg/kg
700 (T207)	700-3	CH47-001	750780.17	2084181.9	3.50	4.50	Naphthalene	17.300	3090000	-	6.240	ug/kg
700 (T207)	***700-3***	***CH47-001***	***750780.17***	***2084181.9***	***3.50***	***4.50***	***Plutonium-239/240***	***582.540***	***50***	***0.020***	-	***pCi/g***
700 (T207)	700-3	CH47-001	750780.17	2084181.9	3.50	4.50	Uranium-235	0.265	8	0.120	-	pCi/g
700 (T207)	700-3	CH47-001	750780.17	2084181.9	3.50	4.50	Uranium-238	2.501	351	1.490	-	pCi/g
700 (T207)	700-3	CH47-001	750780.17	2084181.9	5.00	6.50	Americium-241	7.598	76	0.020	-	pCi/g
700 (T207)	*700-3*	*CH47-001*	*750780.17*	*2084181.9*	*5.00*	*6.50*	*Plutonium-239/240*	*43.309*	*50*	*0.020*	-	*pCi/g*
700 (T207)	700-3	CH47-001	750780.17	2084181.9	5.00	6.50	Uranium-235	0.132	8	0.120	-	pCi/g
700 (T207)	*700-3*	*CH47-001*	*750780.17*	*2084181.9*	*6.50*	*8.50*	*Uranium-234*	*4.025*	*300*	*2.640*	-	*pCi/g*
700 (T207)	700-3	CH47-001	750780.17	2084181.9	6.50	8.50	Uranium-235	0.208	8	0.120	-	pCi/g
700 (T207)	700-3	CH47-001	750780.17	2084181.9	6.50	8.50	Uranium-238	4.025	351	1.490	-	pCi/g
700 (T207)	000-2	CH47-003	750850.9	2084183.4	4.50	6.50	Americium-241	3.065	76	0.020	-	pCi/g
700 (T207)	*000-2*	*CH47-003*	*750850.9*	*2084183.4*	*4.50*	*6.50*	*Plutonium-239/240*	*17.471*	*50*	*0.020*	-	*pCi/g*
700 (T207)	*000-2*	*CH47-003*	*750850.9*	*2084183.4*	*4.50*	*6.50*	*Uranium-234*	*3.369*	*300*	*2.640*	-	*pCi/g*
700 (T207)	000-2	CH47-003	750850.9	2084183.4	4.50	6.50	Uranium-235	0.215	8	0.120	-	pCi/g
700 (T207)	000-2	CH47-003	750850.9	2084183.4	4.50	6.50	Uranium-238	3.369	351	1.490	-	pCi/g
700 (T207)	700-3	CH47-005	750778.52	2084151.1	2.50	4.50	Americium-241	0.291	76	0.020	-	pCi/g
700 (T207)	700-3	CH47-005	750778.52	2084151.1	2.50	4.50	Naphthalene	170.000	3090000	-	5.160	ug/kg
700 (T207)	*700-3*	*CH47-005*	*750778.52*	*2084151.1*	*2.50*	*4.50*	*Plutonium-239/240*	*1.660*	*50*	*0.020*	-	*pCi/g*
700 (T207)	700-3	CH47-005	750778.52	2084151.1	2.50	4.50	Uranium-235	0.141	8	0.120	-	pCi/g
700 (T207)	700-3	CH47-005	750778.52	2084151.1	2.50	4.50	Xylene	22.900	2040000	-	10.300	ug/kg
700 (T207)	000-2	CH47-006	750946.56	2084182.2	4.50	6.50	Americium-241	1.793	76	0.020	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (T207)	*000-2*	*CH47-006*	*750946.56*	*2084182.2*	*4.50*	*6.50*	*Plutonium-239/240*	*10.220*	*50*	*0.020*	-	*pCi/g*
700 (T207)	000-2	CH47-006	750946.56	2084182.2	4.50	6.50	Uranium-235	0.122	8	0.120	-	pCi/g
700 (T207)	000-2	CH47-043	750787.5	2084231.7	4.00	4.50	Americium-241	0.288	76	0.020	-	pCi/g
700 (T207)	000-2	CH47-043	750787.5	2084231.7	4.00	4.50	Methylene chloride	0.950	2530000	-	0.950	ug/kg
700 (T207)	000-2	CH47-043	750787.5	2084231.7	4.00	4.50	Plutonium-239/240	0.436	50	0.020	-	pCi/g
700 (T207)	000-2	CH47-043	750787.5	2084231.7	4.00	4.50	Uranium-234	8.240	300	2.640	-	pCi/g
700 (T207)	000-2	CH47-043	750787.5	2084231.7	4.00	4.50	Uranium-235	0.401	8	0.120	-	pCi/g
700 (T207)	000-2	CH47-043	750787.5	2084231.7	4.00	4.50	Uranium-238	7.050	351	1.490	-	pCi/g
700 (T207)	**000-2**	**CH47-044**	**750783.63**	**2084180.4**	**0.50**	**2.50**	**Americium-241**	**388.000**	**76**	**0.020**	**-**	**pCi/g**
700 (T207)	**000-2**	**CH47-044**	**750783.63**	**2084180.4**	**0.50**	**2.50**	**Plutonium-239/240**	**99.300**	**50**	**0.020**	**-**	**pCi/g**
700 (T207)	000-2	CH47-044	750783.63	2084180.4	0.50	2.50	Uranium-238	1.550	351	1.490	-	pCi/g
700 (T207)	000-2	CH47-051	750767.12	2084233.6	10.00	10.50	Acetone	39.000	102000000	-	5.700	ug/kg
700 (T207)	000-2	CH47-051	750767.12	2084233.6	10.00	10.50	Americium-241	44.100	76	0.020	-	pCi/g
700 (T207)	000-2	CH47-051	750767.12	2084233.6	10.00	10.50	Naphthalene	2.600	3090000	-	1.100	ug/kg
700 (T207)	**000-2**	**CH47-051**	**750767.12**	**2084233.6**	**10.00**	**10.50**	**Plutonium-239/240**	**223.000**	**50**	**0.020**	**-**	**pCi/g**
700 (T207)	000-2	CH47-051	750767.12	2084233.6	10.00	10.50	Styrene	0.960	123000000	-	0.820	ug/kg
700 (T207)	000-2	CH47-051	750767.12	2084233.6	10.00	10.50	Uranium-235	0.257	8	0.120	-	pCi/g
700 (T207)	000-2	CH47-051	750767.12	2084233.6	10.00	10.50	Uranium-238	1.610	351	1.490	-	pCi/g
700 (T207)	000-2	CH47-053	750844.48	2084175.6	5.50	5.80	Acetone	13.000	102000000	-	5.800	ug/kg
700 (T207)	000-2	CH47-053	750844.48	2084175.6	5.50	5.80	Americium-241	0.483	76	0.020	-	pCi/g
700 (T207)	000-2	CH47-053	750844.48	2084175.6	5.50	5.80	Plutonium-239/240	0.603	50	0.020	-	pCi/g
700 (T207)	000-2	CH48-022	750989.13	2084139.1	4.50	6.50	Ethylbenzene	144.000	4250000	-	23.700	ug/kg
700 (T207)	000-2	CH48-022	750989.13	2084139.1	4.50	6.50	Toluene	193.000	31300000	-	23.700	ug/kg
700 (T207)	000-2	CH48-022	750989.13	2084139.1	4.50	6.50	Xylene	1040.000	2040000	-	47.500	ug/kg
700 (T207)	000-2	CH48-023	750994.5	2084164	4.50	6.50	Uranium-235	0.134	8	0.120	-	pCi/g
700 (T207)	000-2	CH48-024	750965.22	2084181.3	4.50	6.50	Americium-241	3.018	76	0.020	-	pCi/g
700 (T207)	000-2	CH48-024	750965.22	2084181.3	4.50	6.50	Ethylbenzene	47.800	4250000	-	5.660	ug/kg
700 (T207)	*000-2*	*CH48-024*	*750965.22*	*2084181.3*	*4.50*	*6.50*	*Plutonium-239/240*	*17.203*	*50*	*0.020*	-	*pCi/g*
700 (T207)	000-2	CH48-024	750965.22	2084181.3	4.50	6.50	Toluene	191.000	31300000	-	5.660	ug/kg
700 (T207)	*000-2*	*CH48-024*	*750965.22*	*2084181.3*	*4.50*	*6.50*	*Uranium-234*	*4.993*	*300*	*2.640*	-	*pCi/g*
700 (T207)	000-2	CH48-024	750965.22	2084181.3	4.50	6.50	Uranium-235	0.302	8	0.120	-	pCi/g
700 (T207)	000-2	CH48-024	750965.22	2084181.3	4.50	6.50	Uranium-238	4.993	351	1.490	-	pCi/g
700 (T207)	000-2	CH48-024	750965.22	2084181.3	4.50	6.50	Xylene	269.000	2040000	-	11.300	ug/kg
700 (T207)	000-2	CH48-054	750982.17	2084183.5	3.00	3.50	Americium-241	0.906	76	0.020	-	pCi/g
700 (T207)	000-2	CH48-054	750982.17	2084183.5	3.00	3.50	Plutonium-239/240	0.547	50	0.020	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (T207)	000-2	CI46-037	750781.26	2084229.5	2.50	3.00	Americium-241	0.319	76	0.020	-	pCi/g
700 (T207)	000-2	CI46-037	750781.26	2084229.5	2.50	3.00	Uranium-235	0.212	8	0.120	-	pCi/g
700 (T207)	000-2	CI46-038	750781.01	2084233	2.50	3.00	Uranium-235	0.188	8	0.120	-	pCi/g

Arsenic was reported at concentrations of 36.3 and 31.1 mg/kg (WRW AL is 22.2 mg/kg) in two surface soil samples located east of Building 771/774 and north of the SEP. Analytical results of soil characterization sampling in the Building 771/774 area with concentrations greater than background means plus two standard deviations or RLs are shown on Figure 8. Analytical results for all 700 Area accelerated action characterization and in-process samples are presented in Table 15. In addition, analytical results with activities or concentrations greater than RFCA WRW Soil AL exceedances are identified with bold text in Table 15.

Radionuclides were detected at two locations below the slab of Building 774. Americium-241 was reported at activities ranging from 116.4 pCi/g to 1,220 pCi/g (WRW AL is 76 pCi/g) in three samples, and plutonium-239/240 was reported at activities ranging from 663.5 pCi/g to 2,109 pCi/g (WRW AL is 50 pCi/g) in three samples based on HPGe analyses. Remediation was not conducted at these two locations beneath Building 774 because following D&D activities, the hot spots were greater than 6 ft below the final grade.

Five SVOCs (benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, Dibenz[a,h]anthracene, and indeno[1,2,3-cd]pyrene) were detected at concentrations greater than their respective RFCA WRW soil ALs at two locations west of Building 771. Benzo(a)anthracene was reported at a concentration of 200,000 ug/kg (WRW AL is 34,900 ug/kg) in one sample. Benzo(a)pyrene was reported at concentrations ranging from 5,100 ug/kg to 180,000 ug/kg (WRW AL is 3,490 ug/kg) in six samples. Benzo(b)fluoranthene was reported at a concentration of 150,000 ug/kg (WRW AL is 34,900 ug/kg) in one sample. Dibenz(a,h)anthracene was reported at concentrations ranging from 3,700 ug/kg to 54,000 ug/kg (WRW AL is 3,490 ug/kg) in three samples. Indeno(1,2,3-cd)pyrene was reported at a concentration of 110,000 ug/kg (WRW AL is 34,900 ug/kg) in one sample.

700 Area – Building 776/777/778

The Building 776/777/778 area contained 35 soil sampling locations collected as part of the IHSS Group 000-2, 700-2, and 700-3 ER projects. The Building 776/777/778 area included 33 characterization locations and 6 confirmation locations. Detections of radionuclides at activities greater than RFCA WRW soil ALs were reported in soil samples at two soil characterization sampling locations.

Radionuclides were detected at two locations below the slab of Building 776. Americium-241 was reported at an activity of 333.1 pCi/g (WRW AL is 76 pCi/g) in one sample and plutonium-239/240 was reported at activities ranging from 154.3 pCi/g to 1,899 pCi/g (WRW AL is 50 pCi/g) in three samples.

Analytical results of soil characterization sampling in the 776/777/778 area with concentrations greater than background means plus two standard deviations or RLs are shown on Figure 9. Analytical results for all 700 Area accelerated action characterization and in-process samples are presented in Table 15.

700 Area – Building 779

The Building 779 area contained soil samples collected as part of the IHSS Group 000-1, 000-2, and 700-7 ER projects. Forty-nine locations were sampled in the Building 779 area, including 39 characterization locations and 10 confirmation locations. Detections of metals and radionuclides at concentrations and activities greater than RFCA WRW soil ALs were reported in seven sampling locations.

Arsenic was reported at a concentrations ranging from 24.0 to 30.9 mg/kg (WRW AL is 22.2 mg/kg) in three samples located in the Building 779 area. Remediation of the soil containing arsenic contamination was not required at these locations because the nonradionuclide contamination was at a depth greater than 6 inches from the surface and concentrations were less than three times the RFCA WRW soil AL.

Radionuclides were detected at four locations, including one below the slab of Building 779 and three outside of Building 779 near the SEP. Americium-241 was reported at activities of 117.6 pCi/g to 4,230 pCi/g (WRW AL is 76 pCi/g) in two samples, and plutonium-239/240 was reported at activities ranging from 148.2 pCi/g to 24,111 pCi/g (WRW AL is 50 pCi/g) in four samples. It should be noted that the sample (CJ46-002) containing americium-241 and plutonium-239/240 at activities of 4,230 and 24,111 pCi/g, respectively, was obtained from soil where liquid spilled from the end of an OPWL that was being removed. These radionuclide activities were not representative of residual soil conditions prior to the OPWL excavation. The area where the spill occurred was remediated as verified by a confirmation sample that followed. Remediation of two remaining radionuclide hot spots in this same area (outside of Building 779 on the eastern end of P-36 and P-37, near the SEP) was not conducted based on RFCA because the contamination was in subsurface soil greater than 3 ft below the surface at activities less than 1 nCi/g. The fourth radionuclide hot spot was located under the Building 779 slab. This location became NLR during slab and OPWL removal activities as part of the IHSS Group 700-7 D&D project.

Analytical results of soil characterization sampling in the Building 779 area with concentrations greater than background means plus two standard deviations or RLs are shown on Figure 10. Analytical results for all 700 Area accelerated action characterization and in-process samples are presented in Table 15.

700 Area – Tank T207

The Tank T207 area contained soil samples collected as part of the IHSS Group 000-2, 700-3, 700-4, and 700-7 ER projects. Sixty-seven locations were sampled in the Tank T207 area, including 56 characterization locations and 11 confirmation locations. Detections of radionuclides at activities greater than RFCA WRW soil ALs were reported in soil samples at four sampling locations.

Americium-241 was reported at activities of 102.2 and 388 pCi/g (WRW AL is 76 pCi/g) in two samples, and plutonium-239/240 was reported at activities ranging from 73.5 pCi/g to 582.5 pCi/g (WRW AL is 50 pCi/g) in six samples.

Radionuclide contaminated soil that was remediated as part of the IHSS Group 000-2 project. Analytical results of soil characterization sampling in the Tank T207 area with concentrations greater than background means plus two standard deviations or RLs are shown on Figure 11. Analytical results for all 700 Area accelerated action characterization and in-process samples are presented in Table 15.

4.2 700 Area OPWL Disposition

4.2.1 IHSS Summary

IHSS Group 000-1 – Solar Evaporation Ponds

Various sections of waste lines were tapped and drained, and then removed, including sections of the OPWL less than three feet below the surface (Figure 1). Removed line sections were filled with grout or foam. Removed line sections and valve components were placed in IP-2 or ST-90 containers and disposed of as LLMW.

Two sections of OPWL connecting Ponds 207B-N, 207B-C, and 207B-S within the berms were left in place.

The manway P39MWW (southeast of Pond 207C) was removed, and lines associated with the manway were either removed or filled with grout. The valve pit was placed in an intermodal and disposed as LLMW.

IHSS Group 700-2 – UBC 707 – Plutonium Fabrication and Assembly

Tanks 11 and 30 were removed from Building 731. Approximately 80 ft of OPWL north of Building 731 were removed. All remaining OPWL ends were grouted in place with the exception of two sections of line below the slab of Building 707 (Figure 1) (DOE 2005c).

IHSS Group 700-3 – UBC 776/777/778 – Original Plutonium Foundry, General Plutonium Research and Development, and Plant Laundry Facility

IHSS Group 700-3 OPWL were completely removed except for a portion of line below the eastern end of Building 778 and disposed as LLW and LLMW (Figure 1).

IHSS Group 700-4 – UBC 771/774 – Plutonium and Americium Recovery Operations, and Liquid Process Waste Treatment

Tanks 14 and 16 along with contaminated soil were removed. The tanks had been foamed in 1996 (DOE 2004d).

IHSS Group 700-7 – UBC 779 – Main Plutonium Components Production Facility (Tank 19 - OPWL - Two 1,000-Gallon Concrete Sumps, 20 - OPWL - Two 8,000-Gallon Concrete Sumps Tank 38 - OPWL - 1,000-Gallon Steel Tanks)

Tanks 19, and 20 were located within the Building 779 subbasement and were believed to constitute two of four subbasement pits that contained process tanks (1A, 2A, 2B, and the T5 tank pit) (DOE 2004e). Tank 38 was one of several tanks located within the Building 779 concrete subbasement. The basement was 29 ft long by 20 ft wide by 20 ft deep. All tanks were removed just prior to the FY00 building demolition (DOE 2000b). Inspection of the sub-basement during the IHSS Group 700-7 accelerated action confirmed no tanks were present.

It is known that groundwater infiltrated the pits, and contaminated groundwater was encountered in one of the pits (DOE 2004e). However, results of soil sampling in this area did contain contaminants at activities or concentrations greater than RFCA WRW soil ALs.

The Building 779 subbasement pits were not removed during IHSS Group 700-7 accelerated action activities. The pits were filled with flowable-fill concrete to prevent area subsidence, prevent groundwater intrusion, and immobilize residual fixed contamination that may be present (DOE 2004e).

4.2.2 OPWL Pipe Summary – Building 707

OPWL P-11

The P-11 OPWL running north out of the Building 889MWN connected to P-13 at the intersection of P-12 and P-13. The P-11 OPWL was filled with grout from Building 889MWN to the Building 707MWW. The configuration of the P-11 OPWL between the Building 889MWN and the P-13 OPWL at Building 707MWW was a 3 inch ribbed rubber reinforced hose inside a 4-inch fiberglass pipe. There was not enough space between the inner OPWL and the outer OPWL to insert grout fill tubes; therefore, the outer pipe was grout plugged as much as possible at both locations. GPS elevations of both locations indicated that P-11 at the Building 889MWN excavation was higher in elevation than P-13 at the Building 707MWW excavation. Approximately 30 ft of grout fill tube was inserted into the P-13 OPWL on the southern side of the Building 707MWW before refusal. This 30-ft section of pipe was filled with grout at this location. Grout tubes were installed in P-11 on the northern side of the Building 889MWN excavation and grout was continuously flowed downhill toward the 30 ft of grout already installed at the Building 707MWWexcavation until a continuous flow of grout was observed flowing through the vent tube at the Building 889MWN excavation. Barring any disruptions in P-11, P-12, and P-13 between these two manhole locations, field observations indicated these sections of OPWL were completely filled with grout.

During site subsurface utility removal, a 40 ft section of P-13 at a depth of 4.5 ft was disrupted and removed (Figure 7). This 40 ft section of OPWL was found completely filled with grout and the north and south ends of the disruption remaining in the soil were completely filled with grout. The outer fiberglass pipe on both the north and south sides of this disruption was grout plugged at this location. A more extensive excavation at this

location did not locate the P-12 OPWL. One other attempt was made to locate the P-12 OPWL at the intersection of P-12, P-13, and P-14 through pot-holing. The P-13 OPWL was found but P-12 and P-14 could not be located.

OPWL P-12

The P-12 OPWL was not disrupted at this location. An attempt was made to locate P-12 at the intersection of P-12, P-13, and P-14; however, P-12 was not found. Given no other interruptions of the P-6/P-13 line between Building 889 MWN and Building 707 MWN, the P-12 line should be completely filled with grout from Building 889 MWN.

OPWL P-13

The P-13 OPWL, running north out of the Building 707MWW to the Building 528MWE was completely filled with grout by inserting a grout plug into the exposed end of P-13 at the Building 528MWE excavation and continuously flowing grout until a continuous flow of grout was observed flowing through the vent tube at the Building 707MWW excavation.

OPWL P-14

The P-14 OPWL could not be located using observations of three potholes extending from P-13 OPWL to Building 707, in the suspected location of P-14. Potholes were excavated at right angles to P-14 to a depth of approximately 8 ft and a width of approximately 10 ft. During the excavation and removal of the Building 707MWW, pieces of vitrified clay pipe were discovered in the excavation exterior to and on the northeastern side of the valve vault. An 8 ft trench was excavated in the general direction of the vitrified clay debris, but no additional pipe was not found.

OPWL P-15

The P-15 OPWL extending north from the Building 528MWE toward the Building 707MWNW was foamed and grouted to 75 ft from the pipe opening on the northern side of the Building 528MWE. The P-15 OPWL extending south from the Building 707MWNW toward the Building 528MWE was grout filled to a refusal penetration of 60'. The P-15 OPWL extending east from the Building 707MWNW toward the Building 707MWN was completely filled with grout by inserting a grout plug into the western end of the P-15 pipe in the Building 707MWN excavation and pumping grout into the eastern end of this pipe segment in the Building 707MWNW excavation until a continuous flow of grout was observed flowing through the vent tube in the Building 707MWNW excavation. The P-15 OPWL extending east from the Building 707MWN was completely filled with grout by inserting a grout plug into the western end of the P-15 pipe in the Building 707MWNE excavation and pumping grout into the eastern end of this pipe segment in the Building 707MWN excavation until a continuous flow of grout was observed flowing through the vent tube in the 707MWN excavation.

OPWL P-16

The P-62 OPWL extending west from the Building 528MWE to the Building 528 tank pit was completely filled with grout as described in Section 1.6.

OPWL P-19

The P-19 OPWL, extending south from the Building 707MWNE excavation to the Building 731 tank pit, was completely removed.

The P-19 OPWL, extending to the west from the Building 731 tank pit into Building 707, was grouted to 65 ft from the exposed end of the pipe at the Building 731 tank pit. Building 707 OPWL pipe penetrations at slab level, were grout plugged prior to slab demolition. The P-19UBC was breached at two locations during slab demolition. Grout fill and vent tubes were inserted and grout was continuously flowed into the Building 707 OPWLs until a continuous flow of grout was observed flowing through the vent tubes.

OWPL P-20

The P-20 OPWL extending northeast from the 707MWNE excavation, through Building 778 and Building 777 to the Tank 207VVW excavation was grout filled to 70'.

4.2.3 Disposition of Manways and Valve Pits – Building 707

Manways and Valve Pits were dispositioned as follows:

- The Building 528 MWE of the Building 528 tank pit and west of Building 707, along with OPWL inside the manway, were completely removed.
- The Building 707 MWE, along with OPWL inside the manway, were completely removed.
- The Building 707 MWN, along with OPWL inside the manway. were completely removed.
- The Building 707 MWNW, along with OPWL inside the manway, were completely removed.
- The Building 707 MWW, along with OPWL inside the manway, were completely removed.
- The Building 707 MWSW was a narrow inspection manway. This manway was completely removed, without breaching the OPWL which passed under and through the base of this manway; therefore, no grouting was required.

4.2.4 Disposition of Process Waste Tanks and Pits – Building 707

Tanks 11 and 30 inside the Building 731 tank pit along with the tank pit itself were completely removed during building demolition.

4.2.5 OPWL Pipe Summary – Building 771/774

OPWL P-21

The P-21 OPWL, as shown on building drawings, ran in close proximity to the P-34 OPWL and could not be located at the time P-34 was excavated and removed, nor during a series of pothole excavations. Additional and more expansive excavation occurred

during the demolition of the cooling towers in this location and no additional OPWL were discovered.

OPWL P-22

The P-22 OPWL at Building 771 was cut off and grout plugged at the slab floor and left in place. In accordance with the consultative process, the floor slab under Building 771 was not removed during building demolition. OPWL, which were grout plugged within either the Buildings 771 or 774 footprints, are below 3 ft of final grade. The OPWL between the buildings were not broken.

The P-22 OPWL, which originated inside Building 771 and terminated in Building 728, was foamed and grouted from the Building 728 excavation to a refusal penetration of 10 ft.

OPWL P-23

The P-23 OPWL on the western side of Building 771 was grout plugged inside the building in accordance with the DPP for Building 771. Both the inner and outer pipe termination ends of P-23 were grouted from within the Building 728 excavation. The inner pipe was grouted to a refusal penetration of 50 ft and the outer pipe was grouted to a refusal penetration of 30 ft. During the removal of Manhole 3 at the northwestern corner of the Building 771 site, approx. 100 ft of P-23 was removed. At the interrupt point of P-23 on the eastern side of the Manhole 3 excavation, the inner pipe was completely filled with grout, but the outer pipe required additional grouting. The outer pipe on the eastern side of the Manhole 3 excavation was completely filled with grout. At the interrupt point of P-23 where it turned south on the western side of the Manhole 3 excavation, both the inner and outer pipe required additional grouting. The inner pipe on the western end of the Manhole 3 excavation was filled with grout to a refusal penetration of 20 ft and the outer pipe was filled with grout to a refusal penetration of 45 ft. Both the eastern and western interrupt points, which remain at the Manhole 3 excavation, were below 3.5 ft of final elevation.

OPWL P-24

The P-24 OPWL, which ran east of the Building 728 tank pit and turned into P-25 where it turned south and ran up the hill to the Tank 207VVN, was foamed and grouted to a refusal penetration of 35 ft from the Building 728 tank pit.

OPWL P-25

P-25 OPWL was completely removed from the Tank 207VVN to a point on the Building 771 hillside south of the Building 771 Annex, where it was well below 3 ft of final grade. The remainder of P-25 was foamed and grouted to 75 ft at this location.

OPWL P-26

The P-26 OPWL, which ran between Building 774 and SEP 207B, was completely removed.

OPWL P-27

The P-27 OPWL that branched of P-28 at the southeast corner of Building 774 could not be located during the excavation and removal of P-28 and P-29 OPWLS nor during more extensive pothole excavations.

OPWLs P-28 and P-29

The P-28 and P-29 OPWL, which ran from the Tank 207VVN to Tanks T-14 and T-16 (Building 774), were removed from the tanks to a point approximately 45 ft south of the tanks, where the depth of the pipes reached 6 ft below final grade. A grout plug was inserted in both P-28 and P-29 at this location and both pipes were grout filled from the Tank 207VVN excavation by continuously flowing grout until a continuous flow of grout was observed flowing through the grout vent tube at Tank 207VVN.

OPWL P-31

The P-31 OPWL (between Buildings 771 and 774) was completely removed as part of building demolition.

OPWL P-33

The P-33 OPWL, which originated within the Building 771 footprint and terminated within the Building 774 footprint, did not require any action because the pipe outside of the building footprint was not breached.

OPWL P-34

The P-34 OPWL was completely removed from the 207 VVW to Building 774.

OPWL P-56

The P-56 OPWL (between Buildings 771 and 774) was completely removed as part of building demolition.

4.2.6 Disposition of Manways and Valve Pits – Building 771/774

The manway immediately west of the Building 728 tank pit was completely removed during the excavation and removal of the Building 728 tank pit.

4.2.7 Disposition of Process Waste Tanks and Pits – Building 771/774

All above slab, free standing OPWL tank structures were removed building demolition. Additional details are listed below:

- Tank T-8 was in the Building 728 tank pit and it was completely removed.
- Tank 12, which was shown outside of the Building 771 footprint on the north side of the building, (Figure 8) never existed.
- Tanks 36 and 37 were sumps in the Building 771 Annex. They were both decontaminated, below 3.5 ft of final grade, were left in place and backfilled with soil.

- Tanks 15 and 17, which were in the southwestern corner of Building 774, were previously removed and replaced with newer, free standing tanks which were removed during building demolition.
- Tank 13 was on the second floor, northern side of Building 774. This tank was removed during building demolition.
- Tank 40 was a concrete tank in the basement of Building 774. This tank and tank liner was excavated and removed during building demolition. The basement was completely flow filled.
- Tanks 14 and 16, which were located outside the eastern footprint of Building 774 were both removed during building demolition. Soil removal was conducted as part of the 700-4 ER accelerated action.

4.2.8 OPWL Pipe Summary – Building 776/777/778

OPWL P-20

The P-20 OPWL, which runs between the 707MWNE excavation and the 207VVW excavation was left in place. The exposed end of the P-20 OPWL was grouted in the 707MWNE excavation to 70 ft. The exposed end of the P-20 OPWL was grouted in the 207VVW excavation to a refusal penetration of 50 ft.

OPWLs P-30 and P-32

The sections of P-30 and P-32 under the slab of Buildings 776/777 were completely removed during building demolition. The remaining sections of P-30 and P-32, which ran out of the northern side of the Building 776/777 footprint to the southern side of the Building 730 tank pit footprint, were completely removed during building demolition. The remaining section of the P-32 OPWL that ran out the northern side of the Building 778 footprint to the southern side of Building 776/777 footprint was completely removed during building demolition.

OPWL P-51

The section of P-51 OPWL under the slab on the western side of Building 778 was completely removed during building demolition.

4.2.9 Disposition of Manways and Valve Pits – Building 776/777/778

There were no manways or valve pits in this area.

4.2.10 Disposition of Process Waste Tanks and Pits – Building 776/777/778

Manways and Valve Pits were dispositioned as follows:

- Tanks 9 and 10 were completely removed during the demolition and removal of Building 730.
- Tank 18 was a tank pit located below the slab level in the northwest corner of Building 778 and was completely removed during the demolition of the building.

4.2.11 OPWL Pipe Summary – Building 779

OPWL P-36

The P-36 OPWL, which extended between the Building 779 Northeast excavation, immediately west of SEP 207A, at the Southeastern corner of SEP 207 B, and the Building 777 Valve Vault, was foamed and grouted to 85 ft at the Building 777 Valve Vault and foamed and grouted to 80 ft at the Building 779 Northeast excavation.

The P-36 OPWL section, which extended northwest from the Building 779 Northeast excavation to SEP 207A, was partially removed during the SEP remediation and removal project. The remaining 30 ft section of the P-36 OPWL was completely filled with grout at the Building 779 Northeast excavation.

The P-36 OPWL section, which extended east from the Building 779 Northeast excavation to SEP 207A, was completely removed during the SEP remediation and removal project.

A 3 in stainless steel pipe was found extending to the south from the Building 779 excavation. It was not previously identified as part of the OPWL system; however, this pipe, labeled as P-365 was completely filled by grout.

The P-37 OPWL section, which extended east from the Building 779 Northeast excavation to SEP 207A, was completely removed during the SEP remediation and removal project.

OPWL P-37

The P-37 OPWL, which also extended between the Building 779 Northeast excavation and the Building 777 Valve Vault, was foamed and grouted to a refusal penetration of 55 ft at the Building 777 Valve Vault location and to 75 ft at the Building 779 Northeast excavation.

OPWL P-38

The P-38 OPWL, which extended from the Building 779 Northeast-Center Manway, west to the Tank 207 Northeast Manway, was foamed and grouted to 65 ft at the Building 779 Northeast-Center Manway and to 85 ft at the Tank 207 Northeast Manway. The P-38 OPWL, extending south from the Building 779 Northeast-Center Manway to the P-38 West Manway, was foamed and grouted to a refusal penetration of 60 ft at the Building 779 Northeast-Center Manway and to a refusal penetration of 50 ft at the P-38 West Manway.

OPWL P-42

The P-42 OPWL, which was part of Building 779, was completely removed under the slab to the point where two OPWL ran through the building foundation on the western side of Building. 779. Grout plugs were installed at this location. The P-42 OPWL, which ran north from this point to the Building 777Valve Vault, was completely filled with grout from the Building 777Valve Vault.

4.2.12 Disposition of Manways and Valve Pits – Building 779

The Building 779 Northeast-Center Manway was completely removed along with the OPWL inside the manway.

The Tank 207 Northeast Manway and OPWL inside the manway were completely removed.

The P-38 West Manway was completely removed along with the OPWL inside the manway.

4.2.13 Disposition of Process Waste Tanks and Pits – Building 779

The tank pits in the basement of Building 779, as well as the basement, were grout filled and left in place.

The tank pit in the southeastern corner of Building 779, the tank pit in northwestern corner of Building 782, and the connecting tunnel were removed down to 4 ft below final grade, flow filled, and left in place.

All the remaining free standing tanks both above ground and below ground were completely removed.

4.2.14 OPWL Pipe Summary – Tank 207

OPWL P-20

The P-20 OPWL, which extended south out of the 207 VVW to the Building 707 MWN, was foamed and grouted to a refusal penetration of 50 ft at the Tank 207 VVW excavation.

OPWL P-21

The P-21 OPWL, which is illustrated extending north out of the 207 VVW to Building 774 on Figure 11, was not located during extensive excavation for both the P-39 OPWL and removal of the Building 776/777 cooling towers.

OPWL P-25

The P-25 OPWL, which extended north from the 207 VVN to the Building 728 tank pit on the northern side of Building 771, was removed to a point on the hillside, south of the Building 771 Annex where it was well below 3 ft of final grade. P-25 was foamed and grouted to 75 ft at this location.

OPWL P-27, P-28, and P-29

The P-28 and P-29 OPWL extended north from the 207 VVN excavation to Tanks 16 and 18 on the southeastern side of Building 774. Approximately 60 ft of both OPWL were removed from Tanks 16 and 18 to a point south of the tanks where the OPWL were close to 6 ft below final grade. A grout plug was installed in both P-28 and P-29 at these locations. P-28 and P-29 were completely filled with grout from the 207 VVN excavation. The P-27 OPWL, which is shown branching off the P-28 OPWL southeast of

Building 774 to the southeast corner of Building 774, was not located (Figure 11). Two 10 ft deep and 6 inch wide potholes, one at the junction of P-27 with P-28 and one approximately 10 ft from the southeastern corner of Building 774 were excavated in an attempt to locate this OPWL.

OPWL P-34

The P-34 OPWL which extended north out of the 207 VVW excavation to Building 774 was completely removed.

OPWL P-36

The P-36 OPWL, which extended between the Building 777 VV and the 779 northeast excavation, was foamed and grouted to 85 ft at the Building 777 VV and foamed and grouted to 80 ft at the Building 779 northeast excavation.

The P-36 OPWL, which extended north out of the Building 777 VV excavation and then west to the Tank 207 VVW excavation, was completely removed.

OPWL P-37

The P-37 OPWL, which also extended between the Building 777 VV and the Building 779 northeast excavation, was foamed and grouted to a refusal penetration of 55 ft at the Building 777 VV location and to 75 ft at the Building 779 northeast excavation.

The P-37 OPWL, which extended west from the Building 777 VV to the Building 730 tank pit, was foamed and grouted to 85 ft at the Building 777 VV excavation. Approximately 100 ft of the P-37 OPWL was removed east of the Building 730 tank pit, to facilitate the excavation and removal of the tank pit. The P-37 OPWL was foamed and grouted to 65 ft at the exposed end of the remaining P-37 OPWL east of the Building 730 tank pit.

OPWL P-38

The P-38 OPWL in the 207 MWNE excavation was foamed and grouted to 85 ft.

OPWL P-41

The P-41 OPWL (parallel to P-37), which extended west from the Building 777 VV to the Building 730 tank pit, was foamed and grouted to a refusal penetration of 55 ft at the Building 777 VV. Approximately 100 ft of the P-41 OPWL was also removed east of the Building 730 tank pit to facilitate the excavation and removal of the tank pit. The P-41 OPWL was foamed and grouted to 65 ft at the exposed end of the remaining P-41 OPWL east of the Building 730 tank pit.

OPWL P-42

The P-42 OPWL extended south from the Building 777 VV to the building foundation on the western side of Building 779 (Figure 11). Grout plugs were installed at the point where the P-42 OPWL penetrated the Building 779 western foundation wall. The P-42 OPWL was completely filled with grout from the Building 777 VV to the Building 779 foundation wall penetration.

OPWLs P-43 and P-44

The P-43 and P-44 OPWL, which extended north out of the Building 777 VV excavation to the 207 VVN, were completely removed.

OPWL P-45

The P-45 OPWL, extending south from the 207 MWNE around the southern portion of Tank 207 site, to the south of the Building 777 cooling tower was completely removed.

OWPLs P-60 and P-61

The P-61 OPWL extending from the 207 MWN to the 207 MWNE, and the P-60 OPWL extending from the 207 MWN to a termination point southeast of the 207 MWNE, were both completely filled with grout by continuously flowing grout from 207 MWN until a continuous flow of grout was observed flowing through the vent tube at 207 MWN. Approx. 20 ft of both P-60 and P-61 was removed from the 207 MWN during the expansive soil remediation effort in this location.

Miscellaneous Tank 207 OPWL

The P-35 and P-46 OPWL extending east from the 207 VVN excavation through the 207 VVNE excavation to SEP Tank 207B were completely removed.

The P-28 and P-29 OPWL extending directly south from the 207 VVN excavation to the 207 MWN excavation were completely removed.

The un-numbered sections of OPWL illustrated on Figure 11 as extending west from the Building 777 southern cooling tower to the 207 VVW were not located. An extensive excavation for the P-36 OPWL and the southern cooling tower was conducted in an effort locate this OPWL.

The sections of P-34.1 OPWL illustrated on Figure 11 as extending west from the 207 VVN excavation, through the north Building 777 cooling tower, to the P-21 OPWL were not located. These OPWL were not located during an extensive excavation for the Building 777 north cooling tower.

4.2.15 Disposition of Manways and Valve Pits – Tank 207

Manways and Valve Pits were dispositioned as follows:

- The Tank 207 VVW, along with the OPWL inside the valve pit, were completely removed.
- The Building 777 VV, valves, and OPWL inside the valve pit, were completely removed.
- The 207 MWN, along with the OPWL inside the manway, were completely removed.
- The 207 VVN, along with the OPWL inside the valve pit, were completely removed.
- The 207 VVNE, along with the OPWL inside the valve pit, were completely removed.

- The 207 MWNE, along with the OPWL inside the manway, were completely removed.

4.2.16 Disposition of Process Waste Tanks and Pits – Tank 207

Tank 29 (Tank 207), was completely removed.

4.3 700 Area Soil Removal

700 Area – Building 771/774

Remediation of SVOC-contaminated soil was conducted at Building 771 as part of the IHSS Group 000-2 project. Two SVOC hot spots originally detected under the IHSS Group 700-4 project were transferred to the IHSS Group 000-2. The excavations were located west of Building 771. The northeastern excavation was approximately 10 ft by 13 ft and 1 ft deep, and the southwestern excavation was approximately 4 ft by 13 ft and 1 ft deep. Confirmation sampling indicated that SVOCs were removed and accelerated action objectives were achieved.

After Tanks 14 and 16 were removed from the southeast corner of Building 774, approximately 2,100 cubic feet (ft^3) of soil and fill with radionuclide contamination was excavated (DOE 2004d).

Much of the OPWL under the Building 771/774 slab were left in place. Because final grading in the area buried the OPWL with at least 6 ft of clean fill, removal of the lines was not required.

700 Area – Building 776/777/778

Radionuclide contaminated soil at OPWL hot spot locations under the Building 776 slab were remediated as part of the IHSS Group 700-3 D&D project. A single excavation, located in the northeast portion of Building 776 was approximately 20 ft long by 8 ft wide and 5 ft deep. Confirmation sampling determined that radionuclide contamination had been removed to a level below RFCA WRW soil ALs and accelerated action objectives were achieved.

All OPWL under the Building 776/777 excavated as part of the IHSS Group 700-3 ER project. OPWL under slab on the western side of Building 778 was removed; however, OPWL located on the eastern side of the building was left in place because it was greater than 3-ft below the existing grade. OPWL were disposed of as LLW and LLMW (DOE 2005g).

700 Area – Building 779

Soil contaminated with radionuclides was removed at one location in the Building 779 area. The excavation area was located on the eastern end of P-36 and P-37, near the SEP. As described in Section 4.1, the sample driving the soil remediation contained americium-241 and plutonium-239/240 at activities of 4,230 and 24,111 pCi/g, respectively. However, the contamination was caused by raw liquid that spilled from the

end of the OPWL that was being removed. Only a small volume of contaminated soil impacted from the spill was required to be disposed from the 32 ft long by 6 ft wide by 9 ft deep excavation. The remainder of the excavated soil was used to backfill the excavation after pipe ends were grouted.

All OPWL under the Building 779 slab were tapped, drained, cut into sections, bagged and placed in waste containers for shipment to an approved offsite disposal facility. Most OPWL were disposed of as LLW. Some were disposed of as LLMW based on the metal and solvent content detected in the line sludge or the lead rings around the lines (DOE 2004e).

700 Area – Tank T207

The Tank T207 area required two excavations of radionuclide contaminated surface soil and subsurface soil from the valve pit and manway area north of the former tank.

The northernmost excavation was approximately 7-ft- by 9-ft and 1-ft deep. This excavation was required to remove a surface soil location with radionuclide contamination. Confirmation samples indicate that the area was successfully remediated.

The largest excavation in the Tank T207 area was completed directly north of the former tank. The excavation in this area was approximately 37-ft- by 58-ft and 4.5-ft deep. Results of confirmation samples indicate that the area was successfully remediated.

Much of the OPWL in the Tank T207 area was removed as part of the IHSS Group 000-2 project. OPWL left in place was tapped, drained, and grouted. OPWL removed was cut into sections, bagged and placed in waste containers for shipment as LLW to an approved offsite disposal facility.

4.4 700 Area Confirmation Sampling

Confirmation samples were obtained from 45 locations in the 700 Area. Confirmation sampling was conducted as part of IHSS Groups 000-1, 000-2, 700-3, 700-4, and 700-7. These samples were collected from eight excavation areas in the 700 Area. Results of all confirmation sampling in the 700 Area indicate activities and concentrations are less than RFCA WRW soil ALs except at sample locations CH48-043, CH48-044, and CH48-045 as shown on Figure as shown on Figure 12. Analytical results of confirmation sampling in the 700 Area are listed in Table 16.

Table 16
700 Area Confirmation Soil Sampling Results
Greater Than Background Means Plus Two Standard Deviations or Reporting Limits

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (771/774)	000-2	CE47-028	750941.16	2083605.6	0.00	0.50	Acenaphthene	63.000	40800000	-	32.000	ug/kg
700 (771/774)	000-2	CE47-028	750941.16	2083605.6	0.00	0.50	Anthracene	210.000	204000000	-	24.000	ug/kg
700 (771/774)	000-2	CE47-028	750941.16	2083605.6	0.00	0.50	Benzo(a)anthracene	900.000	34900	-	25.000	ug/kg
700 (771/774)	000-2	CE47-028	750941.16	2083605.6	0.00	0.50	Benzo(a)pyrene	950.000	3490	-	41.000	ug/kg
700 (771/774)	000-2	CE47-028	750941.16	2083605.6	0.00	0.50	Benzo(b)fluoranthene	740.000	34900	-	30.000	ug/kg
700 (771/774)	000-2	CE47-028	750941.16	2083605.6	0.00	0.50	Benzo(k)fluoranthene	850.000	349000	-	33.000	ug/kg
700 (771/774)	000-2	CE47-028	750941.16	2083605.6	0.00	0.50	Chrysene	1000.000	3490000	-	29.000	ug/kg
700 (771/774)	000-2	CE47-028	750941.16	2083605.6	0.00	0.50	Dibenz(a,h)anthracene	230.000	3490	-	25.000	ug/kg
700 (771/774)	000-2	CE47-028	750941.16	2083605.6	0.00	0.50	Fluoranthene	1500.000	27200000	-	23.000	ug/kg
700 (771/774)	000-2	CE47-028	750941.16	2083605.6	0.00	0.50	Fluorene	61.000	40800000	-	35.000	ug/kg
700 (771/774)	000-2	CE47-028	750941.16	2083605.6	0.00	0.50	Indeno(1,2,3-cd)pyrene	600.000	34900	-	23.000	ug/kg
700 (771/774)	000-2	CE47-028	750941.16	2083605.6	0.00	0.50	Pyrene	1500.000	22100000	-	140.000	ug/kg
700 (771/774)	000-2	CE47-030	750943.25	2083603.5	0.00	0.50	Acenaphthene	65.000	40800000	-	31.000	ug/kg
700 (771/774)	000-2	CE47-030	750943.25	2083603.5	0.00	0.50	Anthracene	250.000	204000000	-	24.000	ug/kg
700 (771/774)	000-2	CE47-030	750943.25	2083603.5	0.00	0.50	Benzo(a)anthracene	1600.000	34900	-	25.000	ug/kg
700 (771/774)	000-2	CE47-030	750943.25	2083603.5	0.00	0.50	Benzo(a)pyrene	1900.000	3490	-	41.000	ug/kg
700 (771/774)	000-2	CE47-030	750943.25	2083603.5	0.00	0.50	Benzo(b)fluoranthene	1700.000	34900	-	29.000	ug/kg
700 (771/774)	000-2	CE47-030	750943.25	2083603.5	0.00	0.50	Benzo(k)fluoranthene	1500.000	349000	-	33.000	ug/kg
700 (771/774)	000-2	CE47-030	750943.25	2083603.5	0.00	0.50	Chrysene	1900.000	3490000	-	28.000	ug/kg
700 (771/774)	000-2	CE47-030	750943.25	2083603.5	0.00	0.50	Dibenz(a,h)anthracene	470.000	3490	-	25.000	ug/kg
700 (771/774)	000-2	CE47-030	750943.25	2083603.5	0.00	0.50	Fluoranthene	2600.000	27200000	-	23.000	ug/kg
700 (771/774)	000-2	CE47-030	750943.25	2083603.5	0.00	0.50	Fluorene	68.000	40800000	-	35.000	ug/kg
700 (771/774)	000-2	CE47-030	750943.25	2083603.5	0.00	0.50	Indeno(1,2,3-cd)pyrene	1200.000	34900	-	23.000	ug/kg
700 (771/774)	000-2	CE47-030	750943.25	2083603.5	0.00	0.50	Pyrene	2800.000	22100000	-	140.000	ug/kg
700 (771/774)	000-2	CE47-031	750939.37	2083603.5	0.00	0.50	Anthracene	71.000	204000000	-	24.000	ug/kg
700 (771/774)	000-2	CE47-031	750939.37	2083603.5	0.00	0.50	Benzo(a)anthracene	420.000	34900	-	25.000	ug/kg
700 (771/774)	000-2	CE47-031	750939.37	2083603.5	0.00	0.50	Benzo(a)pyrene	490.000	3490	-	41.000	ug/kg
700 (771/774)	000-2	CE47-031	750939.37	2083603.5	0.00	0.50	Benzo(b)fluoranthene	460.000	34900	-	30.000	ug/kg
700 (771/774)	000-2	CE47-031	750939.37	2083603.5	0.00	0.50	Benzo(k)fluoranthene	430.000	349000	-	33.000	ug/kg
700 (771/774)	000-2	CE47-031	750939.37	2083603.5	0.00	0.50	Chrysene	500.000	3490000	-	29.000	ug/kg
700 (771/774)	000-2	CE47-031	750939.37	2083603.5	0.00	0.50	Dibenz(a,h)anthracene	190.000	3490	-	25.000	ug/kg
700 (771/774)	000-2	CE47-031	750939.37	2083603.5	0.00	0.50	Fluoranthene	720.000	27200000	-	23.000	ug/kg
700 (771/774)	000-2	CE47-031	750939.37	2083603.5	0.00	0.50	Indeno(1,2,3-cd)pyrene	400.000	34900	-	23.000	ug/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (771/774)	000-2	CE47-031	750939.37	2083603.5	0.00	0.50	Pyrene	690.000	22100000	-	140.000	ug/kg
700 (771/774)	000-2	CE47-032	750956.43	2083628.8	0.00	0.50	Acenaphthene	110.000	40800000	-	39.000	ug/kg
700 (771/774)	000-2	CE47-032	750956.43	2083628.8	0.00	0.50	Anthracene	340.000	204000000	-	30.000	ug/kg
700 (771/774)	000-2	CE47-032	750956.43	2083628.8	0.00	0.50	Benzo(a)anthracene	1100.000	34900	-	31.000	ug/kg
700 (771/774)	000-2	CE47-032	750956.43	2083628.8	0.00	0.50	Benzo(a)pyrene	990.000	3490	-	51.000	ug/kg
700 (771/774)	000-2	CE47-032	750956.43	2083628.8	0.00	0.50	Benzo(b)fluoranthene	1200.000	34900	-	36.000	ug/kg
700 (771/774)	000-2	CE47-032	750956.43	2083628.8	0.00	0.50	Benzo(k)fluoranthene	570.000	349000	-	40.000	ug/kg
700 (771/774)	000-2	CE47-032	750956.43	2083628.8	0.00	0.50	Chrysene	1100.000	3490000	-	35.000	ug/kg
700 (771/774)	000-2	CE47-032	750956.43	2083628.8	0.00	0.50	Dibenz(a,h)anthracene	140.000	3490	-	31.000	ug/kg
700 (771/774)	000-2	CE47-032	750956.43	2083628.8	0.00	0.50	Dibenzofuran	52.000	2950000	-	46.000	ug/kg
700 (771/774)	000-2	CE47-032	750956.43	2083628.8	0.00	0.50	Fluoranthene	1900.000	27200000	-	29.000	ug/kg
700 (771/774)	000-2	CE47-032	750956.43	2083628.8	0.00	0.50	Fluorene	110.000	40800000	-	43.000	ug/kg
700 (771/774)	000-2	CE47-032	750956.43	2083628.8	0.00	0.50	Indeno(1,2,3-cd)pyrene	560.000	34900	-	29.000	ug/kg
700 (771/774)	000-2	CE47-032	750956.43	2083628.8	0.00	0.50	Pyrene	1800.000	22100000	-	170.000	ug/kg
700 (771/774)	000-2	CE47-033	750940.53	2083593	0.00	0.50	Anthracene	150.000	204000000	-	26.000	ug/kg
700 (771/774)	000-2	CE47-033	750940.53	2083593	0.00	0.50	Benzo(a)anthracene	830.000	34900	-	27.000	ug/kg
700 (771/774)	000-2	CE47-033	750940.53	2083593	0.00	0.50	Benzo(a)pyrene	860.000	3490	-	44.000	ug/kg
700 (771/774)	000-2	CE47-033	750940.53	2083593	0.00	0.50	Benzo(b)fluoranthene	1000.000	34900	-	31.000	ug/kg
700 (771/774)	000-2	CE47-033	750940.53	2083593	0.00	0.50	Benzo(k)fluoranthene	470.000	349000	-	35.000	ug/kg
700 (771/774)	000-2	CE47-033	750940.53	2083593	0.00	0.50	Chrysene	920.000	3490000	-	30.000	ug/kg
700 (771/774)	000-2	CE47-033	750940.53	2083593	0.00	0.50	Dibenz(a,h)anthracene	130.000	3490	-	27.000	ug/kg
700 (771/774)	000-2	CE47-033	750940.53	2083593	0.00	0.50	Fluoranthene	1200.000	27200000	-	25.000	ug/kg
700 (771/774)	000-2	CE47-033	750940.53	2083593	0.00	0.50	Indeno(1,2,3-cd)pyrene	500.000	34900	-	25.000	ug/kg
700 (771/774)	000-2	CE47-033	750940.53	2083593	0.00	0.50	Pyrene	1300.000	22100000	-	150.000	ug/kg
700 (771/774)	000-2	CE48-031	750966.46	2083630.7	0.00	0.50	2-Methylnaphthalene	53.000	20400000	-	37.000	ug/kg
700 (771/774)	000-2	CE48-031	750966.46	2083630.7	0.00	0.50	Acenaphthene	280.000	40800000	-	36.000	ug/kg
700 (771/774)	000-2	CE48-031	750966.46	2083630.7	0.00	0.50	Anthracene	520.000	204000000	-	28.000	ug/kg
700 (771/774)	000-2	CE48-031	750966.46	2083630.7	0.00	0.50	Benzo(a)anthracene	1700.000	34900	-	29.000	ug/kg
700 (771/774)	000-2	CE48-031	750966.46	2083630.7	0.00	0.50	Benzo(a)pyrene	1700.000	3490	-	47.000	ug/kg
700 (771/774)	000-2	CE48-031	750966.46	2083630.7	0.00	0.50	Benzo(b)fluoranthene	1500.000	34900	-	34.000	ug/kg
700 (771/774)	000-2	CE48-031	750966.46	2083630.7	0.00	0.50	Benzo(k)fluoranthene	1500.000	349000	-	37.000	ug/kg
700 (771/774)	000-2	CE48-031	750966.46	2083630.7	0.00	0.50	Chrysene	2000.000	3490000	-	33.000	ug/kg
700 (771/774)	000-2	CE48-031	750966.46	2083630.7	0.00	0.50	Dibenz(a,h)anthracene	360.000	3490	-	29.000	ug/kg
700 (771/774)	000-2	CE48-031	750966.46	2083630.7	0.00	0.50	Dibenzofuran	150.000	2950000	-	42.000	ug/kg
700 (771/774)	000-2	CE48-031	750966.46	2083630.7	0.00	0.50	Fluoranthene	3400.000	27200000	-	27.000	ug/kg
700 (771/774)	000-2	CE48-031	750966.46	2083630.7	0.00	0.50	Fluorene	240.000	40800000	-	40.000	ug/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (771/774)	000-2	CE48-031	750966.46	2083630.7	0.00	0.50	Indeno(1,2,3-cd)pyrene	1100.000	34900	-	27.000	ug/kg
700 (771/774)	000-2	CE48-031	750966.46	2083630.7	0.00	0.50	Naphthalene	70.000	3090000	-	37.000	ug/kg
700 (771/774)	000-2	CE48-031	750966.46	2083630.7	0.00	0.50	Pyrene	3300.000	22100000	-	160.000	ug/kg
700 (771/774)	000-2	CE48-035	750961.18	2083636.1	0.00	0.50	Acenaphthene	150.000	40800000	-	36.000	ug/kg
700 (771/774)	000-2	CE48-035	750961.18	2083636.1	0.00	0.50	Anthracene	130.000	204000000	-	28.000	ug/kg
700 (771/774)	000-2	CE48-035	750961.18	2083636.1	0.00	0.50	Benzo(a)anthracene	300.000	34900	-	29.000	ug/kg
700 (771/774)	000-2	CE48-035	750961.18	2083636.1	0.00	0.50	Benzo(a)pyrene	280.000	3490	-	47.000	ug/kg
700 (771/774)	000-2	CE48-035	750961.18	2083636.1	0.00	0.50	Benzo(b)fluoranthene	300.000	34900	-	34.000	ug/kg
700 (771/774)	000-2	CE48-035	750961.18	2083636.1	0.00	0.50	Benzo(k)fluoranthene	190.000	349000	-	37.000	ug/kg
700 (771/774)	000-2	CE48-035	750961.18	2083636.1	0.00	0.50	Chrysene	380.000	3490000	-	33.000	ug/kg
700 (771/774)	000-2	CE48-035	750961.18	2083636.1	0.00	0.50	Dibenzofuran	97.000	2950000	-	42.000	ug/kg
700 (771/774)	000-2	CE48-035	750961.18	2083636.1	0.00	0.50	Di-n-butylphthalate	77.000	73700000	-	24.000	ug/kg
700 (771/774)	000-2	CE48-035	750961.18	2083636.1	0.00	0.50	Fluoranthene	760.000	27200000	-	27.000	ug/kg
700 (771/774)	000-2	CE48-035	750961.18	2083636.1	0.00	0.50	Fluorene	100.000	40800000	-	40.000	ug/kg
700 (771/774)	000-2	CE48-035	750961.18	2083636.1	0.00	0.50	Indeno(1,2,3-cd)pyrene	140.000	34900	-	27.000	ug/kg
700 (771/774)	000-2	CE48-035	750961.18	2083636.1	0.00	0.50	Pyrene	680.000	22100000	-	160.000	ug/kg
700 (771/774)	000-2	CE48-036	750960.89	2083623.6	0.00	0.50	Acenaphthene	160.000	40800000	-	38.000	ug/kg
700 (771/774)	000-2	CE48-036	750960.89	2083623.6	0.00	0.50	Anthracene	390.000	204000000	-	29.000	ug/kg
700 (771/774)	000-2	CE48-036	750960.89	2083623.6	0.00	0.50	Benzo(a)anthracene	1300.000	34900	-	31.000	ug/kg
700 (771/774)	000-2	CE48-036	750960.89	2083623.6	0.00	0.50	Benzo(a)pyrene	1200.000	3490	-	50.000	ug/kg
700 (771/774)	000-2	CE48-036	750960.89	2083623.6	0.00	0.50	Benzo(b)fluoranthene	2100.000	34900	-	36.000	ug/kg
700 (771/774)	000-2	CE48-036	750960.89	2083623.6	0.00	0.50	Chrysene	1400.000	3490000	-	35.000	ug/kg
700 (771/774)	000-2	CE48-036	750960.89	2083623.6	0.00	0.50	Dibenz(a,h)anthracene	270.000	3490	-	31.000	ug/kg
700 (771/774)	000-2	CE48-036	750960.89	2083623.6	0.00	0.50	Dibenzofuran	68.000	2950000	-	45.000	ug/kg
700 (771/774)	000-2	CE48-036	750960.89	2083623.6	0.00	0.50	Di-n-butylphthalate	92.000	73700000	-	26.000	ug/kg
700 (771/774)	000-2	CE48-036	750960.89	2083623.6	0.00	0.50	Fluoranthene	2200.000	27200000	-	28.000	ug/kg
700 (771/774)	000-2	CE48-036	750960.89	2083623.6	0.00	0.50	Fluorene	140.000	40800000	-	42.000	ug/kg
700 (771/774)	000-2	CE48-036	750960.89	2083623.6	0.00	0.50	Indeno(1,2,3-cd)pyrene	640.000	34900	-	28.000	ug/kg
700 (771/774)	000-2	CE48-036	750960.89	2083623.6	0.00	0.50	Pyrene	2400.000	22100000	-	170.000	ug/kg
700 (771/774)	700-4	CH48-041	751051.26	2084143.9	0.00	0.50	Acenaphthene	48.000	40800000	-	39.000	ug/kg
700 (771/774)	700-4	CH48-041	751051.26	2084143.9	0.00	0.50	Aluminum	19000.000	228000	16902.000	-	mg/kg
700 (771/774)	700-4	CH48-041	751051.26	2084143.9	0.00	0.50	Americium-241	57.500	76	0.023	-	pCi/g
700 (771/774)	700-4	CH48-041	751051.26	2084143.9	0.00	0.50	Benzo(a)anthracene	56.000	34900	-	31.000	ug/kg
700 (771/774)	700-4	CH48-041	751051.26	2084143.9	0.00	0.50	Chromium	17.000	268	16.990	-	mg/kg
700 (771/774)	700-4	CH48-041	751051.26	2084143.9	0.00	0.50	Chrysene	80.000	3490000	-	35.000	ug/kg
700 (771/774)	700-4	CH48-041	751051.26	2084143.9	0.00	0.50	Fluoranthene	180.000	27200000	-	29.000	ug/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (771/774)	700-4	CH48-041	751051.26	2084143.9	0.00	0.50	Methylene chloride	1.500	2530000	-	0.990	ug/kg
700 (771/774)	700-4	CH48-041	751051.26	2084143.9	0.00	0.50	Naphthalene	1.700	3090000	-	1.100	ug/kg
700 (771/774)	700-4	CH48-041	751051.26	2084143.9	0.00	0.50	Plutonium-239/240	44.900	50	0.066	-	pCi/g
700 (771/774)	700-4	CH48-041	751051.26	2084143.9	0.00	0.50	Pyrene	180.000	22100000	-	170.000	ug/kg
700 (771/774)	700-4	CH48-041	751051.26	2084143.9	0.00	0.50	Strontium	55.000	613000	48.940	-	mg/kg
700 (771/774)	700-4	CH48-042	751043.89	2084144.2	0.00	0.50	Aluminum	18000.000	228000	16902.000	-	mg/kg
700 (771/774)	700-4	CH48-042	751043.89	2084144.2	0.00	0.50	Americium-241	11.300	76	0.023	-	pCi/g
700 (771/774)	700-4	CH48-042	751043.89	2084144.2	0.00	0.50	Chromium	17.000	268	16.990	-	mg/kg
700 (771/774)	700-4	CH48-042	751043.89	2084144.2	0.00	0.50	Methylene chloride	1.500	2530000	-	1.000	ug/kg
700 (771/774)	700-4	CH48-042	751043.89	2084144.2	0.00	0.50	Plutonium-239/240	7.000	50	0.066	-	pCi/g
700 (771/774)	700-4	CH48-042	751043.89	2084144.2	0.00	0.50	Strontium	52.000	613000	48.940	-	mg/kg
700 (771/774)	700-4	CH48-042	751043.89	2084144.2	0.00	0.50	Uranium-235	0.416	8	0.094	-	pCi/g
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	1,1-Dichloroethene	1.300	17000	-	1.300	ug/kg
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	2-Butanone	7.000	192000000	-	5.600	ug/kg
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	2-Methylnaphthalene	110.000	20400000	-	38.000	ug/kg
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	4-Methyl-2-pentanone	6.200	16400000	-	4.700	ug/kg
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	Acenaphthene	350.000	40800000	-	37.000	ug/kg
700 (771/774)	**700-4**	**CH48-043**	**751037.76**	**2084143.8**	**0.00**	**0.50**	**Americium-241**	**226.000**	**76**	**0.023**	**-**	**pCi/g**
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	Anthracene	430.000	204000000	-	28.000	ug/kg
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	Benzo(a)anthracene	580.000	34900	-	29.000	ug/kg
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	Benzo(a)pyrene	480.000	3490	-	48.000	ug/kg
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	Benzo(b)fluoranthene	350.000	34900	-	34.000	ug/kg
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	Benzo(k)fluoranthene	430.000	349000	-	38.000	ug/kg
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	Beryllium	1.100	921	0.966	-	mg/kg
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	Chrysene	600.000	3490000	-	33.000	ug/kg
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	Dibenzofuran	170.000	2950000	-	43.000	ug/kg
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	Fluoranthene	1400.000	27200000	-	27.000	ug/kg
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	Fluorene	310.000	40800000	-	40.000	ug/kg
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	Indeno(1,2,3-cd)pyrene	250.000	34900	-	27.000	ug/kg
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	Iron	34000.000	307000	18037.000	-	mg/kg
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	Methylene chloride	1.500	2530000	-	0.960	ug/kg
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	Naphthalene	4.700	3090000	-	1.000	ug/kg
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	Nickel	29.000	20400	14.910	-	mg/kg
700 (771/774)	**700-4**	**CH48-043**	**751037.76**	**2084143.8**	**0.00**	**0.50**	**Plutonium-239/240**	**93.200**	**50**	**0.066**	**-**	**pCi/g**
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	Pyrene	1400.000	22100000	-	160.000	ug/kg
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	Strontium	52.000	613000	48.940	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	Uranium-235	0.344	8	0.094	-	pCi/g
700 (771/774)	700-4	CH48-043	751037.76	2084143.8	0.00	0.50	Zinc	78.000	307000	73.760	-	mg/kg
700 (771/774)	700-4	CH48-044	751037.35	2084130.6	0.00	0.50	Acenaphthene	120.000	40800000	-	36.000	ug/kg
700 (771/774)	**700-4**	**CH48-044**	**751037.35**	**2084130.6**	**0.00**	**0.50**	**Americium-241**	**206.000**	**76**	**0.023**	**-**	**pCi/g**
700 (771/774)	700-4	CH48-044	751037.35	2084130.6	0.00	0.50	Anthracene	130.000	204000000	-	27.000	ug/kg
700 (771/774)	700-4	CH48-044	751037.35	2084130.6	0.00	0.50	Benzo(a)anthracene	230.000	34900	-	29.000	ug/kg
700 (771/774)	700-4	CH48-044	751037.35	2084130.6	0.00	0.50	Benzo(a)pyrene	200.000	3490	-	47.000	ug/kg
700 (771/774)	700-4	CH48-044	751037.35	2084130.6	0.00	0.50	Benzo(b)fluoranthene	150.000	34900	-	33.000	ug/kg
700 (771/774)	700-4	CH48-044	751037.35	2084130.6	0.00	0.50	Benzo(k)fluoranthene	190.000	349000	-	37.000	ug/kg
700 (771/774)	700-4	CH48-044	751037.35	2084130.6	0.00	0.50	Beryllium	1.200	921	0.966	-	mg/kg
700 (771/774)	700-4	CH48-044	751037.35	2084130.6	0.00	0.50	Chrysene	280.000	3490000	-	32.000	ug/kg
700 (771/774)	700-4	CH48-044	751037.35	2084130.6	0.00	0.50	Dibenzofuran	50.000	2950000	-	42.000	ug/kg
700 (771/774)	700-4	CH48-044	751037.35	2084130.6	0.00	0.50	Fluoranthene	600.000	27200000	-	26.000	ug/kg
700 (771/774)	700-4	CH48-044	751037.35	2084130.6	0.00	0.50	Fluorene	83.000	40800000	-	39.000	ug/kg
700 (771/774)	700-4	CH48-044	751037.35	2084130.6	0.00	0.50	Indeno(1,2,3-cd)pyrene	120.000	34900	-	26.000	ug/kg
700 (771/774)	700-4	CH48-044	751037.35	2084130.6	0.00	0.50	Iron	22000.000	307000	18037.000	-	mg/kg
700 (771/774)	700-4	CH48-044	751037.35	2084130.6	0.00	0.50	Methylene chloride	1.500	2530000	-	0.960	ug/kg
700 (771/774)	700-4	CH48-044	751037.35	2084130.6	0.00	0.50	Nickel	17.000	20400	14.910	-	mg/kg
700 (771/774)	**700-4**	**CH48-044**	**751037.35**	**2084130.6**	**0.00**	**0.50**	**Plutonium-239/240**	**61.100**	**50**	**0.066**	**-**	**pCi/g**
700 (771/774)	700-4	CH48-044	751037.35	2084130.6	0.00	0.50	Pyrene	550.000	22100000	-	160.000	ug/kg
700 (771/774)	700-4	CH48-044	751037.35	2084130.6	0.00	0.50	Zinc	74.000	307000	73.760	-	mg/kg
700 (771/774)	700-4	CH48-045	751025.5	2084130.6	0.00	0.50	Americium-241	31.470	76	0.023	-	pCi/g
700 (771/774)	***700-4***	***CH48-045***	***751025.5***	***2084130.6***	***0.00***	***0.50***	***Plutonium-239/240***	***179.379***	***50***	***0.066***	***-***	***pCi/g***
700 (771/774)	700-4	CH48-045	751025.5	2084130.6	0.00	0.50	Uranium-235	0.110	8	0.094	-	pCi/g
700 (771/774)	700-4	CH48-046	751039.77	2084140.3	0.00	0.50	Americium-241	6.570	76	0.023	-	pCi/g
700 (771/774)	*700-4*	*CH48-046*	*751039.77*	*2084140.3*	*0.00*	*0.50*	*Plutonium-239/240*	*37.449*	*50*	*0.066*	-	*pCi/g*
700 (771/774)	*700-4*	*CH48-046*	*751039.77*	*2084140.3*	*0.00*	*0.50*	*Uranium-234*	*3.835*	*300*	*2.253*	-	*pCi/g*
700 (771/774)	700-4	CH48-046	751039.77	2084140.3	0.00	0.50	Uranium-235	0.233	8	0.094	-	pCi/g
700 (771/774)	700-4	CH48-046	751039.77	2084140.3	0.00	0.50	Uranium-238	3.835	351	2.000	-	pCi/g
700 (771/774)	700-4	CH48-050	751019.14	2084152.5	3.00	4.00	1,1-Dichloroethene	1.700	17000	-	1.300	ug/kg
700 (771/774)	700-4	CH48-050	751019.14	2084152.5	3.00	4.00	1,2-Dichloropropane	3.400	345000	-	1.400	ug/kg
700 (771/774)	700-4	CH48-050	751019.14	2084152.5	3.00	4.00	Acetone	13.000	102000000	-	5.500	ug/kg
700 (771/774)	700-4	CH48-050	751019.14	2084152.5	3.00	4.00	Americium-241	6.740	76	0.023	-	pCi/g
700 (771/774)	700-4	CH48-050	751019.14	2084152.5	3.00	4.00	Methylene chloride	2.200	2530000	-	0.950	ug/kg
700 (771/774)	700-4	CH48-050	751019.14	2084152.5	3.00	4.00	Plutonium-239/240	5.680	50	0.066	-	pCi/g
700 (771/774)	700-4	CH48-050	751019.14	2084152.5	3.00	4.00	Strontium	49.000	613000	48.940	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (776/777/778)	700-3	CF45-174	750561.58	2083863.3	0.00	4.50	Americium-241	0.635	76	0.020	-	pCi/g
700 (776/777/778)	*700-3*	*CF45-174*	*750561.58*	*2083863.3*	*0.00*	*4.50*	*Plutonium-239/240*	*3.622*	*50*	*0.020*	-	*pCi/g*
700 (776/777/778)	700-3	CF46-056	750589.54	2083852.4	0.00	0.30	Americium-241	5.373	76	0.023	-	pCi/g
700 (776/777/778)	*700-3*	*CF46-056*	*750589.54*	*2083852.4*	*0.00*	*0.30*	*Plutonium-239/240*	*30.626*	*50*	*0.066*	-	*pCi/g*
700 (776/777/778)	*700-3*	*CF46-056*	*750589.54*	*2083852.4*	*0.00*	*0.30*	*Uranium-234*	*3.629*	*300*	*2.253*	-	*pCi/g*
700 (776/777/778)	700-3	CF46-056	750589.54	2083852.4	0.00	0.30	Uranium-235	0.233	8	0.094	-	pCi/g
700 (776/777/778)	700-3	CF46-056	750589.54	2083852.4	0.00	0.30	Uranium-238	3.629	351	2.000	-	pCi/g
700 (776/777/778)	700-3	CF46-080	750576.01	2083868.1	4.50	4.70	Plutonium-239/240	0.433	50	0.020	-	pCi/g
700 (776/777/778)	700-3	CF46-081	750601.86	2083874.5	4.50	4.70	Americium-241	1.170	76	0.020	-	pCi/g
700 (776/777/778)	700-3	CF46-081	750601.86	2083874.5	4.50	4.70	Plutonium-239/240	10.200	50	0.020	-	pCi/g
700 (776/777/778)	700-3	CF46-085	750624.26	2083879	0.00	4.50	Americium-241	7.749	76	0.020	-	pCi/g
700 (776/777/778)	*700-3*	*CF46-085*	*750624.26*	*2083879*	*0.00*	*4.50*	*Plutonium-239/240*	*44.169*	*50*	*0.020*	-	*pCi/g*
700 (776/777/778)	700-3	CF46-086	750592.49	2083881	0.00	4.50	Americium-241	6.143	76	0.020	-	pCi/g
700 (776/777/778)	*700-3*	*CF46-086*	*750592.49*	*2083881*	*0.00*	*4.50*	*Plutonium-239/240*	*35.015*	*50*	*0.020*	-	*pCi/g*
700 (776/777/778)	700-3	CF46-086	750592.49	2083881	0.00	4.50	Uranium-238	1.493	351	1.490	-	pCi/g
700 (776/777/778)	700-3	CF46-087	750596.98	2083865.4	0.00	4.50	Americium-241	8.126	76	0.020	-	pCi/g
700 (776/777/778)	*700-3*	*CF46-087*	*750596.98*	*2083865.4*	*0.00*	*4.50*	*Plutonium-239/240*	*46.318*	*50*	*0.020*	-	*pCi/g*
700 (776/777/778)	700-3	CF46-087	750596.98	2083865.4	0.00	4.50	Uranium-238	2.197	351	1.490	-	pCi/g
700 (779)	000-2	CH45-111	750569.1	2084329.8	3.00	3.50	Naphthalene	12.000	3090000	-	1.000	ug/kg
700 (779)	000-2	CH46-058	750700.43	2084596.8	4.50	5.00	Americium-241	0.152	76	0.020	-	pCi/g
700 (779)	000-2	CH46-058	750700.43	2084596.8	4.50	5.00	Lead	29.000	1000	24.970	-	mg/kg
700 (779)	000-2	CH46-058	750700.43	2084596.8	4.50	5.00	Plutonium-239/240	0.301	50	0.020	-	pCi/g
700 (779)	000-2	CH46-058	750700.43	2084596.8	4.50	5.00	Toluene	3.800	31300000	-	0.920	ug/kg
700 (779)	700-7	CJ46-005	750700.15	2084569.4	2.50	3.50	Americium-241	4.820	76	0.020	-	pCi/g
700 (779)	700-7	CJ46-005	750700.15	2084569.4	2.50	3.50	Cadmium	2.300	962	1.700	-	mg/kg
700 (779)	700-7	CJ46-005	750700.15	2084569.4	2.50	3.50	Ethylbenzene	6.800	4250000	-	1.200	ug/kg
700 (779)	700-7	CJ46-005	750700.15	2084569.4	2.50	3.50	Methylene chloride	1.200	2530000	-	0.830	ug/kg
700 (779)	700-7	CJ46-005	750700.15	2084569.4	2.50	3.50	Plutonium-239/240	8.990	50	0.020	-	pCi/g
700 (779)	700-7	CJ46-005	750700.15	2084569.4	2.50	3.50	Toluene	1.200	31300000	-	0.810	ug/kg
700 (779)	700-7	CJ46-005	750700.15	2084569.4	2.50	3.50	Xylene	81.000	2040000	-	2.900	ug/kg
700 (779)	700-7	CJ46-005	750700.15	2084569.4	3.50	4.00	Americium-241	0.697	76	0.020	-	pCi/g
700 (779)	700-7	CJ46-005	750700.15	2084569.4	3.50	4.00	Plutonium-239/240	1.420	50	0.020	-	pCi/g
700 (779)	700-7	CJ46-005	750700.15	2084569.4	5.50	6.50	Acetone	9.400	102000000	-	5.800	ug/kg
700 (779)	700-7	CJ46-005	750700.15	2084569.4	5.50	6.50	Aluminum	53000.000	228000	35373.170	-	mg/kg
700 (779)	700-7	CJ46-005	750700.15	2084569.4	5.50	6.50	Americium-241	4.140	76	0.020	-	pCi/g
700 (779)	700-7	CJ46-005	750700.15	2084569.4	5.50	6.50	Arsenic	22.000	22.2	13.140	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (779)	700-7	CJ46-005	750700.15	2084569.4	5.50	6.50	Ethylbenzene	1.900	4250000	-	1.500	ug/kg
700 (779)	700-7	CJ46-005	750700.15	2084569.4	5.50	6.50	Methylene chloride	1.500	2530000	-	1.000	ug/kg
700 (779)	700-7	CJ46-005	750700.15	2084569.4	5.50	6.50	Plutonium-239/240	1.180	50	0.020	-	pCi/g
700 (779)	700-7	CJ46-005	750700.15	2084569.4	5.50	6.50	Uranium-235	0.162	8	0.120	-	pCi/g
700 (779)	700-7	CJ46-005	750700.15	2084569.4	5.50	6.50	Vanadium	110.000	7150	88.490	-	mg/kg
700 (779)	700-7	CJ46-005	750700.15	2084569.4	5.50	6.50	Xylene	20.000	2040000	-	3.500	ug/kg
700 (779)	000-2	CJ46-052	750704.84	2084572	3.00	3.50	Acetone	50.000	102000000	-	5.100	ug/kg
700 (779)	000-2	CJ46-052	750704.84	2084572	3.00	3.50	Americium-241	1.550	76	0.020	-	pCi/g
700 (779)	000-2	CJ46-052	750704.84	2084572	3.00	3.50	Methylene chloride	1.100	2530000	-	0.890	ug/kg
700 (779)	000-2	CJ46-052	750704.84	2084572	3.00	3.50	Naphthalene	1.300	3090000	-	0.960	ug/kg
700 (779)	000-2	CJ46-052	750704.84	2084572	3.00	3.50	Plutonium-239/240	10.600	50	0.020	-	pCi/g
700 (779)	000-2	CJ46-053	750703.55	2084565.7	3.00	3.50	Acetone	24.000	102000000	-	5.200	ug/kg
700 (779)	000-2	CJ46-053	750703.55	2084565.7	3.00	3.50	Americium-241	1.110	76	0.020	-	pCi/g
700 (779)	000-2	CJ46-053	750703.55	2084565.7	3.00	3.50	Methylene chloride	1.300	2530000	-	0.900	ug/kg
700 (779)	000-2	CJ46-053	750703.55	2084565.7	3.00	3.50	Naphthalene	3.600	3090000	-	0.970	ug/kg
700 (779)	000-2	CJ46-053	750703.55	2084565.7	3.00	3.50	Plutonium-239/240	6.470	50	0.020	-	pCi/g
700 (779)	000-2	CJ46-053	750703.55	2084565.7	3.00	3.50	Uranium-235	0.135	8	0.120	-	pCi/g
700 (779)	000-2	CJ46-054	750700.9	2084569.2	3.00	3.50	Acetone	11.000	102000000	-	5.900	ug/kg
700 (779)	000-2	CJ46-054	750700.9	2084569.2	3.00	3.50	Americium-241	2.900	76	0.020	-	pCi/g
700 (779)	000-2	CJ46-054	750700.9	2084569.2	3.00	3.50	Methylene chloride	2.200	2530000	-	1.000	ug/kg
700 (779)	000-2	CJ46-054	750700.9	2084569.2	3.00	3.50	Naphthalene	1.400	3090000	-	1.100	ug/kg
700 (779)	000-2	CJ46-054	750700.9	2084569.2	3.00	3.50	Plutonium-239/240	17.100	50	0.020	-	pCi/g
700 (779)	000-2	CJ46-055	750706.96	2084569.2	3.00	3.50	Acetone	8.900	102000000	-	4.900	ug/kg
700 (779)	000-2	CJ46-055	750706.96	2084569.2	3.00	3.50	Americium-241	0.484	76	0.020	-	pCi/g
700 (779)	000-2	CJ46-055	750706.96	2084569.2	3.00	3.50	Methylene chloride	1.100	2530000	-	0.850	ug/kg
700 (779)	000-2	CJ46-055	750706.96	2084569.2	3.00	3.50	Plutonium-239/240	3.410	50	0.020	-	pCi/g
700 (779)	000-1	CJ46-DR03	750678.01	2084610	0.00	0.50	Plutonium-239/240	0.730	50	0.066	-	pCi/g
700 (779)	000-1	CJ46-DR03	750678.01	2084610	0.00	0.50	Selenium	1.400	5110	1.224	-	mg/kg
700 (779)	000-1	CJ46-DR03	750678.01	2084610	0.00	0.50	Zinc	170.000	307000	73.760	-	mg/kg
700 (779)	000-1	CJ46-DR05	750678.01	2084610	0.00	0.50	Antimony	1.200	409	0.470	-	mg/kg
700 (779)	000-1	CJ46-DR06	750678.01	2084610	0.00	0.50	Copper	77.000	40900	18.060	-	mg/kg
700 (779)	000-1	CJ46-DR06	750678.01	2084610	0.00	0.50	Iron	26000.000	307000	18037.000	-	mg/kg
700 (779)	000-1	CJ46-DR06	750678.01	2084610	0.00	0.50	Lithium	12.000	20400	11.550	-	mg/kg
700 (779)	000-1	CJ46-DR06	750678.01	2084610	0.00	0.50	Manganese	610.000	3480	365.080	-	mg/kg
700 (779)	000-1	CJ46-DR07	750678.01	2084610	0.00	0.50	Uranium-234	5.630	300	2.253	-	pCi/g
700 (779)	000-1	CJ46-DR07	750678.01	2084610	0.00	0.50	Uranium-235	0.340	8	0.094	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (T207)	000-2	CH47-025	750918.66	2084176.5	0.00	0.50	Acetone	8.600	102000000	-	5.100	ug/kg
700 (T207)	000-2	CH47-025	750918.66	2084176.5	0.00	0.50	Aluminum	19000.000	228000	16902.000	-	mg/kg
700 (T207)	000-2	CH47-025	750918.66	2084176.5	0.00	0.50	Americium-241	3.380	76	0.023	-	pCi/g
700 (T207)	000-2	CH47-025	750918.66	2084176.5	0.00	0.50	Carbon Tetrachloride	3.400	81500	-	1.300	ug/kg
700 (T207)	000-2	CH47-025	750918.66	2084176.5	0.00	0.50	Chromium	19.000	268	16.990	-	mg/kg
700 (T207)	000-2	CH47-025	750918.66	2084176.5	0.00	0.50	Copper	20.000	40900	18.060	-	mg/kg
700 (T207)	000-2	CH47-025	750918.66	2084176.5	0.00	0.50	Lithium	14.000	20400	11.550	-	mg/kg
700 (T207)	000-2	CH47-025	750918.66	2084176.5	0.00	0.50	Nickel	17.000	20400	14.910	-	mg/kg
700 (T207)	000-2	CH47-025	750918.66	2084176.5	0.00	0.50	Plutonium-239/240	2.600	50	0.066	-	pCi/g
700 (T207)	000-2	CH47-025	750918.66	2084176.5	0.00	0.50	Tetrachloroethene	8.000	615000	-	1.100	ug/kg
700 (T207)	000-2	CH47-025	750918.66	2084176.5	0.00	0.50	Trichloroethene	1.400	19600	-	0.960	ug/kg
700 (T207)	000-2	CH47-026	750921.59	2084181.1	0.00	0.50	Acetone	21.000	102000000	-	4.900	ug/kg
700 (T207)	000-2	CH47-026	750921.59	2084181.1	0.00	0.50	Aluminum	20000.000	228000	16902.000	-	mg/kg
700 (T207)	000-2	CH47-026	750921.59	2084181.1	0.00	0.50	Americium-241	4.430	76	0.023	-	pCi/g
700 (T207)	000-2	CH47-026	750921.59	2084181.1	0.00	0.50	Carbon Tetrachloride	2.000	81500	-	1.300	ug/kg
700 (T207)	000-2	CH47-026	750921.59	2084181.1	0.00	0.50	Lithium	12.000	20400	11.550	-	mg/kg
700 (T207)	000-2	CH47-026	750921.59	2084181.1	0.00	0.50	Plutonium-239/240	2.920	50	0.066	-	pCi/g
700 (T207)	000-2	CH47-026	750921.59	2084181.1	0.00	0.50	Tetrachloroethene	5.000	615000	-	1.100	ug/kg
700 (T207)	000-2	CH47-027	750918.04	2084184.8	0.00	0.50	Acetone	10.000	102000000	-	5.200	ug/kg
700 (T207)	000-2	CH47-027	750918.04	2084184.8	0.00	0.50	Aluminum	20000.000	228000	16902.000	-	mg/kg
700 (T207)	000-2	CH47-027	750918.04	2084184.8	0.00	0.50	Americium-241	1.340	76	0.023	-	pCi/g
700 (T207)	000-2	CH47-027	750918.04	2084184.8	0.00	0.50	Arsenic	11.000	22.2	10.090	-	mg/kg
700 (T207)	000-2	CH47-027	750918.04	2084184.8	0.00	0.50	Carbon Tetrachloride	4.100	81500	-	1.400	ug/kg
700 (T207)	000-2	CH47-027	750918.04	2084184.8	0.00	0.50	Chromium	18.000	268	16.990	-	mg/kg
700 (T207)	000-2	CH47-027	750918.04	2084184.8	0.00	0.50	Lithium	12.000	20400	11.550	-	mg/kg
700 (T207)	000-2	CH47-027	750918.04	2084184.8	0.00	0.50	Nickel	17.000	20400	14.910	-	mg/kg
700 (T207)	000-2	CH47-027	750918.04	2084184.8	0.00	0.50	Plutonium-239/240	1.040	50	0.066	-	pCi/g
700 (T207)	000-2	CH47-027	750918.04	2084184.8	0.00	0.50	Tetrachloroethene	6.500	615000	-	1.100	ug/kg
700 (T207)	000-2	CH47-027	750918.04	2084184.8	0.00	0.50	Trichloroethene	1.500	19600	-	0.980	ug/kg
700 (T207)	000-2	CH47-027	750918.04	2084184.8	0.00	0.50	Vanadium	46.000	7150	45.590	-	mg/kg
700 (T207)	000-2	CH47-028	750914.34	2084180.7	0.00	0.50	Acetone	6.400	102000000	-	5.200	ug/kg
700 (T207)	000-2	CH47-028	750914.34	2084180.7	0.00	0.50	Aluminum	18000.000	228000	16902.000	-	mg/kg
700 (T207)	000-2	CH47-028	750914.34	2084180.7	0.00	0.50	Americium-241	5.160	76	0.023	-	pCi/g
700 (T207)	000-2	CH47-028	750914.34	2084180.7	0.00	0.50	Carbon Tetrachloride	2.200	81500	-	1.300	ug/kg
700 (T207)	000-2	CH47-028	750914.34	2084180.7	0.00	0.50	Chromium	18.000	268	16.990	-	mg/kg
700 (T207)	000-2	CH47-028	750914.34	2084180.7	0.00	0.50	Lithium	12.000	20400	11.550	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (T207)	000-2	CH47-028	750914.34	2084180.7	0.00	0.50	Nickel	18.000	20400	14.910	-	mg/kg
700 (T207)	000-2	CH47-028	750914.34	2084180.7	0.00	0.50	Plutonium-239/240	2.860	50	0.066	-	pCi/g
700 (T207)	000-2	CH47-028	750914.34	2084180.7	0.00	0.50	Tetrachloroethene	4.400	615000	-	1.100	ug/kg
700 (T207)	000-2	CH47-029	750777.84	2084166.9	0.00	0.50	Aluminum	17000.000	228000	16902.000	-	mg/kg
700 (T207)	000-2	CH47-029	750777.84	2084166.9	0.00	0.50	Americium-241	3.430	76	0.023	-	pCi/g
700 (T207)	000-2	CH47-029	750777.84	2084166.9	0.00	0.50	Copper	20.000	40900	18.060	-	mg/kg
700 (T207)	000-2	CH47-029	750777.84	2084166.9	0.00	0.50	Lithium	12.000	20400	11.550	-	mg/kg
700 (T207)	000-2	CH47-029	750777.84	2084166.9	0.00	0.50	Naphthalene	1.000	3090000	-	0.880	ug/kg
700 (T207)	000-2	CH47-029	750777.84	2084166.9	0.00	0.50	Plutonium-239/240	2.490	50	0.066	-	pCi/g
700 (T207)	000-2	CH47-029	750777.84	2084166.9	0.00	0.50	Tetrachloroethene	2.100	615000	-	1.000	ug/kg
700 (T207)	000-2	CH47-029	750777.84	2084166.9	0.50	2.50	Americium-241	0.189	76	0.020	-	pCi/g
700 (T207)	000-2	CH47-029	750777.84	2084166.9	0.50	2.50	Naphthalene	7.700	3090000	-	0.920	ug/kg
700 (T207)	000-2	CH47-029	750777.84	2084166.9	0.50	2.50	Plutonium-239/240	0.156	50	0.020	-	pCi/g
700 (T207)	000-2	CH47-029	750777.84	2084166.9	0.50	2.50	Tetrachloroethene	1.200	615000	-	1.100	ug/kg
700 (T207)	000-2	CH47-029	750777.84	2084166.9	2.50	3.00	Aluminum	52000.000	228000	35373.170	-	mg/kg
700 (T207)	000-2	CH47-029	750777.84	2084166.9	2.50	3.00	Americium-241	0.497	76	0.020	-	pCi/g
700 (T207)	000-2	CH47-029	750777.84	2084166.9	2.50	3.00	Arsenic	15.000	22.2	13.140	-	mg/kg
700 (T207)	000-2	CH47-029	750777.84	2084166.9	2.50	3.00	Naphthalene	5.600	3090000	-	0.990	ug/kg
700 (T207)	000-2	CH47-029	750777.84	2084166.9	2.50	3.00	Plutonium-239/240	0.269	50	0.020	-	pCi/g
700 (T207)	000-2	CH47-029	750777.84	2084166.9	2.50	3.00	Tetrachloroethene	2.600	615000	-	1.100	ug/kg
700 (T207)	000-2	CH47-030	750804.74	2084183.9	0.00	0.50	Aluminum	28000.000	228000	16902.000	-	mg/kg
700 (T207)	000-2	CH47-030	750804.74	2084183.9	0.00	0.50	Americium-241	7.300	76	0.023	-	pCi/g
700 (T207)	000-2	CH47-030	750804.74	2084183.9	0.00	0.50	Beryllium	1.200	921	0.966	-	mg/kg
700 (T207)	000-2	CH47-030	750804.74	2084183.9	0.00	0.50	Carbon Tetrachloride	1.500	81500	-	1.300	ug/kg
700 (T207)	000-2	CH47-030	750804.74	2084183.9	0.00	0.50	Chromium	22.000	268	16.990	-	mg/kg
700 (T207)	000-2	CH47-030	750804.74	2084183.9	0.00	0.50	Ethylbenzene	4.600	4250000	-	1.300	ug/kg
700 (T207)	000-2	CH47-030	750804.74	2084183.9	0.00	0.50	Lithium	19.000	20400	11.550	-	mg/kg
700 (T207)	000-2	CH47-030	750804.74	2084183.9	0.00	0.50	Naphthalene	11.000	3090000	-	0.950	ug/kg
700 (T207)	000-2	CH47-030	750804.74	2084183.9	0.00	0.50	Nickel	19.000	20400	14.910	-	mg/kg
700 (T207)	000-2	CH47-030	750804.74	2084183.9	0.00	0.50	Plutonium-239/240	3.180	50	0.066	-	pCi/g
700 (T207)	000-2	CH47-030	750804.74	2084183.9	0.00	0.50	Tetrachloroethene	4.000	615000	-	1.100	ug/kg
700 (T207)	000-2	CH47-030	750804.74	2084183.9	0.00	0.50	Vanadium	46.000	7150	45.590	-	mg/kg
700 (T207)	000-2	CH47-030	750804.74	2084183.9	0.00	0.50	Xylene	45.000	2040000	-	3.100	ug/kg
700 (T207)	000-2	CH47-030	750804.74	2084183.9	0.50	2.50	Acetone	33.000	102000000	-	5.400	ug/kg
700 (T207)	000-2	CH47-030	750804.74	2084183.9	0.50	2.50	Americium-241	19.100	76	0.020	-	pCi/g
700 (T207)	000-2	CH47-030	750804.74	2084183.9	0.50	2.50	Naphthalene	2.600	3090000	-	1.000	ug/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (T207)	000-2	CH47-030	750804.74	2084183.9	0.50	2.50	Plutonium-239/240	8.450	50	0.020	-	pCi/g
700 (T207)	000-2	CH47-030	750804.74	2084183.9	0.50	2.50	Tetrachloroethene	2.100	615000	-	1.200	ug/kg
700 (T207)	000-2	CH47-030	750804.74	2084183.9	0.50	2.50	Uranium-234	4.400	300	2.640	-	pCi/g
700 (T207)	000-2	CH47-030	750804.74	2084183.9	0.50	2.50	Uranium-235	0.301	8	0.120	-	pCi/g
700 (T207)	000-2	CH47-030	750804.74	2084183.9	0.50	2.50	Uranium-238	2.520	351	1.490	-	pCi/g
700 (T207)	000-2	CH47-030	750804.74	2084183.9	2.50	3.00	Americium-241	16.000	76	0.020	-	pCi/g
700 (T207)	000-2	CH47-030	750804.74	2084183.9	2.50	3.00	Lead	120.000	1000	24.970	-	mg/kg
700 (T207)	000-2	CH47-030	750804.74	2084183.9	2.50	3.00	Naphthalene	9.400	3090000	-	0.940	ug/kg
700 (T207)	000-2	CH47-030	750804.74	2084183.9	2.50	3.00	Plutonium-239/240	8.960	50	0.020	-	pCi/g
700 (T207)	000-2	CH47-031	750763.45	2084202.6	0.00	0.50	Americium-241	2.560	76	0.023	-	pCi/g
700 (T207)	000-2	CH47-031	750763.45	2084202.6	0.00	0.50	Antimony	0.490	409	0.470	-	mg/kg
700 (T207)	000-2	CH47-031	750763.45	2084202.6	0.00	0.50	Carbon Tetrachloride	1.900	81500	-	1.600	ug/kg
700 (T207)	000-2	CH47-031	750763.45	2084202.6	0.00	0.50	Chromium	19.000	268	16.990	-	mg/kg
700 (T207)	000-2	CH47-031	750763.45	2084202.6	0.00	0.50	Copper	20.000	40900	18.060	-	mg/kg
700 (T207)	000-2	CH47-031	750763.45	2084202.6	0.00	0.50	Iron	20000.000	307000	18037.000	-	mg/kg
700 (T207)	000-2	CH47-031	750763.45	2084202.6	0.00	0.50	Lithium	13.000	20400	11.550	-	mg/kg
700 (T207)	000-2	CH47-031	750763.45	2084202.6	0.00	0.50	Naphthalene	11.000	3090000	-	1.200	ug/kg
700 (T207)	000-2	CH47-031	750763.45	2084202.6	0.00	0.50	Plutonium-239/240	1.020	50	0.066	-	pCi/g
700 (T207)	000-2	CH47-031	750763.45	2084202.6	0.00	0.50	Tetrachloroethene	3.400	615000	-	1.300	ug/kg
700 (T207)	000-2	CH47-031	750763.45	2084202.6	0.50	2.50	Acetone	12.000	102000000	-	5.100	ug/kg
700 (T207)	000-2	CH47-031	750763.45	2084202.6	0.50	2.50	Aluminum	42000.000	228000	35373.170	-	mg/kg
700 (T207)	000-2	CH47-031	750763.45	2084202.6	0.50	2.50	Americium-241	0.901	76	0.020	-	pCi/g
700 (T207)	000-2	CH47-031	750763.45	2084202.6	0.50	2.50	Naphthalene	1.200	3090000	-	0.950	ug/kg
700 (T207)	000-2	CH47-031	750763.45	2084202.6	0.50	2.50	Tetrachloroethene	1.800	615000	-	1.100	ug/kg
700 (T207)	000-2	CH47-031	750763.45	2084202.6	2.50	3.00	Lead	31.000	1000	24.970	-	mg/kg
700 (T207)	000-2	CH47-031	750763.45	2084202.6	2.50	3.00	Plutonium-239/240	0.060	50	0.020	-	pCi/g
700 (T207)	000-2	CH47-032	750748.01	2084180.9	0.00	0.50	Acetone	17.000	102000000	-	4.800	ug/kg
700 (T207)	000-2	CH47-032	750748.01	2084180.9	0.00	0.50	Aluminum	34000.000	228000	16902.000	-	mg/kg
700 (T207)	000-2	CH47-032	750748.01	2084180.9	0.00	0.50	Antimony	0.640	409	0.470	-	mg/kg
700 (T207)	000-2	CH47-032	750748.01	2084180.9	0.00	0.50	Beryllium	1.500	921	0.966	-	mg/kg
700 (T207)	000-2	CH47-032	750748.01	2084180.9	0.00	0.50	Carbon Tetrachloride	1.500	81500	-	1.300	ug/kg
700 (T207)	000-2	CH47-032	750748.01	2084180.9	0.00	0.50	Chromium	25.000	268	16.990	-	mg/kg
700 (T207)	000-2	CH47-032	750748.01	2084180.9	0.00	0.50	Iron	21000.000	307000	18037.000	-	mg/kg
700 (T207)	000-2	CH47-032	750748.01	2084180.9	0.00	0.50	Lithium	17.000	20400	11.550	-	mg/kg
700 (T207)	000-2	CH47-032	750748.01	2084180.9	0.00	0.50	Nickel	23.000	20400	14.910	-	mg/kg
700 (T207)	000-2	CH47-032	750748.01	2084180.9	0.00	0.50	Tetrachloroethene	4.700	615000	-	1.000	ug/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
700 (T207)	000-2	CH47-032	750748.01	2084180.9	0.00	0.50	Toluene	1.200	31300000	-	0.820	ug/kg
700 (T207)	000-2	CH47-032	750748.01	2084180.9	0.00	0.50	Trichloroethene	1.100	19600	-	0.910	ug/kg
700 (T207)	000-2	CH47-032	750748.01	2084180.9	0.00	0.50	Vanadium	56.000	7150	45.590	-	mg/kg
700 (T207)	000-2	CH47-032	750748.01	2084180.9	0.50	2.50	Americium-241	0.832	76	0.020	-	pCi/g
700 (T207)	000-2	CH47-032	750748.01	2084180.9	0.50	2.50	Lead	40.000	1000	24.970	-	mg/kg
700 (T207)	000-2	CH47-032	750748.01	2084180.9	0.50	2.50	Plutonium-239/240	0.697	50	0.020	-	pCi/g
700 (T207)	000-2	CH47-032	750748.01	2084180.9	2.50	3.00	Americium-241	3.560	76	0.020	-	pCi/g
700 (T207)	000-2	CH47-032	750748.01	2084180.9	2.50	3.00	Plutonium-239/240	2.840	50	0.020	-	pCi/g
700 (T207)	000-2	CH47-032	750748.01	2084180.9	2.50	3.00	Tetrachloroethene	1.500	615000	-	1.000	ug/kg
700 (T207)	000-2	CH47-054	750789	2084176	5.50	6.00	Acetone	8.300	102000000	-	5.300	ug/kg
700 (T207)	000-2	CH47-054	750789	2084176	5.50	6.00	Americium-241	2.080	76	0.020	-	pCi/g
700 (T207)	000-2	CH47-054	750789	2084176	5.50	6.00	Methylene chloride	1.100	2530000	-	0.920	ug/kg
700 (T207)	000-2	CH47-054	750789	2084176	5.50	6.00	Plutonium-239/240	1.330	50	0.020	-	pCi/g
700 (T207)	000-2	CH47-054	750789	2084176	5.50	6.00	Uranium, Total	4.200	2750	3.040	-	mg/kg
700 (T207)	000-2	CH47-054	750789	2084176	5.50	6.00	Uranium-234	2.960	300	2.640	-	pCi/g
700 (T207)	000-2	CH47-054	750789	2084176	5.50	6.00	Uranium-238	2.620	351	1.490	-	pCi/g
700 (T207)	000-2	CH47-055	750760.48	2084177.8	5.00	5.50	Acetone	11.000	102000000	-	5.200	ug/kg
700 (T207)	000-2	CH47-055	750760.48	2084177.8	5.00	5.50	Americium-241	17.800	76	0.020	-	pCi/g
700 (T207)	000-2	CH47-055	750760.48	2084177.8	5.00	5.50	Plutonium-239/240	9.250	50	0.020	-	pCi/g
700 (T207)	000-2	CH47-055	750760.48	2084177.8	5.00	5.50	Uranium-235	0.259	8	0.120	-	pCi/g
700 (T207)	000-2	CJ46-058	750904.57	2084131.1	9.00	9.50	Acetone	5.900	102000000	-	5.500	ug/kg
700 (T207)	000-2	CJ46-058	750904.57	2084131.1	9.00	9.50	Americium-241	19.800	76	0.020	-	pCi/g
700 (T207)	000-2	CJ46-058	750904.57	2084131.1	9.00	9.50	Methylene chloride	2.400	2530000	-	0.950	ug/kg
700 (T207)	000-2	CJ46-058	750904.57	2084131.1	9.00	9.50	Plutonium-239/240	12.200	50	0.020	-	pCi/g
700 (T207)	000-2	CJ46-058	750904.57	2084131.1	9.00	9.50	Uranium-238	2.850	351	1.490	-	pCi/g

4.5 Plutonium Speciation

In accordance with RFCA Attachment 14 (DOE et al. 2003) plutonium speciation in the soil contaminated by OPWL were attempted. Soil from sampling location CH47-044, located north of Tank 207, was used; however, the analyses were not successful. Additional sampling locations with the appropriate requirements were not found.

5.0 800 AREA ACCELERATED ACTION ACTIVITIES

Accelerated action sampling specifications and deviations, including potential contaminants of concern (PCOCs) and media sampled from IHSS Group 000-2 and other IHSS Groups within the 800 Area, are presented in Table 17. Deviations from planned sampling locations are also described in the table. Deviations of less than 3 feet are not considered significant. Results of accelerated action activities in the 800 Area including accelerated action characterization data, OPWL disposition, soil removal, and confirmation sampling are discussed in Sections 5.1 through 5.4.

5.1 800 Area Accelerated Action Data

The 800 Area includes samples collected as part of the IHSS Group 000-2, 800-1, 800-3, 800-4, 800-5, and 800-6 ER projects. Sixty-one characterization sampling locations were sampled in the 800 Area. Arsenic, detected at a concentration of 25.5 mg/kg, was the only contaminant reported at a concentration greater than the RFCA WRW soil AL.

Analytical results of soil characterization sampling with concentrations greater than background means plus two standard deviations or RLs are shown on Figure 13. Analytical results for all accelerated action characterization samples are presented in Table 18. In addition, analytical results with activities or concentrations greater than RFCA WRW Soil AL exceedances are identified with bold text in Table 18.

5.2 800 Area OPWL Disposition

5.2.1 IHSS Summary

IHSS Group 800-1 – UBC 865 – Materials Process Building

All process waste lines under the Building 865 slab, including OPWL and drains leading to the OPWL, were tapped, drained and removed. These lines had been previously filled with epoxy. The removed segments were cut up and placed in low-level radioactive waste (intermodal) containers. The end of the remaining line segment west of the building slab (where the Building 865 lines were cut off from the rest of the OPWL system) was filled with grout (approximately 2 feet into the line) (DOE2004f).

IHSS Group 800-2 – UBC 881 – Laboratory and Office

Dispositioned as part of IHSS Group 000-2 and detailed in Sections 5.2.2 through 5.2.4.

Table 17
800 Area Accelerated Action Sampling Specifications and Deviations

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
800	BY38-035	N/A	N/A	749227.531	2083799.827	Surface soil	0 - 0.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
800	BY38-036	N/A	N/A	749207.358	2083763.626	Surface soil	0 - 0.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
800	BY38-037	N/A	N/A	749191.075	2083747.712	Surface soil	0 - 0.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
800	BY38-038	N/A	N/A	749176.683	2083726.534	Surface soil	0 - 0.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
800	BY38-039	N/A	N/A	749176.584	2083685.205	Subsurface soil	4.5 - 5.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
800	CE38-000	N/A	N/A	749016.083	2083667.789	Subsurface soil	2.5 - 4.5	Radionuclides, Metals, VOCs	Biased characterization sample proposed in IHSS Group 000-2 IASAP Addendum.
800	CE38-001-01	N/A	N/A	749019.277	2083581.092	Subsurface soil	2.5 - 3	Radionuclides, Metals, VOCs	Biased characterization sample. Proposed sampling at approximately 100 ft intervals along OPWL.
800	CE38-003	N/A	N/A	748921.225	2083665.97	Subsurface soil	3.5 - 4	Radionuclides, Metals, VOCs	Additional biased characterization sample.
800	CE39-001-01	N/A	N/A	749173.77	2083670.387	Subsurface soil	8 - 8.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
800	CE39-002-01	N/A	N/A	749208.304	2083668.568	Subsurface soil	4 - 4.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
800	CE39-003-01	N/A	N/A	749217.431	2083668.387	Subsurface soil	4 - 4.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
800	CF33-010	748131.956	2083867.655	748131.956	2083867.655	Subsurface soil	5.0 - 5.01	Metals Radionuclides SVOCs VOCs	Sample collected at "D" interval instead of "E" interval to target the actual depth of OPWL. Depth interval represents a grab sample.
800	CF33-011	N/A	N/A	748143.538	2083807.896	Subsurface soil	5.0 - 5.5	Metals Radionuclides SVOCs VOCs	Additional sampling location targeting OPWL.
800	CF33-012	N/A	N/A	748147.12	2083846.837	Subsurface soil	3.0 - 3.01	Metals Radionuclides SVOCs VOCs	Additional sampling location targeting OPWL. Depth interval represents a grab sample.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
800	CF33-013	N/A	N/A	748142.72	2083856.448	Subsurface soil	3.0 - 3.01	Metals Radionuclides SVOCs VOCs	Additional sampling location targeting OPWL. Depth interval represents a grab sample.
800	CF34-021	748189.865	2083861.231	748189.865	2083861.231	Subsurface soil	30.0 - 30.01	Metals Radionuclides SVOCs VOCs	Sample interval was changed because of location of OPWL near hillside. Depth interval represents a grab sample.
800	CF34-022	N/A	N/A	748188.61	2083796.23	Subsurface soil	25.0 - 25.5	Metals Radionuclides SVOCs VOCs	Additional sampling location targeting OPWL.
800	CF34-022-01	N/A	N/A	748186.379	2083796.16	Surface soil	0.0 - 0.5	Radionuclides	Additional sampling location targeting OPWL.
800	CF34-023	N/A	N/A	748186.595	2083845.586	Subsurface soil	3.0 - 3.01	Metals Radionuclides SVOCs VOCs	Additional sampling location targeting OPWL. Depth interval represents a grab sample.
800	CF34-024	N/A	N/A	748185.698	2083855.306	Subsurface soil	3.0-3.01	Metals Radionuclides SVOCs VOCs	Additional sampling location targeting OPWL. Depth interval represents a grab sample.
800	CF35-040	N/A	N/A	748428.797	2083736.401	Subsurface soil	2.5 - 3	Radionuclides, Metals, VOCs	Additional biased characterization sample.
800	CF38-010	N/A	N/A	2083949.459	749095.829	Subsurface soil	4.5 - 4.8	Radionuclides, Metals, VOCs	Biased location added under NPWL.
800	CF38-011	749114.68	2083837	749145.2	2083848	Subsurface soil	7.33 - 7.34	Metals Radionuclides SVOCs VOCs	Sample depth was estimated because the excavation could not be safely approached for a measurement. Soil sample was collected manually from the bucket of a backhoe.
800	CF38-014	749113.82	2083847	749121	2083854	Subsurface soil	7.17 - 7.18	Metals Radionuclides SVOCs VOCs	Sample depth was estimated because the excavation could not be safely approached for a measurement. Soil sample was collected manually from the bucket of a backhoe.
800	CF38-017	N/A	N/A	749124.4	2083788	Subsurface soil	15 - 15.01	Radionuclides	Location added. Soil collected beneath northeastern corner of Tank 40.
800	CF38-018	N/A	N/A	749112.6	2083788	Subsurface soil	15 - 15.01	Radionuclides	Location added. Soil collected beneath southeastern corner of Tank 40.
800	CF38-019	N/A	N/A	749144.9	2083844	Subsurface soil	6.7- 6.71	Metals Radionuclides VOCs	Location added. Soil collected beneath the Tank 28 West Process Waste Line.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
800	CF38-020	N/A	N/A	749121.3	2083852	Subsurface soil	6.7- 6.71	Metals Radionuclides SVOCs VOCs	Location added. Soil collected beneath the South Tank 28 leak.
800	CF38-021	N/A	N/A	749142	2083849	Subsurface soil	6.7- 6.71	Metals Radionuclides SVOCs VOCs	Location added. Soil collected around the outside of the south transite duct where it entered the sump.
800	CF38-024	N/A	N/A	749119.8	2083777	Subsurface soil	10.0 - 12.5	SVOCs VOCs	Location added. Soil collected beneath Tank 40.
800	CF38-027	N/A	N/A	749132.2	2083785	Subsurface soil	4.5 - 5.0	Metals Radionuclides SVOCs VOCs	Location added. Soil collected beneath the north-south OPWL.
800	CF39-000	N/A	N/A	749172.472	2083848.635	Subsurface soil	6 - 6.1	Radionuclides, Metals, VOCs	Additional biased characterization sample.
800	CF39-001-01	N/A	N/A	749172.274	2083777.136	Subsurface soil	4 - 4.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
800	CG38-004	2084106.36	749034.89	2084106.392	749034.909	Surface soil Subsurface soil	0.0 - 0.5 2.5 - 4.5	Radionuclides, Metals, VOCs	Biased location to target OPWL; no significant change.
800	CG38-006	2084133.25	749126.26	2084178.149	749135.046	Surface soil Subsurface soil	0.0 - 0.5 2.5 - 4.5	Radionuclides, Metals, VOCs	Statistical location relocated ~45 ft east to sample OPWL connected to welding pit.
800	CG38-009	2084070.52	749038.34	2084070.58	749038.255	Surface soil Subsurface soil	0.0 - 0.5 2.5 - 4.5	Radionuclides, Metals, VOCs	Biased location to target OPWL; no significant change.
800	CG38-014	2084124.13	749105.54	2084121.172	749109.258	Subsurface	2.5 - 4.5	Radionuclides, Metals, VOCs	Biased location to target OPWL; relocated to be under OPWL sump pump.
800	CG38-015	2084125.7	749082.78	2084121.992	749095.916	Subsurface	2.5 - 4.5	Radionuclides, Metals, VOCs	Biased location to target OPWL; relocated 4 ft west and 13 ft north to be under OPWL sump pump.
800	CG38-016	2084114.71	749136.93	2084114.682	749134.883	Surface soil Subsurface soil	0.0 - 0.5 2.5 - 4.5	Radionuclides, Metals, VOCs	Biased location to target OPWL; no significant change.
800	CH38-016	2084142.19	749031.43	2084142.138	749031.403	Surface soil Subsurface soil	0.0 - 0.5 2.5 - 4.5	Radionuclides, Metals, VOCs	Biased location to target OPWL; no significant change.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
800	CH38-018	2084169.08	749122.81	2084169.08	749122.81	Surface soil Subsurface soil	0.0 - 0.5 2.5 - 4.5	Radionuclides, Metals, VOCs	Biased location to target OPWL; no significant change.
800	CH38-021	2084144.54	748986.23	2084144.54	748986.23	Surface soil Subsurface soil	0.0 - 0.5 2.5 - 4.5	Radionuclides, Metals, VOCs	Biased location to target OPWL; no significant change.
800	CH38-022	2084180.64	749105.54	2084180.64	749105.54	Surface soil Subsurface soil	0.0 - 0.5 2.5 - 4.5	Radionuclides, Metals, VOCs	Biased location to target OPWL; relocated to be under OPWL.
800	CH38-023	2084208.9	749139.29	2084208.9	749139.29	Surface soil Subsurface soil	0.0 - 0.5 2.5 - 4.5	Radionuclides, Metals, VOCs	Biased location to target OPWL; no significant change.
800	CH38-024	2084215.96	748977.6	2084215.96	748977.6	Surface soil Subsurface soil	0.0 - 0.5 2.5 - 4.5	Radionuclides, Metals, VOCs	Biased location to target OPWL; no significant change.
800	CH38-025	2084169.78	748993.65	2084169.78	748993.65	Surface soil Subsurface soil	0.0 - 0.5 2.5 - 4.5	Radionuclides, Metals, VOCs	Biased location to target OPWL; no significant change.
800	CH38-026	2084175.44	749081.8	2084175.44	749081.8	Surface soil Subsurface soil	0.0 - 0.5 2.5 - 4.5	Radionuclides, Metals, VOCs	Biased location to target OPWL; relocated to be under OPWL.
800	CH39-002	2084139.23	749188.33	2084131.906	749172.986	Surface soil Subsurface soil	0.0 - 0.5 2.5 - 4.5	Radionuclides, Metals (VOCs subsurface only)	This sampling location was accidentally switched to CH39-004, which was a biased location to target OPWL; no significant change from planned coordinates for Location CH39-004
800	CH39-003	2084223.03	749166.76	2084221.019	749171.208	Surface soil Subsurface soil	0.0 - 0.5 2.5 - 4.5	Radionuclides, Metals (VOCs subsurface only)	Biased location to target OPWL; relocated to be under OPWL.
800	CI38-023	749044.96	2084359.12	749054.442	2084372.366	Subsurface soil	4.5 - 4.51	Metals, Radionuclides, SVOCs, VOCs, 9056	Sample relocated to position east of B828 Pit and beneath OPWL, consistent with actual layout of the line.
800	CI38-025	749063.79	2084362.06	749061.183	2084379.183	Subsurface soil	4.5 - 4.51	Metals, Radionuclides, SVOCs, VOCs	Sample relocated too a position east of B828 Pit and beneath OPWL, consistent with actual layout of the line.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
800	CI38-026	749062.59	2084385.57	749062.568	2084385.647	Subsurface soil	4.0 - 5.0	Metals, Radionuclides, SVOCs, VOCs	Sample relocated in the field west of planned location due to access limitations; sampled from a re-excavated trench from which OPWL had been removed and backfilled.
800	CI38-028	749041.33	2084381.5	749038.219	2084379.66	Subsurface soil	4.0 - 5.0	Metals, Radionuclides, SVOCs, VOCs	Depth of sample differed from planned interval, consistent with actual depth of OPWL.
800	CI38-029	749040.29	2084406.83	749040.245	2084406.854	Subsurface soil	3.0 - 4.0	Metals, Radionuclides, SVOCs, VOCs	Sample relocated in the field northwest of planned location to obtain a biased sample from OPWL.
800	CI38-031	749053.52	2084358.76	749060.772	2084367.946	Subsurface soil	4.5 - 4.51	Metals, Radionuclides, SVOCs, VOCs, 9056	Sample relocated to position east of B828 Pit and beneath OPWL, consistent with actual layout of the line.
800	CI38-032	749049.72	2084354.52	749049.725	2084354.55	Subsurface soil	2.0 - 2.5	Metals, Radionuclides, VOCs, 9056	One sample collected 2.0 to 2.5 feet beneath top of concrete floor of B828 Pit. The soil samples were saturated with water because the water table was at the base of the Pit at the time of sampling. VOCs were added to the Addendum-specified analytical parameters of radionuclides, nitrates, nitrites, and metals.
800	CI38-033	749053.17	2084378.9	749053.2	2084378.911	Subsurface soil	4.0 - 5.0	Metals, Radionuclides, SVOCs, VOCs	Depth of sample differed from planned interval, consistent with actual depth of OPWL.
800	CI38-047	N/A	N/A	749046.885	2084363.015	Subsurface soil	20.0 - 20.01	Metals, Radionuclides, SVOCs, VOCs, 9056	Additional subsurface soil samples collected following removal of B828 Pit.
800	CI38-048	N/A	N/A	749056.792	2084351.345	Subsurface soil	20.0 - 20.01	Metals, Radionuclides, SVOCs, VOCs, 9056	Additional subsurface soil samples collected following removal of B828 Pit.

Table 18
800 Area Characterization Soil Sampling Results
Greater Than Background Means Plus Two Standard Deviations or Detection Limit

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
800	000-2	BY38-035	749227.531	2083799.827	0.00	0.50	Acetone	25.000	102000000	-	5.100	ug/kg
800	000-2	BY38-035	749227.531	2083799.827	0.00	0.50	Aluminum	17000.000	228000	16902.000	-	mg/kg
800	000-2	BY38-035	749227.531	2083799.827	0.00	0.50	Beryllium	1.100	921	0.966	-	mg/kg
800	000-2	BY38-035	749227.531	2083799.827	0.00	0.50	Chromium	22.000	268	16.990	-	mg/kg
800	000-2	BY38-035	749227.531	2083799.827	0.00	0.50	Copper	19.000	40900	18.060	-	mg/kg
800	000-2	BY38-035	749227.531	2083799.827	0.00	0.50	Iron	41000.000	307000	18037.000	-	mg/kg
800	000-2	BY38-035	749227.531	2083799.827	0.00	0.50	Lithium	12.000	20400	11.550	-	mg/kg
800	000-2	BY38-035	749227.531	2083799.827	0.00	0.50	Manganese	730.000	3480	365.080	-	mg/kg
800	000-2	BY38-035	749227.531	2083799.827	0.00	0.50	Methylene chloride	1.900	2530000	-	0.880	ug/kg
800	000-2	BY38-035	749227.531	2083799.827	0.00	0.50	Naphthalene	1.800	3090000	-	0.950	ug/kg
800	000-2	BY38-035	749227.531	2083799.827	0.00	0.50	Nickel	18.000	20400	14.910	-	mg/kg
800	000-2	BY38-035	749227.531	2083799.827	0.00	0.50	Plutonium-239/240	0.071	50	0.066	-	pCi/g
800	000-2	BY38-035	749227.531	2083799.827	0.00	0.50	Strontium	58.000	613000	48.940	-	mg/kg
800	000-2	BY38-035	749227.531	2083799.827	0.00	0.50	Vanadium	53.000	7150	45.590	-	mg/kg
800	000-2	BY38-035	749227.531	2083799.827	0.00	0.50	Zinc	88.000	307000	73.760	-	mg/kg
800	*000-2*	*BY38-036*	*749207.358*	*2083763.626*	*0.00*	*0.50*	*Uranium-234*	*3.949*	*300*	*2.253*	-	*pCi/g*
800	000-2	BY38-036	749207.358	2083763.626	0.00	0.50	Uranium-235	0.222	8	0.094	-	pCi/g
800	000-2	BY38-036	749207.358	2083763.626	0.00	0.50	Uranium-238	3.949	351	2.000	-	pCi/g
800	000-2	BY38-038	749176.683	2083726.534	0.00	0.50	Uranium-235	0.166	8	0.094	-	pCi/g
800	800-1	CD43-002-01	750080.988	2083519.093	0.50	2.50	Toluene	12.700	31300000	-	5.020	ug/kg
800	*800-1*	*CD43-002-01*	*750080.988*	*2083519.093*	*0.50*	*2.50*	*Uranium-234*	*4.319*	*300*	*2.640*	-	*pCi/g*
800	800-1	CD43-002-01	750080.988	2083519.093	0.50	2.50	Uranium-235	0.242	8	0.120	-	pCi/g
800	800-1	CD43-002-01	750080.988	2083519.093	0.50	2.50	Uranium-238	4.319	351	1.490	-	pCi/g
800	800-1	CD43-002-01	750080.988	2083519.093	0.50	2.50	Xylene	82.200	2040000	-	10.000	ug/kg
800	800-1	CD43-002-01	750080.988	2083519.093	6.50	8.50	Ethylbenzene	18.800	4250000	-	5.660	ug/kg
800	800-1	CD43-002-	750080.988	2083519.093	6.50	8.50	Toluene	27.400	31300000	-	5.660	ug/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
		01										
800	800-1	CD43-002-01	750080.988	2083519.093	6.50	8.50	Uranium-235	0.162	8	0.120	-	pCi/g
800	800-1	CD43-002-01	750080.988	2083519.093	6.50	8.50	Xylene	116.000	2040000	-	11.300	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	0.00	0.50	Benzo(a)anthracene	80.000	34900	-	27.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	0.00	0.50	bis(2-Ethylhexyl)phthalate	110.000	1970000	-	79.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	0.00	0.50	Chromium	19.000	268	16.990	-	mg/kg
800	800-3	CE37-002	748927.559	2083719.109	0.00	0.50	Chrysene	83.000	3490000	-	31.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	0.00	0.50	Ethylbenzene	71.400	4250000	-	5.420	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	0.00	0.50	Fluoranthene	71.000	27200000	-	25.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	0.00	0.50	Iron	28000.000	307000	18037.000	-	mg/kg
800	800-3	CE37-002	748927.559	2083719.109	0.00	0.50	Xylene	541.000	2040000	-	10.800	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	2.50	4.50	Acenaphthene	42.000	40800000	-	34.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	2.50	4.50	Anthracene	48.000	204000000	-	26.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	2.50	4.50	Benzo(a)anthracene	140.000	34900	-	27.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	2.50	4.50	Benzo(a)pyrene	140.000	3490	-	44.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	2.50	4.50	Benzo(b)fluoranthene	110.000	34900	-	32.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	2.50	4.50	Benzo(k)fluoranthene	130.000	349000	-	35.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	2.50	4.50	bis(2-Ethylhexyl)phthalate	88.000	1970000	-	80.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	2.50	4.50	Chrysene	170.000	3490000	-	31.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	2.50	4.50	Fluoranthene	320.000	27200000	-	25.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	2.50	4.50	Indeno(1,2,3-cd)pyrene	58.000	34900	-	25.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	2.50	4.50	Pyrene	290.000	22100000	-	150.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	2.50	4.50	Uranium-235	0.141	8	0.120	-	pCi/g
800	800-3	CE37-002	748927.559	2083719.109	4.50	6.50	Benzo(a)anthracene	87.000	34900	-	29.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	4.50	6.50	Benzo(a)pyrene	79.000	3490	-	47.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	4.50	6.50	Benzo(b)fluoranthene	61.000	34900	-	34.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	4.50	6.50	Benzo(k)fluoranthene	71.000	349000	-	38.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	4.50	6.50	bis(2-Ethylhexyl)phthalate	120.000	1970000	-	85.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	4.50	6.50	Chrysene	110.000	3490000	-	33.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	4.50	6.50	Fluoranthene	200.000	27200000	-	27.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	4.50	6.50	Pyrene	170.000	22100000	-	160.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	6.50	8.50	Benzo(a)anthracene	46.000	34900	-	28.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	6.50	8.50	Chrysene	52.000	3490000	-	31.000	ug/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
800	800-3	CE37-002	748927.559	2083719.109	6.50	8.50	Fluoranthene	82.000	27200000	-	25.000	ug/kg
800	800-3	CE37-002	748927.559	2083719.109	6.50	8.50	Tetrachloroethene	13.600	615000	-	5.570	ug/kg
800	*800-3*	*CE37-002*	*748927.559*	*2083719.109*	*6.50*	*8.50*	*Uranium-234*	*4.188*	*300*	*2.640*	-	*pCi/g*
800	800-3	CE37-002	748927.559	2083719.109	6.50	8.50	Uranium-235	0.212	8	0.120	-	pCi/g
800	800-3	CE37-002	748927.559	2083719.109	6.50	8.50	Uranium-238	4.188	351	1.490	-	pCi/g
800	*800-3*	*CE37-002*	*748927.559*	*2083719.109*	*8.50*	*10.50*	*Uranium-234*	*4.329*	*300*	*2.640*	-	*pCi/g*
800	800-3	CE37-002	748927.559	2083719.109	8.50	10.50	Uranium-235	0.270	8	0.120	-	pCi/g
800	800-3	CE37-002	748927.559	2083719.109	8.50	10.50	Uranium-238	4.329	351	1.490	-	pCi/g
800	*000-2*	*CE38-000*	*749016.083*	*2083667.789*	*2.50*	*4.50*	*Uranium-234*	*5.238*	*300*	*2.640*	-	*pCi/g*
800	000-2	CE38-000	749016.083	2083667.789	2.50	4.50	Uranium-235	0.202	8	0.120	-	pCi/g
800	000-2	CE38-000	749016.083	2083667.789	2.50	4.50	Uranium-238	5.238	351	1.490	-	pCi/g
800	000-2	CE38-001-01	749013.729	2083669.087	3.00	3.50	Americium-241	5.120	76	0.020	-	pCi/g
800	000-2	CE38-001-01	749013.729	2083669.087	3.00	3.50	Beryllium	15.000	921	14.200	-	mg/kg
800	000-2	CE38-001-01	749013.729	2083669.087	3.00	3.50	Cadmium	22.000	962	1.700	-	mg/kg
800	000-2	CE38-001-01	749013.729	2083669.087	3.00	3.50	Copper	42.000	40900	38.210	-	mg/kg
800	000-2	CE38-001-01	749013.729	2083669.087	3.00	3.50	Mercury	5.200	25200	1.520	-	mg/kg
800	000-2	CE38-001-01	749013.729	2083669.087	3.00	3.50	Naphthalene	4.600	3090000	-	1.000	ug/kg
800	000-2	CE38-001-01	749013.729	2083669.087	3.00	3.50	Plutonium-239/240	16.900	50	0.020	-	pCi/g
800	000-2	CE38-001-01	749013.729	2083669.087	3.00	3.50	Tetrachloroethene	2.400	615000	-	1.200	ug/kg
800	000-2	CE38-001-01	749013.729	2083669.087	3.00	3.50	Uranium, Total	5.500	2750	3.040	-	mg/kg
800	000-2	CE38-001-01	749013.729	2083669.087	3.00	3.50	Uranium-234	28.900	300	2.640	-	pCi/g
800	000-2	CE38-001-01	749013.729	2083669.087	3.00	3.50	Uranium-235	1.900	8	0.120	-	pCi/g
800	000-2	CE38-001-01	749013.729	2083669.087	3.00	3.50	Uranium-238	5.930	351	1.490	-	pCi/g
800	000-2	CE38-003	748921.225	2083665.97	3.50	4.00	Americium-241	0.189	76	0.020	-	pCi/g
800	000-2	CE38-003	748921.225	2083665.97	3.50	4.00	Plutonium-239/240	0.425	50	0.020	-	pCi/g
800	000-2	CE39-001-01	749173.77	2083670.387	8.00	8.50	Uranium, Total	9.900	2750	3.040	-	mg/kg
800	000-2	CE39-001-01	749173.77	2083670.387	8.00	8.50	Uranium-238	4.140	351	1.490	-	pCi/g
800	000-2	CE39-002-01	749208.304	2083668.568	4.00	4.50	Americium-241	2.460	76	0.020	-	pCi/g
800	000-2	CE39-002-01	749208.304	2083668.568	4.00	4.50	Cadmium	14.000	962	1.700	-	mg/kg
800	000-2	CE39-002-01	749208.304	2083668.568	4.00	4.50	Copper	46.000	40900	38.210	-	mg/kg
800	000-2	CE39-002-01	749208.304	2083668.568	4.00	4.50	Plutonium-239/240	1.680	50	0.020	-	pCi/g
800	000-2	CE39-002-01	749208.304	2083668.568	4.00	4.50	Uranium-234	6.210	300	2.640	-	pCi/g
800	000-2	CE39-002-01	749208.304	2083668.568	4.00	4.50	Uranium-238	5.790	351	1.490	-	pCi/g
800	000-2	CE39-003-01	749217.431	2083668.387	4.00	4.50	Acetone	20.000	102000000	-	5.700	ug/kg
800	000-2	CE39-003-01	749217.431	2083668.387	4.00	4.50	Americium-241	4.350	76	0.020	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
800	000-2	CE39-003-01	749217.431	2083668.387	4.00	4.50	Cadmium	17.000	962	1.700	-	mg/kg
800	000-2	CE39-003-01	749217.431	2083668.387	4.00	4.50	Copper	54.000	40900	38.210	-	mg/kg
800	000-2	CE39-003-01	749217.431	2083668.387	4.00	4.50	Plutonium-239/240	11.600	50	0.020	-	pCi/g
800	000-2	CE39-003-01	749217.431	2083668.387	4.00	4.50	Tetrachloroethene	2.700	615000	-	1.200	ug/kg
800	000-2	CE39-003-01	749217.431	2083668.387	4.00	4.50	Uranium-234	12.300	300	2.640	-	pCi/g
800	000-2	CE39-003-01	749217.431	2083668.387	4.00	4.50	Uranium-235	0.552	8	0.120	-	pCi/g
800	000-2	CE39-003-01	749217.431	2083668.387	4.00	4.50	Uranium-238	15.400	351	1.490	-	pCi/g
800	**800-5**	**CF33-010**	**748131.956**	**2083867.655**	**5.00**	**5.01**	**Arsenic**	**25.500**	**22.2**	**13.140**	-	**mg/kg**
800	800-5	CF33-010	748131.956	2083867.655	5.00	5.01	Barium	753.000	26400	289.380	-	mg/kg
800	800-5	CF33-010	748131.956	2083867.655	5.00	5.01	Copper	93.900	40900	38.210	-	mg/kg
800	800-5	CF33-010	748131.956	2083867.655	5.00	5.01	Fluoranthene	64.000	27200000	-	46.000	ug/kg
800	800-5	CF33-010	748131.956	2083867.655	5.00	5.01	Lead	30.900	1000	24.970	-	mg/kg
800	*800-5*	*CF33-010*	*748131.956*	*2083867.655*	*5.00*	*5.01*	*Uranium-234*	*4.224*	*300*	*2.640*	-	*pCi/g*
800	800-5	CF33-010	748131.956	2083867.655	5.00	5.01	Uranium-235	0.260	8	0.120	-	pCi/g
800	800-5	CF33-010	748131.956	2083867.655	5.00	5.01	Uranium-238	4.224	351	1.490	-	pCi/g
800	800-5	CF33-011	748143.538	2083807.896	5.00	5.50	Arsenic	12.500	22.2	10.090	-	mg/kg
800	800-5	CF33-011	748143.538	2083807.896	5.00	5.50	Barium	703.000	26400	141.260	-	mg/kg
800	800-5	CF33-011	748143.538	2083807.896	5.00	5.50	Benzo(a)anthracene	160.000	34900	-	46.000	ug/kg
800	800-5	CF33-011	748143.538	2083807.896	5.00	5.50	Benzo(a)pyrene	150.000	3490	-	60.000	ug/kg
800	800-5	CF33-011	748143.538	2083807.896	5.00	5.50	Benzo(b)fluoranthene	110.000	34900	-	74.000	ug/kg
800	800-5	CF33-011	748143.538	2083807.896	5.00	5.50	Benzo(k)fluoranthene	160.000	349000	-	80.000	ug/kg
800	800-5	CF33-011	748143.538	2083807.896	5.00	5.50	Chromium	55.700	268	16.990	-	mg/kg
800	800-5	CF33-011	748143.538	2083807.896	5.00	5.50	Chrysene	180.000	3490000	-	40.000	ug/kg
800	800-5	CF33-011	748143.538	2083807.896	5.00	5.50	Copper	178.000	40900	18.060	-	mg/kg
800	800-5	CF33-011	748143.538	2083807.896	5.00	5.50	Fluoranthene	390.000	27200000	-	46.000	ug/kg
800	800-5	CF33-011	748143.538	2083807.896	5.00	5.50	Indeno(1,2,3-cd)pyrene	90.000	34900	-	51.000	ug/kg
800	800-5	CF33-011	748143.538	2083807.896	5.00	5.50	Iron	30000.000	307000	18037.000	-	mg/kg
800	800-5	CF33-011	748143.538	2083807.896	5.00	5.50	Nickel	40.600	20400	14.910	-	mg/kg
800	800-5	CF33-011	748143.538	2083807.896	5.00	5.50	Pyrene	390.000	22100000	-	65.000	ug/kg
800	800-5	CF33-011	748143.538	2083807.896	5.00	5.50	Strontium	139.000	613000	48.940	-	mg/kg
800	*800-5*	*CF33-011*	*748143.538*	*2083807.896*	*5.00*	*5.50*	*Uranium-234*	*4.256*	*300*	*2.253*	-	*pCi/g*
800	800-5	CF33-011	748143.538	2083807.896	5.00	5.50	Uranium-235	0.292	8	0.094	-	pCi/g
800	800-5	CF33-011	748143.538	2083807.896	5.00	5.50	Uranium-238	4.256	351	2.000	-	pCi/g
800	800-5	CF33-011	748143.538	2083807.896	5.00	5.50	Vanadium	166.000	7150	45.590	-	mg/kg
800	800-5	CF33-011	748143.538	2083807.896	5.00	5.50	Zinc	127.000	307000	73.760	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
800	800-5	CF33-012	748147.12	2083846.837	3.00	3.01	Barium	419.000	26400	289.380	-	mg/kg
800	800-5	CF33-012	748147.12	2083846.837	3.00	3.01	Benzo(a)anthracene	82.000	34900	-	43.000	ug/kg
800	800-5	CF33-012	748147.12	2083846.837	3.00	3.01	Benzo(a)pyrene	70.000	3490	-	56.000	ug/kg
800	800-5	CF33-012	748147.12	2083846.837	3.00	3.01	Benzo(k)fluoranthene	85.000	349000	-	75.000	ug/kg
800	800-5	CF33-012	748147.12	2083846.837	3.00	3.01	Chrysene	99.000	3490000	-	37.000	ug/kg
800	800-5	CF33-012	748147.12	2083846.837	3.00	3.01	Copper	59.800	40900	38.210	-	mg/kg
800	800-5	CF33-012	748147.12	2083846.837	3.00	3.01	Fluoranthene	230.000	27200000	-	43.000	ug/kg
800	800-5	CF33-012	748147.12	2083846.837	3.00	3.01	Pyrene	210.000	22100000	-	61.000	ug/kg
800	*800-5*	*CF33-012*	*748147.12*	*2083846.837*	*3.00*	*3.01*	*Uranium-234*	*3.848*	*300*	*2.640*	-	*pCi/g*
800	800-5	CF33-012	748147.12	2083846.837	3.00	3.01	Uranium-235	0.252	8	0.120	-	pCi/g
800	800-5	CF33-012	748147.12	2083846.837	3.00	3.01	Uranium-238	3.848	351	1.490	-	pCi/g
800	800-5	CF33-012	748147.12	2083846.837	3.00	3.01	Vanadium	134.000	7150	88.490	-	mg/kg
800	800-5	CF33-013	748142.72	2083856.448	3.00	3.01	Acenaphthene	57.000	40800000	-	50.000	ug/kg
800	800-5	CF33-013	748142.72	2083856.448	3.00	3.01	Barium	460.000	26400	289.380	-	mg/kg
800	800-5	CF33-013	748142.72	2083856.448	3.00	3.01	Benzo(a)anthracene	140.000	34900	-	43.000	ug/kg
800	800-5	CF33-013	748142.72	2083856.448	3.00	3.01	Benzo(a)pyrene	140.000	3490	-	57.000	ug/kg
800	800-5	CF33-013	748142.72	2083856.448	3.00	3.01	Benzo(b)fluoranthene	110.000	34900	-	70.000	ug/kg
800	800-5	CF33-013	748142.72	2083856.448	3.00	3.01	Benzo(k)fluoranthene	140.000	349000	-	75.000	ug/kg
800	800-5	CF33-013	748142.72	2083856.448	3.00	3.01	Chrysene	160.000	3490000	-	38.000	ug/kg
800	800-5	CF33-013	748142.72	2083856.448	3.00	3.01	Copper	90.100	40900	38.210	-	mg/kg
800	800-5	CF33-013	748142.72	2083856.448	3.00	3.01	Fluoranthene	360.000	27200000	-	43.000	ug/kg
800	800-5	CF33-013	748142.72	2083856.448	3.00	3.01	Indeno(1,2,3-cd)pyrene	76.000	34900	-	49.000	ug/kg
800	800-5	CF33-013	748142.72	2083856.448	3.00	3.01	Lead	26.400	1000	24.970	-	mg/kg
800	800-5	CF33-013	748142.72	2083856.448	3.00	3.01	Pyrene	360.000	22100000	-	62.000	ug/kg
800	800-5	CF33-013	748142.72	2083856.448	3.00	3.01	Toluene	8.000	31300000	-	5.300	ug/kg
800	*800-5*	*CF33-013*	*748142.72*	*2083856.448*	*3.00*	*3.01*	*Uranium-234*	*3.928*	*300*	*2.640*	-	*pCi/g*
800	800-5	CF33-013	748142.72	2083856.448	3.00	3.01	Uranium-238	3.928	351	1.490	-	pCi/g
800	800-5	CF33-013	748142.72	2083856.448	3.00	3.01	Vanadium	108.000	7150	88.490	-	mg/kg
800	800-5	CF34-021	748189.865	2083861.231	30.00	30.01	Barium	1300.000	26400	289.380	-	mg/kg
800	800-5	CF34-021	748189.865	2083861.231	30.00	30.01	Copper	150.000	40900	38.210	-	mg/kg
800	*800-5*	*CF34-021*	*748189.865*	*2083861.231*	*30.00*	*30.01*	*Uranium-234*	*4.471*	*300*	*2.640*	-	*pCi/g*
800	800-5	CF34-021	748189.865	2083861.231	30.00	30.01	Uranium-235	0.259	8	0.120	-	pCi/g
800	800-5	CF34-021	748189.865	2083861.231	30.00	30.01	Uranium-238	4.471	351	1.490	-	pCi/g
800	800-5	CF34-021	748189.865	2083861.231	30.00	30.01	Vanadium	114.000	7150	88.490	-	mg/kg
800	800-5	CF34-022	748188.61	2083796.23	25.00	25.50	Antimony	7.840	409	0.470	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
800	800-5	CF34-022	748188.61	2083796.23	25.00	25.50	Barium	719.000	26400	141.260	-	mg/kg
800	800-5	CF34-022	748188.61	2083796.23	25.00	25.50	Chromium	49.000	268	16.990	-	mg/kg
800	800-5	CF34-022	748188.61	2083796.23	25.00	25.50	Copper	47.400	40900	18.060	-	mg/kg
800	800-5	CF34-022	748188.61	2083796.23	25.00	25.50	Iron	27200.000	307000	18037.000	-	mg/kg
800	800-5	CF34-022	748188.61	2083796.23	25.00	25.50	Nickel	34.600	20400	14.910	-	mg/kg
800	800-5	CF34-022	748188.61	2083796.23	25.00	25.50	Strontium	146.000	613000	48.940	-	mg/kg
800	*800-5*	*CF34-022*	*748188.61*	*2083796.23*	*25.00*	*25.50*	*Uranium-234*	*3.824*	*300*	*2.253*	-	*pCi/g*
800	800-5	CF34-022	748188.61	2083796.23	25.00	25.50	Uranium-235	0.229	8	0.094	-	pCi/g
800	800-5	CF34-022	748188.61	2083796.23	25.00	25.50	Uranium-238	3.824	351	2.000	-	pCi/g
800	800-5	CF34-022	748188.61	2083796.23	25.00	25.50	Vanadium	168.000	7150	45.590	-	mg/kg
800	800-5	CF34-022	748188.61	2083796.23	25.00	25.50	Zinc	90.100	307000	73.760	-	mg/kg
800	800-5	CF34-023	748186.595	2083845.586	3.00	3.01	Acenaphthene	360.000	40800000	-	46.000	ug/kg
800	800-5	CF34-023	748186.595	2083845.586	3.00	3.01	Anthracene	560.000	204000000	-	67.000	ug/kg
800	800-5	CF34-023	748186.595	2083845.586	3.00	3.01	Benzo(a)anthracene	1600.000	34900	-	40.000	ug/kg
800	800-5	CF34-023	748186.595	2083845.586	3.00	3.01	Benzo(a)pyrene	1500.000	3490	-	53.000	ug/kg
800	800-5	CF34-023	748186.595	2083845.586	3.00	3.01	Benzo(b)fluoranthene	1300.000	34900	-	65.000	ug/kg
800	800-5	CF34-023	748186.595	2083845.586	3.00	3.01	Benzo(k)fluoranthene	1300.000	349000	-	70.000	ug/kg
800	800-5	CF34-023	748186.595	2083845.586	3.00	3.01	Chrysene	1900.000	3490000	-	35.000	ug/kg
800	800-5	CF34-023	748186.595	2083845.586	3.00	3.01	Dibenz(a,h)anthracene	420.000	3490	-	64.000	ug/kg
800	800-5	CF34-023	748186.595	2083845.586	3.00	3.01	Dibenzofuran	130.000	2950000	-	51.000	ug/kg
800	800-5	CF34-023	748186.595	2083845.586	3.00	3.01	Fluoranthene	3300.000	27200000	-	40.000	ug/kg
800	800-5	CF34-023	748186.595	2083845.586	3.00	3.01	Fluorene	270.000	40800000	-	56.000	ug/kg
800	800-5	CF34-023	748186.595	2083845.586	3.00	3.01	Indeno(1,2,3-cd)pyrene	860.000	34900	-	45.000	ug/kg
800	800-5	CF34-023	748186.595	2083845.586	3.00	3.01	Pyrene	3400.000	22100000	-	58.000	ug/kg
800	800-5	CF34-024	748185.698	2083855.306	3.00	3.01	Barium	320.000	26400	289.380	-	mg/kg
800	800-5	CF34-024	748185.698	2083855.306	3.00	3.01	Uranium-234	6.510	300	2.640	-	pCi/g
800	800-5	CF34-024	748185.698	2083855.306	3.00	3.01	Uranium-235	0.918	8	0.120	-	pCi/g
800	000-2	CF35-040	748428.797	2083736.401	2.50	3.00	Acetone	14.000	102000000	-	5.100	ug/kg
800	000-2	CF35-040	748428.797	2083736.401	2.50	3.00	Methylene chloride	1.100	2530000	-	0.890	ug/kg
800	800-6	CF38-010	749095.829	2083949.459	5.00	5.01	2-Butanone	6.600	192000000	-	4.800	ug/kg
800	800-6	CF38-010	749095.829	2083949.459	5.00	5.01	Acetone	16.000	102000000	-	4.700	ug/kg
800	800-6	CF38-010	749095.829	2083949.459	5.00	5.01	Uranium, Total	3.600	2750	3.040	-	mg/kg
800	800-6	CF38-010	749095.829	2083949.459	5.00	5.01	Uranium-235	0.157	8	0.120	-	pCi/g
800	800-6	CF38-010	749095.829	2083949.459	5.00	5.01	Uranium-238	2.220	351	1.490	-	pCi/g
800	800-6	CF38-011	749145.19	2083837.1	7.33	7.34	Acetone	30.000	102000000	-	5.600	ug/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
800	800-6	CF38-011	749145.19	2083837.1	7.33	7.34	Strontium	224.000	613000	211.380	-	mg/kg
800	800-6	CF38-011	749145.19	2083837.1	7.33	7.34	Tetrachloroethene	2.700	615000	-	1.200	ug/kg
800	800-6	CF38-011	749145.19	2083837.1	7.33	7.34	Uranium, Total	3.900	2750	3.040	-	mg/kg
800	*800-6*	*CF38-011*	*749145.19*	*2083837.1*	*7.33*	*7.34*	*Uranium-234*	*3.080*	*300*	*2.640*	-	*pCi/g*
800	800-6	CF38-011	749145.19	2083837.1	7.33	7.34	Uranium-235	0.308	8	0.120	-	pCi/g
800	800-6	CF38-011	749145.19	2083837.1	7.33	7.34	Uranium-238	3.080	351	1.490	-	pCi/g
800	800-6	CF38-014	749121	2083854.18	7.17	7.18	Acetone	5.700	102000000	-	5.500	ug/kg
800	800-6	CF38-014	749121	2083854.18	7.17	7.18	Strontium	268.000	613000	211.380	-	mg/kg
800	800-6	CF38-014	749121	2083854.18	7.17	7.18	Uranium-235	0.150	8	0.120	-	pCi/g
800	800-6	CF38-014	749121	2083854.18	7.17	7.18	Uranium-238	1.550	351	1.490	-	pCi/g
800	*800-6*	*CF38-017*	*749124.357*	*2083787.694*	*15.00*	*15.01*	*Uranium-234*	*4.330*	*300*	*2.640*	-	*pCi/g*
800	800-6	CF38-017	749124.357	2083787.694	15.00	15.01	Uranium-235	0.296	8	0.120	-	pCi/g
800	800-6	CF38-017	749124.357	2083787.694	15.00	15.01	Uranium-238	4.330	351	1.490	-	pCi/g
800	800-6	CF38-018	749112.631	2083787.584	15.00	15.01	Americium-241	1.340	76	0.020	-	pCi/g
800	*800-6*	*CF38-018*	*749112.631*	*2083787.584*	*15.00*	*15.01*	*Plutonium-239/240*	*7.638*	*50*	*0.020*	-	*pCi/g*
800	*800-6*	*CF38-018*	*749112.631*	*2083787.584*	*15.00*	*15.01*	*Uranium-234*	*4.610*	*300*	*2.640*	-	*pCi/g*
800	800-6	CF38-018	749112.631	2083787.584	15.00	15.01	Uranium-235	0.544	8	0.120	-	pCi/g
800	800-6	CF38-018	749112.631	2083787.584	15.00	15.01	Uranium-238	4.610	351	1.490	-	pCi/g
800	800-6	CF38-019	749142.03	2083849.13	6.70	6.71	1,2-Dichloropropane	2.200	345000	-	1.700	ug/kg
800	800-6	CF38-019	749142.03	2083849.13	6.70	6.71	4-Methyl-2-pentanone	5.500	16400000	-	5.400	ug/kg
800	800-6	CF38-019	749142.03	2083849.13	6.70	6.71	Acetone	820.000	102000000	-	6.400	ug/kg
800	800-6	CF38-019	749142.03	2083849.13	6.70	6.71	bis(2-Ethylhexyl)phthalate	120.000	1970000	-	99.000	ug/kg
800	800-6	CF38-019	749142.03	2083849.13	6.70	6.71	Carbon Disulfide	3.400	15100000	-	1.300	ug/kg
800	800-6	CF38-019	749142.03	2083849.13	6.70	6.71	Tetrachloroethene	2.100	615000	-	1.400	ug/kg
800	800-6	CF38-019	749142.03	2083849.13	6.70	6.71	Uranium, Total	11.200	2750	3.040	-	mg/kg
800	*800-6*	*CF38-019*	*749142.03*	*2083849.13*	*6.70*	*6.71*	*Uranium-234*	*5.300*	*300*	*2.640*	-	*pCi/g*
800	800-6	CF38-019	749142.03	2083849.13	6.70	6.71	Uranium-235	0.183	8	0.120	-	pCi/g
800	800-6	CF38-019	749142.03	2083849.13	6.70	6.71	Uranium-238	5.300	351	1.490	-	pCi/g
800	800-6	CF38-020	749121.34	2083851.66	6.70	6.71	Naphthalene	530.000	3090000	-	59.000	ug/kg
800	800-6	CF38-020	749121.34	2083851.66	6.70	6.71	Phenol	160.000	613000000	-	90.000	ug/kg
800	800-6	CF38-020	749121.34	2083851.66	6.70	6.71	Uranium-235	0.218	8	0.120	-	pCi/g
800	800-6	CF38-020	749121.34	2083851.66	6.70	6.71	Uranium-238	2.230	351	1.490	-	pCi/g
800	800-6	CF38-020	749121.34	2083851.66	6.70	6.71	Xylene	82.000	2040000	-	36.000	ug/kg
800	800-6	CF38-021	749142	2083849.31	3.00	3.01	Acetone	13.000	102000000	-	5.200	ug/kg
800	800-6	CF38-021	749142	2083849.31	3.00	3.01	bis(2-Ethylhexyl)phthalate	160.000	1970000	-	77.000	ug/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
800	800-6	CF38-021	749142	2083849.31	3.00	3.01	Naphthalene	5.300	3090000	-	0.970	ug/kg
800	800-6	CF38-021	749142	2083849.31	3.00	3.01	Tetrachloroethene	1.100	615000	-	1.100	ug/kg
800	800-6	CF38-021	749142	2083849.31	3.00	3.01	Uranium-235	0.225	8	0.120	-	pCi/g
800	800-6	CF38-024	749120	2083777	15.00	15.01	2-Methylnaphthalene	9200.000	20400000	-	300.000	ug/kg
800	800-6	CF38-024	749120	2083777	15.00	15.01	Benzo(a)anthracene	50.000	34900	-	50.000	ug/kg
800	800-6	CF38-024	749120	2083777	15.00	15.01	bis(2-Ethylhexyl)phthalate	1900.000	1970000	-	88.000	ug/kg
800	800-6	CF38-024	749120	2083777	15.00	15.01	Carbon Disulfide	780.000	15100000	-	450.000	ug/kg
800	800-6	CF38-024	749120	2083777	15.00	15.01	Ethylbenzene	1200.000	4250000	-	930.000	ug/kg
800	800-6	CF38-024	749120	2083777	15.00	15.01	Naphthalene	6300.000	3090000	-	3400.000	ug/kg
800	800-6	CF38-024	749120	2083777	15.00	15.01	Pyrene	57.000	22100000	-	51.000	ug/kg
800	800-6	CF38-024	749120	2083777	15.00	15.01	Xylene	7900.000	2040000	-	1600.000	ug/kg
800	800-6	CF38-027	749132.17	2083784.89	4.50	4.51	Methylene chloride	1.400	2530000	-	0.920	ug/kg
800	800-6	CF38-027	749132.17	2083784.89	4.50	4.51	Uranium-235	0.187	8	0.120	-	pCi/g
800	800-6	CF38-027	749132.17	2083784.89	4.50	4.51	Uranium-238	2.360	351	1.490	-	pCi/g
800	000-2	CF39-000	749172.472	2083848.635	6.00	6.10	Acetone	12.000	102000000	-	5.200	ug/kg
800	000-2	CF39-000	749172.472	2083848.635	6.00	6.10	Plutonium-239/240	0.198	50	0.020	-	pCi/g
800	000-2	CF39-001-01	749172.274	2083777.136	4.00	4.50	Naphthalene	1.400	3090000	-	0.990	ug/kg
800	000-2	CF39-001-01	749172.274	2083777.136	4.00	4.50	Toluene	0.910	31300000	-	0.900	ug/kg
800	800-1	CG38-004	749034.909	2084106.392	0.00	0.50	Aluminum	28000.000	228000	16902.000	-	mg/kg
800	800-1	CG38-004	749034.909	2084106.392	0.00	0.50	Barium	180.000	26400	141.260	-	mg/kg
800	800-1	CG38-004	749034.909	2084106.392	0.00	0.50	Beryllium	1.000	921	0.966	-	mg/kg
800	800-1	CG38-004	749034.909	2084106.392	0.00	0.50	Chromium	25.000	268	16.990	-	mg/kg
800	800-1	CG38-004	749034.909	2084106.392	0.00	0.50	Iron	20000.000	307000	18037.000	-	mg/kg
800	800-1	CG38-004	749034.909	2084106.392	0.00	0.50	Lithium	15.000	20400	11.550	-	mg/kg
800	800-1	CG38-004	749034.909	2084106.392	0.00	0.50	Nickel	19.000	20400	14.910	-	mg/kg
800	800-1	CG38-004	749034.909	2084106.392	0.00	0.50	Vanadium	46.000	7150	45.590	-	mg/kg
800	800-1	CG38-006	749135.046	2084178.149	0.00	0.30	Arsenic	10.500	22.2	10.090	-	mg/kg
800	800-1	CG38-006	749135.046	2084178.149	0.00	0.30	Barium	620.000	26400	141.260	-	mg/kg
800	800-1	CG38-006	749135.046	2084178.149	0.00	0.30	Copper	39.300	40900	18.060	-	mg/kg
800	800-1	CG38-006	749135.046	2084178.149	0.00	0.30	Iron	33600.000	307000	18037.000	-	mg/kg
800	800-1	CG38-006	749135.046	2084178.149	0.00	0.30	Manganese	533.000	3480	365.080	-	mg/kg
800	800-1	CG38-006	749135.046	2084178.149	0.00	0.30	Nickel	47.100	20400	14.910	-	mg/kg
800	800-1	CG38-006	749135.046	2084178.149	0.00	0.30	Strontium	197.000	613000	48.940	-	mg/kg
800	*800-1*	*CG38-006*	*749135.046*	*2084178.149*	*0.00*	*0.30*	*Uranium-234*	*3.906*	*300*	*2.253*	-	*pCi/g*
800	800-1	CG38-006	749135.046	2084178.149	0.00	0.30	Uranium-235	0.220	8	0.094	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
800	800-1	CG38-006	749135.046	2084178.149	0.00	0.30	Uranium-238	3.906	351	2.000	-	pCi/g
800	800-1	CG38-006	749135.046	2084178.149	0.00	0.30	Zinc	104.000	307000	73.760	-	mg/kg
800	800-1	CG38-009	749035.017	2084073.91	0.00	0.50	Copper	26.000	40900	18.060	-	mg/kg
800	800-1	CG38-009	749035.017	2084073.91	0.00	0.50	Uranium-235	0.277	8	0.094	-	pCi/g
800	*800-1*	*CG38-014*	*749109.258*	*2084121.172*	*2.50*	*4.50*	*Uranium-234*	*4.672*	*300*	*2.640*	-	*pCi/g*
800	800-1	CG38-014	749109.258	2084121.172	2.50	4.50	Uranium-235	0.266	8	0.120	-	pCi/g
800	800-1	CG38-014	749109.258	2084121.172	2.50	4.50	Uranium-238	4.672	351	1.490	-	pCi/g
800	*800-1*	*CG38-015*	*749095.916*	*2084121.992*	*2.50*	*4.50*	*Uranium-234*	*4.269*	*300*	*2.640*	-	*pCi/g*
800	800-1	CG38-015	749095.916	2084121.992	2.50	4.50	Uranium-235	0.225	8	0.120	-	pCi/g
800	800-1	CG38-015	749095.916	2084121.992	2.50	4.50	Uranium-238	4.269	351	1.490	-	pCi/g
800	800-1	CG38-016	749134.883	2084114.682	0.00	0.50	Barium	727.000	26400	141.260	-	mg/kg
800	800-1	CG38-016	749134.883	2084114.682	0.00	0.50	Copper	55.200	40900	18.060	-	mg/kg
800	800-1	CG38-016	749134.883	2084114.682	0.00	0.50	Iron	31800.000	307000	18037.000	-	mg/kg
800	800-1	CG38-016	749134.883	2084114.682	0.00	0.50	Manganese	384.000	3480	365.080	-	mg/kg
800	800-1	CG38-016	749134.883	2084114.682	0.00	0.50	Nickel	40.900	20400	14.910	-	mg/kg
800	800-1	CG38-016	749134.883	2084114.682	0.00	0.50	Strontium	348.000	613000	48.940	-	mg/kg
800	800-1	CG38-016	749134.883	2084114.682	0.00	0.50	Uranium-235	0.156	8	0.094	-	pCi/g
800	800-1	CG38-016	749134.883	2084114.682	0.00	0.50	Zinc	174.000	307000	73.760	-	mg/kg
800	800-1	CH38-016	749031.403	2084142.138	0.00	0.50	Strontium	56.000	613000	48.940	-	mg/kg
800	800-1	CH38-016	749031.403	2084142.138	0.00	0.50	Uranium-235	0.137	8	0.094	-	pCi/g
800	800-1	CH38-018	749122.811	2084169.059	0.00	0.30	Arsenic	12.600	22.2	10.090	-	mg/kg
800	800-1	CH38-018	749122.811	2084169.059	0.00	0.30	Barium	679.000	26400	141.260	-	mg/kg
800	800-1	CH38-018	749122.811	2084169.059	0.00	0.30	Copper	84.700	40900	18.060	-	mg/kg
800	800-1	CH38-018	749122.811	2084169.059	0.00	0.30	Iron	31400.000	307000	18037.000	-	mg/kg
800	800-1	CH38-018	749122.811	2084169.059	0.00	0.30	Manganese	450.000	3480	365.080	-	mg/kg
800	800-1	CH38-018	749122.811	2084169.059	0.00	0.30	Nickel	39.500	20400	14.910	-	mg/kg
800	800-1	CH38-018	749122.811	2084169.059	0.00	0.30	Strontium	255.000	613000	48.940	-	mg/kg
800	800-1	CH38-018	749122.811	2084169.059	0.00	0.30	Zinc	125.000	307000	73.760	-	mg/kg
800	800-1	CH38-021	748984.186	2084144.829	0.00	0.30	Antimony	4.380	409	0.470	-	mg/kg
800	800-1	CH38-021	748984.186	2084144.829	0.00	0.30	Arsenic	10.600	22.2	10.090	-	mg/kg
800	800-1	CH38-021	748984.186	2084144.829	0.00	0.30	Barium	752.000	26400	141.260	-	mg/kg
800	800-1	CH38-021	748984.186	2084144.829	0.00	0.30	Copper	60.700	40900	18.060	-	mg/kg
800	800-1	CH38-021	748984.186	2084144.829	0.00	0.30	Iron	32700.000	307000	18037.000	-	mg/kg
800	800-1	CH38-021	748984.186	2084144.829	0.00	0.30	Manganese	689.000	3480	365.080	-	mg/kg
800	800-1	CH38-021	748984.186	2084144.829	0.00	0.30	Nickel	38.700	20400	14.910	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
800	800-1	CH38-021	748984.186	2084144.829	0.00	0.30	Strontium	441.000	613000	48.940	-	mg/kg
800	*800-1*	*CH38-021*	*748984.186*	*2084144.829*	*0.00*	*0.30*	*Uranium-234*	*4.341*	*300*	*2.253*	-	*pCi/g*
800	800-1	CH38-021	748984.186	2084144.829	0.00	0.30	Uranium-235	0.203	8	0.094	-	pCi/g
800	800-1	CH38-021	748984.186	2084144.829	0.00	0.30	Uranium-238	4.341	351	2.000	-	pCi/g
800	800-1	CH38-021	748984.186	2084144.829	0.00	0.30	Zinc	130.000	307000	73.760	-	mg/kg
800	800-1	CH38-022	749109.246	2084170.172	0.00	0.50	Aluminum	26000.000	228000	16902.000	-	mg/kg
800	800-1	CH38-022	749109.246	2084170.172	0.00	0.50	Beryllium	1.000	921	0.966	-	mg/kg
800	800-1	CH38-022	749109.246	2084170.172	0.00	0.50	Chromium	22.000	268	16.990	-	mg/kg
800	800-1	CH38-022	749109.246	2084170.172	0.00	0.50	Iron	19000.000	307000	18037.000	-	mg/kg
800	800-1	CH38-022	749109.246	2084170.172	0.00	0.50	Lithium	17.000	20400	11.550	-	mg/kg
800	800-1	CH38-022	749109.246	2084170.172	0.00	0.50	Nickel	16.000	20400	14.910	-	mg/kg
800	*800-1*	*CH38-022*	*749109.246*	*2084170.172*	*0.00*	*0.50*	*Uranium-234*	*4.430*	*300*	*2.253*	-	*pCi/g*
800	800-1	CH38-022	749109.246	2084170.172	0.00	0.50	Uranium-235	0.193	8	0.094	-	pCi/g
800	800-1	CH38-022	749109.246	2084170.172	0.00	0.50	Uranium-238	4.430	351	2.000	-	pCi/g
800	800-1	CH38-022	749109.246	2084170.172	4.50	6.50	Strontium	460.000	613000	211.380	-	mg/kg
800	800-1	CH38-023	749139.295	2084208.908	0.00	0.50	Methylene chloride	1.500	2530000	-	0.830	ug/kg
800	800-1	CH38-023	749139.295	2084208.908	0.00	0.50	Plutonium-239/240	0.089	50	0.066	-	pCi/g
800	800-1	CH38-024	748977.6	2084215.96	0.00	0.50	Naphthalene	103.000	3090000	-	5.240	ug/kg
800	800-1	CH38-024	748977.6	2084215.96	0.00	0.50	Strontium	94.000	613000	48.940	-	mg/kg
800	*800-1*	*CH38-024*	*748977.6*	*2084215.96*	*0.00*	*0.50*	*Uranium-234*	*3.550*	*300*	*2.253*	-	*pCi/g*
800	800-1	CH38-024	748977.6	2084215.96	0.00	0.50	Uranium-238	3.550	351	2.000	-	pCi/g
800	800-1	CH38-024	748977.6	2084215.96	4.50	6.50	Naphthalene	40.500	3090000	-	5.750	ug/kg
800	*800-1*	*CH38-024*	*748977.6*	*2084215.96*	*4.50*	*6.50*	*Uranium-234*	*3.096*	*300*	*2.640*	-	*pCi/g*
800	800-1	CH38-024	748977.6	2084215.96	4.50	6.50	Uranium-238	3.096	351	1.490	-	pCi/g
800	800-1	CH38-025	748991.748	2084172.128	0.00	0.50	Strontium	120.000	613000	48.940	-	mg/kg
800	800-1	CH38-025	748991.748	2084172.128	0.00	0.50	Uranium-235	0.135	8	0.094	-	pCi/g
800	*800-1*	*CH38-025*	*748991.748*	*2084172.128*	*2.50*	*4.50*	*Uranium-234*	*3.602*	*300*	*2.640*	-	*pCi/g*
800	800-1	CH38-025	748991.748	2084172.128	2.50	4.50	Uranium-238	3.602	351	1.490	-	pCi/g
800	800-1	CH38-026	749093.623	2084168.982	0.00	0.50	Chromium	18.000	268	16.990	-	mg/kg
800	800-1	CH38-026	749093.623	2084168.982	0.00	0.50	Lithium	15.000	20400	11.550	-	mg/kg
800	800-1	CH38-026	749093.623	2084168.982	0.00	0.50	Nickel	17.000	20400	14.910	-	mg/kg
800	800-1	CH38-026	749093.623	2084168.982	0.00	0.50	Strontium	220.000	613000	48.940	-	mg/kg
800	800-1	CH38-026	749093.623	2084168.982	0.00	0.50	Uranium-238	2.211	351	2.000	-	pCi/g
800	*800-1*	*CH38-026*	*749093.623*	*2084168.982*	*2.50*	*4.50*	*Uranium-234*	*5.211*	*300*	*2.640*	-	*pCi/g*
800	800-1	CH38-026	749093.623	2084168.982	2.50	4.50	Uranium-235	0.311	8	0.120	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
800	800-1	CH38-026	749093.623	2084168.982	2.50	4.50	Uranium-238	5.211	351	1.490	-	pCi/g
800	800-1	CH39-002	749172.986	2084131.906	0.00	0.30	Arsenic	14.000	22.2	10.090	-	mg/kg
800	800-1	CH39-002	749172.986	2084131.906	0.00	0.30	Barium	849.000	26400	141.260	-	mg/kg
800	800-1	CH39-002	749172.986	2084131.906	0.00	0.30	Cadmium	3.180	962	1.612	-	mg/kg
800	800-1	CH39-002	749172.986	2084131.906	0.00	0.30	Copper	61.900	40900	18.060	-	mg/kg
800	800-1	CH39-002	749172.986	2084131.906	0.00	0.30	Iron	29100.000	307000	18037.000	-	mg/kg
800	800-1	CH39-002	749172.986	2084131.906	0.00	0.30	Manganese	475.000	3480	365.080	-	mg/kg
800	800-1	CH39-002	749172.986	2084131.906	0.00	0.30	Nickel	35.800	20400	14.910	-	mg/kg
800	800-1	CH39-002	749172.986	2084131.906	0.00	0.30	Strontium	303.000	613000	48.940	-	mg/kg
800	*800-1*	*CH39-002*	*749172.986*	*2084131.906*	*0.00*	*0.30*	*Uranium-234*	*4.708*	*300*	*2.253*	-	*pCi/g*
800	800-1	CH39-002	749172.986	2084131.906	0.00	0.30	Uranium-235	0.270	8	0.094	-	pCi/g
800	800-1	CH39-002	749172.986	2084131.906	0.00	0.30	Uranium-238	4.708	351	2.000	-	pCi/g
800	800-1	CH39-002	749172.986	2084131.906	0.00	0.30	Zinc	215.000	307000	73.760	-	mg/kg
800	800-1	CH39-003	749171.208	2084221.019	0.00	0.50	Antimony	6.500	409	0.470	-	mg/kg
800	800-1	CH39-003	749171.208	2084221.019	0.00	0.50	Arsenic	10.200	22.2	10.090	-	mg/kg
800	800-1	CH39-003	749171.208	2084221.019	0.00	0.50	Barium	794.000	26400	141.260	-	mg/kg
800	800-1	CH39-003	749171.208	2084221.019	0.00	0.50	Copper	66.000	40900	18.060	-	mg/kg
800	800-1	CH39-003	749171.208	2084221.019	0.00	0.50	Iron	30900.000	307000	18037.000	-	mg/kg
800	800-1	CH39-003	749171.208	2084221.019	0.00	0.50	Manganese	439.000	3480	365.080	-	mg/kg
800	800-1	CH39-003	749171.208	2084221.019	0.00	0.50	Nickel	34.800	20400	14.910	-	mg/kg
800	800-1	CH39-003	749171.208	2084221.019	0.00	0.50	Strontium	275.000	613000	48.940	-	mg/kg
800	800-1	CH39-003	749171.208	2084221.019	0.00	0.50	Tin	4.730	613000	2.900	-	mg/kg
800	*800-1*	*CH39-003*	*749171.208*	*2084221.019*	*0.00*	*0.50*	*Uranium-234*	*4.273*	*300*	*2.253*	-	*pCi/g*
800	800-1	CH39-003	749171.208	2084221.019	0.00	0.50	Uranium-235	0.235	8	0.094	-	pCi/g
800	800-1	CH39-003	749171.208	2084221.019	0.00	0.50	Uranium-238	4.273	351	2.000	-	pCi/g
800	800-1	CH39-003	749171.208	2084221.019	0.00	0.50	Zinc	127.000	307000	73.760	-	mg/kg
800	800-4	CI38-023	749054.442	2084372.366	4.50	4.51	1,2-Dichloroethane	1.700	106000	-	1.100	ug/kg
800	800-4	CI38-025	749061.183	2084379.183	4.50	4.51	Cadmium	6.500	962	1.700	-	mg/kg
800	800-4	CI38-025	749061.183	2084379.183	4.50	4.51	Pyrene	63.000	22100000	-	43.000	ug/kg
800	800-4	CI38-025	749061.183	2084379.183	4.50	4.51	Uranium-235	0.226	8	0.120	-	pCi/g
800	800-4	CI38-026	749062.568	2084385.647	4.00	5.00	Barium	758.000	26400	289.380	-	mg/kg
800	800-4	CI38-026	749062.568	2084385.647	4.00	5.00	Methylene chloride	2.700	2530000	-	1.000	ug/kg
800	800-4	CI38-026	749062.568	2084385.647	4.00	5.00	Uranium-235	0.142	8	0.120	-	pCi/g
800	800-4	CI38-028	749038.219	2084379.66	4.00	5.00	Aluminum	36700.000	228000	35373.170	-	mg/kg
800	800-4	CI38-028	749038.219	2084379.66	4.00	5.00	Americium-241	0.029	76	0.020	-	pCi/g

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
800	800-4	CI38-028	749038.219	2084379.66	4.00	5.00	Methylene chloride	2.300	2530000	-	1.000	ug/kg
800	800-4	CI38-028	749038.219	2084379.66	4.00	5.00	Strontium	320.000	613000	211.380	-	mg/kg
800	800-4	CI38-028	749038.219	2084379.66	4.00	5.00	Uranium-238	1.590	351	1.490	-	pCi/g
800	800-4	CI38-029	749040.245	2084406.854	3.00	4.00	Americium-241	0.037	76	0.020	-	pCi/g
800	800-4	CI38-029	749040.245	2084406.854	3.00	4.00	Chrysene	64.000	3490000	-	61.000	ug/kg
800	800-4	CI38-029	749040.245	2084406.854	3.00	4.00	Methylene chloride	2.200	2530000	-	0.940	ug/kg
800	800-4	CI38-031	749060.772	2084367.946	4.50	4.51	Benzo(a)anthracene	79.000	34900	-	42.000	ug/kg
800	800-4	CI38-031	749060.772	2084367.946	4.50	4.51	Chrysene	87.000	3490000	-	57.000	ug/kg
800	800-4	CI38-031	749060.772	2084367.946	4.50	4.51	Fluoranthene	180.000	27200000	-	91.000	ug/kg
800	800-4	CI38-031	749060.772	2084367.946	4.50	4.51	Pyrene	170.000	22100000	-	43.000	ug/kg
800	800-4	CI38-031	749060.772	2084367.946	4.50	4.51	Uranium-235	0.140	8	0.120	-	pCi/g
800	800-4	CI38-032	749049.725	2084354.55	2.00	2.50	Acetone	33.000	102000000	-	6.000	ug/kg
800	800-4	CI38-032	749049.725	2084354.55	2.00	2.50	Cadmium	2.400	962	1.700	-	mg/kg
800	800-4	CI38-032	749049.725	2084354.55	2.00	2.50	Cobalt	32.000	1550	29.040	-	mg/kg
800	800-4	CI38-032	749049.725	2084354.55	2.00	2.50	Methylene chloride	4.700	2530000	-	1.000	ug/kg
800	800-4	CI38-032	749049.725	2084354.55	2.00	2.50	Uranium-235	0.220	8	0.120	-	pCi/g
800	800-4	CI38-033	749053.2	2084378.911	4.00	5.00	Americium-241	0.020	76	0.020	-	pCi/g
800	800-4	CI38-033	749053.2	2084378.911	4.00	5.00	Methylene chloride	2.500	2530000	-	1.000	ug/kg
800	800-4	CI38-047	749046.885	2084363.015	20.00	20.01	1,2-Dichloroethane	6.000	106000	-	1.100	ug/kg
800	800-4	CI38-047	749046.885	2084363.015	20.00	20.01	2-Butanone	8.200	192000000	-	5.300	ug/kg
800	800-4	CI38-047	749046.885	2084363.015	20.00	20.01	Acetone	60.000	102000000	-	5.100	ug/kg
800	800-4	CI38-047	749046.885	2084363.015	20.00	20.01	Methylene chloride	1.100	2530000	-	0.890	ug/kg
800	800-4	CI38-047	749046.885	2084363.015	20.00	20.01	Naphthalene	3.400	3090000	-	0.960	ug/kg
800	800-4	CI38-047	749046.885	2084363.015	20.00	20.01	Plutonium-239/240	0.067	50	0.020	-	pCi/g
800	800-4	CI38-048	749056.792	2084351.345	20.00	20.01	1,2-Dichloroethane	4.000	106000	-	1.200	ug/kg
800	800-4	CI38-048	749056.792	2084351.345	20.00	20.01	Methylene chloride	1.200	2530000	-	0.970	ug/kg

IHSS Group 800-3 – UBC 883 – Roll and Form Building

Building 883 Tanks 25 and 26 were previously removed. All OPWL under Building 883 were removed as well as OPWL from Valve Vault 2 to Building 883. Remaining OPWL were grouted. OPWL from Valve Vault 2 north to the manway at 8th Street and Central Avenue and the OPWL from Valve Vault 2 south to the manway were grouted at the manways (DOE 2005e).

IHSS Group 800-4 – UBC 886 – Critical Mass Laboratory

Tank T-27 was decontaminated, removed, and transported to the Building 776 size reduction facility in July 1989 after a state employee noted a wet area, approximately 4 to 5 inches in diameter, under the bottom drain valve of the tank. Tanks T-21 and T-22 were removed with Building 828 and the associated OPWL in accordance with the IM/IRA Action Plan for the Building 886 Cluster (RMRS 1998) (DOE 2003o).

IHSS Group 800-5 – UBC 887 – Process and Sanitary Waste Tanks

Dispositioned as part of IHSS Group 000-2 and detailed in Sections 5.2.2 through 5.2.4.

IHSS Group 800-6 – UBC 889 – Decontamination and Waste Reduction

A portion of line P-10, which was part of the OPWL and made of stainless steel, was tapped and drained, filled with epoxy, and removed. The portion removed included the portion under the Building 889 slab, the portion going to Tank 40, and the portion going to an area southwest of Valve Pit 4 (Figure 13). The end of the portion remaining was filled with grout (2 ft into the line). The removed section was cut up and placed in a low-level radioactive waste container. The container was then filled with foam.

The tank/sump located beneath the eastern portion of Building 889 was removed. No pipes were attached. It had been previously filled with concrete. After the tank had been removed, it was broken up and surveyed. Based on survey results, the debris was disposed of at an off-site sanitary landfill.

Tank 40 was sprayed with Instacote™ and removed. The two tanks within the structure had been previously emptied and rinsed, and the entire structure foamed in 1996. The upper portion of the structure had been previously surveyed and classified as sanitary waste. The debris from the upper portion was disposed of at an off-site sanitary landfill. The remainder of the vault contained two tanks and was disposed of as low level radioactive waste based on previous survey data (DOE 2003p).

5.2.2 OPWL Pipe Summary

OPWL P-4

The P-4 OPWL, which extended west from the Building 883 MWN excavation to Building 123, was completely removed to a point northeast of Building 444 where the OPWL was nearly 4 ft below final grade.

OPWL P-6

The P-6 OPWL extended from the west, center side of Building 881, through two inspection manways, to the Building 883 MWN. Approximately 80 ft of P-6 was removed from Building 881 to the west, to facilitate the demolition of Building 881. The exposed end of P-6 at this location was grouted to a refusal penetration of 65 ft. P-6 at this location was a single pipe configuration and transitioned to a double containment configuration somewhere between the western side of Building 881 and the first inspection manway, the Building 881 MWW. The P-6 OPWL inner pipe passed through this inspection manway and the Building 883 MWC inspection manway, unbreached to the Building 883 MWN. The P-6 South Outer OPWL, as well as the P-6 North Outer OPWL, were grouted to a refusal penetration of 30 ft at the Building 881 MWW.

The P-6 South Outer OPWL at the 883 MWC inspection manway was foamed and grouted to a refusal penetration of 55 ft. The P-6 North Outer OPWL at the 883 MWC inspection manway extended north to the 883 MWN excavation. P-6 South Outer OPWL at the 883 MWC excavation was completely filled with grout to the 883 MWN excavation by installing a grout plug on this section of P-6 at the 883 MWN excavation, and continuously flowing grout into the pipe until a continuous flow of grout was observed flowing through the vent tube at 883 Manway South.

Both the P-6 Outer and Inner OPWL were isolated at the Building 883 MWN excavation to facilitate the removal of the manway at this location. The P-6 South Outer OPWL was completely filled with grout from the Building 883 MWC excavation, as described above. The P-6 South Inner OPWL was completely filled with grout to the 65 ft grout plug which was installed at P-6 on the western side of Building 881 by continuously flowing grout into the pipe until a continuous flow of grout was observed flowing through the vent tube at the Building 883 MWN excavation.

The P-6 Outer and Inner OPWL extended north from the Building 883 MWN excavation, through the Building 889 MWS excavation, through the Building 889 MWC excavation, to the Building 889 MWN excavation. Both the P-6 North Outer OPWL and the P-6 North Inner OPWL were completely grouted to the Building 889 MWN excavation. The Building 889 MWC was an inspection manway and in close proximity to Building 889 MWN resulting in one large excavation. The P-6 OPWL between these two manways was completely removed, and this excavation is referred to as Building 889 MWN in this document.

The P-6 OPWL transitioned to P-11, a 3 inch reinforced ribbed rubber inner pipe inside a 4 inch outer fiberglass pipe on the northern side of the Building 889 MWN. The P-11 OPWL then transitioned to P-13 on the northern side of Central Avenue and extended north, through inspection manways labeled PACS 1 MW and Building 707 MWSW, to 707 MWW. The P-11 inner OPWL was completely filled with grout to Building 707 MWW by continuously flowing grout into the OPWL until a continuous flow of grout was observed flowing through the vent tube in the 889 MWN. A 30 ft grout plug was installed in P-13 South-Inner at the 707 MWW. The space between the inner and outer pipe was not large enough to insert grout fill tubes; therefore, the outer fiberglass pipe

was grout plugged at Building 889 MWN at the 40 ft interrupt point between these two manways and at the Building 707 MWW locations.

OPWL P-9

The P-9 OPWL extended from the west, center side of Building 883 to the Building 889 MWN. P-9 North, at the Building 889 MWN, was foamed and grouted to 75ft. Approximately 100 ft of the P-9 OPWL, immediately west of Building 883, was removed to a point adjacent to NPWL Valve Vault 2 where it was well below 3 ft of final grade to facilitate the demolition of Building 883. The remainder of the P-9 OPWL was completely filled with grout to the 75 ft grout plug at the Building 889 MWN by continuously flowing grout into the OPWL west of Building 883 until a continuous flow of grout was observed flowing through the vent tube at the Building 883 western location.

The P-9 OPWL, within the footprint of Building 883, was completely removed. This OPWL entered the basement of Building 883 underground, then surfaced and ran above the slab inside the building.

OPWL P-10

The P-10 OPWL, which joined the P-16 OPWL west of Building 889, was completely filled with grout to where the pipe was terminated and grout plugged following the demolition of Building 889 and ancillary facilities.

The P-10 OPWL under the slab of Building 889 and those extending west to ancillary structures were removed during the demolition of the building and those structures.

The P-16 OPWL, which extended east from the Building 889 MWS excavation to the Building 889 MWE, was completely removed.

The P-16 OPWL, which extended east from the Building 889 MWE excavation to Building 865, was foamed and grouted to 75 ft. The eastern end of this P-16 OPWL pipe segment was grout plugged during the demolition of Building 865.

The P-16 OPWL, under the slab of Building 865, was completely removed during building demolition.

OPWLs P-53, P-54, P-55, P-7, and P-8

The P-53, P-54, P-55, P-7, and P-8 OPWL, running above the slab inside Building 881, underground to Building 887, and within Building 887, were completely removed during building demolition with the exception of a short section of P-54. This section of P-54 penetrated the basement wall into Room 11. The section left in place was plugged with epoxy at both ends as discussed in a May 27, 2004 Contact Record to the CDPHE (Appendix A).

OPWLs P-63, P-64, and P-65

The P-63, P-64, and P-65 OPWL at Building 886, were completely removed during building demolition

5.2.3 Disposition of Manways and Valve Pits

- The 881 MWW was an inspection manway which was completely removed without breaching the OPWL which passed through and under this manway.
- The 883 MWC was an inspection manway which was completely removed without breaching the OPWL which passed through and under this manway.
- The 883 MWN, along with OPWL running inside the manway were completely removed.
- The 889 MWS, along with OPWL running inside the manway were completely removed.
- The 889 MWC, along with OPWL running inside the manway were completely removed
- The 889 MWN, along with OPWL running inside the manway were completely removed.
- The 889 MWE, along with OPWL running inside the manway were completely removed.

5.2.4 Disposition of Process Waste Tanks and Pits

The disposition of process waste tanks and pits is described below.

- Tanks T21 and T22 were completely removed during the demolition of Buildings 886 and 828. Tank 27 was removed prior to building demolition.
- Tank T23 inside Building 865 was completely removed prior to demolition of the building.
- Tanks T24 and T32 inside Building 887 on the south side of Building 881 were completely removed during the demolition of the building.
- Tanks T25 and T26 inside Building 883 were completely removed prior to the demolition of the building.
- Tank 28 inside Building 889 was completely removed during the demolition of the building. Tank 40, west of Building 889 was removed prior to the demolition of the building.
- Tank 39 inside Building 881 was completely removed prior to the demolition of the building.

5.3 800 Area Soil Removal

Soil remediation related to OPWL was not necessary in the 800 Area.

5.4 800 Area Confirmation Sampling

Confirmation sampling was not required in the 800 Area.

6.0 EASTERN OPWL AREA ACCELERATED ACTION ACTIVITIES

Accelerated action sampling specifications and deviations, including potential contaminants of concern (PCOCs) and media sampled from IHSS Group 000-2 and other IHSS Groups within the Eastern OPWL Area, are presented in Table 19. Deviations from planned sampling locations are also described in the table. Deviations of less than 3 feet are not considered significant. Results of accelerated action activities in the Eastern OPWL Area including accelerated action characterization data, OPWL disposition, soil removal, and confirmation sampling are discussed in Sections 6.1 through 6.4.

6.1 Eastern OPWL Area Accelerated Action Data

The Eastern OPWL Area includes samples collected as part of the IHSS Group 000-2 project. Eighteen locations were sampled in the Eastern OPWL Area that includes 14 characterization and 4 confirmation sampling locations. Americium-241 and plutonium-239/240 were detected at activities above their respective RFCA WRW soil ALs of 76 pCi/g and 50 pCi/g. Amercium-241 was detected in one surface soil sample at an activity of 193 pCi/g and plutonium-239/240 was detected at activities ranging from 50.6 pCi/g to 434 pCi/g in three samples. Analytical results of soil characterization sampling with concentrations greater than background means plus two standard deviations or RLs are shown on Figure 14. Analytical results for all accelerated action characterization samples are presented in Table 20. In addition, analytical results with activities or concentrations greater than RFCA WRW Soil AL exceedances are identified with bold text in Table 20.

Remediation activities conducted as part of the IHSS Group NE-1 (Ponds B-1, B-2, and B-3) project are described in Section 6.3. Analytical results of soil characterization sampling with concentrations greater than background means plus two standard deviations or RLs are shown on Figure 14.

6.2 Eastern OPWL Area OPWL Disposition

6.2.1 IHSS Summary

IHSS Group NE-1 – Ponds B-1, B-2, and B-3

The "Pond B-1 Dam Hot Spot" was located on the eastern side of the dam near the Original Process Waste Line (OPWL) discharge point. The OPWL has been removed from this area (DOE 2005f).

Table 19
Eastern OPWL Area Accelerated Action Sampling Specifications and Deviations

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
Eastern OPWL	CO44-001	N/A	N/A	750388.93	2085306.878	Subsurface soil	8 - 9	Radionuclides, Metals, VOCs	Additional biased characterization sample.
Eastern OPWL	CP44-002	N/A	N/A	750324.584	2085757.742	Subsurface soil	5 - 5.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
Eastern OPWL	CQ44-000	N/A	N/A	750287.946	2085968.146	Subsurface soil	8.5 - 10.5	Radionuclides, Metals, VOCs	Biased characterization sample proposed in IHSS Group 000-2 IASAP Addendum.
Eastern OPWL	CQ44-001	N/A	N/A	750291.007	2086024.431	Subsurface soil	8.5 - 10.5	Radionuclides, Metals, VOCs	Biased characterization sample proposed in IHSS Group 000-2 IASAP Addendum.
Eastern OPWL	CQ44-002	N/A	N/A	750226.464	2086022.963	Subsurface soil	8.5 - 10.5 10.5 - 12.5	Radionuclides, Metals, VOCs	Biased characterization sample proposed in IHSS Group 000-2 IASAP Addendum.
Eastern OPWL	CQ44-003	N/A	N/A	750298.065	2085939.756	Subsurface soil	12 - 12.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
Eastern OPWL	CR44-000	N/A	N/A	750293.995	2086073.994	Subsurface soil	8.5 - 10.5	Radionuclides, Metals, VOCs	Biased characterization sample proposed in IHSS Group 000-2 IASAP Addendum.
Eastern OPWL	CR45-005	N/A	N/A	750278.031	2086337.441	Subsurface soil	2 - 2.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
Eastern OPWL	CS45-000	N/A	N/A	750477.643	2086384.972	Subsurface soil	0.5 - 1.5	Radionuclides, Metals, VOCs	Additional biased characterization sample.
Eastern OPWL	CT45-000	N/A	N/A	750488.738	2086612.281	Subsurface soil	2.5 - 3	Radionuclides, Metals, VOCs	Additional biased characterization sample.
Eastern OPWL	CV46-000	N/A	N/A	750600.536	2087129.443	Subsurface soil	13.5 - 14.5	Radionuclides, Metals, VOCs	Biased characterization sample proposed in IHSS Group 000-2 IASAP Addendum.
Eastern OPWL	CV46-001	N/A	N/A	750707.607	2087098.97	Surface soil Subsurface soil	0.0 - 0.5 8.5 - 10.5	Radionuclides, Metals, VOCs	Biased characterization sample.
Eastern OPWL	CW46-000	N/A	N/A	750620.59	2087199.556	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 2.5	Radionuclides, Metals, VOCs	Biased characterization sample proposed in IHSS Group 000-2 IASAP Addendum.
Eastern OPWL	CW46-001	N/A	N/A	750650.056	2087202.325	Surface soil Subsurface soil	0.0 - 0.5 0.5 - 1.5	Radionuclides, Metals, VOCs	Biased characterization sample.

Area	Location	Planned Northing	Planned Easting	Actual Northing	Actual Easting	Actual Media	Actual Depth Interval (ft)	Actual Analytes	Comments/Deviations
Eastern OPWL	CW46-006	750621.995	2087210.687	750622.005	2087210.684	Subsurface soil	4.3 - 4.8	Metals, PCBs, Radionuclides, SVOCs, VOCs	Statistical confirmation soil sample collected from Pond B-2 (Pond B-1 Dam Hot Spot - CW46-001). No significant change. in location.
Eastern OPWL	CW46-010	N/A	N/A	750653.12	2087189.268	Subsurface soil	1.0 - 1.5	Radionuclides	Biased confirmation sample to target perimeter of Pond B-2 (near Pond B-1 Dam Hot Spot - CW46-001).
Eastern OPWL	CW46-008	750657.41	2087217.151	750657.424	2087217.18	Subsurface soil	7.0 - 7.5	Radionuclides	Statistical confirmation soil sample collected from Pond B-2 (Pond B-1 Dam Hot Spot - CW46-001). No significant change. in location.
Eastern OPWL	CW46-023	N/A	N/A	750684.052	2087196.775	Subsurface soil	1.0 - 1.5	Radionuclides	Biased confirmation sample for additional coverage in Pond B-2 (near Pond B-1 Dam Hot Spot - CW46-001).

Table 20
Eastern OPWL Area Characterization Soil Sampling Results
Greater Than Background Means Plus Two Standard Deviations or Reporting Limits

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
Eastern OPWL	000-2	CP44-002	750324.584	2085757.742	5.00	5.50	Americium-241	0.765	76	0.020	-	pCi/g
Eastern OPWL	000-2	CP44-002	750324.584	2085757.742	5.00	5.50	Plutonium-239/240	1.030	50	0.020	-	pCi/g
Eastern OPWL	000-2	CP44-002	750324.584	2085757.742	5.00	5.50	Tetrachloroethene	1.200	615000	-	1.100	ug/kg
Eastern OPWL	000-2	CQ44-000	750287.946	2085968.146	8.50	10.50	Uranium-238	1.755	351	1.490	-	pCi/g
Eastern OPWL	000-2	CQ44-001	750291.007	2086024.431	8.50	10.50	2-Butanone	6.500	192000000	-	5.900	ug/kg
Eastern OPWL	000-2	CQ44-001	750291.007	2086024.431	8.50	10.50	Acetone	7.500	102000000	-	5.700	ug/kg
Eastern OPWL	000-2	CQ44-001	750291.007	2086024.431	8.50	10.50	Methylene chloride	1.300	2530000	-	1.000	ug/kg
Eastern OPWL	000-2	CQ44-002	750226.464	2086022.963	8.50	10.50	Tetrachloroethene	18.200	615000	-	5.540	ug/kg
Eastern OPWL	000-2	CQ44-002	750226.464	2086022.963	8.50	10.50	Uranium-235	0.127	8	0.120	-	pCi/g
Eastern OPWL	000-2	CQ44-002	750226.464	2086022.963	8.50	10.50	Uranium-238	1.773	351	1.490	-	pCi/g
Eastern OPWL	000-2	CQ44-002	750226.464	2086022.963	10.50	12.50	Uranium, Total	13.000	2750	3.040	-	mg/kg
Eastern OPWL	000-2	CQ44-002	750226.464	2086022.963	10.50	12.50	Uranium-235	0.143	8	0.120	-	pCi/g
Eastern OPWL	000-2	CQ44-002	750226.464	2086022.963	10.50	12.50	Uranium-238	1.566	351	1.490	-	pCi/g
Eastern OPWL	000-2	CQ44-003	750298.065	2085939.756	12.00	12.50	Acetone	73.000	102000000	-	5.900	ug/kg
Eastern OPWL	000-2	CQ44-003	750298.065	2085939.756	12.00	12.50	Americium-241	29.300	76	0.020	-	pCi/g
Eastern OPWL	**000-2**	**CQ44-003**	**750298.065**	**2085939.756**	**12.00**	**12.50**	**Plutonium-239/240**	**50.600**	**50**	**0.020**	-	**pCi/g**
Eastern OPWL	000-2	CQ44-003	750298.065	2085939.756	12.00	12.50	Toluene	1.900	31300000	-	1.000	ug/kg
Eastern OPWL	000-2	CR44-000	750293.995	2086073.994	8.50	10.50	Uranium-235	0.182	8	0.120	-	pCi/g
Eastern OPWL	000-2	CR45-005	750278.031	2086337.441	2.00	2.50	Methylene chloride	1.700	2530000	-	0.950	ug/kg
Eastern OPWL	000-2	CS45-000	750477.643	2086384.972	0.50	1.50	1,2,4-Trichlorobenzene	0.940	9230000	-	0.810	ug/kg
Eastern OPWL	000-2	CS45-000	750477.643	2086384.972	0.50	1.50	Americium-241	0.694	76	0.020	-	pCi/g
Eastern OPWL	000-2	CS45-000	750477.643	2086384.972	0.50	1.50	Methylene chloride	1.800	2530000	-	0.920	ug/kg
Eastern OPWL	000-2	CS45-000	750477.643	2086384.972	0.50	1.50	Naphthalene	1.600	3090000	-	0.990	ug/kg
Eastern OPWL	000-2	CS45-000	750477.643	2086384.972	0.50	1.50	Plutonium-239/240	0.936	50	0.020	-	pCi/g
Eastern OPWL	000-2	CT45-000	750488.738	2086612.281	2.50	3.00	Plutonium-239/240	0.379	50	0.020	-	pCi/g
Eastern OPWL	*000-2*	*CV46-000*	*750600.536*	*2087129.443*	*13.50*	*14.50*	*Uranium-234*	*3.604*	*300*	*2.640*	-	*pCi/g*
Eastern OPWL	000-2	CV46-000	750600.536	2087129.443	13.50	14.50	Uranium-235	0.197	8	0.120	-	pCi/g
Eastern OPWL	000-2	CV46-000	750600.536	2087129.443	13.50	14.50	Uranium-238	3.604	351	1.490	-	pCi/g
Eastern OPWL	000-2	CV46-001	750707.607	2087098.97	0.00	0.50	Aluminum	17000.000	228000	16902.000	-	mg/kg
Eastern OPWL	000-2	CV46-001	750707.607	2087098.97	0.00	0.50	Chromium	17.000	268	16.990	-	mg/kg

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
Eastern OPWL	000-2	CV46-001	750707.607	2087098.97	0.00	0.50	Lithium	12.000	20400	11.550	-	mg/kg
Eastern OPWL	000-2	CV46-001	750707.607	2087098.97	0.00	0.50	Strontium	55.000	613000	48.940	-	mg/kg
Eastern OPWL	000-2	CV46-001	750707.607	2087098.97	0.00	0.50	Uranium-235	0.165	8	0.094	-	pCi/g
Eastern OPWL	*000-2*	*CV46-001*	*750707.607*	*2087098.97*	*8.50*	*10.50*	*Uranium-234*	*3.000*	*300*	*2.640*	-	*pCi/g*
Eastern OPWL	000-2	CV46-001	750707.607	2087098.97	8.50	10.50	Uranium-235	0.192	8	0.120	-	pCi/g
Eastern OPWL	000-2	CV46-001	750707.607	2087098.97	8.50	10.50	Uranium-238	3.000	351	1.490	-	pCi/g
Eastern OPWL	000-2	CW46-000	750620.59	2087199.556	0.00	0.50	Aluminum	24000.000	228000	16902.000	-	mg/kg
Eastern OPWL	000-2	CW46-000	750620.59	2087199.556	0.00	0.50	Americium-241	4.629	76	0.023	-	pCi/g
Eastern OPWL	000-2	CW46-000	750620.59	2087199.556	0.00	0.50	Barium	270.000	26400	141.260	-	mg/kg
Eastern OPWL	000-2	CW46-000	750620.59	2087199.556	0.00	0.50	Beryllium	1.200	921	0.966	-	mg/kg
Eastern OPWL	000-2	CW46-000	750620.59	2087199.556	0.00	0.50	Chromium	27.000	268	16.990	-	mg/kg
Eastern OPWL	000-2	CW46-000	750620.59	2087199.556	0.00	0.50	Copper	20.000	40900	18.060	-	mg/kg
Eastern OPWL	000-2	CW46-000	750620.59	2087199.556	0.00	0.50	Iron	24000.000	307000	18037.000	-	mg/kg
Eastern OPWL	000-2	CW46-000	750620.59	2087199.556	0.00	0.50	Lithium	15.000	20400	11.550	-	mg/kg
Eastern OPWL	000-2	CW46-000	750620.59	2087199.556	0.00	0.50	Nickel	19.000	20400	14.910	-	mg/kg
Eastern OPWL	*000-2*	*CW46-000*	*750620.59*	*2087199.556*	*0.00*	*0.50*	*Plutonium-239/240*	*26.385*	*50*	*0.066*	-	*pCi/g*
Eastern OPWL	000-2	CW46-000	750620.59	2087199.556	0.00	0.50	Strontium	150.000	613000	48.940	-	mg/kg
Eastern OPWL	000-2	CW46-000	750620.59	2087199.556	0.00	0.50	Vanadium	61.000	7150	45.590	-	mg/kg
Eastern OPWL	000-2	CW46-000	750620.59	2087199.556	0.00	0.50	Zinc	110.000	307000	73.760	-	mg/kg
Eastern OPWL	000-2	CW46-000	750620.59	2087199.556	0.50	2.50	Americium-241	8.712	76	0.020	-	pCi/g
Eastern OPWL	*000-2*	*CW46-000*	*750620.59*	*2087199.556*	*0.50*	*2.50*	*Plutonium-239/240*	*49.658*	*50*	*0.020*	-	*pCi/g*
Eastern OPWL	000-2	CW46-000	750620.59	2087199.556	0.50	2.50	Uranium-238	2.323	351	1.490	-	pCi/g
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.00	0.50	Aluminum	22000.000	228000	16902.000	-	mg/kg
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.00	0.50	Americium-241	18.260	76	0.023	-	pCi/g
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.00	0.50	Antimony	0.660	409	0.470	-	mg/kg
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.00	0.50	Barium	280.000	26400	141.260	-	mg/kg
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.00	0.50	Beryllium	1.300	921	0.966	-	mg/kg
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.00	0.50	Chromium	23.000	268	16.990	-	mg/kg
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.00	0.50	Copper	27.000	40900	18.060	-	mg/kg
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.00	0.50	Ethylbenzene	158.000	4250000	-	48.500	ug/kg
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.00	0.50	Iron	20000.000	307000	18037.000	-	mg/kg
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.00	0.50	Lithium	16.000	20400	11.550	-	mg/kg
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.00	0.50	Manganese	560.000	3480	365.080	-	mg/kg
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.00	0.50	Nickel	17.000	20400	14.910	-	mg/kg
Eastern OPWL	***000-2***	***CW46-001***	***750650.056***	***2087202.325***	***0.00***	***0.50***	***Plutonium-239/240***	***104.082***	***50***	***0.066***	-	***pCi/g***

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.00	0.50	Strontium	260.000	613000	48.940	-	mg/kg
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.00	0.50	Toluene	2960.000	31300000	-	1050.000	ug/kg
Eastern OPWL	*000-2*	*CW46-001*	*750650.056*	*2087202.325*	*0.00*	*0.50*	*Uranium-234*	*11.290*	*300*	*2.253*	-	*pCi/g*
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.00	0.50	Uranium-235	0.450	8	0.094	-	pCi/g
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.00	0.50	Uranium-238	11.290	351	2.000	-	pCi/g
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.00	0.50	Vanadium	46.000	7150	45.590	-	mg/kg
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.00	0.50	Xylene	1200.000	2040000	-	97.100	ug/kg
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.00	0.50	Zinc	170.000	307000	73.760	-	mg/kg
Eastern OPWL	**000-2**	**CW46-001**	**750650.056**	**2087202.325**	**0.50**	**1.50**	**Americium-241**	**193.000**	**76**	**0.020**	-	**pCi/g**
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.50	1.50	Cadmium	2.700	962	1.700	-	mg/kg
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.50	1.50	Copper	130.000	40900	38.210	-	mg/kg
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.50	1.50	Lead	45.000	1000	24.970	-	mg/kg
Eastern OPWL	**000-2**	**CW46-001**	**750650.056**	**2087202.325**	**0.50**	**1.50**	**Plutonium-239/240**	**434.000**	**50**	**0.020**	-	**pCi/g**
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.50	1.50	Uranium, Total	53.000	2750	3.040	-	mg/kg
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.50	1.50	Uranium-234	5.190	300	2.640	-	pCi/g
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.50	1.50	Uranium-238	30.500	351	1.490	-	pCi/g
Eastern OPWL	000-2	CW46-001	750650.056	2087202.325	0.50	1.50	Zinc	160.000	307000	139.100	-	mg/kg

6.2.2 OPWL Pipe Summary

OPWLs P-38 and P-39

The P-39 OPWL, which extended east from the P-38 MWW to the P-39 MWW, was foamed and grouted to 80ft at the P-38 MWW excavation and to 70 ft at the P-39 MWW excavation.

The P-39 OPWL, which extended east from the P-39 MWW excavation to the P-39 MWC excavation, was completely filled with grout. There was a pipe elevation difference of 12 ft between these two manways. A grout plug was installed at P-39 West in the P-39 MWC excavation and the OPWL completely filled with grout at P-39 East in the P-39 MWW excavation.

The P-39 OPWL, which extended east from the P-39 MWC excavation to the P-39 MWE excavation, was completely filled with grout. There was a pipe elevation difference 17' between these two manways. A grout plug was installed at P-39 West in the P-39 MWE excavation and the OPWL was completely filled with grout at P-39 East from the P-39 MWC excavation.

The P-39 OPWL extended east to a point where this OPWL was interrupted and abandoned in place in the mid to late 1980s where two new very large concrete waste water treatment holding tanks were constructed. The P-39 OPWL, which traversed the area were the new tanks were installed, was removed at the time of tank construction. The western pipe end of the P-39 OPWL, which remained on the western side of the new tanks, was abandoned and left in place. The exposed end of the P-39 OPWL at this location was backfilled and compacted with existing soil. The segment of P-39 between the P-39 MWE excavation and the terminated end on the western side of the wastewater treatment holding tanks was at 12 to 15 ft deep. This section of the P-39 OPWL was completely filled with grout at P-39 East in the P-39 MWE excavation by flowing grout into the OPWL until a steady flow of grout was observed in the vent tube in the P-39 MWE excavation.

The far eastern section of the P-39 OPWL (Figure 14), south of the waste water treatment plant was completely removed to the point where the pipe open ended into the ditch on the western side of the North Perimeter Road.

The section of the P-39 OPWL, shown branching off the main P-39 OPWL line at Building 910 to non-existent tank T31, could not be located.

OPWL P-41

The P-41 OPWL, which extended northeast from the P-39 MWC excavation to the northwestern corner of west face of Pond B-2 for the most part, ran above ground. A 30 ft section of P-41 ran underground from the P-39 MWC excavation. Both the underground and aboveground P-41 OPWL were completely removed from the P-39 MWC excavation to Pond B-2.

6.2.3 Disposition of Manways and Valve Pits

- P-38 MWW, along with OPWL inside the manway were completely removed.
- P-39 MWW, along with OPWL inside the manway were completely removed.
- P-39 MWC, along with OPWL inside the manway were completely removed.
- P-39 MWE, along with OPWL inside the manway were completely removed.

6.2.4 Disposition of Process Waste Tanks and Pits

Tank 31, at Building 910 could not be located.

6.3 Eastern OPWL Area Soil Removal

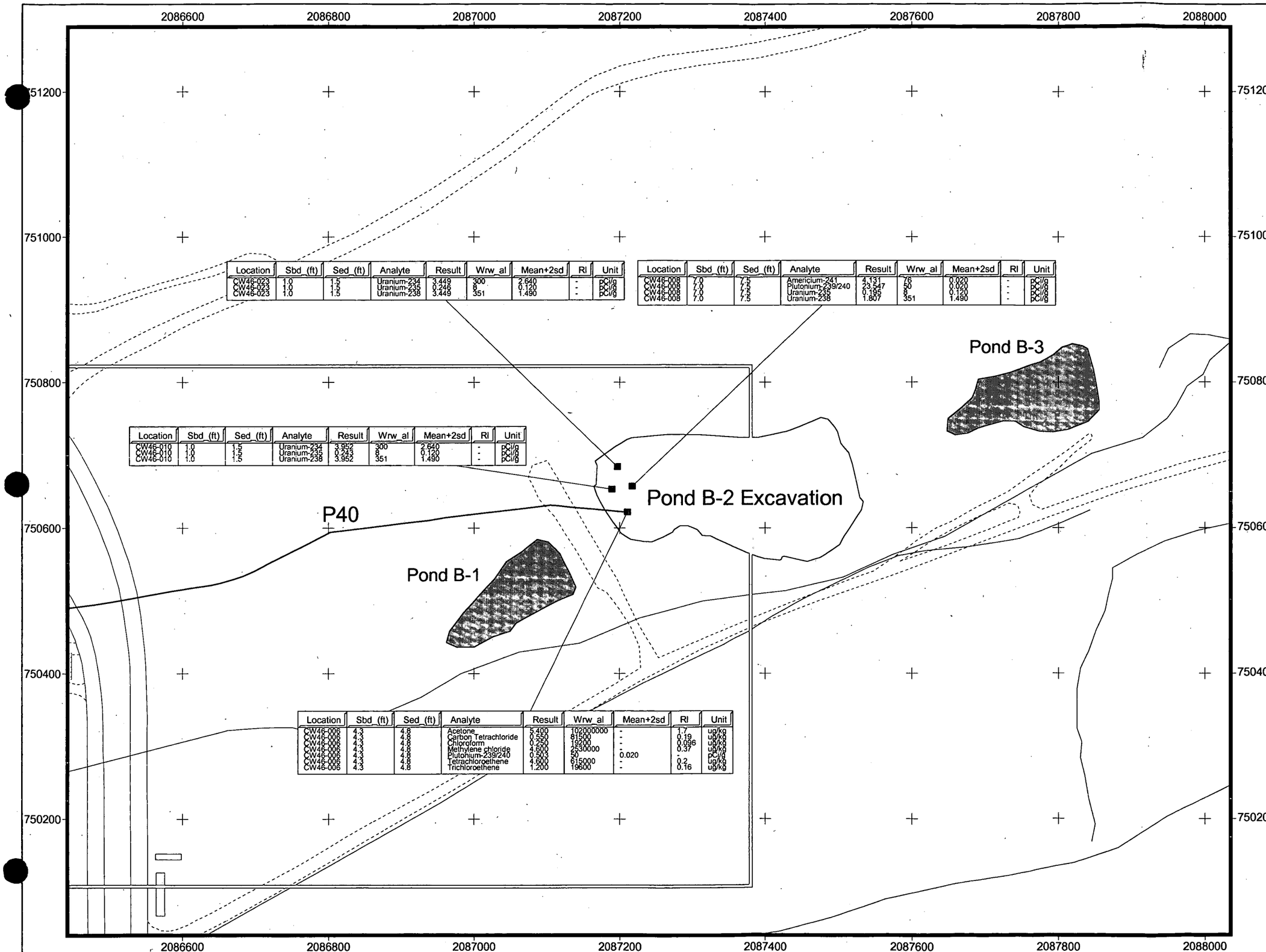
Remediation of radionuclide contaminated soil was performed at one location as part of the IHSS NE-1 (Ponds B-1, B-2, and B-3) project (DOE 2005f) and is referred to as the Pond B-1 Dam Hot Spot.

Remediation of radionuclide contaminated soil was performed as part of the IHSS NE-1 (Ponds B-1, B-2, and B-3) project (DOE 2005f) and is referred to as the "Pond B-1 Dam Hot Spot." This hot spot location was near the discharge point of OPWL into Pond B-2. A second radionuclide hot spot (CQ44-003) did not require remediation based on RFCA because the contamination was in subsurface soil greater than 3 ft below the surface at an activity less than 1 nanocuries (nCi)/g.

All of the sediment from the Pond B-1 Dam Hot Spot was excavated during remediation activities and accelerated action objectives were achieved.

6.4 Eastern OPWL Area Confirmation Sampling

Confirmation samples were obtained from 4 locations in the Eastern OPWL Area. Confirmation sampling was conducted as part of IHSS Group NE-1 (Ponds B-1, B-2, and B-3) remediation project (DOE 2005f). These samples were collected from the area around the "Pond B-1 Dam Hot Spot" after sediment removal activities were completed in Pond B-2. Results of all confirmation sampling in the 700 Area indicate all activities and concentrations are less than RFCA WRW soil ALs as shown on Figure as shown on Figure 15. Analytical results of confirmation sampling in the Eastern OPWL Area are listed in Table 21.



Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CW46-023	1.0	1.5	Uranium-234	3.449	300	2.640	-	pCi/g
CW46-023	1.0	1.5	Uranium-235	0.246	8	0.120	-	pCi/g
CW46-023	1.0	1.5	Uranium-238	3.449	351	1.490	-	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CW46-008	7.0	7.5	Americium-241	4.131	76	0.020	-	pCi/g
CW46-008	7.0	7.5	Plutonium-239/240	23.547	50	0.020	-	pCi/g
CW46-008	7.0	7.5	Uranium-235	0.195	8	0.120	-	pCi/g
CW46-008	7.0	7.5	Uranium-238	1.607	351	1.490	-	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CW46-010	1.0	1.5	Uranium-234	3.952	300	2.640	-	pCi/g
CW46-010	1.0	1.5	Uranium-235	0.243	8	0.120	-	pCi/g
CW46-010	1.0	1.5	Uranium-238	3.952	351	1.490	-	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CW46-006	4.3	4.8	Acetone	5.400	102000000	-	1.7	ug/kg
CW46-006	4.3	4.8	Carbon Tetrachloride	0.550	81500	-	0.19	ug/kg
CW46-006	4.3	4.8	Chloroform	0.250	19200	-	0.096	ug/kg
CW46-006	4.3	4.8	Methylene chloride	4.600	2530000	-	0.37	ug/kg
CW46-006	4.3	4.8	Plutonium-239/240	0.503	50	0.020	-	pCi/g
CW46-006	4.3	4.8	Tetrachloroethene	4.600	615000	-	0.2	ug/kg
CW46-006	4.3	4.8	Trichloroethene	1.200	19600	-	0.16	ug/kg

Figure 15

Eastern OPWL Area Confirmation Soil Sampling Results Greater Than Background Means Plus Two Standard Deviations or RLs

KEY

- Location with concentrations greater than background means plus two standard deviations or RLs
- Excavation
- Building/structure
- Demolished structure
- Lakes or ponds
- Stream, ditch, or other drainage
- Paved area
- Dirt road
- OPWL left in place
- OPWL removed
- OPWL does not exist

N W E S

100 0 100 Feet

Scale = 1:1,500

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Date: September 2005

Prepared by: RADMS

Prepared for: KAISER•HILL COMPANY

File: W:\Projects\Fy2005\000-2\COR\AV_Projects\opwl_cor_fig4_6_12_15_16.apr

Table 21
Eastern OPWL Area Confirmation Soil Sampling Results
Greater Than Background Means Plus Two Standard Deviations or Reporting Limits

Area	IHSS Group	Location	Actual Northing	Actual Easting	Starting Depth (ft)	Ending Depth (ft)	Analyte	Result	WRW AL	Background Mean Plus 2 SD	RL	Unit
Eastern OPWL	NE-1	CW46-006	750622.005	2087210.684	4.30	4.80	Acetone	5.400	102000000	-	1.700	ug/kg
Eastern OPWL	NE-1	CW46-006	750622.005	2087210.684	4.30	4.80	Carbon Tetrachloride	0.550	81500	-	0.190	ug/kg
Eastern OPWL	NE-1	CW46-006	750622.005	2087210.684	4.30	4.80	Chloroform	0.250	19200	-	0.096	ug/kg
Eastern OPWL	NE-1	CW46-006	750622.005	2087210.684	4.30	4.80	Methylene chloride	4.600	2530000	-	0.370	ug/kg
Eastern OPWL	NE-1	CW46-006	750622.005	2087210.684	4.30	4.80	Plutonium-239/240	0.503	50	0.020	-	pCi/g
Eastern OPWL	NE-1	CW46-006	750622.005	2087210.684	4.30	4.80	Tetrachloroethene	4.600	615000	-	0.200	ug/kg
Eastern OPWL	NE-1	CW46-006	750622.005	2087210.684	4.30	4.80	Trichloroethene	1.200	19600	-	0.160	ug/kg
Eastern OPWL	NE-1	CW46-008	750657.424	2087217.18	7.00	7.50	Americium-241	4.131	76	0.020	-	pCi/g
Eastern OPWL	*NE-1*	*CW46-008*	*750657.424*	*2087217.18*	*7.00*	*7.50*	*Plutonium-239/240*	*23.547*	*50*	*0.020*	-	*pCi/g*
Eastern OPWL	NE-1	CW46-008	750657.424	2087217.18	7.00	7.50	Uranium-235	0.195	8	0.120	-	pCi/g
Eastern OPWL	NE-1	CW46-008	750657.424	2087217.18	7.00	7.50	Uranium-238	1.807	351	1.490	-	pCi/g
Eastern OPWL	*NE-1*	*CW46-010*	*750653.12*	*2087189.268*	*1.00*	*1.50*	*Uranium-234*	*3.952*	*300*	*2.640*	-	*pCi/g*
Eastern OPWL	NE-1	CW46-010	750653.12	2087189.268	1.00	1.50	Uranium-235	0.243	8	0.120	-	pCi/g
Eastern OPWL	NE-1	CW46-010	750653.12	2087189.268	1.00	1.50	Uranium-238	3.952	351	1.490	-	pCi/g
Eastern OPWL	*NE-1*	*CW46-023*	*750684.052*	*2087196.775*	*1.00*	*1.50*	*Uranium-234*	*3.449*	*300*	*2.640*	-	*pCi/g*
Eastern OPWL	NE-1	CW46-023	750684.052	2087196.775	1.00	1.50	Uranium-235	0.246	8	0.120	-	pCi/g
Eastern OPWL	NE-1	CW46-023	750684.052	2087196.775	1.00	1.50	Uranium-238	3.449	351	1.490	-	pCi/g

7.0 SORS

Radionuclide sums of ratios (SORs) for surface soil (0 to 3 ft) were calculated for IHSS Group 000-2 sampling locations based on the accelerated action analytical data for the contaminants of concern (COCs) and RFCA WRW soil ALs. Radionuclide SORs were calculated for all locations with analytical results greater than background means plus two standard deviations for americium-241, plutonium-239/240, uranium-234, uranium-235, and uranium-238. Plutonium-239/240 activities are derived from americium-241 activities (that is, plutonium-239/240 activity = americium-241 gamma spectroscopy activity x 5.7) when americium-241 is measured using high-purity germanium (HPGe) detection analysis. In accordance with RFCA (DOE et al. 2003), the AL of 116 picocuries per gram (pCi/g) plutonium-239/240 is used in the SOR calculation.

SORs for radionuclides in surface soil were greater than 1 at twelve sampling locations; however, project decisions were not affected because of the following:

- Six of the locations (CD44-005, CF46-018, CH45-094, CH47-001, CH47-044, and CW46-001) were remediated by soil removal,
- Five locations (CG48-008, CG48-009, CG48-043, CG48-044, and CG48-045) were greater than 6-ft below the final grade, and
- One location (CH48-041) did not exceed RFCA WRW soil ALs.

SORs for radionuclides in surface soil in IHSS Group 000-2 are presented in Table 22.

Table 22
IHSS Group 000-2 Radionuclide SORs for Surface Soil

Location	Starting Depth (ft)	Ending Depth (ft)	Radionuclide SOR
BU38-004	0.00	0.17	0.017
BU39-004	2.00	2.01	0.001
BV38-014	0.00	1.00	0.024
BV39-002	2.00	2.50	0.047
BV39-003-01	0.00	0.50	0.026
BV39-003-01	2.00	2.30	0.049
BV39-004	2.00	2.50	0.041
BW35-002	0.83	1.13	0.047
BW35-003	0.75	1.25	0.026
BW35-003	1.25	1.65	0.058
BW36-015	0.92	1.42	0.020
BW36-015	1.42	1.82	0.072
BW36-016	0.67	1.17	0.019
BW36-016	1.17	1.57	0.059
BW38-001	0.00	0.50	0.051
BW38-001	0.50	2.50	0.005
BW38-002	0.00	0.50	0.042
BW38-002	0.50	2.50	0.056
BW38-003	0.00	0.50	0.018

Location	Starting Depth (ft)	Ending Depth (ft)	Radionuclide SOR
BW38-004	0.00	0.50	0.045
BW38-004	0.50	2.50	0.049
BW39-000	1.00	1.10	0.066
BW39-001	0.00	0.50	0.048
BW39-001	2.00	2.10	0.047
BX35-002	0.75	1.25	0.049
BX35-002	1.25	1.65	0.051
BX36-008	0.67	0.97	0.042
BX36-009	1.00	1.50	0.051
BX36-009	1.50	1.90	0.049
BY37-006	0.67	1.17	0.049
BY37-006	1.17	2.07	0.082
BY38-035	0.00	0.50	0.001
BY38-036	0.00	0.50	0.052
BY38-038	0.00	0.50	0.021
CD43-002-01	0.50	2.50	0.057
CD43-004	0.00	0.50	0.024
CD43-005	0.00	0.50	0.062
CD43-006	0.00	0.50	0.016
CD43-016	0.00	0.50	0.054
CD43-016	0.50	2.50	0.056
CD43-035	2.00	2.30	0.016
CD44-001	0.00	0.50	0.055
CD44-001	0.50	2.50	0.055
CD44-005	**0.00**	**0.50**	**85.886**
CE38-002-01	2.50	3.00	0.006
CE43-002	0.50	1.50	0.018
CE44-006	0.00	0.50	0.070
CE44-006	0.50	2.50	0.077
CE44-008	1.40	1.90	0.017
CE44-008	1.90	2.20	0.020
CE44-009	0.00	0.50	0.073
CE44-009	1.17	1.57	0.052
CE44-011	1.00	1.50	0.061
CE44-011	1.50	2.00	0.063
CE45-022	0.60	1.10	0.048
CE45-022	1.10	1.40	0.060
CE45-023	0.60	1.10	0.053
CE45-023	1.10	1.60	0.051
CE47-002	0.00	0.50	0.055
CE47-012	0.00	0.50	0.044
CE47-022	2.00	2.50	0.103
CE48-007	0.80	1.30	0.032
CE48-008	1.00	1.50	0.039
CE48-012	0.00	0.50	0.065
CE48-019	0.00	0.50	0.027
CE48-025	0.75	1.25	0.026
CF45-015	2.00	2.30	0.326
CF45-016	0.00	0.50	0.041

Location	Starting Depth (ft)	Ending Depth (ft)	Radionuclide SOR
CF45-016	0.50	1.40	0.025
CF45-018	0.00	0.50	0.054
CF45-018	0.50	0.80	0.052
CF45-019	0.88	1.38	0.021
CF45-020	0.60	1.10	0.019
CF46-017	0.67	1.17	0.016
CF46-018	**2.00**	**2.30**	**1.686**
CF46-019	0.00	0.50	0.022
CF46-056	0.00	0.30	0.386
CF48-008	0.00	0.50	0.026
CF49-007	0.00	0.50	0.058
CG38-006	0.00	0.30	0.052
CG38-009	0.00	0.50	0.035
CG38-016	0.00	0.50	0.019
CG43-011	0.00	0.50	0.017
CG43-023	0.00	0.50	0.030
CG43-023	0.50	1.50	0.030
CG44-005	0.00	0.50	0.060
CG44-005	1.50	2.50	0.021
CG45-011	1.00	1.20	0.018
CG45-012	0.50	1.00	0.059
CG45-012	1.00	1.30	0.037
CG45-013	0.00	0.50	0.060
CG45-013	1.13	1.63	0.062
CG45-014	1.83	2.33	0.018
CG45-032	0.00	1.00	0.018
CG45-033	0.00	1.00	0.033
CG46-005	0.00	0.50	0.062
CG46-005	1.00	2.50	0.005
CG46-006	0.00	0.50	0.049
CG46-006	1.50	2.50	0.054
CG46-007	0.00	0.50	0.053
CG46-007	1.00	2.50	0.050
CG46-008	0.75	1.25	0.031
CG46-008	1.25	1.75	0.019
CG46-017	0.00	0.50	0.063
CG46-017	0.50	2.50	0.069
CG46-018	0.00	0.50	0.114
CG46-018	0.50	2.50	0.098
CG46-019	0.00	0.50	0.022
CG46-019	0.50	2.50	0.030
CG47-004	0.00	0.50	0.065
CG47-004	1.00	2.50	0.059
CG48-005	0.00	0.50	0.066
CG48-007	1.83	2.33	0.113
CG48-008	**0.12**	**0.62**	**30.631**
CG48-009	**0.00**	**0.50**	**7.312**
CG48-010	0.00	0.50	0.147
CG48-011	0.50	1.00	0.021

Location	Starting Depth (ft)	Ending Depth (ft)	Radionuclide SOR
CG48-012	0.00	0.50	0.013
CG48-018	0.50	2.50	0.022
CH38-016	0.00	0.50	0.017
CH38-021	0.00	0.30	0.052
CH38-022	0.00	0.50	0.051
CH38-023	0.00	0.50	0.001
CH38-024	0.00	0.50	0.022
CH38-025	0.00	0.50	0.017
CH38-026	0.00	0.50	0.006
CH39-002	0.00	0.30	0.063
CH39-003	0.00	0.50	0.056
CH44-001	0.00	0.50	0.013
CH44-001	0.50	2.50	0.021
CH45-000	1.00	1.50	0.024
CH45-029	0.00	0.50	0.015
CH45-029	0.50	1.10	0.046
CH45-031	0.00	0.50	0.023
CH45-031	0.50	1.80	0.073
CH45-066	0.00	0.50	0.002
CH45-066	0.50	1.00	0.070
CH45-067	0.00	0.50	0.045
CH45-067	0.50	2.50	0.049
CH45-094	**0.00**	**0.50**	**7.326**
CH45-094	**0.50**	**1.00**	**1.666**
CH46-000	0.00	0.50	0.006
CH46-000	1.00	2.50	0.057
CH46-001	0.00	0.50	0.051
CH46-001	1.00	2.50	0.046
CH46-002	0.00	0.50	0.044
CH46-002	1.00	2.50	0.017
CH46-003	0.00	0.50	0.040
CH46-003	1.00	2.50	0.044
CH46-004	0.67	1.17	0.018
CH46-045	0.50	2.50	0.064
CH46-054	0.50	2.50	0.022
CH46-055	0.50	2.50	0.040
CH47-000	0.00	0.50	0.858
CH47-000	1.00	2.50	0.269
CH47-001	**0.00**	**0.50**	**3.192**
CH47-001	0.50	2.50	0.848
CH47-025	0.00	0.50	0.067
CH47-026	0.00	0.50	0.083
CH47-027	0.00	0.50	0.027
CH47-028	0.00	0.50	0.093
CH47-029	0.00	0.50	0.067
CH47-029	2.50	3.00	0.009
CH47-029	0.50	2.50	0.004
CH47-030	0.00	0.50	0.123
CH47-030	0.50	2.50	0.384

Location	Starting Depth (ft)	Ending Depth (ft)	Radionuclide SOR
CH47-030	2.50	3.00	0.288
CH47-031	0.00	0.50	0.042
CH47-031	0.50	2.50	0.012
CH47-031	2.50	3.00	0.001
CH47-032	2.50	3.00	0.071
CH47-032	0.50	2.50	0.017
CH47-044	**0.50**	**2.50**	**5.966**
CH48-041	**0.00**	**0.50**	**1.144**
CH48-042	0.00	0.50	0.261
CH48-043	**0.00**	**0.50**	**3.820**
CH48-044	**0.00**	**0.50**	**3.237**
CH48-045	**0.00**	**0.50**	**1.974**
CH48-046	0.00	0.50	0.462
CI38-032	2.00	2.50	0.028
CI45-012	0.00	0.50	0.057
CI45-012	0.50	2.50	0.022
CI46-037	2.50	3.00	0.031
CI46-038	2.50	3.00	0.024
CI46-040	0.50	2.50	0.023
CI48-000	0.00	3.00	0.068
CJ46-DR03	0.00	0.50	0.006
CJ46-DR07	0.00	0.50	0.061
CJ48-000	0.00	0.50	0.045
CJ48-001	0.00	0.50	0.015
CJ48-041	2.50	3.00	0.004
CS45-000	0.50	1.50	0.017
CT45-000	2.50	3.00	0.003
CV46-001	0.00	0.50	0.021
CW46-000	0.00	0.50	0.288
CW46-000	0.50	2.50	0.549
CW46-001	**0.00**	**0.50**	**1.264**
CW46-001	**0.50**	**1.50**	**6.385**
CW46-010	1.00	1.50	0.055
CW46-023	1.00	1.50	0.052
NORTHERN PROCESS LINE	0.00	1.50	0.001

SORs for nonradionuclides were calculated for all surface soil (0 to 0.5 ft) where analyte concentrations were 10 percent or more of a contaminant's RFCA WRW soil AL. Twenty-six samples had reportable nonradionuclide SORs less than 1 and are listed in Table 23.

Table 23
IHSS Group 000-2 Nonradionuclide SORs for Surface Soil

Location	Starting Depth (ft)	Ending Depth (ft)	Nonradionuclide SOR
BW38-003	0.00	0.50	0.142
BW39-001	0.00	0.50	0.165
CC43-000	0.00	0.40	0.121
CD43-004	0.00	0.50	0.205
CE44-007	1.40	1.90	0.108
CE47-002	0.00	0.50	0.107
CE48-002	1.00	1.50	0.144
CE48-007	0.80	1.30	0.133
CE48-012	0.00	0.50	0.185
CE48-019	0.00	0.50	0.207
CE48-025	0.75	1.25	0.133
CF45-015	2.00	2.30	0.104
CF46-018	2.00	2.30	0.198
CF46-019	0.00	0.50	0.149
CF48-008	0.00	0.50	0.111
CF49-007	0.00	0.50	0.174
CG48-005	0.00	0.50	0.109
CG48-009	0.00	0.50	0.133
CG48-010	0.00	0.50	0.119
CG48-012	0.00	0.50	0.151
CH45-095	0.00	0.50	0.360
CH46-000	0.00	0.50	0.104
CH46-004	0.67	1.17	0.108
CI45-012	0.00	0.50	0.119
CI48-000	0.00	3.00	0.145
CW46-000	0.00	0.50	0.101

8.0 SUMMARY STATISTICS

Summary statistics, by analyte, were calculated for IHSS Group 000-2 surface soil and subsurface soil sampling locations (Tables 24 and 25, respectively). These summaries are based on detected concentrations only for organics and above-background means plus two standard deviations for inorganics.

Table 24
Surface Soil Summary Statistics

Analyte	Number of Samples	Detection Frequency	Average Concentration	Maximum Concentration	WRW AL	Background Mean Plus 2 SD	Unit
1,1-Dichloroethene	88	2.27%	1.500	1.700	17000	-	ug/kg
1,2,4-Trichlorobenzene	103	0.97%	1.000	1.000	9230000	-	ug/kg
1,2-Dichloropropane	88	1.14%	3.400	3.400	345000	-	ug/kg
2-Butanone	87	1.15%	7.000	7.000	192000000	-	ug/kg
2-Methylnaphthalene	52	7.69%	328.250	910.000	20400000	-	ug/kg
4-Methyl-2-pentanone	87	2.30%	5.650	6.200	16400000	-	ug/kg
Acenaphthene	51	31.37%	1478.563	14000.000	40800000	-	ug/kg
Acetone	87	18.39%	190.875	2840.000	102000000	-	ug/kg
Aluminum	97	45.36%	23090.909	41000.000	228000	16902.000	mg/kg
Americium-241	148	23.65%	95.922	1220.000	76	0.023	pCi/g
Anthracene	51	33.33%	5559.471	72000.000	204000000	-	ug/kg
Antimony	131	11.45%	5.321	14.000	409	0.470	mg/kg
Aroclor-1254	8	12.50%	42.000	42.000	12400	-	ug/kg
Arsenic	131	22.14%	15.224	36.300	22.2	10.090	mg/kg
Barium	131	29.77%	655.333	1700.000	26400	141.260	mg/kg
Benzo(a)anthracene	51	54.90%	9725.857	200000.000	34900	-	ug/kg
Benzo(a)pyrene	51	47.06%	10607.583	180000.000	3490	-	ug/kg
Benzo(b)fluoranthene	51	43.14%	9735.000	150000.000	34900	-	ug/kg
Benzo(k)fluoranthene	51	35.29%	10703.889	130000.000	349000	-	ug/kg
Benzyl Alcohol	51	1.96%	360.000	360.000	307000000	-	ug/kg
Beryllium	98	28.57%	1.234	1.900	921	0.966	mg/kg
bis(2-Ethylhexyl)phthalate	51	11.76%	137.500	240.000	1970000	-	ug/kg
Butylbenzylphthalate	51	5.88%	211.000	450.000	147000000	-	ug/kg
Cadmium	131	2.29%	2.393	3.180	962	1.612	mg/kg
Carbon Tetrachloride	87	8.05%	2.371	4.100	81500	-	ug/kg
Chromium	131	57.25%	26.808	55.700	268	16.990	mg/kg
Chrysene	51	58.82%	9760.467	210000.000	3490000	-	ug/kg
Cobalt	131	10.69%	17.621	34.000	1550	10.910	mg/kg
Copper	131	48.85%	61.330	230.000	40900	18.060	mg/kg
Di-n-butylphthalate	51	7.84%	202.250	380.000	73700000	-	ug/kg
Dibenz(a,h)anthracene	51	25.49%	5553.077	54000.000	3490	-	ug/kg
Dibenzofuran	51	19.61%	1153.700	7000.000	2950000	-	ug/kg
Ethylbenzene	87	6.90%	72.600	173.000	4250000	-	ug/kg
Fluoranthene	51	56.86%	18005.000	380000.000	27200000	-	ug/kg
Fluorene	51	27.45%	2057.286	20000.000	40800000	-	ug/kg
Indeno(1,2,3-cd)pyrene	51	37.25%	8287.053	110000.000	34900	-	ug/kg

Analyte	Number of Samples	Detection Frequency	Average Concentration	Maximum Concentration	WRW AL	Background Mean Plus 2 SD	Unit
Iron	131	37.40%	30687.755	66900.000	307000	18037.000	mg/kg
Lead	131	1.53%	210.000	360.000	1000	54.620	mg/kg
Lithium	97	49.48%	18.438	180.000	20400	11.550	mg/kg
Manganese	131	16.79%	611.000	1680.000	3480	365.080	mg/kg
Mercury	101	7.92%	0.311	0.580	25200	0.134	mg/kg
Methylene chloride	89	16.85%	1.597	2.200	2530000	-	ug/kg
Naphthalene	103	16.50%	105.143	1000.000	3090000	-	ug/kg
Nickel	131	54.96%	29.501	71.900	20400	14.910	mg/kg
Plutonium-239/240	148	25.00%	333.363	8130.000	50	0.066	pCi/g
Pyrene	51	52.94%	18362.259	360000.000	22100000	-	ug/kg
Selenium	131	0.76%	1.400	1.400	5110	1.224	mg/kg
Strontium	131	43.51%	165.193	441.000	613000	48.940	mg/kg
Tetrachloroethene	87	9.20%	4.763	8.000	615000	-	ug/kg
Tin	131	14.50%	7.537	30.400	613000	2.900	mg/kg
Toluene	88	3.41%	989.263	2960.000	31300000	-	ug/kg
Trichloroethene	87	5.75%	1.480	2.300	19600	-	ug/kg
Uranium, Total	96	1.04%	9.800	9.800	2750	5.980	mg/kg
Uranium-234	148	48.65%	4.045	11.290	300	2.253	pCi/g
Uranium-235	149	57.72%	0.231	0.634	8	0.094	pCi/g
Uranium-238	149	51.01%	3.866	11.290	351	2.000	pCi/g
Vanadium	131	32.06%	97.688	211.000	7150	45.590	mg/kg
Xylene	87	10.34%	324.367	1200.000	2040000	-	ug/kg
Zinc	131	35.88%	139.757	310.000	307000	73.760	mg/kg

Table 25
Subsurface Soil Summary Statistics

Analyte	Number of Samples	Detection Frequency	Average Concentration	Maximum Concentration	WRW AL	Background Mean Plus 2SD	Unit
1,1,1-Trichloroethane	372	0.27%	1.700	1.700	79700000	-	ug/kg
1,2,4-Trichlorobenzene	376	1.33%	1.258	1.900	9230000	-	ug/kg
1,2-Dichloroethane	372	0.81%	3.900	6.000	106000	-	ug/kg
1,2-Dichloropropane	372	0.54%	36.900	71.600	345000	-	ug/kg
2-Butanone	373	1.88%	94.471	615.000	192000000	-	ug/kg
2-Methylnaphthalene	100	6.00%	1831.167	9200.000	20400000	-	ug/kg
2-Methylphenol	99	1.01%	74.000	74.000	36900000	-	ug/kg
4-Methyl-2-pentanone	373	0.27%	5.500	5.500	16400000	-	ug/kg
4-Methylphenol	99	1.01%	350.000	350.000	3690000	-	ug/kg
Acenaphthene	100	13.00%	449.462	3400.000	40800000	-	ug/kg
Acetone	375	16.53%	42.813	820.000	102000000	-	ug/kg
Aluminum	354	5.37%	48563.158	80000.000	228000	35373.170	mg/kg
Americium-241	471	28.24%	48.753	4230.000	76	0.020	pCi/g
Anthracene	100	12.00%	439.417	2800.000	204000000	-	ug/kg
Arsenic	397	8.06%	18.019	30.900	22.2	13.140	mg/kg
Barium	397	11.59%	735.609	1350.000	26400	289.380	mg/kg
Benzene	372	0.27%	58.700	58.700	205000	-	ug/kg
Benzo(a)anthracene	100	28.00%	350.214	3600.000	34900	-	ug/kg
Benzo(a)pyrene	100	17.00%	510.412	3700.000	3490	-	ug/kg

Analyte	Number of Samples	Detection Frequency	Average Concentration	Maximum Concentration	WRW AL	Background Mean Plus 2SD	Unit
Benzo(b)fluoranthene	100	17.00%	437.176	2600.000	34900	-	ug/kg
Benzo(k)fluoranthene	100	13.00%	528.462	3300.000	349000	-	ug/kg
Beryllium	353	0.57%	102.500	190.000	921	14.200	mg/kg
bis(2-Ethylhexyl)phthalate	100	10.00%	343.000	1900.000	1970000	-	ug/kg
Butylbenzylphthalate	100	2.00%	70650.000	140000.000	147000000	-	ug/kg
Cadmium	397	5.79%	18.670	160.000	962	1.700	mg/kg
Carbon Disulfide	372	0.54%	391.700	780.000	15100000	-	ug/kg
Carbon Tetrachloride	373	0.80%	3.717	6.400	81500	-	ug/kg
Chloroform	373	0.80%	660.517	1980.000	19200	-	ug/kg
Chromium	397	1.26%	100.520	140.000	268	68.270	mg/kg
Chrysene	100	28.00%	397.179	4100.000	3490000	-	ug/kg
Cobalt	397	0.50%	31.500	32.000	1550	29.040	mg/kg
Copper	397	10.33%	70.083	150.000	40900	38.210	mg/kg
Di-n-butylphthalate	100	2.00%	250.000	370.000	73700000	-	ug/kg
Dibenz(a,h)anthracene	100	6.00%	280.167	940.000	3490	-	ug/kg
Dibenzofuran	100	7.00%	404.286	1900.000	2950000	-	ug/kg
Diethylphthalate	100	1.00%	170.000	170.000	590000000	-	ug/kg
Ethylbenzene	373	4.83%	98.551	1200.000	4250000	-	ug/kg
Fluoranthene	100	33.00%	717.515	7000.000	27200000	-	ug/kg
Fluorene	100	10.00%	455.900	2700.000	40800000	-	ug/kg
Hexachlorobutadiene	376	0.27%	7.000	7.000	147000	-	ug/kg
Indeno(1,2,3-cd)pyrene	100	13.00%	358.154	2000.000	34900	-	ug/kg
Iron	397	2.27%	48944.444	68900.000	307000	41046.520	mg/kg
Lead	401	6.73%	97.389	942.000	1000	24.970	mg/kg
Lithium	354	0.85%	41.000	50.000	20400	34.660	mg/kg
Manganese	397	1.01%	1287.500	1600.000	3480	901.620	mg/kg
Mercury	370	1.08%	7.325	19.000	25200	1.520	mg/kg
Methylene chloride	373	13.94%	1.863	4.700	2530000	-	ug/kg
Naphthalene	376	17.55%	167.760	6300.000	3090000	-	ug/kg
Nickel	397	1.26%	77.260	105.000	20400	62.210	mg/kg
Phenol	99	4.04%	246.000	600.000	613000000	-	ug/kg
Plutonium-239/240	471	31.00%	228.316	24111.000	50	0.020	pCi/g
Pyrene	100	23.00%	942.174	7800.000	22100000	-	ug/kg
Selenium	397	0.25%	5.940	5.940	5110	4.800	mg/kg
Strontium	397	4.53%	304.444	678.000	613000	211.380	mg/kg
Styrene	373	0.80%	45.686	136.000	123000000	-	ug/kg
Tetrachloroethene	373	6.97%	720.302	18600.000	615000	-	ug/kg
Toluene	372	8.06%	39.149	193.000	31300000	-	ug/kg
Trichloroethene	373	1.88%	299.300	1630.000	19600	-	ug/kg
Uranium, Total	347	8.07%	14.925	94.000	2750	3.040	mg/kg
Uranium-234	471	32.91%	5.150	45.640	300	2.640	pCi/g
Uranium-235	470	52.13%	0.231	1.900	8	0.120	pCi/g
Uranium-238	470	45.32%	4.300	45.640	351	1.490	pCi/g
Vanadium	397	8.06%	139.747	267.000	7150	88.490	mg/kg
Xylene	373	6.70%	468.332	7900.000	2040000	-	ug/kg
Zinc	397	3.27%	216.308	582.000	307000	139.100	mg/kg

9.0 RCRA UNIT CLOSURE

Not applicable. There were no Resource Conservation and Recovery Act (RCRA) units to be closed at IHSS Group 000-2.

10.0 SUBSURFACE SOIL RISK SCREEN

The Subsurface Soil Risk Screen (SSRS) follows the steps identified on Figure 3 in Attachment 5 of RFCA (DOE et al. 2003).

Screen 1 – Are the COC concentrations below Table 3 RFCA WRW soil ALs?

No. Seventeen sampling locations containing contaminants at activities and concentrations greater than RFCA WRW soil ALs in subsurface soil are present in the 100/400, 700, 800, and Eastern OPWL Areas.

At the 100/400Area, benzo(a)pyrene is present in one sample (BV38-002) and arsenic is present in one sample (BW38-004) at concentrations greater than the RFCA WRW soil ALs. These two locations did not require remediation because the contaminants are nonradionuclides and exist at depths below 6 inches from the ground surface (10 ft bgs and 4.5 ft bgs, respectively).

Thirteen locations within the 700 Area contain contaminants at activities and concentrations greater than RFCA WRW soil ALs. The locations in the 700 Area listed below did not require remediation for the following reasons:

- CF46-065, CH47-051, CJ46-000 and CJ46-002 – Contained radionuclide contamination at depths greater than 3-ft below surface at activities less than 1 nCi/g; therefore, remediation of these locations was not required.
- CG48-008, CG48-009, CH48-043, CH48-044, and CH48-045 – Contained radionuclide contamination (americium-241 and/or plutonium-239/240 ranging from 116.4 pCi/g to 1,220 pCi/g for americium-241 and from 116.4 pCi/g to 2,109 pCi/g for plutonium-239/240). These hot spots were all at depths greater than 6-ft below the final grade surface at activities less than 3 nCi/g; therefore, remediation of these locations was not required.
- CI46-001 – Nonradionuclide contamination was greater than 6 inches below surface (arsenic exceedance was present at 3.5 ft bgs);
- CJ46-DR01 – Nonradionuclide contamination was greater than 6 inches below surface (arsenic exceedance was present at 7.5 ft bgs).
- CJ48-000 and CJ48-001 – Arsenic in the surface soil interval at concentrations of 36.3 and 31.1 mg/kg, respectively, did not require remediation because concentrations were less than the RFCA Tier I soil ALs.

One location (CF33-010) in the 800 Area contained arsenic at a concentration greater than the RFCA WRW soil AL. This location did not require remediation because the nonradionuclide contamination was greater than 6 inches below surface (arsenic exceedance was present at 5 ft bgs).

In the Eastern OPWL Area, one location (CQ44-003) contained plutonium-239/240 at an activity greater than the RFCA WRW soil AL. This location did not require remediation

because the contamination was present at a depth greater than 3-ft below the surface (12 ft bgs).

Screen 2 – Is there potential for subsurface soil to become surface soil (landslide and erosion areas identified on Figure 1)?

No. Sampling locations beneath the Building 771/774 basements are in an area mapped as prone to landslides. However, regrading of the area has buried residual contamination to depths greater than 6 ft bgs. Additionally, regrading, compacting, and revegetating this area will further reduce the likelihood of erosion in this area. Other areas of the Site containing OPWL are not considered to pose a significant landslide risk because they are not in area prone to significant erosion.

Screen 3 – Does subsurface soil radiological contamination exceed criteria in Section 5.3 and Attachment 14?

No. Areas with radionuclide contamination activity greater than 50 pCi/g are at depths greater than 3 ft bgs. No radionuclide contamination greater than 1 nCi/g exists at depths between 3 and 6 ft bgs.

Screen 4 – Is there an environmental pathway and sufficient quantity of COCs that would cause exceedance of the surface water standards?

No. Contaminant migration via groundwater is the primary pathway whereby surface water could be impacted by residual contamination from IHSS Group 000-2. As described in Screen 2, most locations containing OPWL are stable areas that are not prone to landslides or high erosion.

As a result of the routine pre-discharge sampling for Pond A-4, conducted on November 3, 2004, elevated americium-241 activities were noted in Pond A-4. These elevated activities were seen in samples collected by both the U.S. Department of Energy (DOE) and the Colorado Department of Public Health and Environment (CDPHE). These activities exceeded the RFCA surface water ALs for americium-241 and, as a result, the pond water was not discharged.

In early December 2004, DOE collected a number of surface water samples in the North Walnut Creek Drainage to investigate the source of elevated americium-241 activity noted in Ponds A-3 and A-4. The sampling was concentrated in the area where Buildings 771/774 formerly stood. One sample, collected from a pool of water in a manhole, MH3, northwest of former Building 771, contained elevated americium-241 activities without significant plutonium-239/240 activity, which is the same Americium/Plutonium signature that was observed in Ponds A-3 and A-4. This manhole receives the outfall from former Building 771.

Based on this sampling result, actions to stop any additional water from this source from entering North Walnut Creek were taken. The manhole (MH3), which had been covered with soil as a result of the site grading activities at former Building 771, was excavated and flows from the incoming pipes were intercepted, analyzed, and treated as needed. All pipes to and from MH3 were removed, as well as MH3 itself.

Subsequently, the water in Pond A-4 was treated using a co-precipitation and filtration process and met stream standards for discharge.

The potential for exceedances of surface water standards via the groundwater pathway should be minimal for the following reasons:

- Major portions of OPWL have been removed, thereby reducing the potential of future contaminant releases.
- Remaining OPWL have been tapped, drained, and grouted, further reducing potential future releases of contamination.
- Contaminated soil has been excavated from areas associated with OPWL, with the exception of the areas that were not required to be removed based on RFCA, thereby removing potential continuing sources to groundwater contamination.
- All tanks associated with OPWL were removed.
- Radionuclides and metals are relatively immobile.
- Results for organics were very low.
- Erosion controls will be incorporated as part of the final ground surface reconfiguration in this area, and ongoing surface water quality monitoring will continue to ensure the long-term effectiveness of the accelerated action for protecting surface water.

11.0 STEWARDSHIP EVALUATION

The IHSS Group 000-2 stewardship evaluation was conducted through ongoing consultation with the regulatory agencies. Throughout the project, informal project updates from the Field Project Manager were provided through e-mails, telephone conversations, and personal contacts. Copies of Regulatory Contact Records are provided in Appendix A.

11.1 Current Site Conditions

Accelerated actions at IHSS Group 000-2 consisted of characterization sampling of soil, excavation of radionuclide and SVOC contaminated soil, and in-process and confirmation sampling of soil. Based upon the accelerated actions performed and analytical results of sampling, conditions at IHSS Group 000-2 include the following:

- Approximately 17,000 ft of OPWL were excavated and disposed of from the Site.
- Approximately 14,700 ft of OPWL were grouted and left in place.
- During OPWL field operations, approximately 900 ft of OPWL were determined not to exist in locations that were previously shown on Site maps.
- All valve pits and manways (total of 29) associated with OPWL were removed as part of the IHSS Group 000-2 project.
- The potential sources of contamination related to OPWL that existed at concentrations greater than RFCA WRW soil ALs were removed unless remediation was not required based on RFCA (DOE et al. 2003).
- Arsenic, benzo(a)pyrene, americium-241, and plutonium-239/240 are the residual contaminants remaining at concentrations or activities greater than RFCA WRW soil ALs; however, remediation was not required according to RFCA (DOE et al. 2003)
- Backfilling of excavations and regrading has been completed. Final grading of areas containing OPWL will be conducted as part of other projects.

11.2 Near-Term Management Recommendations

Because residual contaminant concentrations are low and potential contaminant sources have been identified or removed according to accelerated action objectives, no specific near-term management actions are required. Contaminant concentrations in soil remaining at IHSS Group 000-2 do not trigger any further accelerated action.

Near-term recommendations include the following:

- Excavation at the site will continue to be controlled through the Site Soil Disturbance Permit process;

- Access will be restricted; and
- Site access and the Soil Disturbance Permit process will remain in place pending implementation of long-term controls.

11.3 Long-Term Stewardship Recommendations

Based on remaining environmental conditions at IHSS Group 000-2, no IHSS Group-specific long-term stewardship activities are recommended beyond the generally applicable Site requirements. Institutional controls that may be used as appropriate for this area include the following:

- Prohibitions on construction of buildings.
- Restrictions on excavation or other soil disturbance.
- Prohibitions on groundwater pumping in the area of IHSS Group 000-2 and other IHSS Groups.

IHSS Group 000-2 will be evaluated as part of the Sitewide CRA. The CRA is part of the Remedial Investigation/Feasibility Study (RI/FS) that will be conducted for the Site. The need for and extent of any more general, long-term stewardship activities will also be analyzed in the RI/FS and proposed as part of the preferred alternative in the Proposed Plan for the Site.

Currently, no Group-specific engineering controls or environmental monitoring are recommended as a result of the conditions remaining at IHSS Group 000-2. Institutional or physical controls are recommended to prevent digging or exposure of the remaining OPWL and residual contamination. Institutional controls and other long-term stewardship requirements for the Site will ultimately be contained in the Corrective Action Decision/Record of Decision (CAD/ROD). This Closeout Report and associated documentation will be retained as part of the Rocky Flats Administrative Record (AR) file.

12.0 DEVIATIONS FROM THE ER RSOP

There were no deviations from ER RSOP Notification #03-14 (DOE 2003s) or other ER RSOP Notifications listed in Table 1.

13.0 POST-ACCELERATED ACTION CONDITIONS

Residual contaminant concentrations are below RFCA WRW soil ALs at IHSS Group 000-2, with the exception of arsenic, benzo(a)pyrene, americium-241, and plutonium-239/240 at seventeen locations. These locations did not require remediation based on RFCA (DOE et al. 2003). Residual contamination locations are shown on Figure 16. The corresponding analytical results for residual contamination locations were listed in Tables 9, 10, 12, 13, 15, 16, 18, 20 and 21.

14.0 WASTE MANAGEMENT

OPWL derived waste was classified as LLW and LLMW. Waste consisted of soil, pipe, concrete, and debris generated during OPWL excavations and removal operations. The total volume of waste specifically related to OPWL is not available because waste generated during the NPWL project was also disposed of at the same time. The total gross weight of material shipped to Envirocare of Utah related to OPWL and NPWL was approximately 1,100 tons (as of June 28, 2005, final weight and volume pending).

15.0 SITE RECLAMATION

Excavations were backfilled with clean onsite soil. The excavation areas were regraded and revegetated. Final grading and revegetation of the Site is being conducted as part of other projects.

16.0 NLR SAMPLING LOCATIONS

When a sample location was excavated it became designated as NLR. NLR sample locations for this report include only locations specific to OPWL activities. NLR sample locations near OPWL activities have been addressed in their respective closeout reports.

The sampling locations designated NLR for IHSS Group 000-2 are listed in Table 26. NLR locations are flagged in the RFETS Soil Water Database (SWD) to ensure they will not be incorporated into the Sitewide CRA or other Site analyses.

Table 26
IHSS Group 000-2 and Other IHSS Groups NLR Sampling Locations

Area	Location	Northing	Easting	Media	Starting Depth (ft)	Ending Depth (ft)
500	CD43-034	750198.4	2083468	Soil	2.0	2.3
500	CD43-054	750102.153	2083516.97	Soil	7.5	7.8
500	CD44-005	750193.3	2083459.3	Soil	0.0	0.5
500	CD44-009	750125.19	2083465.114	Soil	5.0	5.3
500	CD44-012	750126.916	2083466.281	Soil	9.0	9.3
500	CD44-015	750124.613	2083461.325	Soil	9.0	9.3
700	CE43-005	750161.018	2083659.162	Soil	4.5	6.5
700	CE43-005	750161.018	2083659.162	Soil	6.5	8.5
700	CE47-012	750941.287	2083603.58	Soil	0.0	0.5
700	CE47-029	750941.163	2083601.228	Soil	0.0	0.5
700	CE48-012	750964.572	2083630.96	Soil	0.0	0.5
700	CE48-032	750962.278	2083630.812	Soil	0.0	0.5
700	CE48-033	750964.423	2083632.844	Soil	0.0	0.5
700	CE48-034	750964.602	2083628.675	Soil	0.0	0.5
700	CF46-018	750563.679	2083872.804	Soil	2.0	2.3
700	CF46-018	750563.679	2083872.804	Soil	3.0	3.3
700	CF46-029	750667.878	2083872.183	Soil	2.5	4.5
700	CH45-028	750477.146	2084230.366	Soil	0.0	0.5
700	CH46-062	750617.601	2083877.296	Soil	3.5	3.7
700	CH45-028	750477.146	2084230.366	Soil	2.5	4.5
700	CH45-028	750477.146	2084230.366	Soil	4.5	6.5
700	CH45-029	750501.451	2084268.56	Soil	0.0	0.5
700	CH45-029	750501.451	2084268.56	Soil	0.5	1.1
700	CH45-029	750501.451	2084268.56	Soil	3.0	4.5
700	CH45-029	750501.451	2084268.56	Soil	4.5	6.0
700	CH45-031	750497.111	2084332.796	Soil	0.0	0.5
700	CH45-031	750497.111	2084332.796	Soil	0.5	1.8
700	CH45-031	750497.111	2084332.796	Soil	2.5	3.5
700	CH45-031	750497.111	2084332.796	Soil	4.5	5.0
700	CH45-066	750496.715	2084311.994	Soil	0.0	0.5
700	CH45-066	750496.715	2084311.994	Soil	0.5	1.0
700	CH45-066	750496.715	2084311.994	Soil	2.5	3.5
700	CH45-066	750496.715	2084311.994	Soil	4.5	5.5
700	CH45-067	750480.854	2084285.799	Soil	0.0	0.5
700	CH45-067	750480.854	2084285.799	Soil	0.5	2.5
700	CH45-067	750480.854	2084285.799	Soil	2.5	3.5
700	CH45-067	750480.854	2084285.799	Soil	4.5	5.5
700	CH45-094	750569.101	2084329.847	Soil	0.0	0.5
700	CH45-094	750569.101	2084329.847	Soil	0.5	1.0
700	CH45-095	750557.537	2084293.464	Soil	0.0	0.5

Area	Location	Northing	Easting	Media	Starting Depth (ft)	Ending Depth (ft)
700	CH45-096	750569.101	2084329.847	Soil	0.0	0.5
700	CH46-054	750622.108	2084224.277	Soil	0.5	2.5
700	CH46-055	750609.945	2084288.585	Soil	0.5	2.5
700	CH47-000	750918.018	2084180.313	Soil	0.0	0.5
700	CH47-000	750918.018	2084180.313	Soil	1.0	2.5
700	CH47-000	750918.018	2084180.313	Soil	3.0	4.5
700	CH47-000	750918.018	2084180.313	Soil	5.0	6.5
700	CH47-000	750918.018	2084180.313	Soil	7.0	8.5
700	CH47-001	750780.174	2084181.862	Soil	0.0	0.5
700	CH47-001	750780.174	2084181.862	Soil	0.5	2.5
700	CH47-001	750780.174	2084181.862	Soil	3.5	4.5
700	CH47-001	750780.174	2084181.862	Soil	5.0	6.5
700	CH47-001	750780.174	2084181.862	Soil	6.5	8.5
700	CH47-044	750783.628	2084180.409	Soil	0.5	2.5
700	CH48-017	751040.548	2084157.88	Soil	5.5	7.5
700	CI45-012	750494.062	2084394.873	Soil	0.0	0.5
700	CI45-012	750494.062	2084394.873	Soil	0.5	2.5
700	CI45-012	750494.062	2084394.873	Soil	2.5	4.5
700	CI45-012	750494.062	2084394.873	Soil	4.5	6.5
700	CI46-040	750633.348	2084344.133	Soil	0.5	2.5
700	CJ46-005	750700.154	2084569.404	Soil	2.5	3.5
700	CJ46-005	750700.154	2084569.404	Soil	3.5	4.0
700	CJ46-005	750700.154	2084569.404	Soil	5.5	6.5
700	CJ46-057	750700.242	2084595.655	Soil	9.0	9.5
Eastern OPWL	CV46-000	750600.536	2087129.443	Soil	13.5	14.5
Eastern OPWL	CV46-001	750707.607	2087098.97	Soil	0.0	0.5
Eastern OPWL	CV46-001	750707.607	2087098.97	Soil	8.5	10.5
Eastern OPWL	CW46-001	750650.056	2087202.325	Soil	0.0	0.5
Eastern OPWL	CW46-001	750650.056	2087202.325	Soil	0.5	1.5

17.0 DATA QUALITY ASSESSMENT

The DQOs for this project are described in the IASAP (DOE 2001b). All DQOs for this project were achieved based on the following:

- Regulatory agency-approved sampling program design in accordance with the IASAP (DOE 2001b) and IABZSAP(DOE 2004k);
- Collection of samples in accordance with the sampling design;
- Implementation of remediation activities in accordance with ER RSOP Notification #03-14 (DOE 2003s); and
- Results of the DQA, as described in the following sections.

17.1 Data Quality Assessment Process

The DQA process ensures that the type, quantity, and quality of environmental data used in decision making are defensible, and is based on the following guidance and requirements:

- U.S. Environmental Protection Agency (EPA), 1994a, Guidance for the Data Quality Objective Process, QA/G-4;
- EPA, 1998, Guidance for the Data Quality Assessment Process, Practical Methods for Data Analysis, QA/G-9; and
- U.S. Department of Energy (DOE), 1999, Quality Assurance, Order 414.1A.

Verification and validation (V&V) of data are the primary components of the DQA. The final data are compared with original project DQOs and evaluated with respect to project decisions; uncertainty within the decisions; and quality criteria required for the data, specifically precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS). Validation criteria are consistent with the following RFETS-specific documents and industry guidelines:

- EPA, 1994b, USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, 540/R-94/012;
- EPA, 1994c, USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, 540/R-94/013;
- Kaiser-Hill Company, L.L.C. (K-H), 2002a, General Guidelines for Data Verification and Validation, DA-GR01-v2, October;
- K-H, 2002b, V&V Guidelines for Isotopic Determinations by Alpha Spectrometry, DA-RC01-v2, October;
- K-H, 2002c, V&V Guidelines for Volatile Organics, DA-SS01-v3, October;
- K-H, 2002d, V&V Guidelines for Semivolatile Organics, DA-SS02-v3, October;

- K-H, 2002e, V&V Guidelines for Metals, DA-SS05-v3, October; and
- Lockheed-Martin, 1997, Evaluation of Radiochemical Data Usability, ES/ER/MS-5.

This report will be submitted to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) AR for permanent storage 30 days after being provided to CDPHE and/or EPA.

17.2 Verification and Validation of Results

Verification ensures that data produced and used by the project are documented and traceable in accordance with quality requirements. Validation consists of a technical review of all data that directly support the project decisions so that any limitations of the data relative to project goals are delineated and the associated data are qualified accordingly. The V&V process defines the criteria that constitute data quality, namely PARCCS parameters. Data traceability and archival are also addressed. V&V criteria include the following:

- Chain-of-custody;
- Preservation and hold times;
- Instrument calibrations;
- Preparation blanks;
- Interference check samples (metals);
- Matrix spikes/matrix spike duplicates (MS/MSDs);
- Laboratory control samples (LCSs);
- Field duplicate measurements;
- Chemical yield (radiochemistry);
- Required quantitation limits/minimum detectable activities (sensitivity of chemical and radiochemical measurements, respectively); and
- Sample analysis and preparation methods.

Evaluation of V&V criteria ensures that PARCCS parameters are satisfactory (that is, within tolerances acceptable to the project). Satisfactory V&V of laboratory quality controls are captured through application of validation "flags" or qualifiers to individual records.

Raw hard-copy data (for example, individual analytical data packages) are currently filed by report identification number (RIN) and maintained by K-H Analytical Services Division (ASD). Older hard copies may reside in the Federal Center in Lakewood, Colorado. Electronic data are stored in the RFETS SWD. Standardized real and QC data are included on the enclosed CD.

17.2.1 Accuracy

The following measures of accuracy were evaluated:

- LCSs;
- Surrogates;
- Field blanks; and
- Sample MSs.

Results are compared to method requirements and project goals. The results of these comparisons are summarized for RFCA COCs where the results could impact project decisions. Particular attention is paid to those values near ALs when QC results could indicate unacceptable levels of uncertainty for decision-making purposes.

Laboratory Control Sample Evaluation

As indicated in Table 27, LCS analyses were run for all methods except gamma spectroscopy. When the In-Situ Counting System (ISOCS) technique is used for gamma spectroscopy, an internal standard approach is used instead of LCSs. The onsite laboratory that performs gamma spectroscopy is therefore not required to provide LCS data.

Table 27
LCS Summary

Test Method	Laboratory Batch	LCS Run?
ALPHA SPEC	134601	Yes
ALPHA SPEC	134603	Yes
ALPHA SPEC	134604	Yes
ALPHA SPEC	150814	Yes
ALPHA SPEC	150816	Yes
ALPHA SPEC	150818	Yes
ALPHA SPEC	154278	Yes
ALPHA SPEC	154288	Yes
ALPHA SPEC	154289	Yes
ALPHA SPEC	155458	Yes
ALPHA SPEC	155459	Yes
ALPHA SPEC	155460	Yes
ALPHA SPEC	157408	Yes
ALPHA SPEC	157410	Yes
ALPHA SPEC	157414	Yes
ALPHA SPEC	161986	Yes
ALPHA SPEC	161987	Yes
ALPHA SPEC	161988	Yes
ALPHA SPEC	168113	Yes
ALPHA SPEC	168114	Yes
ALPHA SPEC	168115	Yes
ALPHA SPEC	2317194	Yes

Test Method	Laboratory Batch	LCS Run?
ALPHA SPEC	2317198	Yes
ALPHA SPEC	2317208	Yes
ALPHA SPEC	247306	Yes
ALPHA SPEC	247720	Yes
ALPHA SPEC	247721	Yes
ALPHA SPEC	247722	Yes
ALPHA SPEC	247986	Yes
ALPHA SPEC	247987	Yes
ALPHA SPEC	247989	Yes
ALPHA SPEC	248833	Yes
ALPHA SPEC	248834	Yes
ALPHA SPEC	248835	Yes
ALPHA SPEC	248976	Yes
ALPHA SPEC	249887	Yes
ALPHA SPEC	249888	Yes
ALPHA SPEC	254704	Yes
ALPHA SPEC	254705	Yes
ALPHA SPEC	254706	Yes
ALPHA SPEC	255453	Yes
ALPHA SPEC	255458	Yes
ALPHA SPEC	256484	Yes
ALPHA SPEC	256485	Yes
ALPHA SPEC	256487	Yes
ALPHA SPEC	257269	Yes
ALPHA SPEC	261963	Yes
ALPHA SPEC	261964	Yes
ALPHA SPEC	263899	Yes
ALPHA SPEC	275884	Yes
ALPHA SPEC	277468	Yes
ALPHA SPEC	277469	Yes
ALPHA SPEC	277470	Yes
ALPHA SPEC	279704	Yes
ALPHA SPEC	279705	Yes
ALPHA SPEC	279706	Yes
ALPHA SPEC	280476	Yes
ALPHA SPEC	280483	Yes
ALPHA SPEC	281635	Yes
ALPHA SPEC	283471	Yes
ALPHA SPEC	283570	Yes
ALPHA SPEC	286078	Yes
ALPHA SPEC	286079	Yes
ALPHA SPEC	286081	Yes
ALPHA SPEC	287403	Yes
ALPHA SPEC	287405	Yes

Test Method	Laboratory Batch	LCS Run?
ALPHA SPEC	291020	Yes
ALPHA SPEC	291021	Yes
ALPHA SPEC	291022	Yes
ALPHA SPEC	291146	Yes
ALPHA SPEC	3323368	Yes
ALPHA SPEC	3323371	Yes
ALPHA SPEC	3323376	Yes
ALPHA SPEC	3351162	Yes
ALPHA SPEC	3351171	Yes
ALPHA SPEC	3351176	Yes
ALPHA SPEC	356851	Yes
ALPHA SPEC	356852	Yes
ALPHA SPEC	359219	Yes
ALPHA SPEC	360047	Yes
ALPHA SPEC	360421	Yes
ALPHA SPEC	361139	Yes
ALPHA SPEC	363705	Yes
ALPHA SPEC	363706	Yes
ALPHA SPEC	363707	Yes
ALPHA SPEC	364888	Yes
ALPHA SPEC	364891	Yes
ALPHA SPEC	364894	Yes
ALPHA SPEC	365163	Yes
ALPHA SPEC	365165	Yes
ALPHA SPEC	365167	Yes
ALPHA SPEC	366445	Yes
ALPHA SPEC	366446	Yes
ALPHA SPEC	366447	Yes
ALPHA SPEC	4001110	Yes
ALPHA SPEC	4001112	Yes
ALPHA SPEC	4001114	Yes
ALPHA SPEC	4007153	Yes
ALPHA SPEC	4007154	Yes
ALPHA SPEC	4007155	Yes
ALPHA SPEC	4009159	Yes
ALPHA SPEC	4009162	Yes
ALPHA SPEC	4009163	Yes
ALPHA SPEC	4012179	Yes
ALPHA SPEC	4012180	Yes
ALPHA SPEC	4012185	Yes
ALPHA SPEC	4016159	Yes
ALPHA SPEC	4016164	Yes
ALPHA SPEC	4016167	Yes
ALPHA SPEC	4021405	Yes

Test Method	Laboratory Batch	LCS Run?
ALPHA SPEC	4021407	Yes
ALPHA SPEC	4021411	Yes
ALPHA SPEC	4027453	Yes
ALPHA SPEC	4027467	Yes
ALPHA SPEC	4027477	Yes
ALPHA SPEC	4033291	Yes
ALPHA SPEC	4033294	Yes
ALPHA SPEC	4033301	Yes
ALPHA SPEC	4035439	Yes
ALPHA SPEC	4035440	Yes
ALPHA SPEC	4035441	Yes
ALPHA SPEC	4049241	Yes
ALPHA SPEC	4049249	Yes
ALPHA SPEC	4049250	Yes
ALPHA SPEC	4061175	Yes
ALPHA SPEC	4061177	Yes
ALPHA SPEC	4061183	Yes
ALPHA SPEC	4063377	Yes
ALPHA SPEC	4063388	Yes
ALPHA SPEC	4063392	Yes
ALPHA SPEC	4069164	Yes
ALPHA SPEC	4069167	Yes
ALPHA SPEC	4069170	Yes
ALPHA SPEC	4069347	Yes
ALPHA SPEC	4069353	Yes
ALPHA SPEC	4069361	Yes
ALPHA SPEC	4070389	Yes
ALPHA SPEC	4070397	Yes
ALPHA SPEC	4070431	Yes
ALPHA SPEC	4076323	Yes
ALPHA SPEC	4076329	Yes
ALPHA SPEC	4076339	Yes
ALPHA SPEC	4078178	Yes
ALPHA SPEC	4078182	Yes
ALPHA SPEC	4078184	Yes
ALPHA SPEC	4078325	Yes
ALPHA SPEC	4078335	Yes
ALPHA SPEC	4078340	Yes
ALPHA SPEC	4082521	Yes
ALPHA SPEC	4082526	Yes
ALPHA SPEC	4082530	Yes
ALPHA SPEC	4086409	Yes
ALPHA SPEC	4086419	Yes
ALPHA SPEC	4086433	Yes

Test Method	Laboratory Batch	LCS Run?
ALPHA SPEC	4089612	Yes
ALPHA SPEC	4089616	Yes
ALPHA SPEC	4089618	Yes
ALPHA SPEC	4092576	Yes
ALPHA SPEC	4092577	Yes
ALPHA SPEC	4092580	Yes
ALPHA SPEC	4096482	Yes
ALPHA SPEC	4096487	Yes
ALPHA SPEC	4096489	Yes
ALPHA SPEC	4098405	Yes
ALPHA SPEC	4098407	Yes
ALPHA SPEC	4098410	Yes
ALPHA SPEC	4103423	Yes
ALPHA SPEC	4103431	Yes
ALPHA SPEC	4103439	Yes
ALPHA SPEC	4110202	Yes
ALPHA SPEC	4110205	Yes
ALPHA SPEC	4110208	Yes
ALPHA SPEC	4111247	Yes
ALPHA SPEC	4111253	Yes
ALPHA SPEC	4111262	Yes
ALPHA SPEC	4111351	Yes
ALPHA SPEC	4111357	Yes
ALPHA SPEC	4111361	Yes
ALPHA SPEC	4121231	Yes
ALPHA SPEC	4121241	Yes
ALPHA SPEC	4121245	Yes
ALPHA SPEC	4128362	Yes
ALPHA SPEC	4128367	Yes
ALPHA SPEC	4128371	Yes
ALPHA SPEC	4128394	Yes
ALPHA SPEC	4128397	Yes
ALPHA SPEC	4128399	Yes
ALPHA SPEC	4131104	Yes
ALPHA SPEC	4131111	Yes
ALPHA SPEC	4131113	Yes
ALPHA SPEC	4132110	Yes
ALPHA SPEC	4132114	Yes
ALPHA SPEC	4132116	Yes
ALPHA SPEC	4149318	Yes
ALPHA SPEC	4149322	Yes
ALPHA SPEC	4149326	Yes
ALPHA SPEC	4152043	Yes
ALPHA SPEC	4152044	Yes

Test Method	Laboratory Batch	LCS Run?
ALPHA SPEC	4152045	Yes
ALPHA SPEC	4160453	Yes
ALPHA SPEC	4160456	Yes
ALPHA SPEC	4160458	Yes
ALPHA SPEC	4163583	Yes
ALPHA SPEC	4163589	Yes
ALPHA SPEC	4164066	Yes
ALPHA SPEC	4164068	Yes
ALPHA SPEC	4164069	Yes
ALPHA SPEC	4167252	Yes
ALPHA SPEC	4174179	Yes
ALPHA SPEC	4174181	Yes
ALPHA SPEC	4174184	Yes
ALPHA SPEC	4175400	Yes
ALPHA SPEC	4175408	Yes
ALPHA SPEC	4175411	Yes
ALPHA SPEC	4183145	Yes
ALPHA SPEC	4183146	Yes
ALPHA SPEC	4183147	Yes
ALPHA SPEC	4203462	Yes
ALPHA SPEC	4203463	Yes
ALPHA SPEC	4203468	Yes
ALPHA SPEC	4212484	Yes
ALPHA SPEC	4212490	Yes
ALPHA SPEC	4212491	Yes
ALPHA SPEC	4310305	Yes
ALPHA SPEC	4310313	Yes
ALPHA SPEC	4310315	Yes
ALPHA SPEC	4342446	Yes
ALPHA SPEC	4342448	Yes
ALPHA SPEC	4342450	Yes
ALPHA SPEC	5020430	Yes
ALPHA SPEC	5020436	Yes
ALPHA SPEC	5020437	Yes
ALPHA SPEC	5028426	Yes
ALPHA SPEC	5028428	Yes
ALPHA SPEC	5028432	Yes
ALPHA SPEC	5063465	Yes
ALPHA SPEC	5063466	Yes
ALPHA SPEC	5063467	Yes
ALPHA SPEC	5067318	Yes
ALPHA SPEC	5067323	Yes
ALPHA SPEC	5070311	Yes
ALPHA SPEC	5082474	Yes

Test Method	Laboratory Batch	LCS Run?
ALPHA SPEC	5082477	Yes
ALPHA SPEC	5082480	Yes
ALPHA SPEC	5103466	Yes
ALPHA SPEC	5103469	Yes
ALPHA SPEC	5103470	Yes
ALPHA SPEC	5107077	Yes
ALPHA SPEC	5107078	Yes
ALPHA SPEC	5107079	Yes
ALPHA SPEC	5109558	Yes
ALPHA SPEC	5109559	Yes
ALPHA SPEC	5109560	Yes
ALPHA SPEC	5113101	Yes
ALPHA SPEC	5116456	Yes
ALPHA SPEC	5116459	Yes
ALPHA SPEC	5159555	Yes
ALPHA SPEC	5159557	Yes
ALPHA SPEC	5159559	Yes
ALPHA SPEC	5166524	Yes
ALPHA SPEC	5166526	Yes
ALPHA SPEC	5166528	Yes
ALPHA SPEC	5203300	Yes
ALPHA SPEC	5203302	Yes
ALPHA SPEC	5203304	Yes
SW-846 6010	2284416	Yes
SW-846 6010	2286127	Yes
SW-846 6010	3111585	Yes
SW-846 6010	3111590	Yes
SW-846 6010	3114344	Yes
SW-846 6010	3114366	Yes
SW-846 6010	3114458	Yes
SW-846 6010	3115480	Yes
SW-846 6010	3115493	Yes
SW-846 6010	3115511	Yes
SW-846 6010	3120180	Yes
SW-846 6010	3120542	Yes
SW-846 6010	3121558	Yes
SW-846 6010	3121635	Yes
SW-846 6010	3122426	Yes
SW-846 6010	3122456	Yes
SW-846 6010	3122469	Yes
SW-846 6010	3128414	Yes
SW-846 6010	3129195	Yes
SW-846 6010	3132397	Yes
SW-846 6010	3132594	Yes

Test Method	Laboratory Batch	LCS Run?
SW-846 6010	3140584	Yes
SW-846 6010	3141293	Yes
SW-846 6010	3141568	Yes
SW-846 6010	3142395	Yes
SW-846 6010	3148267	Yes
SW-846 6010	3148299	Yes
SW-846 6010	3155509	Yes
SW-846 6010	3156229	Yes
SW-846 6010	3175503	Yes
SW-846 6010	3175538	Yes
SW-846 6010	3175539	Yes
SW-846 6010	3178570	Yes
SW-846 6010	3178572	Yes
SW-846 6010	3178574	Yes
SW-846 6010	3245548	Yes
SW-846 6010	3245587	Yes
SW-846 6010	3246486	Yes
SW-846 6010	3246551	Yes
SW-846 6010	3251498	Yes
SW-846 6010	3251509	Yes
SW-846 6010	3253540	Yes
SW-846 6010	3253629	Yes
SW-846 6010	3254472	Yes
SW-846 6010	3254520	Yes
SW-846 6010	3258571	Yes
SW-846 6010	3258574	Yes
SW-846 6010	3259526	Yes
SW-846 6010	3259550	Yes
SW-846 6010	3260528	Yes
SW-846 6010	3260592	Yes
SW-846 6010	3261516	Yes
SW-846 6010	3261523	Yes
SW-846 6010	3262469	Yes
SW-846 6010	3262481	Yes
SW-846 6010	3262509	Yes
SW-846 6010	3262511	Yes
SW-846 6010	3265396	Yes
SW-846 6010	3265466	Yes
SW-846 6010	3268610	Yes
SW-846 6010	3268617	Yes
SW-846 6010	3268632	Yes
SW-846 6010	3273420	Yes
SW-846 6010	3273452	Yes
SW-846 6010	3290580	Yes

Test Method	Laboratory Batch	LCS Run?
SW-846 6010	3292097	Yes
SW-846 6010	3294581	Yes
SW-846 6010	3294600	Yes
SW-846 6010	3295497	Yes
SW-846 6010	3295521	Yes
SW-846 6010	3296538	Yes
SW-846 6010	3296541	Yes
SW-846 6010	3315480	Yes
SW-846 6010	3315483	Yes
SW-846 6010	3322566	Yes
SW-846 6010	3322576	Yes
SW-846 6010	3324292	Yes
SW-846 6010	3324304	Yes
SW-846 6010	3329228	Yes
SW-846 6010	3329254	Yes
SW-846 6010	3329686	Yes
SW-846 6010	3330209	Yes
SW-846 6010	3330684	Yes
SW-846 6010	3335259	Yes
SW-846 6010	3335594	Yes
SW-846 6010	3335598	Yes
SW-846 6010	3337487	Yes
SW-846 6010	3337494	Yes
SW-846 6010	3343543	Yes
SW-846 6010	3344159	Yes
SW-846 6010	3344510	Yes
SW-846 6010	3344524	Yes
SW-846 6010	3350315	Yes
SW-846 6010	3350332	Yes
SW-846 6010	3350508	Yes
SW-846 6010	3350510	Yes
SW-846 6010	3352560	Yes
SW-846 6010	3353212	Yes
SW-846 6010	3357547	Yes
SW-846 6010	3357567	Yes
SW-846 6010	4008451	Yes
SW-846 6010	4008453	Yes
SW-846 6010	4009287	Yes
SW-846 6010	4011100	Yes
SW-846 6010	4012484	Yes
SW-846 6010	4013149	Yes
SW-846 6010	4014468	Yes
SW-846 6010	4014469	Yes
SW-846 6010	4020638	Yes

Test Method	Laboratory Batch	LCS Run?
SW-846 6010	4020642	Yes
SW-846 6010	4021494	Yes
SW-846 6010	4021498	Yes
SW-846 6010	4030337	Yes
SW-846 6010	4030350	Yes
SW-846 6010	4034472	Yes
SW-846 6010	4034475	Yes
SW-846 6010	4035187	Yes
SW-846 6010	4035190	Yes
SW-846 6010	4036538	Yes
SW-846 6010	4037183	Yes
SW-846 6010	4043529	Yes
SW-846 6010	4044174	Yes
SW-846 6010	4044400	Yes
SW-846 6010	4047213	Yes
SW-846 6010	4049580	Yes
SW-846 6010	4050156	Yes
SW-846 6010	4056497	Yes
SW-846 6010	4057235	Yes
SW-846 6010	4057466	Yes
SW-846 6010	4057510	Yes
SW-846 6010	4062558	Yes
SW-846 6010	4063246	Yes
SW-846 6010	4063505	Yes
SW-846 6010	4063545	Yes
SW-846 6010	4064505	Yes
SW-846 6010	4064512	Yes
SW-846 6010	4066116	Yes
SW-846 6010	4068257	Yes
SW-846 6010	4069472	Yes
SW-846 6010	4069475	Yes
SW-846 6010	4070566	Yes
SW-846 6010	4071291	Yes
SW-846 6010	4071499	Yes
SW-846 6010	4071501	Yes
SW-846 6010	4072238	Yes
SW-846 6010	4072239	Yes
SW-846 6010	4076213	Yes
SW-846 6010	4076522	Yes
SW-846 6010	4077191	Yes
SW-846 6010	4077195	Yes
SW-846 6010	4077540	Yes
SW-846 6010	4084375	Yes
SW-846 6010	4085251	Yes

Test Method	Laboratory Batch	LCS Run?
SW-846 6010	4086575	Yes
SW-846 6010	4089399	Yes
SW-846 6010	4091618	Yes
SW-846 6010	4092267	Yes
SW-846 6010	4092581	Yes
SW-846 6010	4093220	Yes
SW-846 6010	4093547	Yes
SW-846 6010	4096250	Yes
SW-846 6010	4096618	Yes
SW-846 6010	4097200	Yes
SW-846 6010	4097592	Yes
SW-846 6010	4098229	Yes
SW-846 6010	4099578	Yes
SW-846 6010	4100237	Yes
SW-846 6010	4100462	Yes
SW-846 6010	4103225	Yes
SW-846 6010	4104163	Yes
SW-846 6010	4104248	Yes
SW-846 6010	4104499	Yes
SW-846 6010	4105260	Yes
SW-846 6010	4113438	Yes
SW-846 6010	4113480	Yes
SW-846 6010	4114449	Yes
SW-846 6010	4118156	Yes
SW-846 6010	4119291	Yes
SW-846 6010	4119306	Yes
SW-846 6010	4120557	Yes
SW-846 6010	4121298	Yes
SW-846 6010	4121379	Yes
SW-846 6010	4124152	Yes
SW-846 6010	4125247	Yes
SW-846 6010	4126505	Yes
SW-846 6010	4127285	Yes
SW-846 6010	4127489	Yes
SW-846 6010	4140573	Yes
SW-846 6010	4141296	Yes
SW-846 6010	4146280	Yes
SW-846 6010	4146354	Yes
SW-846 6010	4153599	Yes
SW-846 6010	4155256	Yes
SW-846 6010	4156465	Yes
SW-846 6010	4157058	Yes
SW-846 6010	4160247	Yes
SW-846 6010	4162314	Yes

Test Method	Laboratory Batch	LCS Run?
SW-846 6010	4168531	Yes
SW-846 6010	4170198	Yes
SW-846 6010	4174241	Yes
SW-846 6010	4174301	Yes
SW-846 6010	4176245	Yes
SW-846 6010	4176376	Yes
SW-846 6010	4202517	Yes
SW-846 6010	4208463	Yes
SW-846 6010	4213081	Yes
SW-846 6010	4220111	Yes
SW-846 6010	4223484	Yes
SW-846 6010	4225545	Yes
SW-846 6010	4229123	Yes
SW-846 6010	4229297	Yes
SW-846 6010	4230510	Yes
SW-846 6010	4232444	Yes
SW-846 6010	4232455	Yes
SW-846 6010	4232611	Yes
SW-846 6010	4246575	Yes
SW-846 6010	4251248	Yes
SW-846 6010	4252580	Yes
SW-846 6010	4253194	Yes
SW-846 6010	4259583	Yes
SW-846 6010	4264486	Yes
SW-846 6010	4309578	Yes
SW-846 6010	4310131	Yes
SW-846 6010	4342242	Yes
SW-846 6010	4342463	Yes
SW-846 6010	4351669	Yes
SW-846 6010	4352502	Yes
SW-846 6010	5019475	Yes
SW-846 6010	5020175	Yes
SW-846 6010	5026500	Yes
SW-846 6010	5027146	Yes
SW-846 6010	5060508	Yes
SW-846 6010	5061189	Yes
SW-846 6010	5062302	Yes
SW-846 6010	5062486	Yes
SW-846 6010	5109586	Yes
SW-846 6010	5111217	Yes
SW-846 6010/6010B	2050380	Yes
SW-846 6010/6010B	2091170	Yes
SW-846 6010/6010B	2092272	Yes
SW-846 6010/6010B	2119184	Yes

Test Method	Laboratory Batch	LCS Run?
SW-846 6010/6010B	2119317	Yes
SW-846 6010/6010B	2141374	Yes
SW-846 6010/6010B	2142437	Yes
SW-846 6010/6010B	2143354	Yes
SW-846 6010/6010B	2148518	Yes
SW-846 6010/6010B	2149460	Yes
SW-846 6010/6010B	2156169	Yes
SW-846 6010/6010B	2157309	Yes
SW-846 6010/6010B	2175187	Yes
SW-846 6010/6010B	2176361	Yes
SW-846 6010/6010B	2179366	Yes
SW-846 6010/6010B	2182311	Yes
SW-846 6010/6010B	2184209	Yes
SW-846 6010/6010B	2186325	Yes
SW-846 6010/6010B	2235371	Yes
SW-846 6010/6010B	2235372	Yes
SW-846 8081	3295210	Yes
SW-846 8082	3020502	Yes
SW-846 8082	3024107	Yes
SW-846 8082	3027144	Yes
SW-846 8082	3028144	Yes
SW-846 8082	3042138	Yes
SW-846 8082	3148124	Yes
SW-846 8082	3149168	Yes
SW-846 8082	3295224	Yes
SW-846 8082	4029301	Yes
SW-846 8082	4309566	Yes
SW-846 8082	5060494	Yes
SW-846 8260	2094434	Yes
SW-846 8260	2104105	Yes
SW-846 8260	2122457	Yes
SW-846 8260	2142306	Yes
SW-846 8260	2148375	Yes
SW-846 8260	2149310	Yes
SW-846 8260	2151331	Yes
SW-846 8260	2162442	Yes
SW-846 8260	2176253	Yes
SW-846 8260	2189455	Yes
SW-846 8260	2190201	Yes
SW-846 8260	2192247	Yes
SW-846 8260	3125333	Yes
SW-846 8260	3149353	Yes
SW-846 8260	3157399	Yes
SW-846 8260	3179140	Yes

Test Method	Laboratory Batch	LCS Run?
SW-846 8260	3191458	Yes
SW-846 8260	3246397	Yes
SW-846 8260	3252336	Yes
SW-846 8260	3254509	Yes
SW-846 8260	3255490	Yes
SW-846 8260	3261667	Yes
SW-846 8260	3265348	Yes
SW-846 8260	3269394	Yes
SW-846 8260	3272303	Yes
SW-846 8260	3274410	Yes
SW-846 8260	3297307	Yes
SW-846 8260	3316301	Yes
SW-846 8260	3323337	Yes
SW-846 8260	3351321	Yes
SW-846 8260	4008527	Yes
SW-846 8260	4010126	Yes
SW-846 8260	4015294	Yes
SW-846 8260	4021222	Yes
SW-846 8260	4033307	Yes
SW-846 8260	4035308	Yes
SW-846 8260	4047206	Yes
SW-846 8260	4058301	Yes
SW-846 8260	4063466	Yes
SW-846 8260	4063580	Yes
SW-846 8260	4069471	Yes
SW-846 8260	4069554	Yes
SW-846 8260	4070453	Yes
SW-846 8260	4072425	Yes
SW-846 8260	4075359	Yes
SW-846 8260	4077097	Yes
SW-846 8260	4085308	Yes
SW-846 8260	4089437	Yes
SW-846 8260	4092330	Yes
SW-846 8260	4096360	Yes
SW-846 8260	4097499	Yes
SW-846 8260	4099341	Yes
SW-846 8260	4103407	Yes
SW-846 8260	4104280	Yes
SW-846 8260	4106271	Yes
SW-846 8260	4110363	Yes
SW-846 8260	4116262	Yes
SW-846 8260	4118420	Yes
SW-846 8260	4119124	Yes
SW-846 8260	4122023	Yes

Test Method	Laboratory Batch	LCS Run?
SW-846 8260	4126369	Yes
SW-846 8260	4131359	Yes
SW-846 8260	4141445	Yes
SW-846 8260	4147187	Yes
SW-846 8260	4155145	Yes
SW-846 8260	4157048	Yes
SW-846 8260	4161466	Yes
SW-846 8260	4169156	Yes
SW-846 8260	4175445	Yes
SW-846 8260	4177180	Yes
SW-846 8260	4203529	Yes
SW-846 8260	4213056	Yes
SW-846 8260	4224297	Yes
SW-846 8260	4229384	Yes
SW-846 8260	4250025	Yes
SW-846 8260	4253449	Yes
SW-846 8260	4254445	Yes
SW-846 8260	4264333	Yes
SW-846 8260	4313607	Yes
SW-846 8260	4345245	Yes
SW-846 8260	5025110	Yes
SW-846 8260	5031284	Yes
SW-846 8260	5062250	Yes
SW-846 8260	5066245	Yes
SW-846 8260	5112263	Yes
SW-846 8260	MS1 VOA_030130A	Yes
SW-846 8260	MS1 VOA_030203A	Yes
SW-846 8260	MS1 VOA_030313A	Yes
SW-846 8260	MS1 VOA_030401B	Yes
SW-846 8260	MS1 VOA_030418A	Yes
SW-846 8260	MS1 VOA_030422A	Yes
SW-846 8260	MS1 VOA_030423A	Yes
SW-846 8260	MS1 VOA_030424A	Yes
SW-846 8260	MS1 VOA_030429C	Yes
SW-846 8260	MS1 VOA_030430B	Yes
SW-846 8260	MS1 VOA_030620A	Yes
SW-846 8260	MS1 VOA_030620B	Yes
SW-846 8260	MS1 VOA_030623A	Yes
SW-846 8260	MS1 VOA_030905A	Yes
SW-846 8260	MS1 VOA_031017A	Yes
SW-846 8260	MS1 VOA_031021A	Yes
SW-846 8260	MS1 VOA_031022A	Yes
SW-846 8260	MS1 VOA_040224A	Yes
SW-846 8260	MS1 VOA_040304A	Yes

Test Method	Laboratory Batch	LCS Run?
SW-846 8260	MS1 VOA_040310A	Yes
SW-846 8260	MS1 VOA_040329A	Yes
SW-846 8260	MS1 VOA_040812A	Yes
SW-846 8260	MS1 VOA_040901A	Yes
SW-846 8260	MS1 VOA_041102B	Yes
SW-846 8260	MS1 VOA_041213A	Yes
SW-846 8260	MS1 VOA_050526B	Yes
SW-846 8260	MS1 VOA_050527A	Yes
SW-846 8260	MS1 VOA_050606A	Yes
SW-846 8260	MS2 VOA_020826A	No
SW-846 8260	MS2 VOA_021203A	Yes
SW-846 8260	MS2 VOA_021212A	Yes
SW-846 8260	MS2 VOA_021213A	Yes
SW-846 8260	MS2 VOA_021223A	Yes
SW-846 8260	MS2 VOA_030102A	Yes
SW-846 8260	MS2 VOA_030110A	Yes
SW-846 8260	MS2 VOA_030114A	Yes
SW-846 8260	MS2 VOA_030115A	Yes
SW-846 8260	MS2 VOA_030314A	Yes
SW-846 8260	MS2 VOA_030418A	Yes
SW-846 8260	MS2 VOA_030422A	Yes
SW-846 8260	MS2 VOA_030521A	Yes
SW-846 8260	MS2 VOA_030522A	Yes
SW-846 8260	MS2 VOA_030924A	Yes
SW-846 8260	MS2 VOA_030924B	Yes
SW-846 8260	MS2 VOA_031016A	Yes
SW-846 8260	MS2 VOA_031112A	Yes
SW-846 8260	MS2 VOA_031121B	Yes
SW-846 8260	MS2 VOA_031124A	Yes
SW-846 8260	MS2 VOA_031125A	Yes
SW-846 8260	MS2 VOA_031126A	Yes
SW-846 8260	MS2 VOA_031201A	Yes
SW-846 8260	MS2 VOA_031204B	Yes
SW-846 8260	MS2 VOA_031209A	Yes
SW-846 8260	MS2 VOA_031211A	Yes
SW-846 8260	MS2 VOA_040128A	Yes
SW-846 8260	MS2 VOA_040209A	Yes
SW-846 8260	MS2 VOA_040423A	Yes
SW-846 8260	MS2 VOA_040426A	Yes
SW-846 8260	MS2 VOA_040505A	Yes
SW-846 8260	MS2 VOA_040714A	Yes
SW-846 8260	MS3 VOA_021220A	Yes
SW-846 8260	MS3 VOA_030103A	Yes
SW-846 8260	MS3 VOA_030116A	Yes

Test Method	Laboratory Batch	LCS Run?
SW-846 8260	MS3 VOA_030404A	Yes
SW-846 8260	MS3 VOA_030407B	Yes
SW-846 8260	MS3 VOA_030508A	Yes
SW-846 8260	MS3 VOA_030509A	Yes
SW-846 8260	MS3 VOA_030516A	Yes
SW-846 8260	MS3 VOA_030516B	Yes
SW-846 8260	MS3 VOA_030521A	Yes
SW-846 8260	MS3 VOA_030528A	Yes
SW-846 8260	MS3 VOA_030620A	Yes
SW-846 8260	MS3 VOA_030623A	Yes
SW-846 8260	MS3 VOA_030626B	Yes
SW-846 8260	MS3 VOA_030626C	Yes
SW-846 8260	MS3 VOA_030904B	Yes
SW-846 8260	MS3 VOA_030905A	Yes
SW-846 8260	MS3 VOA_030910B	Yes
SW-846 8260	MS3 VOA_030912A	Yes
SW-846 8260	MS3 VOA_030914A	Yes
SW-846 8260	MS3 VOA_030914B	Yes
SW-846 8260	MS3 VOA_030916A	Yes
SW-846 8260	MS3 VOA_030917A	Yes
SW-846 8260	MS3 VOA_030917B	Yes
SW-846 8260	MS3 VOA_030918A	Yes
SW-846 8260	MS3 VOA_030918B	Yes
SW-846 8260	MS3 VOA_030919A	Yes
SW-846 8260	MS3 VOA_030919B	Yes
SW-846 8260	MS3 VOA_030919C	Yes
SW-846 8260	MS3 VOA_030922B	Yes
SW-846 8260	MS3 VOA_030924C	Yes
SW-846 8260	MS3 VOA_030925A	Yes
SW-846 8260	MS3 VOA_030925B	Yes
SW-846 8260	MS3 VOA_031021A	Yes
SW-846 8260	MS3 VOA_031022A	Yes
SW-846 8260	MS3 VOA_031023A	Yes
SW-846 8260	MS3 VOA_031107A	Yes
SW-846 8260	MS3 VOA_031112A	Yes
SW-846 8260	MS3 VOA_031120B	Yes
SW-846 8260	MS3 VOA_031121B	Yes
SW-846 8260	MS3 VOA_031204B	Yes
SW-846 8260	MS3 VOA_031208A	Yes
SW-846 8260	MS3 VOA_031217A	Yes
SW-846 8260	MS3 VOA_031218A	Yes
SW-846 8260	MS3 VOA_031219A	Yes
SW-846 8260	MS3 VOA_031222A	Yes
SW-846 8260	MS3 VOA_040107A	Yes

Test Method	Laboratory Batch	LCS Run?
SW-846 8260	MS3 VOA_040108B	Yes
SW-846 8260	MS3 VOA_040109A	Yes
SW-846 8260	MS3 VOA_040119A	Yes
SW-846 8260	MS3 VOA_040203B	Yes
SW-846 8260	MS3 VOA_040209B	Yes
SW-846 8260	MS3 VOA_040217A	Yes
SW-846 8260	MS3 VOA_040305A	Yes
SW-846 8260	MS3 VOA_040309B	Yes
SW-846 8260	MS3 VOA_040503A	Yes
SW-846 8260	MS3 VOA_040504A	Yes
SW-846 8260	MS3 VOA_040811A	Yes
SW-846 8260	MS3 VOA_040816A	Yes
SW-846 8260	MS3 VOA_040902A	Yes
SW-846 8260	MS3 VOA_041102A	Yes
SW-846 8270	2341126	Yes
SW-846 8270	2351149	Yes
SW-846 8270	2354443	Yes
SW-846 8270	2361214	Yes
SW-846 8270	3007367	Yes
SW-846 8270	3014486	Yes
SW-846 8270	3015417	Yes
SW-846 8270	3017354	Yes
SW-846 8270	3022389	Yes
SW-846 8270	3024292	Yes
SW-846 8270	3034451	Yes
SW-846 8270	3076479	Yes
SW-846 8270	3096146	Yes
SW-846 8270	3111557	Yes
SW-846 8270	3116158	Yes
SW-846 8270	3119125	Yes
SW-846 8270	3121474	Yes
SW-846 8270	3122503	Yes
SW-846 8270	3128415	Yes
SW-846 8270	3132443	Yes
SW-846 8270	3140581	Yes
SW-846 8270	3141593	Yes
SW-846 8270	3149154	Yes
SW-846 8270	3155474	Yes
SW-846 8270	3254498	Yes
SW-846 8270	3259546	Yes
SW-846 8270	3316352	Yes
SW-846 8270	3322585	Yes
SW-846 8270	3350376	Yes
SW-846 8270	3352571	Yes

Test Method	Laboratory Batch	LCS Run?
SW-846 8270	3357566	Yes
SW-846 8270	4043521	Yes
SW-846 8270	4044473	Yes
SW-846 8270	4049579	Yes
SW-846 8270	4070574	Yes
SW-846 8270	4075619	Yes
SW-846 8270	4092358	Yes
SW-846 8270	4118551	Yes
SW-846 8270	4124453	Yes
SW-846 8270	4125536	Yes
SW-846 8270	4126465	Yes
SW-846 8270	4127613	Yes
SW-846 8270	4131667	Yes
SW-846 8270	4201516	Yes
SW-846 8270	4313406	Yes
SW-846 8270	4342557	Yes
SW-846 8270	4352635	Yes
SW-846 8270	5027616	Yes
SW-846 8270	5061500	Yes
SW-846 8270B	2121118	Yes
SW-846 8270B	2140186	Yes
SW-846 8270B	2141154	Yes
SW-846 8270B	2150144	Yes
SW-846 8270B	2156213	Yes
SW-846 8270B	2176154	Yes
SW-846 8270B	2182174	Yes
SW-846 8270B	2185110	Yes
SW-846 8270B	2186170	Yes
SW9056 OR E300.0 PREP E300.0	2091232	Yes
SW9056 OR E300.0 PREP E300.0	2095403	Yes
SW9056 OR E300.0 PREP E300.0	2149453	Yes
SW9056 OR E300.0 PREP E300.0	2149454	Yes
SW9056 OR E300.0 PREP E300.0	2246627	Yes
SW9056 OR E300.0 PREP E300.0	2260513	Yes
SW9056 OR E300.0 PREP E300.0	2284548	Yes
SW9056 OR E300.0 PREP E300.0	3035276	Yes
SW9056 OR E300.0 PREP E300.0	3055154	Yes
SW9056 OR E300.0 PREP E300.0	3067154	Yes
SW9056 OR E300.0 PREP E300.0	3114510	Yes
SW9056 OR E300.0 PREP E300.0	3118427	Yes
SW9056 OR E300.0 PREP E300.0	3118429	Yes
SW9056 OR E300.0 PREP E300.0	3133308	Yes
SW9056 OR E300.0 PREP E300.0	3141299	Yes
SW9056 OR E300.0 PREP E300.0	3149342	Yes

Test Method	Laboratory Batch	LCS Run?
SW9056 OR E300.0 PREP E300.0	3160461	Yes
SW9056 OR E300.0 PREP E300.0	3365371	Yes
SW9056 OR E300.0 PREP E300.0	4006158	Yes
SW9056 OR E300.0 PREP E300.0	4034375	Yes

The minimum and maximum LCS results are tabulated, by chemical, for the entire project in Table 28. LCS results outside of tolerances were reviewed to determine whether a potential bias might be indicated. LCS recoveries are not indicative of matrix effects because they are not prepared using site samples. LCS results do indicate whether the laboratory may be introducing a bias in the results. Recoveries reported above the upper limit may indicate the actual sample results are less than reported. Because this is environmentally conservative, no further action is needed.

The analytes with unacceptably low recoveries were evaluated. If the highest sample result divided by the lowest LCS recovery for that analyte is less than the AL, no further action is taken because any indicated bias is not great enough to affect project decisions. Based on this analysis, the LCS recoveries for this project did not affect project decisions.

Table 28
LCS Evaluation Summary

Test Method	CAS No.	Analyte	Minimum Percent Recovery	Maximum Percent Recovery
SW-846 8260	71-55-6	1,1,1-Trichloroethane	77.88	133.7
SW-846 8260	79-34-5	1,1,2,2-Tetrachloroethane	69	127.9
SW-846 8260	79-00-5	1,1,2-Trichloroethane	75	123.2
SW-846 8260	75-34-3	1,1-Dichloroethane	75.91	128.7
SW-846 8260	75-35-4	1,1-Dichloroethene	72.1	143.6
SW-846 8270	120-82-1	1,2,4-Trichlorobenzene	58	77
SW-846 8260	120-82-1	1,2,4-Trichlorobenzene	76	149
SW-846 8270B	120-82-1	1,2,4-Trichlorobenzene	39	72
SW-846 8260	95-50-1	1,2-Dichlorobenzene	82	138.5
SW-846 8260	107-06-2	1,2-Dichloroethane	72.18	130.8
SW-846 8260	78-87-5	1,2-Dichloropropane	79	124.5
SW-846 8260	106-46-7	1,4-Dichlorobenzene	82	148.2
SW-846 8270B	106-46-7	1,4-Dichlorobenzene	35	73
SW-846 8270	95-95-4	2,4,5-Trichlorophenol	57	89
SW-846 8270	88-06-2	2,4,6-Trichlorophenol	58	85
SW-846 8270	120-83-2	2,4-Dichlorophenol	60	81
SW-846 8270	105-67-9	2,4-Dimethylphenol	59	84
SW-846 8270	51-28-5	2,4-Dinitrophenol	36	78
SW-846 8270B	121-14-2	2,4-Dinitrotoluene	61	83
SW-846 8270	121-14-2	2,4-Dinitrotoluene	59	91
SW-846 8270	606-20-2	2,6-Dinitrotoluene	60	91

Test Method	CAS No.	Analyte	Minimum Percent Recovery	Maximum Percent Recovery
SW-846 8260	78-93-3	2-Butanone	34.77	145.3
SW-846 8270	91-58-7	2-Chloronaphthalene	59	80
SW-846 8270	95-57-8	2-Chlorophenol	62	82
SW-846 8270B	95-57-8	2-Chlorophenol	40	80
SW-846 8270	91-57-6	2-Methylnaphthalene	59	83
SW-846 8270	95-48-7	2-Methylphenol	57	82
SW-846 8270	88-74-4	2-Nitroaniline	57	93
SW-846 8270	91-94-1	3,3'-Dichlorobenzidine	36	99
SW-846 8081	50-29-3	4,4'-DDT	117	117
SW-846 8270	534-52-1	4,6-Dinitro-2-methylphenol	45	85
SW-846 8270	106-47-8	4-Chloroaniline	19	68
SW-846 8260	108-10-1	4-Methyl-2-pentanone	53.6	134
SW-846 8270	106-44-5	4-Methylphenol	55	82
SW-846 8270B	100-02-7	4-Nitrophenol	59	83
SW-846 8270	100-02-7	4-Nitrophenol	53	101
SW-846 8270	83-32-9	Acenaphthene	57	81
SW-846 8270B	83-32-9	Acenaphthene	58	73
SW-846 8260	67-64-1	Acetone	27.45	174
SW-846 8081	309-00-2	Aldrin	103	103
SW-846 6010/6010B	7429-90-5	Aluminum	89	102
SW-846 6010	7429-90-5	Aluminum	84	109
ALPHA SPEC	14596-10-2	Americium-241	100	105
SW-846 8270	120-12-7	Anthracene	58	87
SW-846 6010	7440-36-0	Antimony	83	102
SW-846 6010/6010B	7440-36-0	Antimony	88	99
SW-846 8082	12674-11-2	Aroclor-1016	67	109
SW-846 8082	11096-82-5	Aroclor-1260	73	110
SW-846 6010/6010B	7440-38-2	Arsenic	89	109.6
SW-846 6010	7440-38-2	Arsenic	84	101
SW-846 6010	7440-39-3	Barium	88	106
SW-846 6010/6010B	7440-39-3	Barium	92	107
SW-846 8260	71-43-2	Benzene	79	130
SW-846 8270	56-55-3	Benzo(a)anthracene	55	84
SW-846 8270	50-32-8	Benzo(a)pyrene	56	89
SW-846 8270	205-99-2	Benzo(b)fluoranthene	52	90
SW-846 8270	207-08-9	Benzo(k)fluoranthene	54	88
SW-846 8270	65-85-0	Benzoic Acid	11	76
SW-846 8270	100-51-6	Benzyl Alcohol	55	85
SW-846 6010	7440-41-7	Beryllium	86	110
SW-846 6010/6010B	7440-41-7	Beryllium	87	108.1
SW-846 8270	111-44-4	bis(2-Chloroethyl)ether	45	90
SW-846 8270	39638-32-9	bis(2-Chloroisopropyl)ether	59	86
SW-846 8270	117-81-7	bis(2-Ethylhexyl)phthalate	56	99

Test Method	CAS No.	Analyte	Minimum Percent Recovery	Maximum Percent Recovery
SW-846 8260	75-27-4	Bromodichloromethane	83.1	129.1
SW-846 8260	75-25-2	Bromoform	80	127
SW-846 8260	74-83-9	Bromomethane	52.13	188.5
SW-846 8270	85-68-7	Butylbenzylphthalate	56	100
SW-846 6010/6010B	7440-43-9	Cadmium	88	105
SW-846 6010	7440-43-9	Cadmium	84	104
SW-846 8260	75-15-0	Carbon Disulfide	55	176.1
SW-846 8260	56-23-5	Carbon Tetrachloride	76	142.4
SW-846 8260	108-90-7	Chlorobenzene	82	147.8
SW-846 8260	75-00-3	Chloroethane	67.2	195
SW-846 8260	67-66-3	Chloroform	76.41	149
SW-846 8260	74-87-3	Chloromethane	33.56	292.6
SW-846 6010	7440-47-3	Chromium	88	105
SW-846 6010/6010B	7440-47-3	Chromium	90	105
SW-846 8270	218-01-9	Chrysene	55	87
SW-846 8260	10061-01-5	cis-1,3-Dichloropropene	71	125
SW-846 6010/6010B	7440-48-4	Cobalt	86	106.8
SW-846 6010	7440-48-4	Cobalt	86	104
SW-846 6010	7440-50-8	Copper	86	104
SW-846 6010/6010B	7440-50-8	Copper	92	105.8
SW9010B OR SW9012A	57-12-5	Cyanide	94	94
SW-846 8270	84-74-2	Di-n-butylphthalate	60	94
SW-846 8270	117-84-0	Di-n-octylphthalate	54	91
SW-846 8270	53-70-3	Dibenz(a,h)anthracene	49	87
SW-846 8270	132-64-9	Dibenzofuran	58	87
SW-846 8260	124-48-1	Dibromochloromethane	82	122.8
SW-846 8081	60-57-1	Dieldrin	112	112
SW-846 8270	84-66-2	Diethylphthalate	62	88
SW-846 8270	131-11-3	Dimethylphthalate	60	87
SW-846 8081	72-20-8	Endrin	106	106
SW-846 8260	100-41-4	Ethylbenzene	81	160.4
SW-846 8270	206-44-0	Fluoranthene	55	85
SW-846 8270	86-73-7	Fluorene	59	85
SW9056 OR E300.0 PREP E300.0	16984-48-8	Fluoride	106	106
SW-846 8081	58-89-9	gamma-BHC	101	101
SW-846 8081	76-44-8	Heptachlor	110	110
SW-846 8270	118-74-1	Hexachlorobenzene	58	83
SW-846 8270	87-68-3	Hexachlorobutadiene	57	82
SW-846 8260	87-68-3	Hexachlorobutadiene	68	203.6
SW-846 8270	77-47-4	Hexachlorocyclopentadiene	44	99
SW-846 8270	67-72-1	Hexachloroethane	60	86
SW-846 8270	193-39-5	Indeno(1,2,3-cd)pyrene	50	87

Test Method	CAS No.	Analyte	Minimum Percent Recovery	Maximum Percent Recovery
SW-846 6010	7439-89-6	Iron	90	108
SW-846 6010/6010B	7439-89-6	Iron	92	106
SW-846 8270	78-59-1	Isophorone	63	105
SW-846 6010	7439-92-1	Lead	87	104
SW-846 6010/6010B	7439-92-1	Lead	90	104
SW-846 6010	7439-93-2	Lithium	84	108
SW-846 6010/6010B	7439-93-2	Lithium	87.2	104
SW-846 6010/6010B	7439-96-5	Manganese	91	106.2
SW-846 6010	7439-96-5	Manganese	88	104
SW-846 6010	7439-97-6	Mercury	84	111
SW-846 6010/6010B	7439-97-6	Mercury	82	101
SW-846 8260	75-09-2	Methylene chloride	56.32	140.4
SW-846 6010/6010B	7439-98-7	Molybdenum	85	111.4
SW-846 6010	7439-98-7	Molybdenum	86	103
SW-846 8270	86-30-6	n-Nitrosodiphenylamine	66	155
SW-846 8270B	621-64-7	n-Nitrosodipropylamine	47	76
SW-846 8270	621-64-7	n-Nitrosodipropylamine	59	81
SW-846 8270	91-20-3	Naphthalene	59	77
SW-846 8260	91-20-3	Naphthalene	70.29	129.9
SW-846 6010	7440-02-0	Nickel	86	104
SW-846 6010/6010B	7440-02-0	Nickel	89	104.7
SW9056 OR E300.0 PREP E300.0	14797-55-8	Nitrate	91	100
SW9056 OR E300.0 PREP E300.0	14797-65-0	Nitrite	100	104
SW-846 8270	98-95-3	Nitrobenzene	62	86
SW-846 8270	87-86-5	Pentachlorophenol	34	85
SW-846 8270B	87-86-5	Pentachlorophenol	47	74
SW-846 8270B	108-95-2	Phenol	45	81
SW-846 8270	108-95-2	Phenol	58	86
ALPHA SPEC	10-12-8	Plutonium-239/240	101	105
SW-846 8270B	129-00-0	Pyrene	59	98
SW-846 8270	129-00-0	Pyrene	56	90
SW-846 6010/6010B	7782-49-2	Selenium	87	111.7
SW-846 6010	7782-49-2	Selenium	82	104
SW-846 6010/6010B	7440-22-4	Silver	93	104.8
SW-846 6010	7440-22-4	Silver	86	105
SW-846 6010/6010B	7440-24-6	Strontium	91	107
SW-846 6010	7440-24-6	Strontium	89	105
SW-846 8260	100-42-5	Styrene	80	143.6
SW-846 8260	127-18-4	Tetrachloroethene	76	168.1
SW-846 6010/6010B	7440-31-5	Tin	86	101.7
SW-846 6010	7440-31-5	Tin	81	104
SW-846 8260	108-88-3	Toluene	77	141.8

Test Method	CAS No.	Analyte	Minimum Percent Recovery	Maximum Percent Recovery
SW-846 8260	10061-02-6	trans-1,3-Dichloropropene	86	133.4
SW-846 8260	79-01-6	Trichloroethene	75.79	140.9
SW-846 6010	11-09-6	Uranium, Total	89	109
SW-846 6010/6010B	11-09-6	Uranium, Total	88	111
ALPHA SPEC	11-08-5	Uranium-234	92	92
ALPHA SPEC	15117-96-1	Uranium-235	93	93
ALPHA SPEC	7440-61-1	Uranium-238	79	95
SW-846 6010	7440-62-2	Vanadium	87	105
SW-846 6010/6010B	7440-62-2	Vanadium	90	106
SW-846 8260	75-01-4	Vinyl chloride	49.02	250.1
SW-846 8260	1330-20-7	Xylene	80	156.6
SW-846 6010	7440-66-6	Zinc	82	108
SW-846 6010/6010B	7440-66-6	Zinc	84	101.7

Surrogate Evaluation

The frequency of surrogate measurements, relative to each laboratory batch, is given in Table 29. Surrogate frequency was adequate based on at least one set per sample. The minimum and maximum surrogate results are also tabulated, by chemical, for the entire project. Surrogates are added to every sample, and, therefore, surrogate recoveries only impact individual samples. Unacceptable surrogate recoveries can indicate potential matrix effects. The highest and lowest surrogate recoveries for this project were reviewed, and results did not affect project decisions. All organic compounds with surrogate recoveries had concentrations less than RLs.

Table 29
Surrogate Recovery Summary

VOC Surrogate Recoveries				
Number of Samples	**Analyte**	**Minimum Recovery**	**Maximum Recovery**	**Unit**
447	4-Bromofluorobenzene	74	146.2	%REC
447	Deuterated 1,2-dichloroethane	66	129.5	%REC
447	Deuterated Toluene	77	122.1	%REC
SVOC Surrogate Recoveries				
Number of Samples	**Analyte**	**Minimum Recovery**	**Maximum Recovery**	**Unit**
133	2-Fluorobiphenyl	42	82	%REC
133	2-Fluorophenol	4.2	87	%REC
133	Deuterated Nitrobenzene	46	271	%REC
133	p-Terphenyl-d14	43	96	%REC

% REC – percent recovery

Field Blank Evaluation

Results of the field blank analyses are given in Table 30. Detectable amounts of contaminants within the blanks, which could indicate possible cross-contamination of

samples, are evaluated if the same contaminant is detected in the associated real samples. When the real result is less than 10 times the blank result for laboratory contaminants and 5 times the result for non-laboratory contaminants, the real result is eliminated. None of the chemicals were detected in the blanks at concentrations greater than one-tenth the AL. Therefore, blank contamination did not adversely impact project decisions.

Table 30
Field Blank Summary

Laboratory	CAS No.	Analyte	Sample QC Code	Detected Result	Unit
ESTLDEN	120-82-1	1,2,4-Trichlorobenzene	FB	0.22	ug/L
URS	106-46-7	1,4-Dichlorobenzene	RNS	2.1	ug/L
STLDEN	78-93-3	2-Butanone	FB	5.4	ug/L
ESTLDEN	78-93-3	2-Butanone	RNS	3.6	ug/L
URS	78-93-3	2-Butanone	TB	23	ug/L
URS	78-93-3	2-Butanone	FB	13	ug/L
ESTLDEN	78-93-3	2-Butanone	TB	22	ug/L
ESTLDEN	78-93-3	2-Butanone	FB	3.7	ug/L
STLDEN	78-93-3	2-Butanone	TB	6.6	ug/L
GEL	78-93-3	2-Butanone	TB	6.1	ug/L
ESTLDEN	100-02-7	4-Nitrophenol	FB	4.5	ug/L
STLDEN	67-64-1	Acetone	TB	37	ug/L
URS	67-64-1	Acetone	FB	79	ug/L
ESTLDEN	67-64-1	Acetone	RNS	5.8	ug/L
URS	67-64-1	Acetone	TB	70	ug/L
STLDEN	67-64-1	Acetone	FB	7.8	ug/L
URS	67-64-1	Acetone	RNS	30	ug/L
ESTLDEN	67-64-1	Acetone	TB	130	ug/L
ESTLDEN	67-64-1	Acetone	FB	32	ug/L
GEL	67-64-1	Acetone	TB	9.1	ug/L
STLDEN	67-64-1	Acetone	RNS	3.4	ug/L
ESTLDEN	7429-90-5	Aluminum	RNS	0.81	mg/L
STLDEN	7429-90-5	Aluminum	RNS	70	ug/L
ESTLDEN	7429-90-5	Aluminum	FB	0.62	mg/L
ESTLDEN	14596-10-2	Americium-241	FB	0.478	pCi/L
GEL	14596-10-2	Americium-241	FB	0.0221	pCi/L
GEL	14596-10-2	Americium-241	RNS	0.0576	pCi/L
ESTLDEN	14596-10-2	Americium-241	RNS	0.0351	pCi/L
ESTLDEN	7440-36-0	Antimony	RNS	0.0051	mg/L
ESTLDEN	7440-36-0	Antimony	FB	0.0043	mg/L
ESTLDEN	7440-38-2	Arsenic	FB	0.0053	mg/L
ESTLDEN	7440-38-2	Arsenic	RNS	0.0053	mg/L
STLDEN	7440-39-3	Barium	RNS	6.3	ug/L
ESTLDEN	7440-39-3	Barium	RNS	0.016	mg/L
ESTLDEN	7440-39-3	Barium	FB	0.0043	mg/L
URS	71-43-2	Benzene	FB	0.98	ug/L

Laboratory	CAS No.	Analyte	Sample QC Code	Detected Result	Unit
ESTLDEN	71-43-2	Benzene	TB	1.6	ug/L
URS	71-43-2	Benzene	TB	3.8	ug/L
STLDEN	56-55-3	Benzo(a)anthracene	RNS	1.3	ug/L
ESTLDEN	65-85-0	Benzoic Acid	RNS	29	ug/L
ESTLDEN	7440-41-7	Beryllium	RNS	0.0014	mg/L
ESTLDEN	7440-41-7	Beryllium	FB	0.00099	mg/L
STLDEN	7440-41-7	Beryllium	RNS	0.65	ug/L
STLDEN	117-81-7	bis(2-Ethylhexyl)phthalate	RNS	6.7	ug/L
URS	75-27-4	Bromodichloromethane	TB	1.6	ug/L
ESTLDEN	75-27-4	Bromodichloromethane	TB	4.1	ug/L
URS	75-27-4	Bromodichloromethane	FB	1.6	ug/L
ESTLDEN	75-27-4	Bromodichloromethane	FB	0.3	ug/L
URS	75-27-4	Bromodichloromethane	RNS	0.7	ug/L
ESTLDEN	7440-43-9	Cadmium	FB	0.0014	mg/L
ESTLDEN	7440-43-9	Cadmium	RNS	0.00038	mg/L
ESTLDEN	75-15-0	Carbon Disulfide	TB	0.34	ug/L
URS	56-23-5	Carbon Tetrachloride	FB	36.2	ug/L
URS	56-23-5	Carbon Tetrachloride	RNS	2.8	ug/L
URS	56-23-5	Carbon Tetrachloride	TB	35.6	ug/L
ESTLDEN	108-90-7	Chlorobenzene	TB	0.24	ug/L
ESTLDEN	67-66-3	Chloroform	FB	0.3	ug/L
ESTLDEN	67-66-3	Chloroform	TB	170	ug/L
URS	67-66-3	Chloroform	TB	2	ug/L
URS	67-66-3	Chloroform	FB	1.8	ug/L
STLDEN	74-87-3	Chloromethane	FB	0.34	ug/L
STLDEN	74-87-3	Chloromethane	RNS	1	ug/L
URS	74-87-3	Chloromethane	TB	1.6	ug/L
STLDEN	7440-47-3	Chromium	RNS	2.8	ug/L
ESTLDEN	7440-47-3	Chromium	RNS	0.032	mg/L
ESTLDEN	7440-48-4	Cobalt	RNS	0.0016	mg/L
ESTLDEN	7440-48-4	Cobalt	FB	0.0014	mg/L
STLDEN	7440-48-4	Cobalt	RNS	0.87	ug/L
ESTLDEN	7440-50-8	Copper	FB	0.029	mg/L
STLDEN	7440-50-8	Copper	RNS	2.9	ug/L
ESTLDEN	7440-50-8	Copper	RNS	0.025	mg/L
STLDEN	57-12-5	Cyanide	RNS	0.0041	mg/L
ESTLDEN	84-74-2	Di-n-butylphthalate	RNS	1.6	ug/L
ESTLDEN	124-48-1	Dibromochloromethane	TB	0.76	ug/L
ESTLDEN	84-66-2	Diethylphthalate	RNS	3.4	ug/L
URS	100-41-4	Ethylbenzene	TB	1.2	ug/L
ESTLDEN	100-41-4	Ethylbenzene	TB	0.4	ug/L
ESTLDEN	100-41-4	Ethylbenzene	FB	0.2	ug/L
STLDEN	206-44-0	Fluoranthene	RNS	2.3	ug/L
ESTLDEN	7439-89-6	Iron	FB	0.45	mg/L

Laboratory	CAS No.	Analyte	Sample QC Code	Detected Result	Unit
STLDEN	7439-89-6	Iron	RNS	88	ug/L
ESTLDEN	7439-89-6	Iron	RNS	0.94	mg/L
STLDEN	7439-92-1	Lead	RNS	5.6	ug/L
ESTLDEN	7439-92-1	Lead	FB	0.003	mg/L
ESTLDEN	7439-92-1	Lead	RNS	0.073	mg/L
ESTLDEN	7439-93-2	Lithium	FB	0.0039	mg/L
STLDEN	7439-93-2	Lithium	RNS	3.3	ug/L
ESTLDEN	7439-93-2	Lithium	RNS	0.0053	mg/L
ESTLDEN	7439-96-5	Manganese	RNS	0.025	mg/L
ESTLDEN	7439-96-5	Manganese	FB	0.0028	mg/L
STLDEN	7439-96-5	Manganese	RNS	6.4	ug/L
STLDEN	7439-97-6	Mercury	RNS	0.042	ug/L
ESTLDEN	7439-97-6	Mercury	FB	0.00023	mg/L
ESTLDEN	7439-97-6	Mercury	RNS	0.000091	mg/L
ESTLDEN	75-09-2	Methylene chloride	TB	0.84	ug/L
ESTLDEN	75-09-2	Methylene chloride	FB	0.42	ug/L
ESTLDEN	7439-98-7	Molybdenum	FB	0.0027	mg/L
STLDEN	7439-98-7	Molybdenum	RNS	15.2	ug/L
ESTLDEN	7439-98-7	Molybdenum	RNS	0.0044	mg/L
URS	91-20-3	Naphthalene	TB	2.8	ug/L
ESTLDEN	91-20-3	Naphthalene	RNS	2	ug/L
ESTLDEN	91-20-3	Naphthalene	TB	4.7	ug/L
URS	91-20-3	Naphthalene	RNS	2.6	ug/L
URS	91-20-3	Naphthalene	FB	1.4	ug/L
STLDEN	91-20-3	Naphthalene	RNS	1	ug/L
ESTLDEN	7440-02-0	Nickel	RNS	0.0082	mg/L
ESTLDEN	7440-02-0	Nickel	FB	0.036	mg/L
STLDEN	14797-55-8	Nitrate	RNS	0.22	mg/L
ESTLDEN	87-86-5	Pentachlorophenol	FB	5.2	ug/L
ESTLDEN	10-12-8	Plutonium-239/240	FB	0.537	pCi/L
GEL	10-12-8	Plutonium-239/240	RNS	0.0812	pCi/L
ESTLDEN	129-00-0	Pyrene	RNS	1.5	ug/L
STLDEN	7782-49-2	Selenium	RNS	4.9	ug/L
ESTLDEN	7782-49-2	Selenium	RNS	0.0062	mg/L
ESTLDEN	7782-49-2	Selenium	FB	0.0072	mg/L
ESTLDEN	7440-22-4	Silver	RNS	0.0014	mg/L
ESTLDEN	7440-22-4	Silver	FB	0.0027	mg/L
ESTLDEN	7440-24-6	Strontium	RNS	0.0092	mg/L
ESTLDEN	7440-24-6	Strontium	FB	0.013	mg/L
STLDEN	7440-24-6	Strontium	RNS	4.5	ug/L
ESTLDEN	100-42-5	Styrene	TB	0.56	ug/L
ESTLDEN	100-42-5	Styrene	FB	0.2	ug/L
ESTLDEN	7440-31-5	Tin	FB	0.0069	mg/L
ESTLDEN	7440-31-5	Tin	RNS	0.0089	mg/L

Laboratory	CAS No.	Analyte	Sample QC Code	Detected Result	Unit
STLDEN	7440-31-5	Tin	RNS	6.6	ug/L
URS	108-88-3	Toluene	FB	5	ug/L
ESTLDEN	108-88-3	Toluene	RNS	2	ug/L
URS	108-88-3	Toluene	RNS	3.2	ug/L
ESTLDEN	108-88-3	Toluene	TB	4.6	ug/L
ESTLDEN	108-88-3	Toluene	FB	3.8	ug/L
STLDEN	108-88-3	Toluene	RNS	1.1	ug/L
STLDEN	108-88-3	Toluene	FB	0.92	ug/L
STLDEN	108-88-3	Toluene	TB	1.6	ug/L
URS	108-88-3	Toluene	TB	9.29	ug/L
STLDEN	79-01-6	Trichloroethene	FB	0.41	ug/L
ESTLDEN	79-01-6	Trichloroethene	TB	0.29	ug/L
STLDEN	79-01-6	Trichloroethene	TB	0.54	ug/L
ESTLDEN	11-08-5	Uranium-234	FB	0.101	pCi/L
GEL	11-08-5	Uranium-234	RNS	0.129	pCi/L
URS	15117-96-1	Uranium-235	FB	0.207	pCi/g
CMLS	15117-96-1	Uranium-235	RNS	0.0591	pCi/g
URS	15117-96-1	Uranium-235	RNS	0.234	pCi/g
ESTLDEN	15117-96-1	Uranium-235	RNS	0.034	pCi/L
ESTLDEN	15117-96-1	Uranium-235	FB	0.205	pCi/L
ESTLDEN	7440-61-1	Uranium-238	FB	0.374	pCi/L
URS	7440-61-1	Uranium-238	FB	3.38	pCi/g
ESTLDEN	7440-61-1	Uranium-238	RNS	0.0209	pCi/L
CMLS	7440-61-1	Uranium-238	RNS	0.992	pCi/g
URS	7440-61-1	Uranium-238	RNS	3.98	pCi/g
ESTLDEN	1330-20-7	Xylene	TB	2.2	ug/L
URS	1330-20-7	Xylene	TB	6.3	ug/L
URS	1330-20-7	Xylene	RNS	2.5	ug/L
ESTLDEN	1330-20-7	Xylene	FB	0.72	ug/L
ESTLDEN	7440-66-6	Zinc	FB	0.05	mg/L
ESTLDEN	7440-66-6	Zinc	RNS	0.056	mg/L
STLDEN	7440-66-6	Zinc	RNS	24.4	ug/L

Field blank (EB = equipment, FB = field, RNS = rinse, TB = trip)
results greater than detection limits (not "U" qualified).

Sample Matrix Spike Evaluation

The minimum and maximum MS results are summarized by chemical for the entire project in Table 31. Organic analytes with unacceptably low recoveries resulted in a review of the LCS recoveries. According to the EPA data validation guidelines (EPA 1994b), if organic MS recoveries are low, the data reviewer may use the MS and MSD results in conjunction with other QC criteria. For this project, the LCS recoveries were checked, and these checks indicate no decisions were impacted for organic analytes although there were a significant number of organic analytes with 0 percent or less

recoveries of the MS. For inorganics, the associated maximum sample results were divided by the lowest percent recovery for each analyte. If the resulting number was less than the AL, decisions were not impacted, and no action was taken.

For this project, all results were acceptable. Low recoveries of 1,1,2,2,-tetrachloroethane, 3,3'-dichlorobenzidine, 4-nitrophenol, acetone, aluminum, benzoic acid, chromium, chrysene, chloroform, iron, lead, manganese, naphthalene, tetrachloroethene, silver, and xylene did not affect project decisions as the associated RFCA WRW soil ALs are at least three times greater than the highest sample resultchloroform.

Table 31
Sample MS Evaluation Summary

Test Method	CAS No.	Analyte	Minimum Percent Recovery	Maximum Percent Recovery	No. of Samples	No. of Lab Batches
SW-846 8260	71-55-6	1,1,1-Trichloroethane	59.16	131	79	79
SW-846 8260	79-34-5	1,1,2,2-Tetrachloroethane	0	143.4	79	79
SW-846 8260	79-00-5	1,1,2-Trichloroethane	27.9	122	79	79
SW-846 8260	75-34-3	1,1-Dichloroethane	55.62	124	79	79
SW-846 8260	75-35-4	1,1-Dichloroethene	49.72	164.5	81	81
SW-846 8270	120-82-1	1,2,4-Trichlorobenzene	44	75	26	26
SW-846 8270B	120-82-1	1,2,4-Trichlorobenzene	60	60	1	1
SW-846 8260	120-82-1	1,2,4-Trichlorobenzene	23.22	118	79	79
SW-846 8260	95-50-1	1,2-Dichlorobenzene	34.87	112.9	79	79
SW-846 8260	107-06-2	1,2-Dichloroethane	61.85	147	79	79
SW-846 8260	78-87-5	1,2-Dichloropropane	50.53	121	79	79
SW-846 8270B	106-46-7	1,4-Dichlorobenzene	63	63	1	1
SW-846 8260	106-46-7	1,4-Dichlorobenzene	36.75	115.6	79	79
SW-846 8270	95-95-4	2,4,5-Trichlorophenol	5	82	26	26
SW-846 8270	88-06-2	2,4,6-Trichlorophenol	5.1	86	26	26
SW-846 8270	120-83-2	2,4-Dichlorophenol	4.7	80	26	26
SW-846 8270	105-67-9	2,4-Dimethylphenol	49	80	26	26
SW-846 8270	51-28-5	2,4-Dinitrophenol	20	75	26	26
SW-846 8270B	121-14-2	2,4-Dinitrotoluene	66	66	1	1
SW-846 8270	121-14-2	2,4-Dinitrotoluene	51	86	26	26
SW-846 8270	606-20-2	2,6-Dinitrotoluene	51	82	26	26
SW-846 8260	78-93-3	2-Butanone	20.56	186	79	79
SW-846 8270	91-58-7	2-Chloronaphthalene	48	81	26	26
SW-846 8270	95-57-8	2-Chlorophenol	6.5	81	26	26
SW-846 8270B	95-57-8	2-Chlorophenol	69	69	1	1
SW-846 8270	91-57-6	2-Methylnaphthalene	45	84	26	26
SW-846 8270	95-48-7	2-Methylphenol	46	81	26	26
SW-846 8270	88-74-4	2-Nitroaniline	53	85	26	26
SW-846 8270	91-94-1	3,3'-Dichlorobenzidine	0	92	26	26
SW-846 8081	50-29-3	4,4'-DDT	122	122	1	1
SW-846 8270	534-52-1	4,6-Dinitro-2-methylphenol	23	83	26	26

Test Method	CAS No.	Analyte	Minimum Percent Recovery	Maximum Percent Recovery	No. of Samples	No. of Lab Batches
SW-846 8270	106-47-8	4-Chloroaniline	35	72	26	26
SW-846 8260	108-10-1	4-Methyl-2-pentanone	50.72	127.8	79	79
SW-846 8270	106-44-5	4-Methylphenol	44	85	26	26
SW-846 8270	100-02-7	4-Nitrophenol	0	85	26	26
SW-846 8270B	100-02-7	4-Nitrophenol	67	67	1	1
SW-846 8270B	83-32-9	Acenaphthene	58	58	1	1
SW-846 8270	83-32-9	Acenaphthene	36	81	26	26
SW-846 8260	67-64-1	Acetone	-86.02	281.6	79	79
SW-846 8081	309-00-2	Aldrin	99	99	1	1
SW-846 6010	7429-90-5	Aluminum	0	7400	67	67
SW-846 6010/6010B	7429-90-5	Aluminum	496	4230	3	3
SW-846 8270	120-12-7	Anthracene	46	87	26	26
SW-846 6010/6010B	7440-36-0	Antimony	37	48	3	3
SW-846 6010	7440-36-0	Antimony	30	85	69	69
SW-846 8082	12674-11-2	Aroclor-1016	71	210	4	4
SW-846 8082	11096-82-5	Aroclor-1260	79	137	4	4
SW-846 6010	7440-38-2	Arsenic	62	101	69	69
SW-846 6010/6010B	7440-38-2	Arsenic	90	100	3	3
SW-846 6010/6010B	7440-39-3	Barium	86	108	3	3
SW-846 6010	7440-39-3	Barium	67	150	69	69
SW-846 8260	71-43-2	Benzene	38.9	126.2	81	81
SW-846 8270	56-55-3	Benzo(a)anthracene	38	117	26	26
SW-846 8270	50-32-8	Benzo(a)pyrene	36	123	26	26
SW-846 8270	205-99-2	Benzo(b)fluoranthene	48	99	26	26
SW-846 8270	207-08-9	Benzo(k)fluoranthene	35	113	26	26
SW-846 8270	65-85-0	Benzoic Acid	0	65	26	26
SW-846 8270	100-51-6	Benzyl Alcohol	48	87	26	26
SW-846 6010	7440-41-7	Beryllium	71	117	67	67
SW-846 6010/6010B	7440-41-7	Beryllium	87	101	3	3
SW-846 8270	111-44-4	bis(2-Chloroethyl)ether	43	135	26	26
SW-846 8270	39638-32-9	bis(2-Chloroisopropyl)ether	45	89	26	26
SW-846 8270	117-81-7	bis(2-Ethylhexyl)phthalate	2.4	88	26	26
SW-846 8260	75-27-4	Bromodichloromethane	53.15	139	79	79
SW-846 8260	75-25-2	Bromoform	53.76	134	79	79
SW-846 8260	74-83-9	Bromomethane	49.32	138.5	79	79
SW-846 8270	85-68-7	Butylbenzylphthalate	50	1550	26	26
SW-846 6010/6010B	7440-43-9	Cadmium	39	96	3	3
SW-846 6010	7440-43-9	Cadmium	56	365	69	69
SW-846 8260	75-15-0	Carbon Disulfide	47.03	115	79	79
SW-846 8260	56-23-5	Carbon Tetrachloride	59.85	151	79	79
SW-846 8260	108-90-7	Chlorobenzene	19.47	136.2	81	81
SW-846 8260	75-00-3	Chloroethane	53.43	120.5	79	79
SW-846 8260	67-66-3	Chloroform	-73.65	136	79	79

Test Method	CAS No.	Analyte	Minimum Percent Recovery	Maximum Percent Recovery	No. of Samples	No. of Lab Batches
SW-846 8260	74-87-3	Chloromethane	44.15	159.5	79	79
SW-846 6010	7440-47-3	Chromium	0	144	69	69
SW-846 6010/6010B	7440-47-3	Chromium	114	130	3	3
SW-846 8270	218-01-9	Chrysene	0	121	26	26
SW-846 8260	10061-01-5	cis-1,3-Dichloropropene	51.07	132	79	79
SW-846 6010/6010B	7440-48-4	Cobalt	90	144	3	3
SW-846 6010	7440-48-4	Cobalt	62	115	69	69
SW-846 6010	7440-50-8	Copper	27	205	69	69
SW-846 6010/6010B	7440-50-8	Copper	87	111	3	3
SW-846 8270	84-74-2	Di-n-butylphthalate	52	89	26	26
SW-846 8270	117-84-0	Di-n-octylphthalate	45	89	26	26
SW-846 8270	53-70-3	Dibenz(a,h)anthracene	51	86	26	26
SW-846 8270	132-64-9	Dibenzofuran	50	86	26	26
SW-846 8260	124-48-1	Dibromochloromethane	52	129	79	79
SW-846 8081	60-57-1	Dieldrin	102	102	1	1
SW-846 8270	84-66-2	Diethylphthalate	52	87	26	26
SW-846 8270	131-11-3	Dimethylphthalate	51	81	26	26
SW-846 8081	72-20-8	Endrin	99	99	1	1
SW-846 8260	100-41-4	Ethylbenzene	26.69	125.7	79	79
SW-846 8270	206-44-0	Fluoranthene	7.7	153	26	26
SW-846 8270	86-73-7	Fluorene	42	83	26	26
SW-846 8081	58-89-9	gamma-BHC	111	111	1	1
SW-846 8081	76-44-8	Heptachlor	97	97	1	1
SW-846 8270	118-74-1	Hexachlorobenzene	49	81	26	26
SW-846 8260	87-68-3	Hexachlorobutadiene	21.76	113	79	79
SW-846 8270	87-68-3	Hexachlorobutadiene	43	80	26	26
SW-846 8270	77-47-4	Hexachlorocyclopentadiene	12	78	26	26
SW-846 8270	67-72-1	Hexachloroethane	44	79	26	26
SW-846 8270	193-39-5	Indeno(1,2,3-cd)pyrene	43	103	26	26
SW-846 6010/6010B	7439-89-6	Iron	57	1000	3	3
SW-846 6010	7439-89-6	Iron	0	8340	69	69
SW-846 8270	78-59-1	Isophorone	56	103	26	26
SW-846 6010	7439-92-1	Lead	0	117	69	69
SW-846 6010/6010B	7439-92-1	Lead	88	100	3	3
SW-846 6010/6010B	7439-93-2	Lithium	95	109	3	3
SW-846 6010	7439-93-2	Lithium	75	117	67	67
SW-846 6010	7439-96-5	Manganese	0	1260	69	69
SW-846 6010/6010B	7439-96-5	Manganese	0	145	3	3
SW-846 6010/6010B	7439-97-6	Mercury	93	95	2	2
SW-846 6010	7439-97-6	Mercury	22	107	50	50
SW-846 8260	75-09-2	Methylene chloride	56.24	125	79	79
SW-846 6010	7439-98-7	Molybdenum	59	101	69	69
SW-846 6010/6010B	7439-98-7	Molybdenum	80	91	3	3

Test Method	CAS No.	Analyte	Minimum Percent Recovery	Maximum Percent Recovery	No. of Samples	No. of Lab Batches
SW-846 8270	86-30-6	n-Nitrosodiphenylamine	57	127	26	26
SW-846 8270	621-64-7	n-Nitrosodipropylamine	44	85	26	26
SW-846 8270B	621-64-7	n-Nitrosodipropylamine	97	97	1	1
SW-846 8270	91-20-3	Naphthalene	45	82	26	26
SW-846 8260	91-20-3	Naphthalene	-2062	117	78	78
SW-846 6010/6010B	7440-02-0	Nickel	90	93	3	3
SW-846 6010	7440-02-0	Nickel	43	121	69	69
SW9056 OR E300.0 PREP E300.0	14797-55-8	Nitrate	91	106	15	15
SW9056 OR E300.0 PREP E300.0	14797-65-0	Nitrite	96	101	2	2
SW-846 8270	98-95-3	Nitrobenzene	50	82	26	26
SW-846 8270	87-86-5	Pentachlorophenol	6.3	72	26	26
SW-846 8270B	87-86-5	Pentachlorophenol	51	51	1	1
SW-846 8270B	108-95-2	Phenol	69	69	1	1
SW-846 8270	108-95-2	Phenol	36	83	26	26
SW-846 8270	129-00-0	Pyrene	7.3	132	26	26
SW-846 8270B	129-00-0	Pyrene	50	50	1	1
SW-846 6010	7782-49-2	Selenium	63	102	69	69
SW-846 6010/6010B	7782-49-2	Selenium	91	101	3	3
SW-846 6010	7440-22-4	Silver	57	165	69	69
SW-846 6010/6010B	7440-22-4	Silver	0	102	3	3
SW-846 6010/6010B	7440-24-6	Strontium	73	112	3	3
SW-846 6010	7440-24-6	Strontium	18	130	69	69
SW-846 8260	100-42-5	Styrene	12.99	117.2	79	79
SW-846 8260	127-18-4	Tetrachloroethene	-23290	112.5	79	79
SW-846 6010	7440-31-5	Tin	60	96	69	69
SW-846 6010/6010B	7440-31-5	Tin	84	96	3	3
SW-846 8260	108-88-3	Toluene	26.87	130.2	81	81
SW-846 8260	10061-02-6	trans-1,3-Dichloropropene	53.16	132	79	79
SW-846 8260	79-01-6	Trichloroethene	58.1	206.3	81	81
SW-846 6010	11-09-6	Uranium, Total	61	107	66	66
SW-846 6010/6010B	11-09-6	Uranium, Total	86	96	3	3
SW-846 6010/6010B	7440-62-2	Vanadium	108	111	3	3
SW-846 6010	7440-62-2	Vanadium	54	150	69	69
SW-846 8260	75-01-4	Vinyl chloride	44.8	131	79	79
SW-846 8260	1330-20-7	Xylene	-123	121.4	79	79
SW-846 6010	7440-66-6	Zinc	37	386	69	69
SW-846 6010/6010B	7440-66-6	Zinc	78	94	3	3

17.2.2 Precision

Precision is measured by evaluated both MSDs and field duplicates, as described in the following sections.

Sample Matrix Spike Duplicate Evaluation

Laboratory precision is measured through use of MSDs, as summarized in Table 32. Analytes with the highest relative percent differences (RPDs) were reviewed by comparing the highest sample result to the RFCA WRW soil AL. For analytes with RPDs greater than 35 percent, if the highest sample concentrations were sufficiently below the AL, no further action is needed. Review of analytes listed on Table 32 with a RPD of greater than 35 percent indicated decisions were not impacted.

Table 32
Sample MSD Evaluation Summary

Test Method	CAS No.	Analyte	Max RPD (%)
SW-846 8260	71-55-6	1,1,1-Trichloroethane	22.53
SW-846 8260	79-34-5	1,1,2,2-Tetrachloroethane	200.00
SW-846 8260	79-00-5	1,1,2-Trichloroethane	29.80
SW-846 8260	75-34-3	1,1-Dichloroethane	21.20
SW-846 8260	75-35-4	1,1-Dichloroethene	29.30
SW-846 8260	120-82-1	1,2,4-Trichlorobenzene	32.87
SW-846 8270	120-82-1	1,2,4-Trichlorobenzene	17.05
SW-846 8270B	120-82-1	1,2,4-Trichlorobenzene	4.88
SW-846 8260	95-50-1	1,2-Dichlorobenzene	21.50
SW-846 8260	107-06-2	1,2-Dichloroethane	20.22
SW-846 8260	78-87-5	1,2-Dichloropropane	20.46
SW-846 8260	106-46-7	1,4-Dichlorobenzene	21.27
SW-846 8270B	106-46-7	1,4-Dichlorobenzene	9.09
SW-846 8270	95-95-4	2,4,5-Trichlorophenol	200.00
SW-846 8270	88-06-2	2,4,6-Trichlorophenol	200.00
SW-846 8270	120-83-2	2,4-Dichlorophenol	200.00
SW-846 8270	105-67-9	2,4-Dimethylphenol	20.90
SW-846 8270	51-28-5	2,4-Dinitrophenol	200.00
SW-846 8270	121-14-2	2,4-Dinitrotoluene	29.01
SW-846 8270B	121-14-2	2,4-Dinitrotoluene	25.17
SW-846 8270	606-20-2	2,6-Dinitrotoluene	21.54
SW-846 8260	78-93-3	2-Butanone	51.03
SW-846 8270	91-58-7	2-Chloronaphthalene	19.82
SW-846 8270B	95-57-8	2-Chlorophenol	12.24
SW-846 8270	95-57-8	2-Chlorophenol	92.13
SW-846 8270	91-57-6	2-Methylnaphthalene	40.51
SW-846 8270	95-48-7	2-Methylphenol	17.86
SW-846 8270	88-74-4	2-Nitroaniline	28.10
SW-846 8270	91-94-1	3,3'-Dichlorobenzidine	200.00
SW-846 8081	50-29-3	4,4'-DDT	7.66
SW-846 8270	534-52-1	4,6-Dinitro-2-methylphenol	50.51
SW-846 8270	106-47-8	4-Chloroaniline	42.25

Test Method	CAS No.	Analyte	Max RPD (%)
SW-846 8260	108-10-1	4-Methyl-2-pentanone	39.47
SW-846 8270	106-44-5	4-Methylphenol	17.54
SW-846 8270B	100-02-7	4-Nitrophenol	12.59
SW-846 8270	100-02-7	4-Nitrophenol	30.77
SW-846 8270	83-32-9	Acenaphthene	90.08
SW-846 8270B	83-32-9	Acenaphthene	11.38
SW-846 8260	67-64-1	Acetone	200.00
SW-846 8081	309-00-2	Aldrin	5.18
SW-846 6010	7429-90-5	Aluminum	200.00
SW-846 6010/6010B	7429-90-5	Aluminum	46.32
SW-846 8270	120-12-7	Anthracene	72.22
SW-846 6010	7440-36-0	Antimony	34.48
SW-846 6010/6010B	7440-36-0	Antimony	8.45
SW-846 8082	12674-11-2	Aroclor-1016	30.99
SW-846 8082	11096-82-5	Aroclor-1260	25.51
SW-846 6010	7440-38-2	Arsenic	13.33
SW-846 6010/6010B	7440-38-2	Arsenic	2.04
SW-846 6010/6010B	7440-39-3	Barium	6.28
SW-846 6010	7440-39-3	Barium	34.38
SW-846 8260	71-43-2	Benzene	19.35
SW-846 8270	56-55-3	Benzo(a)anthracene	85.71
SW-846 8270	50-32-8	Benzo(a)pyrene	89.23
SW-846 8270	205-99-2	Benzo(b)fluoranthene	52.78
SW-846 8270	207-08-9	Benzo(k)fluoranthene	84.30
SW-846 8270	65-85-0	Benzoic Acid	200.00
SW-846 8270	100-51-6	Benzyl Alcohol	21.43
SW-846 6010	7440-41-7	Beryllium	32.10
SW-846 6010/6010B	7440-41-7	Beryllium	3.39
SW-846 8270	111-44-4	bis(2-Chloroethyl)ether	23.08
SW-846 8270	39638-32-9	bis(2-Chloroisopropyl)ether	17.07
SW-846 8270	117-81-7	bis(2-Ethylhexyl)phthalate	200.00
SW-846 8260	75-27-4	Bromodichloromethane	24.19
SW-846 8260	75-25-2	Bromoform	28.29
SW-846 8260	74-83-9	Bromomethane	32.10
SW-846 8270	85-68-7	Butylbenzylphthalate	21.14
SW-846 6010	7440-43-9	Cadmium	32.84
SW-846 6010/6010B	7440-43-9	Cadmium	2.60
SW-846 8260	75-15-0	Carbon Disulfide	29.51
SW-846 8260	56-23-5	Carbon Tetrachloride	35.94
SW-846 8260	108-90-7	Chlorobenzene	53.22
SW-846 8260	75-00-3	Chloroethane	30.55
SW-846 8260	67-66-3	Chloroform	142.96
SW-846 8260	74-87-3	Chloromethane	51.38
SW-846 6010	7440-47-3	Chromium	56.66
SW-846 6010/6010B	7440-47-3	Chromium	16.13
SW-846 8270	218-01-9	Chrysene	42.35
SW-846 8260	10061-01-5	cis-1,3-Dichloropropene	20.00
SW-846 6010	7440-48-4	Cobalt	59.87

Test Method	CAS No.	Analyte	Max RPD (%)
SW-846 6010/6010B	7440-48-4	Cobalt	74.29
SW-846 6010	7440-50-8	Copper	200.00
SW-846 6010/6010B	7440-50-8	Copper	4.30
SW-846 8270	84-74-2	Di-n-butylphthalate	27.20
SW-846 8270	117-84-0	Di-n-octylphthalate	21.88
SW-846 8270	53-70-3	Dibenz(a,h)anthracene	34.15
SW-846 8270	132-64-9	Dibenzofuran	53.52
SW-846 8260	124-48-1	Dibromochloromethane	21.48
SW-846 8081	60-57-1	Dieldrin	6.06
SW-846 8270	84-66-2	Diethylphthalate	24.46
SW-846 8270	131-11-3	Dimethylphthalate	22.56
SW-846 8081	72-20-8	Endrin	6.25
SW-846 8260	100-41-4	Ethylbenzene	60.65
SW-846 8270	206-44-0	Fluoranthene	183.68
SW-846 8270	86-73-7	Fluorene	74.63
SW-846 8081	58-89-9	gamma-BHC	13.46
SW-846 8081	76-44-8	Heptachlor	3.05
SW-846 8270	118-74-1	Hexachlorobenzene	24.00
SW-846 8270	87-68-3	Hexachlorobutadiene	17.86
SW-846 8260	87-68-3	Hexachlorobutadiene	45.58
SW-846 8270	77-47-4	Hexachlorocyclopentadiene	63.74
SW-846 8270	67-72-1	Hexachloroethane	17.39
SW-846 8270	193-39-5	Indeno(1,2,3-cd)pyrene	63.49
SW-846 6010/6010B	7439-89-6	Iron	162.34
SW-846 6010	7439-89-6	Iron	200.00
SW-846 8270	78-59-1	Isophorone	16.39
SW-846 6010	7439-92-1	Lead	200.00
SW-846 6010/6010B	7439-92-1	Lead	3.35
SW-846 6010/6010B	7439-93-2	Lithium	3.11
SW-846 6010	7439-93-2	Lithium	11.06
SW-846 6010	7439-96-5	Manganese	200.00
SW-846 6010/6010B	7439-96-5	Manganese	30.41
SW-846 6010	7439-97-6	Mercury	58.06
SW-846 6010/6010B	7439-97-6	Mercury	3.11
SW-846 8260	75-09-2	Methylene chloride	26.47
SW-846 6010	7439-98-7	Molybdenum	15.22
SW-846 6010/6010B	7439-98-7	Molybdenum	1.26
SW-846 8270	86-30-6	n-Nitrosodiphenylamine	26.42
SW-846 8270	621-64-7	n-Nitrosodipropylamine	15.79
SW-846 8270B	621-64-7	n-Nitrosodipropylamine	53.03
SW-846 8270	91-20-3	Naphthalene	54.09
SW-846 8260	91-20-3	Naphthalene	108.55
SW-846 6010/6010B	7440-02-0	Nickel	6.25
SW-846 6010	7440-02-0	Nickel	20.41
SW9056 OR E300.0 PREP E300.0	14797-55-8	Nitrate	6.70
SW9056 OR E300.0 PREP E300.0	14797-65-0	Nitrite	1.00
SW-846 8270	98-95-3	Nitrobenzene	17.48
SW-846 8270B	87-86-5	Pentachlorophenol	21.05

Test Method	CAS No.	Analyte	Max RPD (%)
SW-846 8270	87-86-5	Pentachlorophenol	200.00
SW-846 8270	108-95-2	Phenol	21.54
SW-846 8270B	108-95-2	Phenol	17.22
SW-846 8270B	129-00-0	Pyrene	7.69
SW-846 8270	129-00-0	Pyrene	167.66
SW-846 6010	7782-49-2	Selenium	14.69
SW-846 6010/6010B	7782-49-2	Selenium	2.96
SW-846 6010/6010B	7440-22-4	Silver	1.94
SW-846 6010	7440-22-4	Silver	200.00
SW-846 6010	7440-24-6	Strontium	54.26
SW-846 6010/6010B	7440-24-6	Strontium	14.01
SW-846 8260	100-42-5	Styrene	58.80
SW-846 8260	127-18-4	Tetrachloroethene	22.19
SW-846 6010	7440-31-5	Tin	12.50
SW-846 6010/6010B	7440-31-5	Tin	1.20
SW-846 8260	108-88-3	Toluene	33.96
SW-846 8260	10061-02-6	trans-1,3-Dichloropropene	18.97
SW-846 8260	79-01-6	Trichloroethene	940.46
SW-846 6010/6010B	11-09-6	Uranium, Total	6.25
SW-846 6010	11-09-6	Uranium, Total	13.59
SW-846 6010/6010B	7440-62-2	Vanadium	15.00
SW-846 6010	7440-62-2	Vanadium	68.97
SW-846 8260	75-01-4	Vinyl chloride	38.03
SW-846 8260	1330-20-7	Xylene	39.97
SW-846 6010	7440-66-6	Zinc	67.90
SW-846 6010/6010B	7440-66-6	Zinc	16.47

Field Duplicate Evaluation

Field duplicate results reflect sampling precision, or overall repeatability of the sampling process. The frequency of field duplicate collection should exceed 1 field duplicate per 20 real samples, or 5 percent. Table 33 indicates field duplicate frequencies were inadequate for pesticides (SW846 8081), and herbicides (SW846 8151A). The sample dataset for this project includes different projects, each with their own DQA. These individual DQAs have not been considered when reporting on this OPWL dataset. It is probable that other field duplicate samples were taken that are not included in this DQA. While specific OPWL field duplicate results are not adequate, programmatically, the field duplicate frequency goal of five percent is being considered.

Table 33
Field Duplicate Sample Frequency Summary

Test Method	No. of Real Samples	No. of Duplicate Samples	% Duplicate Samples
ALPHA SPEC	227	10	4.41%
GAMMA SPECTROSCOPY	524	30	5.73%
SW-846 6010/6010B	460	23	5.00%

Test Method	No. of Real Samples	No. of Duplicate Samples	% Duplicate Samples
SW-846 6200	93	8	8.60%
SW-846 8081	2	0	0.00%
SW-846 8082	28	3	10.71%
SW-846 8151A	2	0	0.00%
SW-846 8260	461	27	5.86%
SW-846 8270/8270B	151	14	9.27%
SW9056 OR E300.0 PREP E300.0	63	6	9.52%

The field duplicate RPD values indicate how much variation exists in the field duplicate analyses. EPA data validation guidelines state "there are no required review criteria for field duplicate analyses comparability" (EPA 1994b). For the DQA, the highest RPD values were reviewed (Table 34). For this project, project decisions were not impacted.

Table 34
RPD Evaluation Summary

Lab Code	Test Method	Analyte	Max RPD (%)
ESTLDEN	SW-846 8270	Acenaphthene	2.08
ESTLDEN	SW-846 6010	Aluminum	137.35
STLDEN	SW-846 6010/6010B	Aluminum	59.38
URS	GAMMA SPECTROSCOPY	Americium-241	152.89
GEL	ALPHA SPEC	Americium-241	199.99
ESTLDEN	ALPHA SPEC	Americium-241	106.71
ESTLDEN	SW-846 8270	Anthracene	3.77
ESTLDEN	SW-846 6010	Arsenic	52.99
URS	SW-846 6200	Arsenic	0.00
STLDEN	SW-846 6010/6010B	Arsenic	30.59
STLDEN	SW-846 6010/6010B	Barium	83.97
URS	SW-846 6200	Barium	95.01
ESTLDEN	SW-846 6010	Barium	134.73
ESTLDEN	SW-846 8270	Benzo(a)anthracene	16.67
ESTLDEN	SW-846 8270	Benzo(a)pyrene	8.33
ESTLDEN	SW-846 8270	Benzo(b)fluoranthene	14.63
ESTLDEN	SW-846 8270	Benzo(k)fluoranthene	4.88
ESTLDEN	SW-846 6010	Beryllium	57.89
STLDEN	SW-846 6010/6010B	Beryllium	55.00
ESTLDEN	SW-846 6010	Cadmium	184.62
ESTLDEN	SW-846 6010	Chromium	85.71
STLDEN	SW-846 6010/6010B	Chromium	90.16
ESTLDEN	SW-846 8270	Chrysene	18.87
ESTLDEN	SW-846 6010	Cobalt	86.96
STLDEN	SW-846 6010/6010B	Cobalt	64.15
STLDEN	SW-846 6010/6010B	Copper	70.68

Lab Code	Test Method	Analyte	Max RPD (%)
URS	SW-846 6200	Copper	60.53
ESTLDEN	SW-846 6010	Copper	104.76
ESTLDEN	SW-846 8270	Dibenz(a,h)anthracene	46.15
ESTLDEN	SW-846 8270	Dibenzofuran	2.99
ESTLDEN	SW-846 8270	Fluoranthene	131.88
ESTLDEN	SW-846 8270	Fluorene	0.00
ESTLDEN	SW-846 8270	Indeno(1,2,3-cd)pyrene	0.00
ESTLDEN	SW-846 6010	Iron	93.71
URS	SW-846 6200	Iron	26.34
STLDEN	SW-846 6010/6010B	Iron	23.49
STLDEN	SW-846 6010/6010B	Lead	139.01
URS	SW-846 6200	Lead	38.07
ESTLDEN	SW-846 6010	Lead	94.74
ESTLDEN	SW-846 6010	Lithium	113.36
STLDEN	SW-846 6010/6010B	Lithium	18.71
STLDEN	SW-846 6010/6010B	Manganese	68.91
URS	SW-846 6200	Manganese	3.02
ESTLDEN	SW-846 6010	Manganese	133.33
ESTLDEN	SW-846 6010	Mercury	47.13
STLDEN	SW-846 6010/6010B	Mercury	104.00
ESTLDEN	SW-846 6010	Molybdenum	0.00
ESTLDEN	SW-846 6010	Nickel	110.08
STLDEN	SW-846 6010/6010B	Nickel	5.31
URS	SW-846 6200	Nickel	0.00
STLDEN	SW9056 OR E300.0 PREP E300.0	Nitrate	38.89
ESTLDEN	SW9056 OR E300.0 PREP E300.0	Nitrate	21.54
ESTLDEN	ALPHA SPEC	Plutonium-239/240	140.78
GEL	ALPHA SPEC	Plutonium-239/240	199.98
ESTLDEN	SW-846 8270	Pyrene	134.73
ESTLDEN	SW-846 6010	Silver	34.04
ESTLDEN	SW-846 6010	Strontium	88.37
URS	SW-846 6200	Strontium	14.53
STLDEN	SW-846 6010/6010B	Strontium	116.64
ESTLDEN	SW-846 6010	Tin	3.08
ESTLDEN	SW-846 6010	Uranium, Total	148.12
ESTLDEN	ALPHA SPEC	Uranium-234	5.53
GEL	ALPHA SPEC	Uranium-234	72.70
GEL	ALPHA SPEC	Uranium-238	32.59
URS	GAMMA SPECTROSCOPY	Uranium-238	74.05
ESTLDEN	ALPHA SPEC	Uranium-238	1.34
ESTLDEN	SW-846 6010	Vanadium	107.69
URS	SW-846 6200	Vanadium	27.62

Lab Code	Test Method	Analyte	Max RPD (%)
STLDEN	SW-846 6010/6010B	Vanadium	77.12
URS	SW-846 8260	Xylene	163.64
URS	SW-846 6200	Zinc	37.81
STLDEN	SW-846 6010/6010B	Zinc	50.47
ESTLDEN	SW-846 6010	Zinc	68.46

17.2.3 Completeness

Based on original project DQOs, a minimum of 25 percent of ER Program analytical (and radiological) results must be formally verified and validated. Of that percentage, no more than 10 percent of the results may be rejected, which ensures that analytical laboratory practices are consistent with quality requirements. The number and percentage of validated records (codes without "1"), the number and percentage of verified records (codes with "1"), and the percentage of rejected records for each analyte group for this project are listed in Table 35.

Thirty-one records out of 13,808 validated records were rejected. Ten anion, seven metal, and fourteen SVOC records were rejected. None of the rejected records affected project decisions. For this project, 33.65 percent of the analyses were validated. This is greater than the overall ER Program V&V goal of 25 percent.

17.2.4 Sensitivity

Reporting limits, in units of ug/kg for organics, mg/kg for metals, and pCi/g for radionuclides, were compared with RFCA WRW soil ALs. Adequate sensitivities of analytical methods were attained for all COCs that affect remediation decisions. "Adequate" sensitivity is defined as an RL less than an analytes associated AL, typically less than one-half the AL.

17.3 Summary of Data Quality

Information regarding V&V, uncertainty, PARCCS and other criteria were examined with respect to project decisions. Data collected and used for IHSS Group 000-2 are adequate for decision making.

Table 35
Validation and Verification Summary

Validation Qualifier Code	Total No. of Records	No. of Alpha Spectroscopy Records	No. of Gamma Spectroscopy Records	No. of SW-846 6010/6010B Records	No. of SW-846 6200 Records	No. of SW-846 8081 Records	No. of SW-846 8082 Records	No. of SW-846 8260 Records	No. of SW-846 8270/8270B Records	No. of SW-9056 or E300.0 Prep E300.0
No V&V	212	5	113	0	18	0	0	73	3	0
1	49	10	15	1	15	0	0	0	8	0
J	932	6	0	875	23	0	1	23	0	4
J1	1659	12	0	1484	60	0	0	50	13	40
JB	84	0	0	0	0	0	0	79	5	0
JB1	90	0	0	0	0	0	0	90	0	0
R	6	0	0	5	0	0	0	0	0	1
R1	25	0	0	2	0	0	0	0	14	9
U	2	0	0	0	0	0	0	2	0	0
U1	2	0	0	0	0	0	0	2	0	0
UJ	499	3	0	207	36	0	0	236	14	3
UJ1	899	0	0	387	35	0	0	395	75	7
V	12285	351	489	2780	379	0	13	5419	2854	0
V1	24286	753	970	4739	1134	34	182	11560	4910	4
Total	41030	1140	1587	10480	1700	34	196	17929	7896	68
Validated	13808	360	489	3867	438	0	14	5759	2873	8
% Validated	33.65%	31.58%	30.81%	36.90%	25.76%	0.00%	7.14%	32.12%	36.39%	11.76%
Verified	27010	775	985	6613	1244	34	182	12097	5020	60
% Verified	65.83%	67.98%	62.07%	63.10%	73.18%	100.00%	92.86%	67.47%	63.58%	88.24%
Rejected	31	0	0	7	0	0	0	0	14	10
% Rejected	0.08%	0.00%	0.00%	0.07%	0.00%	0.00%	0.00%	0.00%	0.18%	14.71%

Validated codes: J, V, JB, UJ
Verified codes: 1, J1, V1, JB1, UJ1

18.0 CONCLUSIONS

Results of the accelerated action justify No Further Accelerated Action (NFAA) for IHSS Group 000-2. Justification is based on the following:

- Reported and suspected leaks were addressed in accordance RFCA Attachment 14 as previously described in Section 1.2.
- The potential sources of contamination existing in soil at concentrations greater than RFCA WRW soil ALs were excavated and removed in 11 locations and include the following:
  - 500 Area: Three excavations at Building 559 removed americium-241 and plutonium-239/240 contamination originally identified in soil characterization samples CD43-054, CD44-005, and CD44-009.
  - 700 Area: Seven excavations were required to remove contaminated soils in the 700 Area. Soil was excavated from two locations west of Building 771 to removed SVOC hotspots identified in soil characterization sampling locations CE47-012 and CE48-012. The tanks located southeast of Building 774 were removed and radionuclide contaminated soil from the area was removed. One excavation below the slab of Building 776 was required to remediate two radionuclide hotspots identified in characterization soil samples CF46-018 and CF46-062. One excavation northeast of Building 779 (near the SEP) was required to remove radionuclide contamination identified in soil characterization sample CJ46-057. This hotspot occurred because liquid leaked from the end of the pipe during removal operations. Soil was excavated from two locations in the Tank 207 area to remove radionuclide contamination identified in soil characterization samples CH47-000 and CH47-001.
  - Eastern OPWL Area: One excavation was required to remove radionuclide contamination identified in soil characterization sample CW46-001 ("Pond B-1 Dam Hotspot"). The hotspot was removed during the IHSS Group NE-1 (Ponds B-1, B-2, and B-3) sediment and soil removal action.
- Results of confirmation soil samples collected from the previously described excavations indicated that all residual contaminant activities and concentrations were less than RFCA WRW soil ALs except for 3 sampling locations at Tanks 14 and 16 located southeast of Building 774.
- Analytical results of characterization and confirmation soil sampling indicate that activities and concentrations of residual contaminants are less than RFCA WRW soil ALs with the exception of seventeen locations that contained contaminants at activities or concentrations greater than RFCA WRW soil ALs. However, these locations did not require remediation based on RFCA and are shown on Figure 16 and described as follows:
  - 100/400 Area (2 locations): Soil characterization samples BV38-002 contained benzo(a)pyrene at a concentration of 3,700 ug/kg (WRW AL equals 3,470 ug/kg) at a depth of 10 to 11 ft bgs. Soil characterization sample BW38-004 contained arsenic at a concentration of 23 mg/kg (WRW AL equals 22.2 mg/kg) at a depth

of 4.5 to 6.5 ft bgs. Because these two nonradionuclide contaminants were detected at depths greater than 6 inches from the surface, remediation was not required.

- 700 Area (13 locations): Arsenic was detected at concentrations greater than the RFCA WRW soil AL at four sampling locations and americium-241 and/or plutonium-239/240 was detected at activities greater than the RFCA WRW soil ALs at nine locations.
- Two sampling locations, CI46-001 and CJ46-DR01 (Building 779 Area), contained arsenic in subsurface soil at concentrations of 25.0 and 30.9 mg/kg, respectively. These two locations did not require remediation because the nonradionuclide contaminants were detected at depths greater than 6 inches from the surface. The sample interval containing the arsenic exceedance in CI46-001 was 3.5 to 4.5 ft bgs and the sample interval for CJ46-DR01 was at 7.5 to 7.51 ft bgs.
- Two sampling locations, CJ48-000 and CJ48-001 (Building 771/774 Area north of the SEP), contained arsenic in the surface soil interval at concentrations of 36.3 and 31.1 mg/kg, respectively. These locations did not require remediation because they did not exceed the RFCA Tier I soil ALs.
- Four sampling locations, CF46-065 (Building 776/777/778 Area), CH47-051 (Tank 207 Area), CJ46-000 and CJ46-002 (Building 779 Area), contained plutonium-239/240 ranging from 53.363 pCi/g to 223 pCi/g at depths greater than 3-ft below surface at activities less than 1 nCi/g; therefore, remediation of these locations was not required.
- Five sampling locations, CG48-008, CG48-009, CH48-043, CH48-044, and CH48-045, located at Building 774, contained americium-241 and/or plutonium-239/240 ranging from 116.4 pCi/g to 1,220 pCi/g for americium-241 and from 116.4 pCi/g to 2,109 pCi/g for plutonium-239/240. These hot spots were all at depths greater than 6-ft below the final grade surface at activities less than 3 nCi/g; therefore, remediation of these locations was not required.
- 800 Area (1 location): Soil characterization sample location CF33-010 contained arsenic at a concentration of 25.5 mg/kg. This location did not require remediation because the nonradionuclide contamination was greater than 6 inches below surface (arsenic exceedance was present at 5 ft bgs)
- Eastern OPWL Area (1 location): Soil characterization sample location CQ44-003 contained plutonium-239/240 at an activity of 50.6 pCi/g. This location did not require remediation because the contamination was present at a depth greater than 3-ft below the surface (12 ft bgs).

- All valve pits and manways associated with OPWL were removed, thereby reducing potential sources of future contaminant releases.
- Approximately 17,000 ft of OPWL were excavated and disposed of from the Site, thereby eliminating more than half of the OPWL system and potential future releases of contamination.
- Remaining OPWL (approximately 14, 700 ft) was tapped, drained, and grouted, further reducing potential future releases of contamination.

- All tanks associated with OPWL were removed and disposed of.
- In accordance with the SSRS, subsurface soil in the area is not subject to significant erosion.
- Backfilling of excavations and regrading has been completed. Final grading of areas containing OPWL will be conducted as part of other projects.

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Appendix A
Correspondence

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
ER REGULATORY CONTACT RECORD

Date/Time: November 20, 2003/ 3:00 p.m.

Site Contact(s): Gary J. Carnival & Annette Primrose
Phone: X2258 & 4385 respectively

Regulatory Contact: Carl Spreng & David Kruchek
Phone: 303-692-3358 & 303-692-3328 respectively

Agency: CDPH&E

Purpose of Contact: Document agreement on soil remediation for three OPWL sample locations which exceed WRW action levels.

Discussion

OPWL sample location CH47-000 analytical results indicate an exceedance at interval A. OPWL sample location CH47-001 analytical results indicate exceedances at intervals A, B, and C. Both of these locations are on the north side of Bldg 777 and are associated with pipe lines between Tank 207 and Building 774. OPWL sample location CJ46-005, located west of 207A Pond and southeast of 207C pond, analytical results indicate an exceedance at interval C. The analytical results for all three locations exceed the WRW action level of 50 pCi/gram and require soil remediation. None of the sample locations exceeded the RFCA Attachment 14 action levels. No initial stepout sampling will be performed, rather, stepout sampling will be performed in conjunction with the removal of contaminated soil. Soil will be removed to the interval depth required by excavating approximately 2' perpendicular to the subject sample location and 2' parallel to the subject sample location. Four characterization samples, one each at opposite sides of the parallel excavation and one each at opposite sides of the perpendicular excavation, will be taken after the removal of soil down to the bottom of the deepest interval registering an exceedance. The samples will be taken immediately adjacent to the excavation and at the same intervals as the original intervals. If any of the new characterization samples still indicate an exceedance, additional soil will be removed consistent with the above process until analytical results indicate contamination levels are less than WRW action levels. Both Carl and David agreed with this approach to soil remediation.

Two OPWL sample locations, CW46-000 and CW46-001, analytical results indicate exceedances at intervals A and B. These two locations are on the east face of the B-1 Dam (west boundary of the B-2 Pond) and are covered with rip-rap and are approx. 2 linear feet from the existing water level. Remediation of these two locations would be extremely difficult at this time and would require removal of rip-rap, potentially damaging the integrity of the dam structure. It is ER's position that remediation of these two locations be completed in conjunction with the remediation of B-2 Pond. Both Carl and David also agreed with this position.

Contact Record Prepared By: Gary J. Carnival

Required Distribution

S. Bell, RFFO
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S. Surovchak, RFFO
K. Wiemelt, K-H RISS
C. Zahm, K-H

Additional Distribution
(choose names as applicable):

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
ER REGULATORY CONTACT RECORD

Date/Time: December 12, 2003/ 11:45 p.m.

Site Contact(s): Gary J. Carnival & Annette Primrose
Phone: 303-966-2258 & 303-966-4385 respectively

Regulatory Contact: David Kruchek, Carl Spreng, Harlen Ainscough
Phone: 303-692-3328, 303-692-3358, 303-692-3337 respectively

Agency: CDPH&E

Purpose of Contact: Consolidate agreements on OPWL characterization sampling for 528 Pit, IHSS 500-3

Discussion

Three of the four planned OPWL characterization samples have been completed. Sample location CD43-013 is on the north side of 528 Pit targeting the side of the pit where the OPWL pipe entered the pit from Bldg 559. Sample location CE43-000 is on the east side where the discharge pipe exited the pit. These were collected as planned. Sample location CE43-003, a biased sample location targeting the pit tank and sump pit inside the 528 Pit , was moved outside the foundation of the 528 Pit to target soil outside the pit in the depth area of the sump.

Because of this move, a fourth location, CE43-002, was relocated to target the floor of the pit. David, Carl, and Harlen all agreed with sampling the soil beneath the floor of 528 Pit. Harlen cited the 500-3 SAP and indicated that this sample location be assigned to the bottom of the sump pit since, if a leak had occurred, the liquid would have migrated to the sump pit prior to being pumped back into the process waste system. Sample location CE43-002 will be assigned to the sump pit as targeted in the 500-3 SAP. Sample intervals A and B will be taken at this location and the full suite of analytes originally planned for CE43-003 will be taken at both of the intervals.

Contact Record Prepared By: Gary J. Carnival

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Additional Distribution

K. Dorr, K-H Building 559

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
ER REGULATORY CONTACT RECORD

Date/Time:	January 8, 2004/ 1:00 p.m.
Site Contact(s):	Gary J. Carnival
Phone:	303-966-2258
Regulatory Contact:	David Kruchek
Phone:	303-692-3328
Agency:	CDPH&E
Purpose of Contact:	Arrive at an agreement on foaming/grouting OPWL

Discussion

Discussed several options regarding the foaming/grouting of OPWL lines that are below 3 feet in depth which, per RFCA Attachment 14, do not have to be removed and will be left in place. After discussion, an agreement was reached to use the same foam that has been approved for use on site and already used in several applications. BASF AutoFroth 9453 (the foam used for foaming the Building 991 tunnels) is the foam that will be used for the OPWL remediation project. This foam is expected to be very durable, to have a long life, and is not expected to degrade or absorb water over time.

The Site will foam the ends of the OPWL lines to remain in place to a minimum distance of 65 feet (130 feet of the line in both directions), using an expendable line to place the foam. The vendor has committed to foam beyond 65 feet to the maximum distance possible given the design constraints of the foaming equipment. The expendable line will be inserted into the existing OPWL line to the maximum extent possible and the foam will be pushed in until it comes out the end of the OPWL around the injection point. The injection line will not be pulled out and would be cut off and left in the OPWL. If pumping was stopped for any reason prior to foam coming out the end of the OPWL, then another line would be used to place the foam in the OPWL until the foam comes out of the end of the OPWL. The foam will not displace any liquid or sludge and will prevent movement of groundwater into or through the OPWL.

This contact record applies to OPWL lines in the outside industrial area and does not apply to OPWL lines that are under building slabs/foundations. Because these lines are predominantly more dense per area than the OPWL in the industrial area, David Kruchek requested that we use epoxy to fill these OPWL pipes. Further discussions will be scheduled and a separate contact record will be developed to address OPWL lines under building slabs/foundations.

Contact Record Prepared By: Gary J. Carnival

Required Distribution

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S. Surovchak, RFFO
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C. Zahm, K-H

Additional Distribution
Harry Foreman, Envirocon

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
ER REGULATORY CONTACT RECORD

Date/Time:	February 5, 2004/ 11:00 a.m.
Site Contact(s):	Gary J. Carnival
Phone:	303-966-2258
Regulatory Contact:	David Kruchek
Phone:	303-692-3328
Agency:	CDPH&E
Purpose of Contact:	Agreement on Am/Pu Ratio for T207 area and backfill authorization

Discussion

During the initial remediation of soil around CH47-001, north of the old Tank 207 site, and subsequent confirmatory sampling, a field screen gamma spec measurement of the "B" interval on the north side of the excavation resulted in 237 pCi/g Am241. This same sample was sent to an offsite laboratory for alpha spec analysis to determine the actual Pu and Am content of the sample. The alpha spec analysis indicated 388 pCi/g Am241 and 99.3 pCi/g Pu239. This would suggest a Am241 to Pu239 ratio of roughly .25 as opposed to 5.7 and that the rad contamination present in the soil in this area is mostly Am and not Pu.

Given these data and historical evidence that the ratio can range from .25 to 1.5 in this area, David authorized the use of a ratio of 2 to be conservative and provide a higher level of confidence that the 50 pCi/g Pu239 action level will not be exceeded. David also authorized the project to backfill an excavation (at risk to the project) as long as the gamma spec measurement indicates 20 or less pCi/g Am241. When using this authority to backfill, we agreed that an information e-mail would be sent to him and Carl Spreng providing the details of the decision to backfill. If the gamma spec measurement indicates greater than 20 pCi/g Am241, a phone call discussion or an exchange of e-mails between the field project manager and the State will be completed and an agreement reached before backfilling can be initiated. We agreed that for the large excavation north of the old Tank 207 site, when remediation is complete and field screen gamma spec measurements indicate that all radiological action levels have been satisfied, ER will take confirmation samples of intervals "A", "B", and "C", on all four sides of the excavation and submit all 12 samples as confirmation samples for offsite analysis. This will provide 12 more data points that can be used to refine the Am to Pu ratio in this area.

Contact Record Prepared By: Gary J. Carnival

Required Distribution

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T. Rehder, USEPA
S. Serreze, RISS
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Contact Record 8/27/03
Rev. 8/27/03

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Building:

Author: Dyan Foss

Regulatory Contact: Dave Krucheck

Date Range: From To

Keyword:

Submit Query Clear Form

<< < > >> (7 of 13)

Number	1249
Date and Time	5/27/2004

Primary Site Contact	Dyan Foss	Primary Reg Contact	Dave Krucheck
SecondaySite Contact		Seconday Reg Contact	

Unit	Building	Site Phone	Agency
	881		CDPHE

Purpose

Building 881, Room 11, Old Process Waste Line Pipe penetration

Discussion

This contact record is to document the consultative process and CDPHE approval of the disposition of a piece of old process waste line that penetrates into Room 11 in Building 881. Room 11 is the lowest level of Building 881 and is currently below grade. During the demolition of Building 881, this area will have already been backfilled. After the restoration of the B881 area to final grade, Room 11 will be approximately 15 to 20 feet below grade. In Room 11, there is a penetration through the wall to the exterior soil that contains a piece of old process waste line. This pipe does not actually run through Room 11, but actually runs through the soil between the inner basement wall and the outer building

wall, and was cut off outside B881 and plugged with epoxy. Since the pipe is currently located in the soil approximately 10 feet below current grade, will be 15 to 20 feet below final grade, and has contamination of 600 dpm; it was determined that excavation of this OPWL from between the building walls was not necessary, but that plugging the interior end of the pipe with at least a foot of grout would be sufficient prior to backfilling the room. In addition, the pipe and its location will be annotated in the B881 Closeout Report.

Follow-Up

Please contact Doug Schlagel at extension 4175 for assistance with this page.

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
ENVIRONMENTAL RESTORATION
REGULATORY CONTACT RECORD

Date/Time: July 21, 2004

Site Contact(s): Susan Serreze
Phone: 303-966-2677

Regulatory Contact: Carl Spreng
Phone: 303-692-3358

Agency: CDPHE

Purpose of Contact: IHSS Group 700-2

Discussion

A telephone discussion was conducted on July 21, 2004 between Carl Spreng of CDPHE and Susan Serreze in RISS to discuss OPWL in IHSS Group 700-2. The OPWL sampling locations will be dispositioned as part of IHSS Group 000-2 instead of 700-2. The 700-2 Closeout Report will include a statement referring the IHSS Group 700-2 OPWL to IHSS Group 000-2.

Distribution:

M. Aguilar, USEPA
H. Ainscough, CDPHE
S. Gunderson, CDPHE
D. Kruchek, CDPHE
E. Pottorff, CDPHE
C. Spreng, CDPHE
L. Kimmel, USEPA
N. Castenada, RFFO

L. Brooks, K-H ESS
L. Butler, K-H RISS
R. Davis, K-H RISS
C. Deck, K-H Legal
G. Carnival – K-H RISS
D. Mayo, K-H RISS
J. Mead, K-H ESS
S. Nesta, K-H RISS
L. Norland, K-H RISS
K. North, K-H ESS
A. Primrose, K-H RISS
D. Shelton, K-H
J. Walstrom, K-H
K. Wiemelt, K-H RISS

K. Griggs, K-H Team
G. Kelly, K-H Team
G. Pudlik, K-H Team
S. Serreze, K-H Team
E. Woodland, K-H Team
Administrative Record

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
ER REGULATORY CONTACT RECORD

Date/Time:	April 7, 2005, 2:30		
Site Contact(s):	Annette Primrose	Mike Swartz	Karen Wiemelt
Phone:	966-4385	966-5107	966-9883
Regulatory Contact:	David Kruchek		
Phone:	303 692-3328		
Agency:	CDPHE		
Purpose of Contact:	B883 Excavated Area Backfill		

Discussion

The slab was removed from B883 area along with a minimum of one foot of gravel that underlaid the slab. There was no observed staining on the slab or in the gravel. Samples were collected as possible from the soil where exposed in the area underneath the B883 slab. In addition, samples were collected of the water in the excavation, and also the mud where present with the gravel. All results were below action levels, however low levels of VOCs were present along the east side of the building and in some basement samples, and a historic gasoline spill was identified underneath asphalt. The gasoline spill area was also below action levels. Uranium was present slightly above background, but well below action levels.

Footing drains and foundation drains outside of the building were removed. All OPWL were removed. All NPWL except a small section was removed. This will be removed prior to backfill in this area and as part of the 000-4 NPWL project.

The southwest corner of the tunnel from 883 to 881 was left in-place for support. A few other structures were left in place because of the depth (16 feet or greater) and the thickness of the remaining concrete (4 feet plus). However, all contaminated structures were removed as indicated by in-process radiological survey and corroborated by the fact that neither demolition equipment nor personnel were found to be contaminated during the project except in one instance at the Loewy Rolling Mill east support. This area was removed during demolition. Structures remaining in-place will be GPS surveyed prior to backfill.

Most of the column supports that were present under the slab are left in place, but the columns were removed. The pit under the 2,000 ton press was removed, but the supporting pad under the pit remains in-place. This feature is about 4 foot thick and is sitting on bedrock at a depth of 18 feet and greater.

In addition, the supporting pad under the Loewy Rolling Mill was left in place where present deeper than 16 feet below grade. The floor slab that was present immediately above the pad was removed and appropriately dispositioned.

Based on this information, backfill will be allowed at risk everywhere except at the NPWL. Backfill at the NPWL will take place after NPWL removal is completed. Gravel removed from the excavation will be used as backfill material.

Contact Record Prepared By: Annette Primrose

Required Distribution:		Additional Distribution:
M. Aguilar, USEPA	D. Mayo, K-H RISS	M. Swartz, K-H RISS
H. Ainscough, CDPHE	J. Mead, K-H ESS	D. Clark, K-H RISS
S. Bell, DOE-RFPO	S. Nesta, K-H RISS	J. Hammack, K-H RISS
J. Berardini, K-H	L. Norland, K-H RISS	G. Carnival, K-H RISS
B. Birk, DOE-RFPO	K. North, K-H ESS	G. Kelly, K-H RISS
L. Brooks, K-H ESS	E. Pottorff, CDPHE	
L. Butler, K-H RISS	A. Primrose, K-H RISS	
G. Carnival, K-H RISS	M. Roy, DOE-RFPO	_____
N. Castaneda, DOE-RFPO	R. Schassburger, DOE-RFPO	_____
C. Deck, K-H Legal	S. Serreze, K-H RISS	_____
N. Demos, SSOC	D. Shelton, K-H ESS	_____
S. Gunderson, CDPHE	C. Spreng, CDPHE	_____
M. Keating, K-H RISS	S. Surovchak, DOE-RFPO	_____
G. Kleeman, USEPA	J. Walstrom, K-H RISS	_____
D. Kruchek, CDPHE	K. Wiemelt, K-H RISS	_____
J. Legare, DOE-RFPO	C. Zahm, K-H Legal	_____

ROCKY FLATS ENVIRONMENTAL TECHNOLOGY SITE
ER REGULATORY CONTACT RECORD

Date/Time:	April 25, 2005, 0730
Site Contact(s):	Mike Swartz
Phone:	966-5107
Regulatory Contact:	David Kruchek
Phone:	303 692-3328
Agency:	CDPHE

Purpose of Contact: B444 Basement Excavated Area Backfill

Discussion

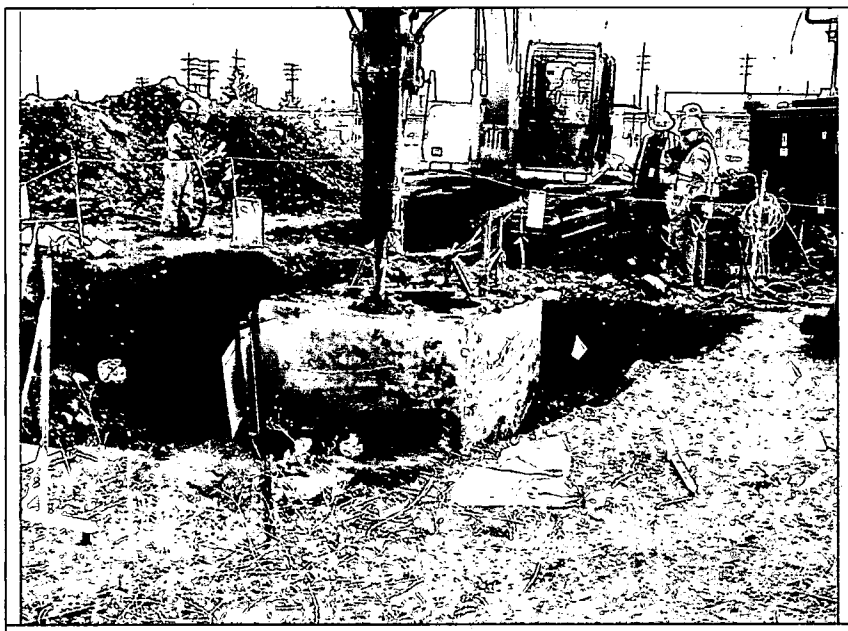
The slab and walls were removed from B444 basement area along with the OPWL lines underneath the basement slab. There was no observed staining in the dirt after the slab and piping was removed. Samples were collected from the soil in the area underneath the B444 slab. In addition, samples were collected of the water in the excavation, and also the mud where present. All results were below action levels.

Based on this information, backfill will be allowed at risk.

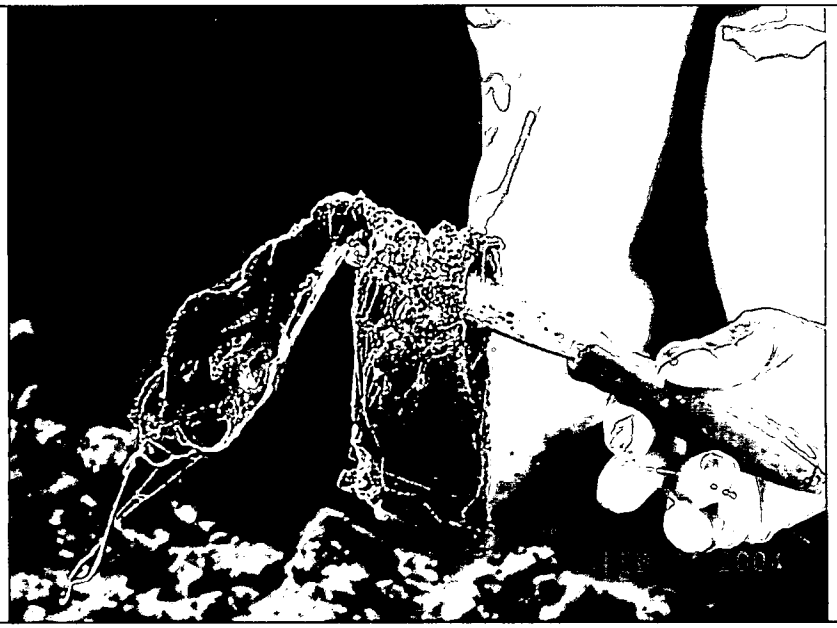
Contact Record Prepared by: J. Mike Swartz

Required Distribution:		Additional Distribution:
M. Aguilar, USEPA	D. Mayo, K-H RISS	M. Swartz, K-H RISS
H. Ainscough, CDPHE	J. Mead, K-H ESS	D. Clark, K-H RISS
S. Bell, DOE-RFPO	S. Nesta, K-H RISS	J. Hammack, K-H RISS
J. Berardini, K-H	L. Norland, K-H RISS	G. Carnival, K-H RISS
B. Birk, DOE-RFPO	K. North, K-H ESS	G. Kelly, K-H RISS
L. Brooks, K-H ESS	E. Pottorff, CDPHE	
L. Butler, K-H RISS	A. Primrose, K-H RISS	
G. Carnival, K-H RISS	M. Roy, DOE-RFPO	_____
N. Castaneda, DOE-RFPO	R. Schassburger, DOE-RFPO	_____
C. Deck, K-H Legal	S. Serreze, K-H RISS	_____
N. Demos, SSOC	D. Shelton, K-H ESS	_____
S. Gunderson, CDPHE	C. Spreng, CDPHE	_____
M. Keating, K-H RISS	S. Surovchak, DOE-RFPO	_____
G. Kleeman, USEPA	J. Walstrom, K-H RISS	_____
D. Kruchek, CDPHE	K. Wiemelt, K-H RISS	_____
J. Legare, DOE-RFPO	C. Zahm, K-H Legal	_____

Appendix B
Project Photographs

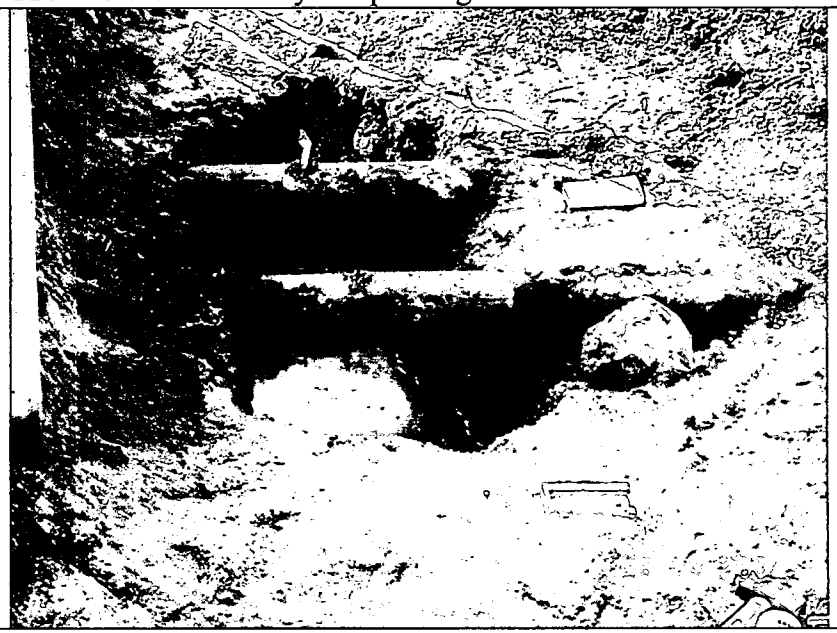


T207 northern manway before demo.



T207 northern manway leadpacking.

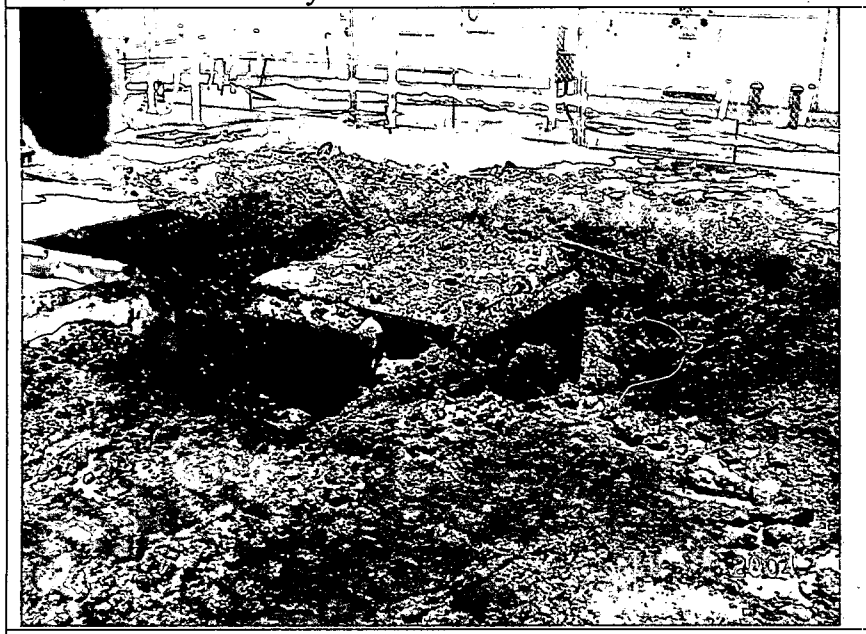
T207 northern manway leadpacking.



T207 northern manway north-south lines.

T207 northern manway at P61.

T207 northern manway demo.



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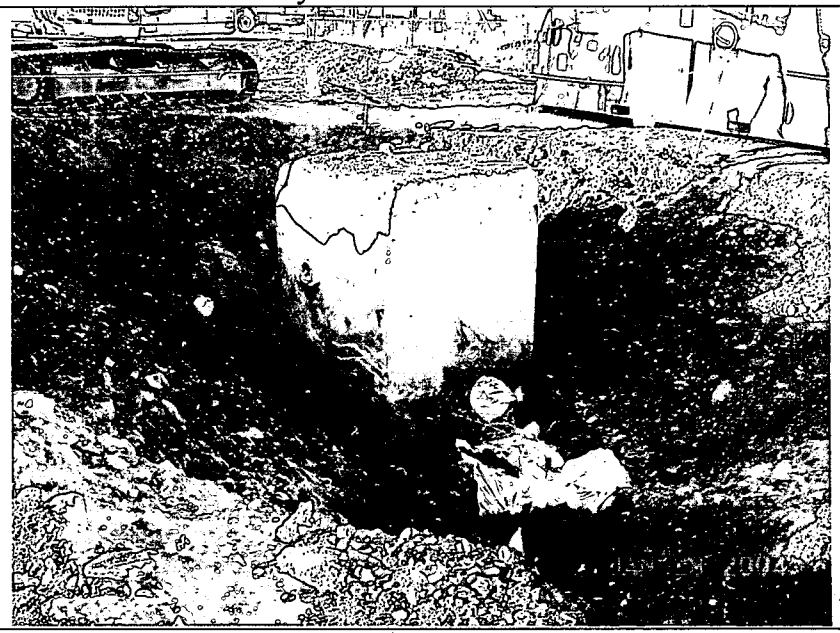
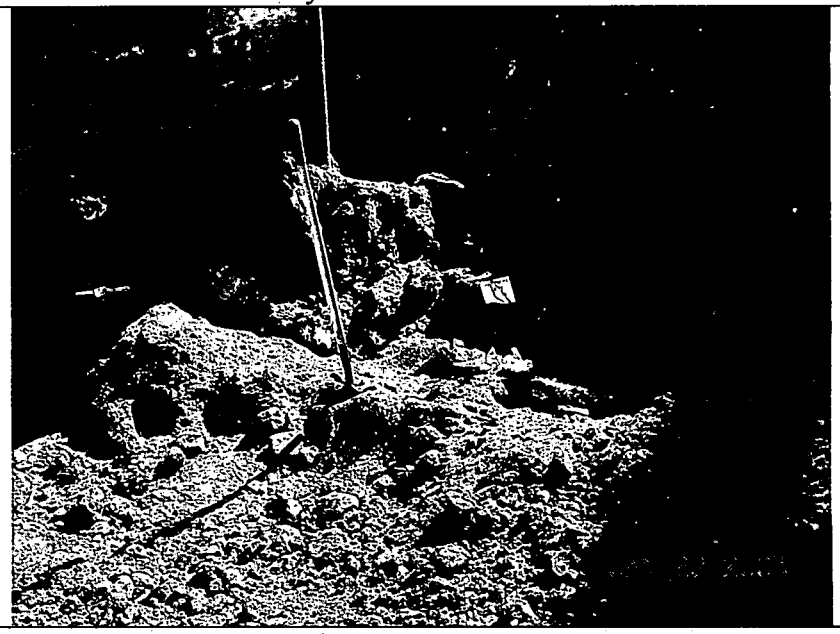


T207 northeast manway before demo.

T207 northeast manway demo.

T207 northeast manway before demo.

207NEMWdemo2



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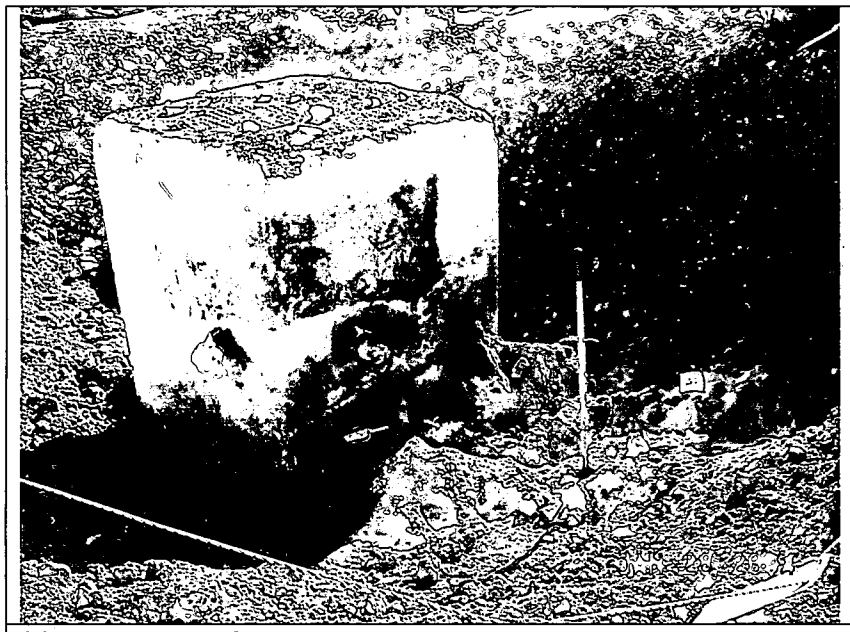

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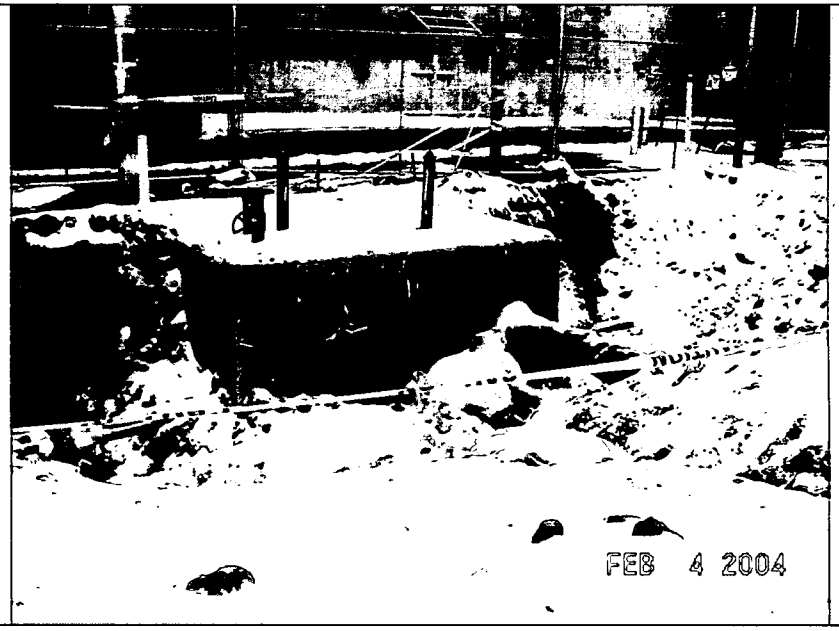

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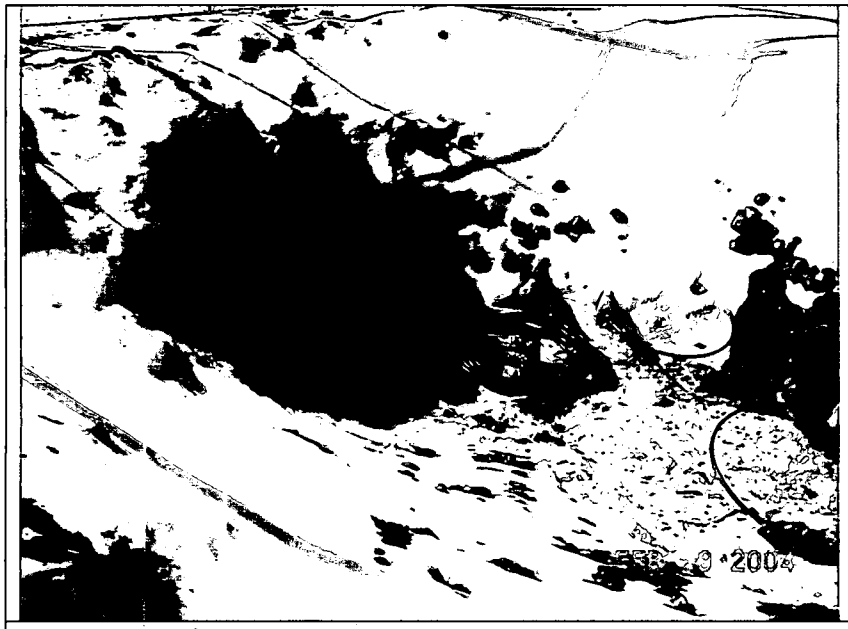

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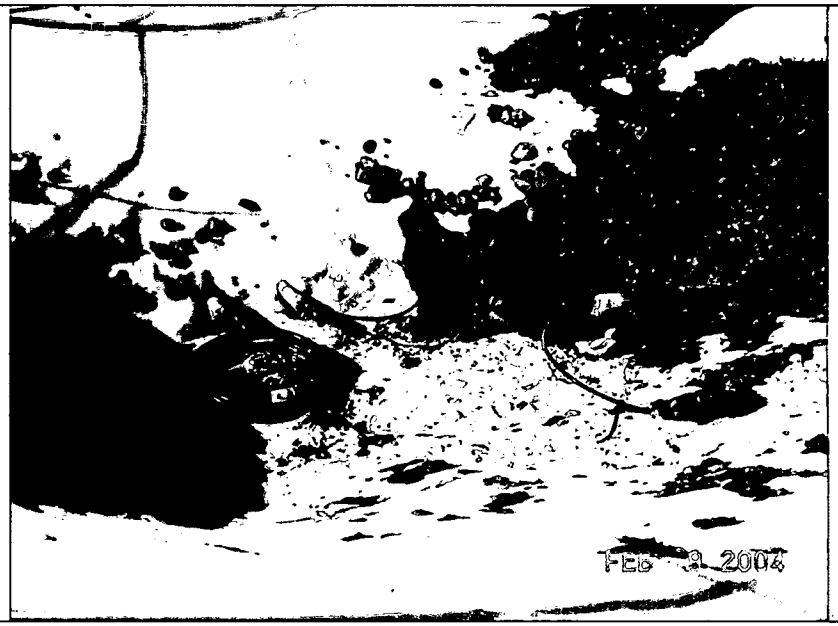

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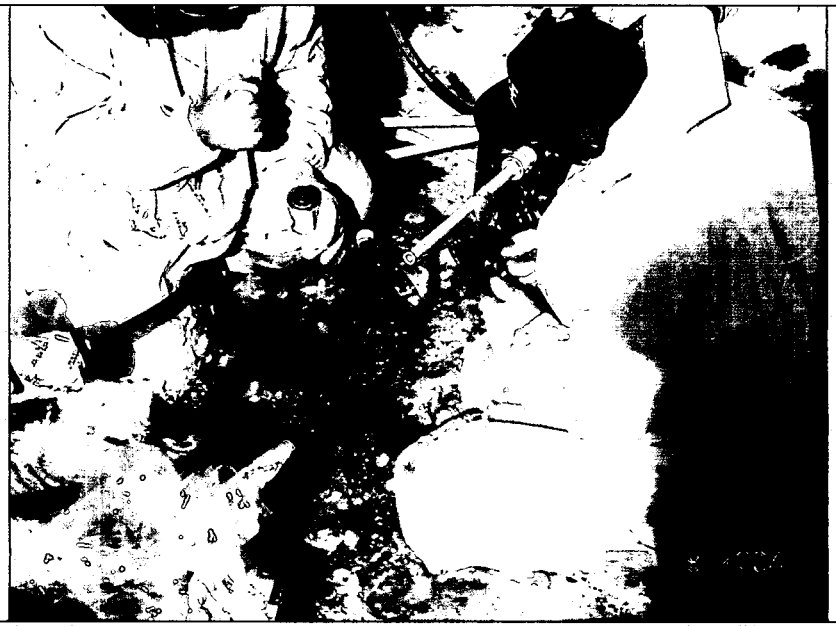

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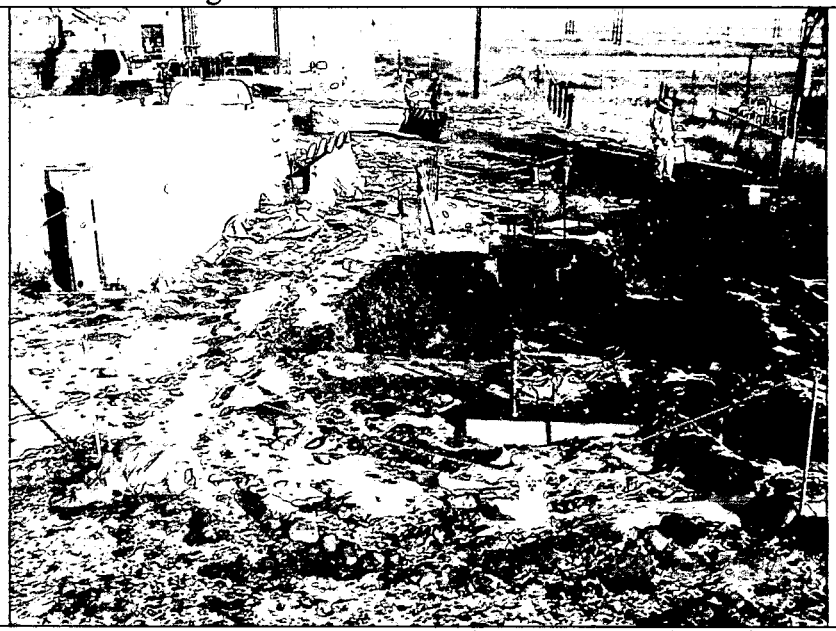
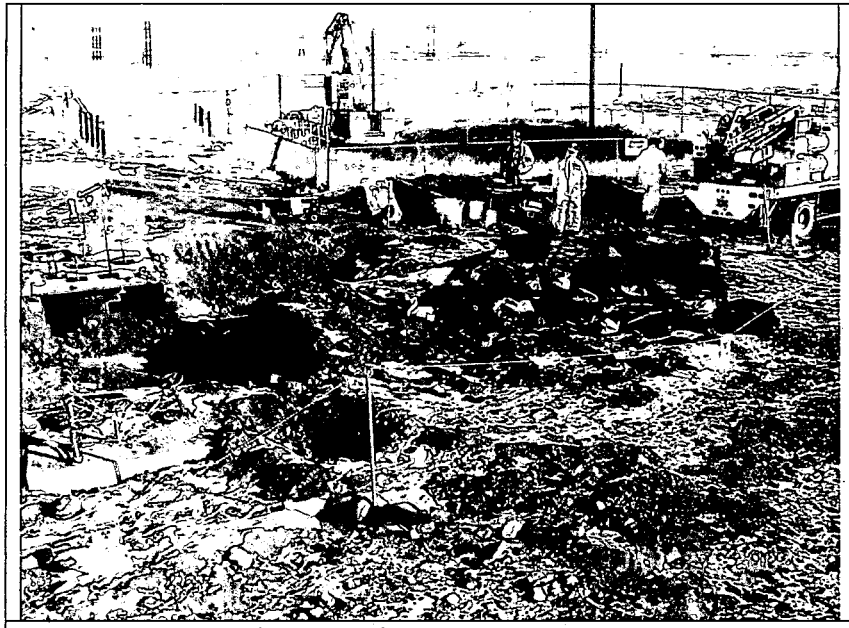
779NE Foaming 8



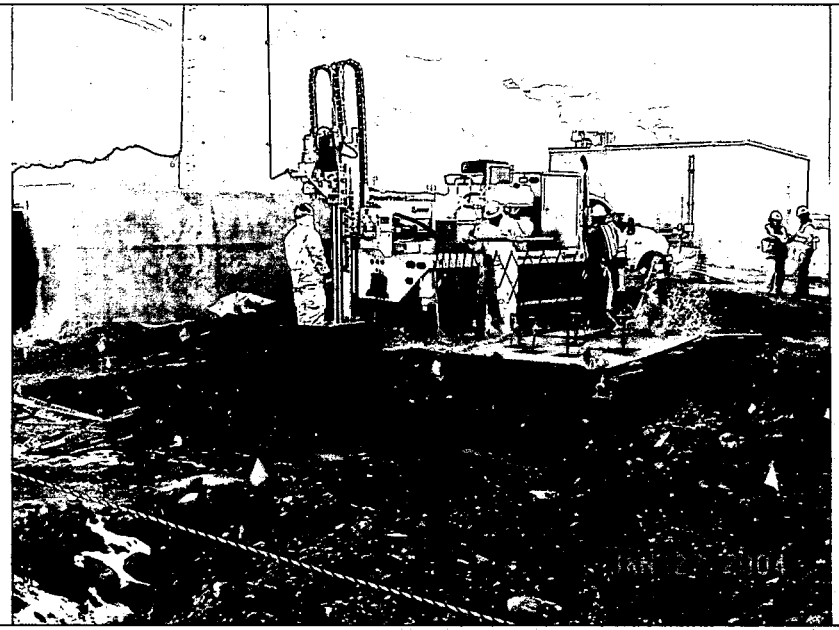
CH47001 Excavation N View



CH47001 Excavation NE View

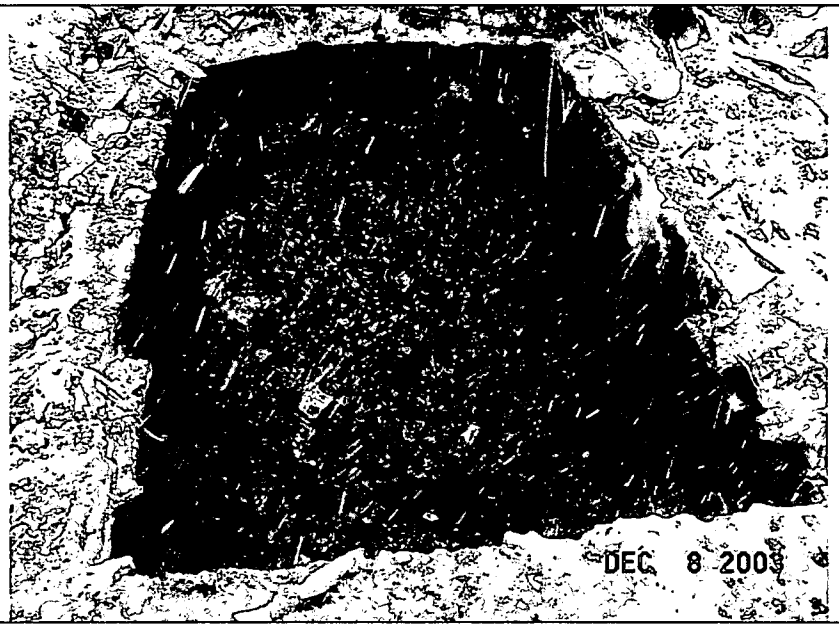
CH47001 Excavation NW View

CH47001 Excavation SW View

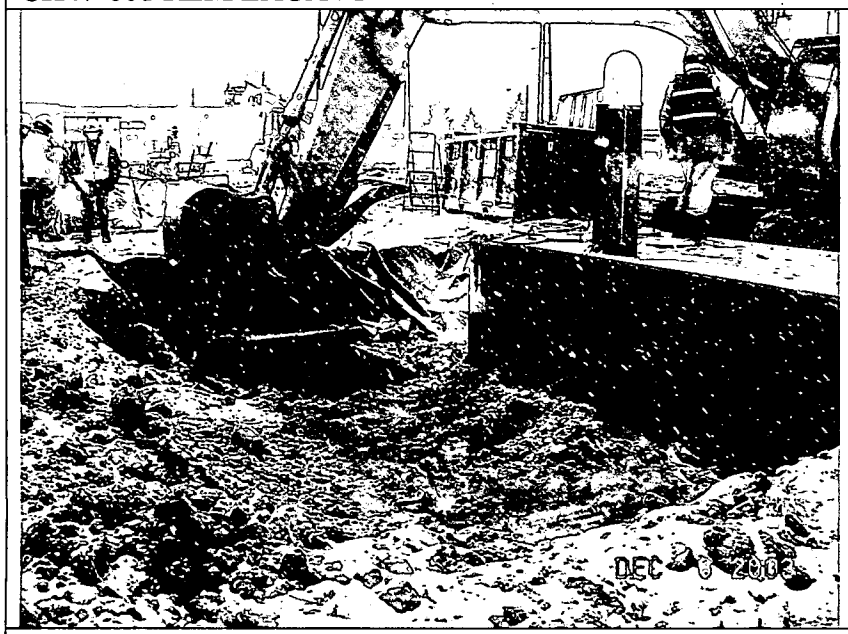


CH47001 Geoprobe

CH47-001 REM EXCAV1



Crushed Limestone441



Limestone Bed Top Removed441

Loading Pipe

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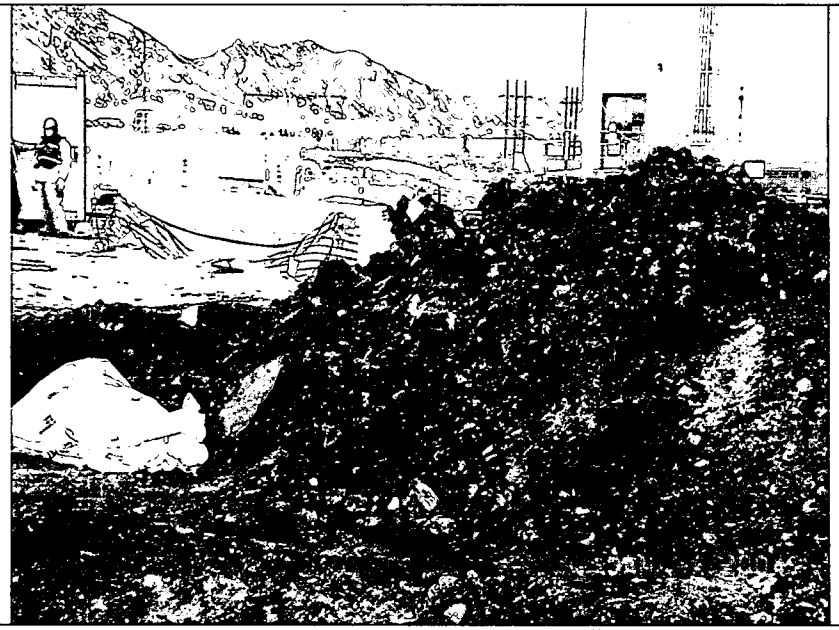
MVC-001FP26Culvert1



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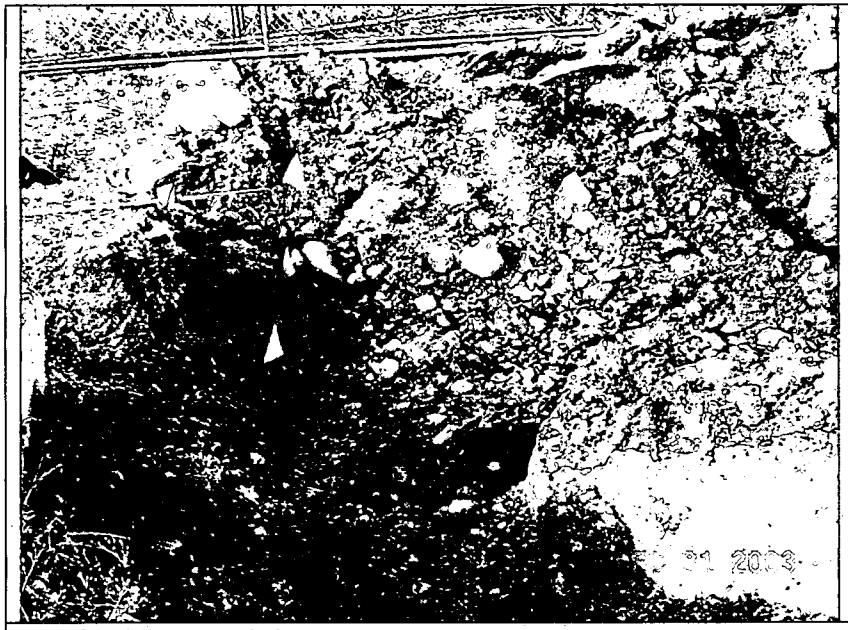

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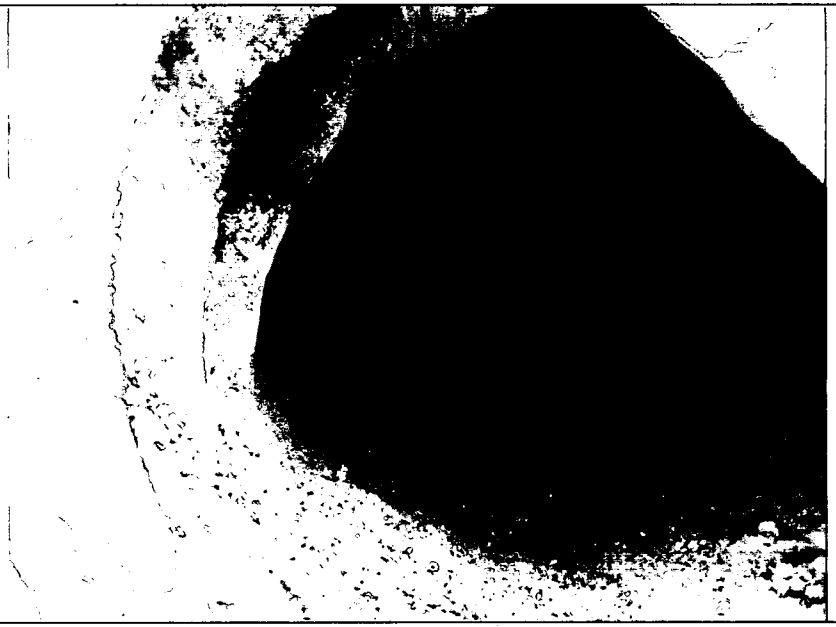

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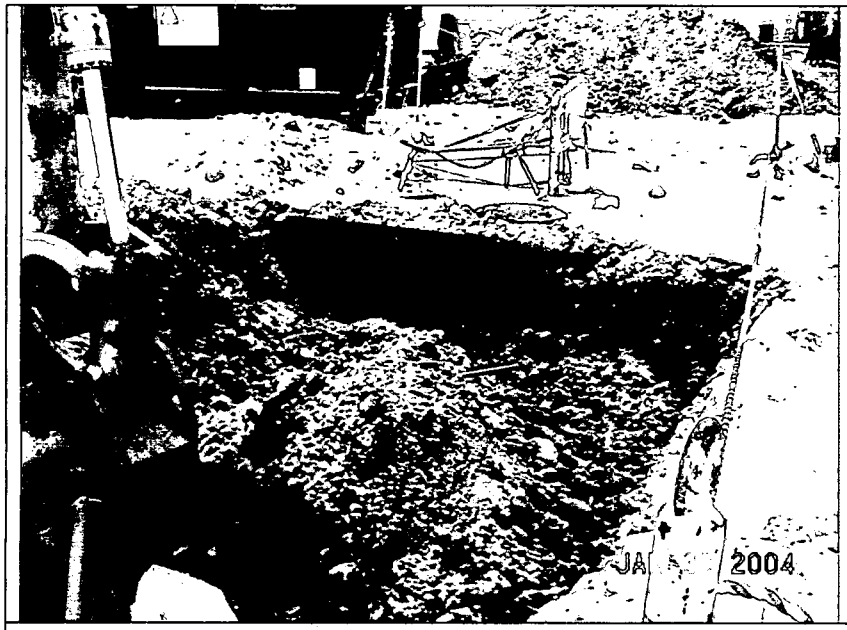

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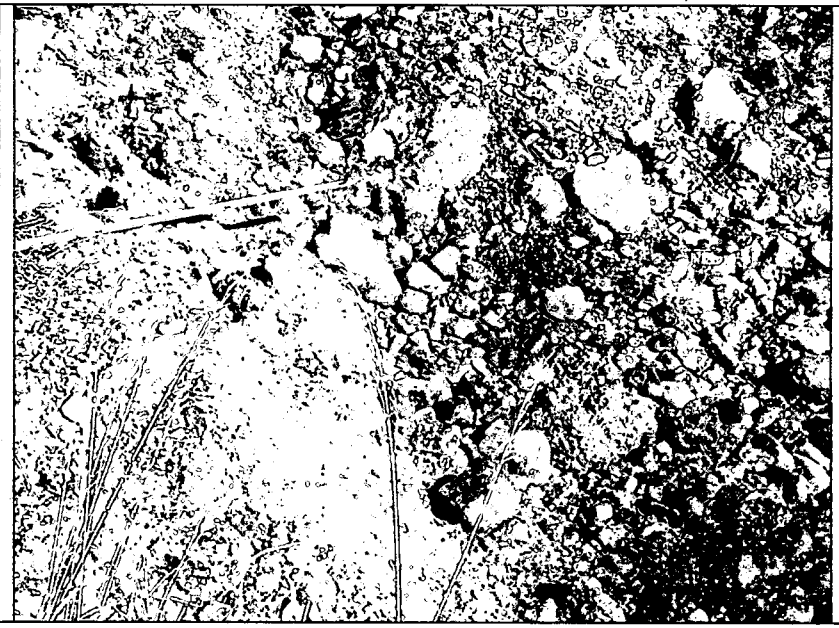

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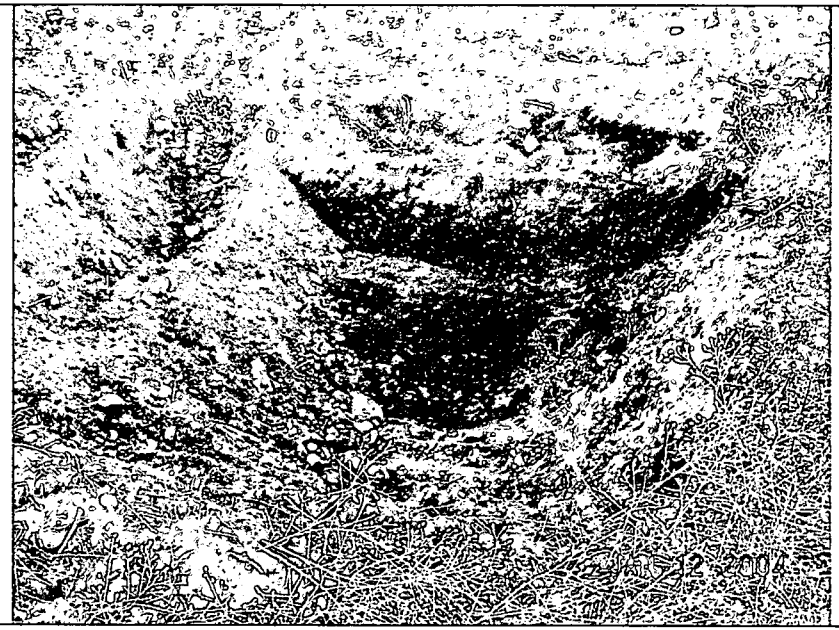

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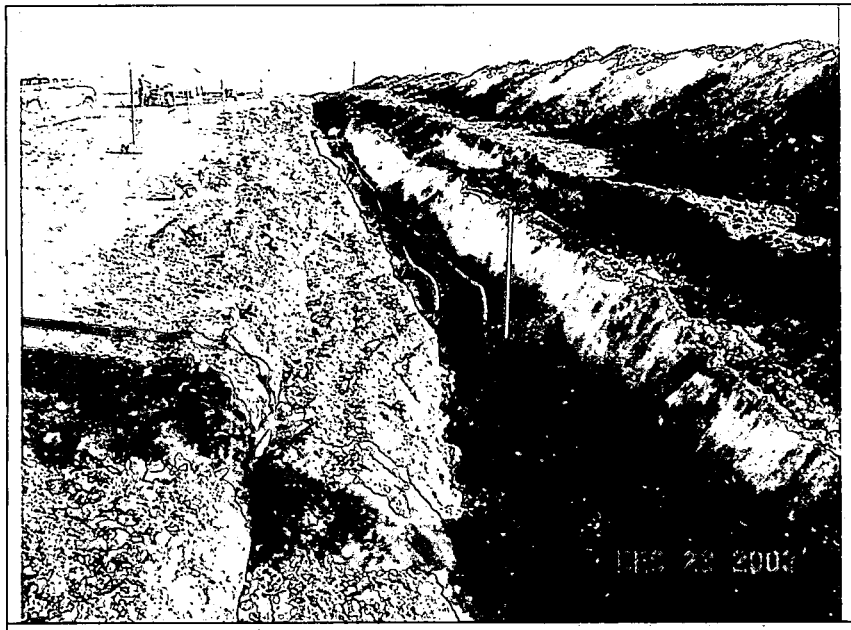

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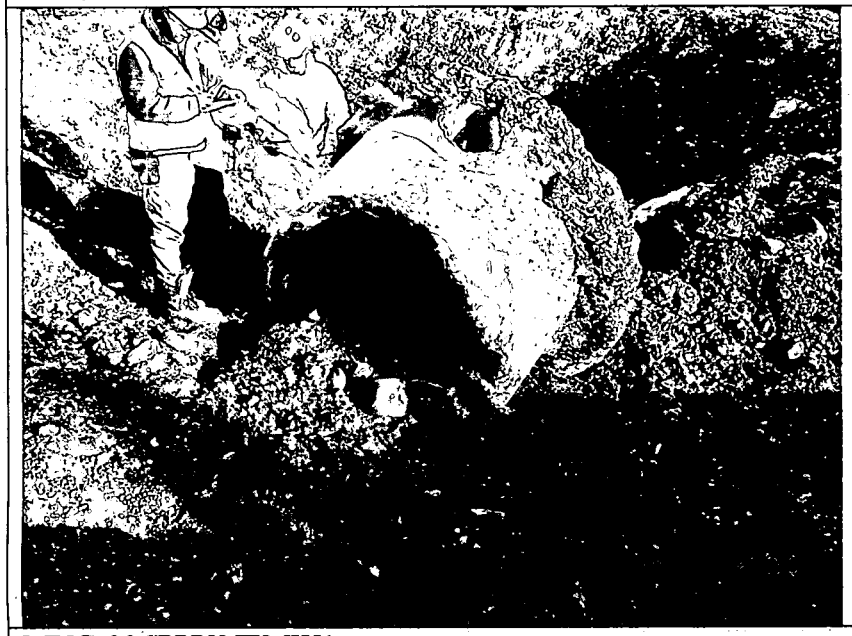

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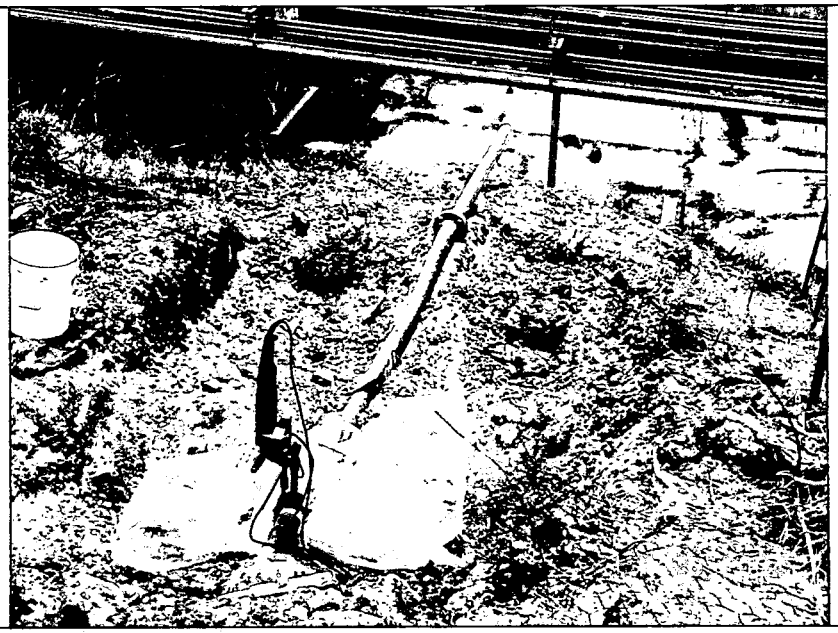

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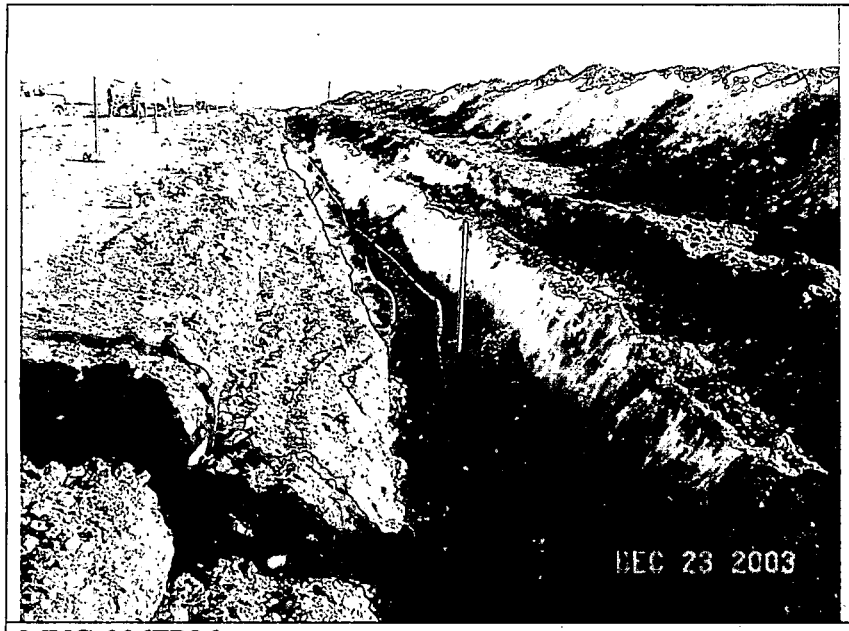

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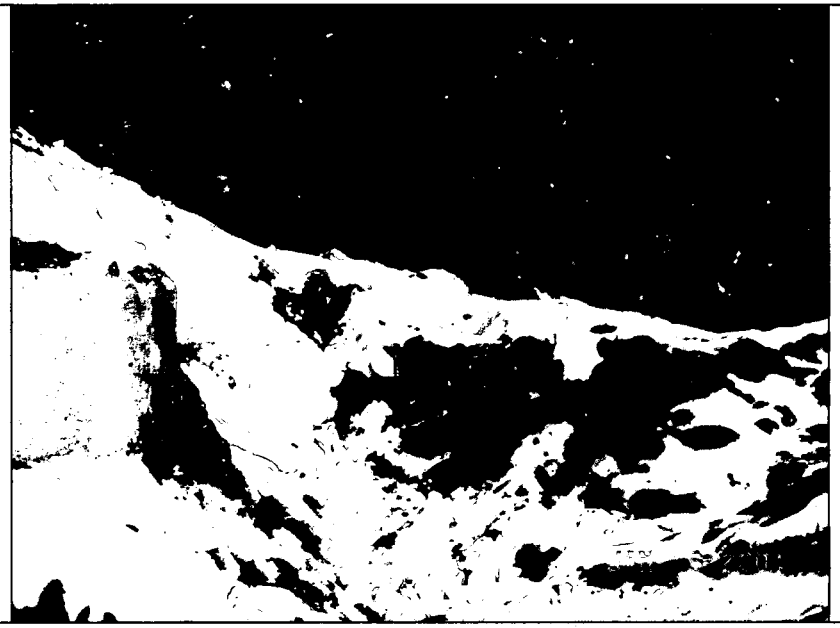

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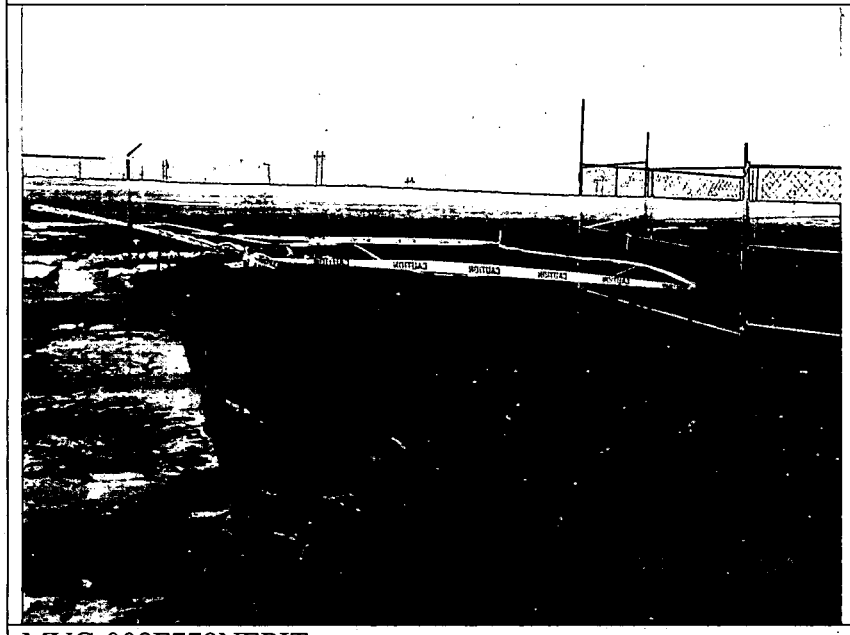

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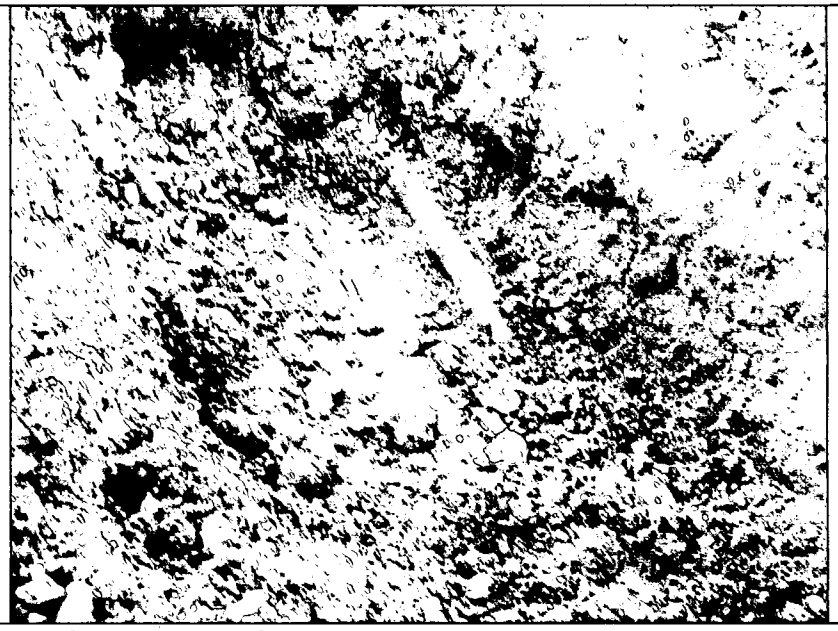

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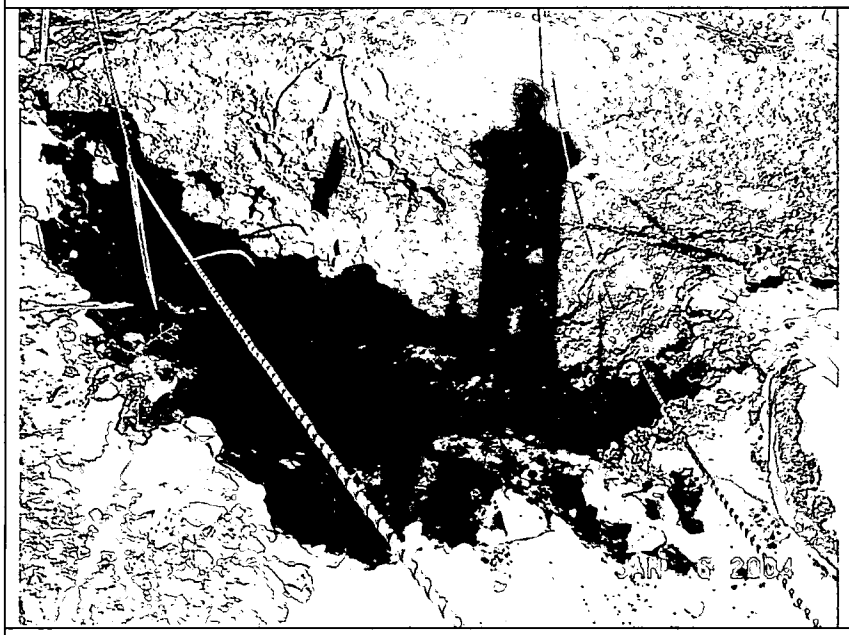

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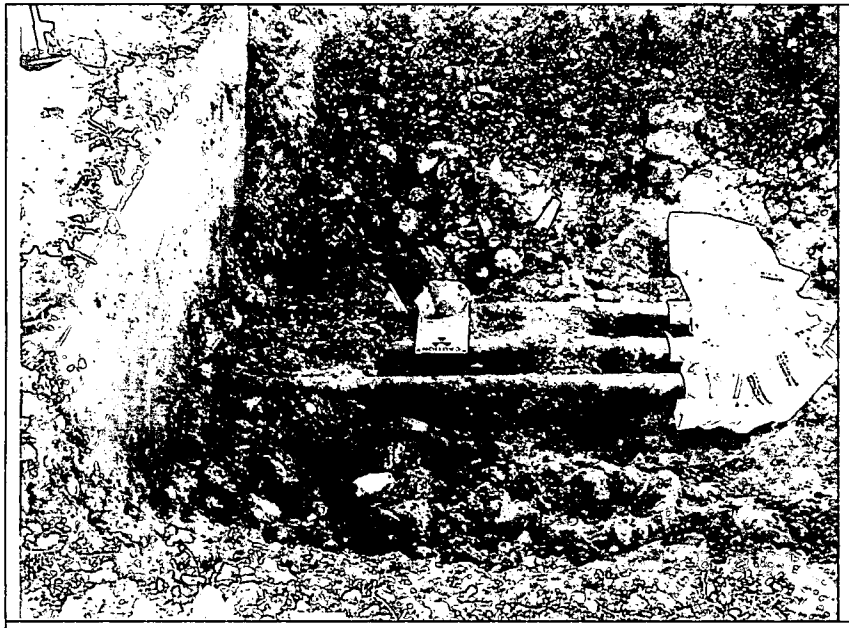

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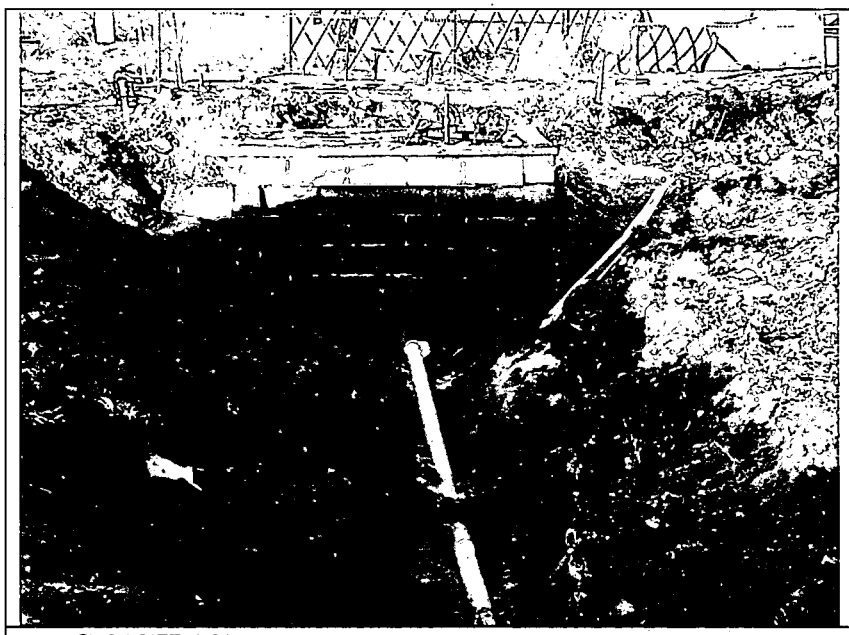

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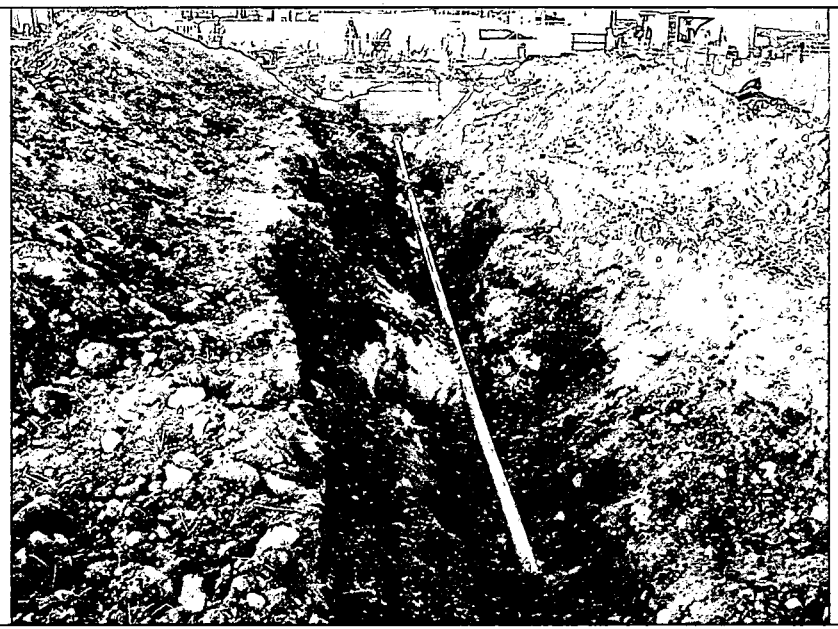

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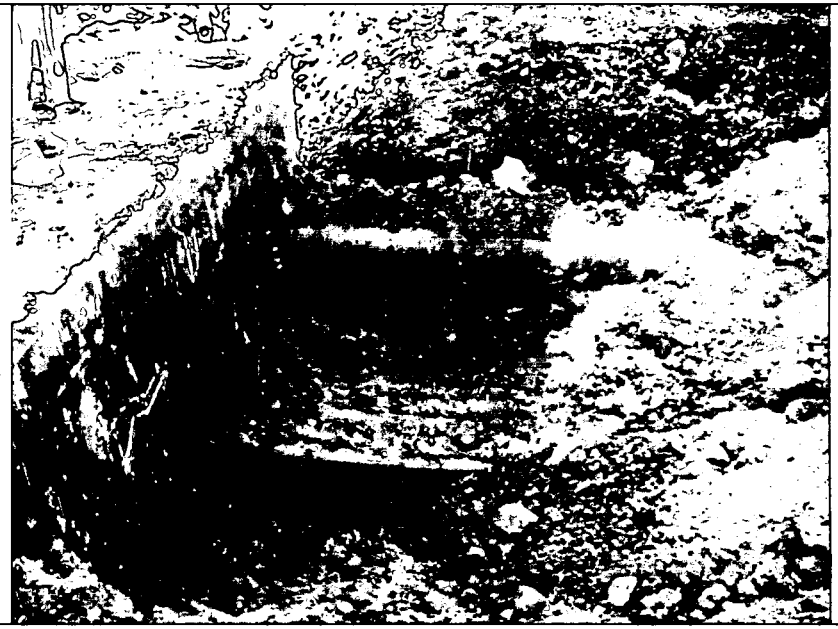

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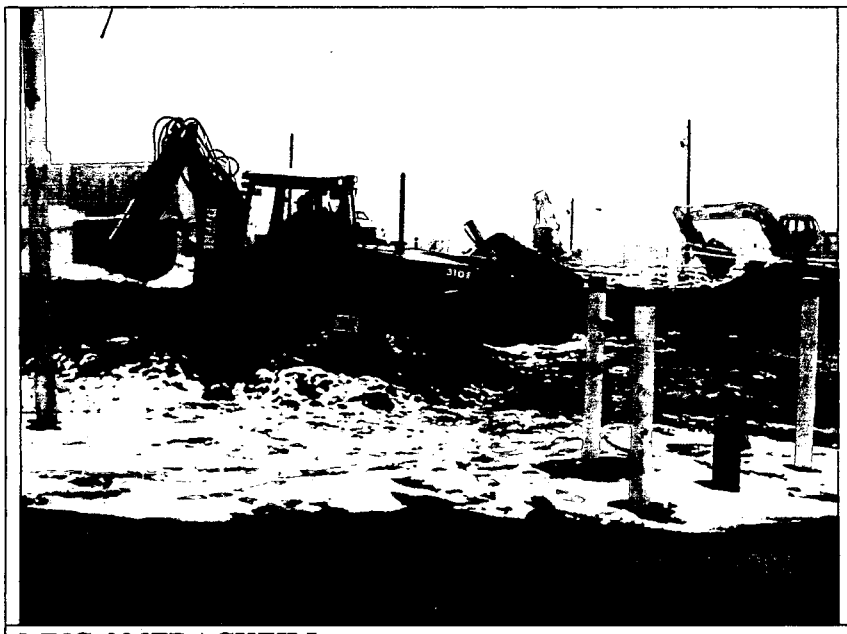

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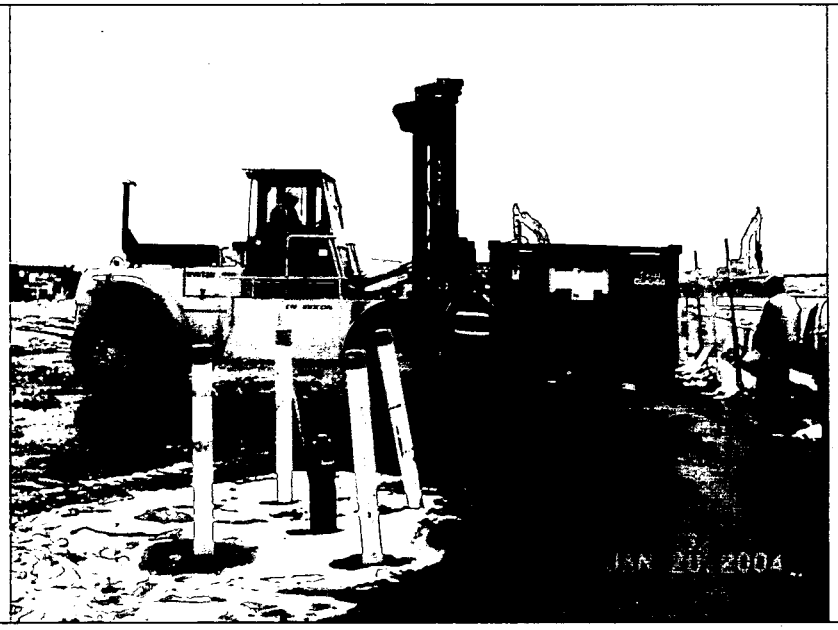

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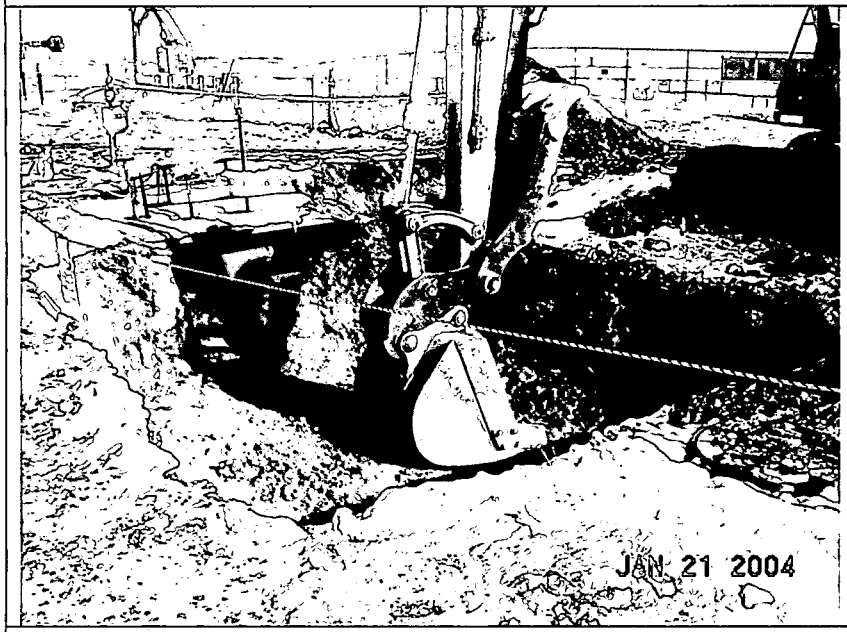
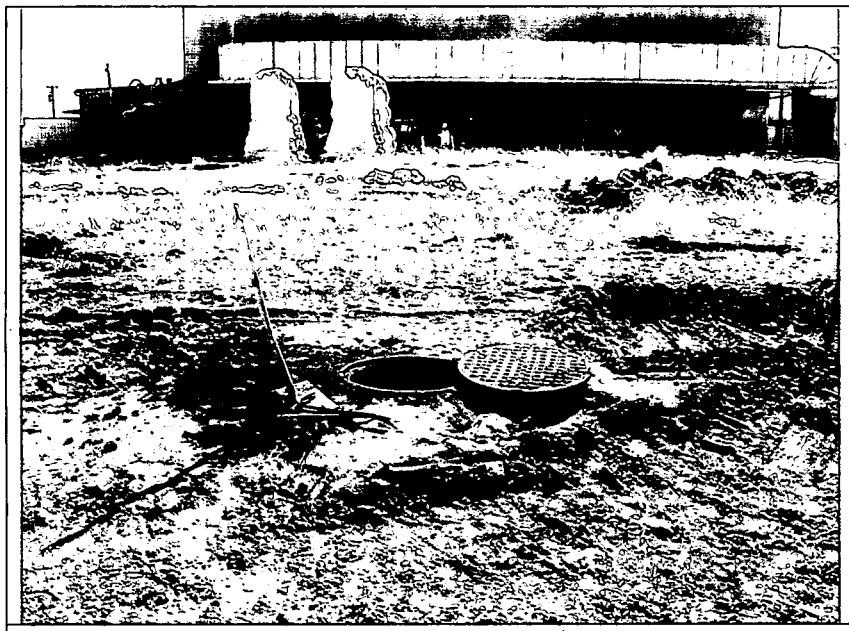


MVC-027F47001-1

MVC-028FNEMWGrievance Pipe



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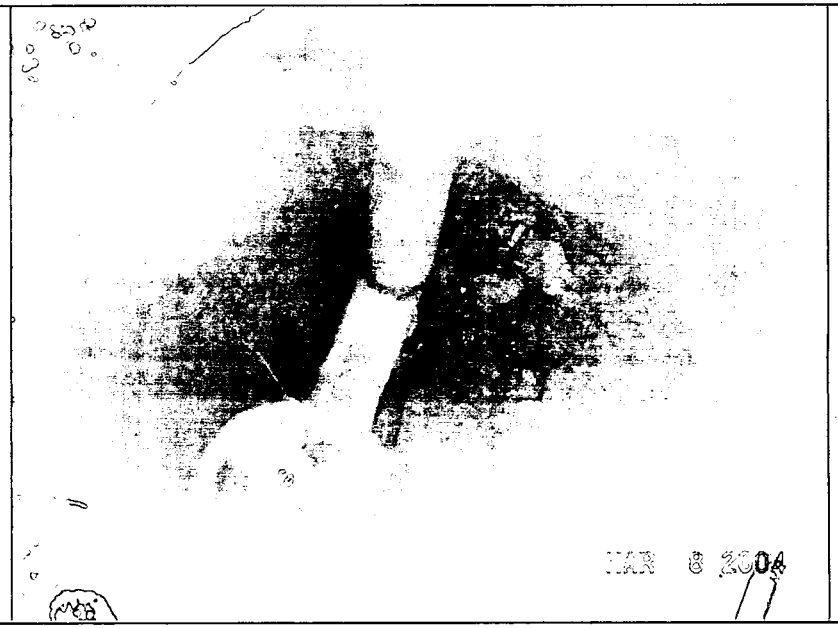

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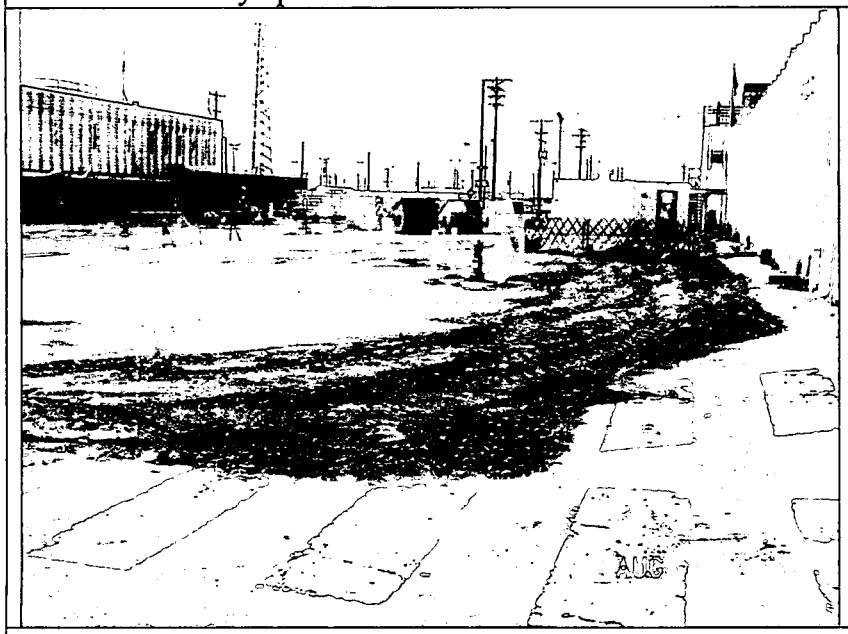
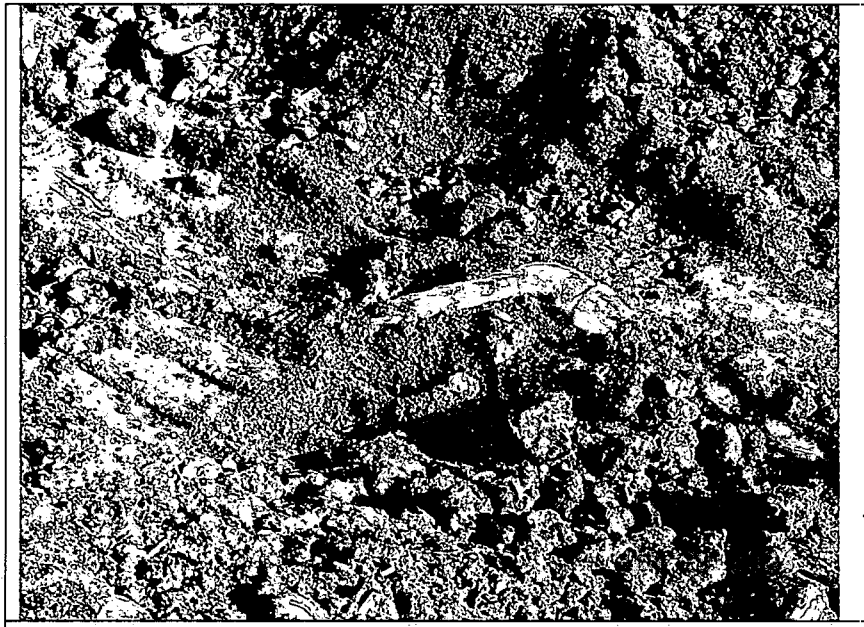


P-19 Backfilled

P21Pipe Removal



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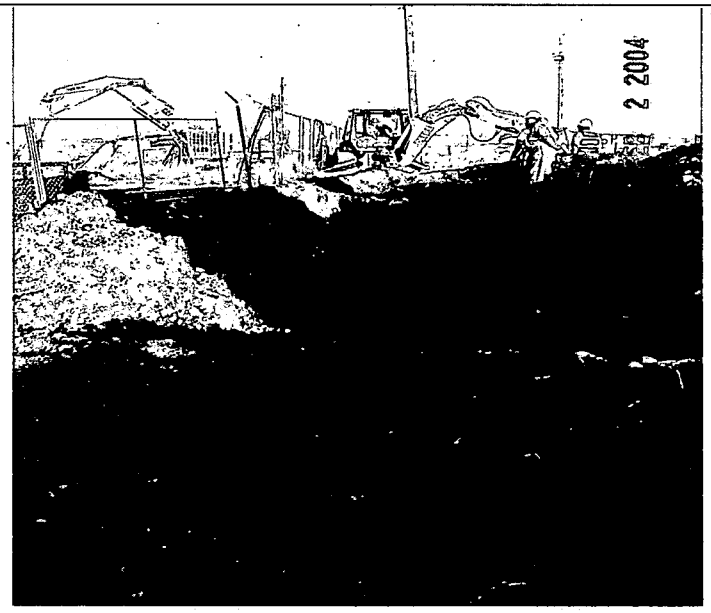
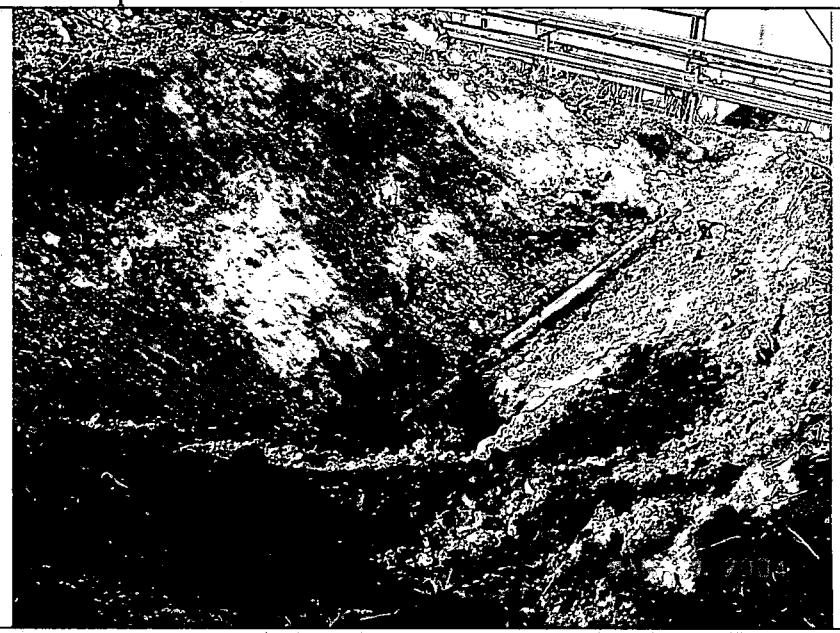


P-25 Exposed

P-25



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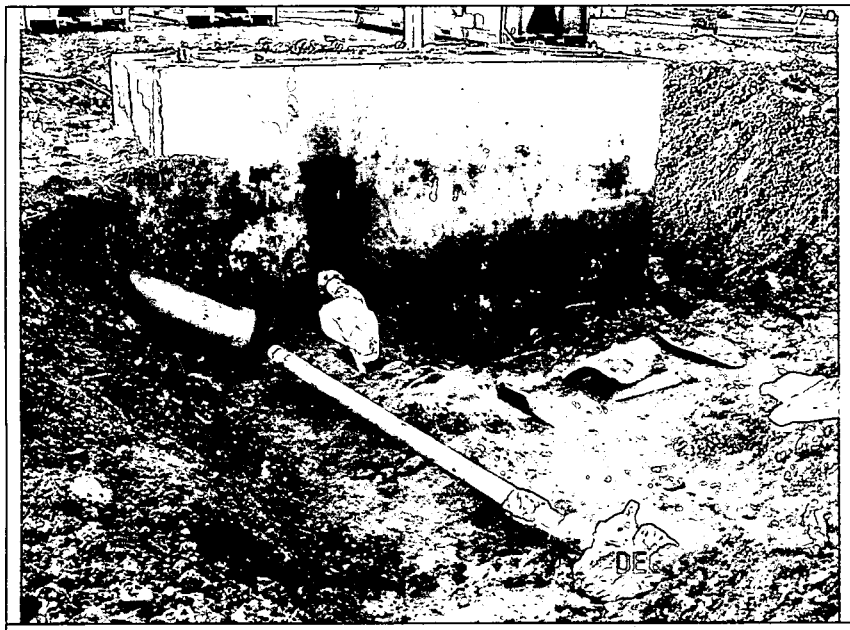
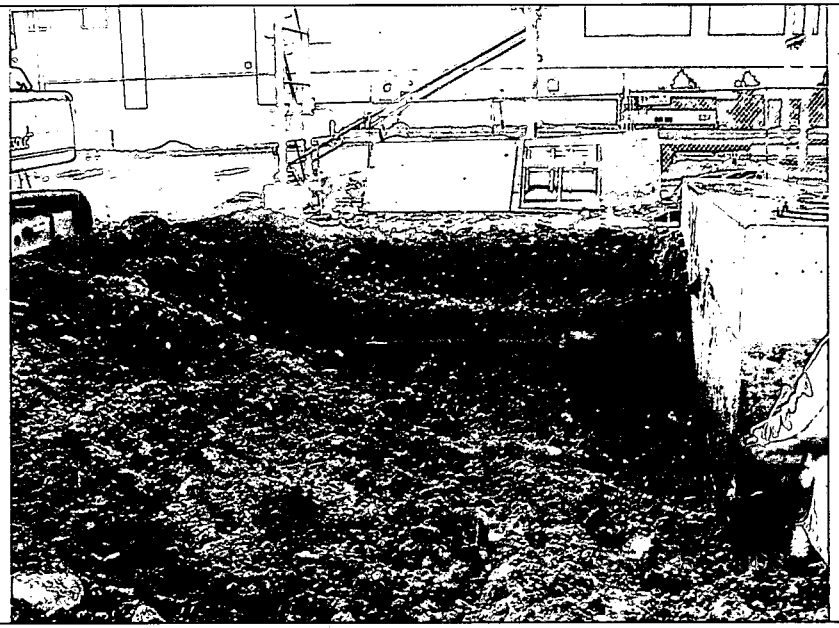


P4 Pipe cut



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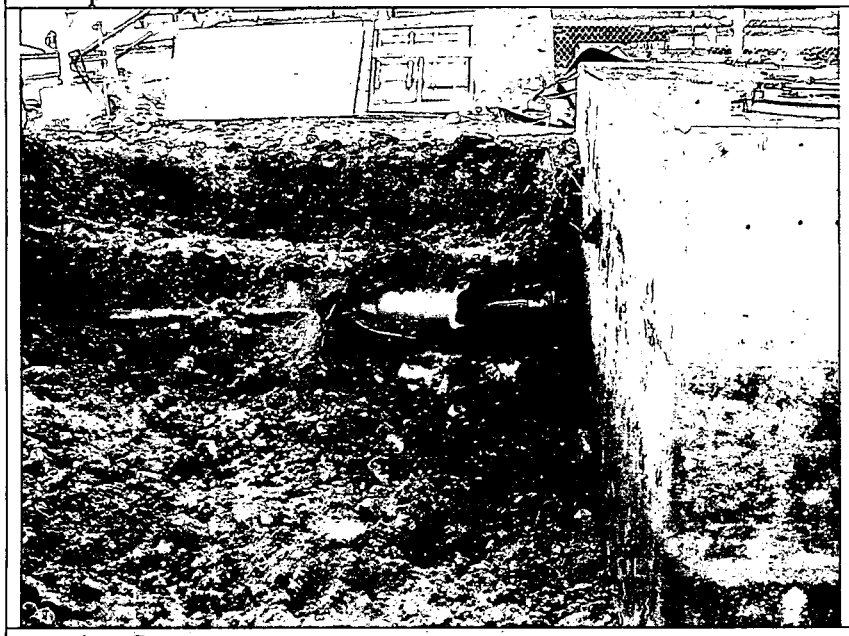
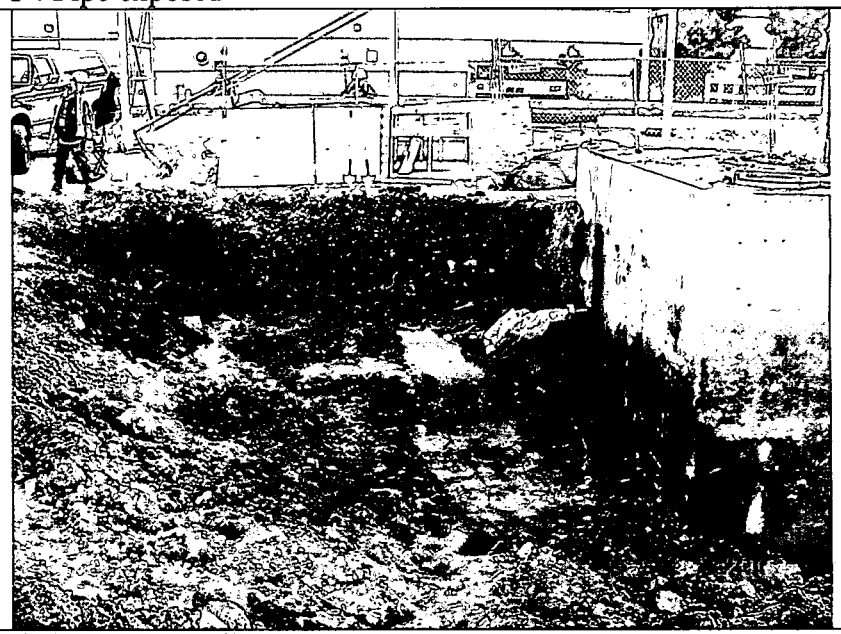


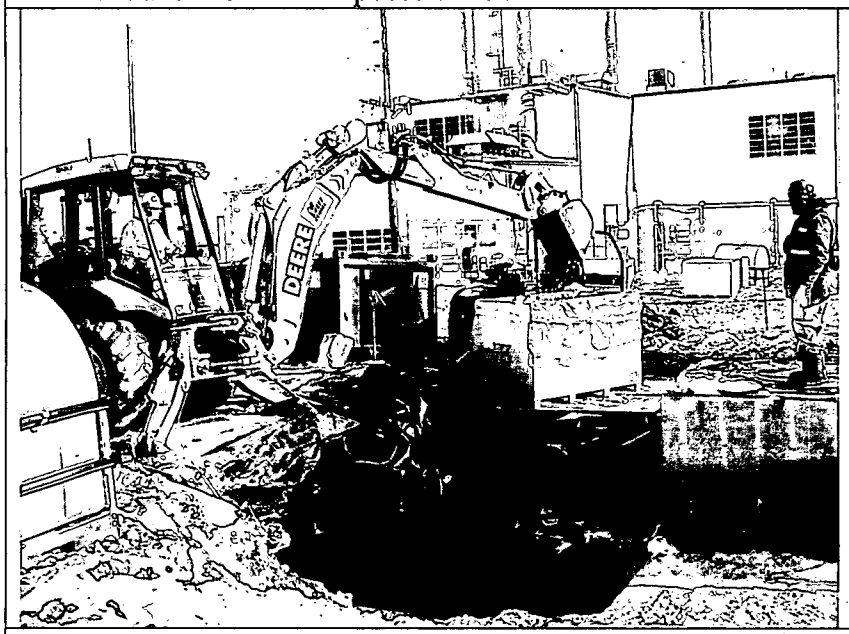
P4 Pipe flange



P4 Pipe removed

P-41WN and P-37WN Exposed at 730

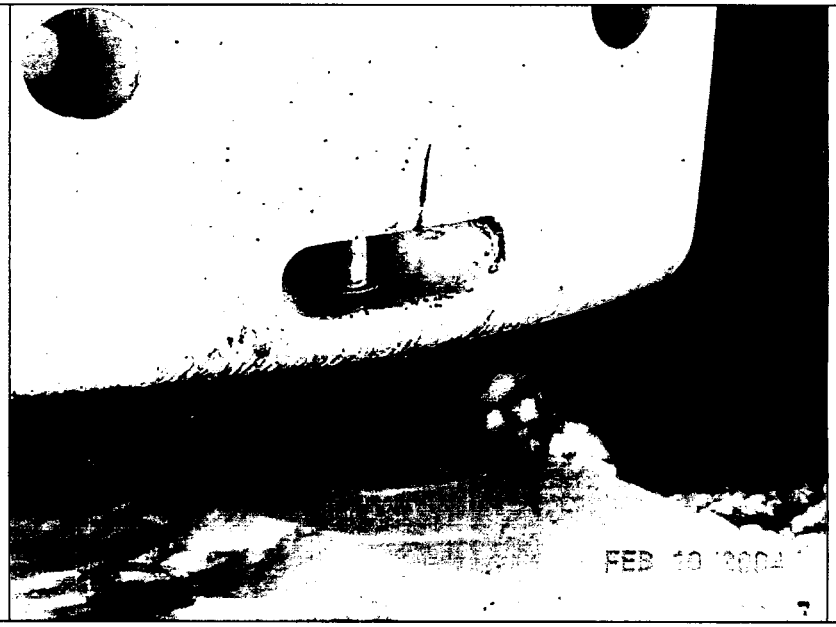
P-41WN and P-37WN Removed



Packaging limestone rock441

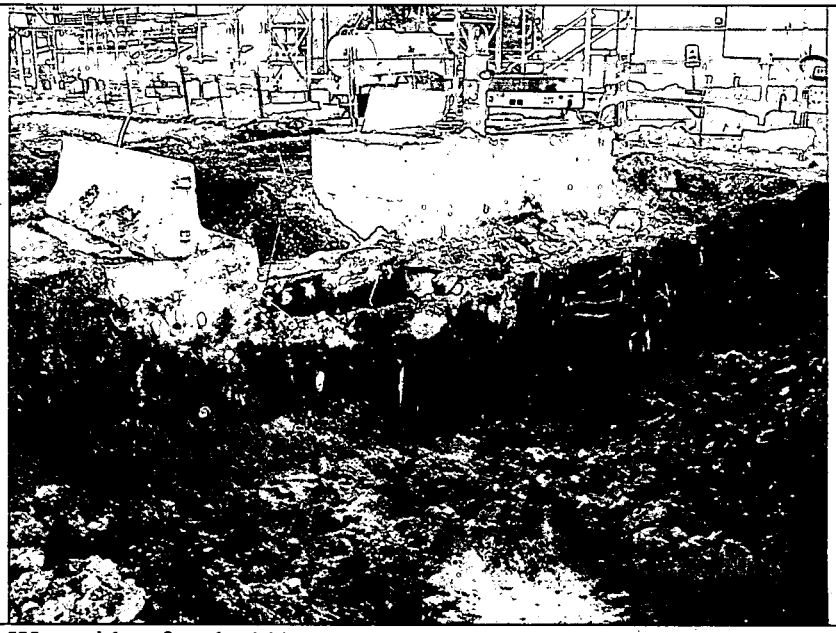
Sealed 779 10inchVCPipe East End

Sealed 779 10inchVCPipe West End

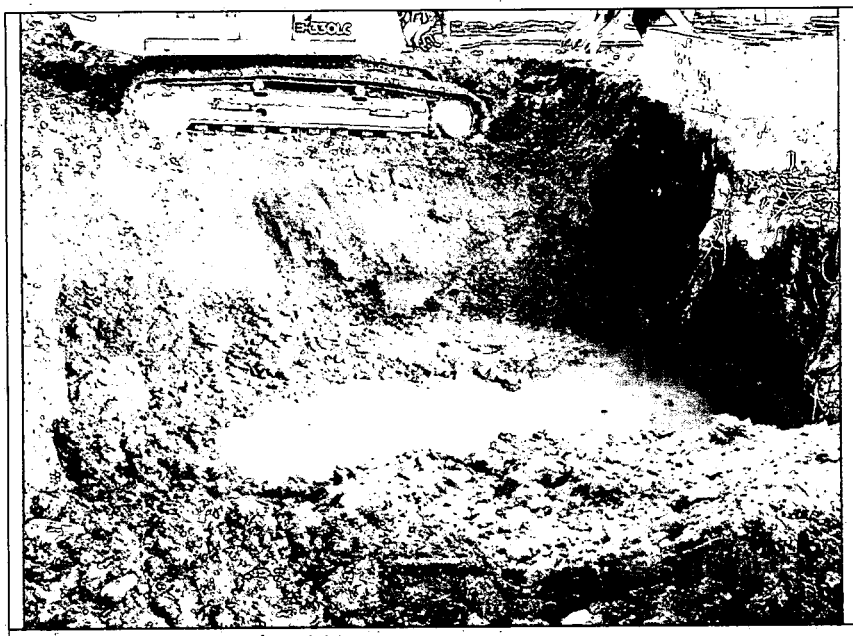


StuckForklift1

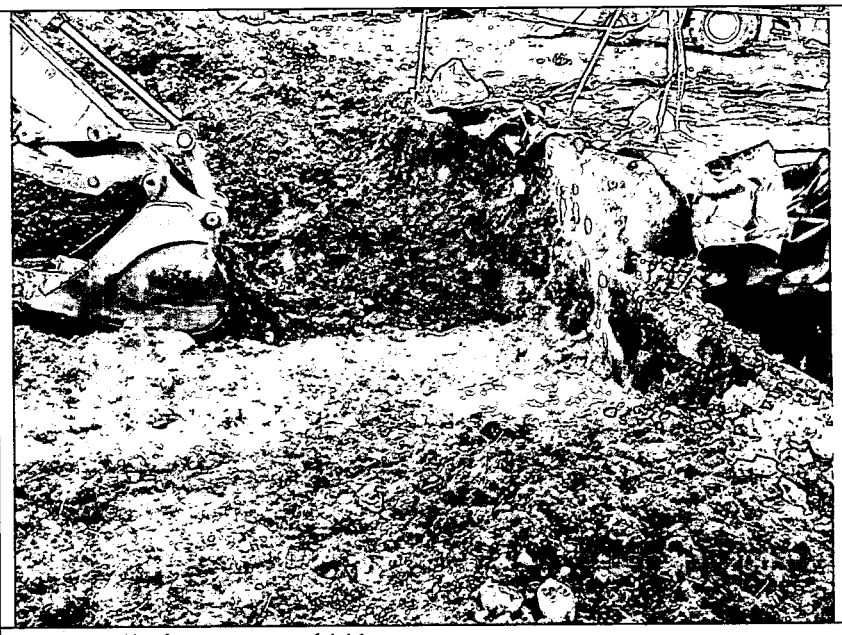
West side of T-2T-3 Tank441



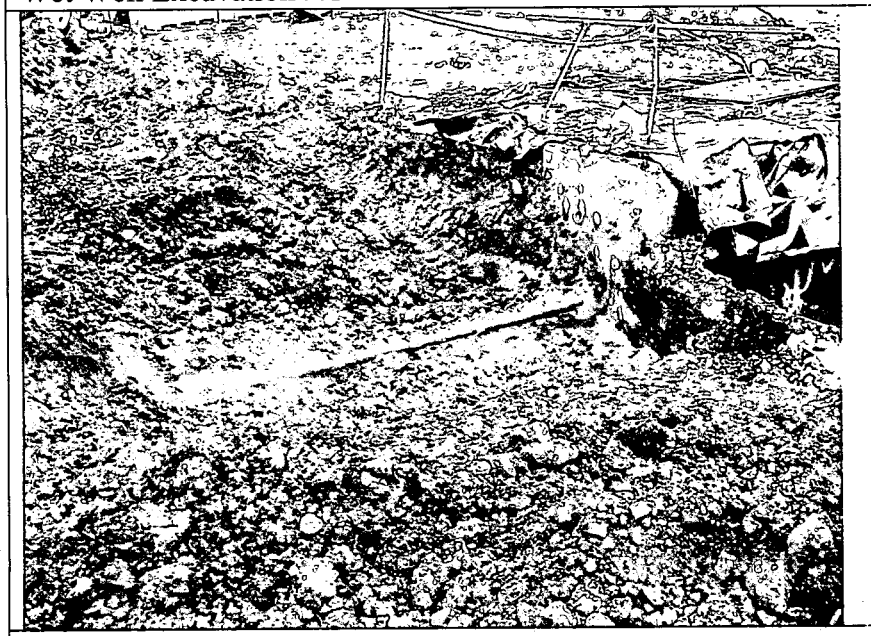
West side of tanks441



Wet Well Excavation441



Wet Well pipe removed441



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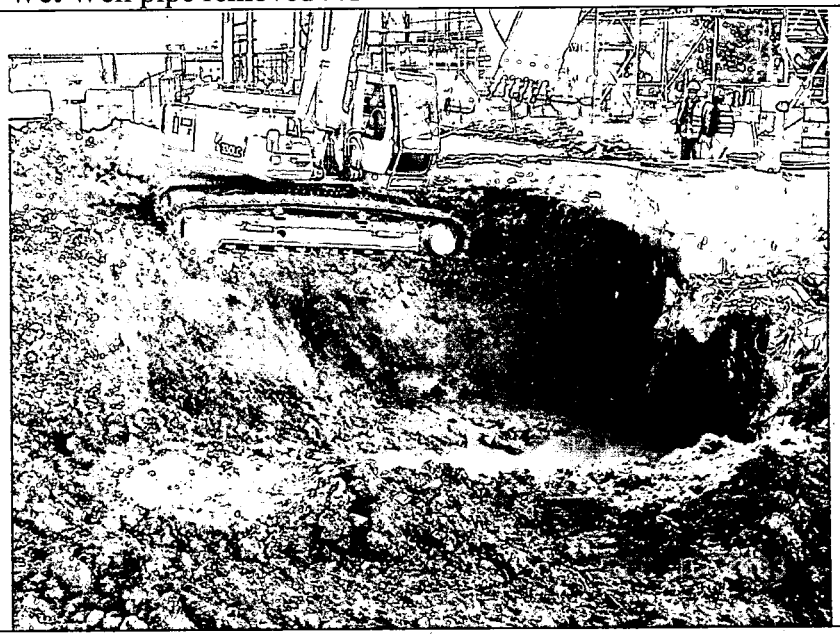
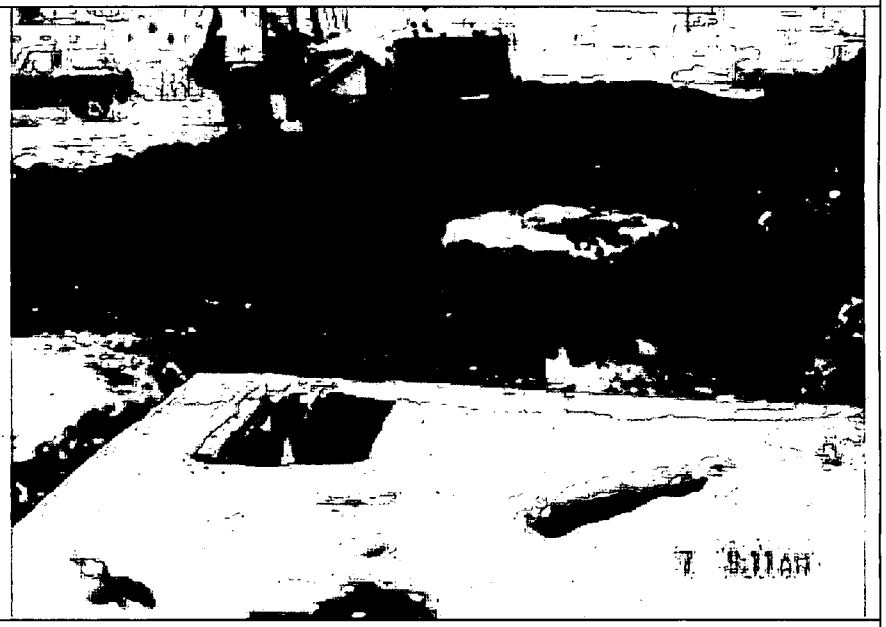
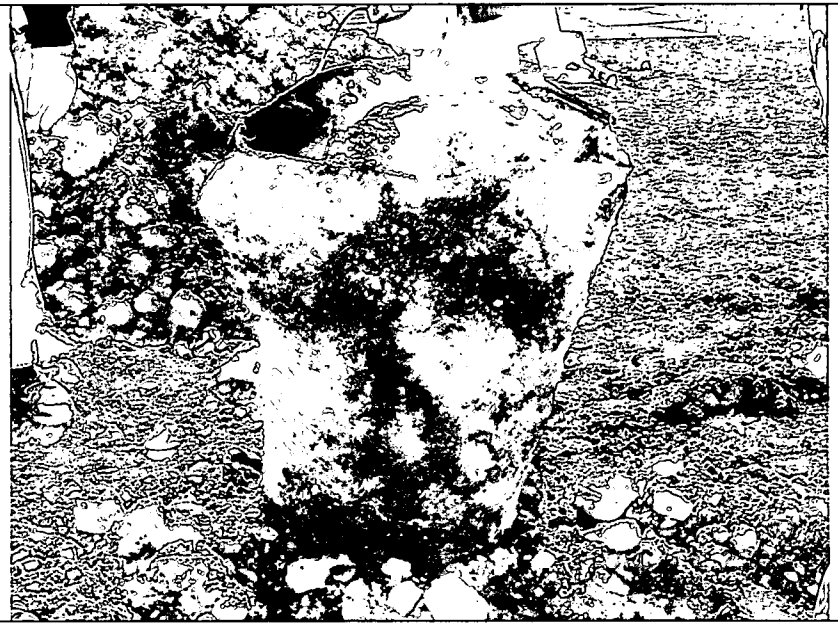


Wet Well Removed1

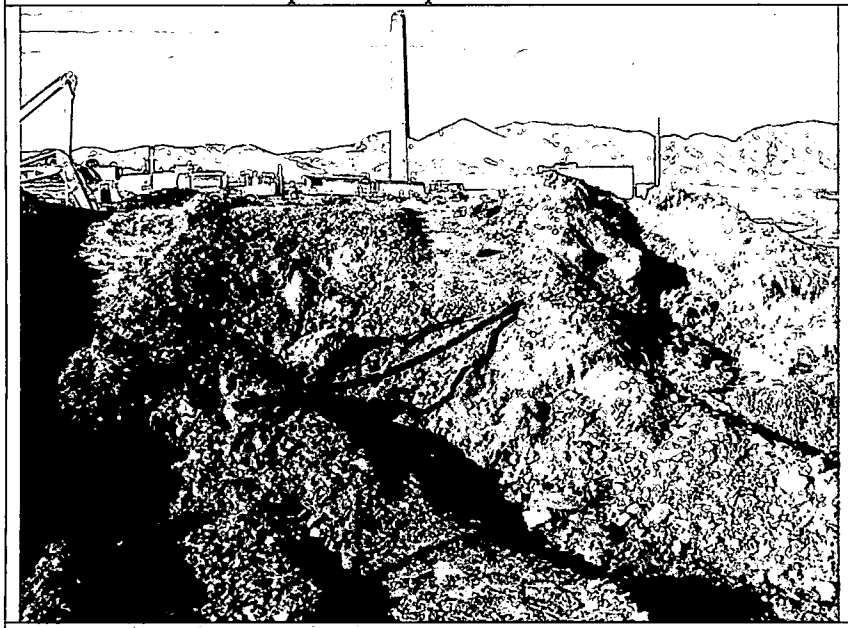

7 9.11AM

CH47001 Excavation SW View

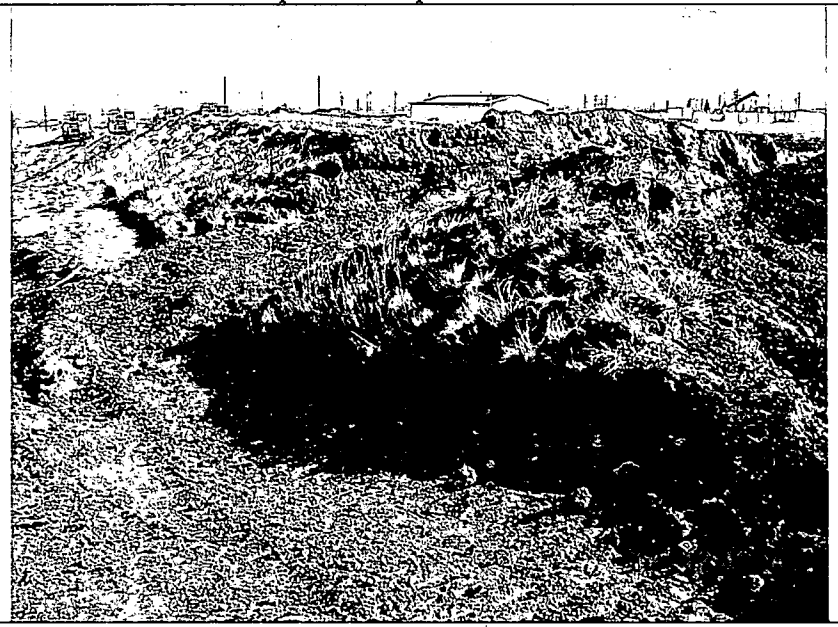
Drum next to the drop hammer pit at 865



Drum next to the drop hammer pit at 865



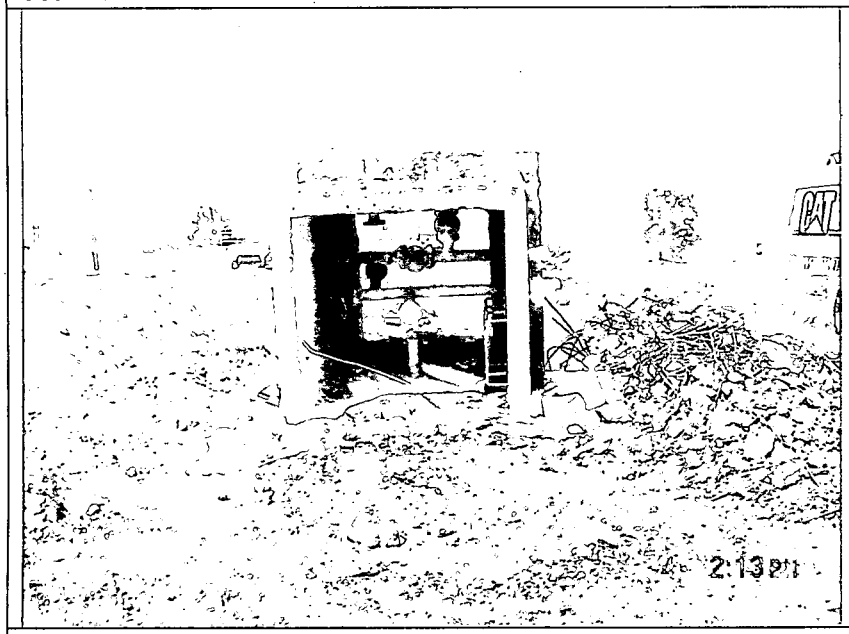
207A pond berm north side OPWL P-26 IHSS 149.1



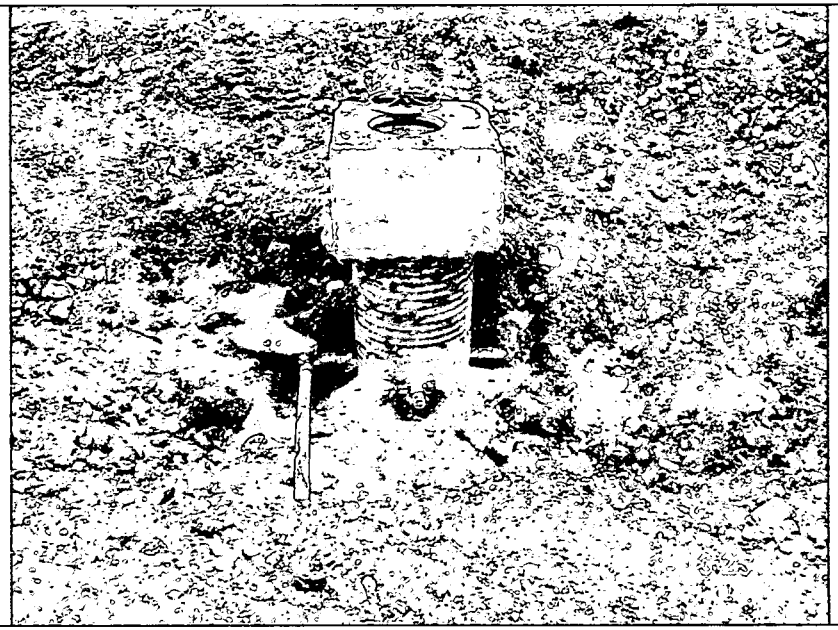
207A pond Berm removal P-26 shown 3' bgs

865 PWL Yank

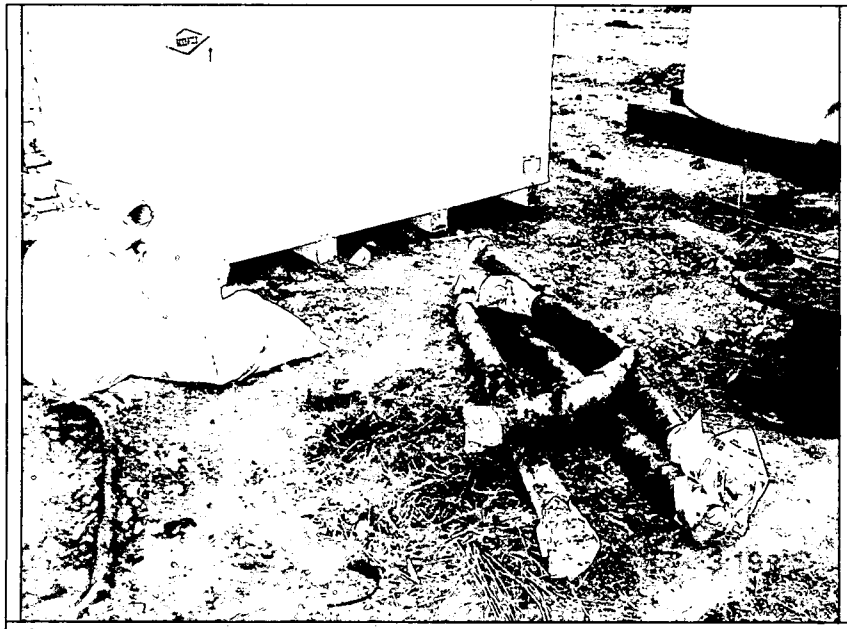
865 PWL Yank



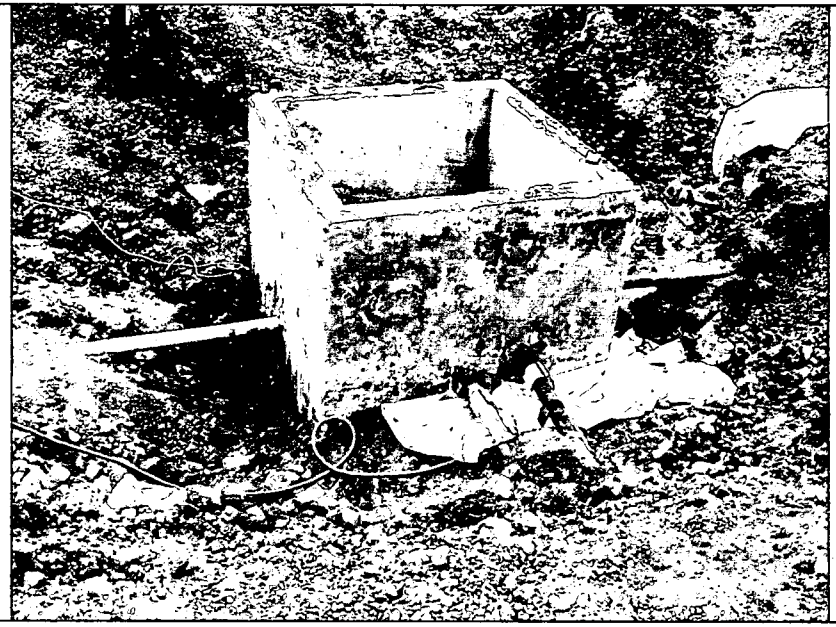
Valve Pit #1 Removed looking top to bottom



788 Valve Pit looking E one line blanked



OPWL Pond A P36 & P37 Removed



Valve Pit #1 Looking from west to east

Enclosure
CD Containing Standardized Real and QC Accelerated Action Data

Revision 09/04

CORRES. CONTROL
OUTGOING LTR NO.

DOE ORDER #
05-RF-00910

DIST.	LTR	ENC
DEL VECCHIO, D.		
FERRERA, D.W.		
GIACOMINI, J. J.		
GILPIN, H.E.		
LINDSAY, D. C.		
LONG, J. W.		
CROCKETT, G		
SHELTON, D.C.	X	X
TUOR, N.R.		
BERARDINI, J		
WARD, DAVID	X	X
NELSON, JODY	X	X
SCHLAGEL, DOUG		
DECK, CAROL	X	X
NININGER, R		
NESTA, STEVE		
COR. CONTROL	X	X
ADMN RECORD	X	X
WASTE REC.		
TRAFFIC		
PATS/130		
CLASSIFICATION		
UCNI		
UNCLASSIFIED		
CONFIDENTIAL		
SECRET		

AUTHORIZED CLASSIFIER
Exempt from class
per CEX-105-01
Date

IN REPLY TO RFP CC NO:
N/A

ACTION ITEM STATUS

☐ PARTIAL/OPEN

☐ CLOSED

LTR APPROVALS:

ORIG & TYPIST INITIALS
DAW/PLH

Revision 09/04

KAISER•HILL
COMPANY

September 29, 2005 05-RF-00910

Mr. Cliff Franklin
MV72
DOE, RFPO

TRANSMITTAL OF ROCKY FLATS ADAPTIVE MANAGEMENT PLAN - DAW-039-05

Dear Cliff:

Enclosed is the Adaptive Management Plan (Plan) as required by the United States Fish and Wildlife Surface (USFWS) Rocky Flats Programmatic Biological Assessment Part II, Biological Opinion (PBA Part II) Terms and Conditions 4.f and 5., dated April 5, 2004. The Plan has incorporated the comments from the USFWS meeting on May 25, 2005. As required by the PBA Part II, the Department of Energy is to transmit the Plan to the USFWS.

If you have any questions concerning the Plan please call me at 303-966-5938 or Jody Nelson at 303-966-2231.

Sincerely,

David Ward
Environmental Stewardship

DAW/plh

Enclosure
As Stated

RECEIVED
OCT 17 2005

ADMIN RECORD

Kaiser-Hill Company, L L C
Rocky Flats Environmental Technology Site, 10808 Hwy. 93 Unit B, Golden CO 80403-8200 303-966-7000

PROBRAMMATIC BIOLOGICAL ASSEMENT PART II

ROCKY FLATS ADAPTIVE MANAGEMENT PLAN

1. Introduction and Purpose

Rocky Flats Environmental Technology Site (Site, RFETS) is an U.S. Department of Energy (DOE) nuclear industrial facility that has been part of the nationwide nuclear weapons complex since 1951. The Site is located in rural Jefferson County, Colorado, approximately 16 miles northwest of Denver, and 5 miles southeast of Boulder. The Site covers approximately 6,300 acres, of which approximately 5,900 acres forms an undeveloped Buffer Zone (BZ) around the central industrialized portion (Industrial Area; IA). The original mission of this DOE facility was the manufacture of nuclear weapons components. After the end of the Cold War, nuclear weapons production was stopped. In 1996, the U.S. Department of Energy, Rocky Flats Field Office (DOE), the Environmental Protection Agency (EPA), and the Colorado Department of Public Health and Environment (CDPHE) executed the Rocky Flats Cleanup Agreement (RFCA). RFCA is the Federal Facility Compliance Agreement and Consent Order negotiated pursuant to the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the Resource Conservation and Recovery Act (RCRA), and Colorado Hazardous Waste Act (CHWA). RFCA provides the regulatory framework for attaining the goal to achieve accelerated cleanup and Site closure in a manner that is safe to workers and the public, and protective of the environment. At this time the Site is undergoing cleanup and closure. After Site cleanup and closure is completed, portions of the Site will become the Rocky Flats National Wildlife Refuge (RFNWR) to be managed by the U.S. Fish and Wildlife Service (USFWS).

As a result of the decision to close Rocky Flats and remove and remediate the infrastructure in the IA, the need for imported domestic water at the Site has been eliminated. Additionally, the removal of buildings, parking lots, and roads (all impervious surfaces), will return the IA to natural grasslands which will absorb and/or evapotranspirate much of the precipitation water that previously flowed overland and into either the Walnut or Woman Creek drainages at the Site. As a result, a substantial reduction in the amount of surface water flow is anticipated in Walnut Creek, with lesser reductions in the Woman Creek drainage. This reduction in water flow has the potential to impact the habitat of the federally protected Preble's meadow jumping mouse (Preble's mouse; *Zapus hudsonius preblei*) including wetlands in the Walnut and Woman Creek drainages downstream of the IA.

A Section 7 Consultation was conducted with the USFWS to address potential impacts to the Preble's mouse resulting from Site cleanup and closure activities. A Programmatic Biological Assessment PBA (Parts I and II) was submitted to the

USFWS (DOE 2004a, 2004b). A Programmatic Biological Opinion (PBO) was received from the USFWS for Part I and II, giving the Site permission to conduct selected activities within Preble's mouse habitat (USFWS 2004a, 2004b). As part of the agreement with the USFWS, DOE agreed (Part II of the PBA; PBO) to develop an adaptive management plan for the Walnut and Woman Creek drainages to address potential changes in Preble's mouse habitat as a result of water depletions from the elimination of imported water and removal of impervious surfaces in the IA. The adaptive management strategy is to describe how habitat , including wetlands will be measured, how loss will be determined, and the steps that will be taken to compensate for that habitat loss, should it occur. This document serves to meet this requirement of the PBA.

This Adaptive Management Plan also fulfills the requirement of the Environmental Assessment for Pond and Land Configuration (DOE 2004c) to provide an environmental analysis for the depletion of available water to the North and South Walnut Creek drainages. Therefore, in addition to addressing the impacts to the Preble's mouse habitat it describes how wetlands downstream of the IA in Walnut Creek will be measured and how impacts will be determined. There is no requirement under The Clean Water Act to mitigate wetland loss for activities which do not discharge into wetlands and since the action of cessation of water does not discharge into a wetland there is no mitigation requirement. DOE does have a commitment to minimize wetland loss and to preserve the values of wetlands, the Stanley Lake Wetland Mitigation Bank and the Site's Best Management Practices for activities in wetlands fulfills this obligation. Therefore wetland mitigation will not be further addressed in this Plan. The elimination of imported water and removal of the impervious surfaces will affect downstream surface water flows that may affect habitat, including wetlands downstream of the IA in Walnut Creek Drainage

2. Mitigation Efforts To Date

The Site has mitigated both habitat and wetland disturbances by avoidance and minimizing disturbances. The design teams were aware of where the habitat and wetlands were in relations to the actions they were designing. The Site's ecology group provided input during design and construction. Several construction crews provided ways to minimize disturbances in the sensitive areas while at the same time improving efficiencies and therefore reducing the time of the activity in the sensitive area. These efforts include but are limited to the following: moving a geoprobe to the pond bottoms for sampling with a crane setting outside the habitat; use of large equipment stationed outside of the habitat to reach and remove manmade items from the habitat; combining several projects together for a one time disturbance; routing equipment the long way around the habitat instead of through it; use of hand tools and foot traffic when work could be safely done.

The avoidance and minimization mitigation provided substantial reduction in the estimated disturbances to the habitat and wetlands. In April 2004 both Site and USFWS estimated there would be approximately 57 acres of Preble's mouse habitat

disturbed and in October 2004 the Site had estimated approximately 12 acres of wetland would be impacted. With cleanup and closure activities in habitat areas completed it is an estimated 37 acres of habitat and 8 acres of wetlands have been distributed. It is estimated that approximately 20 acres of habitat and 4 acres of wetlands will mitigated in-situ. The recovery was initiated by preparing and reseeding of the disturbed areas with the appropriate seed mixture for dry, wetland, and transition areas. Then the appropriate erosion controls were put in place and monitored. In addition, during the spring of 2005 a very successful planting of willows from areas being disturbed and willow cuttings from various locations on site were planted in areas that had already been remediated.

At one location in the Walnut Creek Drainage, the B-pond remediation project, where open water existed before the remediation, an emergent wetland was designed and built. The B-pond remediation project included ponds B-1, B-2 and B-3, all downstream of the IA and with B-3 also being downstream of the National Pollution Discharge Elimination System Permit discharge point. After the ponds were remediated the designed wetlands were constructed and rainwater was diverted into the ponds in July of 2005 and, as September of 2005, all three ponds were still retaining their appropriate water levels.

To offset the remaining impacts three new wetlands are developing in existing drainages, one in South Walnut Creek and two in North Walnut Creek. Two of the wetlands were designed and built during reconfiguration of the Industrial Area drainages. Initially these two areas were designed as typical storm water channels but were modified to accommodate the wetland design. The third wetland was created from an area used to provide clean fill for the various cleanup projects on Site. The area was excavated down to where groundwater daylights and planted with wetland seed mixture. Willow cuttings will be planted in the upper reaches of this drainage channel. Together these three wetland areas are estimated to provide between 15 to 20 acres of Preble's habitat and approximately 11.5 acres of wetlands. All three areas have had water all summer long.

The IA drainage reconfiguration has also reconnected several potential habitat areas with already existing habitat areas thereby increasing the connectivity of the Preble's mouse habitat at the Site. Isolated wetlands have also been reconnected to the main drainages.

The appropriate approved weed controls measures have been used in Preble's mouse habitat to help the native species to establish.

3. Water Depletion

   A. Background

A Site-Wide Water Balance (SWWB) modeling study (K-H 2002a) showed substantial changes in the hydrology of Walnut Creek. Walnut Creek discharges

decreased for the following three reasons: (1) Waste Water Treatment Plant contributions to Walnut Creek were eliminated; (2) impervious surfaces in the IA were removed, thereby eliminating fast runoff; and (3) building drain discharges to Industrial Area streams were eliminated.

Based on the Site Wide Water Balance Study, under the No Imported Water Scenario, off-Site surface discharge in Walnut Creek decreased from about 800,000 m^3/year to 510,000 m^3/year in wet years, and from 450,000 m^3/year to 190,000 m^3/year in dry years. Under the Land Configuration Scenario, off-site surface discharge in Walnut Creek decrease from about 800,000 m3/year to 180,000m3/year in wet years. In dry years the modeling showed a decrease from 450,000 m3/year to 20,000 m3/year. The Land Configuration Scenario described the combined effect of the no imported water in addition to the reduced water from surface water flows in the IA. Overall reductions of water flow at the site boundary in Walnut Creek are estimated to range from about 78 percent in wet years to about 96 percent in dry years.

B. Potential Impacts

The amount and type of impacts to Preble's mouse habitat and wetlands onsite in the Walnut Creek Drainage resulting from water depletion and closure of the Site is difficult to estimate for several reasons. The amount of wetland reduction, resulting from the water loss discussed in Section 3.a, for the B-series ponds, South Walnut Creek, and the A-series ponds, North Walnut Creek was estimated in the Environmental Assessment – DOE/EA 1492 for Pond and Land Configuration (K-H 2004c) to be 2.21 and 1.46 acres respectively, which totals 3.67 acres. The 3.67 acres of possible loss, which includes 2.24 acres of open water and 1.43 acres of wetlands, represents about 19 percent of the wetlands in this stretch of Walnut Creek. Assuming approximately a 1.5 ratio between wetland acres converted to Preble's mouse habitat, there would be approximately 2.2 acres of habitat loss for this portion of the Walnut Creek Drainage (1.43 acres X 1.5 = 2.2 acres. Open water does not count as Preble's habitat).

The Walnut Creek Drainage between Pond B-5 and Indiana Street is approximately a mile of steam channel and 3.2 acres of wetlands. The impact to this area will largely depend on when and how frequently water is released from the terminal ponds. The greatest impact will result if water is only released once or twice a year, for short periods and during the wet portion of the year. A more constant or staggered flow throughout the growing season in this stretch of stream length will minimize the impacts. A worst case estimate is the wetlands would be reduced by the same percentage of wet years flow, 78 percent or 2.5 acres. Again using the 1.5 ratio between habitat and wetland there may be a habitat loss of 3.75 acres (2.5 acres X 1.5 = 3.75). This would still leave enough of a habitat and wetland to connect the Site with downstream wetlands and habitat.

a possible loss of about six acres of habitat (approximately 5.95 acres) res of wetlands (approximately 6.17 acres) may occur in the Walnut Creek The IA reconfiguration, and the B-pond remediation projects along with ion 17 Conservation Easement and the Standley Lake Wetland Mitigation will more than offset these losses. The IA reconfiguration has connected al isolated habitat units and wetlands to provide a more contiguous and less mented riparian corridor for wildlife in the Walnut Creek Drainage than existed fore.

Water depletion impacts appear to be localized to specific stretches of the Walnut Creek Drainage and wildlife will be able to migrate to other nearby areas in Walnut Creek Drainage and Big Dry Creek Drainage. The areas impacted may only change the category of habitat or wetland.

4. Definition of Adaptive Management

The term adaptive management has been used to mean various things. As used in this document, it is defined as an approach to resource management in which management goals remain constant, but management objectives and techniques may be modified in response to feedback (such as monitoring results) from the system being managed. This Adaptive Management is not an accounting system for tracking acre for acre but a method to provide for the Preble's mouse survival, which could mean fewer higher quality acres. A key component of adaptive management is the recognition that our knowledge of biological and physical systems is limited and that these systems may not always behave as expected. There is typically some uncertainty regarding the response of the ecosystem to particular actions, when a management or restoration project is implemented. An adaptive management approach provides a way for management actions to respond to feedback from the system being managed (Jones and Stokes 1998). There are six steps common to adaptive management plans: problem assessment, design, implementation, monitoring, evaluation, and adjustment (BC Forest Service 1999).

5. Preble's Mouse and Wetland Adaptive Management Plan

A. Management Goal

Provide viable and sustainable Preble's mouse habitat including wetlands in the Walnut Creek and Woman Creek drainages.

B. Question

How will the riparian vegetation and the wetlands in the drainage respond over time to the loss of surface water flow?

C. Objectives

Monitor existing and post-closure vegetation and wetlands in the Walnut and Woman Creek drainages on-Site to determine if changes result from baseline conditions. Baseline conditions are defined as pre-water depletion conditions that existed prior to the water shut-off that occurred in October 2004.

D. Monitoring

The use of current baseline vegetation and wetland information in the form of photographs (both ground and aerial), and vegetation and wetland mapping data will be used for comparison with post-closure conditions. Repeat photography will be taken during the third (2008) and fifth year (2010) post-closure. Comparisons of new photographs to baseline photographs will be made to evaluate whether changes in the plant community have occurred. Vegetation and wetland delineation mapping data will be collected during the fifth year (2010) post-closure. The mapping data will be incorporated into a GIS database for comparison to baseline data. At the end of five years, the need for continued monitoring will be re-evaluated. Annual and monthly summaries of hydrologic data for surface water flows and pond releases through selected surface water monitoring flumes in Walnut and Woman Creeks will be reported in the reports for each year post-closure throughout the duration when vegetation and wetland data is collected.

E. Reporting

A report summarizing the monitoring results will be prepared by DOE to summarize the data collected in 2008 and 2010.

F. Adaptive Management Measures

Using monitoring photographs and mapping data, the DOE and the USFWS will evaluate whether changes have occurred to the vegetation and wetlands in the Walnut and Woman Creek drainages. Evaluations will take place after data have been collected and analyzed in 2008 and 2010. Should changes be observed, the DOE and USFWS will discuss potential actions that could reasonably be expected to achieve the desired goal.

6. Conclusion

The closure and cleanup of Site has changed the Preble's habitat and wetlands in the Walnut Creek Drainage on Site. It will take years for this system to stabilize. Monitoring, weed control and management of the area will be required to determine how much of the current habitat and wetlands will be viable under the changed conditions.

7. References

BC Forest Service. 1999. An Introductory Guide to Adaptive Management for Project Leaders and Participants. Prepared by: Forest Practices Branch, BC Forest Service, Victoria, BC, Canada. January 1999. Available on WWW at: http://www.for.gov.bc.ca/hfp/amhome/ Pubs/Introductory-Guide-AM.pdf (accessed 9/28/05).

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DOE. 2004c. Environmental Assessment Comment Response, and Finding of No Significant Impact. Pond and Land Configuration. DOE/EA – 1492. U.S. Department of Energy, Rocky Flats Field Office, Golden, CO. October 2004.

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KAISER•HILL
COMPANY

September 29, 2005 05-RF-00910

Mr. Cliff Franklin
MV72
DOE, RFPO

TRANSMITTAL OF ROCKY FLATS ADAPTIVE MANAGEMENT PLAN - DAW-039-05

Dear Cliff:

Enclosed is the Adaptive Management Plan (Plan) as required by the United States Fish and Wildlife Surface (USFWS) Rocky Flats Programmatic Biological Assessment Part II, Biological Opinion (PBA Part II) Terms and Conditions 4.f and 5., dated April 5, 2004. The Plan has incorporated the comments from the USFWS meeting on May 25, 2005. As required by the PBA Part II, the Department of Energy is to transmit the Plan to the USFWS.

If you have any questions concerning the Plan please call me at 303-966-5938 or Jody Nelson at 303-966-2231.

Sincerely,

David Ward
Environmental Stewardship

DAW/plh

Enclosure
As Stated

RECEIVED
OCT 17 2005

Kaiser-Hill Company, L L C
Rocky Flats Environmental Technology Site, 10808 Hwy. 93 Unit B, Golden CO 80403-8200 303-966-7000

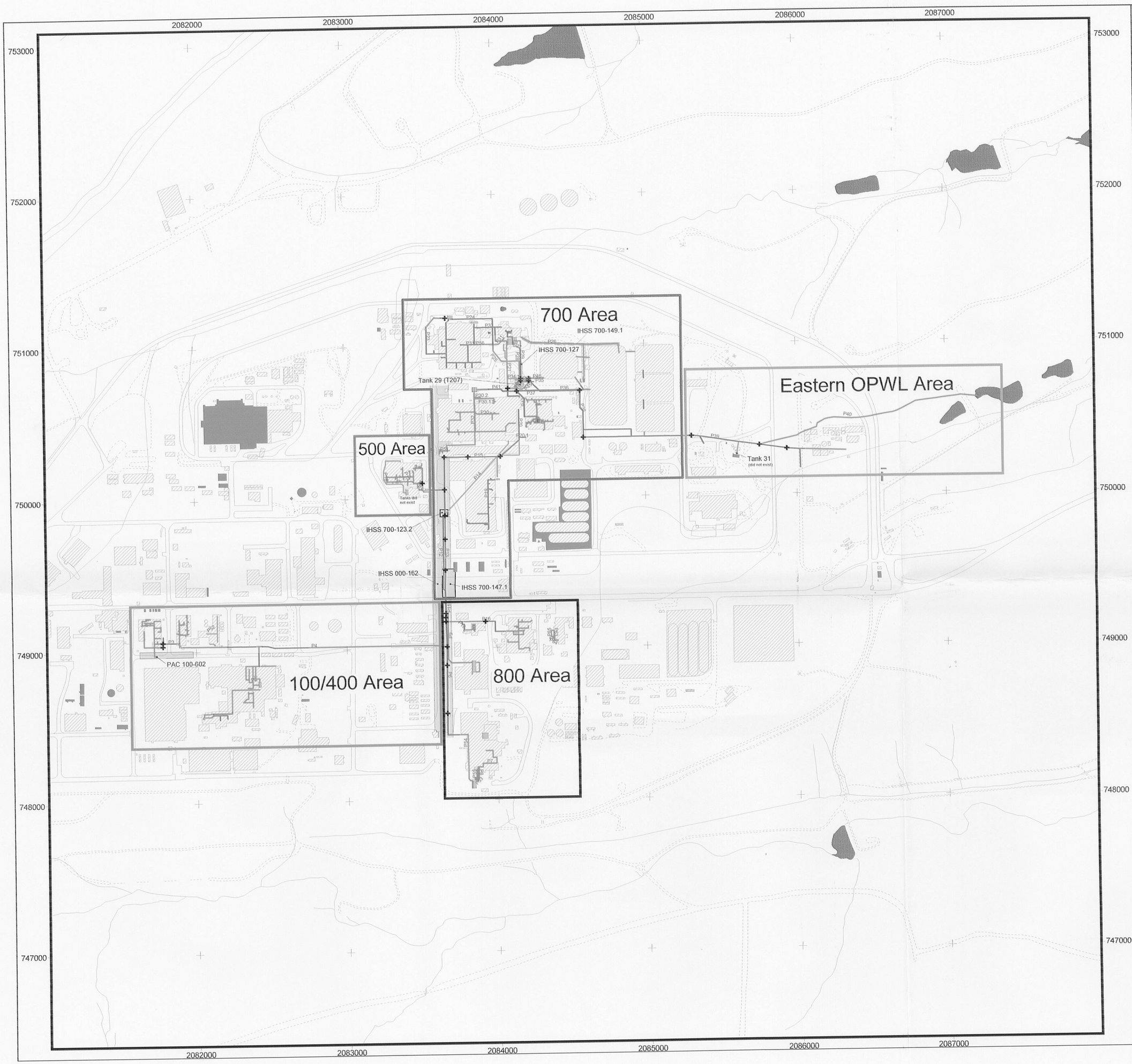

Figure 1

IHSS Group 000-2 OPWL Location

KEY

OPWL pipe status

- OPWL grouted and left in place
- OPWL removed
- OPWL does not exist
- Manway/valve pit (removed)

- IHSS
- Tank (removed)
- Tank (left in place)

- Building/structure
- Demolished structure
- Paved area
- Dirt road
- Steam, ditch, or other drainage
- Lake or pond

N W E S

300 0 300 600 Feet

Scale = 1:5,000

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: RADMS Date: September 2005

Prepared for: KAISER•HILL COMPANY

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1 of 13

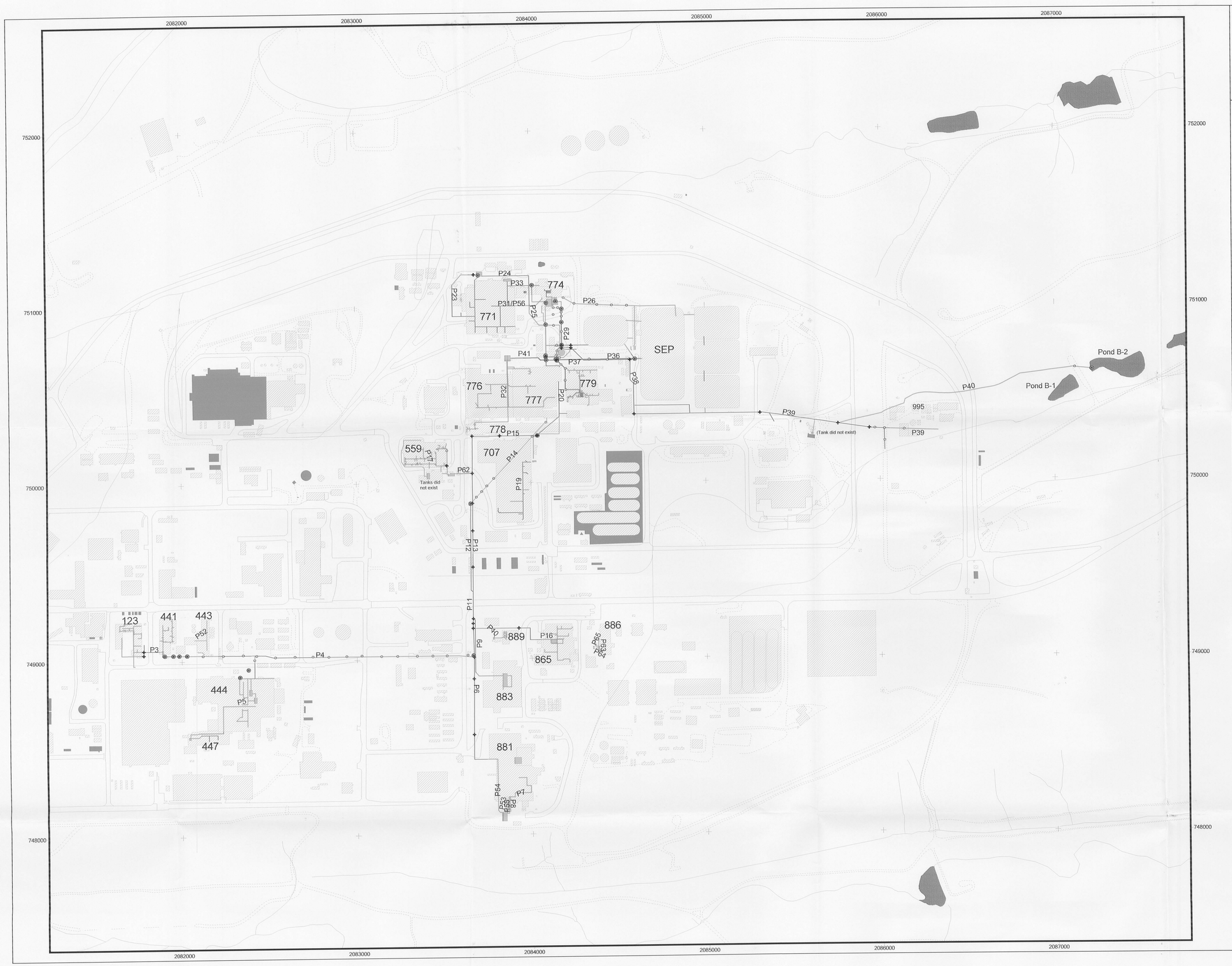

Figure 2

OPWL
Reported and Suspected Leaks

KEY

- Reported leak
- Suspected leak
- Tank (removed)
- Tank (left in place)
- Building/structure
- Demolished structure
- Paved area
- Dirt road
- Steam, ditch, or other drainage
- Lake or pond
- OPWL grouted and left in place
- OPWL removed
- OPWL does not exist
- Manway or valve pit remvoed

N
W E
S

500 0 500 Feet

Scale = 1:3,000

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: RADMS

Date: September 2005

Prepared for: KAISER•HILL COMPANY

File: W:\Projects\Fy2005\000-2\COR\AV_Projects\opwl_cor_fig1235.apr

IA-A-002865
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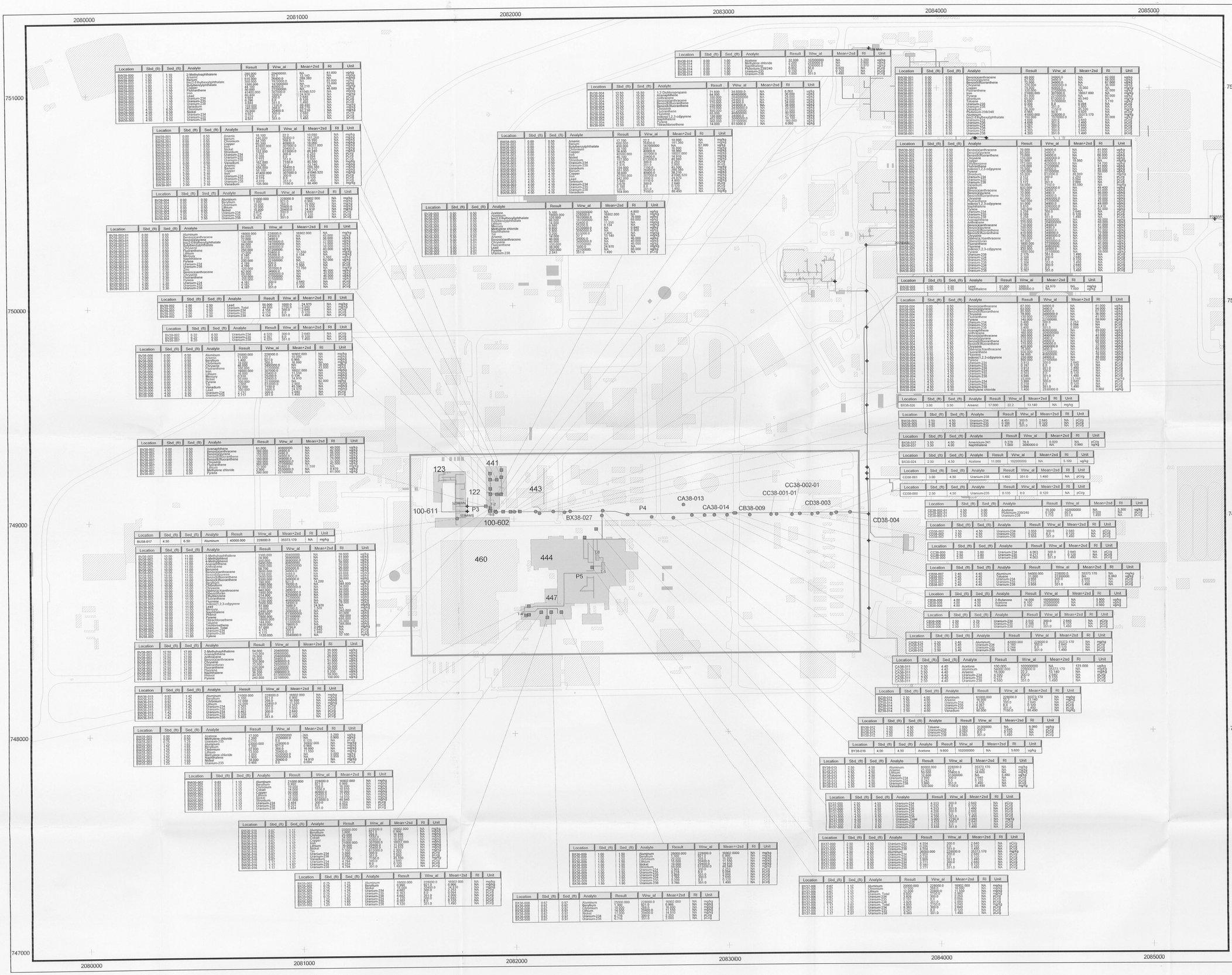
Figure 3

100/400 Area Characterization Soil Sampling Results Greater Than Background Means Plus Two Standard Deviations or RLs



KEY

IHSS Group 000-2

- Location with concentrations greater than WRW ALs
- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs

Other IHSS Group

- Location with concentrations greater than WRW ALs
- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs

OPWL pipe status

- OPWL left in place
- OPWL removed
- OPWL does not exist

- Manway or valve pit (removed)
- Structure
- Demolished structure
- IHSS, PAC or UBC
- Tank (removed)
- Paved area

N W E S

300 0 300 Feet

Scale = 1:2,500

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: RADMS — Date: September 2005

Prepared for: KAISER•HILL COMPANY

File: W:\Projects\FY2005\000-2\COR\AV_Projects\opwl_cor_fig1235.apr

IA-A-002865
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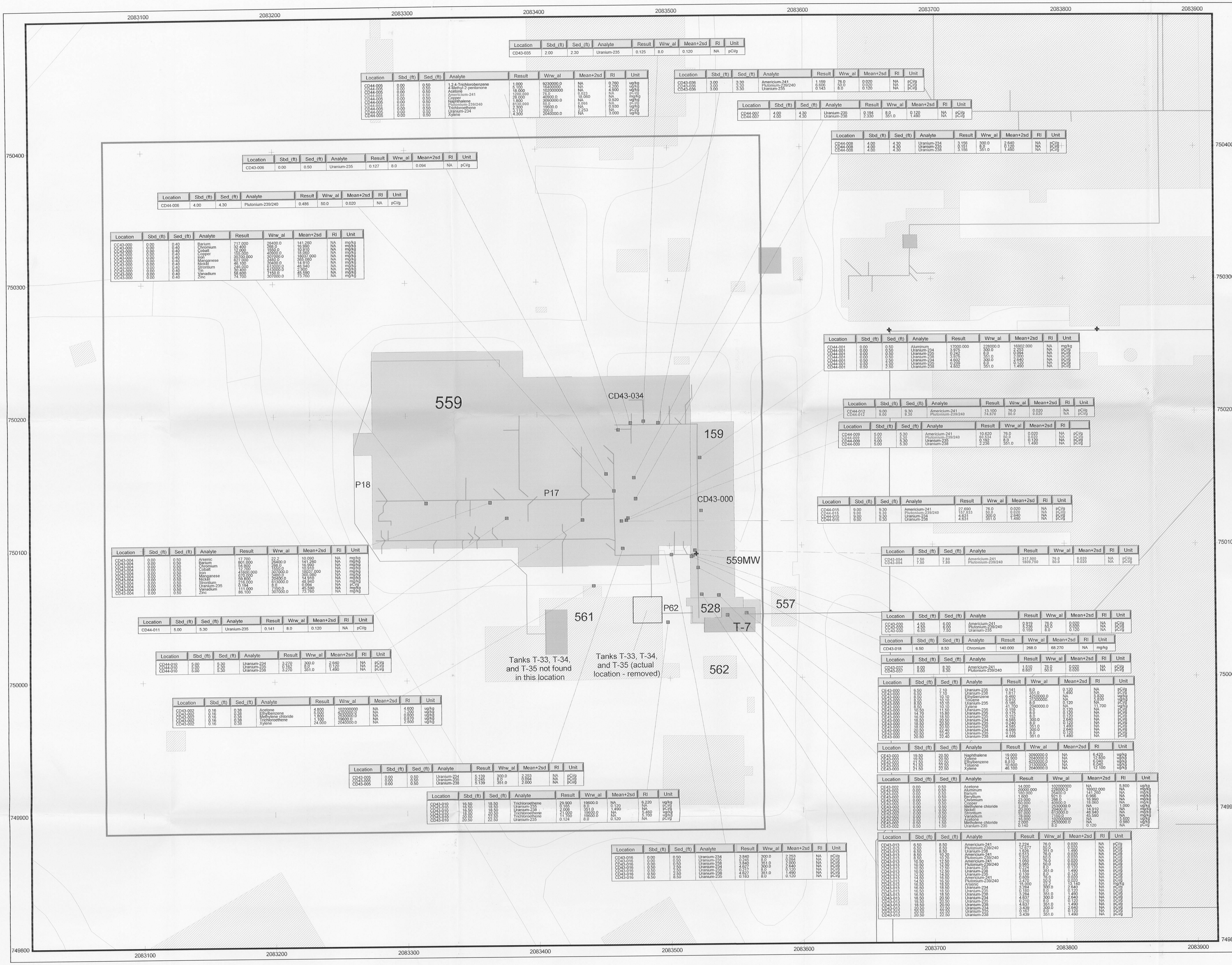
Figure 5

500 Area Characterization and In-Process Soil Sampling Results Greater Than Background Means Plus Two Standard Deviations or RLs



Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD43-035	2.00	2.30	Uranium-235	0.125	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD44-005	0.00	0.50	1,2,4-Trichlorobenzene	1.000	9230000.0	NA	0.760	ug/kg
CD44-005	0.00	0.50	4-Methyl-2-pentanone	5.100	16400000.	NA	4.200	ug/kg
CD44-005	0.00	0.50	Acetone	18.000	102000000	NA	4.900	ug/kg
CD44-005	0.00	0.50	Americium-241	1200.000	76.0	0.023	NA	pCi/g
CD44-005	0.00	0.50	Copper	28.000	40900.0	18.060	NA	mg/kg
CD44-005	0.00	0.50	Naphthalene	1.800	3090000.0	NA	0.920	ug/kg
CD44-005	0.00	0.50	Plutonium-239/240	8130.000	50.0	0.066	NA	pCi/g
CD44-005	0.00	0.50	Trichloroethene	2.300	19600.0	NA	0.930	ug/kg
CD44-005	0.00	0.50	Uranium-234	3.110	300.0	2.253	NA	pCi/g
CD44-005	0.00	0.50	Xylene	4.300	2040000.0	NA	3.000	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD43-036	3.00	3.30	Americium-241	1.159	76.0	0.020	NA	pCi/g
CD43-036	3.00	3.30	Plutonium-239/240	6.606	50.0	0.020	NA	pCi/g
CD43-036	3.00	3.30	Uranium-235	0.143	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD44-007	4.00	4.30	Uranium-235	0.194	8.0	0.120	NA	pCi/g
CD44-007	4.00	4.30	Uranium-238	2.330	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD44-008	4.00	4.30	Uranium-234	3.156	300.0	2.640	NA	pCi/g
CD44-008	4.00	4.30	Uranium-235	0.151	8.0	0.120	NA	pCi/g
CD44-008	4.00	4.30	Uranium-238	3.156	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD43-006	0.00	0.50	Uranium-235	0.127	8.0	0.094	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD44-006	4.00	4.30	Plutonium-239/240	0.486	50.0	0.020	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CC43-000	0.00	0.40	Barium	717.000	26400.0	141.260	NA	mg/kg
CC43-000	0.00	0.40	Chromium	32.400	268.0	16.990	NA	mg/kg
CC43-000	0.00	0.40	Cobalt	12.000	1550.0	10.910	NA	mg/kg
CC43-000	0.00	0.40	Copper	155.000	40900.0	18.060	NA	mg/kg
CC43-000	0.00	0.40	Iron	35700.000	307000.0	18037.000	NA	mg/kg
CC43-000	0.00	0.40	Manganese	627.000	3480.0	365.080	NA	mg/kg
CC43-000	0.00	0.40	Nickel	46.100	20400.0	14.910	NA	mg/kg
CC43-000	0.00	0.40	Strontium	246.000	613000.0	48.940	NA	mg/kg
CC43-000	0.00	0.40	Tin	30.400	613000.0	2.900	NA	mg/kg
CC43-000	0.00	0.40	Vanadium	58.600	7150.0	45.590	NA	mg/kg
CC43-000	0.00	0.40	Zinc	74.700	307000.0	73.760	NA	mg/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD44-001	0.00	0.50	Aluminum	17000.000	228000.0	16902.000	NA	mg/kg
CD44-001	0.00	0.50	Uranium-234	3.975	300.0	2.253	NA	pCi/g
CD44-001	0.00	0.50	Uranium-235	0.242	8.0	0.094	NA	pCi/g
CD44-001	0.00	0.50	Uranium-238	3.975	351.0	2.000	NA	pCi/g
CD44-001	0.50	2.50	Uranium-234	4.602	300.0	2.640	NA	pCi/g
CD44-001	0.50	2.50	Uranium-235	0.209	8.0	0.120	NA	pCi/g
CD44-001	0.50	2.50	Uranium-238	4.602	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD44-012	9.00	9.30	Americium-241	13.100	76.0	0.020	NA	pCi/g
CD44-012	9.00	9.30	Plutonium-239/240	74.670	50.0	0.020	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	
CD44-009	5.00	5.30	Americium-241	10.620	76.0	0.020	NA	pCi/g
CD44-009	5.00	5.30	Plutonium-239/240	60.534	50.0	0.020	NA	pCi/g
CD44-009	5.00	5.30	Uranium-235	0.192	8.0	0.120	NA	pCi/g
CD44-009	5.00	5.30	Uranium-238	2.236	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD44-015	9.00	9.30	Americium-241	27.690	76.0	0.020	NA	pCi/g
CD44-015	9.00	9.30	Plutonium-239/240	157.833	50.0	0.020	NA	pCi/g
CD44-015	9.00	9.30	Uranium-234	4.631	300.0	2.640	NA	pCi/g
CD44-015	9.00	9.30	Uranium-238	4.631	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD43-054	7.50	7.80	Americium-241	317.500	76.0	0.020	NA	pCi/g
CD43-054	7.50	7.80	Plutonium-239/240	1809.750	50.0	0.020	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD43-004	0.00	0.50	Arsenic	17.700	22.2	10.090	NA	mg/kg
CD43-004	0.00	0.50	Barium	801.000	26400.0	141.260	NA	mg/kg
CD43-004	0.00	0.50	Chromium	54.900	268.0	16.990	NA	mg/kg
CD43-004	0.00	0.50	Cobalt	12.700	1550.0	10.910	NA	mg/kg
CD43-004	0.00	0.50	Iron	41600.000	307000.0	18037.000	NA	mg/kg
CD43-004	0.00	0.50	Manganese	670.000	3480.0	365.080	NA	mg/kg
CD43-004	0.00	0.50	Nickel	59.800	20400.0	14.910	NA	mg/kg
CD43-004	0.00	0.50	Strontium	216.000	613000.0	48.940	NA	mg/kg
CD43-004	0.00	0.50	Uranium-235	0.194	8.0	0.094	NA	pCi/g
CD43-004	0.00	0.50	Vanadium	111.000	7150.0	45.590	NA	mg/kg
CD43-004	0.00	0.50	Zinc	86.100	307000.0	73.760	NA	mg/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD44-011	5.00	5.30	Uranium-235	0.141	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD44-010	5.00	5.30	Uranium-234	3.270	300.0	2.640	NA	pCi/g
CD44-010	5.00	5.30	Uranium-235	0.162	8.0	0.120	NA	pCi/g
CD44-010	5.00	5.30	Uranium-238	3.270	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD43-002	0.16	0.38	Acetone	4.800	102000000	NA	4.600	ug/kg
CD43-002	0.16	0.38	Ethylbenzene	5.500	4250000.0	NA	1.200	ug/kg
CD43-002	0.16	0.38	Methylene chloride	1.800	2530000.0	NA	0.800	ug/kg
CD43-002	0.16	0.38	Trichloroethene	1.100	19600.0	NA	0.870	ug/kg
CD43-002	0.16	0.38	Xylene	24.000	2040000.0	NA	2.800	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD43-005	0.00	0.50	Uranium-234	5.139	300.0	2.253	NA	pCi/g
CD43-005	0.00	0.50	Uranium-235	0.245	8.0	0.094	NA	pCi/g
CD43-005	0.00	0.50	Uranium-238	5.139	351.0	2.000	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD43-010	16.50	18.50	Trichloroethene	29.900	19600.0	NA	6.220	ug/kg
CD43-010	16.50	18.50	Uranium-235	0.165	8.0	0.120	NA	pCi/g
CD43-010	16.50	18.50	Uranium-238	2.008	351.0	1.490	NA	pCi/g
CD43-010	18.50	20.50	Trichloroethene	21.000	19600.0	NA	5.460	ug/kg
CD43-010	20.50	22.50	Trichloroethene	11.700	19600.0	NA	5.700	ug/kg
CD43-010	20.50	22.50	Uranium-235	0.124	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD43-016	0.00	0.50	Uranium-234	3.840	300.0	2.253	NA	pCi/g
CD43-016	0.00	0.50	Uranium-235	0.245	8.0	0.094	NA	pCi/g
CD43-016	0.00	0.50	Uranium-238	3.840	351.0	2.000	NA	pCi/g
CD43-016	0.50	2.50	Uranium-234	4.627	300.0	2.640	NA	pCi/g
CD43-016	0.50	2.50	Uranium-235	0.217	8.0	0.120	NA	pCi/g
CD43-016	0.50	2.50	Uranium-238	4.627	351.0	1.490	NA	pCi/g
CD43-016	6.50	8.50	Uranium-235	0.183	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CC43-030	4.50	6.00	Americium-241	0.919	76.0	0.020	NA	pCi/g
CC43-030	4.50	6.00	Plutonium-239/240	5.236	50.0	0.020	NA	pCi/g
CC43-030	6.50	7.50	Uranium-235	0.159	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD43-018	6.50	8.50	Chromium	140.000	268.0	68.270	NA	mg/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD43-037	8.00	8.30	Americium-241	1.510	76.0	0.020	NA	pCi/g
CD43-037	8.00	8.30	Plutonium-239/240	8.607	50.0	0.020	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CE43-000	6.50	7.10	Uranium-235	0.141	8.0	0.120	NA	pCi/g
CE43-000	6.50	7.10	Uranium-238	1.817	351.0	1.490	NA	pCi/g
CE43-000	8.50	10.10	Ethylbenzene	6.460	4250000.0	NA	5.830	ug/kg
CE43-000	8.50	10.10	Toluene	6.910	31300000.	NA	5.830	ug/kg
CE43-000	8.50	10.10	Uranium-235	0.185	8.0	0.120	NA	pCi/g
CE43-000	8.50	10.10	Xylene	41.700	2040000.0	NA	11.700	ug/kg
CE43-000	10.50	11.50	Uranium-235	0.159	8.0	0.120	NA	pCi/g
CE43-000	14.70	15.80	Uranium-235	0.175	8.0	0.120	NA	pCi/g
CE43-000	16.50	18.50	Uranium-235	0.152	8.0	0.120	NA	pCi/g
CE43-000	18.50	20.50	Uranium-234	4.585	300.0	2.640	NA	pCi/g
CE43-000	18.50	20.50	Uranium-235	0.240	8.0	0.120	NA	pCi/g
CE43-000	18.50	20.50	Uranium-238	4.585	351.0	1.490	NA	pCi/g
CE43-000	20.50	22.40	Uranium-234	4.066	300.0	2.640	NA	pCi/g
CE43-000	20.50	22.40	Uranium-235	0.175	8.0	0.120	NA	pCi/g
CE43-000	20.50	22.40	Uranium-238	4.066	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CE43-003	19.50	20.50	Naphthalene	19.000	3090000.0	NA	6.420	ug/kg
CE43-003	19.50	20.50	Xylene	14.900	2040000.0	NA	12.800	ug/kg
CE43-003	21.50	22.50	Ethylbenzene	8.810	4250000.0	NA	6.040	ug/kg
CE43-003	21.50	22.50	Toluene	10.600	31300000.	NA	6.040	ug/kg
CE43-003	21.50	22.50	Xylene	46.100	2040000.0	NA	12.100	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CE43-002	0.00	0.50	Acetone	14.000	102000000	NA	5.800	ug/kg
CE43-002	0.00	0.50	Aluminum	20000.000	228000.0	16902.000	NA	mg/kg
CE43-002	0.00	0.50	Barium	180.000	26400.0	141.260	NA	mg/kg
CE43-002	0.00	0.50	Beryllium	1.600	921.0	0.966	NA	mg/kg
CE43-002	0.00	0.50	Chromium	23.000	268.0	16.990	NA	mg/kg
CE43-002	0.00	0.50	Copper	60.000	40900.0	18.060	NA	mg/kg
CE43-002	0.00	0.50	Methylene chloride	2.200	2530000.0	NA	1.000	ug/kg
CE43-002	0.00	0.50	Nickel	20.000	20400.0	14.910	NA	mg/kg
CE43-002	0.00	0.50	Strontium	97.000	613000.0	48.940	NA	mg/kg
CE43-002	0.00	0.50	Vanadium	78.000	7150.0	45.590	NA	mg/kg
CE43-002	0.50	1.50	Acetone	16.000	102000000	NA	5.600	ug/kg
CE43-002	0.50	1.50	Methylene chloride	2.000	2530000.0	NA	0.980	ug/kg
CE43-002	0.50	1.50	Uranium-235	0.140	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CD43-013	6.50	8.50	Americium-241	2.224	76.0	0.020	NA	pCi/g
CD43-013	6.50	8.50	Plutonium-239/240	12.677	50.0	0.020	NA	pCi/g
CD43-013	6.50	8.50	Uranium-238	1.626	351.0	1.490	NA	pCi/g
CD43-013	8.50	10.20	Americium-241	0.513	76.0	0.020	NA	pCi/g
CD43-013	8.50	10.20	Plutonium-239/240	2.925	50.0	0.020	NA	pCi/g
CD43-013	10.50	12.50	Americium-241	1.050	76.0	0.020	NA	pCi/g
CD43-013	10.50	12.50	Plutonium-239/240	5.985	50.0	0.020	NA	pCi/g
CD43-013	10.50	12.50	Uranium-235	0.224	8.0	0.120	NA	pCi/g
CD43-013	10.50	12.50	Uranium-238	1.554	351.0	1.490	NA	pCi/g
CD43-013	12.50	14.50	Uranium-235	0.139	8.0	0.120	NA	pCi/g
CD43-013	14.50	16.50	Americium-241	0.609	76.0	0.020	NA	pCi/g
CD43-013	14.50	16.50	Plutonium-239/240	3.470	50.0	0.020	NA	pCi/g
CD43-013	16.50	18.50	Arsenic	15.000	22.2	13.140	NA	mg/kg
CD43-013	16.50	18.50	Uranium-234	3.284	300.0	2.640	NA	pCi/g
CD43-013	16.50	18.50	Uranium-235	0.180	8.0	0.120	NA	pCi/g
CD43-013	16.50	18.50	Uranium-238	3.284	351.0	1.490	NA	pCi/g
CD43-013	18.50	20.50	Uranium-234	4.637	300.0	2.640	NA	pCi/g
CD43-013	18.50	20.50	Uranium-235	0.210	8.0	0.120	NA	pCi/g
CD43-013	18.50	20.50	Uranium-238	4.637	351.0	1.490	NA	pCi/g
CD43-013	20.50	22.50	Uranium-234	3.439	300.0	2.640	NA	pCi/g
CD43-013	20.50	22.50	Uranium-235	0.167	8.0	0.120	NA	pCi/g
CD43-013	20.50	22.50	Uranium-238	3.439	351.0	1.490	NA	pCi/g

KEY

IHSS Group 000-2

- Location with concentrations greater than WRW ALs
- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs

Other IHSS Group

- Location with concentrations greater than WRW ALs
- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs

OPWL pipe status

- OPWL left in place
- OPWL removed
- OPWL does not exist

- Manway or valve pit (removed)
- Structure
- Demolished structure
- IHSS, PAC or UBC
- Tank (removed)
- Paved area

N W E S

300 0 300 Feet

Scale = 1:400

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: RADMS

Date: September 2005

Prepared for: KAISER-HILL COMPANY

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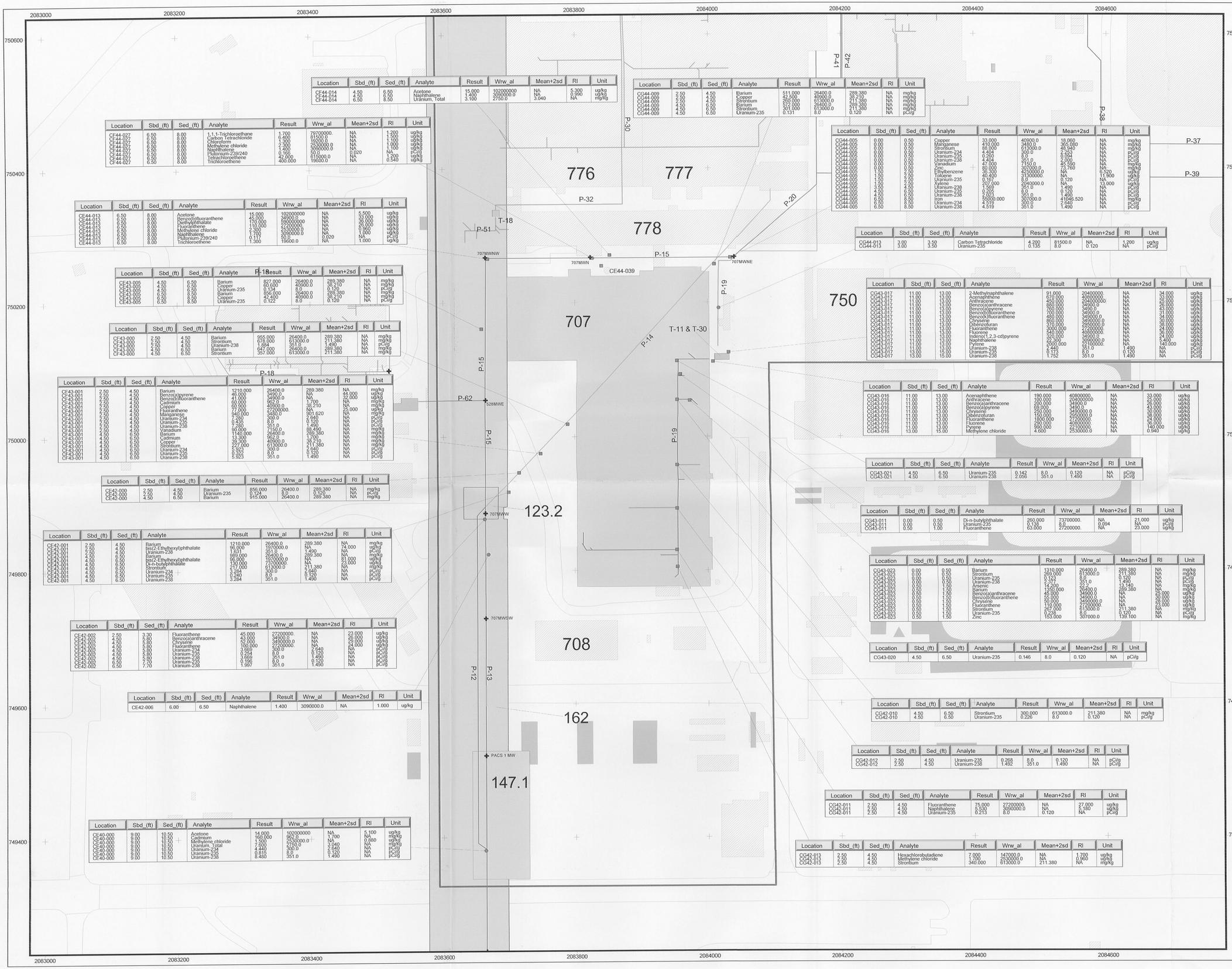

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CE44-014	4.50	6.50	Acetone	15.000	102000000	NA	5.300	ug/kg
CE44-014	4.50	6.50	Naphthalene	1.400	3090000.0	NA	0.990	ug/kg
CE44-014	6.50	8.50	Uranium, Total	3.100	2700.0	3.040	NA	mg/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CE44-027	6.50	8.00	1,1,1-Trichloroethane	1.700	79700000.	NA	1.200	ug/kg
CE44-027	6.50	8.00	Carbon Tetrachloride	0.400	6190.0	NA	1.500	ug/kg
CE44-027	6.50	8.00	Chloroform	1.500	10200.0	NA	1.100	ug/kg
CE44-027	6.50	8.00	Methylene chloride	2.300	2530000.0	NA	1.000	ug/kg
CE44-027	6.50	8.00	Naphthalene	1.400	3090000.0	NA	1.100	ug/kg
CE44-027	6.50	8.00	Plutonium-239/240	0.160	50.0	0.020	NA	pCi/g
CE44-027	6.50	8.00	Tetrachloroethene	42.000	61000.0	NA	1.200	ug/kg
CE44-027	6.50	8.00	Trichloroethene	400.000	19600.0	NA	0.540	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CE44-013	6.50	8.00	Acetone	15.000	102000000	NA	5.500	ug/kg
CE44-013	6.50	8.00	Benzo(b)fluoranthene	45.000	34900.0	NA	33.000	ug/kg
CE44-013	6.50	8.00	Diethylphthalate	170.000	5900000000	NA	36.000	ug/kg
CE44-013	6.50	8.00	Fluoranthene	110.000	27200000.	NA	26.000	ug/kg
CE44-013	6.50	8.00	Methylene chloride	2.300	2530000.0	NA	0.960	ug/kg
CE44-013	6.50	8.00	Naphthalene	1.700	3090000.0	NA	1.000	ug/kg
CE44-013	6.50	8.00	Plutonium-239/240	0.117	50.0	0.020	NA	pCi/g
CE44-013	6.50	8.00	Trichloroethene	1.300	19600.0	NA	1.000	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CE43-005	4.50	6.50	Barium	827.000	26400.0	289.380	NA	mg/kg
CE43-005	4.50	6.50	Copper	60.600	40900.0	38.210	NA	mg/kg
CE43-005	4.50	6.50	Uranium-235	0.135	8.0	0.120	NA	pCi/g
CE43-005	6.50	8.50	Barium	296.000	26400.0	289.380	NA	mg/kg
CE43-005	6.50	8.50	Copper	42.400	40900.0	38.210	NA	mg/kg
CE43-005	6.50	8.50	Uranium-235	0.122	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CE43-000	2.50	4.50	Barium	955.000	26400.0	289.380	NA	mg/kg
CE43-000	2.50	4.50	Strontium	678.000	613000.0	211.380	NA	mg/kg
CE43-000	2.50	4.50	Uranium-238	1.694	351.0	1.490	NA	pCi/g
CE43-000	4.50	6.50	Barium	647.000	26400.0	289.380	NA	mg/kg
CE43-000	4.50	6.50	Strontium	357.000	613000.0	211.380	NA	mg/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CE43-001	2.50	4.50	Barium	1210.000	26400.0	289.380	NA	mg/kg
CE43-001	2.50	4.50	Benzo(a)pyrene	46.000	3490.0	NA	44.000	ug/kg
CE43-001	2.50	4.50	Benzo(b)fluoranthene	41.000	34900.0	NA	32.000	ug/kg
CE43-001	2.50	4.50	Cadmium	60.000	962.0	1.700	NA	mg/kg
CE43-001	2.50	4.50	Copper	60.900	40900.0	38.210	NA	mg/kg
CE43-001	2.50	4.50	Fluoranthene	77.000	27200000.	NA	25.000	ug/kg
CE43-001	2.50	4.50	Manganese	940.000	3480.0	901.620	NA	mg/kg
CE43-001	2.50	4.50	Uranium-234	1.280	300.0	2.640	NA	pCi/g
CE43-001	2.50	4.50	Uranium-235	0.435	8.0	0.120	NA	pCi/g
CE43-001	2.50	4.50	Uranium-238	1.280	351.0	1.490	NA	pCi/g
CE43-001	2.50	4.50	Vanadium	90.000	7150.0	88.490	NA	mg/kg
CE43-001	4.50	6.50	Barium	1140.000	26400.0	289.380	NA	mg/kg
CE43-001	4.50	6.50	Cadmium	13.300	962.0	1.700	NA	mg/kg
CE43-001	4.50	6.50	Copper	38.200	40900.0	38.210	NA	mg/kg
CE43-001	4.50	6.50	Strontium	227.000	613000.0	211.380	NA	mg/kg
CE43-001	4.50	6.50	Uranium-234	3.963	300.0	2.640	NA	pCi/g
CE43-001	4.50	6.50	Uranium-235	0.323	8.0	0.120	NA	pCi/g
CE43-001	4.50	6.50	Uranium-238	3.953	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CE42-000	2.50	4.50	Barium	856.000	26400.0	289.380	NA	mg/kg
CE42-000	2.50	4.50	Uranium-235	0.124	8.0	0.120	NA	pCi/g
CE42-000	4.50	6.50	Barium	915.000	26400.0	289.380	NA	mg/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CE42-001	2.50	4.50	Barium	1210.000	26400.0	289.380	NA	mg/kg
CE42-001	2.50	4.50	bis(2-Ethylhexyl)phthalate	96.000	1970000.0	NA	74.000	ug/kg
CE42-001	2.50	4.50	Uranium-238	1.631	351.0	1.490	NA	pCi/g
CE42-001	4.50	6.50	Barium	989.000	26400.0	289.380	NA	mg/kg
CE42-001	4.50	6.50	bis(2-Ethylhexyl)phthalate	96.000	1970000.0	NA	81.000	ug/kg
CE42-001	4.50	6.50	Di-n-butylphthalate	130.000	7370000.	NA	23.000	ug/kg
CE42-001	4.50	6.50	Strontium	217.000	613000.0	211.380	NA	mg/kg
CE42-001	4.50	6.50	Uranium-234	3.264	300.0	2.640	NA	pCi/g
CE42-001	4.50	6.50	Uranium-235	0.240	8.0	0.120	NA	pCi/g
CE42-001	4.50	6.50	Uranium-238	3.284	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CE42-002	2.50	3.30	Fluoranthene	45.000	27200000.	NA	23.000	ug/kg
CE42-002	4.50	5.80	Benzo(a)anthracene	43.000	34900.0	NA	28.000	ug/kg
CE42-002	4.50	5.80	Chrysene	52.000	3490000.0	NA	29.000	ug/kg
CE42-002	4.50	5.80	Fluoranthene	100.000	27200000.	NA	24.000	ug/kg
CE42-002	4.50	5.80	Uranium-234	3.669	300.0	2.640	NA	pCi/g
CE42-002	4.50	5.80	Uranium-235	0.254	8.0	0.120	NA	pCi/g
CE42-002	4.50	5.80	Uranium-238	3.669	351.0	1.490	NA	pCi/g
CE42-002	6.50	7.70	Uranium-235	0.186	8.0	0.120	NA	pCi/g
CE42-002	6.50	7.70	Uranium-238	1.997	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CE42-006	6.00	6.50	Naphthalene	1.400	3090000.0	NA	1.000	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CE40-000	9.00	10.50	Acetone	14.000	102000000	NA	5.100	ug/kg
CE40-000	9.00	10.50	Cadmium	160.000	962.0	1.700	NA	mg/kg
CE40-000	9.00	10.50	Methylene chloride	3.200	2530000.0	NA	0.880	ug/kg
CE40-000	9.00	10.50	Uranium, Total	7.600	2700.0	3.040	NA	mg/kg
CE40-000	9.00	10.50	Uranium-234	2.440	300.0	2.640	NA	pCi/g
CE40-000	9.00	10.50	Uranium-235	0.412	8.0	0.120	NA	pCi/g
CE40-000	9.00	10.50	Uranium-238	8.480	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CG44-009	2.50	4.50	Barium	511.000	26400.0	289.380	NA	mg/kg
CG44-009	2.50	4.50	Copper	42.500	40900.0	38.210	NA	mg/kg
CG44-009	2.50	4.50	Strontium	269.000	613000.0	211.380	NA	mg/kg
CG44-009	4.50	6.50	Barium	312.000	26400.0	289.380	NA	mg/kg
CG44-009	4.50	6.50	Strontium	301.000	613000.0	211.380	NA	mg/kg
CG44-009	4.50	6.50	Uranium-235	0.131	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CG44-005	0.00	0.50	Copper	33.000	40900.0	18.060	NA	mg/kg
CG44-005	0.00	0.50	Manganese	410.000	3480.0	365.080	NA	mg/kg
CG44-005	0.00	0.50	Strontium	88.000	613000.0	48.940	NA	mg/kg
CG44-005	0.00	0.50	Uranium-234	4.404	300.0	2.253	NA	pCi/g
CG44-005	0.00	0.50	Uranium-235	0.260	8.0	0.094	NA	pCi/g
CG44-005	0.00	0.50	Uranium-238	4.404	351.0	2.000	NA	pCi/g
CG44-005	0.00	0.50	Vanadium	47.000	7150.0	45.590	NA	mg/kg
CG44-005	0.00	0.50	Zinc	80.000	307000.0	73.760	NA	mg/kg
CG44-005	1.50	2.50	Ethylbenzene	95.300	4250000.0	NA	0.520	ug/kg
CG44-005	1.50	2.50	Toluene	40.400	31300000.	NA	11.900	ug/kg
CG44-005	1.50	2.50	Uranium-235	0.167	8.0	0.120	NA	pCi/g
CG44-005	1.50	2.50	Xylene	207.000	2040000.0	NA	13.000	ug/kg
CG44-005	3.50	4.50	Uranium-238	1.569	351.0	1.490	NA	pCi/g
CG44-005	4.50	6.50	Uranium-235	0.205	8.0	0.120	NA	pCi/g
CG44-005	4.50	6.50	Uranium-238	2.059	351.0	1.490	NA	pCi/g
CG44-005	6.50	8.50	Iron	53000.000	307000.0	41046.520	NA	mg/kg
CG44-005	6.50	8.50	Uranium-234	4.519	300.0	2.640	NA	pCi/g
CG44-005	6.50	8.50	Uranium-238	4.519	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CG44-013	3.00	3.50	Carbon Tetrachloride	4.200	81500.0	NA	1.200	ug/kg
CG44-013	3.00	3.50	Uranium-235	0.135	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CG43-017	11.00	13.00	2-Methylnaphthalene	91.000	20400000.	NA	34.000	ug/kg
CG43-017	11.00	13.00	Acenaphthene	610.000	40800000.	NA	25.000	ug/kg
CG43-017	11.00	13.00	Anthracene	450.000	204000000	NA	28.000	ug/kg
CG43-017	11.00	13.00	Benzo(a)anthracene	880.000	34900.0	NA	26.000	ug/kg
CG43-017	11.00	13.00	Benzo(a)pyrene	760.000	3490.0	NA	43.000	ug/kg
CG43-017	11.00	13.00	Benzo(b)fluoranthene	700.000	34900.0	NA	31.000	ug/kg
CG43-017	11.00	13.00	Benzo(k)fluoranthene	480.000	349000.0	NA	34.000	ug/kg
CG43-017	11.00	13.00	Chrysene	860.000	3490000.0	NA	30.000	ug/kg
CG43-017	11.00	13.00	Dibenzofuran	370.000	2950000.0	NA	38.000	ug/kg
CG43-017	11.00	13.00	Fluoranthene	3000.000	27200000.	NA	24.000	ug/kg
CG43-017	11.00	13.00	Fluorene	540.000	40800000.	NA	36.000	ug/kg
CG43-017	11.00	13.00	Indeno(1,2,3-cd)pyrene	320.000	34900.0	NA	24.000	ug/kg
CG43-017	11.00	13.00	Naphthalene	22.300	3090000.0	NA	5.400	ug/kg
CG43-017	11.00	13.00	Pyrene	2000.000	22100000.	NA	140.000	ug/kg
CG43-017	13.00	15.00	Uranium-235	0.173	8.0	0.120	NA	pCi/g
CG43-017	13.00	15.00	Uranium-238	1.752	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CG43-016	11.00	13.00	Acenaphthene	190.000	40800000.	NA	33.000	ug/kg
CG43-016	11.00	13.00	Anthracene	200.000	204000000	NA	28.000	ug/kg
CG43-016	11.00	13.00	Benzo(a)anthracene	69.000	34900.0	NA	26.000	ug/kg
CG43-016	11.00	13.00	Benzo(a)pyrene	250.000	3490.0	NA	43.000	ug/kg
CG43-016	11.00	13.00	Chrysene	150.000	3490000.0	NA	30.000	ug/kg
CG43-016	11.00	13.00	Dibenzofuran	150.000	2950000.0	NA	38.000	ug/kg
CG43-016	11.00	13.00	Fluoranthene	1800.000	27200000.	NA	24.000	ug/kg
CG43-016	11.00	13.00	Fluorene	290.000	40800000.	NA	36.000	ug/kg
CG43-016	11.00	13.00	Pyrene	590.000	22100000.	NA	140.000	ug/kg
CG43-016	13.00	15.00	Methylene chloride	4.600	2530000.0	NA	0.940	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CG43-021	4.50	6.50	Uranium-235	0.142	8.0	0.120	NA	pCi/g
CG43-021	4.50	6.50	Uranium-238	2.056	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CG43-011	0.00	0.50	Di-n-butylphthalate	260.000	73700000.	NA	21.000	ug/kg
CG43-011	0.00	0.50	Uranium-235	0.138	8.0	0.094	NA	pCi/g
CG43-011	0.50	1.00	Fluoranthene	63.000	27200000.	NA	23.000	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CG43-023	0.00	0.50	Barium	1310.000	26400.0	289.380	NA	mg/kg
CG43-023	0.00	0.50	Strontium	269.000	613000.0	211.380	NA	mg/kg
CG43-023	0.00	0.50	Uranium-235	0.193	8.0	0.120	NA	pCi/g
CG43-023	0.00	0.50	Uranium-238	2.377	351.0	1.490	NA	pCi/g
CG43-023	0.50	1.50	Arsenic	14.200	22.2	13.140	NA	mg/kg
CG43-023	0.50	1.50	Barium	1360.000	26400.0	289.380	NA	mg/kg
CG43-023	0.50	1.50	Benzo(a)anthracene	45.000	34900.0	NA	25.000	ug/kg
CG43-023	0.50	1.50	Benzo(b)fluoranthene	55.000	34900.0	NA	30.000	ug/kg
CG43-023	0.50	1.50	Chrysene	50.000	3490000.0	NA	28.000	ug/kg
CG43-023	0.50	1.50	Fluoranthene	110.000	27200000.	NA	23.000	ug/kg
CG43-023	0.50	1.50	Strontium	267.000	613000.0	211.380	NA	mg/kg
CG43-023	0.50	1.50	Uranium-235	0.238	8.0	0.120	NA	pCi/g
CG43-023	0.50	1.50	Zinc	153.000	307000.0	139.100	NA	mg/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CG43-020	4.50	6.50	Uranium-235	0.146	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CG42-010	4.50	6.50	Strontium	300.000	613000.0	211.380	NA	mg/kg
CG42-010	4.50	6.50	Uranium-235	0.226	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CG42-012	2.50	4.50	Uranium-235	0.268	8.0	0.120	NA	pCi/g
CG42-012	2.50	4.50	Uranium-238	1.492	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CG42-011	2.50	4.50	Fluoranthene	75.000	27200000.	NA	27.000	ug/kg
CG42-011	2.50	4.50	Naphthalene	5.520	3090000.0	NA	5.180	ug/kg
CG42-011	2.50	4.50	Uranium-235	0.213	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CG42-013	2.50	4.50	Hexachlorobutadiene	7.000	147000.0	NA	1.700	ug/kg
CG42-013	2.50	4.50	Methylene chloride	1.700	2530000.0	NA	0.960	ug/kg
CG42-013	2.50	4.50	Strontium	340.000	613000.0	211.380	NA	mg/kg

Figure 7

700 Area - Building 707 Characterization Soil Sampling Results Greater Than Background Means Plus Two Standard Deviations or RLs

KEY

IHSS Group 000-2

- Location with concentrations greater than WRW ALs
- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs

Other IHSS Group

- Location with concentrations greater than WRW ALs
- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs

OPWL pipe status

- OPWL grouted and left in place
- OPWL removed
- OPWL does not exist

- Manway or valve pit (removed)
- Structure
- Demolished structure
- IHSS, PAC or UBC
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N W E S

100 0 100 Feet

Scale = 1:800

State Plane Coordinate Projection
Colorado Central Zone
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Prepared by: RADMS — Date: September 2005

Prepared for: KAISER•HILL COMPANY

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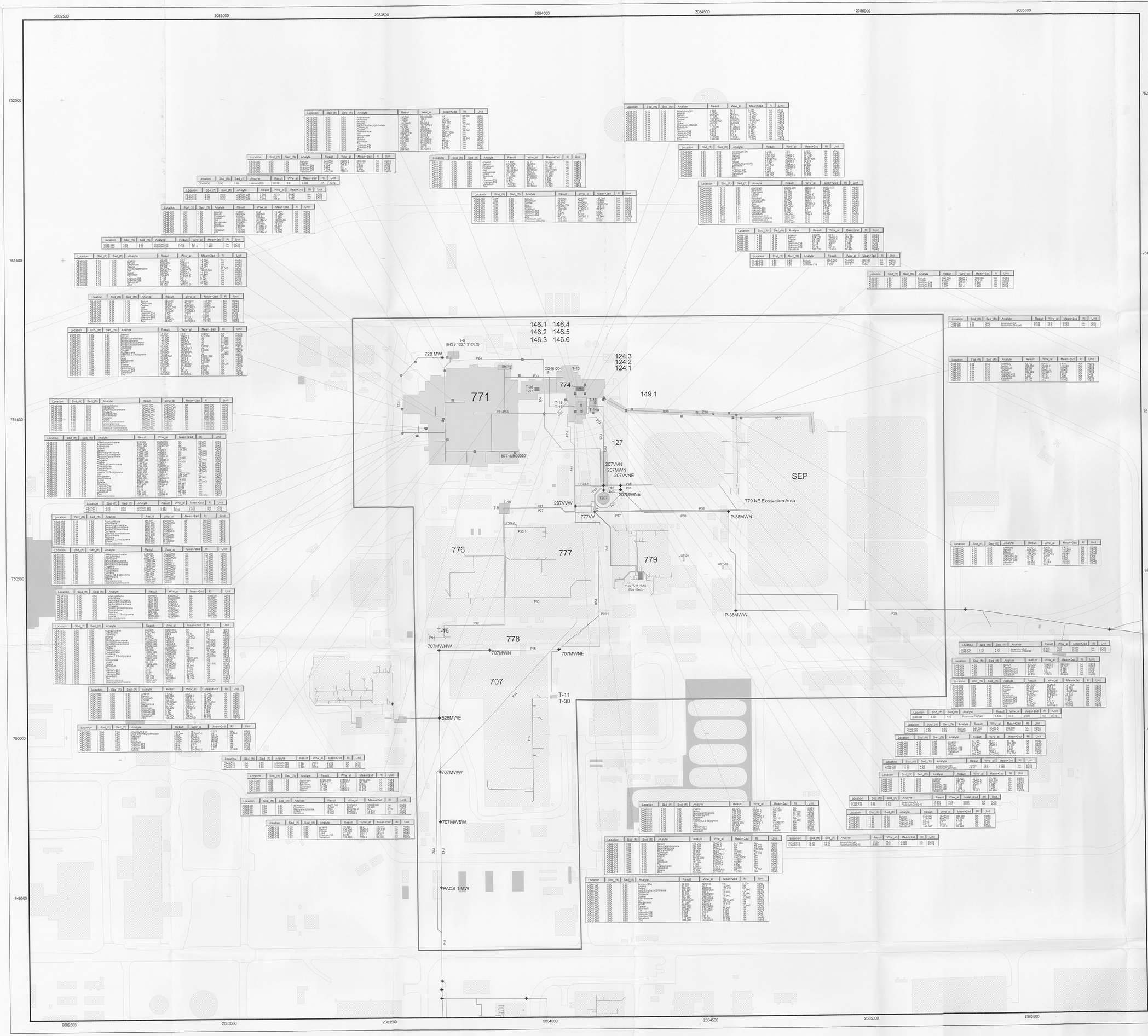

Figure 8

700 Area - Building 771/774 Characterization and In-Process Soil Sampling Results Greater Than Background Means Plus Two Standard Deviations or RLs

KEY

IHSS Group 000-2

- Location with concentrations greater than WRW ALs
- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs

Other IHSS Group

- Location with concentrations greater than WRW ALs
- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs

OPWL pipe status

- OPWL grouted and left in place
- OPWL removed
- OPWL does not exist

- Manway or valve pit (removed)
- Structure
- Demolished structure
- IHSS, PAC or UBC
- Tank (removed)
- Tank (left in place)
- Paved area

N
W E
S

100 0 100 Feet

Scale = 1:1,150

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Date: September 2005

Prepared by: RADMS

Prepared for: KAISER•HILL COMPANY

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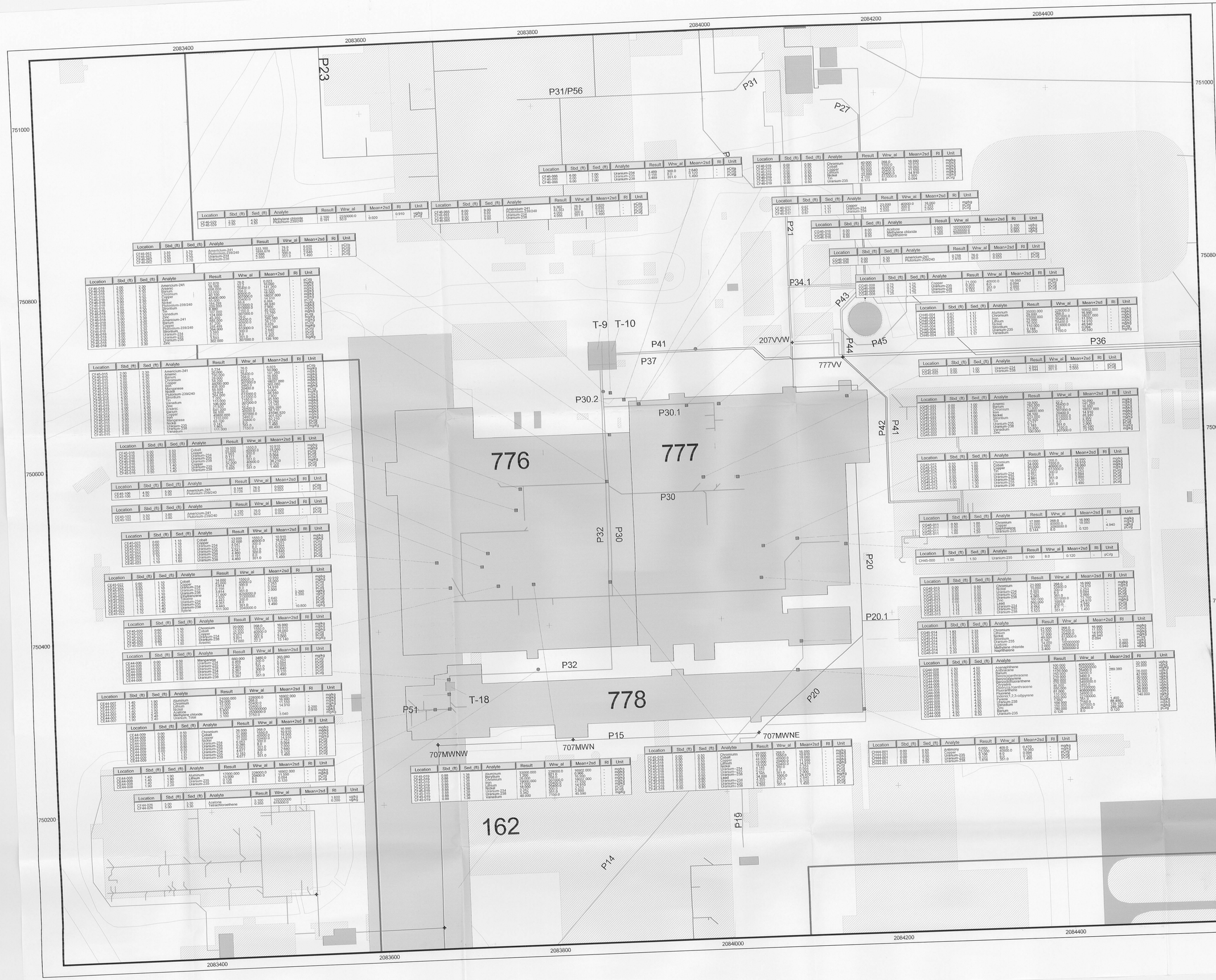

Figure 9

700 Area - Building 776/777/778 Characterization Soil Sampling Results Greater Than Background Means Plus Two Standard Deviations or RLs

KEY

IHSS Group 000-2

- Location with concentrations greater than WRW ALs
- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs

Other IHSS Group

- Location with concentrations greater than WRW ALs
- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs

OPWL pipe status

- OPWL left in place
- OPWL removed
- OPWL does not exist

- Manway or valve pit (removed)
- Structure
- Demolished structure
- IHSS, PAC or UBC
- Tank (removed)
- Paved area

N W E S

100 0 100 Feet

Scale = 1:600

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: RADMS Date: September 2

Prepared for: KAISER•HILL COMPANY

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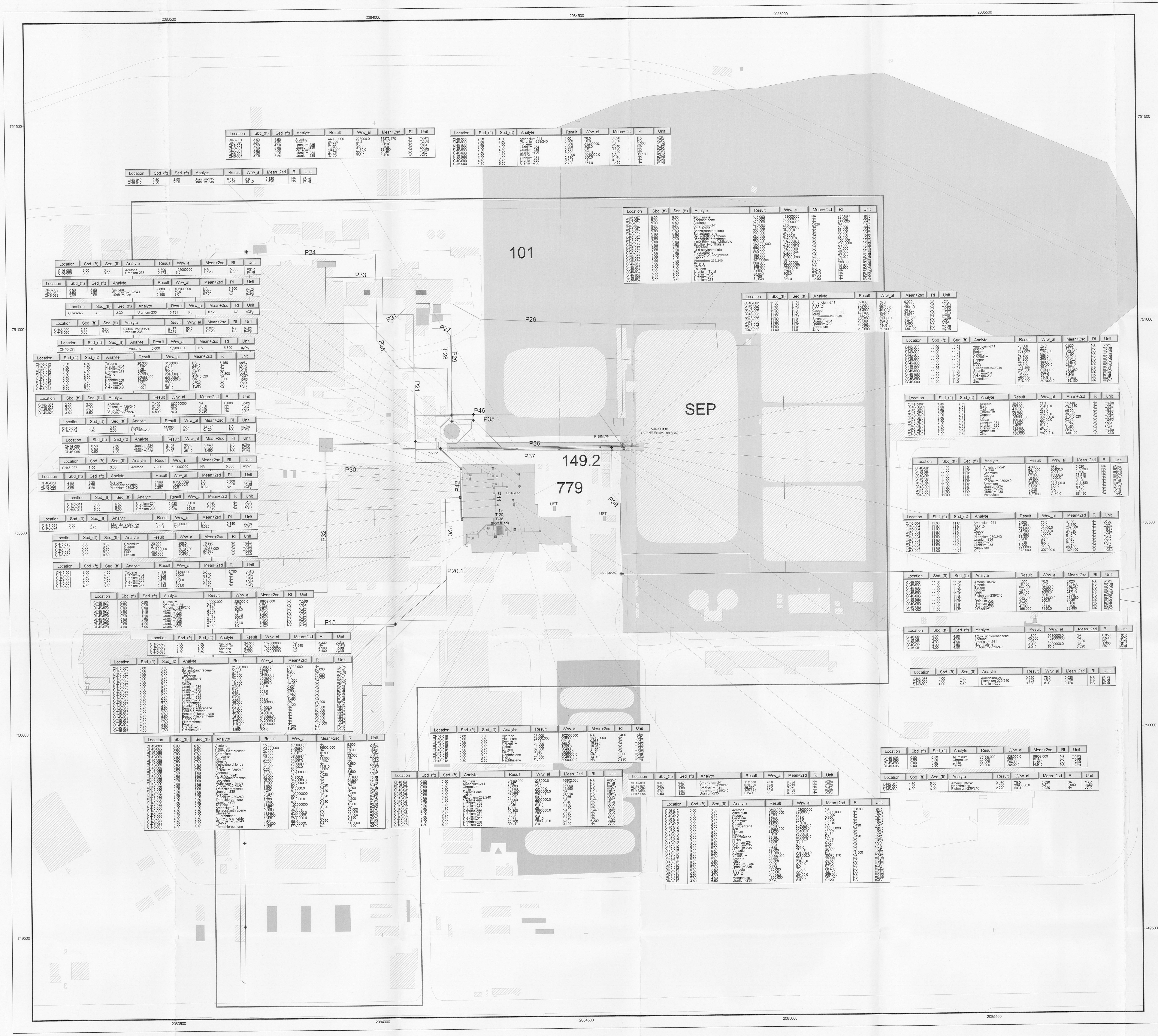
Figure 10

700 Area - Building 779 Characterization Soil Sampling Results Greater Than Background Means Plus Two Standard Deviations or RLs



Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CI46-001	3.50	4.50	Aluminum	44000.000	228000.0	35373.170	NA	mg/kg
CI46-001	3.50	4.50	Arsenic	25.000	22.2	13.140	NA	mg/kg
CI46-001	3.50	4.50	Uranium-235	0.123	8.0	0.120	NA	pCi/g
CI46-001	3.50	4.50	Uranium-238	1.793	351.0	1.490	NA	pCi/g
CI46-001	3.50	4.50	Vanadium	100.000	7150.0	88.490	NA	mg/kg
CI46-001	4.50	6.50	Uranium-234	3.175	300.0	2.640	NA	pCi/g
CI46-001	4.50	6.50	Uranium-238	3.175	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CI46-000	2.50	4.50	Americium-241	1.001	76.0	0.020	NA	pCi/g
CI46-000	2.50	4.50	Plutonium-239/240	5.706	50.0	0.020	NA	pCi/g
CI46-000	2.50	4.50	Toluene	6.280	31300000.	NA	5.560	ug/kg
CI46-000	2.50	4.50	Uranium-234	4.995	300.0	2.640	NA	pCi/g
CI46-000	2.50	4.50	Uranium-235	0.331	8.0	0.120	NA	pCi/g
CI46-000	2.50	4.50	Uranium-238	4.995	351.0	1.490	NA	pCi/g
CI46-000	2.50	4.50	Xylene	19.200	2040000.0	NA	11.100	ug/kg
CI46-000	4.50	6.50	Uranium-234	2.780	300.0	2.640	NA	pCi/g
CI46-000	4.50	6.50	Uranium-235	0.181	8.0	0.120	NA	pCi/g
CI46-000	4.50	6.50	Uranium-238	2.780	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CI46-040	0.50	2.50	Uranium-235	0.146	8.0	0.120	NA	pCi/g
CI46-040	0.50	2.50	Uranium-238	1.497	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CJ46-057	9.00	9.50	2-Butanone	615.000	192000000	NA	277.000	ug/kg
CJ46-057	9.00	9.50	Acenaphthene	100.000	40800000.	NA	66.000	ug/kg
CJ46-057	9.00	9.50	Acetone	520.000	102000000	NA	277.000	ug/kg
CJ46-057	9.00	9.50	Americium-241	4230.000	76.0	0.020	NA	pCi/g
CJ46-057	9.00	9.50	Anthracene	150.000	204000000	NA	50.000	ug/kg
CJ46-057	9.00	9.50	Benzo(a)anthracene	300.000	34900.0	NA	53.000	ug/kg
CJ46-057	9.00	9.50	Benzo(a)pyrene	290.000	3490.0	NA	85.000	ug/kg
CJ46-057	9.00	9.50	Benzo(b)fluoranthene	240.000	34900.0	NA	61.000	ug/kg
CJ46-057	9.00	9.50	Benzo(k)fluoranthene	250.000	349000.0	NA	68.000	ug/kg
CJ46-057	9.00	9.50	bis(2-Ethylhexyl)phthalate	350.000	1970000.0	NA	150.000	ug/kg
CJ46-057	9.00	9.50	Butylbenzylphthalate	140000.000	147000000	NA	2800.000	ug/kg
CJ46-057	9.00	9.50	Chrysene	300.000	3490000.0	NA	59.000	ug/kg
CJ46-057	9.00	9.50	Di-n-butylphthalate	370.000	73700000.	NA	44.000	ug/kg
CJ46-057	9.00	9.50	Fluoranthene	860.000	27200000.	NA	48.000	ug/kg
CJ46-057	9.00	9.50	Indeno(1,2,3-cd)pyrene	160.000	34900.0	NA	48.000	ug/kg
CJ46-057	9.00	9.50	Phenol	180.000	613000000	NA	74.000	ug/kg
CJ46-057	9.00	9.50	Plutonium-239/240	24111.000	50.0	0.020	NA	pCi/g
CJ46-057	9.00	9.50	Pyrene	660.000	22100000.	NA	280.000	ug/kg
CJ46-057	9.00	9.50	Styrene	136.000	123000000	NA	13.900	ug/kg
CJ46-057	9.00	9.50	Toluene	176.000	31300000.	NA	13.900	ug/kg
CJ46-057	9.00	9.50	Uranium, Total	8.600	2750.0	3.040	NA	mg/kg
CJ46-057	9.00	9.50	Uranium-234	45.640	300.0	2.640	NA	pCi/g
CJ46-057	9.00	9.50	Uranium-235	0.765	8.0	0.120	NA	pCi/g
CJ46-057	9.00	9.50	Uranium-238	45.640	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CJ46-002	11.00	11.01	Americium-241	32.000	76.0	0.020	NA	pCi/g
CJ46-002	11.00	11.01	Arsenic	13.400	22.2	13.140	NA	mg/kg
CJ46-002	11.00	11.01	Barium	809.000	26400.0	289.380	NA	mg/kg
CJ46-002	11.00	11.01	Copper	61.400	40900.0	38.210	NA	mg/kg
CJ46-002	11.00	11.01	Lead	47.200	1000.0	24.970	NA	mg/kg
CJ46-002	11.00	11.01	Plutonium-239/240	182.400	50.0	0.020	NA	pCi/g
CJ46-002	11.00	11.01	Strontium	230.000	613000.0	211.380	NA	mg/kg
CJ46-002	11.00	11.01	Uranium-234	29.000	300.0	2.640	NA	pCi/g
CJ46-002	11.00	11.01	Uranium-238	29.000	351.0	1.490	NA	pCi/g
CJ46-002	11.00	11.01	Vanadium	145.000	7150.0	88.490	NA	mg/kg
CJ46-002	11.00	11.01	Zinc	260.000	307000.0	139.100	NA	mg/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CJ46-000	11.00	11.01	Americium-241	26.000	76.0	0.020	NA	pCi/g
CJ46-000	11.00	11.01	Arsenic	15.300	22.2	13.140	NA	mg/kg
CJ46-000	11.00	11.01	Barium	739.000	26400.0	289.380	NA	mg/kg
CJ46-000	11.00	11.01	Cadmium	7.330	962.0	1.700	NA	mg/kg
CJ46-000	11.00	11.01	Chromium	78.800	268.0	68.270	NA	mg/kg
CJ46-000	11.00	11.01	Copper	81.200	40900.0	38.210	NA	mg/kg
CJ46-000	11.00	11.01	Lead	44.700	1000.0	24.970	NA	mg/kg
CJ46-000	11.00	11.01	Nickel	65.300	20400.0	62.210	NA	mg/kg
CJ46-000	11.00	11.01	Plutonium-239/240	148.200	50.0	0.020	NA	pCi/g
CJ46-000	11.00	11.01	Strontium	261.000	613000.0	211.380	NA	mg/kg
CJ46-000	11.00	11.01	Uranium-234	13.000	300.0	2.640	NA	pCi/g
CJ46-000	11.00	11.01	Uranium-238	13.000	351.0	1.490	NA	pCi/g
CJ46-000	11.00	11.01	Vanadium	205.000	7150.0	88.490	NA	mg/kg
CJ46-000	11.00	11.01	Zinc	274.000	307000.0	139.100	NA	mg/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CJ46-DR01	7.50	7.51	Arsenic	30.900	22.2	13.140	NA	mg/kg
CJ46-DR01	7.50	7.51	Barium	893.000	26400.0	289.380	NA	mg/kg
CJ46-DR01	7.50	7.51	Cadmium	4.670	962.0	1.700	NA	mg/kg
CJ46-DR01	7.50	7.51	Chromium	69.800	268.0	68.270	NA	mg/kg
CJ46-DR01	7.50	7.51	Copper	54.400	40900.0	38.210	NA	mg/kg
CJ46-DR01	7.50	7.51	Iron	58000.000	307000.0	41046.520	NA	mg/kg
CJ46-DR01	7.50	7.51	Nickel	105.000	20400.0	62.210	NA	mg/kg
CJ46-DR01	7.50	7.51	Uranium-234	11.000	300.0	2.640	NA	pCi/g
CJ46-DR01	7.50	7.51	Uranium-235	0.400	8.0	0.120	NA	pCi/g
CJ46-DR01	7.50	7.51	Uranium-238	11.000	351.0	1.490	NA	pCi/g
CJ46-DR01	7.50	7.51	Vanadium	267.000	7150.0	88.490	NA	mg/kg
CJ46-DR01	7.50	7.51	Zinc	188.000	307000.0	139.100	NA	mg/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CJ46-001	11.00	11.01	Americium-241	4.900	76.0	0.020	NA	pCi/g
CJ46-001	11.00	11.01	Barium	631.000	26400.0	289.380	NA	mg/kg
CJ46-001	11.00	11.01	Cadmium	9.310	962.0	1.700	NA	mg/kg
CJ46-001	11.00	11.01	Copper	63.900	40900.0	38.210	NA	mg/kg
CJ46-001	11.00	11.01	Lead	25.500	1000.0	24.970	NA	mg/kg
CJ46-001	11.00	11.01	Plutonium-239/240	27.930	50.0	0.020	NA	pCi/g
CJ46-001	11.00	11.01	Strontium	268.000	613000.0	211.380	NA	mg/kg
CJ46-001	11.00	11.01	Uranium-234	6.620	300.0	2.640	NA	pCi/g
CJ46-001	11.00	11.01	Uranium-235	0.249	8.0	0.120	NA	pCi/g
CJ46-001	11.00	11.01	Uranium-238	6.620	351.0	1.490	NA	pCi/g
CJ46-001	11.00	11.01	Vanadium	183.000	7150.0	88.490	NA	mg/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CJ46-004	11.00	11.01	Americium-241	5.500	76.0	0.020	NA	pCi/g
CJ46-004	11.00	11.01	Arsenic	13.400	22.2	13.140	NA	mg/kg
CJ46-004	11.00	11.01	Barium	664.000	26400.0	289.380	NA	mg/kg
CJ46-004	11.00	11.01	Copper	64.900	40900.0	38.210	NA	mg/kg
CJ46-004	11.00	11.01	Lead	29.800	1000.0	24.970	NA	mg/kg
CJ46-004	11.00	11.01	Plutonium-239/240	31.350	50.0	0.020	NA	pCi/g
CJ46-004	11.00	11.01	Uranium-234	6.900	300.0	2.640	NA	pCi/g
CJ46-004	11.00	11.01	Uranium-235	0.210	8.0	0.120	NA	pCi/g
CJ46-004	11.00	11.01	Uranium-238	6.900	351.0	1.490	NA	pCi/g
CJ46-004	11.00	11.01	Vanadium	221.000	7150.0	88.490	NA	mg/kg
CJ46-004	11.00	11.01	Zinc	173.000	307000.0	139.100	NA	mg/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CJ46-003	11.00	11.01	Americium-241	1.000	76.0	0.020	NA	pCi/g
CJ46-003	11.00	11.01	Arsenic	18.100	22.2	13.140	NA	mg/kg
CJ46-003	11.00	11.01	Barium	842.000	26400.0	289.380	NA	mg/kg
CJ46-003	11.00	11.01	Copper	79.400	40900.0	38.210	NA	mg/kg
CJ46-003	11.00	11.01	Lead	29.400	1000.0	24.970	NA	mg/kg
CJ46-003	11.00	11.01	Plutonium-239/240	5.700	50.0	0.020	NA	pCi/g
CJ46-003	11.00	11.01	Strontium	238.000	613000.0	211.380	NA	mg/kg
CJ46-003	11.00	11.01	Uranium-234	4.700	300.0	2.640	NA	pCi/g
CJ46-003	11.00	11.01	Uranium-235	0.250	8.0	0.120	NA	pCi/g
CJ46-003	11.00	11.01	Uranium-238	4.700	351.0	1.490	NA	pCi/g
CJ46-003	11.00	11.01	Vanadium	155.000	7150.0	88.490	NA	mg/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CJ46-051	4.00	4.50	1,2,4-Trichlorobenzene	1.800	9230000.0	NA	0.850	ug/kg
CJ46-051	4.00	4.50	Acetone	40.000	102000000	NA	5.500	ug/kg
CJ46-051	4.00	4.50	Americium-241	1.240	76.0	0.020	NA	pCi/g
CJ46-051	4.00	4.50	Naphthalene	3.000	3090000.0	NA	1.000	ug/kg
CJ46-051	4.00	4.50	Plutonium-239/240	3.010	50.0	0.020	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CJ46-056	4.00	4.50	Americium-241	0.220	76.0	0.020	NA	pCi/g
CJ46-056	4.00	4.50	Plutonium-239/240	1.252	50.0	0.020	NA	pCi/g
CJ46-056	4.00	4.50	Uranium-235	0.168	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH45-096	0.00	0.50	Aluminum	26000.000	228000.0	16902.000	NA	mg/kg
CH45-096	0.00	0.50	Chromium	20.000	268.0	16.990	NA	mg/kg
CH45-096	0.00	0.50	Lithium	22.000	20400.0	11.550	NA	mg/kg
CH45-096	0.00	0.50	Nickel	20.000	20400.0	14.910	NA	mg/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CJ45-050	4.50	6.00	Americium-241	0.160	76.0	0.020	NA	pCi/g
CJ45-050	4.50	6.00	Naphthalene	1.500	3090000.0	NA	0.980	ug/kg
CJ45-050	4.50	6.00	Plutonium-239/240	2.220	50.0	0.020	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CI45-012	0.00	0.50	Acetone	2840.000	102000000	NA	558.000	ug/kg
CI45-012	0.00	0.50	Aluminum	41000.000	228000.0	16902.000	NA	mg/kg
CI45-012	0.00	0.50	Arsenic	15.000	22.2	10.090	NA	mg/kg
CI45-012	0.00	0.50	Beryllium	1.900	921.0	0.966	NA	mg/kg
CI45-012	0.00	0.50	Chromium	32.000	268.0	16.990	NA	mg/kg
CI45-012	0.00	0.50	Cobalt	11.000	1550.0	10.910	NA	mg/kg
CI45-012	0.00	0.50	Ethylbenzene	23.100	4250000.0	NA	6.490	ug/kg
CI45-012	0.00	0.50	Iron	24000.000	307000.0	18037.000	NA	mg/kg
CI45-012	0.00	0.50	Lithium	28.000	20400.0	11.550	NA	mg/kg
CI45-012	0.00	0.50	Mercury	0.150	25200.0	0.134	NA	mg/kg
CI45-012	0.00	0.50	Naphthalene	7.010	3090000.0	NA	6.490	ug/kg
CI45-012	0.00	0.50	Nickel	29.000	20400.0	14.910	NA	mg/kg
CI45-012	0.00	0.50	Uranium-234	4.688	300.0	2.253	NA	pCi/g
CI45-012	0.00	0.50	Uranium-235	0.223	8.0	0.094	NA	pCi/g
CI45-012	0.00	0.50	Uranium-238	4.688	351.0	2.000	NA	pCi/g
CI45-012	0.00	0.50	Vanadium	72.000	7150.0	45.590	NA	mg/kg
CI45-012	0.00	0.50	Xylene	115.000	2040000.0	NA	13.000	ug/kg
CI45-012	0.50	2.50	Aluminum	62000.000	228000.0	35373.170	NA	mg/kg
CI45-012	0.50	2.50	Arsenic	24.000	22.2	13.140	NA	mg/kg
CI45-012	0.50	2.50	Lithium	38.000	20400.0	34.660	NA	mg/kg
CI45-012	0.50	2.50	Uranium, Total	3.600	2750.0	3.040	NA	mg/kg
CI45-012	0.50	2.50	Uranium-235	0.173	8.0	0.120	NA	pCi/g
CI45-012	0.50	2.50	Vanadium	120.000	7150.0	88.490	NA	mg/kg
CI45-012	2.50	4.50	Arsenic	18.000	22.2	13.140	NA	mg/kg
CI45-012	2.50	4.50	Barium	290.000	26400.0	289.380	NA	mg/kg
CI45-012	2.50	4.50	Manganese	1600.000	3480.0	901.620	NA	mg/kg
CI45-012	4.50	6.50	Uranium-235	0.128	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH45-094	0.00	0.50	Americium-241	117.600	76.0	0.023	NA	pCi/g
CH45-094	0.00	0.50	Plutonium-239/240	670.320	50.0	0.066	NA	pCi/g
CH45-094	0.50	1.00	Americium-241	26.250	76.0	0.020	NA	pCi/g
CH45-094	0.50	1.00	Plutonium-239/240	149.625	50.0	0.020	NA	pCi/g
CH45-094	0.50	1.00	Uranium-235	0.249	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-018	0.00	0.50	Acetone	25.000	102000000	NA	5.400	ug/kg
CH46-018	0.00	0.50	Aluminum	29000.000	228000.0	16902.000	NA	mg/kg
CH46-018	0.00	0.50	Beryllium	1.300	921.0	0.966	NA	mg/kg
CH46-018	0.00	0.50	Chromium	21.000	268.0	16.990	NA	mg/kg
CH46-018	0.00	0.50	Cobalt	11.000	1550.0	10.910	NA	mg/kg
CH46-018	0.00	0.50	Lithium	32.000	20400.0	11.550	NA	mg/kg
CH46-018	0.00	0.50	Mercury	0.140	25200.0	0.134	NA	mg/kg
CH46-018	0.00	0.50	Naphthalene	1.500	3090000.0	NA	1.000	ug/kg
CH46-018	0.00	0.50	Nickel	21.000	20400.0	14.910	NA	mg/kg
CH46-018	0.50	2.50	Naphthalene	1.200	3090000.0	NA	0.990	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH45-031	0.00	0.50	Aluminum	23000.000	228000.0	16902.000	NA	mg/kg
CH45-031	0.00	0.50	Americium-241	0.367	76.0	0.023	NA	pCi/g
CH45-031	0.00	0.50	Chromium	18.000	268.0	16.990	NA	mg/kg
CH45-031	0.00	0.50	Lithium	13.000	20400.0	11.550	NA	mg/kg
CH45-031	0.00	0.50	Naphthalene	239.000	3090000.0	NA	6.100	ug/kg
CH45-031	0.00	0.50	Nickel	17.000	20400.0	14.910	NA	mg/kg
CH45-031	0.00	0.50	Plutonium-239/240	2.093	50.0	0.066	NA	pCi/g
CH45-031	0.50	1.80	Naphthalene	58.900	3090000.0	NA	6.440	ug/kg
CH45-031	0.50	1.80	Uranium-234	4.901	300.0	2.640	NA	pCi/g
CH45-031	0.50	1.80	Uranium-235	0.340	8.0	0.120	NA	pCi/g
CH45-031	0.50	1.80	Uranium-238	4.901	351.0	1.490	NA	pCi/g
CH45-031	2.50	3.50	Naphthalene	90.100	3090000.0	NA	5.440	ug/kg
CH45-031	2.50	3.50	Uranium-234	4.471	300.0	2.640	NA	pCi/g
CH45-031	2.50	3.50	Uranium-235	0.223	8.0	0.120	NA	pCi/g
CH45-031	2.50	3.50	Uranium-238	4.471	351.0	1.490	NA	pCi/g
CH45-031	4.50	5.00	Naphthalene	20.700	3090000.0	NA	6.200	ug/kg
CH45-031	4.50	5.00	Uranium-235	0.191	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH45-066	0.00	0.50	Acetone	15.000	102000000	NA	5.600	ug/kg
CH45-066	0.00	0.50	Aluminum	29000.000	228000.0	16902.000	NA	mg/kg
CH45-066	0.00	0.50	Benzo(a)anthracene	47.000	34900.0	NA	29.000	ug/kg
CH45-066	0.00	0.50	Chromium	22.000	268.0	16.990	NA	mg/kg
CH45-066	0.00	0.50	Chrysene	50.000	3490000.0	NA	33.000	ug/kg
CH45-066	0.00	0.50	Lithium	17.000	20400.0	11.550	NA	mg/kg
CH45-066	0.00	0.50	Mercury	0.250	25200.0	0.134	NA	mg/kg
CH45-066	0.00	0.50	Methylene chloride	1.700	2530000.0	NA	0.980	ug/kg
CH45-066	0.00	0.50	Nickel	21.000	20400.0	14.910	NA	mg/kg
CH45-066	0.00	0.50	Plutonium-239/240	0.234	50.0	0.066	NA	pCi/g
CH45-066	0.50	1.00	Acetone	17.000	102000000	NA	5.500	ug/kg
CH45-066	0.50	1.00	Americium-241	0.255	76.0	0.020	NA	pCi/g
CH45-066	0.50	1.00	Benzo(a)anthracene	53.000	34900.0	NA	29.000	ug/kg
CH45-066	0.50	1.00	Chrysene	58.000	3490000.0	NA	32.000	ug/kg
CH45-066	0.50	1.00	Methylene chloride	1.700	2530000.0	NA	0.960	ug/kg
CH45-066	0.50	1.00	Plutonium-239/240	1.680	50.0	0.020	NA	pCi/g
CH45-066	0.50	1.00	Tetrachloroethene	1.500	615000.0	NA	1.200	ug/kg
CH45-066	0.50	1.00	Uranium-235	0.421	8.0	0.120	NA	pCi/g
CH45-066	2.50	3.50	Acetone	22.000	102000000	NA	5.800	ug/kg
CH45-066	2.50	3.50	Plutonium-239/240	0.474	50.0	0.020	NA	pCi/g
CH45-066	2.50	3.50	Tetrachloroethene	1.300	615000.0	NA	1.200	ug/kg
CH45-066	2.50	3.50	Uranium-235	0.550	8.0	0.120	NA	pCi/g
CH45-066	4.50	5.50	Acetone	11.000	102000000	NA	4.900	ug/kg
CH45-066	4.50	5.50	Americium-241	0.182	76.0	0.020	NA	pCi/g
CH45-066	4.50	5.50	Benzo(a)anthracene	59.000	34900.0	NA	26.000	ug/kg
CH45-066	4.50	5.50	Chrysene	71.000	3490000.0	NA	29.000	ug/kg
CH45-066	4.50	5.50	Fluoranthene	140.000	27200000.	NA	23.000	ug/kg
CH45-066	4.50	5.50	Methylene chloride	1.900	2530000.0	NA	0.850	ug/kg
CH45-066	4.50	5.50	Plutonium-239/240	0.411	50.0	0.020	NA	pCi/g
CH45-066	4.50	5.50	Pyrene	140.000	22100000.	NA	140.000	ug/kg
CH45-066	4.50	5.50	Tetrachloroethene	1.300	615000.0	NA	1.100	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH45-067	0.00	0.50	Aluminum	21000.000	228000.0	16902.000	NA	mg/kg
CH45-067	0.00	0.50	Benzo(a)anthracene	51.000	34900.0	NA	26.000	ug/kg
CH45-067	0.00	0.50	Beryllium	0.980	921.0	0.966	NA	mg/kg
CH45-067	0.00	0.50	Chrysene	52.000	3490000.0	NA	30.000	ug/kg
CH45-067	0.00	0.50	Fluoranthene	94.000	27200000.	NA	24.000	ug/kg
CH45-067	0.00	0.50	Lithium	12.000	20400.0	11.550	NA	mg/kg
CH45-067	0.00	0.50	Nickel	16.000	20400.0	14.910	NA	mg/kg
CH45-067	0.00	0.50	Uranium-234	2.834	300.0	2.253	NA	pCi/g
CH45-067	0.00	0.50	Uranium-235	0.219	8.0	0.094	NA	pCi/g
CH45-067	0.00	0.50	Uranium-238	2.834	351.0	2.000	NA	pCi/g
CH45-067	0.50	2.50	Uranium-234	3.857	300.0	2.640	NA	pCi/g
CH45-067	0.50	2.50	Uranium-235	0.201	8.0	0.120	NA	pCi/g
CH45-067	0.50	2.50	Uranium-238	3.857	351.0	1.490	NA	pCi/g
CH45-067	2.50	3.50	Fluoranthene	46.000	27200000.	NA	24.000	ug/kg
CH45-067	2.50	3.50	Uranium-235	0.136	8.0	0.120	NA	pCi/g
CH45-067	4.50	5.50	Benzo(a)anthracene	63.000	34900.0	NA	25.000	ug/kg
CH45-067	4.50	5.50	Benzo(a)pyrene	51.000	3490.0	NA	41.000	ug/kg
CH45-067	4.50	5.50	Benzo(b)fluoranthene	40.000	34900.0	NA	30.000	ug/kg
CH45-067	4.50	5.50	Benzo(k)fluoranthene	54.000	349000.0	NA	33.000	ug/kg
CH45-067	4.50	5.50	Chrysene	67.000	3490000.0	NA	28.000	ug/kg
CH45-067	4.50	5.50	Fluoranthene	170.000	27200000.	NA	23.000	ug/kg
CH45-067	4.50	5.50	Pyrene	150.000	22100000.	NA	140.000	ug/kg
CH45-067	4.50	5.50	Uranium-235	0.167	8.0	0.120	NA	pCi/g
CH45-067	4.50	5.50	Uranium-238	1.965	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH45-028	0.00	0.50	Acetone	24.000	102000000	NA	5.300	ug/kg
CH45-028	0.00	0.50	Strontium	74.000	613000.0	48.940	NA	mg/kg
CH45-028	2.50	4.50	Acetone	6.300	102000000	NA	4.900	ug/kg
CH45-028	4.50	6.50	Acetone	6.500	102000000	NA	5.400	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH45-029	0.00	0.50	Aluminum	19000.000	228000.0	16902.000	NA	mg/kg
CH45-029	0.00	0.50	Americium-241	0.249	76.0	0.023	NA	pCi/g
CH45-029	0.00	0.50	Plutonium-239/240	1.418	50.0	0.066	NA	pCi/g
CH45-029	0.50	1.10	Uranium-234	3.379	300.0	2.640	NA	pCi/g
CH45-029	0.50	1.10	Uranium-235	0.204	8.0	0.120	NA	pCi/g
CH45-029	0.50	1.10	Uranium-238	3.379	351.0	1.490	NA	pCi/g
CH45-029	3.00	4.50	Uranium-234	4.133	300.0	2.640	NA	pCi/g
CH45-029	3.00	4.50	Uranium-235	0.216	8.0	0.120	NA	pCi/g
CH45-029	3.00	4.50	Uranium-238	4.133	351.0	1.490	NA	pCi/g
CH45-029	4.50	6.00	Uranium-235	0.169	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH45-001	2.50	4.50	Toluene	7.500	31300000.	NA	5.750	ug/kg
CH45-001	2.50	4.50	Uranium-234	3.473	300.0	2.640	NA	pCi/g
CH45-001	2.50	4.50	Uranium-235	0.168	8.0	0.120	NA	pCi/g
CH45-001	2.50	4.50	Uranium-238	3.473	351.0	1.490	NA	pCi/g
CH45-001	4.50	6.50	Uranium-235	0.129	8.0	0.120	NA	pCi/g
CH45-001	4.50	6.50	Uranium-238	2.133	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH45-095	0.00	0.50	Chromium	20.000	268.0	16.990	NA	mg/kg
CH45-095	0.00	0.50	Copper	21.000	40900.0	18.060	NA	mg/kg
CH45-095	0.00	0.50	Iron	51000.000	307000.0	18037.000	NA	mg/kg
CH45-095	0.00	0.50	Lead	360.000	1000.0	54.620	NA	mg/kg
CH45-095	0.00	0.50	Lithium	180.000	20400.0	11.550	NA	mg/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-024	3.50	3.80	Methylene chloride	1.000	2530000.0	NA	0.880	ug/kg
CH46-024	3.50	3.80	Plutonium-239/240	0.091	50.0	0.020	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-011	5.00	6.50	Uranium-234	2.930	300.0	2.640	NA	pCi/g
CH46-011	5.00	6.50	Uranium-235	0.202	8.0	0.120	NA	pCi/g
CH46-011	5.00	6.50	Uranium-238	2.930	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-023	4.00	4.30	Acetone	7.900	102000000	NA	5.300	ug/kg
CH46-023	4.00	4.30	Methylene chloride	1.100	2530000.0	NA	0.920	ug/kg
CH46-023	4.00	4.30	Plutonium-239/240	0.297	50.0	0.020	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-027	3.00	3.30	Acetone	7.200	102000000	NA	5.300	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-055	0.50	2.50	Uranium-234	3.105	300.0	2.640	NA	pCi/g
CH46-055	0.50	2.50	Uranium-235	0.169	8.0	0.120	NA	pCi/g
CH46-055	0.50	2.50	Uranium-238	3.105	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-054	0.50	2.50	Arsenic	14.000	22.2	13.140	NA	mg/kg
CH46-054	0.50	2.50	Uranium-235	0.172	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-026	3.00	3.30	Acetone	7.400	102000000	NA	6.000	ug/kg
CH46-026	3.00	3.30	Plutonium-239/240	0.131	50.0	0.020	NA	pCi/g
CH46-026	3.50	5.50	Americium-241	0.425	76.0	0.020	NA	pCi/g
CH46-026	3.50	5.50	Plutonium-239/240	0.599	50.0	0.020	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-012	3.50	4.50	Toluene	26.300	31300000.	NA	5.150	ug/kg
CH46-012	3.50	4.50	Uranium-234	3.602	300.0	2.640	NA	pCi/g
CH46-012	3.50	4.50	Uranium-235	0.251	8.0	0.120	NA	pCi/g
CH46-012	3.50	4.50	Uranium-238	3.602	351.0	1.490	NA	pCi/g
CH46-012	3.50	4.50	Xylene	29.900	2040000.0	NA	10.300	ug/kg
CH46-012	5.50	6.50	Iron	45000.000	307000.0	41046.520	NA	mg/kg
CH46-012	5.50	6.50	Naphthalene	36.200	3090000.0	NA	5.360	ug/kg
CH46-012	5.50	6.50	Uranium-234	4.001	300.0	2.640	NA	pCi/g
CH46-012	5.50	6.50	Uranium-235	0.239	8.0	0.120	NA	pCi/g
CH46-012	5.50	6.50	Uranium-238	4.001	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-021	3.50	3.80	Acetone	6.000	102000000	NA	5.600	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-020	3.50	3.80	Plutonium-239/240	0.187	50.0	0.020	NA	pCi/g
CH46-020	3.50	3.80	Uranium-235	0.278	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-022	3.00	3.30	Uranium-235	0.131	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CI46-039	3.50	3.80	Acetone	7.800	102000000	NA	5.600	ug/kg
CI46-039	3.50	3.80	Plutonium-239/240	0.211	50.0	0.020	NA	pCi/g
CI46-039	3.50	3.80	Uranium-235	0.198	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CI46-006	3.00	3.30	Acetone	5.800	102000000	NA	5.300	ug/kg
CI46-006	3.00	3.30	Uranium-235	0.173	8.0	0.120	NA	pCi/g

KEY

IHSS Group 000-2

- Location with concentrations greater than WRW ALs
- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs

Other IHSS Group

- Location with concentrations greater than WRW ALs
- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs

OPWL pipe status

- OPWL left in place
- OPWL removed
- OPWL does not exist

- Manway or valve pit (removed)
- Structure
- Demolished structure
- IHSS, PAC or UBC
- Tank (removed)
- Tank (left in place)
- Paved area

N W E S

90 0 90 Feet

Scale = 1:900

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: RADMS Date: September 2005

Prepared for: KAISER+HILL COMPANY

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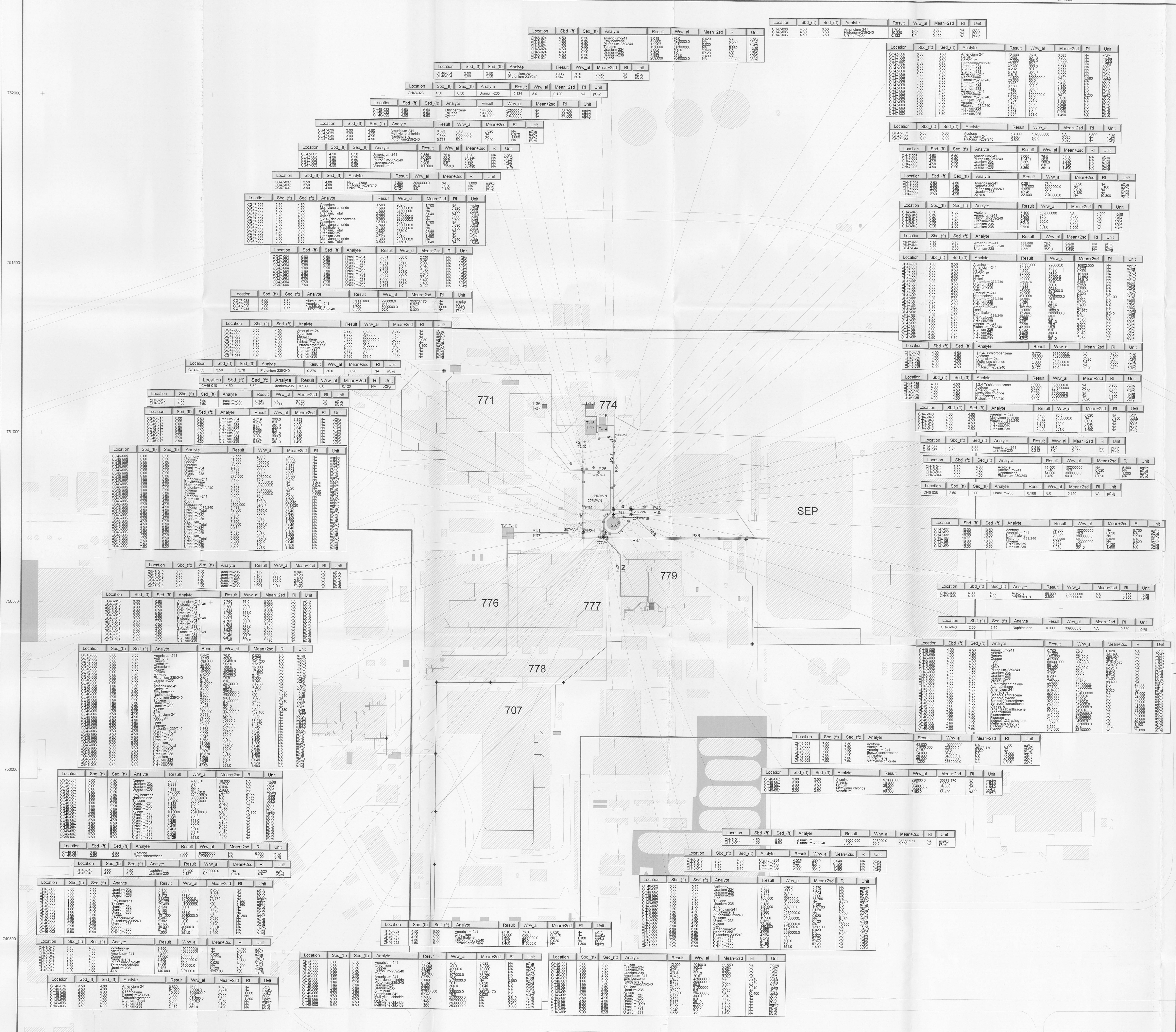
Figure 11

700 Area - Tank T207 Characterization Soil Sampling Results Greater Than Background Means Plus Two Standard Deviations or RLs



Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH48-024	4.50	6.50	Americium-241	3.018	76.0	0.020	NA	pCi/g
CH48-024	4.50	6.50	Ethylbenzene	47.800	4250000.0	NA	5.660	ug/kg
CH48-024	4.50	6.50	Plutonium-239/240	17.203	50.0	0.020	NA	pCi/g
CH48-024	4.50	6.50	Toluene	191.000	31300000.	NA	5.660	ug/kg
CH48-024	4.50	6.50	Uranium-234	4.993	300.0	2.640	NA	pCi/g
CH48-024	4.50	6.50	Uranium-235	0.302	8.0	0.120	NA	pCi/g
CH48-024	4.50	6.50	Uranium-238	4.993	351.0	1.490	NA	pCi/g
CH48-024	4.50	6.50	Xylene	269.000	2040000.0	NA	11.300	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH47-006	4.50	6.50	Americium-241	1.793	76.0	0.020	NA	pCi/g
CH47-006	4.50	6.50	Plutonium-239/240	10.220	50.0	0.020	NA	pCi/g
CH47-006	4.50	6.50	Uranium-235	0.122	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH48-054	3.00	3.50	Americium-241	0.906	76.0	0.020	NA	pCi/g
CH48-054	3.00	3.50	Plutonium-239/240	0.547	50.0	0.020	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH48-023	4.50	6.50	Uranium-235	0.134	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH48-022	4.50	6.50	Ethylbenzene	144.000	4250000.0	NA	23.700	ug/kg
CH48-022	4.50	6.50	Toluene	193.000	31300000.	NA	23.700	ug/kg
CH48-022	4.50	6.50	Xylene	1040.000	2040000.0	NA	47.500	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CG47-039	3.00	4.50	Americium-241	0.691	76.0	0.020	NA	pCi/g
CG47-039	3.00	4.50	Methylene chloride	2.200	2530000.0	NA	0.970	ug/kg
CG47-039	3.00	4.50	Naphthalene	1.200	3090000.0	NA	1.000	ug/kg
CG47-039	3.00	4.50	Plutonium-239/240	0.738	50.0	0.020	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CG47-003	4.50	6.50	Americium-241	0.356	76.0	0.020	NA	pCi/g
CG47-003	4.50	6.50	Arsenic	20.000	22.2	13.140	NA	mg/kg
CG47-003	4.50	6.50	Plutonium-239/240	0.142	50.0	0.020	NA	pCi/g
CG47-003	4.50	6.50	Uranium-235	0.260	8.0	0.120	NA	pCi/g
CG47-003	4.50	6.50	Vanadium	100.000	7150.0	88.490	NA	mg/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CG47-037	3.50	4.00	Naphthalene	1.300	3090000.0	NA	1.000	ug/kg
CG47-037	3.50	4.00	Plutonium-239/240	0.260	50.0	0.020	NA	pCi/g
CG47-037	3.50	4.00	Uranium-235	0.124	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CG47-005	2.50	4.50	Cadmium	3.500	962.0	1.700	NA	mg/kg
CG47-005	2.50	4.50	Methylene chloride	1.600	2530000.0	NA	0.820	ug/kg
CG47-005	2.50	4.50	Toluene	1.600	31300000.	NA	0.800	ug/kg
CG47-005	2.50	4.50	Uranium, Total	3.300	2750.0	3.040	NA	mg/kg
CG47-005	2.50	4.50	Xylene	5.300	2040000.0	NA	2.900	ug/kg
CG47-005	4.50	6.50	1,2,4-Trichlorobenzene	0.880	9230000.0	NA	0.790	ug/kg
CG47-005	4.50	6.50	Cadmium	12.000	962.0	1.700	NA	mg/kg
CG47-005	4.50	6.50	Methylene chloride	1.800	2530000.0	NA	0.890	ug/kg
CG47-005	4.50	6.50	Naphthalene	2.100	3090000.0	NA	0.950	ug/kg
CG47-005	4.50	6.50	Uranium, Total	4.800	2750.0	3.040	NA	mg/kg
CG47-005	4.50	6.50	Uranium-235	0.234	8.0	0.120	NA	pCi/g
CG47-005	4.50	6.50	Uranium-238	4.120	351.0	1.490	NA	pCi/g
CG47-005	4.50	6.50	Methylene chloride	1.300	2530000.0	NA	0.940	ug/kg
CG47-005	6.50	8.50	Uranium, Total	3.500	2750.0	3.040	NA	mg/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CG47-004	0.00	0.50	Uranium-234	5.071	300.0	2.253	NA	pCi/g
CG47-004	0.00	0.50	Uranium-235	0.273	8.0	0.094	NA	pCi/g
CG47-004	0.00	0.50	Uranium-238	5.071	351.0	2.000	NA	pCi/g
CG47-004	1.00	2.50	Uranium-234	4.599	300.0	2.640	NA	pCi/g
CG47-004	1.00	2.50	Uranium-235	0.248	8.0	0.120	NA	pCi/g
CG47-004	1.00	2.50	Uranium-238	4.599	351.0	1.490	NA	pCi/g
CG47-004	3.50	4.50	Uranium-234	5.099	300.0	2.640	NA	pCi/g
CG47-004	3.50	4.50	Uranium-235	0.257	8.0	0.120	NA	pCi/g
CG47-004	3.50	4.50	Uranium-238	5.099	351.0	1.490	NA	pCi/g
CG47-004	5.50	6.50	Uranium-238	1.793	351.0	1.490	NA	pCi/g
CG47-004	7.50	8.50	Uranium-235	0.141	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CG47-038	5.00	5.50	Aluminum	37000.000	228000.0	35373.170	NA	mg/kg
CG47-038	5.00	5.50	Americium-241	0.957	76.0	0.020	NA	pCi/g
CG47-038	5.00	5.50	Naphthalene	1.700	3090000.0	NA	1.000	ug/kg
CG47-038	5.00	5.50	Plutonium-239/240	0.530	50.0	0.020	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CG47-036	3.50	4.00	Americium-241	1.770	76.0	0.020	NA	pCi/g
CG47-036	3.50	4.00	Cadmium	7.200	962.0	1.700	NA	mg/kg
CG47-036	3.50	4.00	Mercury	3.200	25200.0	1.520	NA	mg/kg
CG47-036	3.50	4.00	Naphthalene	1.200	3090000.0	NA	0.980	ug/kg
CG47-036	3.50	4.00	Plutonium-239/240	1.530	50.0	0.020	NA	pCi/g
CG47-036	3.50	4.00	Tetrachloroethene	2.500	615000.0	NA	1.100	ug/kg
CG47-036	3.50	4.00	Uranium, Total	4.000	2750.0	3.040	NA	mg/kg
CG47-036	3.50	4.00	Uranium-234	2.770	300.0	2.640	NA	pCi/g
CG47-036	3.50	4.00	Uranium-235	0.195	8.0	0.120	NA	pCi/g
CG47-036	3.50	4.00	Uranium-238	3.160	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CG47-035	3.50	3.70	Plutonium-239/240	0.276	50.0	0.020	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-010	4.50	6.50	Uranium-235	0.130	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-015	4.50	6.50	Uranium-235	0.145	8.0	0.120	NA	pCi/g
CH46-015	4.50	6.50	Uranium-238	2.193	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CG46-017	0.00	0.50	Uranium-234	4.719	300.0	2.253	NA	pCi/g
CG46-017	0.00	0.50	Uranium-235	0.267	8.0	0.094	NA	pCi/g
CG46-017	0.00	0.50	Uranium-238	4.719	351.0	2.000	NA	pCi/g
CG46-017	0.50	2.50	Uranium-234	5.831	300.0	2.640	NA	pCi/g
CG46-017	0.50	2.50	Uranium-235	0.266	8.0	0.120	NA	pCi/g
CG46-017	0.50	2.50	Uranium-238	5.831	351.0	1.490	NA	pCi/g
CG46-017	2.50	4.50	Uranium-234	6.687	300.0	2.640	NA	pCi/g
CG46-017	2.50	4.50	Uranium-235	0.292	8.0	0.120	NA	pCi/g
CG46-017	2.50	4.50	Uranium-238	6.687	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CG46-005	0.00	0.50	Antimony	14.000	409.0	0.470	NA	mg/kg
CG46-005	0.00	0.50	Chromium	18.000	268.0	16.990	NA	mg/kg
CG46-005	0.00	0.50	Copper	47.000	40900.0	18.060	NA	mg/kg
CG46-005	0.00	0.50	Mercury	0.200	25200.0	0.134	NA	mg/kg
CG46-005	0.00	0.50	Uranium-234	4.492	300.0	2.253	NA	pCi/g
CG46-005	0.00	0.50	Uranium-235	0.273	8.0	0.094	NA	pCi/g
CG46-005	0.00	0.50	Uranium-238	4.492	351.0	2.000	NA	pCi/g
CG46-005	0.00	0.50	Zinc	270.000	307000.0	73.760	NA	mg/kg
CG46-005	1.00	2.50	Americium-241	0.208	76.0	0.020	NA	pCi/g
CG46-005	1.00	2.50	Ethylbenzene	1.600	4250000.0	NA	1.300	ug/kg
CG46-005	1.00	2.50	Naphthalene	1.600	3090000.0	NA	0.930	ug/kg
CG46-005	1.00	2.50	Plutonium-239/240	0.305	50.0	0.020	NA	pCi/g
CG46-005	1.00	2.50	Toluene	3.700	31300000.	NA	0.850	ug/kg
CG46-005	1.00	2.50	Xylene	6.800	2040000.0	NA	3.000	ug/kg
CG46-005	3.50	4.50	Americium-241	0.263	76.0	0.020	NA	pCi/g
CG46-005	3.50	4.50	Cadmium	20.000	962.0	1.700	NA	mg/kg
CG46-005	3.50	4.50	Cobalt	31.000	1550.0	29.040	NA	mg/kg
CG46-005	3.50	4.50	Manganese	1300.000	3480.0	901.620	NA	mg/kg
CG46-005	3.50	4.50	Plutonium-239/240	1.498	50.0	0.020	NA	pCi/g
CG46-005	3.50	4.50	Uranium, Total	12.000	2750.0	3.040	NA	mg/kg
CG46-005	3.50	4.50	Uranium-234	3.370	300.0	2.640	NA	pCi/g
CG46-005	3.50	4.50	Uranium-235	0.195	8.0	0.120	NA	pCi/g
CG46-005	3.50	4.50	Uranium-238	3.370	351.0	1.490	NA	pCi/g
CG46-005	4.50	6.50	Cadmium	7.100	962.0	1.700	NA	mg/kg
CG46-005	4.50	6.50	Uranium, Total	28.000	2750.0	3.040	NA	mg/kg
CG46-005	4.50	6.50	Uranium-234	6.217	300.0	2.640	NA	pCi/g
CG46-005	4.50	6.50	Uranium-235	0.325	8.0	0.120	NA	pCi/g
CG46-005	4.50	6.50	Uranium-238	6.217	351.0	1.490	NA	pCi/g
CG46-005	7.50	8.50	Cadmium	2.900	962.0	1.700	NA	mg/kg
CG46-005	7.50	8.50	Uranium, Total	6.600	2750.0	3.040	NA	mg/kg
CG46-005	7.50	8.50	Uranium-234	3.529	300.0	2.640	NA	pCi/g
CG46-005	7.50	8.50	Uranium-235	0.200	8.0	0.120	NA	pCi/g
CG46-005	7.50	8.50	Uranium-238	3.529	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CG46-019	0.00	0.50	Uranium-235	0.172	8.0	0.094	NA	pCi/g
CG46-019	0.50	2.50	Uranium-235	0.182	8.0	0.120	NA	pCi/g
CG46-019	0.50	2.50	Uranium-238	2.502	351.0	1.490	NA	pCi/g
CG46-019	2.50	4.50	Uranium-234	5.591	300.0	2.640	NA	pCi/g
CG46-019	2.50	4.50	Uranium-235	0.206	8.0	0.120	NA	pCi/g
CG46-019	2.50	4.50	Uranium-238	5.591	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CG46-018	0.00	0.50	Americium-241	0.760	76.0	0.023	NA	pCi/g
CG46-018	0.00	0.50	Plutonium-239/240	4.331	50.0	0.066	NA	pCi/g
CG46-018	0.00	0.50	Uranium-234	3.760	300.0	2.253	NA	pCi/g
CG46-018	0.00	0.50	Uranium-235	0.344	8.0	0.094	NA	pCi/g
CG46-018	0.00	0.50	Uranium-238	3.760	351.0	2.000	NA	pCi/g
CG46-018	0.50	2.50	Americium-241	0.502	76.0	0.020	NA	pCi/g
CG46-018	0.50	2.50	Plutonium-239/240	2.861	50.0	0.020	NA	pCi/g
CG46-018	0.50	2.50	Uranium-234	4.705	300.0	2.640	NA	pCi/g
CG46-018	0.50	2.50	Uranium-235	0.304	8.0	0.120	NA	pCi/g
CG46-018	0.50	2.50	Uranium-238	4.705	351.0	1.490	NA	pCi/g
CG46-018	2.50	4.50	Americium-241	1.530	76.0	0.020	NA	pCi/g
CG46-018	2.50	4.50	Plutonium-239/240	8.721	50.0	0.020	NA	pCi/g
CG46-018	2.50	4.50	Uranium-234	7.748	300.0	2.640	NA	pCi/g
CG46-018	2.50	4.50	Uranium-235	0.570	8.0	0.120	NA	pCi/g
CG46-018	2.50	4.50	Uranium-238	7.748	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CG46-006	0.00	0.50	Americium-241	0.442	76.0	0.023	NA	pCi/g
CG46-006	0.00	0.50	Antimony	1.100	409.0	0.470	NA	mg/kg
CG46-006	0.00	0.50	Barium	290.000	26400.0	141.260	NA	mg/kg
CG46-006	0.00	0.50	Cadmium	1.700	962.0	1.612	NA	mg/kg
CG46-006	0.00	0.50	Chromium	20.000	268.0	16.990	NA	mg/kg
CG46-006	0.00	0.50	Copper	59.000	40900.0	18.060	NA	mg/kg
CG46-006	0.00	0.50	Lithium	12.000	20400.0	11.550	NA	mg/kg
CG46-006	0.00	0.50	Mercury	0.520	25200.0	0.134	NA	mg/kg
CG46-006	0.00	0.50	Plutonium-239/240	2.517	50.0	0.066	NA	pCi/g
CG46-006	0.00	0.50	Uranium-235	0.168	8.0	0.094	NA	pCi/g
CG46-006	0.00	0.50	Zinc	310.000	307000.0	73.760	NA	mg/kg
CG46-006	1.50	2.50	Americium-241	0.405	76.0	0.020	NA	pCi/g
CG46-006	1.50	2.50	Cadmium	3.700	962.0	1.700	NA	mg/kg
CG46-006	1.50	2.50	Ethylbenzene	6.180	4250000.0	NA	4.910	ug/kg
CG46-006	1.50	2.50	Naphthalene	6.300	3090000.0	NA	4.910	ug/kg
CG46-006	1.50	2.50	Plutonium-239/240	2.309	50.0	0.020	NA	pCi/g
CG46-006	1.50	2.50	Toluene	40.500	31300000.	NA	4.910	ug/kg
CG46-006	1.50	2.50	Uranium-235	0.192	8.0	0.120	NA	pCi/g
CG46-006	1.50	2.50	Uranium-238	1.794	351.0	1.490	NA	pCi/g
CG46-006	1.50	2.50	Xylene	43.800	2040000.0	NA	9.830	ug/kg
CG46-006	1.50	2.50	Zinc	150.000	307000.0	139.100	NA	mg/kg
CG46-006	3.50	4.50	Americium-241	0.591	76.0	0.020	NA	pCi/g
CG46-006	3.50	4.50	Cadmium	32.000	962.0	1.700	NA	mg/kg
CG46-006	3.50	4.50	Copper	41.000	40900.0	38.210	NA	mg/kg
CG46-006	3.50	4.50	Lead	25.000	1000.0	24.970	NA	mg/kg
CG46-006	3.50	4.50	Mercury	1.900	25200.0	1.520	NA	mg/kg
CG46-006	3.50	4.50	Plutonium-239/240	3.368	50.0	0.020	NA	pCi/g
CG46-006	3.50	4.50	Uranium, Total	5.300	2750.0	3.040	NA	mg/kg
CG46-006	3.50	4.50	Uranium-234	3.863	300.0	2.640	NA	pCi/g
CG46-006	3.50	4.50	Uranium-235	0.343	8.0	0.120	NA	pCi/g
CG46-006	3.50	4.50	Uranium-238	3.863	351.0	1.490	NA	pCi/g
CG46-006	5.00	6.50	Cadmium	11.000	962.0	1.700	NA	mg/kg
CG46-006	5.00	6.50	Uranium, Total	94.000	2750.0	3.040	NA	mg/kg
CG46-006	5.00	6.50	Uranium-234	16.570	300.0	2.640	NA	pCi/g
CG46-006	5.00	6.50	Uranium-235	0.709	8.0	0.120	NA	pCi/g
CG46-006	5.00	6.50	Uranium-238	16.570	351.0	1.490	NA	pCi/g
CG46-006	6.50	8.50	Cadmium	8.500	962.0	1.700	NA	mg/kg
CG46-006	6.50	8.50	Uranium-234	4.565	300.0	2.640	NA	pCi/g
CG46-006	6.50	8.50	Uranium-235	0.247	8.0	0.120	NA	pCi/g
CG46-006	6.50	8.50	Uranium-238	4.565	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CG46-007	0.00	0.50	Copper	27.000	40900.0	18.060	NA	mg/kg
CG46-007	0.00	0.50	Uranium-234	4.111	300.0	2.253	NA	pCi/g
CG46-007	0.00	0.50	Uranium-235	0.222	8.0	0.094	NA	pCi/g
CG46-007	0.00	0.50	Uranium-238	4.111	351.0	2.000	NA	pCi/g
CG46-007	0.00	0.50	Zinc	170.000	307000.0	73.760	NA	mg/kg
CG46-007	1.00	2.50	Ethylbenzene	15.200	4250000.0	NA	5.120	ug/kg
CG46-007	1.00	2.50	Naphthalene	9.150	3090000.0	NA	5.120	ug/kg
CG46-007	1.00	2.50	Toluene	82.400	31300000.	NA	5.120	ug/kg
CG46-007	1.00	2.50	Uranium-234	3.183	300.0	2.640	NA	pCi/g
CG46-007	1.00	2.50	Uranium-235	0.239	8.0	0.120	NA	pCi/g
CG46-007	1.00	2.50	Uranium-238	3.183	351.0	1.490	NA	pCi/g
CG46-007	1.00	2.50	Xylene	106.000	2040000.0	NA	10.300	ug/kg
CG46-007	3.50	4.50	Uranium-234	4.289	300.0	2.640	NA	pCi/g
CG46-007	3.50	4.50	Uranium-235	0.237	8.0	0.120	NA	pCi/g
CG46-007	3.50	4.50	Uranium-238	4.289	351.0	1.490	NA	pCi/g
CG46-007	4.50	6.50	Uranium-234	8.403	300.0	2.640	NA	pCi/g
CG46-007	4.50	6.50	Uranium-235	0.410	8.0	0.120	NA	pCi/g
CG46-007	4.50	6.50	Uranium-238	8.403	351.0	1.490	NA	pCi/g
CG46-007	6.50	8.50	Uranium-234	5.129	300.0	2.640	NA	pCi/g
CG46-007	6.50	8.50	Uranium-235	0.235	8.0	0.120	NA	pCi/g
CG46-007	6.50	8.50	Uranium-238	5.129	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-061	2.50	3.00	Acetone	5.800	102000000	NA	5.200	ug/kg
CH46-061	2.50	3.00	Tetrachloroethene	1.600	615000.0	NA	1.100	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-048	4.00	4.50	Naphthalene	72.400	3090000.0	NA	5.520	ug/kg
CH46-048	4.00	4.50	Uranium-235	0.137	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-003	0.00	0.50	Uranium-234	3.172	300.0	2.253	NA	pCi/g
CH46-003	0.00	0.50	Uranium-235	0.167	8.0	0.094	NA	pCi/g
CH46-003	0.00	0.50	Uranium-238	3.172	351.0	2.000	NA	pCi/g
CH46-003	0.00	0.50	Zinc	91.000	307000.0	73.760	NA	mg/kg
CH46-003	1.00	2.50	Ethylbenzene	20.700	4250000.0	NA	5.160	ug/kg
CH46-003	1.00	2.50	Toluene	79.400	31300000.	NA	5.160	ug/kg
CH46-003	1.00	2.50	Uranium-234	3.130	300.0	2.640	NA	pCi/g
CH46-003	1.00	2.50	Uranium-235	0.194	8.0	0.120	NA	pCi/g
CH46-003	1.00	2.50	Uranium-238	3.130	351.0	1.490	NA	pCi/g
CH46-003	1.00	2.50	Xylene	131.000	2040000.0	NA	10.300	ug/kg
CH46-003	3.50	4.50	Americium-241	0.404	76.0	0.020	NA	pCi/g
CH46-003	3.50	4.50	Plutonium-239/240	2.302	50.0	0.020	NA	pCi/g
CH46-003	3.50	4.50	Uranium-235	0.163	8.0	0.120	NA	pCi/g
CH46-003	5.50	6.50	Copper	46.000	40900.0	38.210	NA	mg/kg
CH46-003	5.50	6.50	Uranium-235	0.176	8.0	0.120	NA	pCi/g
CH46-003	5.50	6.50	Uranium-238	1.605	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-047	3.50	4.00	2-Butanone	9.100	192000000	NA	5.700	ug/kg
CH46-047	3.50	4.00	Acetone	40.000	102000000	NA	5.600	ug/kg
CH46-047	3.50	4.00	Americium-241	0.455	76.0	0.020	NA	pCi/g
CH46-047	3.50	4.00	Copper	53.000	40900.0	38.210	NA	mg/kg
CH46-047	3.50	4.00	Naphthalene	2.200	3090000.0	NA	1.000	ug/kg
CH46-047	3.50	4.00	Plutonium-239/240	0.756	50.0	0.020	NA	pCi/g
CH46-047	3.50	4.00	Tetrachloroethene	1.300	615000.0	NA	1.200	ug/kg
CH46-047	3.50	4.00	Uranium-235	0.133	8.0	0.120	NA	pCi/g
CH46-047	3.50	4.00	Zinc	140.000	307000.0	139.100	NA	mg/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-036	3.50	4.00	Americium-241	0.830	76.0	0.020	NA	pCi/g
CH46-036	3.50	4.00	Copper	94.000	40900.0	38.210	NA	mg/kg
CH46-036	3.50	4.00	Naphthalene	15.000	3090000.0	NA	1.000	ug/kg
CH46-036	3.50	4.00	Plutonium-239/240	1.380	50.0	0.020	NA	pCi/g
CH46-036	3.50	4.00	Tetrachloroethene	2.800	615000.0	NA	1.200	ug/kg
CH46-036	3.50	4.00	Uranium, Total	5.900	2750.0	3.040	NA	mg/kg
CH46-036	3.50	4.00	Uranium-235	0.244	8.0	0.120	NA	pCi/g
CH46-036	3.50	4.00	Uranium-238	2.480	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-052	4.50	5.00	Americium-241	4.910	76.0	0.020	NA	pCi/g
CH46-052	4.50	5.00	Chromium	74.000	268.0	68.270	NA	mg/kg
CH46-052	4.50	5.00	Naphthalene	1.600	3090000.0	NA	1.100	ug/kg
CH46-052	4.50	5.00	Plutonium-239/240	4.870	50.0	0.020	NA	pCi/g
CH46-052	4.50	5.00	Tetrachloroethene	1.400	615000.0	NA	1.300	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-000	0.00	0.50	Americium-241	0.254	76.0	0.023	NA	pCi/g
CH46-000	0.00	0.50	Chromium	28.000	268.0	16.990	NA	mg/kg
CH46-000	0.00	0.50	Copper	21.000	40900.0	18.060	NA	mg/kg
CH46-000	0.00	0.50	Plutonium-239/240	0.340	50.0	0.066	NA	pCi/g
CH46-000	0.00	0.50	Zinc	120.000	307000.0	73.760	NA	mg/kg
CH46-000	1.00	2.50	Americium-241	0.295	76.0	0.020	NA	pCi/g
CH46-000	1.00	2.50	Methylene chloride	2.000	2530000.0	NA	0.860	ug/kg
CH46-000	1.00	2.50	Plutonium-239/240	0.182	50.0	0.020	NA	pCi/g
CH46-000	1.00	2.50	Uranium-234	2.820	300.0	2.640	NA	pCi/g
CH46-000	1.00	2.50	Uranium-235	0.338	8.0	0.120	NA	pCi/g
CH46-000	3.50	4.50	Aluminum	37000.000	228000.0	35373.170	NA	mg/kg
CH46-000	3.50	4.50	Americium-241	0.142	76.0	0.020	NA	pCi/g
CH46-000	3.50	4.50	Methylene chloride	1.500	2530000.0	NA	0.810	ug/kg
CH46-000	5.00	6.50	Acetone	13.000	102000000	NA	5.300	ug/kg
CH46-000	5.00	6.50	Methylene chloride	1.700	2530000.0	NA	0.910	ug/kg
CH46-000	6.50	8.50	Methylene chloride	1.500	2530000.0	NA	0.830	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-001	0.00	0.50	Lithium	12.000	20400.0	11.550	NA	mg/kg
CH46-001	0.00	0.50	Uranium-234	4.064	300.0	2.253	NA	pCi/g
CH46-001	0.00	0.50	Uranium-235	0.210	8.0	0.094	NA	pCi/g
CH46-001	0.00	0.50	Uranium-238	4.064	351.0	2.000	NA	pCi/g
CH46-001	1.00	2.50	Americium-241	0.375	76.0	0.020	NA	pCi/g
CH46-001	1.00	2.50	Ethylbenzene	18.100	4250000.0	NA	5.210	ug/kg
CH46-001	1.00	2.50	Naphthalene	5.720	3090000.0	NA	5.210	ug/kg
CH46-001	1.00	2.50	Plutonium-239/240	2.137	50.0	0.020	NA	pCi/g
CH46-001	1.00	2.50	Toluene	42.600	31300000.	NA	5.210	ug/kg
CH46-001	1.00	2.50	Uranium-235	0.178	8.0	0.120	NA	pCi/g
CH46-001	1.00	2.50	Xylene	139.000	2040000.0	NA	10.400	ug/kg
CH46-001	3.50	4.50	Uranium-234	5.337	300.0	2.640	NA	pCi/g
CH46-001	3.50	4.50	Uranium-235	0.304	8.0	0.120	NA	pCi/g
CH46-001	3.50	4.50	Uranium-238	5.337	351.0	1.490	NA	pCi/g
CH46-001	5.00	6.50	Uranium, Total	9.400	2750.0	3.040	NA	mg/Kg
CH46-001	5.00	6.50	Uranium-234	5.538	300.0	2.640	NA	pCi/g
CH46-001	5.00	6.50	Uranium-235	0.240	8.0	0.120	NA	pCi/g
CH46-001	5.00	6.50	Uranium-238	5.538	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-002	0.00	0.50	Antimony	0.950	409.0	0.470	NA	mg/kg
CH46-002	0.00	0.50	Uranium-234	3.544	300.0	2.253	NA	pCi/g
CH46-002	0.00	0.50	Uranium-235	0.178	8.0	0.094	NA	pCi/g
CH46-002	0.00	0.50	Uranium-238	3.544	351.0	2.000	NA	pCi/g
CH46-002	0.00	0.50	Zinc	160.000	307000.0	73.760	NA	mg/kg
CH46-002	1.00	2.50	Toluene	5.310	31300000.	NA	4.770	ug/kg
CH46-002	1.00	2.50	Uranium-235	0.136	8.0	0.120	NA	pCi/g
CH46-002	1.00	2.50	Zinc	140.000	307000.0	139.100	NA	mg/kg
CH46-002	3.50	4.50	Americium-241	0.347	76.0	0.020	NA	pCi/g
CH46-002	3.50	4.50	Ethylbenzene	9.360	4250000.0	NA	5.150	ug/kg
CH46-002	3.50	4.50	Plutonium-239/240	1.977	50.0	0.020	NA	pCi/g
CH46-002	3.50	4.50	Toluene	19.900	31300000.	NA	5.150	ug/kg
CH46-002	3.50	4.50	Uranium-235	0.151	8.0	0.120	NA	pCi/g
CH46-002	3.50	4.50	Xylene	72.100	2040000.0	NA	10.300	ug/kg
CH46-002	3.50	4.50	Zinc	140.000	307000.0	139.100	NA	mg/kg
CH46-002	5.50	6.50	Americium-241	0.866	76.0	0.020	NA	pCi/g
CH46-002	5.50	6.50	Naphthalene	4.920	3090000.0	NA	4.850	ug/kg
CH46-002	5.50	6.50	Plutonium-239/240	4.934	50.0	0.020	NA	pCi/g
CH46-002	5.50	6.50	Uranium-235	0.123	8.0	0.120	NA	pCi/g
CH46-002	7.25	8.50	Uranium-234	3.715	300.0	2.640	NA	pCi/g
CH46-002	7.25	8.50	Uranium-235	0.196	8.0	0.120	NA	pCi/g
CH46-002	7.25	8.50	Uranium-238	3.715	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-013	3.50	4.50	Uranium-234	4.035	300.0	2.640	NA	pCi/g
CH46-013	3.50	4.50	Uranium-235	0.271	8.0	0.120	NA	pCi/g
CH46-013	3.50	4.50	Uranium-238	4.035	351.0	1.490	NA	pCi/g
CH46-013	4.50	6.50	Uranium-238	2.005	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-014	4.50	6.50	Aluminum	43000.000	228000.0	35373.170	NA	mg/kg
CH46-014	4.50	6.50	Plutonium-239/240	0.345	50.0	0.020	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-007	3.00	3.50	Aluminum	57000.000	228000.0	35373.170	NA	mg/kg
CH46-007	3.00	3.50	Arsenic	19.000	22.2	13.140	NA	mg/kg
CH46-007	3.00	3.50	Lithium	35.000	20400.0	34.660	NA	mg/kg
CH46-007	3.00	3.50	Methylene chloride	1.300	2530000.0	NA	1.000	ug/kg
CH46-007	3.00	3.50	Vanadium	98.000	7150.0	88.490	NA	mg/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-008	7.00	7.50	Acetone	63.000	102000000	NA	5.500	ug/kg
CH46-008	7.00	7.50	Aluminum	51000.000	228000.0	35373.170	NA	mg/kg
CH46-008	7.00	7.50	Americium-241	0.187	76.0	0.020	NA	pCi/g
CH46-008	7.00	7.50	Benzo(a)anthracene	54.000	34900.0	NA	46.000	ug/kg
CH46-008	7.00	7.50	Chrysene	55.000	3490000.0	NA	40.000	ug/kg
CH46-008	7.00	7.50	Fluoranthene	66.000	27200000.	NA	46.000	ug/kg
CH46-008	7.00	7.50	Methylene chloride	1.300	2530000.0	NA	0.950	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-009	4.00	4.50	Americium-241	0.702	76.0	0.020	NA	pCi/g
CH46-009	4.00	4.50	Arsenic	17.200	22.2	13.140	NA	mg/kg
CH46-009	4.00	4.50	Barium	582.000	26400.0	289.380	NA	mg/kg
CH46-009	4.00	4.50	Copper	41.500	40900.0	38.210	NA	mg/kg
CH46-009	4.00	4.50	Iron	68900.000	307000.0	41046.520	NA	mg/kg
CH46-009	4.00	4.50	Lead	69.100	1000.0	24.970	NA	mg/kg
CH46-009	4.00	4.50	Nickel	82.300	20400.0	62.210	NA	mg/kg
CH46-009	4.00	4.50	Plutonium-239/240	4.002	50.0	0.020	NA	pCi/g
CH46-009	4.00	4.50	Uranium-234	3.361	300.0	2.640	NA	pCi/g
CH46-009	4.00	4.50	Uranium-235	0.203	8.0	0.120	NA	pCi/g
CH46-009	4.00	4.50	Uranium-238	3.361	351.0	1.490	NA	pCi/g
CH46-009	4.00	4.50	Vanadium	172.000	7150.0	88.490	NA	mg/kg
CH46-009	7.00	7.50	2-Methylnaphthalene	62.000	20400000.	NA	47.000	ug/kg
CH46-009	7.00	7.50	Acenaphthene	270.000	40800000.	NA	60.000	ug/kg
CH46-009	7.00	7.50	Americium-241	0.943	76.0	0.020	NA	pCi/g
CH46-009	7.00	7.50	Anthracene	320.000	204000000	NA	87.000	ug/kg
CH46-009	7.00	7.50	Benzo(a)anthracene	360.000	34900.0	NA	52.000	ug/kg
CH46-009	7.00	7.50	Benzo(a)pyrene	330.000	3490.0	NA	58.000	ug/kg
CH46-009	7.00	7.50	Benzo(b)fluoranthene	320.000	34900.0	NA	85.000	ug/kg
CH46-009	7.00	7.50	Benzo(k)fluoranthene	250.000	349000.0	NA	91.000	ug/kg
CH46-009	7.00	7.50	Chrysene	370.000	3490000.0	NA	46.000	ug/kg
CH46-009	7.00	7.50	Dibenz(a,h)anthracene	90.000	3490.0	NA	83.000	ug/kg
CH46-009	7.00	7.50	Dibenzofuran	110.000	2550000.0	NA	67.000	ug/kg
CH46-009	7.00	7.50	Fluoranthene	840.000	27200000.	NA	52.000	ug/kg
CH46-009	7.00	7.50	Fluorene	210.000	40800000.	NA	73.000	ug/kg
CH46-009	7.00	7.50	Indeno(1,2,3-cd)pyrene	180.000	34900.0	NA	59.000	ug/kg
CH46-009	7.00	7.50	Methylene chloride	1.400	2530000.0	NA	1.100	ug/kg
CH46-009	7.00	7.50	Plutonium-239/240	3.220	50.0	0.020	NA	pCi/g
CH46-009	7.00	7.50	Pyrene	840.000	22100000.	NA	75.000	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-046	2.00	2.50	Naphthalene	0.900	3090000.0	NA	0.880	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-038	4.00	4.50	Acetone	66.000	102000000	NA	4.800	ug/kg
CH46-038	4.00	4.50	Naphthalene	2.600	3090000.0	NA	0.900	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH47-051	10.00	10.50	Acetone	39.000	102000000	NA	5.700	ug/kg
CH47-051	10.00	10.50	Americium-241	44.100	76.0	0.020	NA	pCi/g
CH47-051	10.00	10.50	Naphthalene	2.600	3090000.0	NA	1.100	ug/kg
CH47-051	10.00	10.50	Plutonium-239/240	223.000	50.0	0.020	NA	pCi/g
CH47-051	10.00	10.50	Styrene	0.960	123000000	NA	0.820	ug/kg
CH47-051	10.00	10.50	Uranium-235	0.257	8.0	0.120	NA	pCi/g
CH47-051	10.00	10.50	Uranium-238	1.610	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CI46-038	2.50	3.00	Uranium-235	0.188	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-044	3.50	4.00	Acetone	15.000	102000000	NA	5.400	ug/kg
CH46-044	3.50	4.00	Americium-241	3.740	76.0	0.020	NA	pCi/g
CH46-044	3.50	4.00	Naphthalene	14.000	3090000.0	NA	1.000	ug/kg
CH46-044	3.50	4.00	Plutonium-239/240	1.480	50.0	0.020	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CI46-037	2.50	3.00	Americium-241	0.319	76.0	0.020	NA	pCi/g
CI46-037	2.50	3.00	Uranium-235	0.212	8.0	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH47-043	4.00	4.50	Americium-241	0.288	76.0	0.020	NA	pCi/g
CH47-043	4.00	4.50	Methylene chloride	0.950	2530000.0	NA	0.950	ug/kg
CH47-043	4.00	4.50	Plutonium-239/240	0.436	50.0	0.020	NA	pCi/g
CH47-043	4.00	4.50	Uranium-234	8.240	300.0	2.640	NA	pCi/g
CH47-043	4.00	4.50	Uranium-235	0.400	8.0	0.120	NA	pCi/g
CH47-043	4.00	4.50	Uranium-238	7.050	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-035	4.00	4.50	1,2,4-Trichlorobenzene	1.900	9230000.0	NA	0.900	ug/kg
CH46-035	4.00	4.50	Acetone	69.000	102000000	NA	5.800	ug/kg
CH46-035	4.00	4.50	Americium-241	0.239	76.0	0.020	NA	pCi/g
CH46-035	4.00	4.50	Methylene chloride	1.400	2530000.0	NA	1.000	ug/kg
CH46-035	4.00	4.50	Naphthalene	3.500	3090000.0	NA	1.100	ug/kg
CH46-035	4.00	4.50	Plutonium-239/240	0.167	50.0	0.020	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-039	4.00	4.50	1,2,4-Trichlorobenzene	0.770	9230000.0	NA	0.760	ug/kg
CH46-039	4.00	4.50	Acetone	60.000	102000000	NA	4.900	ug/kg
CH46-039	4.00	4.50	Americium-241	1.150	76.0	0.020	NA	pCi/g
CH46-039	4.00	4.50	Methylene chloride	1.000	2530000.0	NA	0.860	ug/kg
CH46-039	4.00	4.50	Naphthalene	7.900	3090000.0	NA	0.920	ug/kg
CH46-039	4.00	4.50	Plutonium-239/240	0.472	50.0	0.020	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH47-001	0.00	0.50	Aluminum	23000.000	228000.0	16902.000	NA	mg/kg
CH47-001	0.00	0.50	Americium-241	50.820	76.0	0.023	NA	pCi/g
CH47-001	0.00	0.50	Beryllium	1.200	921.0	0.966	NA	mg/kg
CH47-001	0.00	0.50	Chromium	23.000	268.0	16.990	NA	mg/kg
CH47-001	0.00	0.50	Lithium	18.000	20400.0	11.550	NA	mg/kg
CH47-001	0.00	0.50	Nickel	19.000	20400.0	14.910	NA	mg/kg
CH47-001	0.00	0.50	Plutonium-239/240	289.674	50.0	0.066	NA	pCi/g
CH47-001	0.00	0.50	Uranium-234	4.244	300.0	2.253	NA	pCi/g
CH47-001	0.00	0.50	Uranium-238	4.244	351.0	2.000	NA	pCi/g
CH47-001	0.00	0.50	Zinc	74.000	307000.0	73.760	NA	mg/kg
CH47-001	0.50	2.50	Americium-241	12.980	76.0	0.020	NA	pCi/g
CH47-001	0.50	2.50	Naphthalene	490.000	3090000.0	NA	27.100	ug/kg
CH47-001	0.50	2.50	Plutonium-239/240	73.986	50.0	0.020	NA	pCi/g
CH47-001	0.50	2.50	Uranium-235	0.269	8.0	0.120	NA	pCi/g
CH47-001	0.50	2.50	Uranium-238	2.171	351.0	1.490	NA	pCi/g
CH47-001	3.50	4.50	Americium-241	102.200	76.0	0.020	NA	pCi/g
CH47-001	3.50	4.50	Lead	31.000	1000.0	24.970	NA	mg/kg
CH47-001	3.50	4.50	Naphthalene	17.300	3090000.0	NA	6.240	ug/kg
CH47-001	3.50	4.50	Plutonium-239/240	582.540	50.0	0.020	NA	pCi/g
CH47-001	3.50	4.50	Uranium-235	0.265	8.0	0.120	NA	pCi/g
CH47-001	3.50	4.50	Uranium-238	2.501	351.0	1.490	NA	pCi/g
CH47-001	5.00	6.50	Americium-241	7.598	76.0	0.020	NA	pCi/g
CH47-001	5.00	6.50	Plutonium-239/240	43.309	50.0	0.020	NA	pCi/g
CH47-001	5.00	6.50	Uranium-235	0.132	8.0	0.120	NA	pCi/g
CH47-001	6.50	8.50	Uranium-234	4.025	300.0	2.640	NA	pCi/g
CH47-001	6.50	8.50	Uranium-235	0.208	8.0	0.120	NA	pCi/g
CH47-001	6.50	8.50	Uranium-238	4.025	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH47-044	0.50	2.50	Americium-241	388.000	76.0	0.020	NA	pCi/g
CH47-044	0.50	2.50	Plutonium-239/240	99.300	50.0	0.020	NA	pCi/g
CH47-044	0.50	2.50	Uranium-238	1.550	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH46-045	0.50	2.50	Acetone	7.100	102000000	NA	4.900	ug/kg
CH46-045	0.50	2.50	Americium-241	1.020	76.0	0.023	NA	pCi/g
CH46-045	0.50	2.50	Plutonium-239/240	0.495	50.0	0.066	NA	pCi/g
CH46-045	0.50	2.50	Uranium-234	2.470	300.0	2.253	NA	pCi/g
CH46-045	0.50	2.50	Uranium-235	0.253	8.0	0.094	NA	pCi/g
CH46-045	0.50	2.50	Uranium-238	2.160	351.0	2.000	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH47-005	2.50	4.50	Americium-241	0.291	76.0	0.020	NA	pCi/g
CH47-005	2.50	4.50	Naphthalene	170.000	3090000.0	NA	5.160	ug/kg
CH47-005	2.50	4.50	Plutonium-239/240	1.660	50.0	0.020	NA	pCi/g
CH47-005	2.50	4.50	Uranium-235	0.141	8.0	0.120	NA	pCi/g
CH47-005	2.50	4.50	Xylene	22.900	2040000.0	NA	10.300	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH47-003	4.50	6.50	Americium-241	3.065	76.0	0.020	NA	pCi/g
CH47-003	4.50	6.50	Plutonium-239/240	17.471	50.0	0.020	NA	pCi/g
CH47-003	4.50	6.50	Uranium-234	3.369	300.0	2.640	NA	pCi/g
CH47-003	4.50	6.50	Uranium-235	0.215	8.0	0.120	NA	pCi/g
CH47-003	4.50	6.50	Uranium-238	3.369	351.0	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH47-053	5.50	5.80	Acetone	13.000	102000000	NA	5.800	ug/kg
CH47-053	5.50	5.80	Americium-241	0.483	76.0	0.020	NA	pCi/g
CH47-053	5.50	5.80	Plutonium-239/240	0.603	50.0	0.020	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	RI	Unit
CH47-000	0.00	0.50	Americium-241	12.900	76.0	0.023	NA	pCi/g
CH47-000	0.00	0.50	Beryllium	1.400	921.0	0.966	NA	mg/kg
CH47-000	0.00	0.50	Chromium	17.000	268.0	16.990	NA	mg/kg
CH47-000	0.00	0.50	Plutonium-239/240	73.530	50.0	0.066	NA	pCi/g
CH47-000	0.00	0.50	Uranium-234	4.140	300.0	2.253	NA	pCi/g
CH47-000	0.00	0.50	Uranium-235	0.232	8.0	0.094	NA	pCi/g
CH47-000	0.00	0.50	Uranium-238	4.140	351.0	2.000	NA	pCi/g
CH47-000	1.00	2.50	Americium-241	3.615	76.0	0.020	NA	pCi/g
CH47-000	1.00	2.50	Naphthalene	14.800	3090000.0	NA	5.580	ug/kg
CH47-000	1.00	2.50	Plutonium-239/240	20.606	50.0	0.020	NA	pCi/g
CH47-000	1.00	2.50	Uranium-234	3.441	300.0	2.640	NA	pCi/g
CH47-000	1.00	2.50	Uranium-235	0.180	8.0	0.120	NA	pCi/g
CH47-000	1.00	2.50	Uranium-238	3.441	351.0	1.490	NA	pCi/g
CH47-000	3.00	4.50	Americium-241	1.758	76.0	0.020	NA	pCi/g
CH47-000	3.00	4.50	Naphthalene	7.920	3090000.0	NA	6.230	ug/kg
CH47-000	3.00	4.50	Plutonium-239/240	10.021	50.0	0.020	NA	pCi/g
CH47-000	3.00	4.50	Uranium-238	2.189	351.0	1.490	NA	pCi/g
CH47-000	5.00	6.50	Americium-241	1.475	76.0	0.020	NA	pCi/g
CH47-000	5.00	6.50	Plutonium-239/240	8.408	50.0	0.020	NA	pCi/g
CH47-000	7.00	8.50	Uranium-234	3.654	300.0	2.640	NA	pCi/g
CH47-000	7.00	8.50	Uranium-235	0.208	8.0	0.120	NA	pCi/g
CH47-000	7.00	8.50	Uranium-238	3.654	351.0	1.490	NA	pCi/g

KEY

IHSS Group 000-2

- Location with concentrations greater than WRW ALs
- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs

Other IHSS Group

- Location with concentrations greater than WRW ALs
- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs

OPWL pipe status

- OPWL left in place
- OPWL removed
- OPWL does not exist

- Manway or valve pit (removed)
- Structure
- Demolished structure
- IHSS, PAC or UBC
- Tank (removed)
- Tank (left in place)
- Paved area

N W E S

100 0 100 200 300 Feet

Scale = 1:1,125

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Date: September 2005

Prepared by: RADMS

Prepared for: KAISER+HILL COMPANY

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IA-A-002865
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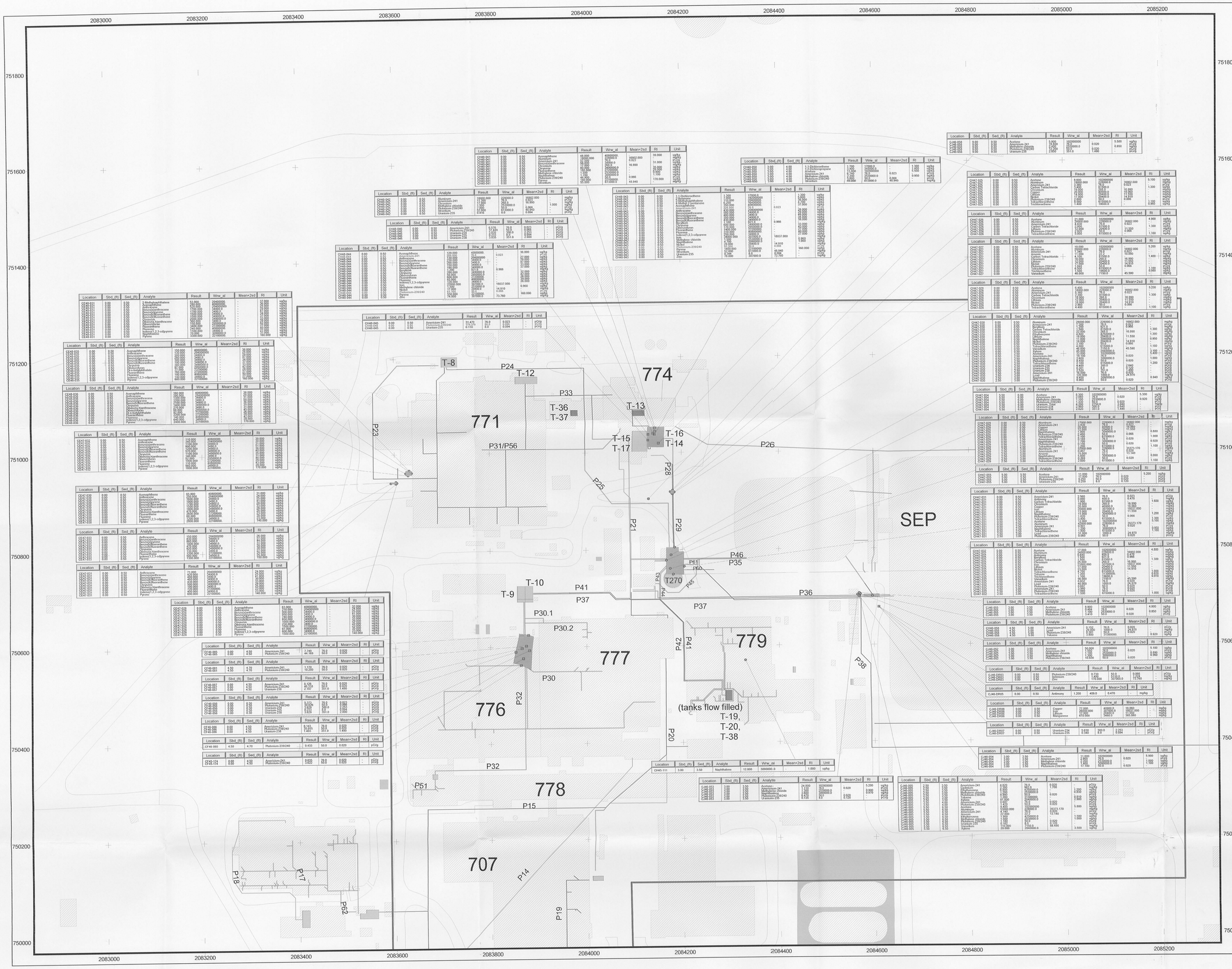
Figure 12

700 Area Confirmation Soil Sampling Results Greater Than Background Means Plus Two Standard Deviations or RLs



KEY

IHSS Group 000-2

- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs

Other IHSS Group

- Location with concentrations greater than WRW ALs
- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs
- OPWL left in place
- OPWL removed
- OPWL does not exist
- Structure
- Demolished structure
- IHSS, PAC or UBC
- Tank (removed)
- Tank (left in place)
- Paved area
- Excavation

N W E S

200 0 200 Feet

Scale = 1:1,100

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: RADMS Date: September 2005

Prepared for: KAISER•HILL COMPANY

File: W:\Projects\Fy2005\000-2\COR\AV_Projects\opwl_cor_fig4_6_12_15_16.apr

IA-A-002865
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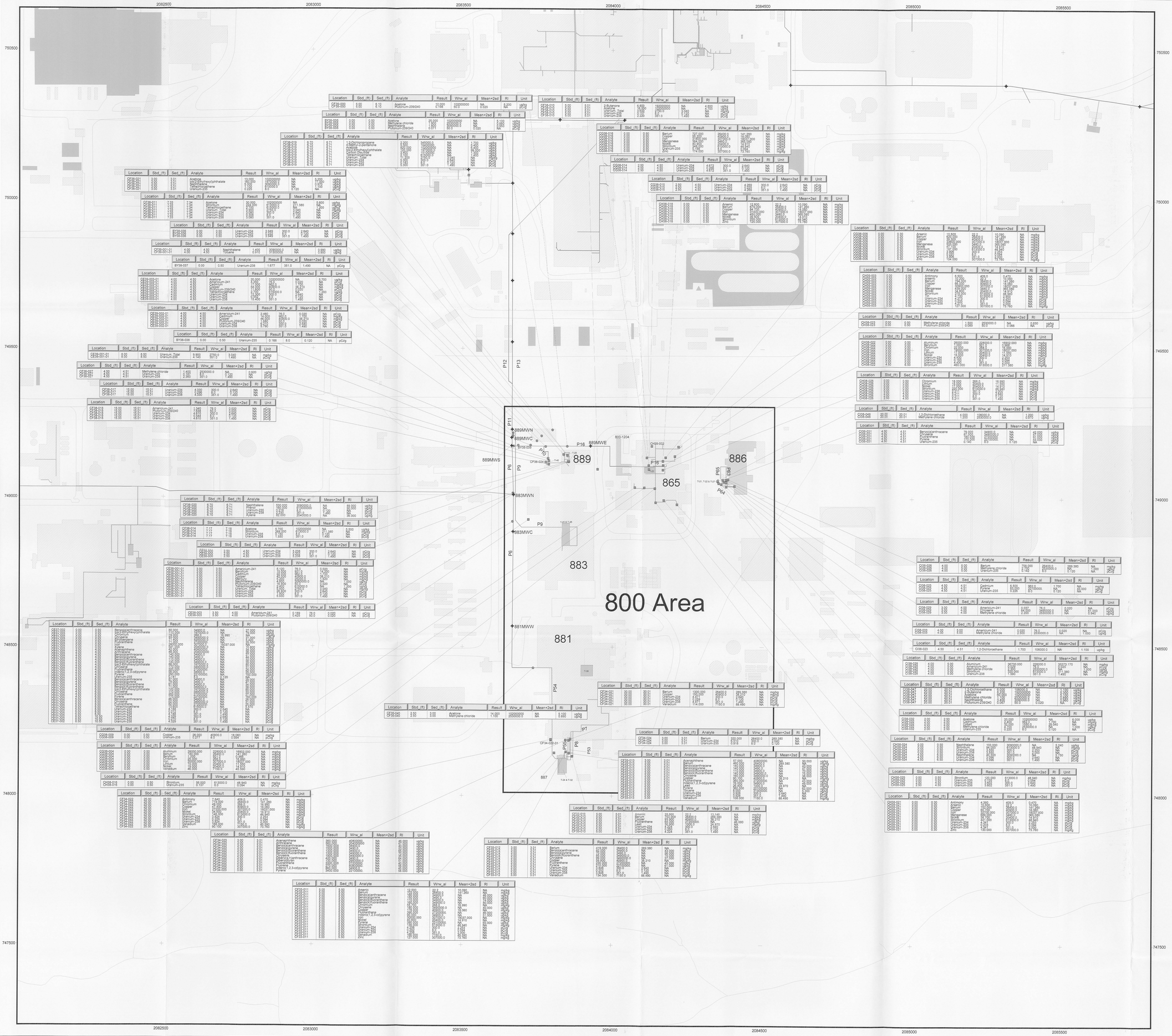

Figure 13

800 Area Characterization Soil Sampling Results Greater Than Background Means Plus Two Standard Deviations or RLs

KEY

IHSS Group 000-2

- Location with concentrations greater than WRW ALs
- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs

Other IHSS Group

- Location with concentrations greater than WRW ALs
- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs

OPWL pipe status

- OPWL left in place
- OPWL removed
- OPWL does not exist

- Manway or valve pit (removed)
- Structure
- Demolished structure
- IHSS, PAC or UBC
- Tank (removed)
- Paved area

N
W E
S

200 0 200 Feet

Scale = 1:1,250

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: RADMS Date: September 2005

Prepared for: KAISER•HILL COMPANY

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IA-A-002865
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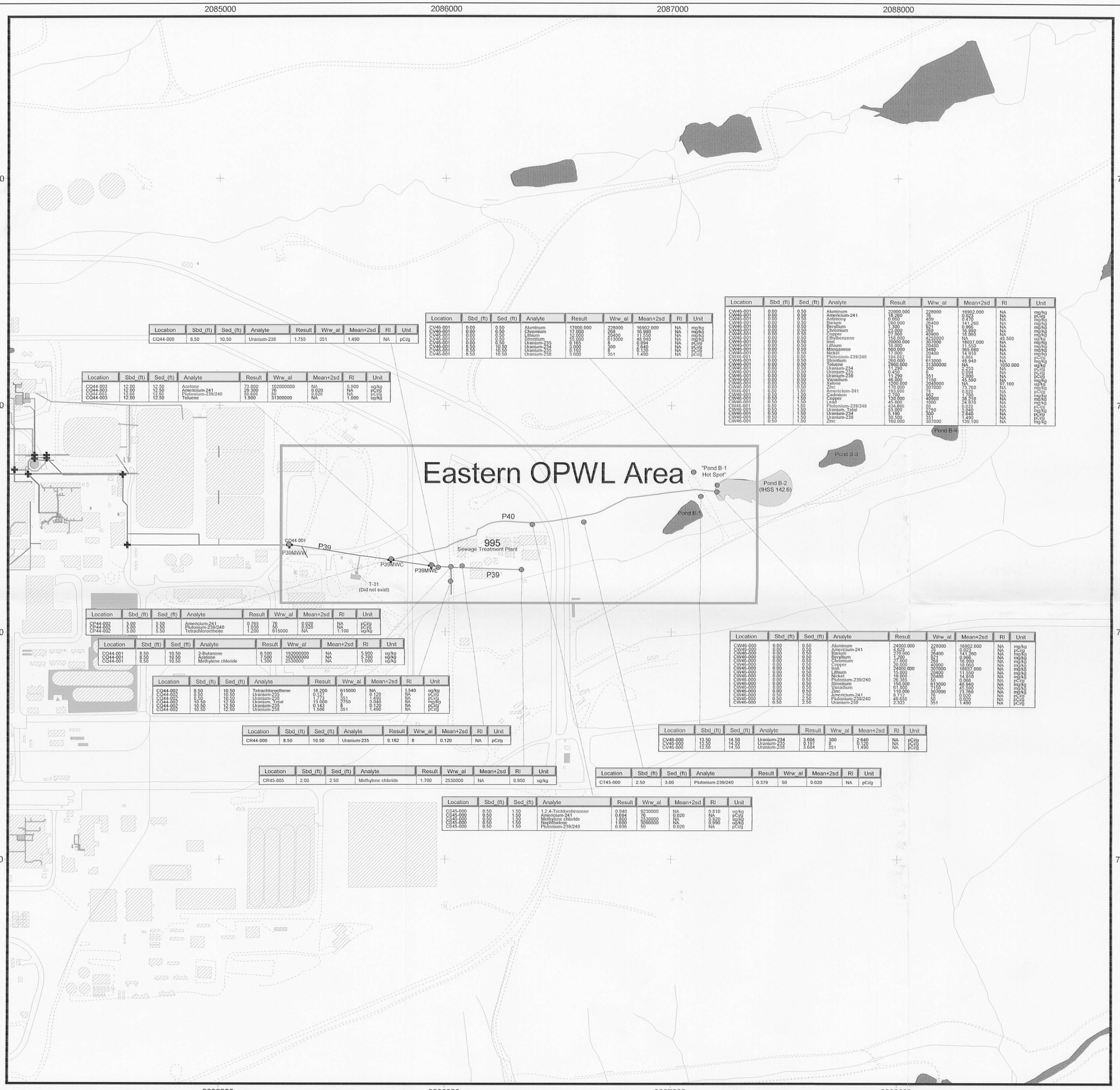

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CQ44-000	8.50	10.50	Uranium-238	1.755	351	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CQ44-003	12.00	12.50	Acetone	73.000	102000000	NA	5.900	ug/kg
CQ44-003	12.00	12.50	Americium-241	29.300	76	0.020	NA	pCi/g
CQ44-003	12.00	12.50	Plutonium-239/240	56.600	50	0.020	NA	pCi/g
CQ44-003	12.00	12.50	Toluene	1.900	31300000	NA	1.000	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CV46-001	0.00	0.50	Aluminum	17000.000	228000	16902.000	NA	mg/kg
CV46-001	0.00	0.50	Chromium	17.000	268	16.990	NA	mg/kg
CV46-001	0.00	0.50	Lithium	12.000	20400	11.550	NA	mg/kg
CV46-001	0.00	0.50	Strontium	55.000	613000	48.940	NA	mg/kg
CV46-001	0.00	0.50	Uranium-235	0.165	8	0.094	NA	pCi/g
CV46-001	8.50	10.50	Uranium-234	3.000	300	2.640	NA	pCi/g
CV46-001	8.50	10.50	Uranium-235	0.152	8	0.120	NA	pCi/g
CV46-001	8.50	10.50	Uranium-238	3.000	351	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CW46-001	0.00	0.50	Aluminum	22000.000	228000	16902.000	NA	mg/kg
CW46-001	0.00	0.50	Americium-241	18.260	76	0.023	NA	pCi/g
CW46-001	0.00	0.50	Antimony	0.650	409	0.470	NA	mg/kg
CW46-001	0.00	0.50	Barium	260.000	26400	141.260	NA	mg/kg
CW46-001	0.00	0.50	Beryllium	1.300	921	0.996	NA	mg/kg
CW46-001	0.00	0.50	Chromium	27.000	268	16.990	NA	mg/kg
CW46-001	0.00	0.50	Copper	57.000	40900	18.060	NA	mg/kg
CW46-001	0.00	0.50	Ethylbenzene	115.000	4550000	NA	48.500	ug/kg
CW46-001	0.00	0.50	Iron	20000.000	307000	18037.000	NA	mg/kg
CW46-001	0.00	0.50	Lithium	16.000	20400	11.550	NA	mg/kg
CW46-001	0.00	0.50	Manganese	560.000	3480	365.080	NA	mg/kg
CW46-001	0.00	0.50	Nickel	17.000	20400	14.910	NA	mg/kg
CW46-001	0.00	0.50	Plutonium-239/240	104.062	50	0.066	NA	pCi/g
CW46-001	0.00	0.50	Strontium	260.000	613000	48.940	NA	mg/kg
CW46-001	0.00	0.50	Toluene	2960.000	31300000	NA	1050.000	ug/kg
CW46-001	0.00	0.50	Uranium-234	11.290	300	2.253	NA	pCi/g
CW46-001	0.00	0.50	Uranium-235	0.450	8	0.094	NA	pCi/g
CW46-001	0.00	0.50	Uranium-238	11.290	351	2.000	NA	pCi/g
CW46-001	0.00	0.50	Vanadium	46.000	7150	45.590	NA	mg/kg
CW46-001	0.00	0.50	Xylene	1200.000	20400000	NA	97.100	ug/kg
CW46-001	0.00	0.50	Zinc	170.000	307000	73.760	NA	mg/kg
CW46-001	0.50	1.50	Americium-241	183.000	76	0.020	NA	pCi/g
CW46-001	0.50	1.50	Cadmium	2.200	992	1.700	NA	mg/kg
CW46-001	0.50	1.50	Copper	130.000	40900	38.210	NA	mg/kg
CW46-001	0.50	1.50	Lead	45.000	1000	24.970	NA	mg/kg
CW46-001	0.50	1.50	Plutonium-239/240	434.000	50	0.020	NA	pCi/g
CW46-001	0.50	1.50	Uranium, Total	53.000	5750	3.040	NA	mg/kg
CW46-001	0.50	1.50	Uranium-234	5.160	300	2.640	NA	pCi/g
CW46-001	0.50	1.50	Uranium-238	30.500	351	1.490	NA	pCi/g
CW46-001	0.50	1.50	Zinc	160.000	307000	139.100	NA	mg/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CP44-002	5.00	5.50	Americium-241	0.765	76	0.020	NA	pCi/g
CP44-002	5.00	5.50	Plutonium-239/240	1.030	50	0.020	NA	pCi/g
CP44-002	5.00	5.50	Tetrachloroethene	1.200	615000	NA	1.100	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CQ44-001	8.50	10.50	2-Butanone	6.500	192000000	NA	5.900	ug/kg
CQ44-001	8.50	10.50	Acetone	7.500	102000000	NA	5.700	ug/kg
CQ44-001	8.50	10.50	Methylene chloride	1.300	2530000	NA	1.000	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CQ44-002	8.50	10.50	Tetrachloroethene	18.200	615000	NA	5.540	ug/kg
CQ44-002	8.50	10.50	Uranium-235	0.127	8	0.120	NA	pCi/g
CQ44-002	8.50	10.50	Uranium-238	1.773	351	1.490	NA	pCi/g
CQ44-002	10.50	12.50	Uranium, Total	13.000	2750	3.040	NA	mg/kg
CQ44-002	10.50	12.50	Uranium-235	0.143	8	0.120	NA	pCi/g
CQ44-002	10.50	12.50	Uranium-238	1.566	351	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CW46-000	0.00	0.50	Aluminum	24000.000	228000	16902.000	NA	mg/kg
CW46-000	0.00	0.50	Americium-241	4.625	76	0.023	NA	pCi/g
CW46-000	0.00	0.50	Barium	270.000	26400	141.260	NA	mg/kg
CW46-000	0.00	0.50	Beryllium	1.200	921	0.996	NA	mg/kg
CW46-000	0.00	0.50	Chromium	27.000	268	16.990	NA	mg/kg
CW46-000	0.00	0.50	Copper	20.000	40900	18.060	NA	mg/kg
CW46-000	0.00	0.50	Iron	24000.000	307000	18037.000	NA	mg/kg
CW46-000	0.00	0.50	Lithium	15.000	20400	11.550	NA	mg/kg
CW46-000	0.00	0.50	Nickel	19.000	20400	14.910	NA	mg/kg
CW46-000	0.00	0.50	Plutonium-239/240	26.300	50	0.066	NA	pCi/g
CW46-000	0.00	0.50	Strontium	150.000	613000	48.940	NA	mg/kg
CW46-000	0.00	0.50	Vanadium	61.000	7150	45.590	NA	mg/kg
CW46-000	0.00	0.50	Zinc	110.000	307000	73.760	NA	mg/kg
CW46-000	0.50	2.50	Americium-241	4.625	76	0.020	NA	pCi/g
CW46-000	0.50	2.50	Plutonium-239/240	29.658	50	0.020	NA	pCi/g
CW46-000	0.50	2.50	Uranium-238	2.323	351	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CR44-000	8.50	10.50	Uranium-235	0.182	8	0.120	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CV46-000	13.50	14.50	Uranium-234	3.604	300	2.640	NA	pCi/g
CV46-000	13.50	14.50	Uranium-235	0.197	8	0.120	NA	pCi/g
CV46-000	13.50	14.50	Uranium-238	3.604	351	1.490	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CR45-005	2.00	2.50	Methylene chloride	1.700	2530000	NA	0.950	ug/kg

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CT45-000	2.50	3.00	Plutonium-239/240	0.379	50	0.020	NA	pCi/g

Location	Sbd_(ft)	Sed_(ft)	Analyte	Result	Wrw_al	Mean+2sd	Rl	Unit
CS45-000	0.50	1.50	1,2,4-Trichlorobenzene	0.940	9230000	NA	0.810	ug/kg
CS45-000	0.50	1.50	Americium-241	0.694	76	0.020	NA	pCi/g
CS45-000	0.50	1.50	Methylene chloride	1.600	2530000	NA	0.920	ug/kg
CS45-000	0.50	1.50	Naphthalene	1.600	30900000	NA	0.990	ug/kg
CS45-000	0.50	1.50	Plutonium-239/240	0.935	50	0.020	NA	pCi/g

Figure 14

Eastern OPWL Area Characterization Soil Sampling Results Greater Than Background Means Plus Two Standard Deviations or RLs

KEY

IHSS Group 000-2

- Location with concentrations greater than WRW ALs
- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs

Other IHSS Group

- Location with concentrations greater than WRW ALs
- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs

OPWL pipe status

- OPWL left in place
- OPWL removed
- OPWL does not exist

- Manway or valve pit (removed)
- Structure
- Demolished structure
- IHSS, PAC or UBC
- Tank (removed)
- Paved area

N W E S

200 0 200 400 Feet

Scale = 1:3,500

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Prepared by: RADMS Date: September 2005

Prepared for: KAISER•HILL COMPANY

File: W:\Projects\Fy2005\000-2\COR\AV_Projects\opwl_cor_fig13_14.apr

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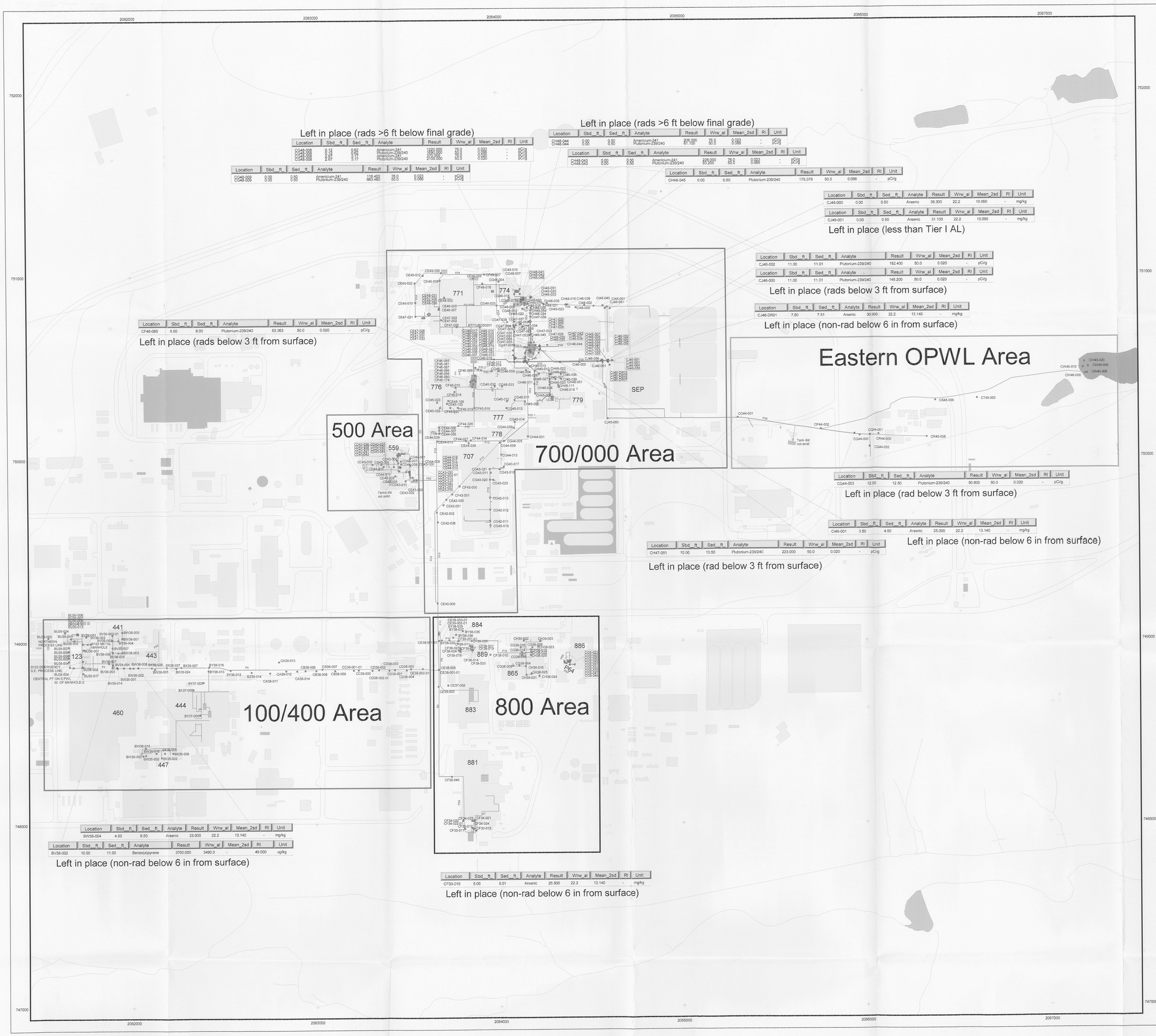
Figure 16

OPWL Residual Contaminant and Excavation Locations



Location	Sbd_ft_	Sed_ft_	Analyte	Result	Wrw_al	Mean_2sd	RI	Unit
CG48-008	0.12	0.62	Americium-241	1320.000	78.0	0.083	:	pCi/g
CG48-008	2.45	3.15	Plutonium-239/240	370.000	50.0	0.020	:	pCi/g
CG48-008	2.67	3.17	Americium-241	2100.000	78.0	0.083	:	pCi/g
			Plutonium-239/240	2109.000	50.0	0.020	:	pCi/g

Location	Sbd_ft_	Sed_ft_	Analyte	Result	Wrw_al	Mean_2sd	RI	Unit
CG48-009	0.00	0.50	Americium-241	116.400	78.0	0.083	:	pCi/g
CG48-009	0.00	0.50	Plutonium-239/240	663.480	50.0	0.066	:	pCi/g

Location	Sbd_ft_	Sed_ft_	Analyte	Result	Wrw_al	Mean_2sd	RI	Unit
CH48-044	0.00	0.50	Americium-241	206.000	78.0	0.083	:	pCi/g
CH48-044	0.00	0.50	Plutonium-239/240	871.100	50.0	0.066	:	pCi/g

Location	Sbd_ft_	Sed_ft_	Analyte	Result	Wrw_al	Mean_2sd	RI	Unit
CH48-043	0.00	0.50	Americium-241	226.000	78.0	0.083	:	pCi/g
CH48-043	0.00	0.50	Plutonium-239/240	953.200	50.0	0.066	:	pCi/g

Location	Sbd_ft_	Sed_ft_	Analyte	Result	Wrw_al	Mean_2sd	RI	Unit
CH48-045	0.00	0.50	Plutonium-239/240	179.379	50.0	0.066	-	pCi/g

Location	Sbd_ft_	Sed_ft_	Analyte	Result	Wrw_al	Mean_2sd	RI	Unit
CJ48-000	0.00	0.50	Arsenic	36.300	22.2	10.090	-	mg/kg

Location	Sbd_ft_	Sed_ft_	Analyte	Result	Wrw_al	Mean_2sd	RI	Unit
CJ48-001	0.00	0.50	Arsenic	31.100	22.2	10.090	-	mg/kg

Location	Sbd_ft_	Sed_ft_	Analyte	Result	Wrw_al	Mean_2sd	RI	Unit
CJ46-002	11.00	11.01	Plutonium-239/240	182.400	50.0	0.020	-	pCi/g

Location	Sbd_ft_	Sed_ft_	Analyte	Result	Wrw_al	Mean_2sd	RI	Unit
CJ46-000	11.00	11.01	Plutonium-239/240	148.200	50.0	0.020	-	pCi/g

Location	Sbd_ft_	Sed_ft_	Analyte	Result	Wrw_al	Mean_2sd	RI	Unit
CJ46-DR01	7.50	7.51	Arsenic	30.900	22.2	13.140	-	mg/kg

Location	Sbd_ft_	Sed_ft_	Analyte	Result	Wrw_al	Mean_2sd	RI	Unit
CF46-065	8.00	9.00	Plutonium-239/240	53.363	50.0	0.020	-	pCi/g

Location	Sbd_ft_	Sed_ft_	Analyte	Result	Wrw_al	Mean_2sd	RI	Unit
CG44-003	12.00	12.50	Plutonium-239/240	50.600	50.0	0.020	-	pCi/g

Location	Sbd_ft_	Sed_ft_	Analyte	Result	Wrw_al	Mean_2sd	RI	Unit
CJ45-001	3.50	4.50	Arsenic	25.000	22.2	13.140	-	mg/kg

Location	Sbd_ft_	Sed_ft_	Analyte	Result	Wrw_al	Mean_2sd	RI	Unit
CH47-051	10.00	10.50	Plutonium-239/240	223.000	50.0	0.020	-	pCi/g

Location	Sbd_ft_	Sed_ft_	Analyte	Result	Wrw_al	Mean_2sd	RI	Unit
BW38-004	4.50	6.50	Arsenic	23.000	22.2	13.140	-	mg/kg

Location	Sbd_ft_	Sed_ft_	Analyte	Result	Wrw_al	Mean_2sd	RI	Unit
BV38-002	10.00	11.00	Benzo(a)pyrene	3700.000	3490.0	-	49.000	ug/kg

Left in place (non-rad below 6 in from surface)

Location	Sbd_ft_	Sed_ft_	Analyte	Result	Wrw_al	Mean_2sd	RI	Unit
CF33-010	5.00	5.01	Arsenic	25.500	22.2	13.140	-	mg/kg

Left in place (non-rad below 6 in from surface)

KEY

IHSS Group 000-2

- Location with concentrations greater than WRW ALs
- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs

Other IHSS Group

- Location with concentrations greater than WRW ALs
- Location with concentrations greater than background means plus two standard deviations or RLs
- Location with concentrations less than background means plus two standard deviations or RLs

OPWL pipe status

- OPWL left in place
- OPWL removed
- OPWL does not exist

- Structure
- Demolished structure
- Tank (removed)
- Tank (left in place)
- Paved area
- Excavation area

N W E S

300 0 300 Feet

Scale = 1:2,000

State Plane Coordinate Projection
Colorado Central Zone
Datum: NAD 27

U.S. Department of Energy
Rocky Flats Environmental Technology Site

Date: September 2005

Prepared by: RADMS

Prepared for: KAISER•HILL COMPANY

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